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2022

Product Guide
European Union
North America 60Hz
South America 60Hz
International 50Hz

AERMEC

AERMEC

Product Guide 2022

The company

Giordano Riello, founder of Aermec, assisted by his son Alessandro and daughter Raffaella, has solidly associated the Company name with precise values:

Respect for the environment

By using new eco-friendly refrigerants as well as innovative installations using water as the carrier fluid.

Energy saving

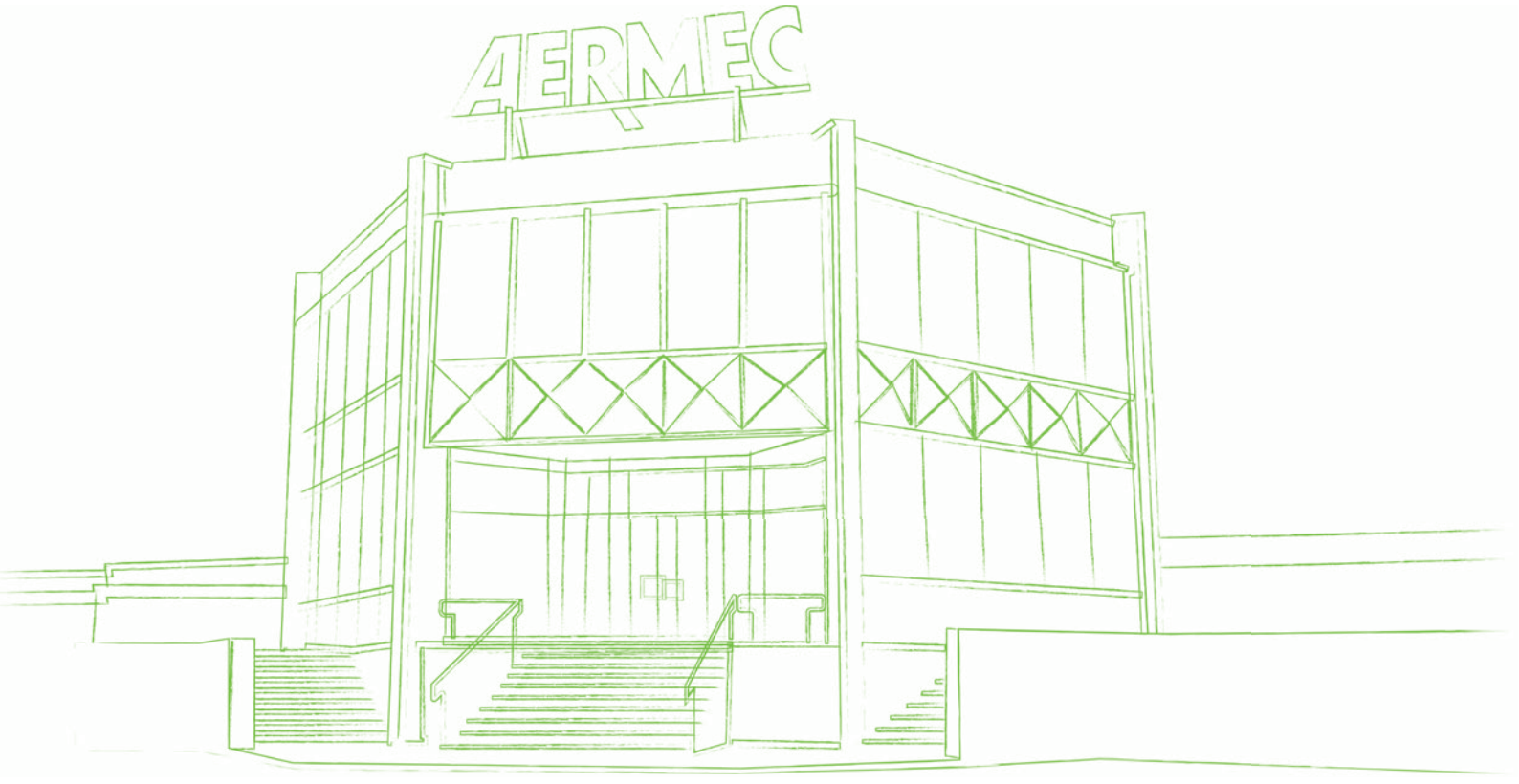
The great challenge of the Third Millennium, with the development of combined heating and air conditioning systems where appliances are used only as and when necessary.

Noise pollution control

With low-noise emission products, which undergo scrupulous testing before being put on the market.

Health care

With special filters that hold back the smallest suspension particles, the Cold Plasma Generator system that guarantees effective air purification (making for a healthier environment), and the new photocatalytic device, this air purification system is ideal for places where the highest degree of hygiene is required.



History

1961
Giordano Riello sets up Riello Condizionatori, initially producing for contractors only. The story begins.

1963
The Aermec brand is born and marks all future company products designed and manufactured on site. The brand name gains a stronghold as a major product name in Italy and throughout Europe.

1970
Aermec can already supply fresh and warm air. Aermec presents the first dual section conditioner: the first "split-system". Fancoil production starts.

1973
Aermec receives European Award Gold Mercury.

1980
The Eighties sees the development of water chillers and air handling units.

1990
The Nineties mark the definitive consolidation of the company on the market. The Aermec brand is associated with advanced technology and high quality design.

1998
The name makes the company. From 1 January Aermec becomes the company name as well as product brand.

2002
Design and technology: Aermec launched Omnia a new generation of fancoils, designed for domestic applications. OMNIA is the result of co operation with a worldwide prestigious designer.

2004
The international market ask for number and Aermec answer. Giordano Riello make the producing system more technogical. High producing, quality and assistance: the success of Aermec is going to continue.

2008
Aermec responds with more and more efficient units to the world challenge of energy saving with a special attention for our environment.

2011
Aermec turns 50. The company has developed and enlarged, always willing to understand and anticipate the needs of the market. Quality in innovation, in products, in pre-sales and after-sales services. Promoter of "integrated design" between designer and architect. Past success represents the commitment to the future.

2015
The news Europe's largest test facility for air conditioning applications was inaugurated.

2017
Aermec receives Innovation Award from the US Organizations ASHRAE, AHRI and AHR. Aermec receives "Prime Company" certificate for the economic strength and commercial reliability from the international rating company Dun & Bradstreet.

2018
Aermec awards first prize in "RAC Cooling Industry Award 2018" in London by an Internationally qualified Jury. 2019 Sales force Business plan, takes place for the first time at the new Centre of Research "Raffaello Riello".

2019
Aermec receives the prizes:"NATIONAL ACR & HEAT PUMPS AWARDS 2019" in the category of Data Centre Rooftop Chiller installation, "H&V News Awards 2019" attributed by a HVAC technical jury the United Kingdom.

2020
For the second year in a row, Aermec receives the prize ACR NEWS AWARDS for Data Centers category in the UK.

2021
Aermec is celebrating its 60th birthday.
This year, sadly distinguished by Covid-19 pandemic, corresponds to the 60th birth anniversaries of Aermec.
The Company has decided to remember this event by opening a vaccination hub not only for his employees but also for all the local population.

LOGO INDEX:

CERTIFICATIONS:

CE marking

REFRIGERANT:

R1234ze refrigerant

R134a refrigerant

R32 refrigerant

R407C refrigerant

R410A refrigerant

XP10 refrigerant

OPERATIONAL TYPES:

Evaporating unit

Cooling and heating

Cooling only

DHW

Condensing unit

Free-Cooling

Heating only

Multipurpose

For four pipes plants

For three pipes plants

For two pipes plants

INSTALLATION TYPES:

Cassette installation

Ceiling installation

Ducted installation

Floor installation

Wall installation

Air indoor unit

Air outdoor unit

Water indoor unit

KINDS OF EXCHANGERS :

Heat recovery

Plate exchanger

Pump kit

Shell and tube exchanger

Water tank

KINDS OF COMPRESSORS:

Centrifugal compressor

Inverter centrifugal compressor

Rotary compressor

Inverter rotary compressor

Scroll compressor

Inverter scroll compressor

Twin screw compressor

Inverter twin screw compressor

KINDS OF FANS:

Axial fan

Inverter axial fan

Centrifugal fan

Inverter centrifugal fan

EC fan

Inverter EC fan

Plug fan

Inverter plug fan

EXTRA:

Internet connection

Inverter device

Low noise version

Compatible with ModBus protocol

Network operation

Cold Plasma device

Night mode

Touch control

Compatible with VMF system (Variable Multi Flow)

EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

Aermec is one of the companies belonging to Giordano Riello International Group and takes part to Eurovent programme for NCD series.
Aermec takes part to EUROVENT Programmes: FCH - FCHP for fan coil series.
Aermec is involved in EUROVENT Programme: LCP for chiller range.
The products involved appear on the website www.eurovent-certification.com

INDEX

FAN COILS		Air flow rate (m³/h)	Cool. Cap. (kW)	Heat. Cap. (kW)	Page
With cabinet; universal installation					
FCZ	On/Off	110-1300	0,65-7,62	1,45-17,02	12
FCZI	Inverter	140-1140	0,89-6,91	2,02-17,10	25
FCZ-D	On/Off	140-720	0,89-4,25	2,02-8,50	34
FCZI-D	Inverter	140-720	0,89-4,25	2,02-8,50	38
FCZ-H	On/Off	140-1140	0,89-8,60	2,02-17,10	42
FCZI-H	Inverter	140-1140	0,89-8,60	2,02-17,10	49
Omnia HL	On/Off	80-460	0,53-2,79	0,53-5,94	55
Omnia ULS	On/Off	47-390	0,30-3,00	0,30-6,15	59
new **Omnia ULSI**	Inverter	47-390	0,30-3,00	0,30-6,15	63
Omnia UL	On/Off	80-460	0,53-2,79	0,52-5,94	67
Omnia ULI	Inverter	110-460	0,69-2,79	0,76-5,94	71
Omnia Radiant	On/Off o inverter with radiant panel	190-460	1,42-2,83	2,89-5,94	74
Without cabinet; concealed installation with low static pressure					
FCY	On/Off	148-1050	0,93-5,80	1,05-12,09	78
FCYI	Inverter	123-799	0,80-4,70	0,90-10,15	87
FCZ P - PO	On/Off	110-1300	0,65-7,62	1,45-17,02	96
FCZI P	Inverter	140-1140	0,89-8,60	2,02-17,02	113
Omnia UL P	On/Off	80-460	0,53-2,79	0,52-5,94	125
Omnia ULI P	Inverter	110-460	0,69-2,79	0,76-5,94	128
Without cabinet; duct installation with high static pressure					
VED 030-340	On/Off with static pressure 21-66Pa	161-775	0,97-5,26	0,90-10,95	131
VED 030I-340I	Inverter with static pressure 21-66Pa	161-775	0,98-5,27	0,90-10,95	137
VED 430-741	On/Off with static pressure 24-75Pa	750-2350	4,54-16,10	5,20-31,71	142
VED 530I-741I	Inverter with static pressure 32-69Pa	1060-2358	6,05-16,08	6,70-31,71	148
VES 030-340	On/Off with static pressure21-66Pa	161-775	1,25-5,71	1,82-10,95	154
VES 030-340 I	Inverter with static pressure 21-66Pa	285-775	1,26-5,71	1,82-10,95	160
VES 5300I-7400I	Inverter with static pressure 29-60Pa	640-1650	4,44-11,81	9,91-25,37	166
MZC	Plenum with motor-driven dampers for channelling fan coils	-	-	-	169
Cassette; ceiling installation					
VEC	On/Off with coanda effect	130-613	0,80-4,28	0,95-9,18	173
VEC-I	Inverter with coanda effect	130-613	0,80-4,28	0,95-9,18	177
FCL	On/Off	300-1750	1,14-10,83	1,74-21,75	180
FCLI	Inverter	300-1750	1,15-10,87	1,10-21,75	187
With cabinet; wall installation					
FCW	On/Off	280-1082	1,37-7,00	1,42-14,00	194
FCW I	Inverter	280-1082	1,37-7,00	1,42-14,00	198
Floating floor installation					
UFB	Booster unit for floating floor installation	140-290	0,84-1,50	1,13-2,96	201
Chilled beams					
EHT	Active chilled beams	17-947	0,4-5,0	-	203
Ventilcassaforma	Template for recessed fan coil installation	-	-	-	212
Control panels	Range of control panels for fan coils	-	-	-	214
VMF	Variable Multi Flow system	-	-	-	218

HEAT RECOVERY UNITS		Air flow rate (m³/h)	Cool. Cap. (kW)	Heat. Cap. (kW)	Page
REPURO	With cross-flow exchanger	100-650	-	-	228
TRS	Heat recovery unit with enthalpy exchanger	250-1300	-	-	234
RPLI	Counter-current flow heat recovery unit with inverter motor	200-3900	-	-	236
RTD	Thermodynamic recovery unit with integrated heat pump	1100-3200	-	-	241
RPF	High performance heat recovery unit with cross-current recuperator	790-4250	-	-	245
URX-CF	With cross-flow exchanger and refrigerant circuit	750-3300	-	-	249
URHE-CF	High efficiency version with cross-flow exchanger and refrigerant circuit	1000-3300	-	-	253
ERSR	High-efficiency heat recovery with rotary recovery unit	1100-16100	-	-	257

AIR HANDLING UNITS

		Air flow rate (m^3/h)	Cool. Cap. (kW)	Heat. Cap. (kW)	Page
Compact air handling units					
TUN	Air flow rate 900÷4000 m^3/h	900-4000	4,16-29,40	5,07-56,10	264
TS	Air flow rate 810÷4225 m^3/h	810-4225	4,39-24,93	8,89-52,44	270
TDA	Air flow rate 800÷3500 m^3/h	800-3500	4,90-22,30	2,50-45,40	274
TA	Air flow rate 800÷5000 m^3/h	800-5000	4,2-39,6	3,9-72,8	276
TN	Air flow rate 3000÷23000 m^3/h	3000-23000	12,6-127,8	14,7-277,3	281
Modular air handling units					
NCD	Air handling units	1134-79475	-	-	288
SPL 025-130	For wellness areas	4000-13000	-	-	291
SPL 160-250	For wellness areas	16000-25000	-	-	295
ENERGY	High energy efficiency version	4000-25000	-	-	299
Packaged ROOF-TOP units					
RTX N1-N8	For medium crowding applications	-	12,70-49,95	13,50-50,79	303
RTX 09-16	For medium crowding applications	-	50-135	49-141	308
RTX 17-23	For medium crowding applications	-	151-307	152-310	314
RTY 01-10	For high crowding applications	-	30,2-133,6	29,3-137,9	319

AIR / WATER CHILLERS AND HEAT PUMPS

			Air flow rate (m^3/h)	Cool. Cap. (kW)	Heat. Cap. (kW)	Page
	Units with scroll compressors					
	ANKI 020-080	Reversible heat pumps inverter	-	5,8-24,8	6,1-20,8	326
	HMI	Reversible air/water heat pump	-	3,0-14,5	4,0-15,5	330
	BHP	Air/Water split type reversible heat pump	-	3,2-8,5	4,0-9,5	336
	HMG	Reversible air/water heat pump	-	32-60	35-65	347
	ANLI	Reversible heat pumps inverter	-	28,9	31,5	352
	ANK 020-150	Reversible air/water heat pump	-	6,8-39,8	8,0-35,3	356
	SWP	High temperature air cooled heat pumps for production of DHW	-	-	1,9	363
	ANL 021-202	Air-water chiller	-	5,7-43,3	-	366
	ANL 021H-203H	Reversible air/water heat pump	-	5,7-49,1	6,2-43,3	372
	ANL 290-650	Air-water chiller	-	54,7-133,5	-	379
	ANL 292H-652H	Reversible air/water heat pump	-	52,9-128,8	60,8-141,4	384
	NRK 0090-0150	Reversible air/water heat pump	-	18,4-31,0	20,8-34,4	390
	NRK 0200-0700	Reversible air/water heat pump	-	35,5-148,0	42,3-175,0	394
	NRV 0550	Air-water chiller	-	108,3	-	399
	NRB 0282-0754	Air-water chiller	-	56-202	-	403
	NRB 0282H-0754H	Reversible air/water heat pump		52-261	57-193	412
	NRG 0282-0804	Air-water chiller	-	55,8-224,6	-	420
	NRG 0282H-0804H	Reversible air/water heat pump	-	52,5-212,0	56,6-214,4	428
	NRGI 151-602	Air-water chiller	-	31,0-132,2	-	435
	NRGI 151H-602H	Reversible air/water heat pump	-	28,9-123,7	31,6-133,9	440
	NRL 0280-0700	Air-water chiller	-	56,0-194,0	-	445
	NRL 0280H-0700H	Reversible air/water heat pump	-	51,0-180,0	58,0-204,0	450
new	**NRG 0800-2400**	Air-water chiller	-	225,7-725,0	-	456
new	**NRG 0800H-2400H**	Reversible air/water heat pump	-	195,2-639,6	209,3-674,2	464
	NRB 0800-3600	Air-water chiller (plate heat exchanger)	-	217-1049	-	471
	NRB 0800-3600 T	Air-water chiller (shell and tube heat exchanger)	-	217-1049	-	479
	NRB 0800H-3600H	Reversible air/water heat pump (plate heat exchanger)	-	196-971	209-1006	487
	NRB 0800H-3600H-T	Reversible air/water heat pump (shell and tube heat exchanger)	-	196-971	209-1006	496
	CL 025-200	Air-water chiller with Plug Fan	-	5,8-41,0	-	504
	CL 025H-200H	Reversible air/water heat pump with Plug Fan	-	6,5-50,9	7,7-44,8	509
	NLC 0280-1250	Air-water chiller with Plug Fan	-	53-322	-	515
	NLC 0280H-1250H	Reversible air/water heat pump with Plug Fan	-	53-322	55-342	522
	Units with screw compressors					
	NSM 1402-9603	Air-water chiller	-	302-2100	-	527
	NSMI 1251-6102	Chiller with Inverter screw compressors	-	285,6-1342,6	-	541
	NSH	Reversible air/water heat pump	-	251-731	281-786	545
	NSG	Air-water chiller (with R1234ze)	-	228-1580	-	551
	Units with centrifugal compressors					
	TBA 1300-4325	Air-water chiller	-	328-1404	-	563
	TBG 1230-4310	Air-water chiller	-	200-1165	-	568

AIR / WATER CHILLERS WITH FREECOOLING

		Air flow rate (m³/h)	Cool. Cap. (kW)	Heat. Cap. (kW)	Page
Units with scroll compressors					
NRG 0282-0754 F	Air-water chiller with free-cooling	-	58-190	-	576
NRL 0280-0750 F	Air-water chiller with free-cooling	-	59-194,8	-	581
NRB 0800-3600 F	Air-water chiller with free-cooling	-	211-1010	-	587
NRB 0800-3600 B	Air-water chiller with free-cooling glycol free		211-1010	-	595
NRV 0550 F	Air-water chiller with free-cooling	-	99,9-105,4	-	602
Units with screw compressors					
NSM 1402-9603 F	Air-water chiller with free-cooling	-	306-2028	-	606
NSM 1402-9603 B	Air-water chiller with free-cooling glycol free	-	305,8-2028,1	-	617
NSM-HWT-1402-9603-F	Air-water chiller with free-cooling	-	306-2001	-	627
NSM-HWT-1402-9603-B	Air-water chiller with free-cooling glycol free	-	306-1991	-	636
NSMI 1251-6102 F	Air-water chiller with free-cooling and Inverter screw compressors	-	286-1280	-	644
TBA 1300-3350 F	Air-water chiller with free-cooling	-	317,2-1223,6	-	649
TBG 1230-4310 F	Air-water chiller with free-cooling	-	238-1110	-	654

WATER / WATER CHILLERS AND HEAT PUMPS

		Air flow rate (m³/h)	Cool. Cap. (kW)	Heat. Cap. (kW)	Page
Units with scroll compressors					
VENICE H	Reversible water-cooled heat pump, gas side	-	6,9-9,8	8,3-11,6	662
WRL 026H-161H	Reversible water-cooled heat pump, gas side	-	6,0-40,0	8,0-48,0	664
WRL 026-161	Water cooled heat pump reversible water side	-	6,6-44,2	7,5-48,0	671
WRL 180H-650H	Reversible water-cooled heat pump, gas side	-	44,9-157,4	53,0-183,3	676
WRL 180-650	Water cooled heat pump reversible water side	-	49,0-174,0	55,0-192,0	680
WRK	Reversible water-cooled heat pump, gas side	-	38,9-165,9	48,5-207,7	685
WWB 0300-0900	Water-water heat pumps only	-	-	56,7-265,9	692
WWM	Water cooled heat pump reversible water side	-	96	110	696
NXW 0503-1654	Water cooled heat pump reversible water side	-	111-511	127-582	702
NXW 0503H - 1654H	Reversible water-cooled heat pump, gas side	-	106-477	125-565	707
Units with screw compressors					
WS 0601-2802	Water cooled heat pump reversible water side	-	147-700	164-778	712
HWS 0601 - 2802	Water cooled heat pump reversible water side	-	147-369	165-778	716
HWSG	Water cooled heat pump reversible water side	-	110-396	122-595	720
WSH	Reversible water-cooled heat pump, gas side	-	165,8-269,7	183,3-300,3	724
WFGI	Water cooled heat pump reversible water side	-	670-2406	741-2664	728
WFGN	Water cooled heat pump reversible water side	-	489-1455	545-1601	736
WFI	Water cooled heat pump reversible water side	-	670-2406	741-2664	741
WFN	Water cooled heat pump reversible water side	-	652-2349	726-2610	749
Units with centrifugal compressors					
WMX	Water/water chiller (with R134a)	-	280,1-324,2	-	755
WMG	Water/water chiller (with R1234ze)	-	282,3-312,4	-	758
WTX	Water/water chiller	-	222,9-1958,4	-	761
new **WTG**	Water/water chiller (with R1234ze)	-	246,6-1959,4	-	766

MULTI-PURPOSE

		Air flow rate (m³/h)	Cool. Cap. (kW)	Heat. Cap. (kW)	Page
NRP 0200-0750	Air-water multipurpose (plate heat exchanger)	-	43-185	46-205	772
NRP 0804-3606	Air-water multipurpose (plate heat exchanger)	-	207-963	208-988	779
CPS	Multifunction unit with multiple temperature level capability	-	164-491	176-505	790
NXP 0500-1650	Water-water multipurpose (plate heat exchanger)	-	108-502	122-549	795

PRECISION AIR CONDITIONING

		Air flow rate (m³/h)	Cool. Cap. (kW)	Heat. Cap. (kW)	Page
P 10-932	Direct expansion (air or water cooled); chilled water	-	7-160	-	804
G 070-1342	Direct expansion (air or water cooled); chilled water	-	50-222	-	809
R 20-361	Direct expansion (air or water cooled); chilled water	-	10-37	-	813

ROOM AIR CONDITIONERS			Air flow rate (m³/h)	Cool. Cap. (kW)	Heat. Cap. (kW)	Page
	Monobloc					
	FK	Monobloc window	-	2,7-3,6	-	820
	CMP (COMPACT)	Monobloc without outdoor unit	-	2,35	2,36	823
	PSL	Portable air conditioner	-	2,6-3,4	2,3-2,7	826
	Monosplit					
new	**SPG**	Monosplit	-	2,5-6,2	2,8-6,5	829
new	**SGE**	Monosplit	-	2,77-5,86	2,93-6,00	834
	SMG	Universal	-	2,7-3,5	3,2-4,0	838
new	**SCG**	Monosplit	-	7,2-12,5	7,9-13,5	843
	CKG	Monosplit	-	2,7-6,6	2,9-6,8	847
	LCG	Monosplit	-	3,5-16,0	4,0-17,0	852
	MVAS	Monosplit high head duct	-	22,4-28,0	24,0-30,0	862
	Multisplit					
	MLG	Multisplit	-	4,1-12,0	4,4-13,0	865
new	**MPG**	Multisplit	-	4,1-8,0	4,4-9.5	882

VRF SYSTEM			Air flow rate (m³/h)	Cool. Cap. (kW)	Heat. Cap. (kW)	Page
	MVA	Direct expansion variable refrigerant flow system VRF	-	12,1-246,0	14,0-276,0	900

COMPLEMENTARY PRODUCTS			Air flow rate (m³/h)	Cool. Cap. (kW)	Heat. Cap. (kW)	Page
	Thermal Buffers tank					
	SAF	Thermal Buffer tank kit with instantaneous Domestic Hot Water production	-	-	-	928
	SAP	Buffer tank with capacity from 75 to 3500 litres	-	-	-	930
	Plug&Play hydronic kit					
new	**WST evo**	Hydronic kit plug & play	-	80-1500	-	933
	Cooling towers					
	TRA	Cooling towers	-	-	-	936
	Remote condensers - Dry coolers					
	CSE	Remote condensers	-	3-650	-	938
	CVR	Remote condensers	-	44-500	-	940
	CDR	Remote condensers	-	150-590	-	942
	CGA	Remote condensers	-	240-1500	-	944
	CMV	Remote condensers	-	140-1200	-	946
	WTE	Dry cooler	-	3-500	-	948
	WTR	Dry cooler	-	56-350	-	950
	WDR	Dry cooler	-	90-430	-	952
	WGA	Dry cooler	-	180-1100	-	954
	WMV	Dry cooler	-	100-950	-	956
	Water cooled condensing unit					
	MEC-W	Water-cooled packaged air conditioners	-	11-55	-	958
	FW-R	Water-cooled air conditioner	-	2,9-4,0	4,3-5,2	960
	CWX-CWXM	Water motocondensing unit	-	2,7-7,1	-	962
	Dehumidifier					
	DML	Dehumidifier portable	-	-	-	966
	DMH -DMV	Dehumidifier	-	-	-	969



FAN COILS

In this area of climate control, Aermec is real leader:
a major company in Italy and one of the top in Europe.
A leading position gained through long-standing experience that has gained ground year after year. Special attention to detail, quality materials state-of-the-art technology ensure optimal performance with virtually imperceptible noise levels, especially at low speed;
attention paid to dimensions and overall size, comparable to those of standard radiators, to enable installation in all residential and commercial environments;
exclusive design, anticipating trends and in harmony with interior design requirements;
new electronic control panel to enable automatic operation and achieve the most user-friendly climatisers to date.
Aermec fancoils boast all these features and more.

FAN COILS

			Air flow rate (m^3/h)	Cool. Cap. (kW)	Heat. Cap. (kW)	Page
	With cabinet; universal installation					
	FCZ	On/Off	110-1300	0,65-7,62	1,45-17,02	12
	FCZI	Inverter	140-1140	0,89-6,91	2,02-17,10	25
	FCZ-D	On/Off	140-720	0,89-4,25	2,02-8,50	34
	FCZI-D	Inverter	140-720	0,89-4,25	2,02-8,50	38
	FCZ-H	On/Off	140-1140	0,89-8,60	2,02-17,10	42
	FCZI-H	Inverter	140-1140	0,89-8,60	2,02-17,10	49
	Omnia HL	On/Off	80-460	0,53-2,79	0,53-5,94	55
	Omnia ULS	On/Off	47-390	0,30-3,00	0,30-6,15	59
new	**Omnia ULSI**	Inverter	47-390	0,30-3,00	0,30-6,15	63
	Omnia UL	On/Off	80-460	0,53-2,79	0,52-5,94	67
	Omnia ULI	Inverter	110-460	0,69-2,79	0,76-5,94	71
	Omnia Radiant	On/Off o inverter with radiant panel	190-460	1,42-2,83	2,89-5,94	74
	Without cabinet; concealed installation with low static pressure					
	FCY	On/Off	148-1050	0,93-5,80	1,05-12,09	78
	FCYI	Inverter	123-799	0,80-4,70	0,90-10,15	87
	FCZ P - PO	On/Off	110-1300	0,65-7,62	1,45-17,02	96
	FCZI P	Inverter	140-1140	0,89-8,60	2,02-17,02	113
	Omnia UL P	On/Off	80-460	0,53-2,79	0,52-5,94	125
	Omnia ULI P	Inverter	110-460	0,69-2,79	0,76-5,94	128
	Without cabinet; duct installation with high static pressure					
	VED 030-340	On/Off with static pressure 21-66Pa	161-775	0,97-5,26	0,90-10,95	131
	VED 030I-340I	Inverter with static pressure 21-66Pa	161-775	0,98-5,27	0,90-10,95	137
	VED 430-741	On/Off with static pressure 24-75Pa	750-2350	4,54-16,10	5,20-31,71	142
	VED 530I-741I	Inverter with static pressure 32-69Pa	1060-2358	6,05-16,08	6,70-31,71	148
	VES 030-340	On/Off with static pressure21-66Pa	161-775	1,25-5,71	1,82-10,95	154
	VES 030-340 I	Inverter with static pressure 21-66Pa	285-775	1,26-5,71	1,82-10,95	160
	VES 5300I-7400I	Inverter with static pressure 29-60Pa	640-1650	4,44-11,81	9,91-25,37	166
	MZC	Plenum with motor-driven dampers for channelling fan coils	-	-	-	169
	Cassette; ceiling installation					
	VEC	On/Off with coanda effect	130-613	0,80-4,28	0,95-9,18	173
	VEC-I	Inverter with coanda effect	130-613	0,80-4,28	0,95-9,18	177
	FCL	On/Off	300-1750	1,14-10,83	1,74-21,75	180
	FCLI	Inverter	300-1750	1,15-10,87	1,10-21,75	187
	With cabinet; wall installation					
	FCW	On/Off	280-1082	1,37-7,00	1,42-14,00	194
	FCW I	Inverter	280-1082	1,37-7,00	1,42-14,00	198
	Floating floor installation					
	UFB	Booster unit for floating floor installation	140-290	0,84-1,50	1,13-2,96	201
	Chilled beams					
	EHT	Active chilled beams	17-947	0,4-5,0	-	203
	Ventilcassaforma	Template for recessed fan coil installation	-	-	-	212
	Control panels	Range of control panels for fan coils	-	-	-	214
	VMF	Variable Multi Flow system	-	-	-	218

FCZ

Fan coil for universal and floor installation

Cooling capacity 0,65 ÷ 7,62 kW
Heating capacity 1,45 ÷ 17,02 kW

- **Very quiet**
- **Touch controller mounted on-board. allows remote control with smart devices**



DESCRIPTION

fan coil can be installed in any 2/4 pipe system and operates with any heat generator even at low temperatures, and thanks to varied versions and settings, it is easy to pick the ideal solution for any need.

FEATURES

Case

Protective metal cabinet with anti-corrosion polyester RAL 9003 paint, whereas the head with the air distribution grille is in RAL 7047 plastic.
Depending on the version, the distribution grille may be adjustable.

Ventilation group

Consisting of double suction centrifugal fans that are particularly silent, statically and dynamically balanced, and directly coupled with the motor shaft.
The motor is wired for single phase and has three speeds, with capacitor. The motor is fitted on sealed for life bearings and is secured on anti-vibration and self-lubricating mountings.
Extractable shrouds for easy, effective cleaning

Heat exchanger coil

With copper pipes and aluminium louvers, the standard or oversized main coil and the possible secondary coil have female gas water connections on the left side and the manifolds have air vents.
The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.
Reversibility of the water connections during installation only for units with a standard or boosted main coil, or standard with BV accessory. Not reversible in all other configurations. In any case, units with the coil water connections on the right are available at the time of ordering.

Condensate drip

Provided standard in plastic and fixed to the interior structure; with external condensate discharge.

Air filter

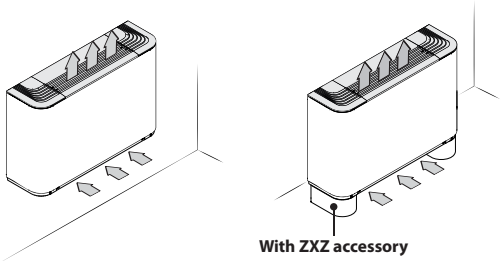
Air filter class Coarse 25% for all versions easy to pull out and clean.

In the APC version, air purification is guaranteed by the Cold Plasma purifier.
The purifier is able to reduce pollutants, decomposing their molecules using electrical charges, causing the water molecules in the air to split into positive and negative ions. These ions neutralise the molecules in the gaseous pollutants, obtaining products normally present in clean air. The device is able to eliminate 90% of the bacteria. The result is clean, ionized air, free of foul odours.

VERSIONS

A High, with fixed air distribution grille and built-in command
ACT High, with air distribution grille and electronic thermostat
AF High, without built-in command but with front intake
APC High, with air distribution grille, electronic thermostat and Cold Plasma purifier
AS High, with air distribution grille without built-in command
U Universal, with adjustable air distribution grille but without built-in thermostat
UA Universal, with fixed air distribution grille but without built-in thermostat
UF Universal, with adjustable air distribution grille but without built-in thermostat and with front intake grille

Versions with fixed grille (high cabinet)



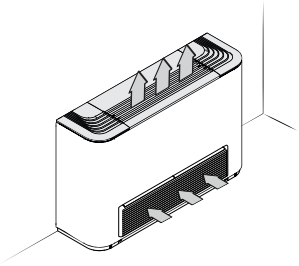
FCZ_A

— With built-in selector.

FCZ_AS
— Compatibility with VMF system.
— Without installed switch

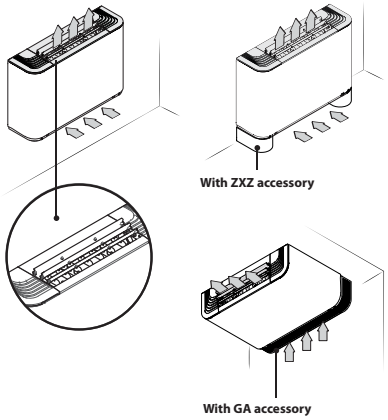
FCZ_ACT
— With electronic thermostat for 2-pipe systems only.

FCZ_APC
— With electronic thermostat for 2-pipe systems only.
— Cold Plasma purifier

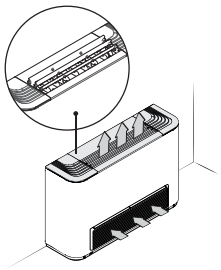


FCZ_AF
— Without installed switch
— Compatibility with VMF system.
— Front intake grille.

Versions with adjustable and fixed grille (universal)



FCZ_U
— Compatibility with VMF system.
— Without installed switch
— Distribution grille with adjustable louvers. Sizes 1, 2 and 3 have a single grille, whereas sizes 4, 5, 6, 7, 8, 9 and 10 have three grilles fully independent of each other. When all the fins have closed, the unit switches off.
— Vertical and horizontal installation for 2-pipe and 4-pipe systems.



FCZ_UF
— Compatibility with VMF system.
— Without installed switch
— Air delivery grille with adjustable louvers.
— Front intake grille.

FCZ_UA
— Compatibility with VMF system.
— Without installed switch
— Air distribution grille with fixed louvers.
— Vertical and horizontal installation for 2-pipe and 4-pipe systems.

ThermApp

In units with a **T-Touch-I** electronic thermostat and the **ThermApp** application, the operating mode can be set and the weekly timer programmed by simply resting the smart device on the fan coil. The graphic interface of the app also gives access to a lot more information such as the alarm list, the closest SAT, etc.
Available for Android operating systems.



GUIDE TO SELECTING THE POSSIBLE CONFIGURATIONS

Field		Description
1,2,3		**FCZ**
4		**Size** 1, 2, 3, 4, 5, 6, 7, 8, 9, 10
5		**Main coil**
	0	Standard
	5	Oversized
6		**Secondary coil**
	0	Without coil
	1	Standard
	2	Oversized
7		**Version**
		Only vertical installation.
	A	High, with fixed air distribution grille and built-in command
	ACT	High, with air distribution grille and electronic thermostat
	AF	High, without built-in command but with front intake
	APC	High, with air distribution grille, electronic thermostat and Cold Plasma purifier
	AS	Free standing without installed switch
		Vertical and horizontal installation.
	U	Universal, with adjustable air distribution grille but without built-in thermostat
	UA	Universal, with fixed air distribution grille but without built-in thermostat
	UF	Universal, with adjustable air distribution grille but without built-in thermostat and with front intake grille

SIZE AVAILABLE FOR VERSION

Size		100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550
Versions produced (by size)																					
Versions available (by size)	A,AS,U,UA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	ACT,APC	•	-	-	•	•	-	-	•	•	-	-	•	•	-	-	•	•	-	-	•
	AF,UF	•	-	-	•	•	-	-	•	•	-	-	•	•	-	-	•	•	-	-	•

Size		600	601	602	650	700	701	702	750	800	801	802	850	900	901	950	1000	1001
Versions produced (by size)																		
Versions available (by size)	A,AS,U,UA	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	ACT,APC	•	-	-	•	•	-	-	•	•	-	-	•	•	-	•	•	-
	AF,UF	-	-	-	-	-	-	-	-	-	-	-	-	•	-	•	•	-

ACCESSORIES

Control panels

AER503IR: Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.
PX2Z: On-board electromechanical switch.
SA5: air probe kit (L = 15 m) with probe-locking cable grommet.
SIT3: Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat). Commands the 3 fan speeds and must be installed on each fan coil within the network; receives the commands from the selector or the SIT5 card. In case you decide to install Aermec thermostats and current absorbed by the unit exceeds 0.7 A, you're obliged to include SIT3 accessory.
SIT5: Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel. Commands the 3 fan speeds and up to 2 valves (four pipe systems); sends the thermostat's commands to the fan coil network.
SW3: Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.
SW5: water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.
T-TOUCH: Touch control on board the machine, for controlling fan coils with asynchronous motors. In 2-pipe systems, it can control standard fan coils or those equipped with an electric heater, with air purifying devices or with FCZ-D twin delivery (Dualjet). In 4-pipe systems, only standard fan coils. The ThermApp application is also available for remote control with smart devices with the Android operating system.
TX: Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).
TXB: Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).
WMT05: Electronic thermostat with thermostated ventilation.
WMT06: Electronic thermostat with continuous ventilation.
WMT10: Electronic thermostat, white, with thermostated or continuous ventilation.

VMF system

VMF-E0X: Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe.
VMF-E19: Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe.
VMF-E2Z: User interface on the machine, to be combined with the VMF-E0X, VMF-E19 or VMF-E19I accessory.
VMF-E3: Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, VMF-E0X with grids GLF_N/M and GLL_N, can be controlled with VMF-IR control.
VMF-E4DX: Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).
VMF-E4X: Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.
VMF-IR: User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.
VMF-SW: Water probe (L = 2.5m) used if required in place of the standard unit supplied with the VMF-E0X, VMF-E19 and VMF-E19I thermostats for mounting it upstream of the valve
VMF-SW1: Additional water probe (L = 2.5m) to be used if required for 4-pipe systems with the VMF-E19 and VMF-E19I thermostats for maximum control in the cold range

Water valves

VCZ_X: 3-way valve kit for single-coil fan coil, RH connections, (VCZ_X4R) or LH (VCZ_X4L) for 4-pipe systems. With totally separate "heating" and "cooling" circuits. This kit consists of two 3-way insulated valves and four connections, complete with electrothermal actuators, insulating shells for the valves, and the relative hydraulic couplings. X4L version for fan coils with LH connections, and X4R for fan coils with RH connections. 230V~50Hz power supply.
VCZ: 3-way motorised valve kit. The kit consists of a valve with its insulating shell, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the 3-way insulating shell. The kit consists of a valve with its insulating shell, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.
VCF44 - 45 - for the secondary coil: The 3-way motorised valve kit for the secondary coil heat only. The kit consists of a valve with its insulating shell, actuator and relevant water fittings; it is suitable to be installed on the fan coils with right and left water connections.
VCZD: 2-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.
VJP: Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components. The valve, which can guarantee a constant water flow rate in the terminal, within its operating range.

(Heating only) additional coil

BV: Single row hot water heat exchanger.
RX: Armoured electric coil with safety thermostat.

Installation accessories

PCZ: Metal panel for the unit rear closing. SPCZ brackets are necessary to fix floor standing fan coils.
GA: Lower intake grille for encapsulated fan coils. Can also be used in wall-mounted or floor installations, the FIKIT accessory is needed only in the case of floor installation.

FIKIT: Metal supports for vertical installation of the GA grille.
DSCZ4: Condensate drainage device.

BCZ: Condensate drip. If the valve is paired with the BCZ5 or BCZ6 condensate drip tray, the insulating shell can be removed to ensure better housing.
AMP: Wall mounting kit

ACCESSORIES COMPATIBILITY

Control panels

Model	Ver	100	101	102	150	200	201	202	250
AER503IR (1)	AF,UF	•			•	•			•
	AS,U,UA	•	•	•	•	•	•	•	•
PX2Z	AF,UF	•			•	•			•
	AS,U	•	•	•	•	•	•	•	•
SA5 (2)	AF,UF	•			•	•			•
	AS,U,UA	•	•	•	•	•	•	•	•
SIT3 (3)	AS,U,UA	•	•	•	•	•	•	•	•
SIT5 (4)	AS,U,UA	•	•	•	•	•	•	•	•
SW3 (2)	AF,AS,UF	•			•	•			•
	U,UA	•	•	•	•	•	•	•	•
SW5 (2)	AF,UF	•			•	•			•
	AS,U,UA	•	•	•	•	•	•	•	•
T-TOUCH (5)	AF,UF	•			•	•			•
	AS,U	•	•	•	•	•	•	•	•
TX (1)	AF,UF	•			•	•			•
	AS,U,UA	•	•	•	•	•	•	•	•
TXB (5)	AF,UF	•			•	•			•
	AS,U,UA	•	•	•	•	•	•	•	•
WMT05 (1)	AF,AS,U,UA,UF	•			•	•			•
WMT06 (1)	AF,UF	•			•	•			•
	AS,U	•	•	•	•	•	•	•	•
WMT10 (1)	AF,UF	•			•	•			•
	AS,U,UA	•	•	•	•	•	•	•	•

Model	Ver	300	301	302	350	400	401	402	450
AER503IR (1)	AF,UF	•			•	•			•
	AS,U,UA	•	•	•	•	•	•	•	•
PX2Z	AF,UF	•			•	•			•
	AS,U	•	•	•	•	•	•	•	•
SA5 (2)	AF,UF	•			•	•			•
	AS,U,UA	•	•	•	•	•	•	•	•
SIT3 (3)	AS,U,UA	•	•	•	•	•	•	•	•
SIT5 (4)	AS,U,UA	•	•	•	•	•	•	•	•
SW3 (2)	AF,AS,UF	•			•	•			•
	U,UA	•	•	•	•	•	•	•	•
SW5 (2)	AF,UF	•			•	•			•
	AS,U,UA	•	•	•	•	•	•	•	•
T-TOUCH (5)	AF,UF					•			•
	AS,U	•	•	•	•	•	•	•	•
TX (1)	AF,UF	•			•	•			•
	AS,U,UA	•	•	•	•	•	•	•	•
TXB (5)	AF,UF	•			•	•			•
	AS,U,UA	•	•	•	•	•	•	•	•
WMT05 (1)	AF,AS,U,UA,UF	•			•	•			•
WMT06 (1)	AF,UF	•			•	•			•
	AS,U	•	•	•	•	•	•	•	•
WMT10 (1)	AF,UF	•			•	•			•
	AS,U,UA	•	•	•	•	•	•	•	•

Model	Ver	500	501	502	550	600	601	602	650
AER503IR (1)	AF,UF	•			•				
	AS,U,UA	•	•	•	•	•	•	•	•
PX2Z	AF,UF	•			•				
	AS,U	•	•	•	•	•	•	•	•
SA5 (2)	AF,UF	•			•				
	AS,U,UA	•	•	•	•	•	•	•	•
SIT3 (3)	AS,U,UA	•	•	•	•	•	•	•	•
SIT5 (4)	AS,U,UA	•	•	•	•	•	•	•	•
SW3 (2)	AF,UF	•			•				
	AS	•			•	•	•	•	•
	U,UA	•	•	•	•	•	•	•	•
SW5 (2)	AF,UF	•			•				
	AS,U,UA	•	•	•	•	•	•	•	•
T-TOUCH (5)	AF,UF	•			•				
	AS,U	•	•	•	•	•	•	•	•

Model	Ver	500	501	502	550	600	601	602	650
TX (1)	AF,UF	•			•				
	AS,U,UA	•	•	•	•	•	•	•	•
TXB (5)	AF,UF	•			•				
	AS,U,UA	•	•	•	•	•	•	•	•
WMT05 (1)	AF,UF	•			•				
	AS,U,UA	•			•	•			•
WMT06 (1)	AF,UF	•			•				
	AS,U	•	•	•	•	•	•	•	•
WMT10 (1)	AF,UF	•			•				
	AS,U,UA	•	•	•	•	•	•	•	•

Model	Ver	700	701	702	750	800	801	802	850
AER503IR (1)	AS,U,UA	•	•	•	•	•	•	•	•
PX2Z	AS,U	•	•	•	•	•	•	•	•
SA5 (2)	AS,U,UA	•	•	•	•	•	•	•	•
SIT3 (3)	AS,U,UA	•	•	•	•	•	•	•	•
SIT5 (4)	AS,U,UA	•	•	•	•	•	•	•	•
SW3 (2)	AS,U,UA	•	•	•	•	•	•	•	•
SW5 (2)	AS,U,UA	•	•	•	•	•	•	•	•
T-TOUCH (5)	AS,U	•	•	•	•	•	•	•	•
TX (1)	AS,U,UA	•	•	•	•	•	•	•	•
TXB (5)	AS,U,UA	•	•	•	•	•	•	•	•
WMT05 (1)	AS,U,UA	•			•	•			•
WMT06 (1)	AS,U	•	•	•	•	•	•	•	•
WMT10 (1)	AS,U,UA	•	•	•	•	•	•	•	•

Model	Ver	900	901	950	1000	1001
AER503IR (1)	AF,UF			•	•	
	AS,U,UA	•	•	•	•	•
PX2Z	AF,UF				•	
	AS,U	•	•	•	•	•
SA5 (2)	AF,UF			•	•	
	AS,U,UA	•	•	•	•	•
SIT3 (3)	AF,UF				•	
	AS,U,UA	•	•	•	•	•
SIT5 (4)	AF,UF				•	
	AS,U,UA	•	•	•	•	•
SW3 (2)	AF,UF			•	•	
	AS	•	•	•	•	
	U,UA	•	•	•	•	•
SW5 (2)	AF,UF			•	•	
	AS,U,UA	•	•	•	•	•
T-TOUCH (5)	AF,UF	•		•	•	
	AS,U	•	•	•	•	•
TX (1)	AF,UF			•	•	
	AS,U,UA	•	•	•	•	•
TXB (5)	AF,UF	•		•	•	
	AS,U,UA	•	•	•	•	•
WMT05 (1)	AF,AS,U,UA,UF	•		•	•	
WMT06 (1)	AF,UF	•		•	•	
	AS,U	•	•	•	•	•
WMT10 (1)	AF,UF	•		•	•	
	AS,U,UA	•	•	•	•	•

(1) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.
(2) Probe for AER503IR-TX thermostats, if fitted.
(3) Cards for AER503IR-TX thermostats, if present, to be installed if the unit absorption exceeds 0,7 Ampere.
(4) Probe for AER503IR-TX thermostats, if fitted.
(5) Installation on the fan coil.

VMF system

For more information about VMF system, refer to the dedicated documentation.

VMF system

Model	Ver	100	101	102	150	200	201	202	250	300	301
VMF-E0X (1)	AF,UF	•			•	•			•	•	
	AS,U,UA	•	•	•	•	•	•	•	•	•	•
VMF-E19 (1)	AF,UF	•			•	•			•	•	
	AS,U,UA	•	•	•	•	•	•	•	•	•	•
VMF-E2Z	AF,UF	•			•	•			•	•	
	AS,U,UA	•	•	•	•	•	•	•	•	•	•
VMF-E3	AF,UF	•			•	•			•	•	
	U,UA	•	•	•	•	•	•	•	•	•	•

Model	Ver	100	101	102	150	200	201	202	250	300	301
VMF-E4DX	AF,UF	•			•	•			•	•	
	AS,U,UA	•	•	•	•	•	•	•	•	•	•
VMF-E4X	AF,UF	•			•	•			•	•	
	AS,U,UA	•	•	•	•	•	•	•	•	•	•
VMF-IR	AF,UF	•			•	•			•	•	
	U,UA	•	•	•	•	•	•	•	•	•	•
VMF-SW	AF,UF	•			•	•			•	•	
	AS,U	•	•	•	•	•	•	•	•	•	•
VMF-SW1	AF,UF	•			•	•			•	•	
	AS,U	•	•	•	•	•	•	•	•	•	•

Model	Ver	302	350	400	401	402	450	500	501	502	550
VMF-E0X (1)	AF,UF		•	•			•	•			•
	AS,U,UA	•	•	•	•	•	•	•	•	•	•
VMF-E19 (1)	AF,UF		•	•			•	•			•
	AS,U,UA	•	•	•	•	•	•	•	•	•	•
VMF-E2Z	AF,UF		•	•			•	•			•
	AS,U,UA	•	•	•	•	•	•	•	•	•	•
VMF-E3	AF,UF		•	•			•	•			•
	U,UA	•	•	•	•	•	•	•	•	•	•
VMF-E4DX	AF,UF		•	•			•	•			•
	AS,U,UA	•	•	•	•	•	•	•	•	•	•
VMF-E4X	AF,UF		•	•			•	•			•
	AS,U,UA	•	•	•	•	•	•	•	•	•	•
VMF-IR	AF,UF		•	•			•	•			•
	U,UA	•	•	•	•	•	•	•	•	•	•
VMF-SW	AF,UF		•	•			•	•			•
	AS,U	•	•	•	•	•	•	•	•	•	•
VMF-SW1	AF,UF		•	•			•	•			•
	AS,U	•	•	•	•	•	•	•	•	•	•

Model	Ver	600	601	602	650	700	701	702	750	800	801
VMF-E0X (1)	AS,UA	•	•	•	•	•	•	•	•	•	•
	U		•	•			•	•			•
VMF-E19 (1)	AS,UA	•	•	•	•	•	•	•	•	•	•
	U		•	•			•	•			•
VMF-E2Z	AS,UA	•	•	•	•	•	•	•	•	•	•
	U		•	•			•	•			•
VMF-E3	AF,UF	•			•	•			•	•	
	U,UA	•	•	•	•	•	•	•	•	•	•
VMF-E4DX	AS,UA	•	•	•	•	•	•	•	•	•	•
	U		•	•			•	•			•
VMF-E4X	AS,UA	•	•	•	•	•	•	•	•	•	•
	U		•	•			•	•			•
VMF-IR	AF,UF	•			•	•			•	•	
	U,UA	•	•	•	•	•	•	•	•	•	•
VMF-SW	AS	•	•	•	•	•	•	•	•	•	•
	U		•	•			•	•			•
VMF-SW1	AS	•	•	•	•	•	•	•	•	•	•
	U		•	•			•	•			•

Model	Ver	802	850	900	901	950	1000	1001
VMF-E0X (1)	AF,UF					•		
	AS,UA	•	•	•	•	•	•	•
	U	•		•	•	•	•	•
VMF-E19 (1)	AF,UF					•		
	AS,UA	•	•	•	•	•	•	•
	U	•		•	•	•	•	•
VMF-E2Z	AF,UF					•		
	AS,UA	•	•	•	•	•	•	•
	U	•		•	•	•	•	•
VMF-E3	AF		•	•		•		
	U,UA	•	•	•	•	•	•	•
	UF		•	•		•	•	
VMF-E4DX	AF,UF					•		
	AS,UA	•	•	•	•	•	•	•
	U	•		•	•	•	•	•
VMF-E4X	AF,UF					•		
	AS,UA	•	•	•	•	•	•	•
	U	•		•	•	•	•	•

Model	Ver	802	850	900	901	950	1000	1001
VMF-IR	AF		•	•		•		
	U,UA	•	•	•	•	•	•	•
	UF		•	•		•	•	
VMF-SW	AF,UF					•		
	AS	•	•	•	•	•	•	•
	U	•		•	•	•	•	•
VMF-SW1	AF,UF					•		
	AS	•	•	•	•	•	•	•
	U	•		•	•	•	•	•

(1) Also the accessory VMF-SIT3V is mandatory if the unit exceeds 0.7 Amperes.

Water valves

3 way valve kit

	100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450
Main coil	VCZ41 VCZ4124	VCZ41 VCZ4124	VCZ41 VCZ4124	VCZ41 VCZ4124	VCZ41 VCZ4124	VCZ41 VCZ4124	VCZ41 VCZ4124	VCZ41 VCZ4124	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224
Secondary coil	-	VCF44 VCF4424	VCF44 VCF4424	-	-	VCF44 VCF4424	VCF44 VCF4424	-	-	VCF44 VCF4424	VCF44 VCF4424	-	-	VCF44 VCF4424	VCF44 VCF4424	-
Additional coil "BV"	VCF44 VCF4424	-	-	-	VCF44 VCF4424	-	-	-	VCF44 VCF4424	-	-	-	VCF44 VCF4424	-	-	-

	500	501	502	550	600	601	602	650	700	701	702	750	800	801	802	850
Main coil	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224
Secondary coil	-	VCF44 VCF4424	VCF44 VCF4424	-	-	VCF44 VCF4424	VCF44 VCF4424	-	-	VCF44 VCF4424	VCF44 VCF4424	-	-	VCF44 VCF4424	VCF44 VCF4424	-
Additional coil "BV"	VCF44 VCF4424	-	-	-	VCF44 VCF4424	-	-	-	VCF44 VCF4424	-	-	-	VCF44 VCF4424	-	-	-

	900	901	950	1000	1001
Main coil	VCZ43 VCZ4324	VCZ43 VCZ4324	VCZ43 VCZ4324	VCZ43 VCZ4324	VCZ43 VCZ4324
Secondary coil	-	VCF45 VCF4524	-	-	VCF45 VCF4524
Additional coil "BV"	VCF45 VCF4524	-	-	VCF45 VCF4524	-

2 way valve kit

	100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450
Main coil	VCZD1 VCZD124	VCZD1 VCZD124	VCZD1 VCZD124	VCZD1 VCZD124	VCZD1 VCZD124	VCZD1 VCZD124	VCZD1 VCZD124	VCZD1 VCZD124	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224
Secondary coil	-	VCFD4 VCFD424	VCFD4 VCFD424	-	-	VCFD4 VCFD424	VCFD4 VCFD424	-	-	VCFD4 VCFD424	VCFD4 VCZD424	-	-	VCFD4 VCFD424	VCFD4 VCFD424	-
Additional coil "BV"	VCFD4 VCFD424	-	-	-	VCFD4 VCFD424	-	-	-	VCFD4 VCFD424	-	-	-	VCFD4 VCFD424	-	-	-

	500	501	502	550	600	601	602	650	700	701	702	750	800	801	802	850
Main coil	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224
Secondary coil	-	VCFD4 VCFD424	VCFD4 VCFD424	-	-	VCFD4 VCFD424	VCFD4 VCFD424	-	-	VCFD4 VCFD424	VCFD4 VCFD424	-	-	VCFD4 VCFD424	VCFD4 VCFD424	-
Additional coil "BV"	VCFD4 VCFD424	-	-	-	VCFD4 VCFD424	-	-	-	VCFD4 VCFD424	-	-	-	VCFD4 VCFD424	-	-	-

	900	901	950	1000	1001
Main coil	VCZD3 VCZD324	VCZD3 VCZD324	VCZD3 VCZD324	VCZD3 VCZD324	VCZD3 VCZD324
Secondary coil	-	VCFD4 VCFD424	-	-	VCFD4 VCFD424
Additional coil "BV"	VCFD4 VCFD424	-	-	VCFD4 VCFD424	-

Valve Kit for 4 pipe systems - Requires a thermostat with valve management

Model	Ver	100	101	102	150	200	201	202	250
VCZ1X4L (1)	AF,AS,U,UA,UF	•			•	•			•
VCZ1X4R (1)	AF,AS,U,UA,UF	•			•	•			•

Model	Ver	300	301	302	350	400	401	402	450
VCZ2X4L (1)	AF,AS,U,UA,UF	•			•	•			•
VCZ2X4R (1)	AF,AS,U,UA,UF	•			•	•			•

Model	Ver	500	501	502	550	600	601	602	650
VCZ2X4L (1)	AF,UF	•			•				
	AS,U,UA	•			•	•			•
VCZ2X4R (1)	AF,UF	•			•				
	AS,U,UA	•			•	•			•

Model	Ver	700	701	702	750	800	801	802	850
VCZ2X4L (1)	AS,U,UA	•			•	•			•
VCZ2X4R (1)	AS,U,UA	•			•	•			•

Model	Ver	900	901	950	1000	1001
VCZ3X4L (1)	AF,AS,U,UA,UF	•		•	•	
VCZ3X4R (1)	AF,AS,U,UA,UF	•		•	•	

(1) The valves can be combined with the units if there is a control panel for managing them.

Combined Adjustment and Balancing Valve Kit

Model	Ver	100	101	102	150	200	201	202	250
VJP060 (1)	ACT,APC	•			•	•			•
	AS,U,UA	•	•	•	•	•	•	•	•
VJP060M (2)	ACT,APC	•			•	•			•
	AS,U,UA	•	•	•	•	•	•	•	•

Model	Ver	300	301	302	350	400	401	402	450
VJP060 (1)	ACT,APC	•			•				
	AS,U,UA	•	•	•	•				
VJP060M (2)	ACT,APC	•			•				
	AS,U,UA	•	•	•	•				
VJP090 (1)	ACT,APC					•			•
	AS,U,UA					•	•	•	•
VJP090M (2)	ACT,APC					•			•
	AS,U,UA					•	•	•	•

Model	Ver	500	501	502	550	600	601	602	650
VJP090 (1)	ACT,APC	•			•	•			•
	AS,U,UA	•	•	•	•	•	•	•	•
VJP090M (2)	ACT,APC	•			•	•			•
	AS,U,UA	•	•	•	•	•	•	•	•
VJP150 (1)	ACT,APC					•			•
	AS,U,UA					•	•	•	•
VJP150M (2)	ACT,APC					•			•
	AS,U,UA					•	•	•	•

Model	Ver	700	701	702	750	800	801	802	850
VJP150 (1)	ACT,APC	•			•	•			•
	AS,U,UA	•	•	•	•	•	•	•	•
VJP150M (2)	ACT,APC	•			•	•			•
	AS,U,UA	•	•	•	•	•	•	•	•

Model	Ver	900	901	950	1000	1001
VJP150 (1)	ACT,APC	•		•	•	
	AS,U,UA	•	•	•	•	•
VJP150M (2)	ACT,APC	•		•	•	
	AS,U,UA	•	•	•	•	•

(1) 230V~50Hz
(2) 24V

(Heating only) additional coil

Heating only additional coil

Model	Ver	100	101	102	150	200	201	202	250
BV117 (1)	A,AF,AS,U,UA,UF	•							
BV122 (1)	A,AF,AS,U,UA,UF					•			

Model	Ver	300	301	302	350	400	401	402	450
BV132 (1)	A,AF,AS,U,UA,UF	•							
BV142 (1)	A,AF,AS,U,UA,UF					•			

Model	Ver	500	501	502	550	600	601	602	650
BV142 (1)	A,AF,AS,U,UA,UF	•							
BVZ800 (1)	A,AS,U,UA					•			

Model	Ver	700	701	702	750	800	801	802	850
BVZ800 (1)	A,AS,U,UA	•				•			

Model	Ver	900	901	950	1000	1001
BV162 (1)	A,AF,AS,U,UA,UF	•			•	

(1) Not available for sizes with oversized main coil.

Electric coil - Requires a thermostat with heater management. Not available for sizes with an oversized main coil.

Model	Ver	100	101	102	150	200	201	202	250
RX17 (1)	AF,AS,U,UA,UF	•							
RX22 (1)	AF,AS,U,UA,UF					•			

Model	Ver	300	301	302	350	400	401	402	450
RX32 (1)	AF,AS,U,UA,UF	•							
RX42 (1)	AF,AS,U,UA,UF					•			

Model	Ver	500	501	502	550	600	601	602	650
RX52 (1)	AF,AS,U,UA,UF	•							
RXZ800 (1)	AS,U,UA					•			

Model	Ver	700	701	702	750	800	801	802	850
RXZ800 (1)	AS,U,UA	•				•			

Model	Ver	900	901	950	1000	1001
RX62 (1)	AF,AS,U,UA,UF	•			•	

(1) Requires a thermostat with heater management. Not available for sizes with an oversized main coil. The PCR1 or PCR2 appliance must also be provided depending on the unit.

Installation accessories

Wall mounting kit

Ver	100	101	102	150	200	201	202	250
U,UA	AMP20	AMP20	AMP20	AMP20	AMP20	AMP20	AMP20	AMP20
UF	AMP20	-	-	AMP20	AMP20	-	-	AMP20

Ver	300	301	302	350	400	401	402	450
U,UA	AMP20	AMP20	AMP20	AMP20	AMP20	AMP20	AMP20	AMP20
UF	AMP20	-	-	AMP20	AMP20	-	-	AMP20

Ver	500	501	502	550	600	601	602	650
U,UA	AMP20	AMP20	AMP20	AMP20	AMPZ	AMPZ	AMPZ	AMPZ
UF	AMP20	-	-	AMP20	-	-	-	-

The accessory cannot be fitted on the configurations indicated with -

Ver	700	701	702	750	800	801	802	850
U,UA	AMPZ	AMPZ	AMPZ	AMPZ	AMPZ	AMPZ	AMPZ	AMPZ

Ver	900	901	950	1000	1001
U,UA	AMPZ	AMPZ	AMPZ	AMPZ	AMPZ

Condensate recirculation device

Model	Ver	100	101	102	150	200	201	202	250
DSCZ4 (1)	A,AS,U,UA	•	•	•	•	•	•	•	•
	ACT,APC	•			•	•			•

Model	Ver	300	301	302	350	400	401	402	450
DSCZ4 (1)	A,AS,U,UA	•	•	•	•	•	•	•	•
	ACT,APC	•			•	•			•

Model	Ver	500	501	502	550	600	601	602	650
DSCZ4 (1)	A,AS,U,UA	•	•	•	•	•	•	•	•
	ACT,APC	•			•	•			•

Model	Ver	700	701	702	750	800	801	802	850
DSCZ4 (1)	A,AS,U,UA	•	•	•	•	•	•	•	•
	ACT,APC	•			•	•			•

Model	Ver	900	901	950	1000	1001
DSCZ4 (1)	A,AS,U,UA	•	•	•	•	•
	ACT,APC	•		•	•	

(1) DSC4 cannot be mounted if even just one of these accessories is also installed: AMP - AMPZ valve VCZ1-2-3-4 X4L/R and all the condensate collection trays.

Condensate drip

Model	Ver	100	101	102	150	200	201	202	250
BCZ4 (1)	A,AS,U,UA	•	•	•	•	•	•	•	•
	ACT,APC	•			•	•			•
BCZ5 (2)	A,AS,U,UA	•	•	•	•	•	•	•	•
	ACT,APC	•			•	•			•

Model	Ver	300	301	302	350	400	401	402	450
BCZ4 (1)	A,AS,U,UA	•	•	•	•	•	•	•	•
	ACT,APC	•			•	•			•
BCZ5 (2)	A,AS,U,UA	•	•	•	•	•	•	•	•
	ACT,APC	•			•	•			•

Model	Ver	500	501	502	550	600	601	602	650
BCZ4 (1)	A,AS,U,UA	•	•	•	•	•	•	•	•
	ACT,APC	•			•	•			•
BCZ5 (2)	A,AS,U,UA	•	•	•	•	•	•	•	•
	ACT,APC	•			•	•			•

Model	Ver	700	701	702	750	800	801	802	850
BCZ4 (1)	A,AS,U,UA	•	•	•	•	•	•	•	•
	ACT,APC	•			•	•			•
BCZ5 (2)	A,AS,U,UA	•	•	•	•	•	•	•	•
	ACT,APC	•			•	•			•

Model	Ver	900	901	950	1000	1001
BCZ4 (1)	A,AS,U,UA	•	•	•	•	•
	ACT,APC	•		•	•	
BCZ6 (2)	A,AS,U,UA	•	•	•	•	•
	ACT,APC	•		•	•	

(1) For vertical installation.
(2) For horizontal installation.

Panel closing the rear of the unit

Model	Ver	100	101	102	150	200	201	202	250
PCZ100	A,AS,U,UA	•	•	•	•				
	ACT,APC	•			•				
PCZ200	A,AS,U,UA					•	•	•	•
	ACT,APC					•			•

Model	Ver	300	301	302	350	400	401	402	450
PCZ300	A,AS,U,UA	•	•	•	•				
	ACT,APC	•			•				
PCZ500	A,AS,U,UA					•	•	•	•
	ACT,APC					•			•

Model	Ver	500	501	502	550	600	601	602	650
PCZ500	A,AS,U,UA	•	•	•	•				
	ACT,APC	•			•				
PCZ800	A,AS,U,UA					•	•	•	•
	ACT,APC					•			•

Model	Ver	700	701	702	750	800	801	802	850
PCZ800	A,AS,U,UA	•	•	•	•	•	•	•	•
	ACT,APC	•			•	•			•

Model	Ver	900	901	950	1000	1001
PCZ1000	A,AS,U,UA	•	•	•	•	•
	ACT,APC	•		•	•	

Lower intake grille

Model	Ver	100	101	102	150	200	201	202	250
GA100	U,UA	•	•	•	•				
GA200	U,UA					•	•	•	•

Model	Ver	300	301	302	350	400	401	402	450
GA300	U,UA	•	•	•	•				
GA500	U,UA					•	•	•	•

Model	Ver	500	501	502	550	600	601	602	650
GA500	U,UA	•	•	•	•				
GA800	U,UA					•	•	•	•

Model	Ver	700	701	702	750	800	801	802	850
GA800	U,UA	•	•	•	•	•	•	•	•

Model	Ver	900	901	950	1000	1001
GA800	U,UA	•	•	•	•	•

Supports to be combined with the ornamental grille (GA) for floor installation of the fan coil

Model	Ver	100	101	102	150	200	201	202	250
FIKIT100	A,AS,U,UA	•	•	•	•				
	ACT,AF,APC,UF	•			•				
FIKIT200	A,AS,U,UA					•	•	•	•
	ACT,AF,APC,UF					•			•

Model	Ver	300	301	302	350	400	401	402	450
FIKIT300	A,AS,U,UA	•	•	•	•				
	ACT,AF,APC,UF	•			•				
FIKIT500	A,AS,U,UA					•	•	•	•
	ACT,AF,APC,UF					•			•

Model	Ver	500	501	502	550	600	601	602	650
FIKIT500	A,AS,U,UA	•	•	•	•				
	ACT,AF,APC,UF	•			•				
FIKIT800	A,AS,U,UA					•	•	•	•
	ACT,APC					•			•

Model	Ver	700	701	702	750	800	801	802	850
FIKIT800	ACT,APC	•			•	•			•
	U,UA	•	•	•	•	•	•	•	•

Model	Ver	900	901	950	1000	1001
FIKIT800	A,AS,U,UA	•	•	•	•	•
	ACT,AF,APC,UF	•		•	•	

Pair of stylish structural feet

Model	Ver	100	101	102	150	200	201	202	250
ZXZ	A,AS,U,UA	•	•	•	•	•	•	•	•
	ACT,APC	•			•	•			•

Model	Ver	300	301	302	350	400	401	402	450
ZXZ	A,AS,U,UA	•	•	•	•	•	•	•	•
	ACT,APC	•			•	•			•

Model	Ver	500	501	502	550	600	601	602	650
ZXZ	A,AS,U,UA	•	•	•	•	•	•	•	•
	ACT,APC	•			•	•			•

Model	Ver	700	701	702	750	800	801	802	850
ZXZ	A,AS,U,UA	•	•	•	•	•	•	•	•
	ACT,APC	•			•	•			•

Model	Ver	900	901	950	1000	1001
ZXZ	A,AS,U,UA	•	•	•	•	•
	ACT,APC	•		•	•	

PERFORMANCE SPECIFICATIONS

2-pipe

		FCZ100			FCZ150			FCZ200			FCZ250			FCZ300			FCZ350			FCZ400			FCZ450			FCZ500			FCZ550		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)																															
Heating capacity	kW	1,45	2,00	2,40	1,55	2,19	2,65	2,02	2,95	3,70	2,20	3,18	4,05	3,47	4,46	5,50	3,77	4,92	6,15	4,32	5,74	7,15	4,57	6,29	7,82	5,27	7,31	8,50	5,82	8,34	9,75
Water flow rate system side	l/h	125	172	206	136	192	232	177	258	324	193	278	355	304	391	482	330	431	539	379	503	627	400	551	685	462	641	745	510	731	855
Pressure drop system side	kPa	4	7	9	5	9	12	6	12	18	7	15	23	7	12	18	8	14	20	9	16	24	6	11	16	12	21	28	10	20	26
Heating performance 45 °C / 40 °C (2)																															
Heating capacity	kW	0,72	0,99	1,19	0,77	1,09	1,31	1,00	1,46	1,84	1,09	1,58	2,01	1,72	2,21	2,73	1,87	2,44	3,06	2,14	2,85	3,55	2,27	3,12	3,88	2,62	3,63	4,22	2,89	4,14	4,85
Water flow rate system side	l/h	126	173	207	134	189	229	174	254	319	190	274	350	299	385	475	325	425	531	373	495	617	394	543	675	455	631	734	502	720	842
Pressure drop system side	kPa	4	7	10	5	9	12	6	12	18	8	15	22	8	12	18	8	14	20	10	16	24	6	11	16	12	21	28	10	20	26
Cooling performance 7 °C / 12 °C (3)																															
Cooling capacity	kW	0,65	0,84	1,00	0,80	1,06	1,27	0,89	1,28	1,60	1,06	1,55	1,94	1,68	2,17	2,65	1,89	2,46	3,02	2,20	2,92	3,60	2,41	3,21	4,03	2,68	3,69	4,25	2,91	4,13	4,79
Sensible cooling capacity	kW	0,51	0,69	0,83	0,57	0,80	0,97	0,71	1,05	1,33	0,79	1,20	1,52	1,26	1,65	2,04	1,33	1,76	2,18	1,59	2,14	2,67	1,69	2,30	2,90	1,94	2,73	3,18	2,07	2,98	3,49
Water flow rate system side	l/h	112	144	172	138	182	219	153	221	275	182	267	334	288	374	456	350	460	560	379	503	619	414	552	694	460	634	731	501	711	824
Pressure drop system side	kPa	4	6	8	6	12	13	6	12	18	8	17	25	8	13	18	11	18	25	10	16	24	9	15	22	13	22	29	12	22	28
Fan																															
Type	type	Centrifugal																													
Fan motor	type	Asynchronous																													
Number	no.	1			1			1			1			2			2			2			2			2			2		
Air flow rate	m^3/h	110	160	200	110	160	200	140	220	290	140	220	290	260	350	450	260	350	450	330	460	600	330	460	600	400	600	720	400	600	720
Input power	W	19	29	35	19	29	35	25	29	33	25	29	33	25	33	44	25	33	44	30	43	57	30	43	57	38	52	76	38	52	76
Electrical wiring		V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3
Fan coil sound data (4)																															
Sound power level	dB(A)	31,0	38,0	45,0	31,0	38,0	45,0	35,0	46,0	51,0	35,0	46,0	51,0	34,0	41,0	48,0	34,0	41,0	48,0	37,0	44,0	51,0	37,0	44,0	51,0	42,0	51,0	56,0	42,0	51,0	56,0
Sound pressure	dB(A)	23,0	30,0	37,0	23,0	30,0	37,0	27,0	38,0	43,0	27,0	38,0	43,0	26,0	33,0	40,0	26,0	33,0	40,0	29,0	36,0	43,0	29,0	36,0	43,0	34,0	43,0	48,0	34,0	43,0	48,0
Diametre hydraulic fittings																															
Main coil	Ø	1/2"			1/2"			1/2"			1/2"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"		
Power supply																															
Power supply		230V~50Hz																													

		FCZ600			FCZ650			FCZ700			FCZ750			FCZ800			FCZ850			FCZ900			FCZ950			FCZ1000		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)																												
Heating capacity	kW	6,50	8,10	10,00	7,19	9,15	11,50	8,10	9,80	11,00	9,10	11,30	12,50	9,80	10,80	12,00	11,30	12,35	14,00	10,77	13,35	15,14	11,20	14,42	17,10	12,53	15,24	17,02
Water flow rate system side	l/h	570	710	877	631	802	1008	710	860	964	798	991	1096	859	947	1052	991	1083	1227	945	1171	1328	982	1264	1500	1101	1337	1493
Pressure drop system side	kPa	12	18	26	14	21	31	17	24	29	10	15	18	22	27	32	17	20	25	12	17	22	16	24	33	22	32	38
Heating performance 45 °C / 40 °C (2)																												
Heating capacity	kW	3,32	4,03	4,97	3,57	4,55	5,72	4,03	4,87	5,47	4,52	5,62	6,21	4,87	5,37	5,97	5,62	6,14	6,96	5,35	6,64	7,53	5,57	7,17	8,50	6,24	7,58	8,46
Water flow rate system side	l/h	561	699	863	621	790	993	699	846	950	786	975	1079	846	932	1036	975	1066	1209	930	1152	1307	967	1245	1476	1084	1316	1469
Pressure drop system side	kPa	12	18	26	14	20	31	16	24	29	10	14	18	22	26	32	6	20	25	12	17	22	15	24	33	22	31	38
Cooling performance 7 °C / 12 °C (3)																												
Cooling capacity	kW	3,22	3,90	4,65	3,95	4,80	5,67	3,92	4,89	5,50	4,27	5,34	6,14	4,84	5,66	6,10	5,26	6,29	6,91	4,29	5,00	6,91	5,77	7,32	8,60	5,69	6,88	7,62
Sensible cooling capacity	kW	2,56	3,17	3,92	2,78	3,43	4,12	2,99	3,76	4,30	3,20	4,05	4,72	3,72	4,42	4,83	4,00	4,83	5,36	2,97	3,78	5,68	3,80	4,87	5,78	4,42	5,34	5,53
Water flow rate system side	l/h	554	671	800	595	825	975	675	841	946	734	918	1056	833	974	1049	904	1082	1189	738	860	1189	992	1259	1479	979	1183	1311
Pressure drop system side	kPa	14	19	26	15	21	28	16	24	30	10	14	18	20	26	30	14	20	23	10	12	22	15	22	30	22	31	36
Fan																												
Type	type	Centrifugal																										
Fan motor	type	Asynchronous																										
Number	no.		3			3			3			3			3			3			3			3			3	
Air flow rate	m^3/h	520	720	920	520	720	920	700	930	1140	700	930	1140	900	1120	1300	900	1120	1300	700	930	1140	700	930	1140	900	1120	1300
Input power	W	38	60	91	38	60	91	59	80	106	59	80	106	80	100	131	80	100	131	59	80	106	59	80	106	80	100	131
Electrical wiring		V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3
Fan coil sound data (4)																												
Sound power level	dB(A)	42,0	51,0	57,0	42,0	51,0	57,0	50,0	57,0	62,0	50,0	57,0	62,0	56,0	61,0	66,0	56,0	61,0	66,0	51,0	57,0	62,0	51,0	57,0	62,0	56,0	61,0	66,0
Sound pressure	dB(A)	34,0	43,0	49,0	34,0	43,0	49,0	42,0	49,0	54,0	42,0	49,0	54,0	48,0	53,0	58,0	48,0	53,0	58,0	43,0	49,0	54,0	43,0	49,0	54,0	48,0	53,0	58,0
Diametre hydraulic fittings																												
Main coil	Ø	3/4″																										
Power supply																												
Power supply		230V~50Hz																										

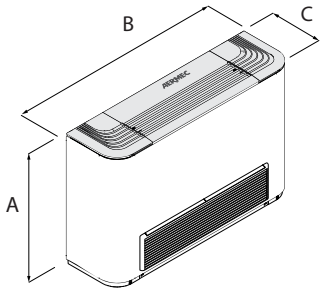
(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C
(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C; EUROVENT
(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT
(4) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

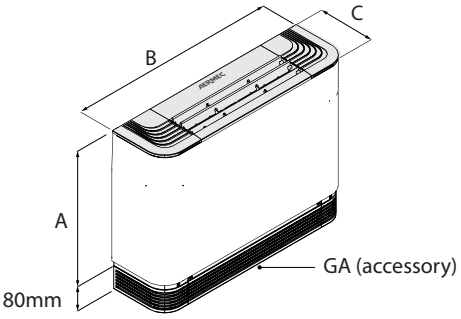
4-pipe

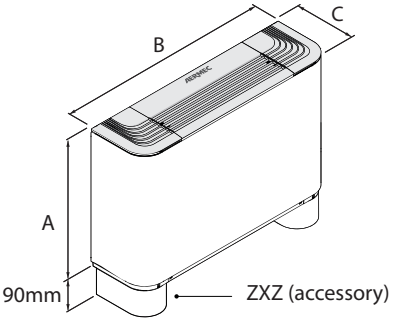
		FCZ101			FCZ201			FCZ301			FCZ401			FCZ501			FCZ601			FCZ701			FCZ801			FCZ901			FCZ1001		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 65 °C / 55 °C (1)																															
Heating capacity	kW	0,75	1,01	1,17	1,02	1,35	1,60	1,80	2,18	2,56	2,21	2,65	3,12	2,59	3,34	3,73	2,96	3,67	4,36	3,66	4,29	4,94	4,20	4,79	5,35	4,73	5,63	5,72	4,85	5,56	6,08
Water flow rate system side	l/h	65	89	102	89	118	140	158	191	224	186	232	273	227	293	327	259	321	381	320	375	437	368	419	467	414	492	501	424	487	532
Pressure drop system side	kPa	2	4	4	4	8	10	16	23	30	4	6	8	6	8	10	8	12	16	11	14	18	16	20	24	8	12	12	10	14	16
Cooling performance 7 °C / 12 °C (2)																															
Cooling capacity	kW	0,65	0,84	1,00	0,89	1,28	1,60	1,68	2,17	2,65	2,20	2,92	3,60	2,68	3,69	4,25	3,22	3,90	4,65	3,92	4,89	5,50	4,84	5,66	6,10	4,29	5,00	6,91	5,69	6,88	7,62
Sensible cooling capacity	kW	0,51	0,69	0,83	0,71	1,05	1,33	1,26	1,65	2,04	1,59	2,14	2,67	1,94	2,73	3,18	2,56	3,17	3,92	2,99	3,76	4,30	3,72	4,42	4,83	2,97	3,78	5,68	4,42	5,34	5,53
Water flow rate system side	l/h	112	144	172	153	221	275	288	374	456	379	503	619	460	634	731	554	671	800	675	841	946	833	974	1049	738	860	1189	979	1183	1311
Pressure drop system side	kPa	4	6	8	6	12	18	8	13	18	10	16	24	13	22	29	14	19	26	16	24	30	20	26	30	10	12	22	22	31	36
Fan																															
Type	type	Centrifugal																													
Fan motor	type	Asynchronous																													
Number	no.		1			1			2			2			2			3			3			3			3			3	
Air flow rate	m^3/h	110	160	200	140	220	290	260	350	450	330	460	600	400	600	720	520	720	920	700	930	1140	900	1120	1300	700	930	1140	900	1120	1300
Input power	W	19	29	35	25	29	33	25	33	44	30	43	57	38	52	76	38	60	91	59	80	106	80	100	131	59	80	106	80	100	131
Electrical wiring		V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3
Fan coil sound data (3)																															
Sound power level	dB(A)	31,0	38,0	45,0	35,0	46,0	51,0	34,0	41,0	48,0	37,0	44,0	51,0	42,0	51,0	56,0	42,0	51,0	57,0	50,0	57,0	62,0	56,0	61,0	66,0	51,0	57,0	62,0	56,0	61,0	66,0
Sound pressure	dB(A)	23,0	30,0	37,0	27,0	38,0	43,0	26,0	33,0	40,0	29,0	36,0	43,0	34,0	43,0	48,0	34,0	43,0	49,0	42,0	49,0	54,0	48,0	53,0	58,0	43,0	49,0	54,0	48,0	53,0	58,0
Diametre hydraulic fittings																															
Main coil	Ø	1/2″			1/2″			3/4″			3/4″			3/4″			3/4″			3/4″			3/4″			3/4″			3/4″		
Secondary coil	Ø	1/2″																													
Power supply																															
Power supply		230V~50Hz																													

(1) Room air temperature 20°C d.b.; Water (in/out) 65 °C/55 °C; EUROVENT
(2) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT
(3) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

DIMENSIONS







		FCZ100	FCZ101	FCZ102	FCZ150	FCZ200	FCZ201	FCZ202	FCZ250	FCZ300	FCZ301	FCZ302	FCZ350	FCZ400	FCZ401	FCZ402	FCZ450
Dimensions and weights																	
A	mm	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486
B	mm	640	640	640	640	750	750	750	750	980	980	980	980	1200	1200	1200	1200
C	mm	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220
Empty weight	kg	13	14	14	14	15	15	16	16	17	18	19	19	33	23	23	24

		FCZ500	FCZ501	FCZ502	FCZ550	FCZ600	FCZ601	FCZ602	FCZ650	FCZ700	FCZ701	FCZ702	FCZ750	FCZ800	FCZ801	FCZ802	FCZ850
Dimensions and weights																	
A	mm	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486	486
B	mm	1200	1200	1200	1200	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320
C	mm	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220
Empty weight	kg	24	22	23	24	24	29	31	33	29	31	33	33	29	29	31	33

		FCZ900	FCZ901	FCZ950	FCZ1000	FCZ1001
Dimensions and weights						
A	mm	591	591	591	591	591
B	mm	1320	1320	1320	1320	1320
C	mm	220	220	220	220	220
Empty weight	kg	34	34	34	34	34

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume
responsibility or liability for errors or omissions.

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FCZI

Fan coil with brushless inverter motor, for universal and floor installation

Cooling capacity 0,89 ÷ 6,91 kW
Heating capacity 2,02 ÷ 17,10 kW

- **Electric saving equal to 50% with respect to a fan coil with 3-speed motor**
- **Touch controller mounted on-board. allows remote control with smart devices**
- **Very quiet**



DESCRIPTION

fan coil can be installed in any 2/4 pipe system and operates with any heat generator even at low temperatures, and thanks to varied versions and settings, it is easy to pick the ideal solution for any need.

FEATURES

Case

Protective metal cabinet with anti-corrosion polyester RAL 9003 paint, whereas the head with the air distribution grille is in RAL 7047 plastic.
Depending on the version, the distribution grille may be adjustable.

Ventilation group

Centrifugal fans in anti-static plastic material with aerofoil profile designed to achieve high airflows and pressures whilst at the same time producing low noise.
Their characteristics permit energy savings compared to conventional fans.
They are statically and dynamically balanced and directly coupled to the motor shaft.
The Brushless electric motor with 0-100% continuous speed variation, which allows precise adaptation to the real demands of the internal environment without temperature fluctuations.
The air flow can be continuously changed through a 1-10 V signal, coming from adjustment and control commands Aermec or from independent adjustment systems.
This lowers noise and generates a better response to heat loads and a higher stability in the desired temperature inside the room.
The high efficiency even with low speed, makes it possible to reduce power consumption (more than 50% less than fan coils with traditional motors).
The plastic augers are extractable for easy and efficient cleaning.

Heat exchanger coil

With copper pipes and aluminium louvers, the standard or oversized main coil and the possible secondary coil have female gas water connections on the left side and the manifolds have air vents.
The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.
Reversibility of the water connections during installation only for units with a standard or boosted main coil, or standard with BV accessory. Not reversible in all other configurations. In any case, units with the coil water connections on the right are available at the time of ordering.

Condensate drip

Provided standard in plastic and fixed to the interior structure; with external condensate discharge.

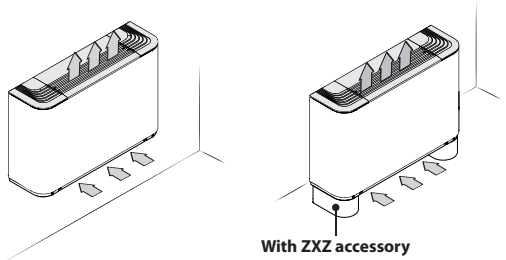
Air filter

Air filter class Coarse 25% for all versions easy to pull out and clean.

Versions

ACT High, with air distribution grille and electronic thermostat
AF High, without built-in command but with front intake
AS Free standing without installed switch
U Universal, with adjustable air distribution grille but without built-in thermostat
UF Universal, with adjustable air distribution grille but without built-in thermostat and with front intake grille

Versions with fixed grille (high cabinet)

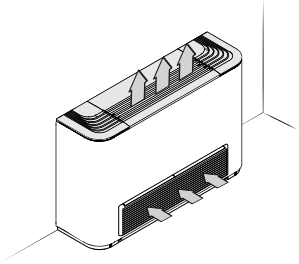


FCZI_AS
— Compatibility with VMF system.

— Without installed switch

FCZI_ACT

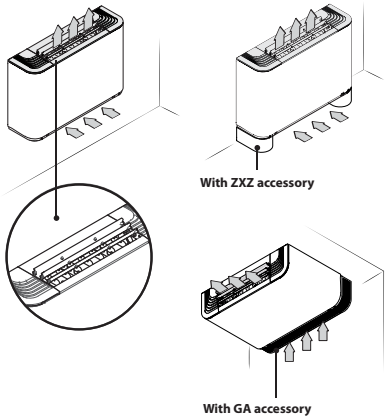
— With electronic thermostat for 2-pipe systems only.



FCZI_AF

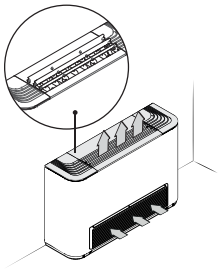
— Without installed switch
— Compatibility with VMF system.
— Front intake grille.

Versions with adjustable and fixed grille (universal)



FCZI_U

— Compatibility with VMF system.
— Without installed switch
— Distribution grille with adjustable fins. Sizes 2 and 3 have a single grille, whereas sizes 4, 5, 7 and 9 have three grilles fully independent of each other. When all the louvers have closed, the unit switches off.
— Vertical and horizontal installation for 2-pipe and 4-pipe systems.



FCZI_UF

— Compatibility with VMF system.
— Without installed switch
— Air delivery grille with adjustable louvers.
— Vertical and horizontal installation.

ThermApp

In units with a **T-Touch-I** electronic thermostat and the **ThermApp** application, the operating mode can be set and the weekly timer programmed by simply resting the smart device on the fan coil. The graphic interface of the app also gives access to a lot more information such as the alarm list, the closest SAT, etc.

Available for Android operating systems.



GUIDE TO SELECTING THE POSSIBLE CONFIGURATIONS

Field		Description
1,2,3,4		**FCZI**
5		**Size** 2, 3, 4, 5, 7, 9
6		**Main coil**
	0	Standard
	5	Oversized
7		**Secondary coil**
	0	Without coil
	1	Standard
	2	Oversized
8,9,10		**Version**
		Only vertical installation.
	ACT	High, with air distribution grille and electronic thermostat
	AF	High, without built-in command but with front intake
	AS	Free standing without installed switch
		Vertical and horizontal installation.
	U	Universal, with adjustable air distribution grille but without built-in thermostat
		Universal, with adjustable air distribution grille but without built-in thermostat and with front intake grille
	UF	Universal, with adjustable air distribution grille but without built-in thermostat and with front intake grille

SIZE AVAILABLE FOR VERSION

Size		200	201	202	250	300	301	302	350	400	401	402	450
Versions produced (by size)													
Versions available (by size)	AS,ACT,U	•	•	•	•	•	•	•	•	•	•	•	•
	AF,UF	•	-	-	•	•	-	-	•	•	-	-	•

		500	501	502	550	700	701	702	750	900	901	950
Versions produced (by size)												
Versions available (by size)	A,AS,U,UA	•	•	•	•	•	•	•	•	•	•	•
	AF,UF	•	-	-	•	-	-	-	-	•	-	•

ACCESSORIES

Control panels

AER503IR: Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.
PRO503: Wall box for AER503IR and VMF-E4 thermostats.
SA5: air probe kit (L = 15 m) with probe-locking cable grommet.
SW3: Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.
SW5: water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.
T-TOUCH-I: Touch control on board the machine, for controlling fan coils with brushless motors. In 2-pipe systems, it can control standard fan coils or those equipped with an electric heater, with air purifying devices or with FCZI-D twin delivery (Dualjet). In 4-pipe systems, only standard fan coils. The ThermApp application is also available for remote control with smart devices with the Android operating system.
TX: Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).
TXBI: On board thermostat for fan coils 2/4 pipes of the FCZI series with brushless motor, complete with water probe and air probe to be positioned in the dedicated housings. The thermostat in 2-pipe systems it can control standard fan coils or those equipped with electrical resistors, with purification devices (Cold Plasma and germicidal lamp) with the radiating plate or with double flow FCZI-D (Dualjet).

VMF system

VMF-E19I: Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe, it controls systems with 2 pipes, 4 pipes, 2 pipes + Cold Plasma, 2 pipes + UV lamps, 2 pipes + Heating element. Equipped with an external contact to be used as a remote ON-OFF at low voltage. By means of 2-wire serial communication, this thermostat allows for the creation of a single fan coil area (1 master + maximum 5 slaves). Compared to the previous model, thanks to a different dip switch configuration, it allows implementing new features:In systems with two pipes and a heating element - the latter can be activated as a complete replacement - allowing you to warm the environment exclusively with this accessory - Dualjet features are available in standard software and can be set via dip switch - Economy contact/ presence sensor - Additional water sensor for overall control in 4-pipe systems (with VMF-SW1 accessory) - Serial RS485, ModBus RTU protocol, for centralised control - Possibility of inserting expansion boards for future developments. The VMF-E19 accessory must be therefore used in masters in the presence of multiple zones, or for communication with the chiller/heat pump - Compatibility with the VMF-IO accessory - Compatibility with VMF-LON expansion board.The thermostat is protected by a fuse.
VMF-E2Z: User interface on the fan coil, with two selectors, one for temperature and the other for speed control; to be combined with accessories VMF-E0,VMF-E19, VMF-E19I.
VMF-E3: Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, VMF-E0X with grids GLF_N/M and GLL_N, can be controlled with VMF-IR control.
VMF-E4X: A wall-mounted user interface to be combined with VMF-E19, VMF-E19I, VMF-E24 ed VMF-E24I accessories. Featuring an innovative, extremely slim and cost-effective design, it allows running functions via a capacitive touchscreen keyboard with LCD display. You can choose to adjust the environment temperature with a panel-mounted sensor probe (standard), or with the VMF-E19/E19I probe, or through mediated reading. It also enables the activation of an air purifier (Cold Plasma/ UV lamp) and a heating element. Light grey front panel PANTONE COOL GRAY 1C.
VMF-IO: Manage the unit exclusively from a centralized VMF control panel without area control panel.
VMF-IR: User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.
VMF-LON: Expansion allowing the thermostat to interface with BMS systems that use the LON protocol.
VMF-SW: Water probe (L = 2.5m) used if required in place of the standard unit supplied with the VMF-E0X, VMF-E19 and VMF-E19I thermostats for mounting it upstream of the valve
VMF-SW1: Additional water probe (L = 2.5m) to be used if required for 4-pipe systems with the VMF-E19 and VMF-E19I thermostats for maximum control in the cold range

Water valves

VCZ_X: 3-way valve kit for single-coil fan coil, RH connections, (VCZ_X4R) or LH (VCZ_X4L) for 4-pipe systems. With totally separate "heating" and "cooling" circuits. This kit consists of two 3-way insulated valves and four connections, complete with electrothermal actuators, insulating shells for the valves, and the relative hydraulic couplings. X4L version for fan coils with LH connections, and X4R for fan coils with RH connections. 230V~50Hz power supply.
VCZ: 3-way motorised valve kit. The kit consists of a valve with its insulating shell, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the 3-way insulating shell. The kit consists of a valve with its insulating shell, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.
VCF44 - 45 - for the secondary coil: The 3-way motorised valve kit for the secondary coil heat only. The kit consists of a valve with its insulating shell, actuator and relevant water fittings; it is suitable to be installed on the fan coils with right and left water connections.
VCZD: 2-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.
VJP: Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components. The valve, which can guarantee a constant water flow rate in the terminal, within its operating range.

Additional coil

BV: Single row hot water heat exchanger.

Installation accessories

PCZ: Metal panel for the unit rear closing. SPCZ brackets are necessary to fix floor standing fan coils.
GA: Lower intake grille for encapsulated fan coils. Can also be used in wall-mounted or floor installations, the FIKIT accessory is needed only in the case of floor installation.
FIKIT: Metal supports for vertical installation of the GA grille.
DSCZ4: Condensate drainage device.
BCZ: Condensate drip. If the valve is paired with the BCZ5 or BCZ6 condensate drip tray, the insulating shell can be removed to ensure better housing.
AMP: Wall mounting kit
ZXZ: Pair of stylish and structural feet.

ACCESSORIES COMPATIBILITY

Control panels

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450
AER503IR (1)	AF,UF	•			•	•			•	•			•
	AS,U	•	•	•	•	•	•	•	•	•	•	•	•
PRO503	AF,UF	•			•	•			•	•			•
	AS,U	•	•	•	•	•	•	•	•	•	•	•	•
SA5 (2)	AF,UF	•			•	•			•	•			•
	AS,U	•	•	•	•	•	•	•	•	•	•	•	•
SW3 (2)	AF,UF	•			•	•			•	•			•
	AS,U	•	•	•	•	•	•	•	•	•	•	•	•
SW5 (2)	AF,UF	•			•	•			•	•			•
	AS,U	•	•	•	•	•	•	•	•	•	•	•	•
T-TOUCH-I	AF,UF	•			•	•			•	•			•
	AS,U	•	•	•	•	•	•	•	•	•	•	•	•
TX (1)	AF,UF	•			•	•			•	•			•
	AS,U	•	•	•	•	•	•	•	•	•	•	•	•
TXBI (3)	AF,UF	•			•	•			•	•			•
	AS,U	•	•	•	•	•	•	•	•	•	•	•	•

Model	Ver	500	501	502	550	700	701	702	750	900	901	950
AER503IR (1)	AF,UF	•			•					•		•
	AS,U	•	•	•	•	•	•	•	•	•	•	•
PRO503	AF,UF	•			•	•			•	•		•
	AS,U	•	•	•	•	•	•	•	•	•	•	•
SA5 (2)	AF,UF	•			•					•		•
	AS,U	•	•	•	•	•	•	•	•	•	•	•
SW3 (2)	AF,UF	•			•					•		•
	AS,U	•	•	•	•	•	•	•	•	•	•	•
SW5 (2)	AF,UF	•			•					•		•
	AS,U	•	•	•	•	•	•	•	•	•	•	•
T-TOUCH-I	AF,UF	•			•					•		•
	AS,U	•	•	•	•	•	•	•	•	•	•	•
TX (1)	AF,UF	•			•					•		•
	AS,U	•	•	•	•	•	•	•	•	•	•	•
TXBI (3)	AF,UF	•			•					•		•
	AS,U	•	•	•	•	•	•	•	•	•	•	•

(1) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.
(2) Probe for AER503IR-TX thermostats, if fitted.
(3) Installation on the fan coil.

VMF system

For more information about VMF system, refer to the dedicated documentation.

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450
VMF-E19I	AF,UF	•			•	•			•	•			•
	AS,U	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E2Z	AF,UF	•			•	•			•	•			•
	AS,U	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E3	AF,UF	•			•	•			•	•			•
	AS,U	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E4X	AF,UF	•			•	•			•	•			•
	AS,U	•	•	•	•	•	•	•	•	•	•	•	•
VMF-IO	AF,UF	•			•	•			•	•			•
	AS,U	•	•	•	•	•	•	•	•	•	•	•	•
VMF-IR	AF,UF	•			•	•			•	•			•
	AS,U	•	•	•	•	•	•	•	•	•	•	•	•
VMF-LON	AF,UF	•			•	•			•	•			•
	AS,U	•	•	•	•	•	•	•	•	•	•	•	•
VMF-SW	AF,UF	•			•	•			•	•			•
	AS,U	•	•	•	•	•	•	•	•	•	•	•	•
VMF-SW1	AF,UF	•			•	•			•	•			•
	AS,U	•	•	•	•	•	•	•	•	•	•	•	•

Model	Ver	500	501	502	550	700	701	702	750	900	901	950
VMF-E19I	AF,UF	•			•					•		•
	AS,U	•	•	•	•	•	•	•	•	•	•	•
VMF-E2Z	AF,UF	•			•					•		•
	AS,U	•	•	•	•	•	•	•	•	•	•	•
VMF-E3	AF,UF	•			•	•			•	•		•
	AS,U	•	•	•	•	•	•	•	•	•	•	•
VMF-E4X	AF,UF	•			•					•		•
	AS,U	•	•	•	•	•	•	•	•	•	•	•

Model	Ver	500	501	502	550	700	701	702	750	900	901	950
VMF-IO	AF,UF	•			•					•		•
	AS,U	•	•	•	•	•	•	•	•	•	•	•
VMF-IR	AF,UF	•			•	•			•	•		•
	AS,U	•	•	•	•	•	•	•	•	•	•	•
VMF-LON	AF,UF	•			•					•		•
	AS,U	•	•	•	•	•	•	•	•	•	•	•
VMF-SW	AF,UF	•			•					•		•
	AS,U	•	•	•	•	•	•	•	•	•	•	•
VMF-SW1	AF,UF	•			•					•		•
	AS,U	•	•	•	•	•	•	•	•	•	•	•

Water valves

3 way valve kit

	200	201	202	250	300	301	302	350	400	401	402	450
Main coil	VCZ41 VCZ4124	VCZ41 VCZ4124	VCZ41 VCZ4124	VCZ41 VCZ4124	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224
Secondary coil	-	VCF44 VCF4424	VCF44 VCF4424	-	-	VCF44 VCF4424	VCF44 VCF4424	-	-	VCF44 VCF4424	VCF44 VCF4424	-
Additional coil "BV"	VCF44 VCF4424	-	-	-	VCF44 VCF4424	-	-	-	VCF44 VCF4424	-	-	-

	500	501	502	550	700	701	702	750	900	901	950
Main coil	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ43 VCZ4324	VCZ43 VCZ4324	VCZ43 VCZ4324
Secondary coil	-	VCF44 VCF4424	VCF44 VCF4424	-	-	VCF44 VCF4424	VCF44 VCF4424	-	-	VCF45 VCF4524	-
Additional coil "BV"	VCF44 VCF4424	-	-	-	VCF44 VCF4424	-	-	-	VCF45 VCF4524	-	-

VCZ41 - 42 - 43; VCF44 - 45 (230V~50Hz)
VCZ4124 - 4224 - 4324; VCF4224 - 4524 (24V)

2 way valve kit

	200	201	202	250	300	301	302	350	400	401	402	450
Main coil	VCZD1 VCZD124	VCZD1 VCZD124	VCZD1 VCZD124	VCZD1 VCZD124	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224
Secondary coil	-	VCFD4 VCFD424	VCFD4 VCZD424	-	-	VCFD4 VCFD424	VCFD4 VCFD424	-	-	VCFD4 VCFD424	VCFD4 VCFD424	-
Additional coil "BV"	VCFD4 VCFD424	-	-	-	VCFD4 VCFD424	-	-	-	VCFD4 VCFD424	-	-	-

	500	501	502	550	700	701	702	750	900	901	950
Main coil	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD3 VCZD324	VCZD3 VCZD324	VCZD3 VCZD324
Secondary coil	-	VCFD4 VCFD424	VCFD4 VCFD424	-	-	VCFD4 VCFD424	VCFD4 VCFD424	-	-	VCFD4 VCFD424	-
Additional coil "BV"	VCFD4 VCFD424	-	-	-	VCFD4 VCFD424	-	-	-	VCFD4 VCFD424	-	-

VCZD1 - 2 - 3; VCFD4 (230V~50Hz)
VCZD124 - 224 - 324; VCFD424 (24V)

Valve Kit for 4 pipe systems

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450
VCZ1X4L (1)	AF,AS,U,UF	•			•								
VCZ1X4R (1)	AF,AS,U,UF	•			•								
VCZ2X4L (1)	AF,AS,U,UF					•			•	•			•
VCZ2X4R (1)	AF,AS,U,UF					•			•	•			•

Model	Ver	500	501	502	550	700	701	702	750	900	901	950
VCZ2X4L (1)	AF,UF	•			•							
	AS,U	•			•	•			•			
VCZ2X4R (1)	AF,UF	•			•							
	AS,U	•			•	•			•			
VCZ3X4L (1)	AF,AS,U,UF									•		•
VCZ3X4R (1)	AF,AS,U,UF									•		•

(1) The valves can be combined with the units if there is a control panel for managing them.

Combined Adjustment and Balancing Valve Kit

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450
VJP060 (1)	ACT,AS,U	•	•	•	•	•	•	•	•				
	AF,UF	•			•	•			•				
VJP060M (2)	ACT,AS,U	•	•	•	•	•	•	•	•				
	AF,UF	•			•	•			•				
VJP090 (1)	ACT,AS,U									•	•	•	•
	AF,UF									•			•
VJP090M (2)	ACT,AS,U									•	•	•	•
	AF,UF									•			•

Model	Ver	500	501	502	550	700	701	702	750	900	901	950
VJP090 (1)	ACT,AS,U	•	•	•	•							
	AF,UF	•			•							
VJP090M (2)	ACT,AS,U	•	•	•	•							
	AF,UF	•			•							
VJP150 (1)	ACT,AS,U					•	•	•	•	•	•	•
	AF,UF									•		•
VJP150M (2)	ACT,AS,U					•	•	•	•	•	•	•
	AF,UF									•		•

(1) 230V~50Hz
(2) 24V

(Heating only) additional coil

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450
BV122 (1)	ACT,AF,AS,U,UF	•											
BV132 (1)	ACT,AF,AS,U,UF					•							
BV142 (1)	ACT,AF,AS,U,UF									•			

Model	Ver	500	501	502	550	700	701	702	750	900	901	950
BV142 (1)	ACT,AF,AS,U,UF	•										
BV162 (1)	ACT,AF,AS,U,UF									•		
BVZ800 (1)	ACT,AS,U					•						

(1) Not available for sizes with oversized main coil.

Installation accessories

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450
AMP20	U	•	•	•	•	•	•	•	•	•	•	•	•
AMPZ	U	•	•	•	•	•	•	•	•	•	•	•	•

Model	Ver	500	501	502	550	700	701	702	750	900	901	950
AMP20	U	•	•	•	•							
AMPZ	U	•	•	•	•	•	•	•	•	•	•	•

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450
DSCZ4 (1)	ACT,AS,U	•	•	•	•	•	•	•	•	•	•	•	•
	AF,UF	•			•	•			•	•			•

Model	Ver	500	501	502	550	700	701	702	750	900	901	950
DSCZ4 (1)	ACT,AS,U	•	•	•	•	•	•	•	•	•	•	•
	AF,UF	•			•					•		•

(1) DSC4 cannot be mounted if even just one of these accessories is also installed: AMP - AMPZ valve VCZ1-2-3-4 X4L/R and all the condensate collection trays.

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450
BCZ4 (1)	ACT,AS,U	•	•	•	•	•	•	•	•	•	•	•	•
	AF,UF	•			•	•			•	•			•
BCZ5 (2)	ACT,AS,U	•	•	•	•	•	•	•	•	•	•	•	•
	AF,UF	•			•	•			•	•			•

Model	Ver	500	501	502	550	700	701	702	750	900	901	950
BCZ4 (1)	ACT,AS,U	•	•	•	•	•	•	•	•	•	•	•
	AF,UF	•			•					•		•
BCZ5 (2)	ACT,AS,U	•	•	•	•	•	•	•	•			
	AF,UF	•			•							
BCZ6 (2)	ACT,AS,U									•	•	•
	AF,UF									•		•

(1) For vertical installation.
(2) For horizontal installation.

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450
PCZ200	ACT,AS,U	•	•	•	•								
	AF,UF	•			•								
PCZ300	ACT,AS,U					•	•	•	•				
	AF,UF					•			•				
PCZ500	ACT,AS,U									•	•	•	•
	AF,UF									•			•

Model	Ver	500	501	502	550	700	701	702	750	900	901	950
PCZ1000	ACT,AS,U									•	•	•
	AF,UF									•		•
PCZ500	ACT,AS,U	•	•	•	•							
	AF,UF	•			•							
PCZ800	ACT,AS,U					•	•	•	•			

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450
GA200	AF,UF	•			•								
	AS,U	•	•	•	•								
GA300	AF,UF					•			•				
	AS,U					•	•	•	•				
GA500	AF,UF									•			•
	AS,U									•	•	•	•

Model	Ver	500	501	502	550	700	701	702	750	900	901	950
GA500	AF,UF	•			•							
	AS,U	•	•	•	•							
GA800	AF,UF									•		•
	AS,U					•	•	•	•	•	•	•

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450
FIKIT200	AF,UF	•			•								
	AS,U	•	•	•	•								
FIKIT300	AF,UF					•			•				
	AS,U					•	•	•	•				
FIKIT500	AF,UF									•			•
	AS,U									•	•	•	•

Model	Ver	500	501	502	550	700	701	702	750	900	901	950
FIKIT500	AF,UF	•			•							
	AS,U	•	•	•	•							
FIKIT800	AF,UF									•		•
	AS,U					•	•	•	•	•	•	•

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450
ZXZ	ACT,AS,U	•	•	•	•	•	•	•	•	•	•	•	•
	AF,UF	•			•	•			•	•			•

Model	Ver	500	501	502	550	700	701	702	750	900	901	950
ZXZ	ACT,AS,U	•	•	•	•	•	•	•	•	•	•	•
	AF,UF	•			•					•		•

PERFORMANCE SPECIFICATIONS

Technical data - 2-pipe systems (main coil)

2-pipe

		FCZI200			FCZI250			FCZI300			FCZI350			FCZI400			FCZI450			FCZI500			FCZI550		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)																									
Heating capacity	kW	2,02	2,95	3,70	2,20	3,18	4,05	3,47	4,46	5,50	3,77	4,92	6,15	4,32	5,74	7,15	4,57	6,29	7,82	5,27	7,31	8,50	5,82	8,34	9,75
Water flow rate system side	l/h	177	258	324	193	278	355	304	391	482	330	431	539	379	503	627	400	551	685	462	641	745	510	731	855
Pressure drop system side	kPa	6	12	18	7	15	23	7	12	18	8	14	20	9	16	24	6	11	16	12	21	28	10	20	26
Heating performance 45 °C / 40 °C (2)																									
Heating capacity	kW	1,00	1,46	1,84	1,09	1,58	2,01	1,72	2,21	2,73	1,87	2,44	3,06	2,14	2,85	3,55	2,27	3,12	3,88	2,62	3,63	4,22	2,89	4,14	4,85
Water flow rate system side	l/h	174	254	319	190	274	350	299	385	475	325	425	531	373	495	617	394	543	675	455	631	734	502	720	842
Pressure drop system side	kPa	6	12	18	8	15	22	8	12	18	9	14	21	10	16	24	6	11	16	12	21	28	10	20	26
Cooling performance 7 °C / 12 °C (3)																									
Cooling capacity	kW	0,89	1,28	1,60	1,06	1,55	1,94	1,68	2,17	2,65	1,89	2,46	3,02	2,20	2,92	3,60	2,41	3,21	4,03	2,68	3,69	4,25	2,91	4,13	4,79
Sensible cooling capacity	kW	0,71	1,05	1,33	0,79	1,20	1,52	1,26	1,65	2,04	1,33	1,76	2,18	1,59	2,14	2,67	1,69	2,30	2,90	1,94	2,73	3,18	2,07	2,98	3,49
Water flow rate system side	l/h	153	221	275	182	267	334	288	374	456	350	460	560	379	503	619	414	552	694	460	634	731	501	711	824
Pressure drop system side	kPa	6	12	18	8	17	25	8	13	18	11	18	25	10	17	24	9	15	22	13	23	29	12	22	28
Fan																									
Type	type	Centrifugal																							
Fan motor	type	Inverter																							
Number	no.	1			1			2			2			2			2			2			2		
Air flow rate	m^3/h	140	220	290	140	220	290	260	350	450	260	350	450	330	460	600	330	460	600	400	600	720	400	600	720
Input power	W	5	8	14	5	8	14	5	7	13	5	7	13	5	10	18	5	10	18	7	18	34	7	18	38
Signal 0-10V	%	44	68	90	44	68	90	52	70	90	52	70	90	49	68	90	49	68	90	50	74	90	50	74	90
Fan coil sound data (4)																									
Sound power level	dB(A)	35,0	46,0	51,0	35,0	46,0	51,0	34,0	41,0	48,0	34,0	41,0	48,0	37,0	44,0	51,0	37,0	44,0	51,0	42,0	51,0	56,0	42,0	51,0	56,0
Sound pressure	dB(A)	27,0	38,0	43,0	27,0	38,0	43,0	26,0	33,0	40,0	26,0	33,0	40,0	29,0	36,0	43,0	29,0	36,0	43,0	34,0	43,0	48,0	34,0	43,0	48,0
Diametre hydraulic fittings																									
Main coil	Ø	1/2"			1/2"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"		
Power supply																									
Power supply		230V~50Hz																							

		FCZI700			FCZI750			FCZI900			FCZI950		
		1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)													
Heating capacity	kW	8,10	9,80	11,00	9,10	11,30	12,50	10,77	13,35	15,14	11,20	14,42	17,10
Water flow rate system side	l/h	710	860	964	798	991	1096	945	1171	1328	982	1264	1500
Pressure drop system side	kPa	17	23	29	10	15	18	12	17	22	16	25	33
Heating performance 45 °C / 40 °C (2)													
Heating capacity	kW	4,03	4,87	5,47	4,50	5,60	6,20	5,35	6,64	7,53	5,57	7,17	8,50
Water flow rate system side	l/h	699	846	950	786	975	1079	930	1152	1307	967	1245	1476
Pressure drop system side	kPa	17	24	29	10	15	18	12	17	22	15	24	33
Cooling performance 7 °C / 12 °C (3)													
Cooling capacity	kW	3,92	4,89	5,50	4,27	5,34	6,14	4,29	5,00	6,91	5,77	7,32	8,60
Sensible cooling capacity	kW	2,99	3,76	4,30	3,20	4,05	4,72	2,97	3,78	5,68	3,80	4,87	5,78
Water flow rate system side	l/h	675	841	946	734	918	1056	738	860	1189	992	1259	1479
Pressure drop system side	kPa	17	25	30	10	15	19	10	13	22	15	23	30
Fan													
Type	type	Centrifugal											
Fan motor	type	Inverter											
Number	no.	3			3			3			3		
Air flow rate	m^3/h	700	930	1140	700	930	1140	700	930	1140	700	930	1140
Input power	W	30	40	80	30	40	80	30	40	80	30	40	80
Signal 0-10V	%	56	72	90	56	72	90	56	72	90	56	72	90
Fan coil sound data (4)													
Sound power level	dB(A)	50,0	57,0	62,0	50,0	57,0	62,0	51,0	57,0	62,0	51,0	57,0	62,0
Sound pressure	dB(A)	42,0	49,0	54,0	42,0	49,0	54,0	43,0	49,0	54,0	43,0	49,0	54,0
Diametre hydraulic fittings													
Main coil	Ø	3/4"											
Power supply													
Power supply		230V~50Hz											

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C
(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C; EUROVENT
(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT
(4) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

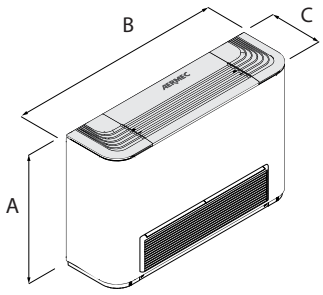
Technical data - 4-pipe systems (main coil + secondary coil)

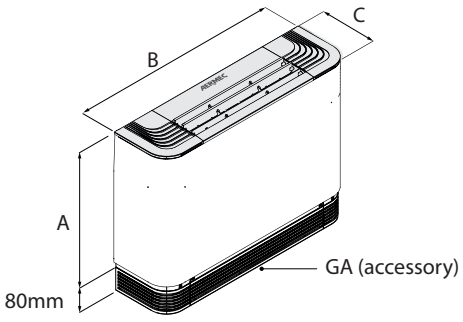
4-pipe

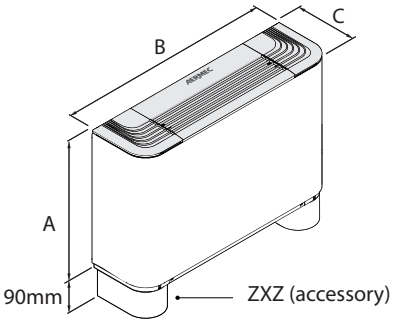
		FCZI201			FCZI301			FCZI401			FCZI501			FCZI701			FCZI901		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 65 °C / 55 °C (1)																			
Heating capacity	kW	1,02	1,35	1,60	1,80	2,18	2,56	2,21	2,65	3,12	2,59	3,34	3,73	3,66	4,29	4,94	4,73	5,63	5,72
Water flow rate system side	l/h	89	118	140	158	191	224	186	232	273	227	293	327	320	375	437	414	492	501
Pressure drop system side	kPa	5	8	11	17	23	31	5	7	9	6	9	11	11	15	19	9	12	12
Cooling performance 7 °C / 12 °C (2)																			
Cooling capacity	kW	0,89	1,28	1,60	1,68	2,17	2,65	2,20	2,92	3,60	2,68	3,69	4,25	3,92	4,89	5,50	4,29	5,00	6,91
Sensible cooling capacity	kW	0,71	1,05	1,33	1,26	1,65	2,04	1,59	2,14	2,67	1,94	2,73	3,18	2,99	3,76	4,30	2,97	3,78	5,68
Water flow rate system side	l/h	153	221	275	289	374	456	379	503	619	461	635	731	675	841	946	738	860	1188
Pressure drop system side	kPa	7	13	18	8	13	18	14	24	34	13	23	29	17	25	30	10	15	10
Fan																			
Type	type	Centrifugal																	
Fan motor	type	Inverter																	
Number	no.	1			2			2			2			3			3		
Air flow rate	m^3/h	140	220	290	260	350	450	330	460	600	400	600	720	700	930	1140	700	930	1140
Sound pressure level (10 m)	dB(A)	27,0	38,0	43,0	26,0	33,0	40,0	29,0	36,0	43,0	34,0	43,0	48,0	42,0	49,0	54,0	43,0	49,0	54,0
Sound power level	dB(A)	35,0	46,0	51,0	34,0	41,0	48,0	37,0	44,0	51,0	42,0	51,0	56,0	50,0	57,0	62,0	51,0	57,0	62,0
Diametre hydraulic fittings																			
Type	type	-																	
Main coil	Ø	1/2"			3/4"			3/4"			3/4"			3/4"			3/4"		
Fan																			
Input power	W	7	8	14	5	7	13	5	10	18	7	16	31	30	40	80	30	40	80
Signal 0-10V	%	44	68	90	52	70	90	49	68	90	50	74	90	56	72	90	56	72	90
Power supply																			
Power supply		230V~50Hz																	

(1) Room air temperature 20°C d.b.; Water (in/out) 65 °C/55 °C; EUROVENT
(2) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT

DIMENSIONS







2-pipe

		FCZI200			FCZI250			FCZI300			FCZI350			FCZI400			FCZI450			FCZI500			FCZI550			FCZI700			FCZI750			FCZI900			FCZI950		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Dimensions and weights																																					
A	mm	486			486			486			486			486			486			486			486			486			486			591			591		
B	mm	750			750			980			980			1200			1200			1200			1200			1320			1320			1320			1320		
C	mm	220			220			220			220			220			220			220			220			220			220			220			220		
Empty weight	kg	15			16			17			18			22			24			22			24			29			31			34			34		

4-pipe

		FCZI201			FCZI301			FCZI401			FCZI501			FCZI701			FCZI901		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Dimensions and weights																			
A	mm	486			486			486			486			486			591		
B	mm	750			980			1200			1200			1320			1320		
C	mm	220			220			220			220			220			220		
Empty weight	kg	15			17			23			23			30			34		

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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FCZ-D

Fan coil for vertical wall-mounting or free-standing installation

Cooling capacity 0,89 ÷ 4,25 kW
Heating capacity 2,02 ÷ 8,50 kW

- **Fully silent operation**
- **Backlit touch command with programming via a smart device**
- **Total comfort in every season**



DESCRIPTION

The perception of uneven temperature distribution in various settings, especially in the vertical direction, is one of the main factors leading to a drastic reduction in the well-being perceived by occupants.
FCZ D are able to provide a pleasant sensation of comfort by directing the air in a way that ensures uniform temperature distribution throughout the setting. In winter, hot air is direct downwards; in summer, cool air is directed upwards.
Air supply switching at the front or from the top by operating directly on the orientable grille.
They can be installed in any type of 2 / 4 pipe system and in combination with any heat generator even at low temperatures. Thanks to the availability of several versions and configurations, it is easy to choose the optimal solution for every requirement.

FEATURES

Case

Protective metal cabinet with anti-corrosion polyester RAL 9003 paint, whereas the head with the air distribution grille is in RAL 7047 plastic.

Ventilation group

Consisting of double suction centrifugal fans that are particularly silent, statically and dynamically balanced, and directly coupled with the motor shaft.
The motor is wired for single phase and has three speeds, with capacitor. The motor is fitted on sealed for life bearings and is secured on anti-vibration and self-lubricating mountings.
Extractable shrouds for easy, effective cleaning

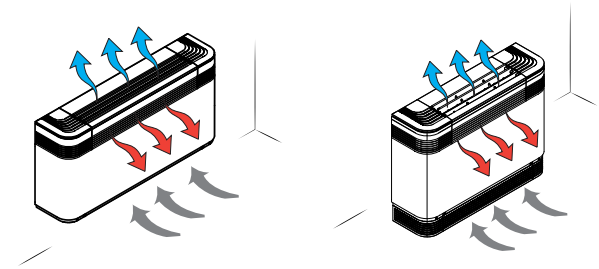
Heat exchanger coil

With copper pipes and aluminium louvers, the main coil has female gas water connections on the left side and the manifolds have air vents.
The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.
The hydraulic connections can be inverted during installation.

Air filter

Air filter class Coarse 25% for all versions easy to pull out and clean.

VERSION WITH DOUBLE SUPPLY



FCZ_D
— With on-board thermostat.
FCZ_DS
— Compatibility with VMF system.
— Without installed switch

ThermApp

In units DS version with a **T-Touch-I** electronic thermostat (accessory) and the **ThermApp** application, the operating mode can be set and the weekly timer programmed by simply resting the smart device on the fan coil. The graphic interface of the app also gives access to a lot more information such as the alarm list, the closest SAT, etc.
Available for Android operating systems.



GUIDE TO SELECTING THE POSSIBLE CONFIGURATIONS

Field		Description
1,2,3		FCZ
4		Size 2, 3, 4, 5
5		Main coil
	0	Standard
6		Secondary coil
	0	Without coil
7		Version
	D	Dualjet with thermostat TXB on-board the system
	DS	Dualjet without on-board thermostat

ACCESSORIES

Control panels

AER503IR: Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.
PRO503: Wall box for AER503IR and VMF-E4 thermostats.
SA5: air probe kit (L = 15 m) with probe-locking cable grommet.
SW3: Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.
SW5: water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.
T-TOUCH: Touch control on board the machine, for controlling fan coils with asynchronous motors. In 2-pipe systems, it can control standard fan coils or those equipped with an electric heater, with air purifying devices or with FCZ-D twin delivery (Dualjet). In 4-pipe systems, only standard fan coils. The ThermApp application is also available for remote control with smart devices with the Android operating system.
TX: Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).

VMF system

VMF-E0X: Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe.
VMF-E19: Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe.
VMF-E2Z: User interface on the machine, to be combined with the VMF-E0X, VMF-E19 or VMF-E19I accessory.
VMF-E3: Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, VMF-E0X with grids GLF_N/M and GLL_N, can be controlled with VMF-IR control.
VMF-E4DX: Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).
VMF-E4X: Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.
VMF-IO: Manage the unit exclusively from a centralized VMF control panel without area control panel.
VMF-IR: User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.

Water valves

VCZ_X: 3-way valve kit for single-coil fan coil, RH connections, (VCZ_X4R) or LH (VCZ_X4L) for 4-pipe systems. With totally separate "heating" and "cooling" circuits. This kit consists of two 3-way insulated valves and four connections, complete with electrothermal actuators, insulating shells for the valves, and the relative hydraulic couplings. X4L version for fan coils with LH connections, and X4R for fan coils with RH connections. 230V~50Hz power supply.
VCZ: 3-way motorised valve kit. The kit consists of a valve with its insulating shell, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the 3-way insulating shell. The kit consists of a valve with its insulating shell, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.
VCZD: 2-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.
VJP: Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components. The valve, which can guarantee a constant water flow rate in the terminal, within its operating range.

Installation accessories

PCZ: Metal panel for the unit rear closing. SPCZ brackets are necessary to fix floor standing fan coils.
GA: Lower intake grille for encapsulated fan coils. Can also be used in wall-mounted or floor installations, the FIKIT accessory is needed only in the case of floor installation.
FIKIT: Metal supports for vertical installation of the GA grille.
DSCZ4: Condensate drainage device.
BCZ: Condensate drip. If the valve is paired with the BCZ5 or BCZ6 condensate drip tray, the insulating shell can be removed to ensure better housing.

ACCESSORIES COMPATIBILITY

Control panels

Model	Ver	200	300	400	500
AER503IR (1)	DS	•	•	•	•
PRO503	DS	•	•	•	•
SA5 (2)	DS	•	•	•	•
SW3 (2)	DS	•	•	•	•
SW5 (2)	DS	•	•	•	•
T-TOUCH (3)	DS	•	•	•	•
TX (1)	DS	•	•	•	•

(1) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.
(2) Probe for AER503IR-TX thermostats, if fitted.
(3) Installation on the fan coil.

VMF system

For more information about VMF system, refer to the dedicated documentation.

Model	Ver	200	300	400	500
VMF-E0X (1)	DS	•	•	•	•
VMF-E19 (1)	DS	•	•	•	•

Model	Ver	200	300	400	500
VMF-E2Z	DS	•	•	•	•
VMF-E3	DS	•	•	•	•
VMF-E4DX	DS	•	•	•	•
VMF-E4X	DS	•	•	•	•
VMF-IO	DS	•	•	•	•
VMF-IR	DS	•	•	•	•

(1) Also the accessory VMF-SIT3V is mandatory if the unit exceeds 0.7 Amperes.

Water valves

3 way valve kit

Model	Ver	200	300	400	500
VCZ41 (1)	D,DS	•			
VCZ4124 (2)	D,DS	•			
VCZ42 (1)	D,DS		•	•	•
VCZ4224 (2)	D,DS		•	•	•

(1) 230V~50Hz
(2) 24V

2 way valve kit

Model	Ver	200	300	400	500
VCZD1 (1)	D,DS	•			
VCZD124 (2)	D,DS	•			
VCZD2 (1)	D,DS		•	•	•
VCZD224 (2)	D,DS		•	•	•

(1) 230V~50Hz
(2) 24V

Valve Kit for 4 pipe systems - Requires a thermostat with valve management

Model	Ver	200	300	400	500
VCZ1X4L (1)	D,DS	•			
VCZ1X4R (1)	D,DS	•			
VCZ2X4L (1)	D,DS		•	•	•
VCZ2X4R (1)	D,DS		•	•	•

(1) The valves can be combined with the units if there is a control panel for managing them.

Combined Adjustment and Balancing Valve Kit

Model	Ver	200	300	400	500
VJP060 (1)	D,DS	•	•		
VJP060M (2)	D,DS	•	•		
VJP090 (1)	D,DS			•	•
VJP090M (2)	D,DS			•	•

(1) 230V~50Hz
(2) 24V

Installation accessories

Condensate recirculation device

Model	Ver	200	300	400	500
DSCZ4 (1)	D,DS	•	•	•	•

(1) DSC4 cannot be mounted if even just one of these accessories is also installed: AMP - AMPZ valve VCZ1-2-3-4 X4L/R and all the condensate collection trays.

Condensate drip

Model	Ver	200	300	400	500
BCZ4 (1)	D,DS	•	•	•	•

(1) For vertical installation.

Panel closing the rear of the unit

Model	Ver	200	300	400	500
PCZ200	D,DS	•			
PCZ300	D,DS		•		
PCZ500	D,DS			•	•

Ornamental grille

Model	Ver	200	300	400	500
GA200	D,DS	•			
GA300	D,DS		•		
GA500	D,DS			•	•

Supports to be combined with the ornamental grille (GA) for floor installation of the fan coil

Model	Ver	200	300	400	500
FIKIT200	D,DS	•			
FIKIT300	D,DS		•		
FIKIT500	D,DS			•	•

Pair of stylish structural feet

Model	Ver	200	300	400	500
ZXZ	D,DS	•	•	•	•

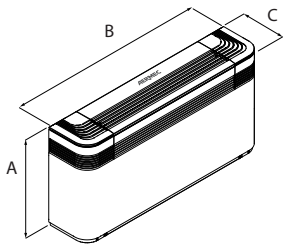
PERFORMANCE SPECIFICATIONS

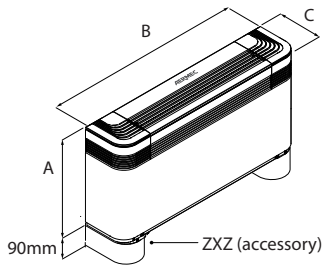
2-pipe

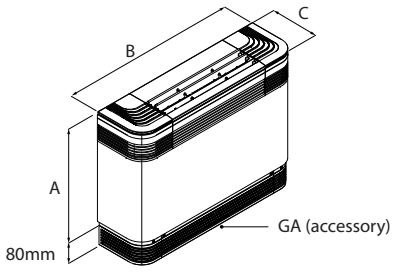
		FCZ200D			FCZ300D			FCZ400D			FCZ500D		
		1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)													
Heating capacity	kW	2,02	2,95	3,70	3,47	4,46	5,50	4,32	5,74	7,15	5,27	7,31	8,50
Water flow rate system side	l/h	177	258	324	304	391	482	379	503	627	462	641	745
Pressure drop system side	kPa	6	12	18	7	12	18	9	16	24	12	21	28
Heating performance 45 °C / 40 °C (2)													
Heating capacity	kW	1,00	1,46	1,84	1,72	2,21	2,73	2,14	2,85	3,55	2,62	3,63	4,22
Water flow rate system side	l/h	174	254	319	299	385	475	373	495	617	455	631	734
Pressure drop system side	kPa	6	12	18	8	12	18	10	16	24	12	21	28
Cooling performance 7 °C / 12 °C (3)													
Cooling capacity	kW	0,89	1,28	1,60	1,68	2,17	2,65	2,20	2,92	3,60	2,68	3,69	4,25
Sensible cooling capacity	kW	0,71	1,05	1,33	1,26	1,65	2,04	1,59	2,14	2,67	1,94	2,73	3,18
Water flow rate system side	l/h	153	221	275	288	374	456	379	503	619	460	634	731
Pressure drop system side	kPa	7	13	18	8	13	18	10	17	24	13	23	29
Fan													
Type	type	Centrifugal											
Fan motor	type	Asynchronous											
Number	no.		1			2			2			2	
Air flow rate	m^3/h	140	220	290	260	350	450	330	460	600	400	600	720
Input power	W	13	25	35	25	33	44	30	43	57	38	52	76
Electrical wiring		V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3
Fan coil sound data (4)													
Sound power level	dB(A)	35,0	46,0	51,0	34,0	41,0	48,0	37,0	44,0	51,0	42,0	51,0	56,0
Sound pressure	dB(A)	27,0	38,0	43,0	26,0	33,0	40,0	29,0	36,0	43,0	34,0	43,0	48,0
Water coil													
Water content main coil	l		0,5			0,8			1,0			1,0	
Diametre hydraulic fittings													
Main coil	Ø		1/2"			3/4"			3/4"			3/4"	
Power supply													
Power supply		230V~50Hz											

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C
(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C; EUROVENT
(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT
(4) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

DIMENSIONS







		FCZ200D	FCZ300D	FCZ400D	FCZ500D
Dimensions and weights					
A	mm	486	486	486	486
B	mm	750	980	1200	1200
C	mm	220	220	220	220
Empty weight	kg	15	17	23	22

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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FCZI-D

Fan coil for vertical wall-mounting or free-standing installation

Cooling capacity 0,89 ÷ 4,25 kW
Heating capacity 2,02 ÷ 8,50 kW

- **Total comfort in every season**
- **Electric saving equal to 50% with respect to a fan coil with 3-speed motor**
- **Fully silent operation**
- **Backlit Touch command with programming via a smart device (DT vesion)**



DESCRIPTION

The perception of uneven temperature distribution in various settings, especially in the vertical direction, is one of the main factors leading to a drastic reduction in the well-being perceived by occupants.
FCZI D are able to provide a pleasant sensation of comfort by directing the air in a way that ensures uniform temperature distribution throughout the setting. In winter, hot air is direct downwards; in summer, cool air is directed upwards.
Air supply switching at the front or from the top by operating directly on the orientable grille.
They can be installed in any type of 2 / 4 pipe system and in combination with any heat generator even at low temperatures. Thanks to the availability of several versions and configurations, it is easy to choose the optimal solution for every requirement.

FEATURES

Case

Protective metal cabinet with anti-corrosion polyester RAL 9003 paint, whereas the head with the air distribution grille is in RAL 7047 plastic.

Ventilation group

Centrifugal fans in anti-static plastic material with aerofoil profile designed to achieve high airflows and pressures whilst at the same time producing low noise.
Their characteristics permit energy savings compared to conventional fans.
They are statically and dynamically balanced and directly coupled to the motor shaft.
The Brushless electric motor with 0-100% continuous speed variation, which allows precise adaptation to the real demands of the internal environment without temperature fluctuations.

Heat exchanger coil

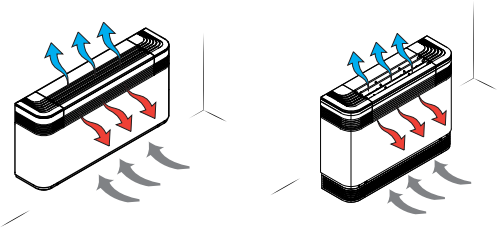
With copper pipes and aluminium louvers, the main coil has female gas water connections on the left side and the manifolds have air vents.
The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

The hydraulic connections can be inverted during installation.

Air filter

Air filter class Coarse 25% for all versions easy to pull out and clean.

VERSION WITH DOUBLE SUPPLY



FCZI_D
— With on-board thermostat.
FCZI_DT
— With thermostat T-TOUCH-I on-board the system
— Compatibility with VMF system.
FCZI_DS
— Without installed switch
— Compatibility with VMF system.

ThermApp

In units DT version with a **T-Touch-I** electronic thermostat and the **ThermApp** application, the operating mode can be set and the weekly timer programmed by simply resting the smart device on the fan coil. The graphic interface of the app also gives access to a lot more information such as the alarm list, the closest SAT, etc.
Available for Android operating systems.



GUIDE TO SELECTING THE POSSIBLE CONFIGURATIONS

Field		Description
1,2,3,4		FCZI
5		Size 2, 3, 4, 5
6		Main coil
	0	Standard
7		Secondary coil
	0	Without coil
8		Version
	D	Dualjet with thermostat TXBI on-board the system
	DS	Dualjet without on-board thermostat
	DT	Dualjet with T-Touch-I thermostat

ACCESSORIES

Control panels

AER503IR: Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.
PRO503: Wall box for AER503IR and VMF-E4 thermostats.
SA5: air probe kit (L = 15 m) with probe-locking cable grommet.
SW3: Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.
SW5: Water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.
TX: Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).

VMF system

VMF-E19I: Thermostat for inverter unit to be fixed on the side of the fan coil, fitted as standard with an air and water probe.
VMF-E2Z: User interface on the machine, to be combined with the VMF-E0X, VMF-E19 or VMF-E19I accessory.
VMF-E3: Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, VMF-E0X with grids GLF_N/M and GLL_N, can be controlled with VMF-IR control.
VMF-E4DX: Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).
VMF-E4X: Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.
VMF-IO: Manage the unit exclusively from a centralized VMF control panel without area control panel.
VMF-IR: User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.
VMF-SW: Water probe (L = 2.5m) used if required in place of the standard unit supplied with the VMF-E0X, VMF-E19 and VMF-E19I thermostats for mounting it upstream of the valve

Water valves

VCZ_X: 3-way valve kit for single-coil fan coil, RH connections, (VCZ_X4R) or LH (VCZ_X4L) for 4-pipe systems. With totally separate "heating" and "cooling" circuits. This kit consists of two 3-way insulated valves and four connections, complete with electrothermal actuators, insulating shells for the valves, and the relative hydraulic couplings. X4L version for fan coils with LH connections, and X4R for fan coils with RH connections. 230V~50Hz power supply.
VCZ: 3-way motorised valve kit. The kit consists of a valve with its insulating shell, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the 3-way insulating shell. The kit consists of a valve with its insulating shell, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.
VCZD: 2-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.
VJP: Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components. The valve, which can guarantee a constant water flow rate in the terminal, within its operating range.

Installation accessories

PCZ: Metal panel for the unit rear closing. SPCZ brackets are necessary to fix floor standing fan coils.
GA: Lower intake grille for encapsulated fan coils. Can also be used in wall-mounted or floor installations, the FIKIT accessory is needed only in the case of floor installation.
FIKIT: Metal supports for vertical installation of the GA grille.
DSCZ4: Condensate drainage device.
BCZ: Condensate drip. If the valve is paired with the BCZ5 or BCZ6 condensate drip tray, the insulating shell can be removed to ensure better housing.
ZXZ: Pair of stylish and structural feet

ACCESSORIES COMPATIBILITY

Control panels

Model	Ver	200	300	400	500
AER503IR (1)	DS	•	•	•	•
PRO503	DS	•	•	•	•
SA5 (2)	DS	•	•	•	•
SW3 (2)	DS	•	•	•	•
SW5 (2)	DS	•	•	•	•
TX (1)	DS	•	•	•	•

(1) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.
(2) Probe for AER503IR-TX thermostats, if fitted.

VMF system

For more information about VMF system, refer to the dedicated documentation.

Model	Ver	200	300	400	500
VMF-E19I	DS	•	•	•	•

Model	Ver	200	300	400	500
VMF-E2Z	DS	•	•	•	•
VMF-E3	DS,DT	•	•	•	•
VMF-E4DX	DS,DT	•	•	•	•
VMF-E4X	DS,DT	•	•	•	•
VMF-IO	DS	•	•	•	•
VMF-IR	DS	•	•	•	•
VMF-SW	DS	•	•	•	•

Water valves

3 way valve kit

Model	Ver	200	300	400	500
VCZ41 (1)	D,DS,DT	•			
VCZ4124 (2)	D,DS,DT	•			
VCZ42 (1)	D,DS,DT		•	•	•
VCZ4224 (2)	D,DS,DT		•	•	•

(1) 230V~50Hz
(2) 24V

2 way valve kit

Model	Ver	200	300	400	500
VCZD1 (1)	D,DS,DT	•			
VCZD124 (2)	D,DS,DT	•			
VCZD2 (1)	D,DS,DT		•	•	•
VCZD224 (2)	D,DS,DT		•	•	•

(1) 230V~50Hz
(2) 24V

Valve Kit for 4 pipe systems

Model	Ver	200	300	400	500
VCZ1X4L (1)	D,DS,DT	•			
VCZ1X4R (1)	D,DS,DT	•			
VCZ2X4L (1)	D,DS,DT		•	•	•
VCZ2X4R (1)	D,DS,DT		•	•	•

(1) The valves can be combined with the units if there is a control panel for managing them.

Combined Adjustment and Balancing Valve Kit

Model	Ver	200	300	400	500
VJP060 (1)	D,DS,DT	•	•		
VJP060M (2)	D,DS,DT	•	•		
VJP090 (1)	D,DS,DT			•	•
VJP090M (2)	D,DS,DT			•	•

(1) 230V~50Hz
(2) 24V

Installation accessories

Condensate recirculation device

Model	Ver	200	300	400	500
DSCZ4 (1)	D,DS,DT	•	•	•	•

(1) DSC4 cannot be mounted if even just one of these accessories is also installed: AMP - AMPZ valve VCZ1-2-3-4 X4L/R and all the condensate collection trays.

Condensate drip

Model	Ver	200	300	400	500
BCZ4 (1)	D,DS,DT	•	•	•	•

(1) For vertical installation.

Panel closing the rear of the unit

Model	Ver	200	300	400	500
PCZ200	D,DS,DT	•			
PCZ300	D,DS,DT		•		
PCZ500	D,DS,DT			•	•

Ornamental grille

Model	Ver	200	300	400	500
GA200	D,DS,DT	•			
GA300	D,DS,DT		•		
GA500	D,DS,DT			•	•

Supports to be combined with the ornamental grille (GA) for floor installation of the fan coil

Model	Ver	200	300	400	500
FIKIT200	D,DS,DT	•			
FIKIT300	D,DS,DT		•		
FIKIT500	D,DS,DT			•	•

Pair of stylish structural feet

Model	Ver	200	300	400	500
ZXZ	D,DS,DT	•	•	•	•

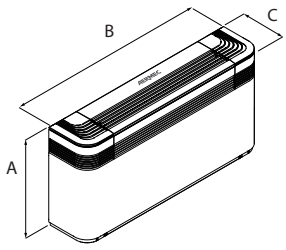
PERFORMANCE SPECIFICATIONS

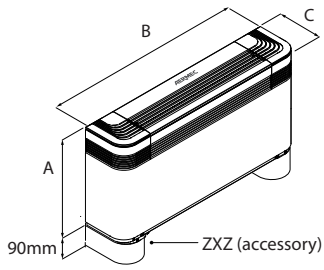
2-pipe

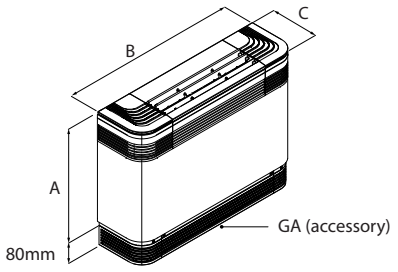
		FCZI200D			FCZI300D			FCZI400D			FCZI500D		
		1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)													
Heating capacity	kW	2,02	2,95	3,70	3,47	4,46	5,50	4,32	5,74	7,15	5,27	7,31	8,50
Water flow rate system side	l/h	177	258	324	304	391	482	379	503	627	462	641	745
Pressure drop system side	kPa	6	12	18	7	12	18	9	16	24	12	21	28
Heating performance 45 °C / 40 °C (2)													
Heating capacity	kW	1,00	1,46	1,84	1,72	2,21	2,73	2,14	2,85	3,55	2,62	3,63	4,22
Water flow rate system side	l/h	174	254	319	299	385	475	373	495	617	455	631	734
Pressure drop system side	kPa	6	12	18	8	12	18	10	16	24	12	21	28
Cooling performance 7 °C / 12 °C (3)													
Cooling capacity	kW	0,89	1,28	1,60	1,68	2,17	2,65	2,20	2,92	3,60	2,68	3,69	4,25
Sensible cooling capacity	kW	0,71	1,05	1,33	1,26	1,65	2,04	1,59	2,14	2,67	1,94	2,73	3,18
Water flow rate system side	l/h	153	221	275	288	374	456	379	503	619	460	634	731
Pressure drop system side	kPa	7	13	18	8	13	18	10	17	24	13	23	29
Fan													
Type	type	Centrifugal											
Fan motor	type	Inverter											
Number	no.		1			2			2			2	
Air flow rate	m^3/h	140	220	290	260	350	450	330	460	600	400	600	720
Input power	W	5	8	14	5	7	13	5	10	18	8	18	34
Signal 0-10V	%	44	68	90	52	70	90	49	68	90	50	74	90
Fan coil sound data (4)													
Sound power level	dB(A)	31,0	43,0	50,0	34,0	41,0	48,0	37,0	44,0	41,0	42,0	51,0	56,0
Sound pressure	dB(A)	23,0	35,0	42,0	26,0	33,0	40,0	29,0	36,0	53,0	34,0	43,0	48,0
Water coil													
Water content main coil	l		0,5			0,8			1,0			1,0	
Diametre hydraulic fittings													
Main coil	Ø		1/2"			3/4"			3/4"			3/4"	
Power supply													
Power supply		230V~50Hz											

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C
(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C; EUROVENT
(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT
(4) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

DIMENSIONS







		FCZI200D	FCZI300D	FCZI400D	FCZI500D
Dimensions and weights					
A	mm	486	486	486	486
B	mm	750	980	1200	1200
C	mm	220	220	220	220
Empty weight	kg	15	17	23	22

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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FCZ-H

Fan coil with the photocatalytic device, for universal and floor installation

- **Photocatalytic device**
- **Tested effectiveness against viruses, bacteria and allergens**
- **Active against the SARS-CoV-2 virus, even on surfaces**
- **Backlit touch command with programming via a smart device (accessory)**



DESCRIPTION

Fan coil with built-in **photocatalytic device**.
Active against the SARS-CoV-2 virus, even on surfaces - 84% effectiveness after 12 h (tests carried out in collaboration with the Department of Microbiology of the University of Padua).
Suitable for air conditioning in places requiring optimum hygiene levels, such as:
— Hospitals
— Dentists' surgeries
— Doctors' and vets' surgeries
— Analysis laboratories
— Waiting rooms
— Public premises
They can be installed in any type of 2-pipe system (version for 4-pipe systems available upon request) and in combination with any heat generator, even at low temperatures. Thanks to the availability of several versions and configurations, it's easy to find the right solution for every need.

VERSIONS

— **H** Unit with shell without thermostat - vertical and horizontal installation.
— **HP** Unit without shell and without thermostat - vertical and horizontal installation. Can also be supplied in a configuration equipped with a boosted asynchronous motor (HPO).
— **HT** Unit with shell and thermostat - vertical installation.

FEATURES

Case

Metallic protective cabinet with rustproofing polyester paint RAL 9003. The head with adjustable air distribution grille is made of plastic RAL 7047. When the grille closes, the fan coil automatically switches off.

Ventilation group

Comprised of a dual intake centrifugal fan that is particularly silent, statically and dynamically balanced and directly coupled to the motor shaft.
The electric motor is single-phase and asynchronous, mounted on anti-vibration supports, and has a permanently engaged condenser.
The scroll that protects the fan can be extracted and inspected, for easy and effective cleaning.

■ *Apart from the traditional asynchronous motor, each unit can also be supplied with an inverter (brushless) motor. Refer to the relative FCZI - H datasheet*

Heat exchanger coil

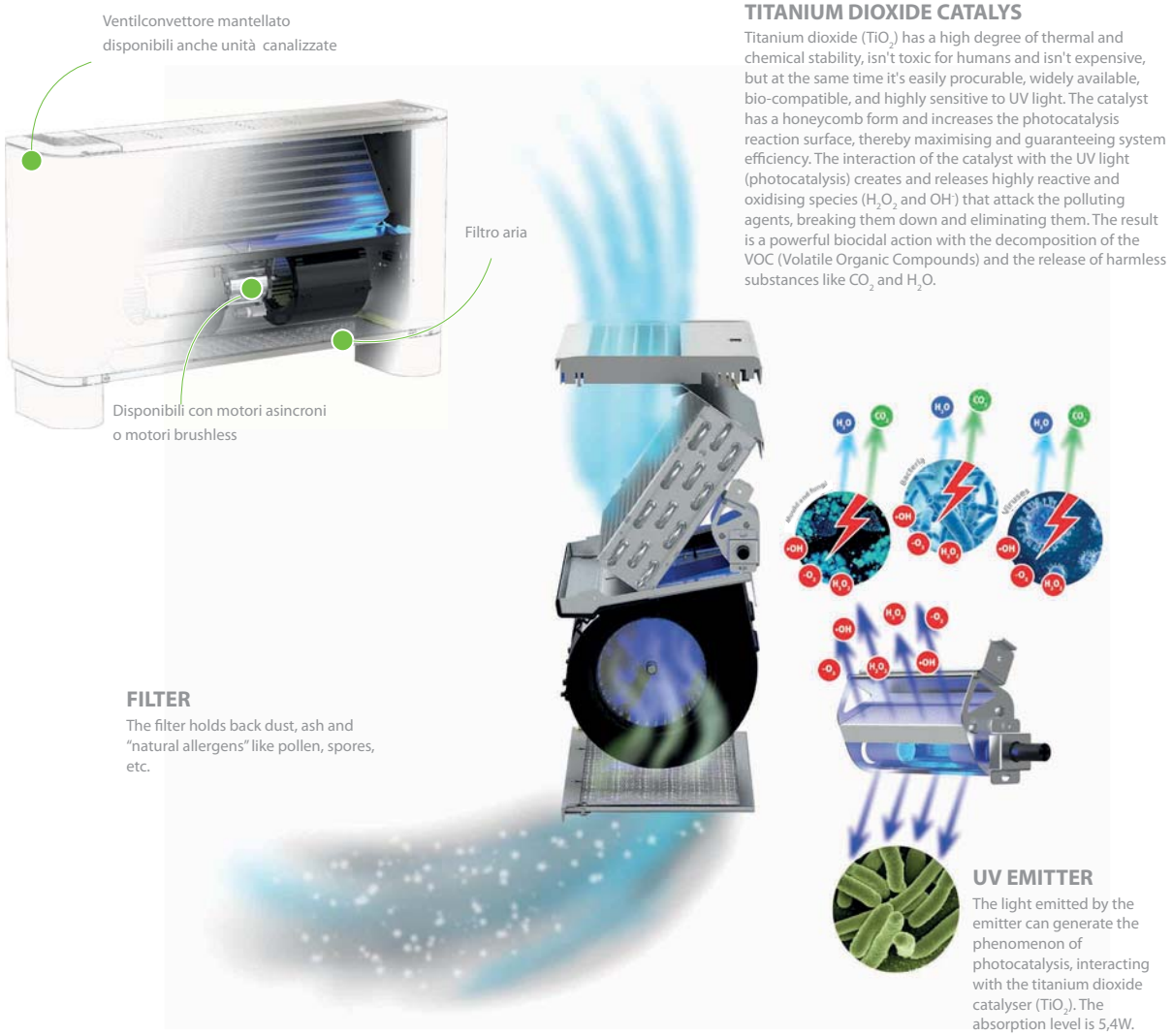
With copper pipes and aluminium louvers, the main coil has female gas water connections on the left side and the manifolds have air vents.
The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

■ *The coil is not reversible during installation but, when ordering, you can choose units with the coil water connections on the right (at no extra charge).*

Air filter

Air filter class **COARSE 25%** for all versions; easy to pull out and clean. Shrouds can be pulled out and inspected for easy and effective cleaning.

PHOTOCATALYTIC DEVICE AT THE HEART OF THE FAN COIL



TITANIUM DIOXIDE CATALYS

Titanium dioxide (TiO_2) has a high degree of thermal and chemical stability, isn't toxic for humans and isn't expensive, but at the same time it's easily procurable, widely available, bio-compatible, and highly sensitive to UV light. The catalyst has a honeycomb form and increases the photocatalysis reaction surface, thereby maximising and guaranteeing system efficiency. The interaction of the catalyst with the UV light (photocatalysis) creates and releases highly reactive and oxidising species (H_2O_2 and OH^-) that attack the polluting agents, breaking them down and eliminating them. The result is a powerful biocidal action with the decomposition of the VOC (Volatile Organic Compounds) and the release of harmless substances like CO_2 and H_2O.

FILTER

The filter holds back dust, ash and "natural allergens" like pollen, spores, etc.

UV EMITTER

The light emitted by the emitter can generate the phenomenon of photocatalysis, interacting with the titanium dioxide catalyser (TiO_2). The absorption level is 5,4W.

GUIDE TO SELECTING THE POSSIBLE CONFIGURATIONS

Configuration options FCZ - H

Field	Description
1,2,3	**FCZ**
4	**Size** 2, 3, 4, 5, 6, 9
5	**Main coil**
0	Standard
5	Oversized
6	**Secondary coil**
0	Without coil
7	**Version**
H	Unit with shell without thermostat - vertical and horizontal mount
HP	Unit without shell and thermostat - vertical and horizontal mount
HPO	Unit without shell and thermostat with upgraded motor - vertical and horizontal mount
HPOR	Unit without shell and thermostat with upgraded motor - vertical and horizontal installation - water connections on the right
HPR	Unit without shell and thermostat - vertical and horizontal installation - water connections on the right
HR	Unit with shell without thermostat - vertical and horizontal installation - water connections on the right
HT	Unit with shell with thermostat - vertical mount
HTR	Unit with shell with thermostat - vertical mount - water connections on the right

ACCESSORIES

Control panels and dedicated accessories - FCZ-H

AER503IR: Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric

heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.
PRO503: Wall box for AER503IR and VMF-E4 thermostats.
SA5: air probe kit (L = 15 m) with probe-locking cable grommet.
SIT3: Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat). Commands the 3 fan speeds and must be installed on each fan coil within the network; receives the commands from the selector or the SIT5 card. In case you decide to install Aermec thermostats and current absorbed by the unit exceeds 0.7 A, you're obliged to include SIT3 accessory.
SIT5: Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel. Commands the 3 fan speeds and up to 2 valves (four pipe systems); sends the thermostat's commands to the fan coil network.
SW3: Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.
SW5: water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.
T-TOUCH: Touch control on board the machine, for controlling fan coils with asynchronous motors. In 2-pipe systems, it can control standard fan coils or those equipped with an electric heater, with air purifying devices or with FCZ-D twin delivery (Dualjet). In 4-pipe systems, only standard fan coils. The ThermApp application is also available for remote control with smart devices with the Android operating system.
TX: Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).
TXB: Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).
VMF-E0X: Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe.
VMF-E19: Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe.
VMF-E2Z: User interface on the machine, to be combined with the VMF-E0X, VMF-E19 or VMF-E19I accessory.
VMF-E3: Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, VMF-E0X with grids GLF_N/M and GLL_N, can be controlled with VMF-IR control.
VMF-E4DX: Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).
VMF-E4X: Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.
VMF-IO: Manage the unit exclusively from a centralized VMF control panel without area control panel.
VMF-IR: User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.
VMF-LON: Expansion allowing the thermostat to interface with BMS systems that use the LON protocol.
VMF-SW: Water probe (L = 2.5m) used if required in place of the standard unit supplied with the VMF-E0X, VMF-E19 and VMF-E19I thermostats for mounting it upstream of the valve

Common accessories

VCZ: 3-way motorised valve kit. The kit consists of a valve with its insulating shell, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the 3-way insulating shell. The kit consists of a valve with its insulating shell, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.
VCZD: 2-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.
VCFD: Motorized 2-way valve kit without insulating shell, can be installed on the main or secondary battery or a battery that is only warm. The kit is made up of a valve, actuator and relative hydraulic fittings. It can be installed on fan coils with connections on the right and on the left.
VCF41 - 42 - 43 - for main coil: 3-way motorised valve kit for the main coil. The kit is made up of a valve with its insulating shell, actuator and relative hydraulic fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.
VJP: Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit.
AMP: Wall mounting kit
DSC: Condensate drainage device.
BCZ: Condensate drip. If the valve is paired with the BCZ5 or BCZ6 condensate drip tray, the insulating shell can be removed to ensure better housing.
PCZ: Metal panel for the unit rear closing. SPCZ brackets are necessary to fix floor standing fan coils.
GA: Lower intake grille for encapsulated fan coils. Can also be used in wall-mounted or floor installations, the FIKIT accessory is needed only in the case of floor installation.
FIKIT: Metal supports for vertical installation of the GA grille.
ZXZ: Pair of stylish and structural feet
BC: Condensate drip.
Ventilcassaforma: Galvanised sheet metal template. It makes it possible to obtain directly in the wall a space for housing the fan coil.
SPCZ: Brackets to fix the fan coil to the floor.

ACCESSORIES COMPATIBILITY

Control panels and dedicated accessories - FCZ-H

Model	Ver	200	250	300	350	400	450	500	550	600	650	900	950
AER503IR (1)	H,HP	•	•	•	•	•	•	•	•	•	•	•	•
PRO503	H,HP	•	•	•	•	•	•	•	•	•	•	•	•
SA5 (2)	H,HP,HT	•	•	•	•	•	•	•	•	•	•	•	•
SIT3 (3)	H,HP,HT	•	•	•	•	•	•	•	•	•	•	•	•
SIT5 (4)	H,HP,HT	•	•	•	•	•	•	•	•	•	•	•	•
SW3 (2)	H,HP,HT	•	•	•	•	•	•	•	•	•	•	•	•
SW5 (2)	H,HP,HT	•	•	•	•	•	•	•	•	•	•	•	•
TX (1)	H,HP	•	•	•	•	•	•	•	•	•	•	•	•
TXB (5)	H	•	•	•	•	•	•	•	•	•	•	•	•
	HP		•		•		•	•	•		•		

(1) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.
(2) Probe for AER503IR-TX thermostats, if fitted.
(3) Cards for AER503IR-TX thermostats, if present, to be installed if the unit absorption exceeds 0,7 Ampere.
(4) Probe for AER503IR-TX thermostats, if fitted.
(5) Installation on the fan coil.

Model	Ver	200	250	300	350	400	450	500	550	600	650	900	950
VMF-E0X (1)	H,HP	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E19 (1)	H,HP	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E2Z	H	•		•	•	•	•	•	•	•	•	•	•
VMF-E3	H,HP	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E4DX	H,HP	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E4X	H,HP	•	•	•	•	•	•	•	•	•	•	•	•
VMF-IO	H,HP	•	•	•	•	•	•	•	•	•	•	•	•
VMF-IR	H,HP	•	•	•	•	•	•	•	•	•	•	•	•
VMF-LON	H,HP	•	•	•	•	•	•	•	•	•	•	•	•
VMF-SW	H,HP	•	•	•	•	•	•	•	•	•	•	•	•

(1) Also the accessory VMF-SIT3V is mandatory if the unit exceeds 0.7 Amperes.

Common accessories

3 way valve kit

Model	Ver	200	250	300	350	400	450	500	550	600	650	900	950
VCZ41 (1)	H,HP,HT	•	•										
VCZ4124 (2)	H,HP,HT	•	•										
VCZ42 (1)	H,HP,HT			•	•	•	•	•	•	•	•		
VCZ4224 (2)	H,HP,HT			•	•	•	•	•	•	•	•		
VCZ43 (1)	H,HP,HT											•	•
VCZ4324 (2)	H,HP,HT											•	•

(1) 230V~50Hz
(2) 24V

2 way valve kit

Model	Ver	200	250	300	350	400	450	500	550	600	650	900	950
VCZD1 (1)	H,HP,HT	•	•										
VCZD124 (2)	H,HP,HT	•	•										
VCZD2 (1)	H,HP,HT			•	•	•	•	•	•	•	•		
VCZD224 (2)	H,HP,HT			•	•	•	•	•	•	•	•		
VCZD3 (1)	H,HP,HT											•	•
VCZD324 (2)	H,HP,HT											•	•

(1) 230V~50Hz
(2) 24V

Combined Adjustment and Balancing Valve Kit

Model	Ver	200	250	300	350	400	450	500	550	600	650	900	950
VJP060 (1)	H,HP,HT	•	•	•	•								
VJP060M (2)	H,HP,HT	•	•	•	•								
VJP090 (1)	H,HP,HT					•	•	•	•	•	•		
VJP090M (2)	H,HP,HT					•	•	•	•	•	•		
VJP150 (1)	H,HP,HT											•	•
VJP150M (2)	H,HP,HT											•	•

(1) 230V~50Hz
(2) 24V

Wall mounting kit

Ver	200	250	300	350	400	450	500	550	600	650	900	950
HP	AMP20	AMP20	AMP20	AMP20	AMP20	AMP20	AMP20	AMP20	AMP20	AMP20	AMP20	AMP20

Condensate drainage

Model	Ver	200	250	300	350	400	450	500	550	600	650	900	950
DSCZ4 (1)	HP	•	•	•	•	•	•	•	•	•	•	•	•

(1) DSC4 cannot be mounted if even just one of these accessories is also installed: AMP - AMPZ valve VCZ1-2-3-4 X4L/R and all the condensate collection trays.

Condensate drip

Ver	200	250	300	350	400	450	500	550	600	650	900	950
H,HP,HT	BCZ4 (1), BCZ5 (2)	BCZ4 (1), BCZ5 (2)	BCZ4 (1), BCZ5 (2)	BCZ4 (1), BCZ5 (2)	BCZ4 (1), BCZ5 (2)	BCZ4 (1), BCZ5 (2)	BCZ4 (1), BCZ5 (2)	BCZ4 (1), BCZ5 (2)	BCZ4 (1), BCZ5 (2)	BCZ4 (1), BCZ5 (2)	BCZ6 (2)	BCZ6 (2)

(1) For vertical installation.
(2) For horizontal installation.

Ver	200	250	300	350	400	450	500	550	600	650	900	950
HP	BC8 (1)	BC8 (1)	BC8 (1)	BC8 (1)	BC8 (1)	BC8 (1)	BC8 (1)	BC8 (1)	BC8 (1)	BC8 (1)	BC9 (1)	BC9 (1)

(1) For horizontal installation.

Panel closing the rear of the unit

Ver	200	250	300	350	400	450	500	550	600	650	900	950
H,HT	PCZ200	PCZ200	PCZ300	PCZ300	PCZ500	PCZ500	PCZ500	PCZ500	PCZ800	PCZ800	PCZ1000	PCZ1000

Grille also applicable for floor installation

Ver	200	250	300	350	400	450	500	550	600	650	900	950
H,HP,HT	GA200	GA200	GA300	GA300	GA500	GA500	GA500	GA500	GA800	GA800	GA800	GA800

Metal supports for GA grille

Ver	200	250	300	350	400	450	500	550	600	650	900	950
H,HP,HT	FIKIT200	FIKIT200	FIKIT300	FIKIT300	FIKIT500	FIKIT500	FIKIT500	FIKIT500	FIKIT800	FIKIT800	FIKIT800	FIKIT800

Ventilcassaforma

Ver	200	250	300	350	400	450	500	550	600	650	900	950
HP	CHF22	CHF22	CHF32	CHF32	CHF42	CHF42	CHF42	CHF42	CHF62	CHF62	CHF62	CHF62

Brackets to fix the fan coil to the floor.

Ver	200	250	300	350	400	450	500	550	600	650	900	950
H,HT	SPCZ	SPCZ	SPCZ	SPCZ	SPCZ	SPCZ	SPCZ	SPCZ	SPCZ	SPCZ	SPCZ	SPCZ

Pair of stylish structural feet

Ver	200	250	300	350	400	450	500	550	600	650	900	950
H,HP,HT	ZXZ	ZXZ	ZXZ	ZXZ	ZXZ	ZXZ	ZXZ	ZXZ	ZXZ	ZXZ	ZXZ	ZXZ

PERFORMANCE SPECIFICATIONS

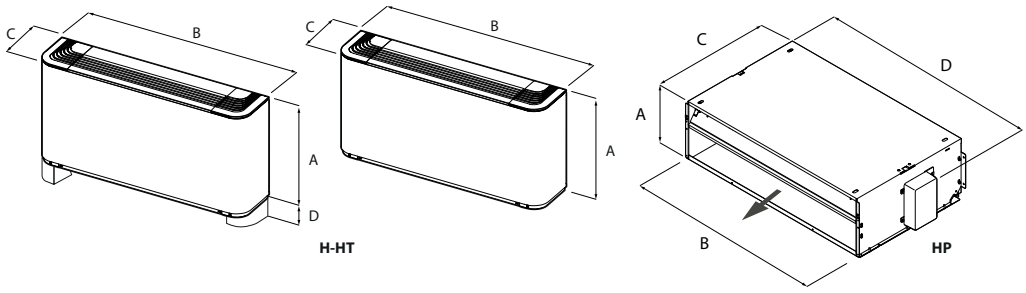
2-pipe

		FCZ200H			FCZ250H			FCZ300H			FCZ350H			FCZ400H			FCZ450H		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)																			
Heating capacity	kW	2,02	2,95	3,70	2,20	3,18	4,05	3,47	4,46	5,50	3,77	4,92	6,15	4,32	5,74	7,15	4,57	6,29	7,82
Water flow rate system side	l/h	177	258	324	193	278	355	304	391	482	330	431	539	379	503	627	400	551	685
Pressure drop system side	kPa	6	12	18	7	15	23	7	12	18	8	14	20	9	16	24	6	11	16
Heating performance 45 °C / 40 °C (2)																			
Heating capacity	kW	1,00	1,46	1,84	1,09	1,58	2,01	1,72	2,21	2,73	1,87	2,44	3,06	2,14	2,85	3,55	2,27	3,12	3,88
Water flow rate system side	l/h	174	254	319	190	274	350	299	385	475	325	425	531	373	495	617	394	543	675
Pressure drop system side	kPa	6	12	18	8	15	22	8	12	18	8	14	20	10	16	24	6	11	16
Cooling performance 7 °C / 12 °C (3)																			
Cooling capacity	kW	0,89	1,28	1,60	1,06	1,55	1,94	1,68	2,17	2,65	1,89	2,46	3,02	2,20	2,92	3,60	2,41	3,21	4,03
Sensible cooling capacity	kW	0,71	1,05	1,33	0,79	1,20	1,52	1,26	1,65	2,04	1,33	1,76	2,18	1,59	2,14	2,67	1,69	2,30	2,90
Water flow rate system side	l/h	153	221	275	182	267	334	288	374	456	350	460	560	379	503	619	414	552	694
Pressure drop system side	kPa	7	13	18	8	17	25	8	13	18	11	18	25	10	17	24	9	15	22
Fan																			
Type	type	Centrifugal			Centrifugal			Centrifugal			Centrifugal			Centrifugal			Centrifugal		
Fan motor	type	Asynchronous			Asynchronous			Asynchronous			Asynchronous			Asynchronous			Asynchronous		
Number	no.	1			1			2			2			2			2		
Air flow rate	m^3/h	140	220	290	140	220	290	260	350	450	260	350	450	330	460	600	330	460	600
Input power	W	25	29	33	25	29	33	25	33	44	25	33	44	30	43	57	30	43	57
Electrical wiring		V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3
Diametre hydraulic fittings																			
Type	type	Gas - F			Gas - F			Gas - F			Gas - F			Gas - F			Gas - F		
Main coil	Ø	1/2″			1/2″			3/4″			3/4″			3/4″			3/4″		
Fan coil sound data (4)																			
Sound power level	dB(A)	35,0	46,0	51,0	35,0	46,0	51,0	34,0	41,0	48,0	34,0	41,0	48,0	37,0	44,0	51,0	37,0	44,0	51,0
Sound pressure	dB(A)	27,0	38,0	43,0	27,0	38,0	43,0	26,0	33,0	40,0	26,0	33,0	40,0	29,0	36,0	43,0	29,0	36,0	43,0
Power supply																			
Power supply		230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz		

		FCZ500H			FCZ550H			FCZ600H			FCZ650H			FCZ900H			FCZ950H		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)																			
Heating capacity	kW	5,27	7,31	8,50	5,82	8,34	9,75	6,50	8,10	10,00	7,19	9,15	11,50	10,77	13,35	15,14	11,20	14,42	17,10
Water flow rate system side	l/h	462	641	745	510	731	855	570	710	877	631	802	1008	945	1171	1328	982	1264	1500
Pressure drop system side	kPa	12	21	28	10	20	26	12	18	26	14	21	31	12	17	22	16	25	33
Heating performance 45 °C / 40 °C (2)																			
Heating capacity	kW	2,62	3,63	4,22	2,89	4,14	4,85	3,32	4,03	4,97	3,57	4,55	5,72	5,35	6,64	7,53	5,57	7,17	8,50
Water flow rate system side	l/h	455	631	734	502	720	842	561	699	863	621	790	993	930	1152	1307	967	1245	1476
Pressure drop system side	kPa	12	21	28	10	20	26	12	18	26	14	20	31	12	17	22	15	24	33
Cooling performance 7 °C / 12 °C (3)																			
Cooling capacity	kW	2,68	3,69	4,25	2,91	4,13	4,79	3,22	3,90	4,65	3,95	4,80	5,67	4,29	5,00	6,91	5,77	7,32	8,60
Sensible cooling capacity	kW	1,94	2,73	3,18	2,07	2,98	3,49	2,56	3,17	3,92	2,78	3,43	4,12	2,97	3,78	5,68	3,80	4,87	5,78
Water flow rate system side	l/h	460	634	731	501	711	824	554	671	800	595	825	975	738	860	1189	992	1259	1479
Pressure drop system side	kPa	13	23	29	12	22	28	14	19	26	15	21	28	10	13	22	15	23	30
Fan																			
Type	type	Centrifugal			Centrifugal			Centrifugal			Centrifugal			Centrifugal			Centrifugal		
Fan motor	type	Asynchronous			Asynchronous			Asynchronous			Asynchronous			Asynchronous			Asynchronous		
Number	no.	2			2			3			3			3			3		
Air flow rate	m^3/h	400	600	720	400	600	720	520	720	900	520	720	900	700	930	1140	700	930	1140
Input power	W	38	52	76	38	52	76	38	60	91	38	60	91	59	80	106	59	80	106
Electrical wiring		V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3
Diametre hydraulic fittings																			
Type	type	Gas - F			Gas - F			Gas - F			Gas - F			Gas - F			Gas - F		
Main coil	Ø	3/4″			3/4″			3/4″			3/4″			3/4″			3/4″		
Fan coil sound data (4)																			
Sound power level	dB(A)	42,0	51,0	56,0	42,0	51,0	56,0	42,0	51,0	57,0	42,0	51,0	57,0	51,0	57,0	62,0	51,0	57,0	61,0
Sound pressure	dB(A)	34,0	43,0	48,0	34,0	43,0	48,0	34,0	43,0	49,0	34,0	43,0	49,0	43,0	49,0	54,0	43,0	49,0	53,0
Power supply																			
Power supply		230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz		

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C
(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C; EUROVENT
(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT
(4) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

DIMENSIONS



Size			200	250	300	350	400	450	500	550	600	650	900	950
Dimensions and weights														
A	H,HT	mm	486	-	486	-	486	-	486	-	486	-	591	591
	HP	mm	216	-	216	-	216	-	216	-	216	-	216	216
B	H,HT	mm	750	-	980	-	1200	-	1200	-	1320	-	1320	1320
	HP	mm	562	-	793	-	1013	-	1013	-	1147	-	1147	1147
C	H,HT	mm	220	-	220	-	220	-	220	-	220	-	220	220
	HP	mm	453	-	453	-	453	-	453	-	453	-	558	558
D	H,HT	mm	90	-	90	-	90	-	90	-	90	-	90	90
	HP	mm	522	-	753	-	973	-	973	-	1122	-	1122	1122
Empty weight	H,HT	kg	15	-	17	-	23	-	22	-	29	-	34	34
	HP	kg	12	-	14	-	20	-	23	-	29	-	32	32

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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FCZI-H

Fan coil with the photocatalytic device, for universal and floor installation

- **Photocatalytic device**
- **Tested effectiveness against viruses, bacteria and allergens**
- **Active against the SARS-CoV-2 virus, even on surfaces**
- **Backlit touch command with programming via a smart device (accessory)**



DESCRIPTION

Fan coil with built-in **photocatalytic device**.
Active against the SARS-CoV-2 virus, even on surfaces - 84% effectiveness after 12 h (tests carried out in collaboration with the Department of Microbiology of the University of Padua).
Suitable for air conditioning in places requiring optimum hygiene levels, such as:
— Hospitals
— Dentists' surgeries
— Doctors' and vets' surgeries
— Analysis laboratories
— Waiting rooms
— Public premises
They can be installed in any type of 2-pipe system (version for 4-pipe systems available upon request) and in combination with any heat generator, even at low temperatures. Thanks to the availability of several versions and configurations, it's easy to find the right solution for every need.

VERSIONS

— **H** Unit with shell without thermostat - vertical and horizontal installation.
— **HP** Unit without shell and without thermostat - vertical and horizontal installation.
— **HT** Unit with shell and thermostat - vertical installation.

FEATURES

Case

Metallic protective cabinet with rustproofing polyester paint RAL 9003. The head with adjustable air distribution grille is made of plastic RAL 7047. When the grille closes, the fan coil automatically switches off.

Ventilation group

Comprised of a dual intake centrifugal fan that is particularly silent, statically and dynamically balanced and directly coupled to the motor shaft.
The Brushless electric motor with 0-100% continuous speed variation, which allows precise adaptation to the real demands of the internal environment without temperature fluctuations.
Continuous air flow rate variation is made possible by a 0-10V signal generated by Aermec adjustment and control commands or by independent regulation systems.
This lowers noise and generates a better response to heat loads and a higher stability in the desired temperature inside the room.
The high efficiency even with low speed, makes it possible to reduce power consumption (more than 50% less than fan coils with traditional motors).
The scroll that protects the fan can be extracted and inspected, for easy and effective cleaning.

■ *Apart from the brushless motor, each unit can also be supplied with a single-phase asynchronous motor. Refer to the relative FCZ - H datasheet*

Heat exchanger coil

With copper pipes and aluminium louvers, the main coil has female gas water connections on the left side and the manifolds have air vents.
The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

■ *The coil is not reversible during installation but, when ordering, you can choose units with the coil water connections on the right (at no extra charge).*

Air filter

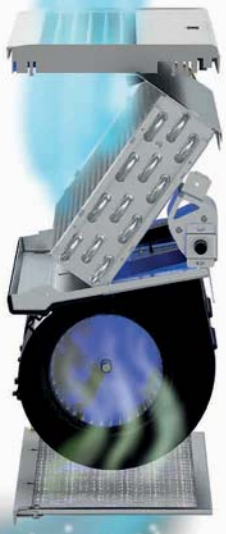
Air filter class **COARSE 25%** for all versions; easy to pull out and clean. Shrouds can be pulled out and inspected for easy and effective cleaning.

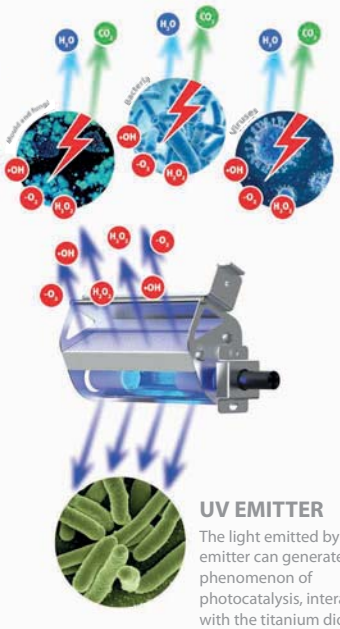
PHOTOCATALYTIC DEVICE AT THE HEART OF THE FAN COIL



TITANIUM DIOXIDE CATALYS

Titanium dioxide (TiO_2) has a high degree of thermal and chemical stability, isn't toxic for humans and isn't expensive, but at the same time it's easily procurable, widely available, bio-compatible, and highly sensitive to UV light. The catalyst has a honeycomb form and increases the photocatalysis reaction surface, thereby maximising and guaranteeing system efficiency. The interaction of the catalyst with the UV light (photocatalysis) creates and releases highly reactive and oxidising species (H_2O_2 and OH^-) that attack the polluting agents, breaking them down and eliminating them. The result is a powerful biocidal action with the decomposition of the VOC (Volatile Organic Compounds) and the release of harmless substances like CO_2 and H_2O.





FILTER

The filter holds back dust, ash and "natural allergens" like pollen, spores, etc.

UV EMITTER

The light emitted by the emitter can generate the phenomenon of photocatalysis, interacting with the titanium dioxide catalyser (TiO_2). The absorption level is 5,4W.

GUIDE TO SELECTING THE POSSIBLE CONFIGURATIONS

Field	Description
1,2,3,4	**FCZI**
5	**Size** 2, 3, 4, 5, 7, 9
6	**Main coil**
0	Standard
5	Oversized
7	**Secondary coil**
0	Without coil
8	**Version**
H	Unit with shell without thermostat - vertical and horizontal mount
HP	Unit without shell and thermostat - vertical and horizontal mount
HPR	Unit without shell and thermostat - vertical and horizontal installation - water connections on the right
HR	Unit with shell without thermostat - vertical and horizontal installation - water connections on the right
HT	Unit with shell with thermostat - vertical mount
HTR	Unit with shell with thermostat - vertical mount - water connections on the right

ACCESSORIES

Control panels and dedicated accessories - FCZI-H

AER503IR: Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.
PRO503: Wall box for AER503IR and VMF-E4 thermostats.
SA5: air probe kit (L = 15 m) with probe-locking cable grommet.
SW3: Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.
SW5: water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.
TX: Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).
VMF-E19I: Thermostat for inverter unit to be fixed on the side of the fan coil, fitted as standard with an air and water probe.
VMF-E2Z: User interface on the machine, to be combined with the VMF-E0X, VMF-E19 or VMF-E19I accessory.
VMF-E3: Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, VMF-E0X with grids GLF_N/M and GLL_N, can be controlled with VMF-IR control.
VMF-E4DX: Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).
VMF-E4X: Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.
VMF-IO: Manage the unit exclusively from a centralized VMF control panel without area control panel.
VMF-IR: User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.
VMF-LON: Expansion allowing the thermostat to interface with BMS systems that use the LON protocol.
VMF-SW1: Additional water probe (L = 2.5m) to be used if required for 4-pipe systems with the VMF-E19 and VMF-E19I thermostats for maximum control in the cold range

Common accessories

VCZ: 3-way motorised valve kit. The kit consists of a valve with its insulating shell, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the 3-way insulating shell. The kit consists of a valve with its insulating shell, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.
VCZD: 2-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.
VJP: Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit.
AMP: Wall mounting kit
DSC: Condensate drainage device.
BCZ: Condensate drip. If the valve is paired with the BCZ5 or BCZ6 condensate drip tray, the insulating shell can be removed to ensure better housing.
PCZ: Metal panel for the unit rear closing. SPCZ brackets are necessary to fix floor standing fan coils.
GA: Lower intake grille for encapsulated fan coils. Can also be used in wall-mounted or floor installations, the FIKIT accessory is needed only in the case of floor installation.
FIKIT: Metal supports for vertical installation of the GA grille.
ZXZ: Pair of stylish and structural feet
BC: Condensate drip.
Ventilcassaforma: Galvanised sheet metal template. It makes it possible to obtain directly in the wall a space for housing the fan coil.
SPCZ: Brackets to fix the fan coil to the floor.

ACCESSORIES COMPATIBILITY

Control panels and dedicated accessories

Model	Ver	200	250	300	350	400	450	500
AER503IR (1)	H,HP	•	•	•	•	•	•	•
PRO503	H,HP	•	•	•	•	•	•	•
SA5 (2)	H,HP	•	•	•	•	•	•	•
SW3 (2)	H,HP,HT	•	•	•	•	•	•	•
SW5 (2)	H,HP	•	•	•	•	•	•	•
	HT		•		•		•	
TX (1)	H,HP,HT	•	•	•	•	•	•	•

Model	Ver	550	700	750	900	950
AER503IR (1)	H,HP	•	•	•	•	•
PRO503	H,HP	•	•	•	•	•
SA5 (2)	H,HP	•	•	•	•	•
SW3 (2)	H,HP,HT	•	•	•	•	•
SW5 (2)	H,HP	•	•	•	•	•
	HT	•		•		
TX (1)	H,HP,HT	•	•	•	•	•

(1) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.
(2) Probe for AER503IR-TX thermostats, if fitted.

Model	Ver	200	250	300	350	400	450	500	550	700	750	900	950
VMF-E19I	H,HP	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E2Z	H	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E3	H,HP	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E4DX	H,HP	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E4X	H,HP	•	•	•	•	•	•	•	•	•	•	•	•
VMF-IO	H	•	•	•	•	•	•	•	•	•	•	•	•
VMF-IR	H,HP	•	•	•	•	•	•	•	•	•	•	•	•
VMF-LON	H	•	•	•	•	•	•	•	•	•	•	•	•

Model	Ver	200	250	300	350	400	450	500	550	700	750	900	950
VMF-SW1	H,HP	•	•	•	•	•	•	•	•	•	•	•	•

Common accessories

3 way valve kit

Model	Ver	200	250	300	350	400	450	500	550	700	750	900	950
VCZ41 (1)	H,HP,HT	•	•										
VCZ4124 (2)	H,HP,HT	•	•										
VCZ42 (1)	H,HP,HT			•	•	•	•	•	•	•	•		
VCZ4224 (2)	H,HP,HT			•	•	•	•	•	•	•	•		
VCZ43 (1)	H,HP,HT											•	•
VCZ4324 (2)	H,HP,HT											•	•

(1) 230V~50Hz
(2) 24V

2 way valve kit

Model	Ver	200	250	300	350	400	450	500	550	700	750	900	950
VCZD1 (1)	H,HP,HT	•	•										
VCZD124 (2)	H,HP,HT	•	•										
VCZD2 (1)	H,HP,HT			•	•	•	•	•	•	•	•		
VCZD224 (2)	H,HP,HT			•	•	•	•	•	•	•	•		
VCZD3 (1)	H,HP,HT											•	•
VCZD324 (2)	H,HP,HT											•	•

(1) 230V~50Hz
(2) 24V

Combined Adjustment and Balancing Valve Kit

Model	Ver	200	250	300	350	400	450	500	550	700	750	900	950
VJP060 (1)	H,HP,HT	•	•	•	•								
VJP060M (2)	H,HP,HT	•	•	•	•								
VJP090 (1)	H,HP,HT					•	•	•	•				
VJP090M (2)	H,HP,HT					•	•	•	•				
VJP150 (1)	H,HP,HT									•	•	•	•
VJP150M (2)	H,HP,HT									•	•	•	•

(1) 230V~50Hz
(2) 24V

Wall mounting kit

Ver	200	250	300	350	400	450	500	550	700	750	900	950
HP	AMP20	AMP20	AMP20	AMP20	AMP20	AMP20	AMP20	AMP20	AMP20	AMP20	AMP20	AMP20

Condensate drainage

Model	Ver	200	250	300	350	400	450	500	550	700	750	900	950
DSC4 (1)	HP	•	•	•	•	•	•	•	•	•	•	•	•

(1) DSC4 cannot be mounted if even just one of these accessories is also installed: AMP - AMPZ valve VCZ1-2-3-4 X4L/R and all the condensate collection trays.

Condensate drip

Ver	200	250	300	350	400	450	500	550	700	750	900	950
HP	BCZ4 (1)	BCZ4 (1)	BCZ4 (1)	BCZ4 (1)	BCZ4 (1)	BCZ4 (1)	BCZ4 (1)	BCZ4 (1)	BCZ4 (1)	BCZ4 (1)	BCZ4 (1)	BCZ4 (1)

(1) For vertical installation.

Ver	200	250	300	350	400	450	500	550	700	750	900	950
HP	BC8 (1)	BC8 (1)	BC8 (1)	BC8 (1)	BC8 (1)	BC8 (1)	BC8 (1)	BC8 (1)	BC8 (1)	BC8 (1)	BC9 (1)	BC9 (1)

(1) For horizontal installation.

Panel closing the rear of the unit

Ver	200	250	300	350	400	450	500	550	700	750	900	950
H,HT	PCZ200	PCZ200	PCZ300	PCZ300	PCZ500	PCZ500	PCZ500	PCZ500	PCZ800	PCZ800	PCZ1000	PCZ1000

Grille also applicable for floor installation

Ver	200	250	300	350	400	450	500	550	700	750	900	950
H,HP,HT	GA200	GA200	GA300	GA300	GA500	GA500	GA500	GA500	GA800	GA800	GA800	GA800

Metal supports for GA grille

Ver	200	250	300	350	400	450	500	550	700	750	900	950
H,HP,HT	FIKIT200	FIKIT200	FIKIT300	FIKIT300	FIKIT500	FIKIT500	FIKIT500	FIKIT500	FIKIT800	FIKIT800	FIKIT800	FIKIT800

Ventilcassaforma

Ver	200	250	300	350	400	450	500	550	700	750	900	950
HP	CHF22	CHF22	CHF32	CHF32	CHF42	CHF42	CHF42	CHF42	CHF62	CHF62	CHF62	CHF62

Brackets to fix the fan coil to the floor.

Ver	200	250	300	350	400	450	500	550	700	750	900	950
H,HT	SPCZ	SPCZ	SPCZ	SPCZ	SPCZ	SPCZ	SPCZ	SPCZ	SPCZ	SPCZ	SPCZ	SPCZ

Pair of stylish structural feet

Ver	200	250	300	350	400	450	500	550	700	750	900	950
H,HP,HT	ZXZ	ZXZ	ZXZ	ZXZ	ZXZ	ZXZ	ZXZ	ZXZ	ZXZ	ZXZ	ZXZ	ZXZ

PERFORMANCE SPECIFICATIONS

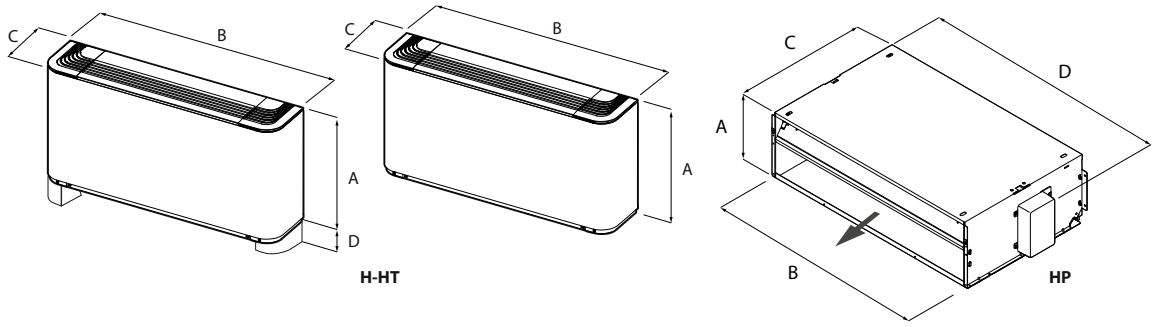
2-pipe

		FCZI200H			FCZI250H			FCZI300H			FCZI350H			FCZI400H			FCZI450H			FCZI500H		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)																						
Heating capacity	kW	2,02	2,95	3,70	2,20	3,18	4,05	3,47	4,46	5,50	3,77	4,92	6,15	4,32	5,74	7,15	4,57	6,29	7,82	5,27	7,31	8,50
Water flow rate system side	l/h	177	258	324	193	278	355	304	391	482	330	431	539	379	503	627	400	551	685	462	641	745
Pressure drop system side	kPa	6	12	18	7	15	23	7	12	18	8	14	20	9	16	24	6	11	16	12	21	28
Heating performance 45 °C / 40 °C (2)																						
Heating capacity	kW	1,00	1,46	1,84	1,09	1,58	2,01	1,72	2,21	2,73	1,87	2,44	3,06	2,14	2,85	3,55	2,27	3,12	3,88	2,62	3,63	4,22
Water flow rate system side	l/h	174	254	319	190	274	350	299	385	475	325	425	531	373	495	617	394	543	675	455	631	734
Pressure drop system side	kPa	6	12	18	8	15	22	8	12	18	8	14	20	10	16	24	6	11	16	12	21	28
Cooling performance 7 °C / 12 °C (3)																						
Cooling capacity	kW	0,89	1,28	1,60	1,06	1,55	1,94	1,68	2,17	2,65	1,89	2,46	3,02	2,20	2,92	3,60	2,41	3,21	4,03	2,68	3,69	4,25
Sensible cooling capacity	kW	0,71	1,05	1,33	0,79	1,20	1,52	1,26	1,65	2,04	1,33	1,76	2,18	1,59	2,14	2,67	1,69	2,30	2,90	1,94	2,73	3,18
Water flow rate system side	l/h	153	221	275	182	267	334	288	374	456	350	460	560	379	503	619	414	552	694	460	634	731
Pressure drop system side	kPa	7	13	18	8	17	25	8	13	18	11	18	25	10	17	24	9	15	22	13	23	29
Fan																						
Type	type	Centrifugal																				
Fan motor	type	Inverter																				
Number	no.	1			1			2			2			2			2			2		
Air flow rate	m^3/h	140	220	290	140	220	290	260	350	450	260	350	450	330	460	600	330	460	600	400	600	720
Input power	W	5	8	14	5	8	14	5	7	13	5	7	13	5	10	18	5	10	18	7	18	34
Signal 0-10V	%	44	68	90	44	68	90	52	70	90	52	70	90	49	68	90	49	68	90	50	74	90
Diametre hydraulic fittings																						
Type	type	Gas - F																				
Main coil	Ø	1/2"			1/2"			3/4"			3/4"			3/4"			3/4"			3/4"		
Fan coil sound data (4)																						
Sound power level	dB(A)	35,0	46,0	51,0	35,0	46,0	51,0	34,0	41,0	48,0	34,0	41,0	48,0	37,0	44,0	51,0	37,0	44,0	51,0	42,0	51,0	56,0
Sound pressure	dB(A)	27,0	38,0	43,0	27,0	38,0	43,0	26,0	33,0	40,0	26,0	33,0	40,0	29,0	36,0	43,0	29,0	36,0	43,0	34,0	43,0	48,0
Power supply																						
Power supply		230V~50Hz																				

		FCZI550H			FCZI700H			FCZI750H			FCZI900H			FCZI950H		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)																
Heating capacity	kW	5,82	8,34	9,75	6,50	8,10	10,00	7,19	9,15	11,50	10,77	13,35	15,14	11,20	14,42	17,10
Water flow rate system side	l/h	510	731	855	570	710	877	631	802	1008	945	1171	1328	982	1264	1500
Pressure drop system side	kPa	10	20	26	12	18	26	14	21	31	12	17	22	16	25	33
Heating performance 45 °C / 40 °C (2)																
Heating capacity	kW	2,89	4,14	4,85	3,32	4,03	4,97	3,57	4,55	5,72	5,35	6,64	7,53	5,57	7,17	8,50
Water flow rate system side	l/h	502	720	842	561	699	863	621	790	993	930	1152	1307	967	1245	1476
Pressure drop system side	kPa	10	20	26	12	18	26	14	20	31	12	17	22	15	24	33
Cooling performance 7 °C / 12 °C (3)																
Cooling capacity	kW	2,91	4,13	4,79	3,22	3,90	4,65	3,95	4,80	5,67	4,29	5,00	6,91	5,77	7,32	8,60
Sensible cooling capacity	kW	2,07	2,98	3,49	2,56	3,17	3,92	2,78	3,43	4,12	2,97	3,78	5,68	3,80	4,87	5,78
Water flow rate system side	l/h	501	711	824	554	671	800	595	825	975	738	860	1189	992	1259	1479
Pressure drop system side	kPa	12	22	28	14	19	26	15	21	28	10	13	22	15	23	30
Fan																
Type	type	Centrifugal														
Fan motor	type	Inverter														
Number	no.	2			3			3			3			3		
Air flow rate	m^3/h	400	600	720	520	720	900	520	720	900	700	930	1140	700	930	1140
Input power	W	7	18	34	30	40	80	30	40	80	30	40	80	30	40	80
Signal 0-10V	%	50	74	90	56	72	90	56	72	90	56	72	90	56	72	90
Diametre hydraulic fittings																
Type	type	Gas - F														
Main coil	Ø	3/4"														
Fan coil sound data (4)																
Sound power level	dB(A)	42,0	51,0	56,0	42,0	51,0	57,0	42,0	51,0	57,0	51,0	57,0	62,0	51,0	57,0	61,0
Sound pressure	dB(A)	34,0	43,0	48,0	34,0	43,0	49,0	34,0	43,0	49,0	43,0	49,0	54,0	43,0	49,0	53,0
Power supply																
Power supply		230V~50Hz														

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C
(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C; EUROVENT
(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT
(4) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

DIMENSIONS



Size			200	250	300	350	400	450	500	550	700	750	900	950
Dimensions and weights														
A	H,HT	mm	486	486	486	486	486	486	486	486	486	486	591	591
	HP	mm	216	216	216	216	216	216	216	216	216	216	216	216
B	H,HT	mm	750	750	980	980	1200	1200	1200	1200	1320	1320	1320	1320
	HP	mm	522	522	753	753	973	973	973	973	1122	1122	1122	1122
C	H,HT	mm	220	220	220	220	220	220	220	220	220	220	220	220
	HP	mm	453	453	453	453	453	453	453	453	453	453	558	558
D	H,HT	mm	90	-	90	-	90	-	90	-	90	-	90	90
	HP	mm	562	-	793	-	1013	-	1013	-	1147	-	1147	1147
Empty weight	H,HT	kg	15	16	17	18	22	24	22	24	29	31	34	34
	HP	kg	12	14	14	16	20	22	23	24	26	31	32	32

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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www.aermec.com

Omnia HL

Fan coil for universal and floor installation

- Very quiet
- Ideal for residential or office solutions
- Version with Coldplasma Air purifier



DESCRIPTION

Fan coils for heating, cooling, and dehumidification.
It can be installed on 2-pipe systems and combined with any heat generator even at low temperatures. Choosing the optimal solution for any requirement is easy thanks to the various versions available and to the possibility of horizontal or vertical installation, depending on the version.

VERSIONS

HL Metallic white cabinet with switch
L White cabinet with self-closing louver and electronic thermostat
LM Grey cabinet with self-closing louver and electronic thermostat
M Metallic grey cabinet with switch
N White cabinet with electronic thermostat VMF
NM Grey cabinet with electronic thermostat VMF
PC White cabinet with electronic thermostat and Cold Plasma purifier
PCM Grey cabinet with electronic thermostat and Cold Plasma purifier
S Metallic withe cabinet without control board
SM Metallic grey cabinet without control board

FEATURES

Case

Top design metal protection cabinet with rounded design and painted with anti-corrosion polyester powders:
Color White
— Cover RAL 9002
— Top and supports RAL 7044.
Color Grey
— Cover FIAT 656
— Top and supports RAL 7031.
The air distribution grid is adjustable. The fan coil switches off automatically when the grid is closed.

Ventilation group

Comprised of a dual intake centrifugal fan that is particularly silent, statically and dynamically balanced and directly coupled to the motor shaft.
The motor is wired for single phase and has three speeds, with capacitor. The motor is fitted on sealed for life bearings and is secured on anti-vibration and self-lubricating mountings.
The scroll that protects the fan can be extracted and inspected, for easy and effective cleaning.

Heat exchanger coil

With copper pipes and aluminium louvers, the main coil has female gas water connections on the left side and the manifolds have air vents.
The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

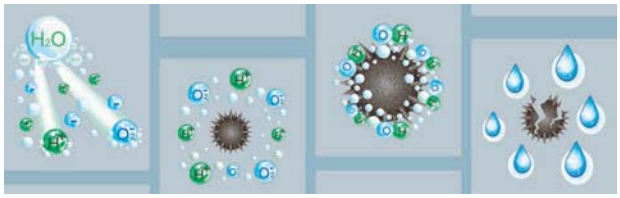
■ *The hydraulic connections can be inverted during installation.*

Condensate drip

Provided standard in plastic and fixed to the interior structure; with external condensate discharge.

Air filter

The fan coils have, as standard, precharged electrostatic filters. These filters, thanks to their special execution, attracts and retains all suspended dust particles, thus garanteeing pure breathable air to the whole family.
In the PC and PCM versions, air purification is guaranteed by the Cold Plasma air purifier.
The purifier is able to reduce pollutants, decomposing their molecules using electrical charges, causing the water molecules in the air to split into positive and negative ions. These ions neutralise the molecules in the gaseous pollutants, obtaining products normally present in clean air. The device is able to eliminate 90% of the bacteria. The result is clean, ionized air, free of foul odours.



ACCESSORIES

AER503IR: Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.
FMT10: Electronic thermostat for fan coil in to 2/4 pipe systems.
PRO503: Wall box for AER503IR and VMF-E4 thermostats.
PX2: Commutator switch.
PX2C6: Commutator switch. Kit to 6 pz.
SA5: air probe kit (L = 15 m) with probe-locking cable grommet.
SIT3: Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat). Commands the 3 fan speeds and must be installed on each fan coil within the network; receives the commands from the selector or the SIT5 card. In case you decide to install Aermec thermostats and current absorbed by the unit exceeds 0.7 A, you're obliged to include SIT3 accessory.
SIT5: Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel. Commands the 3 fan speeds and up to 2 valves (four pipe systems); sends the thermostat's commands to the fan coil network.
SW3: Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.
SW5: water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.
SWA: External probe accessory SWA (length L = 6m). It detects the temperature of the room air if connected to the connector (A) of the FMT21 panel. The room air temperature probe, incorporated in the panel, is automatically disabled. It detects the temperature of the water in the system for ventilation consent if connected to the connector (W) of the FMT21 panel. Two SWA probes can be connected simultaneously to the FMT21 panel.
TPF: Electronic thermostat, black, with thermostated or continuous ventilation.
TPFW: Electronic thermostat, white, with thermostated or continuous ventilation.
TX: Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).
WMT05: Electronic thermostat with thermostated ventilation.
WMT10: Electronic thermostat, white, with thermostated or continuous ventilation.
VMF-E19: Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe.
VMF-E2H: User interface on the machine, to be combined with the VMF-E19 accessory.
VMF-E3: Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, VMF-E0X with grids GLF_N/M and GLL_N, can be controlled with VMF-IR control.
VMF-E4DX: Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).
VMF-E4X: Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.
VMF-IO: Manage the unit exclusively from a centralized VMF control panel without area control panel.
VMF-IR: User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.
VMF-LON: Expansion allowing the thermostat to interface with BMS systems that use the LON protocol.
AMP: Wall mounting kit
DSC: Condensate drainage device.
VCH: 3-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.
VCHD: 2-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.
BC: Condensate drip.
PCH: Panel closing the rear of the unit white
ZH1: White skirting for floor mounting.
ZH1B: White feet for floor mounting with skirting board.
ZH1M: Grey feet for floor mounting.
ZH1MB: Grey feet for floor mounting with skirting board.

■ *Compatibility with VMF system: for more information about the system, refer to the dedicated documentation.*

ACCESSORIES COMPATIBILITY

Model	Ver	11	16	26	36
AER503IR (1)	S,SM	•	•	•	•
FMT10	S,SM	•	•	•	•
PRO503	S,SM	•	•	•	•
PX2	S,SM	•	•	•	•
PX2C6 (2)	S,SM	•	•	•	•
SA5 (3)	S,SM	•	•	•	•
SIT3 (4)	S,SM	•	•	•	•
SIT5 (5)	S,SM	•	•	•	•
SW3 (3)	S,SM	•	•	•	•
SW5 (3)	S,SM	•	•	•	•
SWA	S,SM	•	•	•	•
TPF	S,SM	•	•	•	•
TPFW	S,SM	•	•	•	•
TX (1)	S,SM	•	•	•	•
WMT05 (1)	S,SM	•	•	•	•

Model	Ver	11	16	26	36
WMT10 (1)	S,SM	•	•	•	•

(1) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.
(2) Only wall-mount installation
(3) Probe for AER503IR-TX thermostats, if fitted.
(4) Cards for AER503IR-TX thermostats, if present, to be installed if the unit absorption exceeds 0,7 Ampere.
(5) Probe for AER503IR-TX thermostats, if fitted.

VMF system

Model	Ver	11	16	26	36
VMF-E19 (1)	S,SM	•	•	•	•
VMF-E2H	S,SM	•	•	•	•
VMF-E3	S,SM	•	•	•	•
VMF-E4DX	S,SM	•	•	•	•
VMF-E4X	S,SM	•	•	•	•
VMF-IO	S,SM	•	•	•	•
VMF-IR	S,SM	•	•	•	•
VMF-LON	S,SM	•	•	•	•

(1) Also the accessory VMF-SIT3V is mandatory if the unit exceeds 0.7 Amperes.

Condensate drip

Ver	11	16	26	36
HL,L,LM,M,N,NM,PC,PCM,S,SM	BC10 (1)	BC10 (1)	BC10 (1)	BC10 (1)

(1) For vertical installation.

Condensate drainage

Accessory	HL11
DSC5 (1)	•

(1) The accessory cannot be fit if the accessory BC10 or BC20 is installed.

Wall mounting kit

Accessory	HL11	HL16	HL26	HL36
AMP10	•	•	•	•

3 way valve kit

Accessory	HL11	HL16	HL26	HL36
VCH	•	•	•	•

2 way valve kit

Accessory	HL11	HL16	HL26	HL36
VCHD	•	•	•	•

Pair of stylish structural feet

Model	Ver	11	16	26	36
ZH1	HL,L,N,PC,S	•	•	•	•

Model	Ver	11	16	26	36
ZH1B	HL,L,N,PC,S	•	•	•	•

Model	Ver	11	16	26	36
ZH1M	LM,M,NM,PCM,SM	•	•	•	•

Model	Ver	11	16	26	36
ZH1MB	LM,M,NM,PCM,SM	•	•	•	•

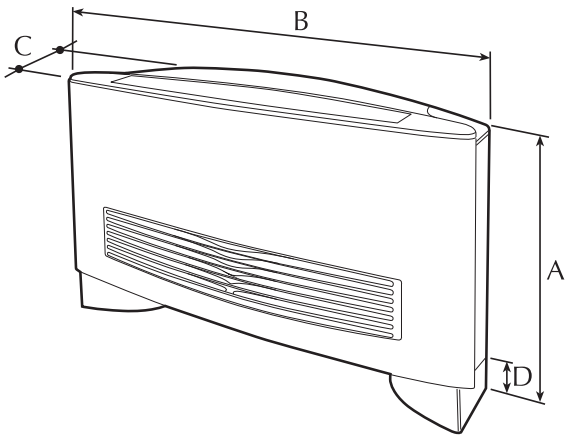
PERFORMANCE SPECIFICATIONS

2-pipe

		HL11			HL16			HL26			HL36		
		1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)													
Heating capacity	kW	1,06	1,46	2,01	1,54	2,12	2,91	2,89	3,83	4,62	3,53	4,87	5,94
Water flow rate system side	l/h	93	128	176	135	186	255	254	336	405	310	427	521
Pressure drop system side	kPa	1	1	2	1	2	4	5	8	11	3	5	7
Heating performance 45 °C / 40 °C (2)													
Heating capacity	kW	0,52	0,73	1,00	0,73	1,05	1,90	1,44	1,90	2,29	1,75	2,42	2,95
Water flow rate system side	l/h	92	126	174	126	183	331	249	331	399	305	420	513
Pressure drop system side	kPa	1	1	2	1	3	8	5	8	11	7	13	18
Cooling performance 7 °C / 12 °C (3)													
Cooling capacity	kW	0,53	0,67	0,82	0,69	0,87	1,17	1,26	1,65	1,99	1,63	2,26	2,79
Sensible cooling capacity	kW	0,38	0,52	0,68	0,52	0,69	0,96	0,97	1,30	1,61	1,13	1,59	2,00
Water flow rate system side	l/h	94	117	145	122	153	206	220	289	349	286	394	487
Pressure drop system side	kPa	1	2	2	2	3	5	5	8	11	7	13	19
Fan													
Type	type	Centrifugal											
Fan motor	type	On-Off											
Number	no.		1			1			2			2	
Air flow rate	m^3/h	80	120	180	110	160	240	190	270	350	240	350	460
Input power	W	8	12	18	23	25	32	24	27	35	30	35	42
Fan coil sound data (4)													
Sound power level	dB(A)	31,0	37,0	46,0	34,0	43,0	48,0	35,0	43,0	48,0	34,0	43,0	50,0
Sound pressure	dB(A)	23,0	29,0	38,0	26,0	35,0	40,0	27,0	35,0	40,0	26,0	33,0	40,0
Diametre hydraulic fittings													
Main coil	Ø	1/2"											
Power supply													
Power supply		230V~50Hz											

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C
(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C; EUROVENT
(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT
(4) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

DIMENSIONS



Size		11	16	26	36
Dimensions and weights					
A	mm	600	605	615	623
B	mm	640	750	980	1200
C	mm	187	189	191	198
D	mm	93	93	93	93
Empty weight	kg	14	15	18	21

Aermec reserves the right to make any modifications deemed necessary.
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Omnia ULS

Vertical wall-mounting or free-standing installation

- **Compact dimensions, thickness 130 mm**
- **Low operating temperature**
- **Cooling, heating, and dehumidification**



DESCRIPTION

The Omnia Slim fan coils have been designed to meet the need to combine the typical features of a classic radiator - namely reduced depth and quiet operation - with the ability of a fan coil to air-condition rooms throughout the year.
They can be installed on any system with a 2-pipe system and it fits with any heat generator even at low temperatures, and thanks to varied versions and settings, it is easy to pick the ideal solution for any need.

VERSIONS

ULS Standard without control board
ULS_C With on-board thermostat

FEATURES

Case

Structure in sheet metal, 12/10 and 8/10 mm.
Front cover in 8/10 mm galvanised sheet metal with RAL9003 white epoxy powder coating and thermal-acoustic insulation of 13 mm thickness.

Ventilation group

These fan coils have extremely silent ventilation by using special tangential fans, which guarantees maximum acoustic comfort.
The electric motor is a 3-speed single-phase motor with a permanently inserted condenser.

Heat exchanger coil

With copper pipes and aluminium louvers, the main coil has female gas water connections on the left side and the manifolds have air vents.
The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

■ *The coil has hydraulic connections on the left and is not reversible.*

Control

With thermostatic adjustment and manual or no-adjustment switching, for combination with any wall panel or with the AERMEC VMF system.

ACCESSORIES

AER503IR: Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.
PRO503: Wall box for AER503IR and VMF-E4 thermostats.
SA5: air probe kit (L = 15 m) with probe-locking cable grommet.
SW3: Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.
SW5: Water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.
T-TOUCH-S: Touch control installation on-board the fan coil. The ThermApp application is also available for remote control with smart devices with the Android operating system.
TX: Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).
TXBS: Thermostat installation on the fan coil.
KITSV: Kit for installing the VMF-E0X or VMF-E19/19I.
VMF-E19: Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe.
VMF-E2S: User interface on the fan coil, with two selectors - one for temperature and the other for speed control. For operation, the installation of either the VMF-E0X, VMF-E19 or VMF-E19I accessory is required.
VMF-E3: Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, VMF-E0X with grids GLF_N/M and GLL_N, can be controlled with VMF-IR control.

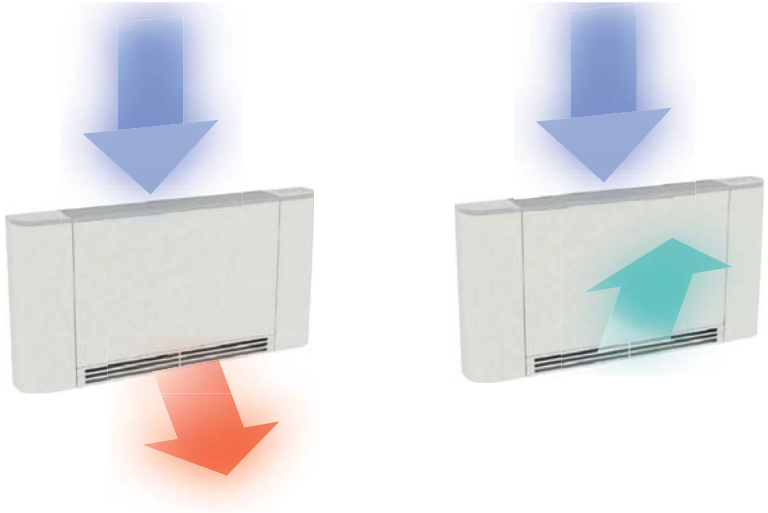
VMF-E4DX: Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).
VMF-E4X: Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.
VMF-IR: User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.
BCSV: Condensate collection tray, for valve kit.
DSC7: Condensate drainage device.
VCS2: 2-way motorised valve kit without insulating shell. The kit is made up of a valve, actuator and relative hydraulic fittings.
VCS3: 3-way motorised valve kit without insulating shell for the main coil. The kit is made up of a valve with its insulating shell, actuator and relative hydraulic fittings.
ZXS: Pair of stylish and structural feet.

MAIN FEATURES



1 Air/water exchange coils with aluminium louvers and copper piping, arranged across 2 rows.
2 Front cover in 8/10 mm galvanised sheet metal with RAL9003 white epoxy powder coating and thermal-acoustic insulation of 13 mm thickness.
3 Plastic recovery grille with air filter.
4 Tangential fan driven by a 3-speed motor.
5 Aluminium recovery grille and sheet metal delivery grille, with a special design conceived to create a homogeneous flow of air, both in summer and winter operation.

Flow rates



ACCESSORIES COMPATIBILITY

Model	Ver	10	20	30	40	50
AER503IR (1)	ULS	•	•	•	•	•
PRO503	ULS	•	•	•	•	•
SA5 (2)	ULS	•	•	•	•	•
SW3 (2)	ULS	•	•	•	•	•
SW5 (2)	ULS	•	•	•	•	•
T-TOUCH-S (3)	ULS	•	•	•	•	•
TX (1)	ULS	•	•	•	•	•
TXBS (3)	ULS	•	•	•	•	•

(1) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.
(2) Probe for AER503IR-TX thermostats, if fitted.
(3) Installation on the fan coil.

VMF system

Model	Ver	10	20	30	40	50
KITSV (1)	ULS	•	•	•	•	•
VMF-E19 (2)	ULS	•	•	•	•	•
VMF-E2S (3)	ULS	•	•	•	•	•
VMF-E3	ULS	•	•	•	•	•
VMF-E4DX	ULS	•	•	•	•	•
VMF-E4X	ULS	•	•	•	•	•
VMF-IR	ULS	•	•	•	•	•

(1) Mandatory when the VMF-E19/19I or VMF-E0X thermostat is required.
(2) Also the accessory VMF-SIT3V is mandatory if the unit exceeds 0.7 Amperes.
(3) Installation on the fan coil.

3 way valve kit

Model	Ver	10	20	30	40	50
VCS3 (1)	ULS,ULS_C	•	•	•	•	•

(1) Power supply 230V - Hydraulic connections Ø 1/2"

2 way valve kit

Model	Ver	10	20	30	40	50
VCS2 (1)	ULS,ULS_C	•	•	•	•	•

(1) Power supply 230V - Hydraulic connections Ø 1/2"

Condensate drip

Model	Ver	10	20	30	40	50
BCSV	ULS,ULS_C	•	•	•	•	•

Condensate drainage

Model	Ver	10	20	30	40	50
DSC7	ULS,ULS_C	•	•	•	•	•

Pair of stylish structural feet

Model	Ver	10	20	30	40	50
ZXS	ULS,ULS_C	•	•	•	•	•

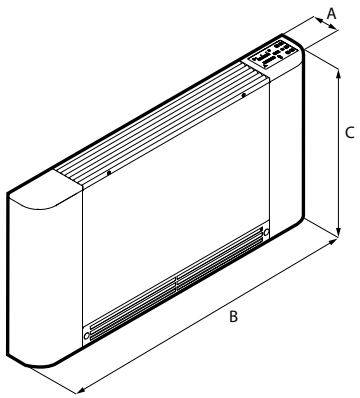
PERFORMANCE SPECIFICATIONS

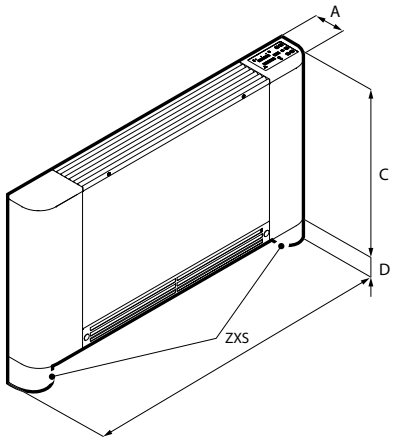
2-pipe

		ULS10			ULS20			ULS30			ULS40			ULS50		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)																
Heating capacity	kW	0,61	1,16	1,64	1,14	2,18	3,08	1,48	2,84	4,00	1,89	3,64	5,13	2,27	4,37	6,15
Water flow rate system side	l/h	53	102	144	99	191	269	129	248	350	166	318	448	199	382	538
Pressure drop system side	kPa	1	4	7	4	11	21	3	8	15	4	13	25	3	9	16
Heating performance 45 °C / 40 °C (2)																
Heating capacity	kW	0,30	0,58	0,82	0,56	1,09	1,53	0,73	1,41	1,99	0,94	1,81	2,55	1,13	2,17	3,06
Water flow rate system side	l/h	52	101	142	98	189	266	128	245	346	164	315	443	196	378	532
Pressure drop system side	kPa	1	4	7	4	12	22	3	9	16	4	14	26	3	9	17
Cooling performance 7 °C / 12 °C (3)																
Cooling capacity	kW	0,30	0,57	0,80	0,55	1,07	1,50	0,72	1,38	1,95	0,92	1,78	2,50	1,11	2,13	3,00
Sensible cooling capacity	kW	0,22	0,43	0,62	0,42	0,81	1,17	0,54	1,05	1,52	0,69	1,35	1,95	0,83	1,62	2,34
Water flow rate system side	l/h	51	97	137	95	183	257	124	238	335	158	305	429	190	366	515
Pressure drop system side	kPa	1	4	8	4	13	25	3	10	18	5	16	29	3	10	19
Fan																
Type	type	Tangential														
Fan motor	type	Asynchronous														
Number	no.	1			1			1			2			2		
Air flow rate	m^3/h	36	75	134	62	141	241	76	164	301	91	204	370	103	243	427
Input power	W	8	15	21	15	21	32	17	32	42	21	39	53	18	26	56
Electrical wiring		V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3
Fan coil sound data (4)																
Sound power level	dB(A)	42,0	49,0	52,0	42,0	49,0	52,0	43,0	50,0	53,0	44,0	51,0	54,0	45,0	52,0	55,0
Water coil																
Water content main coil	l	0,5			0,9			1,2			1,5			1,8		
Diametre hydraulic fittings																
Main coil	Ø	1/2"														
Power supply																
Power supply		230V~50Hz														

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C
(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C; EUROVENT
(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT
(4) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

DIMENSIONS





Size			10	20	30	40	50
Dimensions and weights							
A	ULS,ULS_C	mm	130	130	130	130	130
B	ULS,ULS_C	mm	745	940	1134	1328	1524
C	ULS,ULS_C	mm	580	580	580	580	580
D	ULS,ULS_C	mm	80	80	80	80	80
Empty weight	ULS,ULS_C	kg	11	13	15	17	19

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Omnia ULSI

Vertical wall-mounting or free-standing installation

- **Compact dimensions, thickness 130 mm**
- **Low operating temperature**
- **Cooling, heating, and dehumidification**



DESCRIPTION

The Omnia Slim fan coils have been designed to meet the need to combine the typical features of a classic radiator - namely reduced depth and quiet operation - with the ability of a fan coil to air-condition rooms throughout the year.
They can be installed on any system with a 2-pipe system and it fits with any heat generator even at low temperatures, and thanks to varied versions and settings, it is easy to pick the ideal solution for any need.

VERSIONS

ULSI Inverter without control board
ULSI_C Inverter with on-board thermostat

FEATURES

Case

Structure in sheet metal, 12/10 and 8/10 mm.
Front cover in 8/10 mm galvanised sheet metal with RAL9003 white epoxy powder coating and thermal-acoustic insulation of 13 mm thickness.

Ventilation group

These fan coils have extremely silent ventilation by using special tangential fans, which guarantees maximum acoustic comfort.
Brushless motor with continuous speed variation.

Heat exchanger coil

With copper pipes and aluminium louvers, the main coil has female gas water connections on the left side and the manifolds have air vents.
The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

■ *The coil has hydraulic connections on the left and is not reversible.*

Control

With thermostatic adjustment and manual or no-adjustment switching, for combination with any wall panel or with the AERMEC VMF system.

ACCESSORIES

AER503IR: Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.
PRO503: Wall box for AER503IR and VMF-E4 thermostats.
SA5: air probe kit (L = 15 m) with probe-locking cable grommet.
SW3: Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.
SW5: water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.
T-TOUCH-IS: Touch control installation on-board the fan coil. The ThermApp application is also available for remote control with smart devices with the Android operating system.
TX: Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).
TXBIS: Thermostat installation on the fan coil.
KITSV: Kit for installing the VMF-E0X or VMF-E19/19I.
VMF-E19I: Thermostat for inverter unit to be fixed on the side of the fan coil, fitted as standard with an air and water probe.
VMF-E2S: User interface on the fan coil, with two selectors - one for temperature and the other for speed control. For operation, the installation of either the VMF-E0X, VMF-E19 or VMF-E19I accessory is required.
VMF-E3: Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, VMF-E0X with grids GLF_N/M and GLL_N, can be controlled with VMF-IR control.

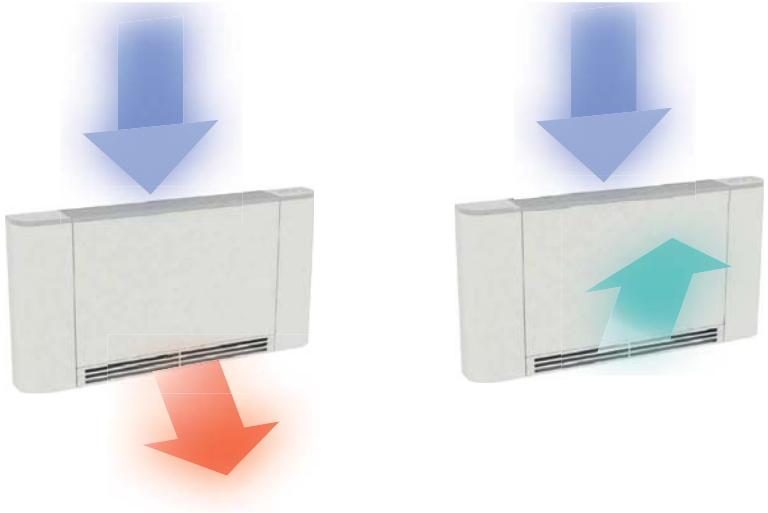
VMF-E4DX: Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).
VMF-E4X: Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.
VMF-IR: User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.
BCSV: Condensate collection tray, for valve kit.
DSC7: Condensate drainage device.
VCS2: 2-way motorised valve kit without insulating shell. The kit is made up of a valve, actuator and relative hydraulic fittings.
VCS3: 3-way motorised valve kit without insulating shell for the main coil. The kit is made up of a valve with its insulating shell, actuator and relative hydraulic fittings.
ZXS: Pair of stylish and structural feet.

MAIN FEATURES



1 Air/water exchange coils with aluminium louvers and copper piping, arranged across 2 rows.
2 Front cover in 8/10 mm galvanised sheet metal with RAL9003 white epoxy powder coating and thermal-acoustic insulation of 13 mm thickness.
3 Plastic recovery grille with air filter.
4 Tangential fan driven by a Brushless motor with continuous speed variation.
5 Aluminium recovery grille and sheet metal delivery grille, with a special design conceived to create a homogeneous flow of air, both in summer and winter operation.

Flow rates



ACCESSORIES COMPATIBILITY

Model	Ver	10	20	30	40	50
AER503IR (1)	ULSI	•	•	•	•	•
PRO503	ULSI	•	•	•	•	•
SA5 (2)	ULSI	•	•	•	•	•
SW3 (2)	ULSI	•	•	•	•	•
SW5 (2)	ULSI	•	•	•	•	•
T-TOUCH-IS	ULSI	•	•	•	•	•
TX (1)	ULSI	•	•	•	•	•
TXBIS	ULSI	•	•	•	•	•

(1) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.
(2) Probe for AER503IR-TX thermostats, if fitted.

VMF system

Model	Ver	10	20	30	40	50
KITSV (1)	ULSI	•	•	•	•	•
VMF-E19I	ULSI	•	•	•	•	•
VMF-E2S (2)	ULSI	•	•	•	•	•
VMF-E3	ULSI	•	•	•	•	•
VMF-E4DX	ULSI	•	•	•	•	•
VMF-E4X	ULSI	•	•	•	•	•
VMF-IR	ULSI	•	•	•	•	•

(1) Mandatory when the VMF-E19/19I or VMF-E0X thermostat is required.
(2) Installation on the fan coil.

3 way valve kit

Model	Ver	10	20	30	40	50
VCS3 (1)	ULSI,ULSI_C	•	•	•	•	•

(1) Power supply 230V - Hydraulic connections Ø 1/2"

2 way valve kit

Model	Ver	10	20	30	40	50
VCS2 (1)	ULSI,ULSI_C	•	•	•	•	•

(1) Power supply 230V - Hydraulic connections Ø 1/2"

Condensate drip

Model	Ver	10	20	30	40	50
BCSV	ULSI,ULSI_C	•	•	•	•	•

Condensate drainage

Model	Ver	10	20	30	40	50
DSC7	ULSI,ULSI_C	•	•	•	•	•

Pair of stylish structural feet

Model	Ver	10	20	30	40	50
ZXS	ULSI,ULSI_C	•	•	•	•	•

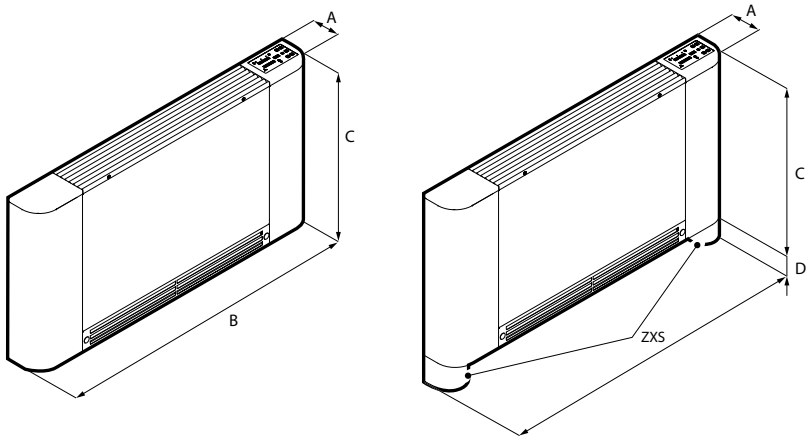
PERFORMANCE SPECIFICATIONS

2-pipe

		ULSI10			ULSI20			ULSI30			ULSI40			ULSI50		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)																
Heating capacity	kW	0,70	1,14	1,53	1,27	1,88	2,86	1,88	2,91	3,72	2,32	3,55	4,77	2,49	3,85	5,73
Water flow rate system side	l/h	61	100	134	111	165	251	165	254	326	203	311	418	218	337	501
Pressure drop system side	kPa	2	4	7	5	10	20	6	14	22	6	13	22	5	10	21
Heating performance 45 °C / 40 °C (2)																
Heating capacity	kW	0,35	0,57	0,76	0,63	0,94	1,43	0,94	1,45	1,85	1,15	1,77	2,38	1,24	1,92	2,85
Water flow rate system side	l/h	61	99	132	110	163	248	163	251	322	201	307	413	216	333	495
Pressure drop system side	kPa	2	4	7	5	9	20	6	14	22	6	13	22	5	10	21
Cooling performance 7 °C / 12 °C (3)																
Cooling capacity	kW	0,37	0,60	0,80	0,67	0,98	1,50	0,98	1,52	1,95	1,22	1,86	2,50	1,30	2,02	3,00
Sensible cooling capacity	kW	0,25	0,42	0,57	0,46	0,68	1,08	0,68	1,06	1,39	0,84	1,30	1,79	0,90	1,40	2,15
Water flow rate system side	l/h	63	103	137	114	169	257	169	261	335	209	319	429	224	346	515
Pressure drop system side	kPa	3	6	10	7	13	28	9	19	30	9	18	30	7	14	29
Fan																
Type	type	Tangential														
Fan motor	type	Inverter														
Number	no.	1			1			1			2			2		
Air flow rate	m^3/h	46	82	134	78	128	241	109	188	301	126	218	370	127	225	427
Input power	W	5	8	10	6	9	15	7	12	17	7	14	20	7	13	21
Signal 0-10V	%	40	70	90	40	70	90	40	70	90	40	70	90	40	70	90
Fan coil sound data (4)																
Sound power level	dB(A)	39,0	47,0	51,0	39,0	47,0	51,0	40,0	48,0	53,0	41,0	49,0	54,0	42,0	52,0	56,0
Water coil																
Water content main coil	l	0,5			0,9			1,2			1,5			1,8		
Diametre hydraulic fittings																
Main coil	Ø	1/2"														
Power supply																
Power supply		230V~50Hz														

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C
(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C; EUROVENT
(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT
(4) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

DIMENSIONS



Size			10	20	30	40	50
Dimensions and weights							
A	ULSI,ULSI_C	mm	130	130	130	130	130
B	ULSI,ULSI_C	mm	745	940	1134	1328	1524
C	ULSI,ULSI_C	mm	580	580	580	580	580
D	ULSI,ULSI_C	mm	80	80	80	80	80
Empty weight	ULSI,ULSI_C	kg	11	13	15	17	19

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Omnia UL

Universal and floor installation

- **Fully silent functioning**
- **Ideal for residential or office solutions**



DESCRIPTION

Fan coils with inverter technology for heating, cooling, and dehumidifying. Equipped with a state of the art ventilation unit with continuous modulation of the air flow rate, which allows for precise adaptation of the actual indoor ambient requirements without temperature oscillations, for increased comfort, also in terms of noise, and electrical savings.
It can be installed on 2-pipe systems and combined with any heat generator even at low temperatures. Choosing the optimal solution for any requirement is easy thanks to the various versions available and to the possibility of horizontal or vertical installation, depending on the version.

VERSIONS

C Vertical installation, intake at base, electronic thermostat
PC Vertical installation, intake at base, electronic thermostat, Cold Plasma purifier
S Vertical and horizontal installation, intake at base, without commands
UL Standard - Vertical installation, bottom intake, manual switch-over

FEATURES

Case

Protective metal cabinet with anti-corrosion polyester RAL 9002 paint, whereas the head with the air distribution grille is in RAL 7047 plastic.

Ventilation group

Comprised of a dual intake centrifugal fan that is particularly silent, statically and dynamically balanced and directly coupled to the motor shaft.
The electric motor is single-phase multi-speed (3 selectable), mounted on anti-vibration supports and with a permanently inserted capacitor.
The plastic augers are extractable for easy and efficient cleaning.

Heat exchanger coil

With copper pipes and aluminium louvers, the main coil has female gas water connections on the left side and the manifolds have air vents.
The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

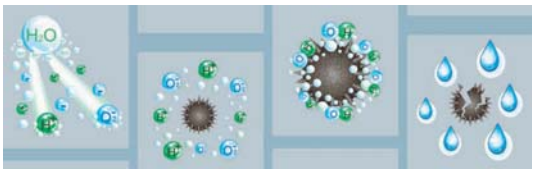
■ *The hydraulic connections can be inverted during installation.*

Condensate drip

Provided standard in plastic and fixed to the interior structure; with external condensate discharge.

Air filter

The fan coils have, as standard, precharged electrostatic filters. These filters, thanks to their special execution, attracts and retains all suspended dust particles, thus garanteeing pure breathable air to the whole family.
APC versions equipped with Coldplasma Air purifier.
The purifier is able to reduce pollutants, decomposing their molecules using electrical charges, causing the water molecules in the air to split into positive and negative ions. These ions neutralise the molecules in the gaseous pollutants, obtaining products normally present in clean air. The device is able to eliminate 90% of the bacteria. The result is clean, ionized air, free of foul odours.



ACCESSORIES

AER503IR: Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.
PRO503: Wall box for AER503IR and VMF-E4 thermostats.
SA5: air probe kit (L = 15 m) with probe-locking cable grommet.
SW3: Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.
SW5: water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.
TX: Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).
WMT05: Electronic thermostat with thermostated ventilation.
WMT10: Electronic thermostat, white, with thermostated or continuous ventilation.
VMF-E0X: Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe.
VMF-E2D: User interface on the machine, to be combined with the VMF-E19 accessory.
VMF-E3: Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, VMF-E0X with grids GLF_N/M and GLL_N, can be controlled with VMF-IR control.
VMF-E4DX: Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).
VMF-E4X: Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.
VMF-IR: User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.
AMP: Wall mounting kit
DSC: Condensate drainage device.
VCH: 3-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.
VCHD: 2-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.
BC: Condensate drip.
GU: Intake grid covers the front space between the ornamental feet and does not interfere with the filter.
PCU: Sheet metal panel closing the rear of the unit.
ZU: Pair of stylish and structural feet.

ACCESSORIES COMPATIBILITY

Model	Ver	11	16	26	36
AER503IR (1)	S	•	•	•	•
PRO503	S	•	•	•	•
SA5 (2)	S	•	•	•	•
SW3 (2)	C,PC,S	•	•	•	•
SW5 (2)	S	•	•	•	•
TX (1)	S	•	•	•	•
WMT05 (1)	S	•	•	•	•
WMT10 (1)	S	•	•	•	•

(1) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.
(2) Probe for AER503IR-TX thermostats, if fitted.

VMF system

Model	Ver	11	16	26	36
VMF-E0X (1)	S	•	•	•	•
VMF-E2D	S	•	•	•	•
VMF-E3	S	•	•	•	•
VMF-E4DX	S	•	•	•	•
VMF-E4X	S	•	•	•	•
VMF-IR	S	•	•	•	•

(1) Also the accessory VMF-SIT3V is mandatory if the unit exceeds 0.7 Amperes.

Condensate drip

Model	Ver	11	16	26	36
BC10 (1)	C,PC,S,UL	•	•	•	•
BC20 (2)	C,PC,S,UL	•	•	•	•

(1) For vertical installation.
(2) For horizontal installation.

Condensate drainage

Model	Ver	11	16	26	36
DSC5 (1)	C,PC,S,UL	•	•	•	•

(1) The accessory cannot be fit if the accessory BC10 or BC20 is installed.

3 way valve kit

Model	Ver	11	16	26	36
VCH	C,PC,S,UL	•	•	•	•

2 way valve kit

Model	Ver	11	16	26	36
VCHD	C,PC,S,UL	•	•	•	•

Wall mounting kit

Model	Ver	11	16	26	36
AMP10	C,PC	•	•	•	•

Panel closing the rear of the unit

Ver	11	16	26	36
C,PC,S,UL	PCU10	PCU15	PCU25	PCU35

Intake grids

Ver	11	16	26	36
C,PC,S,UL	GU10 (1)	GU15 (1)	GU25 (1)	GU35 (1)

(1) The combination with a pair of stylish and structural feet is mandatory.

Pair of stylish structural feet

Model	Ver	11	16	26	36
ZU	C,PC,S,UL	•	•	•	•

Configuration

Field	Description
1,2	**UL**
3,4	**Size** 11, 16, 26, 36
5	**Version**
C	Vertical installation, intake at base, electronic thermostat
PC	Vertical installation, intake at base, electronic thermostat, Cold Plasma purifier
S	Vertical and horizontal installation, intake at base, without commands
UL	Standard - Vertical installation, bottom intake, manual switch-over

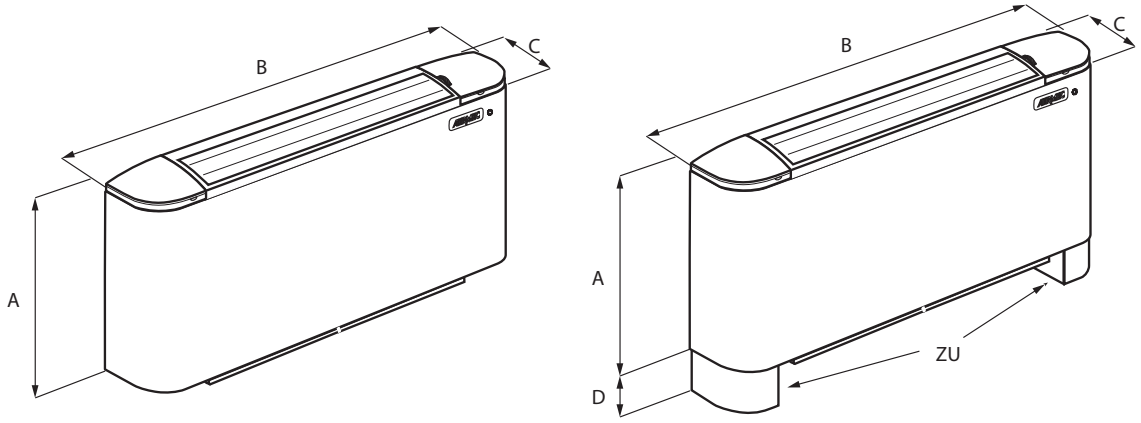
PERFORMANCE SPECIFICATIONS

2-pipe

		UL11			UL16			UL26			UL36		
		1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)													
Heating capacity	kW	1,06	1,46	2,01	1,54	2,12	2,91	2,89	3,83	4,62	3,63	4,87	5,94
Water flow rate system side	l/h	93	128	176	135	186	255	254	336	405	310	427	521
Pressure drop system side	kPa	1	1	2	1	2	4	5	8	11	3	5	7
Heating performance 45 °C / 40 °C (2)													
Heating capacity	kW	0,52	0,73	1,00	0,76	1,05	1,44	1,44	1,90	2,29	1,75	2,42	2,95
Water flow rate system side	l/h	92	126	174	133	183	251	249	331	399	305	420	513
Pressure drop system side	kPa	1	1	2	2	3	3	5	8	11	7	13	18
Cooling performance 7 °C / 12 °C (3)													
Cooling capacity	kW	0,53	0,67	0,82	0,69	0,87	1,17	1,26	1,65	1,99	1,63	2,26	2,79
Sensible cooling capacity	kW	0,38	0,52	0,68	0,52	0,69	0,96	0,97	1,30	1,61	1,13	1,59	2,00
Water flow rate system side	l/h	94	117	145	122	153	206	220	289	349	286	394	487
Pressure drop system side	kPa	1	2	2	2	3	5	5	8	11	7	13	19
Fan													
Type	type	Centrifugal			Centrifugal			Centrifugal			Centrifugal		
Fan motor	type	On-Off			On-Off			On-Off			On-Off		
Number	no.	1			1			2			2		
Air flow rate	m^3/h	80	120	180	110	160	240	190	270	350	240	350	460
Input power	W	8	12	18	23	25	32	24	27	35	30	35	42
Electrical wiring		V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3
Fan coil sound data (4)													
Sound power level	dB(A)	31,0	37,0	46,0	34,0	43,0	48,0	35,0	43,0	48,0	34,0	43,0	50,0
Sound pressure	dB(A)	23,0	29,0	38,0	26,0	35,0	40,0	27,0	35,0	40,0	26,0	33,0	40,0
Water coil													
Water content main coil	l	0,3			0,4			0,6			0,8		
Diametre hydraulic fittings													
Main coil	Ø	1/2"			1/2"			1/2"			1/2"		
Power supply													
Power supply		230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz		

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C
(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C; EUROVENT
(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT
(4) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

DIMENSIONS



Size			11	16	26	36
Dimensions and weights						
A	C,PC,S,UL	mm	513	513	513	513
B	C,PC,S,UL	mm	640	750	980	1200
C	C,PC,S,UL	mm	173	173	173	173
D	C,PC,S,UL	mm	93	93	93	93
Empty weight	C,PC,S,UL	kg	12	14	16	20

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Omnia ULI

Universal and floor installation

- **Electric saving equal to 50% compared to a fancoil with 3-speed motor.**
- **Fully silent functioning**
- **Ideal for residential or office solutions**



DESCRIPTION

Fan coils with inverter technology for heating, cooling, and dehumidifying. Equipped with a state of the art ventilation unit with continuous modulation of the air flow rate, which allows for precise adaptation of the actual indoor ambient requirements without temperature oscillations, for increased comfort, also in terms of noise, and electrical savings.
It can be installed on 2-pipe systems and combined with any heat generator even at low temperatures. Choosing the optimal solution for any requirement is easy thanks to the various versions available and to the possibility of horizontal or vertical installation, depending on the version.

VERSIONS

C Vertical installation, intake at base, electronic thermostat
PC Vertical installation, intake at base, electronic thermostat, Cold Plasma purifier
S Vertical and horizontal installation, intake at base, without commands

FEATURES

Case

Protective metal cabinet with anti-corrosion polyester RAL 9002 paint, whereas the head with the air distribution grille is in RAL 7047 plastic.

Ventilation group

Comprised of a dual intake centrifugal fan that is particularly silent, statically and dynamically balanced and directly coupled to the motor shaft.
Brushless motor with continuous speed variation 0-100%.
The scroll that protects the fan can be extracted and inspected, for easy and effective cleaning.

Heat exchanger coil

With copper pipes and aluminium louvers, the main coil has female gas water connections on the left side and the manifolds have air vents.
The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

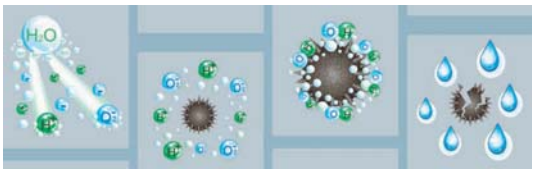
The hydraulic connections can be inverted during installation.

Condensate drip

Provided standard in plastic and fixed to the interior structure; with external condensate discharge.

Air filter

The fan coils have, as standard, precharged electrostatic filters. These filters, thanks to their special execution, attracts and retains all suspended dust particles, thus garanteeing pure breathable air to the whole family.
APC versions equipped with Coldplasma Air purifier.
The purifier is able to reduce pollutants, decomposing their molecules using electrical charges, causing the water molecules in the air to split into positive and negative ions. These ions neutralise the molecules in the gaseous pollutants, obtaining products normally present in clean air. The device is able to eliminate 90% of the bacteria. The result is clean, ionized air, free of foul odours.



ACCESSORIES

AER503IR: Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant

floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.
PRO503: Wall box for AER503IR and VMF-E4 thermostats.
SA5: air probe kit (L = 15 m) with probe-locking cable grommet.
SW3: Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.
SW5: water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.
TX: Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).
VMF-E19I: Thermostat for inverter unit to be fixed on the side of the fan coil, fitted as standard with an air and water probe.
VMF-E2D: User interface on the machine, to be combined with the VMF-E19 accessory.
VMF-E3: Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, VMF-E0X with grids GLF_N/M and GLL_N, can be controlled with VMF-IR control.
VMF-E4DX: Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).
VMF-E4X: Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.
VMF-IR: User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.
AMP: Wall mounting kit
DSC: Condensate drainage device.
VCH: 3-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.
VCHD: 2-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.
BC: Condensate drip.
GU: Intake grid covers the front space between the ornamental feet and does not interfere with the filter.
PCU: Sheet metal panel closing the rear of the unit.
ZU: Pair of stylish and structural feet.

ACCESSORIES COMPATIBILITY

Model	Ver	16	26	36
AER503IR (1)	S	•	•	•
PRO503	S	•	•	•
SA5 (2)	S	•	•	•
SW3 (2)	C,PC,S	•	•	•
SW5 (2)	S	•	•	•
TX (1)	S	•	•	•

(1) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.
(2) Probe for AER503IR-TX thermostats, if fitted.

VMF system

Model	Ver	16	26	36
VMF-E19I	S	•	•	•
VMF-E2D	S	•	•	•
VMF-E3	S	•	•	•
VMF-E4DX	S	•	•	•
VMF-E4X	S	•	•	•
VMF-IR	S	•	•	•

Condensate drip

Model	Ver	16	26	36
BC10 (1)	C,PC,S	•	•	•
BC20 (2)	C,PC,S	•	•	•

(1) For vertical installation.
(2) For horizontal installation.

Condensate drainage

Model	Ver	16	26	36
DSC5 (1)	C,PC	•	•	•

(1) The accessory cannot be fit if the accessory BC10 or BC20 is installed.

3 way valve kit

Model	Ver	16	26	36
VCH	C,PC	•	•	•

2 way valve kit

Model	Ver	16	26	36
VCHD	C,PC	•	•	•

Wall mounting kit

Model	Ver	16	26	36
AMP10	C,PC	•	•	•

Pair of stylish structural feet

Model	Ver	16	26	36
ZU	C,PC,S	•	•	•

Configuration

Field	Description
1,2,3	**ULI**
4,5	**Size** 16, 26, 36
6	**Version**
C	Vertical installation, intake at base, electronic thermostat
PC	Vertical installation, intake at base, electronic thermostat, Cold Plasma purifier
S	Vertical and horizontal installation, intake at base, without commands

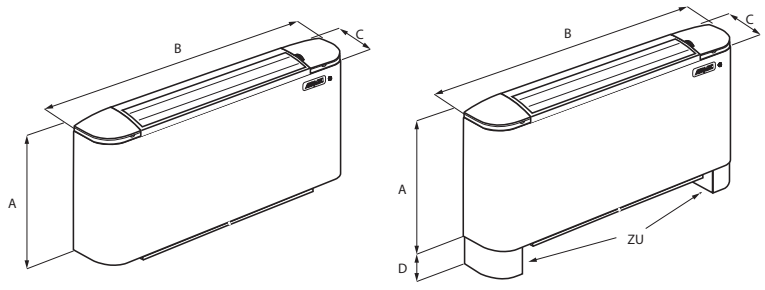
PERFORMANCE SPECIFICATIONS

2-pipe

		ULI16			ULI26			ULI36		
		1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)										
Heating capacity	kW	1,54	2,12	2,91	2,89	3,83	4,62	3,53	4,87	5,94
Water flow rate system side	l/h	135	186	255	254	336	405	310	427	521
Pressure drop system side	kPa	1	2	4	5	8	11	3	5	7
Heating performance 45 °C / 40 °C (2)										
Heating capacity	kW	0,76	1,05	1,44	1,44	1,90	2,29	1,75	2,42	2,95
Water flow rate system side	l/h	133	183	251	249	331	399	305	420	513
Pressure drop system side	kPa	2	2	2	5	8	11	7	12	18
Cooling performance 7 °C / 12 °C (3)										
Cooling capacity	kW	0,69	0,87	1,17	1,26	1,65	1,99	1,63	2,26	2,79
Sensible cooling capacity	kW	0,52	0,69	0,96	0,97	1,30	1,61	1,13	1,59	2,00
Water flow rate system side	l/h	122	153	206	220	289	349	286	394	487
Pressure drop system side	kPa	2	3	5	6	8	11	7	13	19
Fan										
Type	type					Centrifugal				
Fan motor	type					Inverter				
Number	no.		1			2			2	
Air flow rate	m^3/h	110	160	240	190	270	350	240	350	460
Input power	W	23	25	32	24	27	35	30	35	42
Signal 0-10V	%	38	56	83	49	70	90	48	70	90
Sound power level	dB(A)	34,0	43,0	48,0	35,0	43,0	48,0	34,0	43,0	50,0
Sound pressure level (10 m)	dB(A)	26,0	35,0	40,0	27,0	35,0	40,0	26,0	33,0	42,0
Water coil										
Water content	l		0			1			1	
Diametre hydraulic fittings										
Main coil	Ø					1/2"				
Power supply										
Power supply						230V~50Hz				

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C
(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C; EUROVENT
(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT

DIMENSIONS



Size			16	26	36
Dimensions and weights					
A	C,PC,S	mm	513	513	513
B	C,PC,S	mm	750	980	1200
C	C,PC,S	mm	173	173	173
D	C,PC,S	mm	93	93	93
Empty weight	C,PC,S	kg	14	16	20

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OMNIA RADIANT

Fan coils with radiant panel for residential use

Ceiling or floor mounted

- **Low temperature radiation***
- **Ventilated heating**
- **Cooling - dehumidification**
- **Energy saving**
- **Low operating cost**

*** Radiant technology under licence**



FEATURES

Omnia Radiant and Omnia Radiant Plus Aermec innovative solutions

In this particular worldwide market evolution, we are pleased to present to you OMNIA Radiant, which represents the innovation of the OMNIA AERMEC series, fan coils especially designed for residential comfort.

OMNIA Radiant inherits all the advantages of the OMNIA UL series, and is characterized by the introduction of the frontal plate for radiant heating.
OMNIA Radiant Plus is provided with the DC Brushless electric engine, equipped with the latest Inverter technology, granting the highest energy efficiency and able to regulate the air flow through the continuous fan speed modulation. This allows to achieve up to 60% in energy saving when compared to the traditional On-Off fan system, in both air conditioning and heating.

OMNIA Radiant and Radiant Plus offer the following advantages when compared to the traditional systems:

— the radiant plate combination – the finned coil allows the best winter comfort with the lower energy consumption because it provides heating with lower water temperature: only 45°C against the about 65°C needed for the traditional radiator. This not only increases the comfort for the user, but also significantly increases the overall efficiency in case of heat pumps usage;
— the fan system allows to quickly reach the desired temperature, meeting the requirement of a fast start-up;
— the unit can be combined other than the boiler, also to energy saving heat pumps: air to water, water to water and geothermic type;
— the electrostatic charge filter standard supplied, provides pure and clean air;
— during summer Omnia Radiant and Radiant Plus provide air conditioning and dehumidification in a fast and efficient way in every room.

The four different working modes of Omnia Radiant annual functioning

Radiant

Heating through radiation, comfortable and noiseless, is granted by the radiant plate placed on the front of the fan coil cover; if necessary, the triple-fins delivery head can be closed to increases the heating of the plate, thus maximizing the radiant effect.

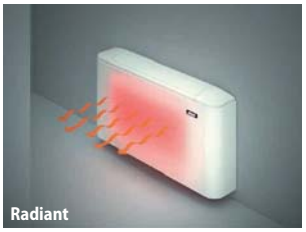
Radiant + Natural Convection

With the triple-fins open, heating through natural convection, obtained thanks to the bigger coil exchange surface, is added to the radiant heating.
As for the radiant-only mode (see above), the fan groups are in off mode. This results in acoustic comfort and energy saving.

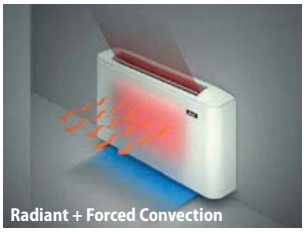
Radiant + Forced Convection

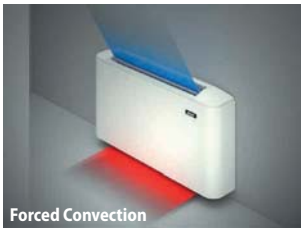
The electronic regulation, precise and reliable, continuously compares the effective indoor temperature with the desired temperature: whenever the difference between the two should prove to be too high (e.g. during the heating system start-up) the software will lead the fan system start-up. Start-up is fast and efficient and grants significant energy savings especially in rooms that are occasionally used.

Omnia Radiant during summer provides air conditioning and dehumidification:







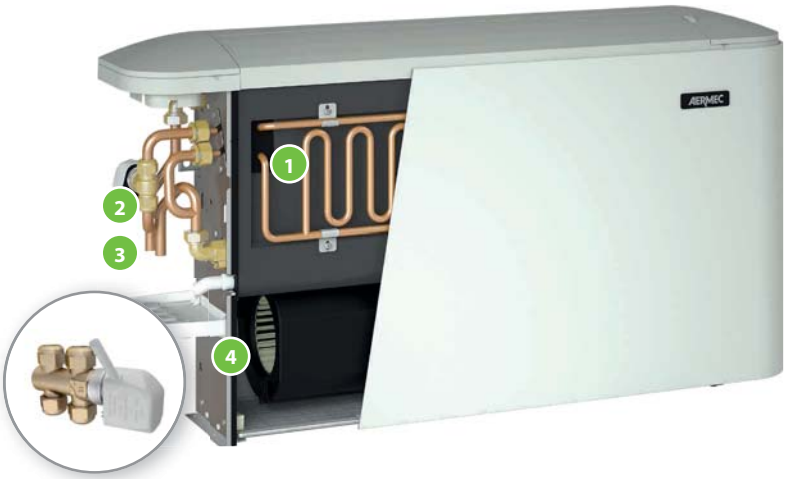


Forced Convection

During summer, Omnia Radiant and Radiant Plus provide air conditioning and dehumidification for each room of the house in a fast and efficient way. Efficiency and quietness benefit from the quality that has always characterized the Omnia series.

FEATURES OF THE OMNIA RADIANT SERIES

1. Radiant plate
2. Switching valve
3. Water probe
4. Condensate storage container, hydraulic hoses



VCHRAD accessory

OMNIA radiant (UL_R) standard features:
- Radiant panel
- Centrifugal fans
- Three-speed motor
- Condensate storage container, hydraulic hoses
- Switching valve
- Water probe
- Electro-statically preloaded filter
- VMF-thermostat for asynchronous motor
- Compatible with VMF system

OMNIA radiant plus (UL_RI) standard features:
- Radiant panel
- Centrifugal fans
- Electric DC Brushless motor with Inverter
- Condensate storage container, hydraulic hoses
- Water probe
- Switching valve
- Electro-statically preloaded filter
- VMF thermostat for DC Brushless motor
- Compatible with VMF system

Cleaning the fan

The fan blades on the Omnia Radiant are easy to clean. As a matter of fact, the new versions now offer the possibility of opening the worm screw of the fan (the casing that encloses the blades) to perform routine cleaning.

Electro-statically preloaded filter

The Omnia Radiant fan coils feature standard air filters that are electro-statically preloaded. These filters, thanks to their particular construction, absorb and trap floating dust: the ideal system to provide clean air for all the family.

Silent operation

Thanks to special centrifugal fans, Omnia Radiant fan coils are incredibly silent, making them the best buy when it comes to acoustic comfort, given the total lack of peak noise. **"The heating by radiation at top speed ensures total silence regime"**

Note: The coil had hydraulic hoses on the left and is not reversible.

ACCESSORIES

PCU: Rear closing panel.
ZU: Wedges for floor mount.
GU: Exhaust grille: covers the front space of the wedges and does not interfere with the air filter. **Must be combined with ZU wedges.**

VCHRAD: Kit comprising motorized 3-way valve, unions and copper pipes.
VMF System: Its specs are described in its technical sheet.

ACCESSORIES COMPATIBILITY

	Omnia radiant		Omnia Radiant plus	
	UL26R	UL36R	UL26RI	UL36RI
PCU	25	35	25	35
GU	25	35	25	35
VCHRAD	•	•	•	•
ZU	•	•	•	•
VMF system				
VMF-E4X (compulsory accessory)	•	•	•	•
VMF-E4DX (compulsory accessory)	•	•	•	•
VMF-E5B	(1)	(1)	•	•
VMF-E5N	(1)	(1)	•	•

(1) Contact us

TECHNICAL DATA

Omnia UL_R				26			36	
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance								
2 pipe configuration								
Heating capacity (70°C)	(1)	kW	4,62	3,83	2,89	5,94	4,87	3,53
Heating capacity (50°C)	(2)	kW		2,75			3,54	
Water flow rate		l/h		397			511	
Pressure drop		kPa		17			21	
Static heating power (70°C)	(3)	kW		0,65			0,75	
Static heating power (50°C)	(4)	kW		0,39			0,45	
Static heating power (35°C)	(5)	kW		0,20			0,23	
Cooling Performance								
Total cooling capacity	(6)	kW	2,03	1,78	1,42	2,83	2,31	1,73
Sensible cooling capacity	(6)	kW	1,64	1,37	1,05	2,04	1,79	1,28
Water flow rate	(6)	l/h		349			487	
Pressure drops	(6)	kPa		18			22	
Water content		l		0,8			1,1	
Fans								
Fans		type/n°			centrifugal/2			
Air flow rate		m³/h	350	270	190	460	350	240
Sound data								
Sound power level	(7)	dB(A)	48	43	35	50	43	34
Sound pressure level		dB(A)	40	35	27	40	33	26
Diameter connections								
Standard coil		Ø(mm)		14			14	
Electrical Features								
Absorbed power		W		35			42	
Max. input current		A		0,18			0,22	
Electrical connections			V3	V2	V1	V3	V2	V1
Power supply		V/ph/Hz			230V~50Hz			
Energy Efficiency classification (EUROVENT)								
FCEER				D			D	
FCCOP	(8)			D			D	

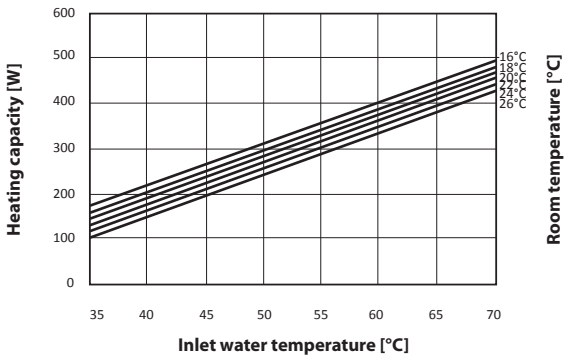
Omnia UL_RI				26			36	
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance								
2 pipe configuration								
Heating capacity (70°C)	(1)	kW	4,62	3,83	2,89	5,94	4,87	3,53
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Water content		l		0,8			1,1	
Fans								
Fans		type/n°			centrifugal/2			
Air flow rate		m³/h	350	270	190	460	350	240
Sound data								
Sound power level	(7)	dB(A)	48	43	35	50	43	34
Sound pressure level		dB(A)	40	35	27	40	33	26
Diameter connections								
Standard coil		Ø(mm)		14			14	
Electrical Features								
Absorbed power		W		12			16	
Max. input current		A		0,18			0,22	
Signal 0-10V			9V	7V	5V	9V	7V	5V
Power supply		V/ph/Hz			230V~50Hz			
Energy Efficiency classification (EUROVENT)								
FCEER				D			D	
FCCOP	(8)			D			D	

H max. speed; **M** med. speed; **L** min. speed
(1) Room air 20°C b.s.; Water (in/out) 70°C/60°C;
(2) Room air 20°C b.s.; Water (in) 50°C; Water flow rate as in cooling mode (EUROVENT)
(3) Radiant power + natural convection; Hot water (in) 70°C (water flow same as in heating cycle)
(4) Room temperature 20°C b.s.; Hot water (in/*) 50°C/*°C (water flow same as in heating cycle)
(5) Radiant power + natural convection; Hot water (in/*) 35°C/*°C (water flow same as in heating cycle)
(6) Room air 27°C b.s./19°C b.u.; Water (in/out) 7°C/12°C (EUROVENT)
(7)Sound power: Aermec determines sound power values on the basis of measurements made in accordance with UNI EN 16583:15, as required for Eurovent certification
Level of sound pressure (A-weighted) measured in the room with volume V = 85m3 ; reverberation time t = 0.5s; direction factor Q = 2; distance r = 2.5m
(8) FCCOP Related to: Room air 20°C b.s.; Water (in) 50°C; Water flow rate as in cooling mode

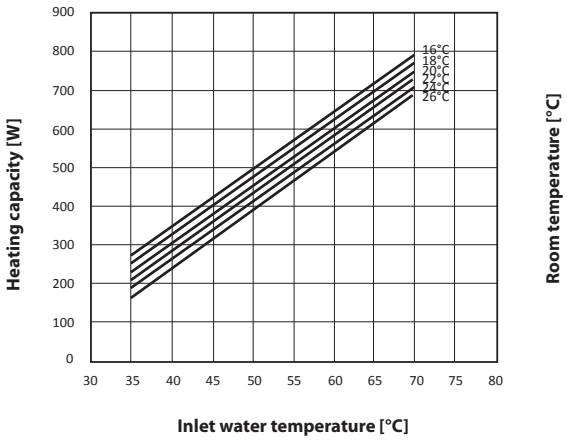
Note: For more information, please refer to the program selection and the technical documentation available on the website www.aermec.com

HEATING CAPACITY WITH FAN OFF

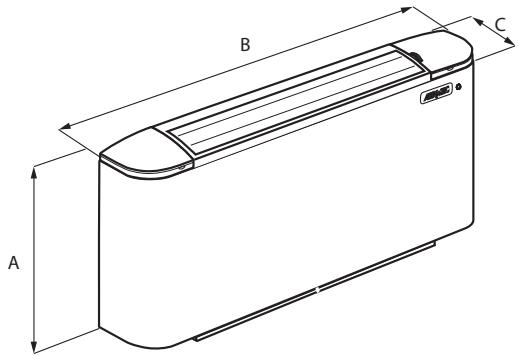
UL26R - UL26RI



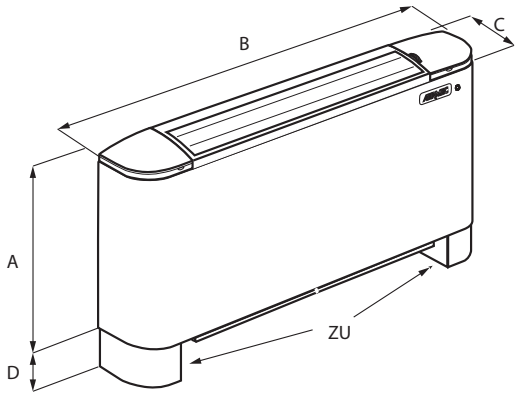
UL36R - UL36RI



DIMENSIONS



Wall installation



Floor installation

Omnia UL_R - UL_RI

Size			26	36
Dimensions and weights				
Height	A	mm	513	513
Width	B	mm	980	1200
Depth	C	mm	173	173
Height ZU (Accessories)	D	mm	93	93
Weight	(1)	kg	20	24

(1) Standard configuration of unit with accessories

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FCY

Fan coil unit for ducted installations

- **Plug and play installation only in horizontal**
- **Reduced dimensions**
- **Inspectable ventilation group**



DESCRIPTION

Monobloc duct type fan coils for heating and/or cooling small and medium-sized environments for civil and commercial use.
They were designed and built for flush horizontal installation in any type of 2/4 pipe system and in combination with any heat generator, also at low temperatures.
Thanks to the availability of various versions and configurations, with a standard or oversized coil, it is easy to select the optimal solution for any requirement.

FEATURES

Ventilation group

Centrifugal fans in anti-static plastic material with aerofoil profile designed to achieve high airflows and pressures whilst at the same time producing low noise.
Their characteristics permit energy savings compared to conventional fans.
They are statically and dynamically balanced and directly coupled to the motor shaft.
The electric motor is single-phase multi-speed (3 selectable), mounted on anti-vibration supports and with a permanently inserted capacitor.
The plastic augers are extractable for easy and efficient cleaning.

Heat exchanger coil

With copper pipes and aluminium louvers, the standard or oversized main coil and the possible secondary coil have female gas water connections on the left side and the manifolds have air vents.

■ *Reversibility of the water connections during installation only for units with a main standard or oversized coil or standard with BV accessory. Not reversible in all other configurations.*

Air filter

Where present, **the Coarse 25% Class according to ISO16890 (G2 according to EN779)** air filter, which is easy to remove and clean.

Condensate drip

In addition to the internal tray, all units are equipped with a **configurable external condensate collection tray** during installation.
The kit comprises a single element, which is made up of two pieces: the **tray** with a double drain to be installed on the right or left, and the **drip moulding,** which must be installed if mounting the valve kit and may not be used for installations without the valves with limited technical spaces.

Control

The unit's electrical box is reversible, with the option of mounting it also on the same side of the water connections.
The standard equipment includes a single 10-pin control board as an interface for the electrical connections, the preparation for the VMF series thermostat fastener and the included supply of a DIN guide for the installation of a third-party control.

GUIDE TO SELECTING THE POSSIBLE CONFIGURATIONS

Field		Description
1,2,3		**FCY**
4		**Size** 2, 3, 4, 5, 6, 7
5		**Main coil (1)**
	0	Standard
	5	Oversized
6		**Secondary coil**
	0	Without coil
	1	Standard (2)
7		**Version**
	C	Compact
	U	Universal (3)
8		**Connections**
	D	Water connections and electrical panel on the right
	G	Water connections and electrical panel on the left
	L	Hydraulic connections on the left and electric connections on the opposite side
	R	Hydraulic connections on the right and electric connections on the opposite side
9		**Options**
	H	Electric heater (500W) (4)
	P	With the photocatalytic device (4)
	X	No present
10		**Filter**
	F	With air filter
	X	No present

(1) Reversibility of the water connections during installation only for units with a main standard or oversized coil. They are not reversible for units with a secondary coil.
(2) Only for the standard main coil
(3) Only for sizes from 2 to 5
(4) Options "P and H" are available only in units for 2-pipe systems.

SIZE AVAILABLE FOR VERSION

C version

Size	200	201	250	300	301	350	400	401	450	500	501	550	600	601	650	700	701	750
Versions produced (by size)																		
Versions available (by size)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

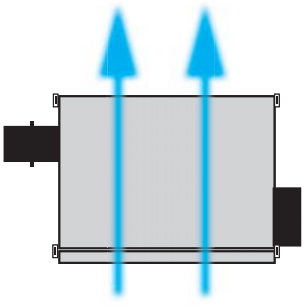
Version U

Size	200	201	250	300	301	350	400	401	450	500	501	550
Versions produced (by size)												
Versions available (by size)	•	•	•	•	•	•	•	•	•	•	•	•

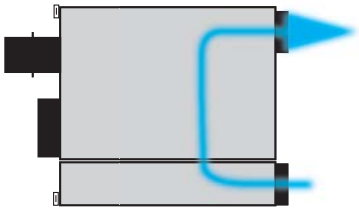
INSTALLATION VERSIONS AND EXAMPLES

C: Compact version.
Compact structure with opposed intake and delivery lines, for an "H"-shaped configuration.
The unit is provided without openings and without flanges, which can be purchased separately as an accessory.
The delivery and intake part of the structure is designed to house flanges of Ø 200 mm (or Ø 160 mm) and one of the intake flanges can be replaced by a Ø 125 or 100 mm flange for the intake of outside air.
On the side, it can house Ø 125 or 100 mm flanges for the intake of outside air for delivery.

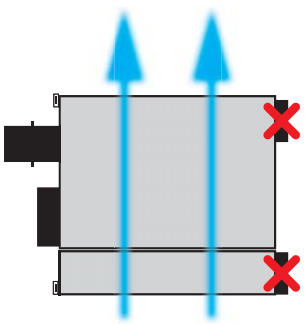
U: Universal version.
Structure for the "U" configuration with intake and delivery on the same side, opposite of the side with the water connections and the electrical box.
The unit is supplied with Ø 200 mm delivery and intake flanges.
The delivery and intake part of the structure is designed to house flanges of Ø 200 mm (or Ø 160 mm) and one of the intake or delivery flanges can be replaced by a Ø 125 or 100 mm flange for the intake of outside air.
This version is called universal because it guarantees the possible installations permitted by the C version and adds additional possibilities.



Version C:
Configuration H

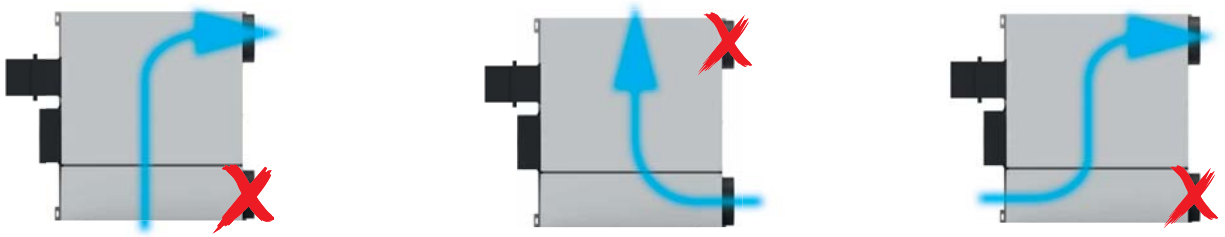


Version U:
Configuration U



Version U:
Configuration H

POSSIBLE ALTERNATIVE CONFIGURATIONS OF THE U VERSION

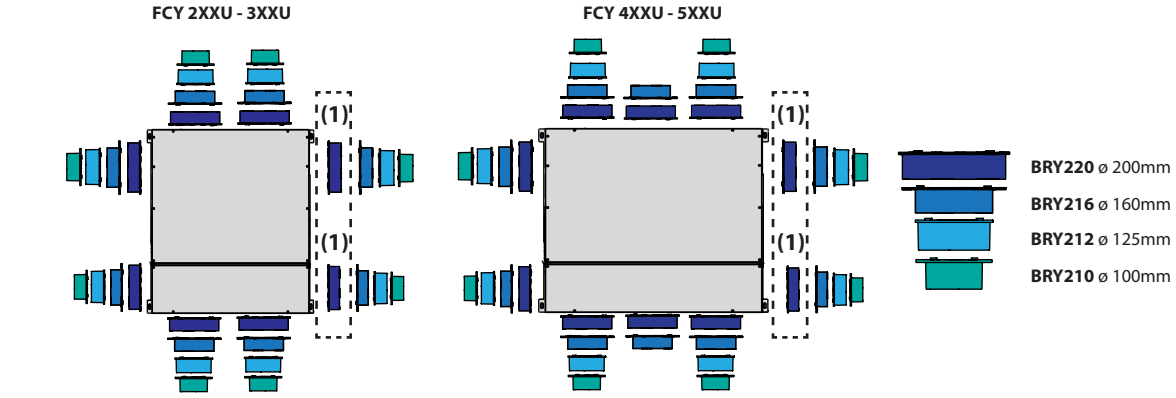


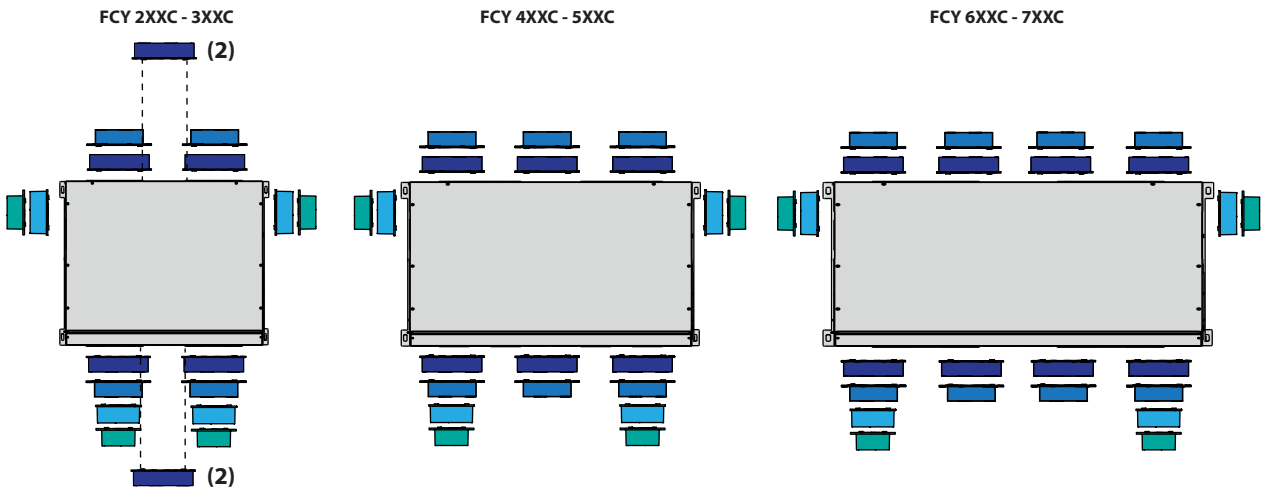
The performance data for the configurations shown here are equal to those for the U version in the U configuration.

POSSIBLE POSITIONS FOR THE INSTALLATION OF THE BRY ACCESSORIES

In every unit it is possible to use a maximum of one flange accessory for the intake of outside air (BRY210 or BRY212). The number and position of the preparations for the installation of the BRY accessories varies based on the unit size and version.

The standard **U version unit is supplied with 2 installed flanges (diameter 200 mm)** in the U configuration.
The standard **C version unit is supplied without flanges**, which can be purchased separately as an accessory.





1 Accessories **BRY220** supplied installed with the standard unit in the U version
2 There is a central preparation for the installation of an accessory BRY220 as an alternative to using the two more external preparations.

For the C version: it is necessary to use a number of recirculation air preparations **at least equal to the maximum number possible for the size selected less 1.**
Example: for FCY6xxC it is necessary to open at least 3 flange preparations for intake recirculation air and 3 flange preparations for delivery recirculation air (= maximum number - 1).

In both versions if the number of intake/delivery flanges used is less than the maximum possible for the considered size, their diameter must be 200 mm (BRY220).
For more information about the possible configurations for both versions, refer to the unit's selection software.

ACCESSORIES

Control panels

AER503IR: Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.
SA5: air probe kit (L = 15 m) with probe-locking cable grommet.
SIT3: Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat). Commands the 3 fan speeds and must be installed on each fan coil within the network; receives the commands from the selector or the SIT5 card. In case you decide to install Aermec thermostats and current absorbed by the unit exceeds 0.7 A, you're obliged to include SIT3 accessory.
SIT5: Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel. Commands the 3 fan speeds and up to 2 valves (four pipe systems); sends the thermostat's commands to the fan coil network.
SW3: Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.
SW5: water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.
TX: Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).

VMF system

VMF-E19Y: Thermostat to be fixed to the side of the fan coil, and fitted as standard with an air probe and water probe. Depending on the option chosen (P - X - H), the VMF-E19 must be completed with the compulsory electric completion unit accessory (VMF-YCC or VMF-YCCH).
VMF-E3: Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, VMF-E0X with grids GLF_N/M and GLL_N, can be controlled with VMF-IR control.
VMF-E4DX: Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).
VMF-E4X: Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.
VMF-IR: User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.
VMF-SW: Water probe (L = 2.5m) used if required in place of the standard unit supplied with the VMF-E0X, VMF-E19 and VMF-E19I thermostats for mounting it upstream of the valve
VMF-SW1: Additional water probe (L = 2.5m) to be used if required for 4-pipe systems with the VMF-E19 and VMF-E19I thermostats for maximum control in the cold range
VMF-YCC: Electric on/off completion unit for the VMF-E19Y accessory (mandatory for the unit with options P and X).
VMF-YCCH: Electric on/off completion unit for the VMF-E19Y accessory (mandatory for the unit with option H).

Valves for main coil

VCY41 - 42 - for main coil: 3-way motorised valve kit for the main coil. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left hydraulic connections.
VCYD for main and secondary coil: The 2-way motorised valve kit for the primary or secondary coil or an additional optional heat only coil. The kit consists of a valve, the actuator and the corresponding hydraulic fittings. It can be installed both on fan coils with right-hand and left-hand connections.
VDP15HF: Combined adjustment and balancing valve, for 2 and 4 pipe systems to be installed outside the unit. It is comprised of a valve body without nipples with Ø 3/4'M water connections, a 230 V powered actuator with On-Off function and a 5 m power supply cable. The valve is supplied without connections or hydraulic components.
VDP15HF24: Combined adjustment and balancing valve, for 2 and 4 pipe systems to be installed outside the unit. It is comprised of a valve body without nipples with Ø 3/4'M water connections, a 24 V powered actuator with On-Off function and a 5 m power supply cable. The valve is supplied without connections or hydraulic components.
VDP15HFM: Combined adjustment and balancing valve, for 2 and 4 pipe systems to be installed outside the unit. It is comprised of a valve body without nipples with Ø 3/4'M water connections, a 24 V powered actuator with modulating function and a 5 m power supply cable. The valve is supplied without connections or hydraulic components.

Valves for secondary coil

VCY44 - for the secondary coil: 3-way motorized valve kit for hot only coil. The kit consists of a valve, actuator and relative hydraulic fittings, it is suitable for installation on both fan coils with hydraulic connections on the right and left.
VCYD for main and secondary coil: The 2-way motorised valve kit for the primary or secondary coil or an additional optional heat only coil. The kit consists of a valve, the actuator and the corresponding hydraulic fittings. It can be installed both on fan coils with right-hand and left-hand connections.

Additional hot water coil.

BV: Single row hot water heat exchanger.

Valve support kit

KITVPI: Main coil VDP valve support kit. The kit consists of a bracket for supporting the valve and the corresponding hydraulic fittings.
KITVPI12H: VDP valve support kit for the secondary coil. The kit consists of a bracket for supporting the valve and the corresponding hydraulic fittings.

Installation accessories

BDP: 200 mm plug.
BRY: Flange with hydraulic "spigot" connection.
GMYC: Plate flange that makes it possible to install the accessory GM either in the intake section or in the delivery section. The accessory is comprised of a plate flange with gasket and 4 screws to fasten it to the unit.
AFY: the kit is comprised of a Coarse 25% class filter according to ISO16890 (G2 according to EN779) and four fastening brackets to insert in the grille GM17. To be used together with fan coils supplied without a filter installed in unit "X".
GMYU: Plate flange that makes it possible to install the accessory GM17 either in the intake section or in the delivery section. The accessory is comprised of a plate flange with gasket and 4 screws to fasten it to the unit.
DSC: Condensate drainage device.
BC: Condensate drip.
DAYKIT: Air deflector for U versions. To be installed in the delivery plenum, on the side opposite the air outlet, to facilitate the flow towards the delivery opening.
AMPY: Additional brackets for ceiling mount. Only for "U" version.

Accessories in multiple packages

DFA: Size of filter halved on the short side. The kit is comprised of two filters with a length equal to the standard filter and with half the height. This facilitates filter cleaning and/or replacement operations if there is a reduced space for vertical extraction. 20 piece package.
PPB: Protection for flanges to be used during installation to prevent dust from entering the unit before connecting the ducts. To be removed when making the connection. 100 piece package.
CHR12: Hydraulic connection kit for Ø 1/2" two-way valves, with soft coil side O-ring seal and with a flat plate and system side gasket, which can also be used for installing flat seal two-way valves. 50 piece package.

CHR34: Hydraulic connection kit for Ø 3/4" two-way valves, with soft coil side O-ring seal and with a flat plate and system side gasket, which can also be used for installing flat seal two-way valves. 30 piece package.

ACCESSORIES COMPATIBILITY

Control panels and dedicated accessories

Model	Ver	200	201	250	300	301	350	400	401	450	500	501	550	600	601	650	700	701	750
AER503IR (1)	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•						
SA5 (2)	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•						
SIT3 (3)	C,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SIT5 (4)	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•						
SW3 (2)	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•						
SW5 (2)	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•						
TX (1)	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•						

(1) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.
(2) Probe for AER503IR-TX thermostats, if fitted.
(3) Cards for AER503IR-TX thermostats, if present, to be installed if the unit absorption exceeds 0,7 Ampere.
(4) Probe for AER503IR-TX thermostats, if fitted.

VMF system

Model	Ver	200	201	250	300	301	350	400	401	450	500	501	550	600	601	650	700	701	750
VMF-E19Y	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•						
VMF-E3	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•						
VMF-E4DX	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•						
VMF-E4X	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•						
VMF-IR	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•						
VMF-SW	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•						
VMF-SW1	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•						
VMF-YCC	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•						
VMF-YCCH	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•						

Additional heat only coil for only option "X" (without an electric heater and without a photocatalytic device)

Ver	200	201	250	300	301	350	400	401	450	500	501	550	600	601	650	700	701	750
C	BV122	-	-	BV132	-	-	BV142	-	-	BV142	-	-	BVZ800	-	-	BVZ800	-	-
U	BV122	-	-	BV132	-	-	BV142	-	-	BV142	-	-	-	-	-	-	-	-

Combined adjustment and balancing valve

	200	201	250	300	301	350	400	401	450
Main coil	VDP15HF VDP15HF24 VDP15HFM	VDP15HF VDP15HF24 VDP15HFM	VDP15HF VDP15HF24 VDP15HFM	VDP15HF VDP15HF24 VDP15HFM	VDP15HF VDP15HF24 VDP15HFM	VDP15HF VDP15HF24 VDP15HFM	VDP15HF VDP15HF24 VDP15HFM	VDP15HF VDP15HF24 VDP15HFM	VDP15HF VDP15HF24 VDP15HFM
Secondary coil	-	VDP15HF VDP15HF24 VDP15HFM	-	-	VDP15HF VDP15HF24 VDP15HFM	-	-	VDP15HF VDP15HF24 VDP15HFM	-
Additional coil "BV"	VDP15HF VDP15HF24 VDP15HFM	-	-	VDP15HF VDP15HF24 VDP15HFM	-	-	VDP15HF VDP15HF24 VDP15HFM	-	-

	500	501	550	600	601	650	700	701	750
Main coil	VDP15HF VDP15HF24 VDP15HFM	VDP15HF VDP15HF24 VDP15HFM	VDP15HF VDP15HF24 VDP15HFM	VDP15HF VDP15HF24 VDP15HFM	VDP15HF VDP15HF24 VDP15HFM	VDP15HF VDP15HF24 VDP15HFM	VDP15HF VDP15HF24 VDP15HFM	VDP15HF VDP15HF24 VDP15HFM	VDP15HF VDP15HF24 VDP15HFM
Secondary coil	-	VDP15HF VDP15HF24 VDP15HFM	-	-	VDP15HF VDP15HF24 VDP15HFM	-	-	VDP15HF VDP15HF24 VDP15HFM	-
Additional coil "BV"	VDP15HF VDP15HF24 VDP15HFM	-	-	VDP15HF VDP15HF24 VDP15HFM	-	-	VDP15HF VDP15HF24 VDP15HFM	-	-

Valves combinations for main and secondary coil

3-way valve kit - main and secondary coil or accessory BV coil

	200	201	250	300	301	350	400	401	450	500	501	550	600	601	650	700	701	750
Main coil	VCY41 VCY4124	VCY41 VCY4124	VCY41 VCY4124	VCY42 VCY4224	VCY42 VCY4224	VCY42 VCY4224	VCY42 VCY4224	VCY42 VCY4224	VCY42 VCY4224	VCY42 VCY4224	VCY42 VCY4224	VCY42 VCY4224	VCY42 VCY4224	VCY42 VCY4224	VCY42 VCY4224	VCY42 VCY4224	VCY42 VCY4224	VCY42 VCY4224
Secondary coil	-	VCY44 VCY4424	-	-	VCY44 VCY4424	-	-	VCY44 VCY4424	-	-	VCY44 VCY4424	-	-	VCY44 VCY4424	-	-	VCY44 VCY4424	-
Additional coil "BV"	VCY44 VCY4424	-	-	VCY44 VCY4424	-	-	VCY44 VCY4424	-	-	VCY44 VCY4424	-	-	VCY44 VCY4424	-	-	VCY44 VCY4424	-	-

2-way valve kit - main and secondary coil or accessory BV coil

	200	201	250	300	301	350	400	401	450	500	501	550	600	601	650	700	701	750
Main coil	VCYD1 VCYD124	VCYD1 VCYD124	VCYD1 VCYD124	VCYD2 VCY224	VCYD2 VCY224	VCYD2 VCY224	VCYD2 VCY224	VCYD2 VCY224	VCYD2 VCY224	VCYD2 VCY224	VCYD2 VCY224	VCYD2 VCY224	VCYD2 VCY224	VCYD2 VCY224	VCYD2 VCY224	VCYD2 VCY224	VCYD2 VCY224	VCYD2 VCY224
Secondary coil	-	VCYD1 VCYD124	-	-	VCYD1 VCYD124	-	-	VCYD1 VCYD124	-	-	VCYD1 VCYD124	-	-	VCYD1 VCYD124	-	-	VCYD1 VCYD124	-
Additional coil "BV"	VCYD1 VCYD124	-	-	VCYD1 VCYD124	-	-	VCYD1 VCYD124	-	-	VCYD1 VCYD124	-	-	VCYD1 VCYD124	-	-	VCYD1 VCYD124	-	-

Valve support kit

Main coil VDP valve support kit.

Model	Ver	200	201	250	300	301	350	400	401	450	500	501	550	600	601	650	700	701	750
KITVPI12 (1)	C,U	•	•	•															
KITVPI34 (2)	C				•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U				•	•	•	•	•	•	•	•	•						

(1) Connections Ø 1/2"
(2) Connections Ø 3/4"

Secondary coil VDP valve support kit.

	200	201	250	300	301	350	400	401	450	500	501	550	600	601	650
Main coil	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Secondary coil	-	KITVPI12H	-	-	KITVPI12H	-	-	KITVPI12H	-	-	KITVPI12H	-	-	KITVPI12H	-
Additional coil "BV"	KITVPI12H	-	-	KITVPI12H	-	-	KITVPI12H	-	-	KITVPI12H	-	-	KITVPI12H	-	-

	700	701	750
Main coil	-	-	-
Secondary coil	-	KITVPI12H	-
Additional coil "BV"	KITVPI12H	-	-

Connections ø 1/2"

Installation accessories

Plastic caps

Model	Ver	200	201	250	300	301	350	400	401	450	500	501	550	600	601	650	700	701	750
BDP200	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•						

Flange

Model	Ver	200	201	250	300	301	350	400	401	450	500	501	550	600	601	650	700	701	750
BRY210 (1)	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•						
BRY212 (2)	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•						
BRY216 (3)	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•						
BRY220 (4)	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•						

(1) Ø 100 mm
(2) Ø 125 mm
(3) Ø 160 mm
(4) Ø 200 mm

Flange for the installation of the delivery grille GM

Model	Ver	200	201	250	300	301	350	400	401	450	500	501	550	600	601	650	700	701	750
GMY200C (1)	C	•	•	•															
GMY300C (1)	C				•	•	•												
GMY400C (1)	C							•	•	•	•	•	•						
GMY600C (1)	C													•	•	•	•	•	•

(1) only for "C" version.

Flange for the installation of the grille GM17

Model	Ver	200	201	250	300	301	350	400	401	450	500	501	550	600	601	650	700	701	750
GMYU (1)	U	•	•	•	•	•	•	•	•	•	•	•	•						

(1) Only for "U" version with connections "G and D".

Coarse 25% class air filter kit according to ISO16890 (G2 according to EN779)

Model	Ver	200	201	250	300	301	350	400	401	450	500	501	550	600	601	650	700	701	750
AFY100 (1)	U	•	•	•	•	•	•	•	•	•	•	•	•						

(1) To be used with fan coils supplied without a filter installed in unit "X" and in association with GM17 and GMYU.

Air deflector

Model	Ver	200	201	250	300	301	350	400	401	450	500	501	550	600	601	650	700	701	750
DAYKIT	U	•	•	•	•	•	•	•	•	•	•	•	•						

Brackets for ceiling mount.

Model	Ver	200	201	250	300	301	350	400	401	450	500	501	550	600	601	650	700	701	750
AMPY (1)	U	•	•	•	•	•	•	•	•	•	•	•	•						

(1) Only for "U" version.

Condensate discharge device kit

Model	Ver	200	201	250	300	301	350	400	401	450	500	501	550	600	601	650	700	701	750
DSC6 (1)	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•						

(1) Only for "L and R" connections.

Condensate drip

Model	Ver	200	201	250	300	301	350	400	401	450	500	501	550	600	601	650	700	701	750
BC8 (1)	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•						

(1) For horizontal installation.

Accessories in multiple packages

Hydraulic connection kit

Model	Ver	200	201	250	300	301	350	400	401	450	500	501	550	600	601	650	700	701	750
CHR12 (1)	C,U	•	•	•															
CHR34 (2)	C				•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U				•	•	•	•	•	•	•	•	•						

(1) Hydraulic connections Ø 1/2"
(2) Hydraulic connections Ø 3/4"

Half-size filter kit

Model	Ver	200	201	250	300	301	350	400	401	450	500	501	550	600	601	650	700	701	750
DFA2	C,U	•	•	•															
DFA3	C,U				•	•	•												
DFA5	C,U							•	•	•	•	•	•						
DFA7	C													•	•	•	•	•	•

Protection for flange

Model	Ver	200	201	250	300	301	350	400	401	450	500	501	550	600	601	650	700	701	750
PPB	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•						

PERFORMANCE DATA - FCY_C AND FCY_U (CONFIGURATION OF THE H NOZZLES) - 2 PIPES

2-pipe

		FCY200C			FCY250C			FCY300C			FCY350C			FCY400C			FCY450C		
		2	4	6	2	4	6	1	4	6	1	4	6	1	3	6	1	3	6
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)																			
Heating capacity	kW	2,11	3,00	3,32	2,29	3,24	3,60	3,50	5,03	5,45	3,80	5,59	6,10	4,49	6,02	6,74	4,79	6,62	7,40
Water flow rate system side	l/h	182	258	285	197	179	310	301	433	469	327	481	524	386	517	580	412	569	637
Pressure drop system side	kPa	7	12	15	9	16	19	8	15	18	9	18	21	11	18	22	7	12	15
Heating performance 45 °C / 40 °C (2)																			
Heating capacity	kW	1,05	1,49	1,65	1,14	1,61	1,79	1,74	2,50	2,71	1,89	2,78	3,03	2,23	2,99	3,35	2,38	3,29	3,68
Water flow rate system side	l/h	160	224	248	196	277	308	299	430	466	325	478	521	383	514	576	409	566	633
Pressure drop system side	kPa	7	12	15	9	16	19	8	15	18	9	17	20	11	18	22	7	12	15
Cooling performance 7 °C / 12 °C (3)																			
Cooling capacity	kW	0,93	1,30	1,44	1,11	1,59	1,74	1,70	2,40	2,63	1,91	2,77	3,00	2,29	3,06	3,41	2,51	3,37	3,79
Sensible cooling capacity	kW	0,74	1,14	1,18	0,83	1,23	1,36	1,27	1,86	2,03	1,34	1,99	2,16	1,66	2,24	2,52	1,76	2,42	2,73
Water flow rate system side	l/h	160	224	248	191	273	299	292	413	452	328	476	516	394	526	586	432	580	652
Pressure drop system side	kPa	8	13	15	10	18	21	9	16	18	11	21	25	11	18	22	11	16	20
Fan																			
Type	type	Centrifugal																	
Fan motor	type	Asynchronous																	
Air flow rate	m^3/h	148	226	254	148	226	254	263	404	446	263	404	446	346	487	559	346	487	559
High static pressure	Pa	21	50	63	21	50	63	21	50	61	21	50	61	25	50	66	25	50	66
Sound power level (inlet + radiated)	dB(A)	41,0	56,0	59,0	41,0	56,0	59,0	39,0	51,0	54,0	39,0	51,0	54,0	44,0	54,0	55,0	44,0	54,0	55,0
Sound power level (outlet)	dB(A)	37,0	52,0	55,0	37,0	52,0	55,0	35,0	47,0	49,0	35,0	47,0	49,0	40,0	50,0	52,0	40,0	50,0	52,0
Input power	W	28	41	74	28	41	74	38	55	78	38	55	78	53	63	102	53	63	102
Water coil																			
Water content	l	0			1			1			1			1			1		
Diametre hydraulic fittings																			
Main coil	Ø	1/2"			1/2"			3/4"			3/4"			3/4"			3/4"		
Power supply																			
Power supply		230V~50Hz																	

		FCY500C			FCY550C			FCY600C			FCY650C			FCY700C			FCY750C		
		1	5	6	1	5	6	1	4	7	1	4	7	2	5	7	2	5	7
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)																			
Heating capacity	kW	5,27	7,22	7,59	5,81	8,25	8,67	6,86	8,55	10,00	7,63	9,72	11,51	8,77	10,10	10,52	10,02	11,65	12,09
Water flow rate system side	l/h	453	621	652	500	709	746	590	735	860	656	836	990	754	868	905	862	1002	1040
Pressure drop system side	kPa	12	21	23	10	19	21	13	20	26	15	23	31	19	25	27	12	15	16
Heating performance 45 °C / 40 °C (2)																			
Heating capacity	kW	2,62	3,59	3,77	2,89	4,10	4,31	3,41	4,25	4,97	3,79	4,83	5,72	4,36	5,02	5,23	4,98	5,79	6,01
Water flow rate system side	l/h	451	617	648	497	705	741	586	731	855	652	831	984	750	863	899	856	996	1034
Pressure drop system side	kPa	12	21	23	10	19	21	13	19	25	15	23	31	19	25	27	12	15	16
Cooling performance 7 °C / 12 °C (3)																			
Cooling capacity	kW	2,68	3,65	3,82	2,91	4,08	4,28	3,37	4,08	4,65	4,15	5,02	5,67	4,24	4,97	5,18	4,69	5,53	5,80
Sensible cooling capacity	kW	1,94	2,70	2,83	2,07	2,94	3,09	2,70	3,34	3,92	2,93	3,60	4,12	3,24	3,83	4,02	3,53	4,20	4,41
Water flow rate system side	l/h	461	628	657	500	702	736	580	702	800	714	863	975	729	855	891	807	951	997
Pressure drop system side	kPa	13	22	24	12	21	23	15	21	26	16	23	28	20	26	28	12	16	17
Fan																			
Type	type	Centrifugal																	
Fan motor	type	Asynchronous																	
Air flow rate	m^3/h	400	592	627	400	592	627	567	770	920	567	770	920	785	978	1050	785	978	1050
High static pressure	Pa	22	50	56	22	50	56	27	50	71	27	50	71	32	50	58	32	50	58
Sound power level (inlet + radiated)	dB(A)	45,0	55,0	57,0	45,0	55,0	57,0	46,0	56,0	61,0	46,0	56,0	61,0	54,0	60,0	62,0	54,0	60,0	62,0
Sound power level (outlet)	dB(A)	41,0	51,0	53,0	41,0	51,0	53,0	44,0	54,0	60,0	44,0	54,0	60,0	52,0	59,0	61,0	52,0	59,0	61,0
Input power	W	49	80	96	49	80	96	66	89	118	66	89	118	92	117	138	92	117	138
Water coil																			
Water content	l	1			1			1			2			1			2		
Diametre hydraulic fittings																			
Main coil	Ø	3/4"																	
Power supply																			
Power supply		230V~50Hz																	

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C
(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C; EUROVENT
(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT

Refer to the selection software for performance data related to the different configurations.

PERFORMANCE DATA FCY_C AND FCY_U (CONFIGURATION OF THE H NOZZLES) - 4 PIPES

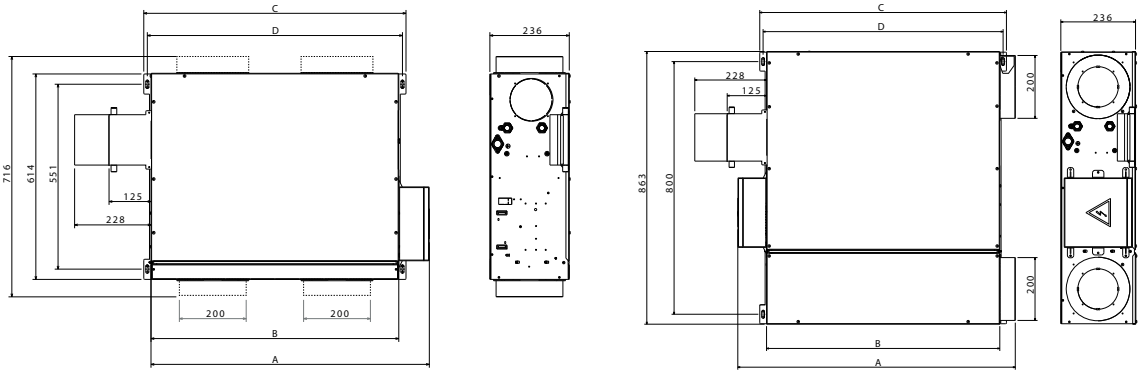
4-pipe

		FCY201C			FCY301C			FCY401C			FCY501C			FCY601C			FCY701C		
		2	4	6	1	4	6	1	3	6	1	5	6	1	4	7	2	5	7
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 65 °C / 55 °C (1)																			
Heating capacity	kW	1,06	1,37	1,48	1,82	2,39	2,55	2,19	2,75	2,99	2,59	3,30	3,34	3,13	3,85	4,35	4,13	4,40	4,60
Water flow rate system side	l/h	93	120	130	159	210	223	192	240	262	226	290	301	274	336	381	361	385	403
Pressure drop system side	kPa	5	8	9	8	12	14	5	7	8	6	9	9	9	13	16	16	15	17
Cooling performance 7 °C / 12 °C (2)																			
Cooling capacity	kW	0,93	1,30	1,44	1,70	2,40	2,63	2,29	3,06	3,41	2,68	3,65	3,82	3,37	4,08	4,65	4,24	4,97	5,18
Sensible cooling capacity	kW	0,74	1,14	1,18	1,27	1,86	2,03	1,66	2,24	2,52	1,94	2,70	2,83	2,70	3,34	3,92	3,24	3,83	4,02
Water flow rate system side	l/h	160	224	248	292	413	452	394	526	586	461	628	657	580	702	800	729	855	891
Pressure drop system side	kPa	8	13	15	9	16	18	11	18	22	13	22	24	15	21	26	20	26	28
Fan																			
Type	type	Centrifugal																	
Fan motor	type	Asynchronous																	
Air flow rate	m^3/h	148	226	254	263	404	446	346	487	559	400	592	627	567	770	920	785	978	1050
High static pressure	Pa	21	50	63	21	50	61	25	50	66	22	50	56	27	50	71	32	50	58
Sound power level (inlet + radiated)	dB(A)	41,0	56,0	59,0	39,0	51,0	54,0	44,0	54,0	55,0	45,0	55,0	57,0	46,0	56,0	61,0	54,0	60,0	62,0
Sound power level (outlet)	dB(A)	37,0	52,0	55,0	35,0	47,0	49,0	40,0	50,0	52,0	41,0	51,0	53,0	44,0	54,0	60,0	52,0	59,0	61,0
Input power	W	28	41	74	38	55	78	53	63	102	49	80	96	66	89	118	92	117	138
Diametre hydraulic fittings																			
Main coil	Ø	1/2"			3/4"			3/4"			3/4"			3/4"			3/4"		
Secondary coil	Ø	1/2"																	
Power supply																			
Power supply		230V~50Hz																	

(1) Room air temperature 20°C d.b.; Water (in/out) 65 °C/55 °C; EUROVENT
(2) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT

Refer to the selection software for performance data related to the different configurations.

DIMENSIONS



FCY - C

Size		200	201	250	300	301	350	400	401	450	500	501	550	600	601	650	700	701	750
Dimensions and weights																			
A	mm	598	598	598	829	829	829	1050	1050	1050	1050	1050	1050	1171	1171	1171	1171	1171	1171
B	mm	507	507	507	735	735	735	960	960	960	960	960	960	1080	1080	1080	1080	1080	1080
C	mm	550	550	550	781	781	781	1003	1003	1003	1003	1003	1003	1122	1122	1122	1122	1122	1122
D	mm	529	529	529	760	760	760	982	982	982	982	982	982	1100	1100	1100	1100	1100	1100
Empty weight	kg	19	20	21	23	24	26	31	32	33	31	32	33	41	43	46	41	43	46

FCY - U

Size		200	201	250	300	301	350	400	401	450	500	501	550
Dimensions and weights													
A	mm	647	647	647	878	878	878	1100	1100	1100	1100	1100	1100
B	mm	508	508	508	739	739	739	960	960	960	960	960	960
C	mm	550	550	550	781	781	781	1003	1003	1003	1003	1003	1003
D	mm	529	529	529	760	760	760	982	982	982	982	982	982
Empty weight	kg	22	23	24	26	27	29	35	36	37	35	36	37

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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FCYI

Fan coil unit for ducted installations

- **Plug and play installation only in horizontal**
- **Reduced dimensions**
- **Inspectable ventilation group**



DESCRIPTION

Monobloc duct type fan coils for heating and/or cooling small and medium-sized environments for civil and commercial use.
They were designed and built for flush horizontal installation in any type of 2/4 pipe system and in combination with any heat generator, also at low temperatures.
Thanks to the availability of various versions and configurations, with a standard or oversized coil, it is easy to select the optimal solution for any requirement.

FEATURES

Ventilation group

Centrifugal fans in anti-static plastic material with aerofoil profile designed to achieve high airflows and pressures whilst at the same time producing low noise.
Their characteristics permit energy savings compared to conventional fans.
They are statically and dynamically balanced and directly coupled to the motor shaft.
The Brushless electric motor with 0-100% continuous speed variation, which allows precise adaptation to the real demands of the internal environment without temperature fluctuations.
The air flow can be continuously changed through a 1-10 V signal, coming from adjustment and control commands Aermec or from independent adjustment systems.
This lowers noise and generates a better response to heat loads and a higher stability in the desired temperature inside the room.
The high efficiency even with low speed, makes it possible to reduce power consumption (more than 50% less than fan coils with traditional motors).
The plastic augers are extractable for easy and efficient cleaning.

Heat exchanger coil

With copper pipes and aluminium louvers, the standard or oversized main coil and the possible secondary coil have female gas water connections on the left side and the manifolds have air vents.

Reversibility of the water connections during installation only for units with a main standard or oversized coil or standard with BV accessory. Not reversible in all other configurations.

Air filter

Where present, **the Coarse 25% Class according to ISO16890 (G2 according to EN779)** air filter, which is easy to remove and clean.

Condensate drip

In addition to the internal tray, all units are equipped with a **configurable external condensate collection tray** during installation.
The kit comprises a single element, which is made up of two pieces: the **tray** with a double drain to be installed on the right or left, and the **drip moulding,** which must be installed if mounting the valve kit and may not be used for installations without the valves with limited technical spaces.

Control

The unit's electrical box is reversible, with the option of mounting it also on the same side of the water connections.
The standard equipment includes a single 10-pin control board as an interface for the electrical connections, the preparation for the VMF series thermostat fastener and the included supply of a DIN guide for the installation of a third-party control.

GUIDE TO SELECTING THE POSSIBLE CONFIGURATIONS

Field		Description
1,2,3,4		**FCYI**
5		**Size** 2, 3, 4, 5, 7
6		**Main coil (1)**
	0	Standard
	5	Oversized
7		**Secondary coil**
	0	Without coil
	1	Standard (2)
8		**Version**
	C	Compact
	U	Universal (3)
9		**Connections**
	D	Water connections and electrical panel on the right
	G	Water connections and electrical panel on the left
	L	Hydraulic connections on the left and electric connections on the opposite side
	R	Hydraulic connections on the right and electric connections on the opposite side
10		**Options**
	H	Electric heater (500W) (4)
	P	With the photocatalytic device (4)
	X	No present
11		**Filter**
	F	With air filter
	X	No present

(1) Reversibility of the water connections during installation only for units with a main standard or oversized coil. They are not reversible for units with a secondary coil.
(2) Only for the standard main coil
(3) Only for sizes from 2 to 5
(4) Options "P and H" are available only in units for 2-pipe systems.

SIZE AVAILABLE FOR VERSION

C version

Size	200	201	250	300	301	350	400	401	450	500	501	550	700	701	750
Versions produced (by size)															
Versions available (by size)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

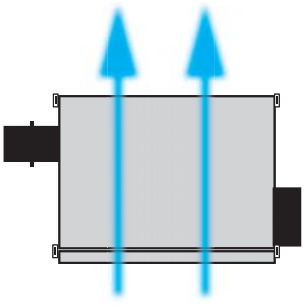
Version U

Size	200	201	250	300	301	350	400	401	450	500	501	550
Versions produced (by size)												
Versions available (by size)	•	•	•	•	•	•	•	•	•	•	•	•

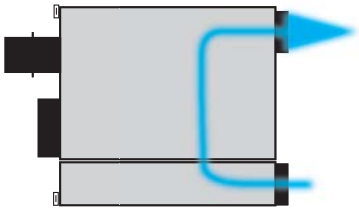
INSTALLATION VERSIONS AND EXAMPLES

C: Compact version.
Compact structure with opposed intake and delivery lines, for an "H"-shaped configuration.
The unit is provided without openings and without flanges, which can be purchased separately as an accessory.
The delivery and intake part of the structure is designed to house flanges of Ø 200 mm (or Ø 160 mm) and one of the intake flanges can be replaced by a Ø 125 or 100 mm flange for the intake of outside air.
On the side, it can house Ø 125 or 100 mm flanges for the intake of outside air for delivery.

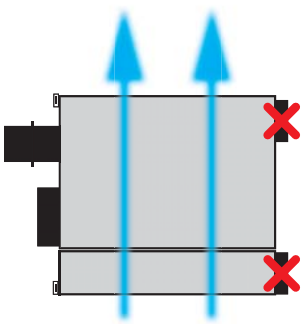
U: Universal version.
Structure for the "U" configuration with intake and delivery on the same side, opposite of the side with the water connections and the electrical box.
The unit is supplied with Ø 200 mm delivery and intake flanges.
The delivery and intake part of the structure is designed to house flanges of Ø 200 mm (or Ø 160 mm) and one of the intake or delivery flanges can be replaced by a Ø 125 or 100 mm flange for the intake of outside air.
This version is called universal because it guarantees the possible installations permitted by the C version and adds additional possibilities.



Version C:
Configuration H

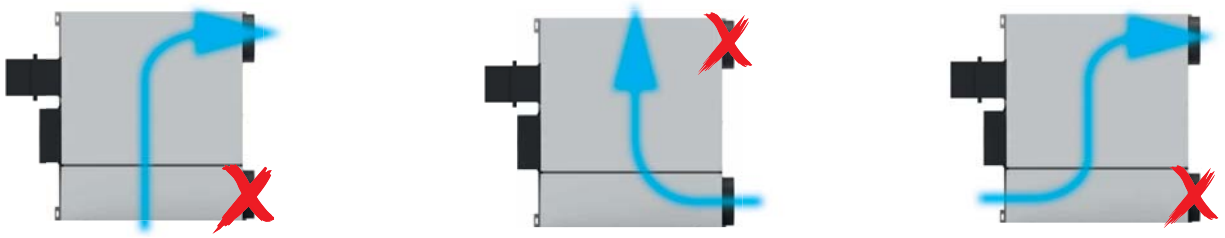


Version U:
Configuration U



Version U:
Configuration H

POSSIBLE ALTERNATIVE CONFIGURATIONS OF THE U VERSION

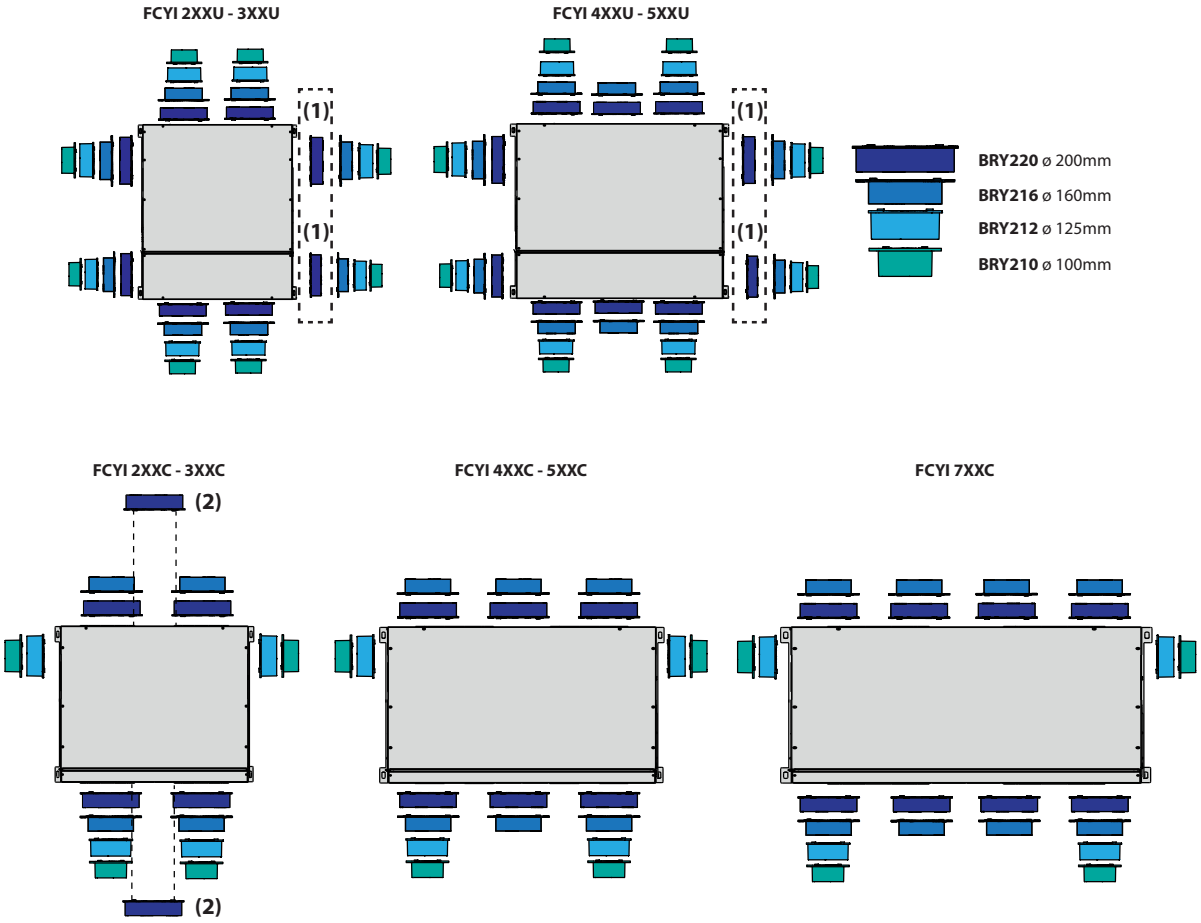


The performance data for the configurations shown here are equal to those for the U version in the U configuration.

POSSIBLE POSITIONS FOR THE INSTALLATION OF THE BRY ACCESSORIES

In every unit it is possible to use a maximum of one flange accessory for the intake of outside air (BRY210 or BRY212). The number and position of the preparations for the installation of the BRY accessories varies based on the unit size and version.

The standard **U version unit is supplied with 2 installed flanges (diameter 200 mm)** in the U configuration.
The standard **C version unit is supplied without flanges**, which can be purchased separately as an accessory.



1 Accessories **BRY220** supplied installed with the standard unit in the U version
2 There is a central preparation for the installation of an accessory BRY220 as an alternative to using the two more external preparations.

For the C version:it is necessary to use a number of recirculation air preparations **at least equal to the maximum number possible for the size selected less 1.**
Example: for FCY6xxC it is necessary to open at least 3 flange preparations for intake recirculation air and 3 flange preparations for delivery recirculation air (= maximum number - 1).
In both versions if the number of intake/delivery flanges used is less than the maximum possible for the considered size, their diameter must be 200 mm (BRY220).

Example: for FCYI7xxC it is necessary to open at least 3 flange preparations for intake recirculation air and 3 flange preparations for delivery recirculation air (= maximum number - 1).
For more information about the possible configurations for both versions, refer to the unit's selection software.

ACCESSORIES

Control panels

AER503IR: Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.
SA5: air probe kit (L = 15 m) with probe-locking cable grommet.
SW3: Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.
SW5: water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.
TX: Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).

VMF system

VMF-E19Y: Thermostat to be fixed to the side of the fan coil, and fitted as standard with an air probe and water probe. Depending on the option chosen (P - X - H), the VMF-E19 must be completed with the compulsory electric completion unit accessory (VMF-YCC or VMF-YCCH).
VMF-E3: Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, VMF-E0X with grids GLF_N/M and GLL_N, can be controlled with VMF-IR control.
VMF-E4DX: Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).
VMF-E4X: Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.
VMF-IR: User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.
VMF-SW: Water probe (L = 2.5m) used if required in place of the standard unit supplied with the VMF-E0X, VMF-E19 and VMF-E19I thermostats for mounting it upstream of the valve
VMF-SW1: Additional water probe (L = 2.5m) to be used if required for 4-pipe systems with the VMF-E19 and VMF-E19I thermostats for maximum control in the cold range
VMF-YICC: Electric inverter completion unit for the VMF-E19Y accessory (mandatory for the unit with options P and X).
VMF-YICCH: Electric inverter completion unit for the VMF-E19Y accessory (mandatory for the unit with option H).

Valves for main coil

VCY41 - 42 - for main coil: 3-way motorised valve kit for the main coil. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left hydraulic connections.
VCYD for main and secondary coil: The 2-way motorised valve kit for the primary or secondary coil or an additional optional heat only coil. The kit consists of a valve, the actuator and the corresponding hydraulic fittings. It can be installed both on fan coils with right-hand and left-hand connections.
VDP15HF: Combined adjustment and balancing valve, for 2 and 4 pipe systems to be installed outside the unit. It is comprised of a valve body without nipples with Ø 3/4'M water connections, a 230 V powered actuator with On-Off function and a 5 m power supply cable. The valve is supplied without connections or hydraulic components.
VDP15HF24: Combined adjustment and balancing valve, for 2 and 4 pipe systems to be installed outside the unit. It is comprised of a valve body without nipples with Ø 3/4'M water connections, a 24 V powered actuator with On-Off function and a 5 m power supply cable. The valve is supplied without connections or hydraulic components.
VDP15HFM: Combined adjustment and balancing valve, for 2 and 4 pipe systems to be installed outside the unit. It is comprised of a valve body without nipples with Ø 3/4'M water connections, a 24 V powered actuator with modulating function and a 5 m power supply cable. The valve is supplied without connections or hydraulic components.

Valves for secondary coil

VCY44 - for the secondary coil: 3-way motorized valve kit for hot only coil. The kit consists of a valve, actuator and relative hydraulic fittings, it is suitable for installation on both fan coils with hydraulic connections on the right and left.
VCYD for main and secondary coil: The 2-way motorised valve kit for the primary or secondary coil or an additional optional heat only coil. The kit consists of a valve, the actuator and the corresponding hydraulic fittings. It can be installed both on fan coils with right-hand and left-hand connections.

Additional hot water coil.

BV: Single row hot water heat exchanger.

Valve support kit

KITVPI: Main coil VDP valve support kit. The kit consists of a bracket for supporting the valve and the corresponding hydraulic fittings.
KITVPI12H: VDP valve support kit for the secondary coil. The kit consists of a bracket for supporting the valve and the corresponding hydraulic fittings.

Installation accessories

BDP: 200 mm plug.
BRY: Flange with hydraulic "spigot" connection.
GMYC: Plate flange that makes it possible to install the accessory GM either in the intake section or in the delivery section. The accessory is comprised of a plate flange with gasket and 4 screws to fasten it to the unit.
AFY: the kit is comprised of a Coarse 25% class filter according to ISO16890 (G2 according to EN779) and four fastening brackets to insert in the grille GM17. To be used together with fan coils supplied without a filter installed in unit "X".
GMYU: Plate flange that makes it possible to install the accessory GM17 either in the intake section or in the delivery section. The accessory is comprised of a plate flange with gasket and 4 screws to fasten it to the unit.
DSC: Condensate drainage device.
BC: Condensate drip.
DAYKIT: Air deflector for U versions. To be installed in the delivery plenum, on the side opposite the air outlet, to facilitate the flow towards the delivery opening.
AMPY: Additional brackets for ceiling mount. Only for "U" version.

Accessories in multiple packages

DFA: Size of filter halved on the short side. The kit is comprised of two filters with a length equal to the standard filter and with half the height. This facilitates filter cleaning and/or replacement operations if there is a reduced space for vertical extraction. 20 piece package.
PPB: Protection for flanges to be used during installation to prevent dust from entering the unit before connecting the ducts. To be removed when making the connection. 100 piece package.
CHR12: Hydraulic connection kit for Ø 1/2" two-way valves, with soft coil side O-ring seal and with a flat plate and system side gasket, which can also be used for installing flat seal two-way valves. 50 piece package.
CHR34: Hydraulic connection kit for Ø 3/4" two-way valves, with soft coil side O-ring seal and with a flat plate and system side gasket, which can also be used for installing flat seal two-way valves. 30 piece package.

ACCESSORIES COMPATIBILITY

Control panels and dedicated accessories

Model	Ver	200	201	250	300	301	350	400	401	450	500	501	550	700	701	750
AER503IR (1)	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•			
SA5 (2)	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•			
SW3 (2)	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•			
SW5 (2)	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•			
TX (1)	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•			

(1) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.
(2) Probe for AER503IR-TX thermostats, if fitted.

VMF system

Model	Ver	200	201	250	300	301	350	400	401	450	500	501	550	700	701	750
VMF-E19Y	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•			
VMF-E3	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•			
VMF-E4DX	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•			
VMF-E4X	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•			
VMF-IR	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•			
VMF-SW	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•			
VMF-SW1	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•			
VMF-YICC	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•			
VMF-YICCH	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•			

Additional heat only coil for only option "X" (without an electric heater and without a photocatalytic device)

Ver	200	201	250	300	301	350	400	401	450	500	501	550	700	701	750
C	BV122	-	-	BV132	-	-	BV142	-	-	BV142	-	-	BVZ800	-	-
U	BV122	-	-	BV132	-	-	BV142	-	-	BV142	-	-	-	-	-

Combined adjustment and balancing valve

	200	201	250	300	301	350	400	401	450
Main coil	VDP15HF VDP15HF24 VDP15HFM	VDP15HF VDP15HF24 VDP15HFM	VDP15HF VDP15HF24 VDP15HFM	VDP15HF VDP15HF24 VDP15HFM	VDP15HF VDP15HF24 VDP15HFM	VDP15HF VDP15HF24 VDP15HFM	VDP15HF VDP15HF24 VDP15HFM	VDP15HF VDP15HF24 VDP15HFM	VDP15HF VDP15HF24 VDP15HFM
Secondary coil	-	VDP15HF VDP15HF24 VDP15HFM	-	-	VDP15HF VDP15HF24 VDP15HFM	-	-	VDP15HF VDP15HF24 VDP15HFM	-
Additional coil "BV"	VDP15HF VDP15HF24 VDP15HFM	-	-	VDP15HF VDP15HF24 VDP15HFM	-	-	VDP15HF VDP15HF24 VDP15HFM	-	-

	500	501	550	700	701	750
Main coil	VDP15HF VDP15HF24 VDP15HFM	VDP15HF VDP15HF24 VDP15HFM	VDP15HF VDP15HF24 VDP15HFM	VDP15HF VDP15HF24 VDP15HFM	VDP15HF VDP15HF24 VDP15HFM	VDP15HF VDP15HF24 VDP15HFM
Secondary coil	-	VDP15HF VDP15HF24 VDP15HFM	-	-	VDP15HF VDP15HF24 VDP15HFM	-
Additional coil "BV"	VDP15HF VDP15HF24 VDP15HFM	-	-	VDP15HF VDP15HF24 VDP15HFM	-	-

Valves combinations for main and secondary coil

3-way valve kit - main and secondary coil or accessory BV coil

	200	201	250	300	301	350	400	401	450	500	501	550	700	701	750
Main coil	VCY41 VCY4124	VCY41 VCY4124	VCY41 VCY4124	VCY42 VCY4224	VCY42 VCY4224	VCY42 VCY4224	VCY42 VCY4224	VCY42 VCY4224	VCY42 VCY4224	VCY42 VCY4224	VCY42 VCY4224	VCY42 VCY4224	VCY42 VCY4224	VCY42 VCY4224	VCY42 VCY4224
Secondary coil	-	VCY44 VCY4424	-	-	VCY44 VCY4424	-	-	VCY44 VCY4424	-	-	VCY44 VCY4424	-	-	VCY44 VCY4424	-

	200	201	250	300	301	350	400	401	450	500	501	550	700	701	750
Additional coil "BV"	VCY44 VCY4424	-	-	VCY44 VCY4424	-	-	VCY44 VCY4424	-	-	VCY44 VCY4424	-	-	VCY44 VCY4424	-	-

2-way valve kit - main and secondary coil or accessory BV coil

	200	201	250	300	301	350	400	401	450	500	501	550	700	701	750
Main coil	VCYD1 VCYD124	VCYD1 VCYD124	VCYD1 VCYD124	VCYD2 VCY224	VCYD2 VCY224	VCYD2 VCY224	VCYD2 VCY224	VCYD2 VCY224	VCYD2 VCY224	VCYD2 VCY224	VCYD2 VCY224	VCYD2 VCY224	VCYD2 VCY224	VCYD2 VCY224	VCYD2 VCY224
Secondary coil	-	VCYD1 VCYD124	-	-	VCYD1 VCYD124	-	-	VCYD1 VCYD124	-	-	VCYD1 VCYD124	-	-	VCYD1 VCYD124	-
Additional coil "BV"	VCYD1 VCYD124	-	-	VCYD1 VCYD124	-	-	VCYD1 VCYD124	-	-	VCYD1 VCYD124	-	-	VCYD1 VCYD124	-	-

Valve support kit

Main coil VDP valve support kit.

Model	Ver	200	201	250	300	301	350	400	401	450	500	501	550	700	701	750
KITVPI12 (1)	C,U	•	•	•												
KITVPI34 (2)	C				•	•	•	•	•	•	•	•	•	•	•	•
	U				•	•	•	•	•	•	•	•	•			

(1) Connections Ø 1/2"
(2) Connections Ø 3/4"

Secondary coil VDP valve support kit.

	200	201	250	300	301	350	400	401	450	500	501	550	700	701	750
Main coil															
Secondary coil	-	KITVPI12H	-	-	KITVPI12H	-	-	KITVPI12H	-	-	KITVPI12H	-	-	KITVPI12H	-
Additional coil "BV"	KITVPI12H	-	-	KITVPI12H	-	-	KITVPI12H	-	-	KITVPI12H	-	-	KITVPI12H	-	-

Connections ø 1/2"

Installation accessories

Plastic caps

Model	Ver	200	201	250	300	301	350	400	401	450	500	501	550	700	701	750
BDP200	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•			

Flange

Model	Ver	200	201	250	300	301	350	400	401	450	500	501	550	700	701	750
BRY210 (1)	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•			
BRY212 (2)	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•			
BRY216 (3)	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•			
BRY220 (4)	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•			

(1) Ø 100 mm
(2) Ø 125 mm
(3) Ø 160 mm
(4) Ø 200 mm

Flange for the installation of the delivery grille GM

Model	Ver	200	201	250	300	301	350	400	401	450	500	501	550	700	701	750
GMY200C (1)	C	•	•	•												
GMY300C (1)	C				•	•	•									
GMY400C (1)	C							•	•	•	•	•	•			
GMY600C (1)	C													•	•	•

(1) only for "C" version.

Flange for the installation of the grille GM17

Model	Ver	200	201	250	300	301	350	400	401	450	500	501	550	700	701	750
GMYU (1)	U	•	•	•	•	•	•	•	•	•	•	•	•			

(1) Only for "U" version with connections "G and D".

Coarse 25% class air filter kit

Model	Ver	200	201	250	300	301	350	400	401	450	500	501	550	700	701	750
AFY100 (1)	U	•	•	•	•	•	•	•	•	•	•	•	•			

(1) To be used with fan coils supplied without a filter installed in unit "X" and in association with GM17 and GMYU.

Air deflector

Model	Ver	200	201	250	300	301	350	400	401	450	500	501	550	700	701	750
DAYKIT	U	•	•	•	•	•	•	•	•	•	•	•	•			

Brackets for ceiling mount.

Model	Ver	200	201	250	300	301	350	400	401	450	500	501	550	700	701	750
AMPY (1)	U	•	•	•	•	•	•	•	•	•	•	•	•			

(1) Only for "U" version.

Condensate discharge device kit

Model	Ver	200	201	250	300	301	350	400	401	450	500	501	550	700	701	750
DSC6 (1)	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•			

(1) Only for "L and R" connections.

Condensate drip

Model	Ver	200	201	250	300	301	350	400	401	450	500	501	550	700	701	750
BC8 (1)	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•			

(1) For horizontal installation.

Accessories in multiple packages

Hydraulic connection kit

Model	Ver	200	201	250	300	301	350	400	401	450	500	501	550	700	701	750
CHR12 (1)	C,U	•	•	•												
CHR34 (2)	C				•	•	•	•	•	•	•	•	•	•	•	•
	U				•	•	•	•	•	•	•	•	•			

(1) Hydraulic connections Ø 1/2"
(2) Hydraulic connections Ø 3/4"

Half-size filter kit

Model	Ver	200	201	250	300	301	350	400	401	450	500	501	550	700	701	750
DFA2	C,U	•	•	•												
DFA3	C,U				•	•	•									
DFA5	C,U							•	•	•	•	•	•			
DFA7	C													•	•	•

Protection for flange

Model	Ver	200	201	250	300	301	350	400	401	450	500	501	550	700	701	750
PPB	C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U	•	•	•	•	•	•	•	•	•	•	•	•			

PERFORMANCE DATA - FCYI_C AND FCYI_U (H NOZZLES CONFIGURATION) 2 PIPES

2-pipe

		FCYI200C			FCYI250C			FCYI300C			FCYI350C			FCYI400C			FCYI450C		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)																			
Heating capacity	kW	1,81	3,16	3,34	2,01	3,40	3,62	3,08	4,83	5,23	3,32	5,43	5,83	3,96	5,85	6,34	4,10	6,44	6,96
Water flow rate system side	l/h	156	272	287	173	292	311	265	415	450	285	467	502	341	503	545	353	554	599
Pressure drop system side	kPa	6	13	16	7	17	19	7	14	16	7	17	19	9	17	19	5	12	13
Heating performance 45 °C / 40 °C (2)																			
Heating capacity	kW	0,90	1,57	1,66	1,00	1,69	1,80	1,53	2,40	2,60	1,65	2,70	2,90	1,97	2,91	3,15	2,04	3,20	3,46
Water flow rate system side	l/h	155	270	288	172	291	308	263	413	447	284	464	499	339	501	542	351	550	595
Pressure drop system side	kPa	6	13	16	7	17	19	7	14	16	7	17	19	9	17	19	5	12	13
Cooling performance 7 °C / 12 °C (3)																			
Cooling capacity	kW	0,80	1,37	1,45	0,95	1,67	1,76	1,40	2,38	2,53	1,66	2,70	2,88	2,03	2,98	3,21	2,22	3,28	3,55
Sensible cooling capacity	kW	0,63	1,13	1,20	0,70	1,29	1,37	1,10	1,82	1,94	1,15	1,94	2,07	1,45	2,18	2,36	1,54	2,35	2,56
Water flow rate system side	l/h	138	236	249	163	287	303	241	409	435	285	464	495	349	512	552	382	564	610
Pressure drop system side	kPa	5	14	16	8	19	21	7	15	17	9	21	23	9	13	20	8	16	18
Fan																			
Air flow rate	m^3/h	123	240	257	123	240	257	225	390	424	225	390	424	300	470	515	300	470	515
High static pressure	Pa	13	50	57	13	50	57	16	50	59	16	50	59	20	50	60	20	50	60
Sound power level (inlet + radiated)	dB(A)	37,0	57,0	59,0	37,0	57,0	59,0	36,0	50,0	53,0	36,0	50,0	53,0	43,0	53,0	55,0	43,0	53,0	55,0
Sound power level (outlet)	dB(A)	33,0	53,0	55,0	33,0	53,0	55,0	32,0	47,0	49,0	32,0	47,0	49,0	39,0	49,0	52,0	39,0	49,0	52,0
Input power	W	7	27	31	7	27	31	10	30	40	10	30	40	14	38	48	14	38	48
Diametre hydraulic fittings																			
Main coil	Ø		1/2"			1/2"			3/4"			3/4"			3/4"			3/4"	
Power supply																			
Power supply										230V~50Hz									

		FCYI500C			FCYI550C			FCYI700C			FCYI750C		
		1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)													
Heating capacity	kW	5,39	7,28	7,63	5,92	8,37	8,71	5,33	8,34	8,88	6,17	9,52	10,15
Water flow rate system side	l/h	464	626	656	509	720	749	468	732	779	541	835	890
Pressure drop system side	kPa	12	22	23	11	20	21	8	17	20	5	11	12
Heating performance 45 °C / 40 °C (2)													
Heating capacity	kW	2,68	3,26	3,79	2,94	4,16	4,33	2,67	4,15	4,40	2,46	4,69	5,00
Water flow rate system side	l/h	461	623	652	506	715	745	460	720	767	418	806	860
Pressure drop system side	kPa	12	22	23	12	22	23	8	18	20	3	11	12
Cooling performance 7 °C / 12 °C (3)													
Cooling capacity	kW	2,73	3,68	3,84	2,97	4,15	4,31	2,20	4,00	4,30	2,60	4,41	4,70
Sensible cooling capacity	kW	1,98	2,73	2,85	2,11	2,98	3,12	1,71	3,00	3,20	1,90	3,30	3,50
Water flow rate system side	l/h	469	633	660	511	714	741	378	688	739	447	760	818
Pressure drop system side	kPa	13	22	25	13	22	25	7	18	20	4	11	12
Fan													
Air flow rate	m^3/h	410	600	630	410	600	630	405	730	799	405	730	799
High static pressure	Pa	23	50	55	23	50	55	15	50	60	15	50	60
Sound power level (inlet + radiated)	dB(A)	45,0	56,0	57,0	45,0	56,0	57,0	38,0	55,0	58,0	38,0	55,0	58,0
Sound power level (outlet)	dB(A)	42,0	52,0	52,0	42,0	52,0	52,0	34,0	51,0	54,0	34,0	51,0	54,0
Input power	W	18	50	60	18	50	60	21	61	78	21	61	78
Diametre hydraulic fittings													
Main coil	Ø								3/4"				
Power supply													
Power supply										230V~50Hz			

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C
(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C; EUROVENT
(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT

Refer to the selection software for performance data related to the different configurations.

PERFORMANCE DATA FCYI_C AND FCYI_U (H NOZZLES CONFIGURATION) 4 PIPES

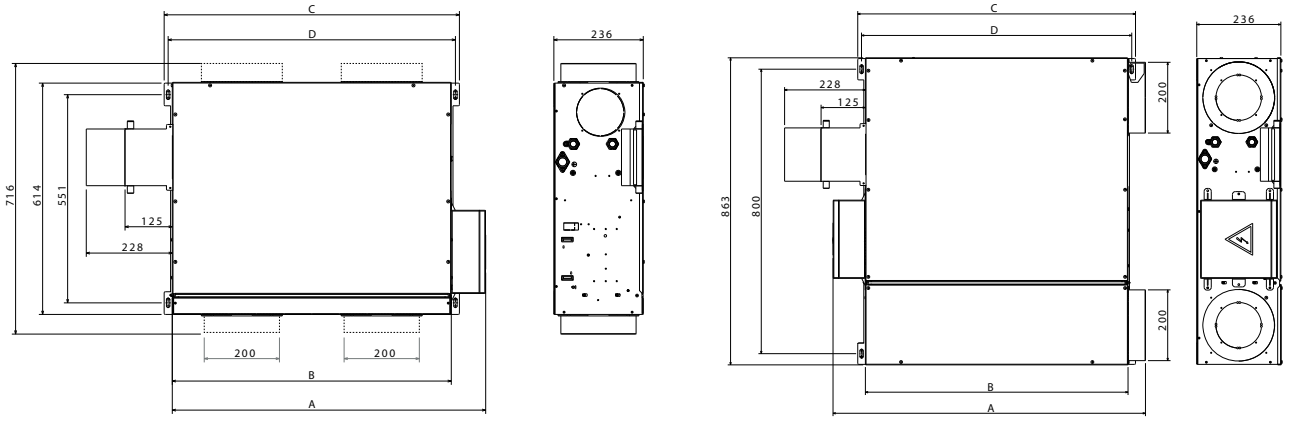
4-pipe

		FCYI201C			FCYI301C			FCYI401C			FCYI501C			FCYI701C		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 65 °C / 55 °C (1)																
Heating capacity	kW	0,94	1,42	1,49	1,60	2,34	2,47	1,99	2,69	2,85	2,62	3,59	3,45	2,99	3,70	3,92
Water flow rate system side	l/h	81	122	128	138	201	212	171	231	245	225	309	297	257	318	337
Pressure drop system side	kPa	4	9	9	6	12	13	4	7	8	6	9	9	8	12	13
Cooling performance 7 °C / 12 °C (2)																
Cooling capacity	kW	0,80	1,37	1,45	1,40	2,38	2,53	2,03	2,98	3,21	2,73	3,68	3,84	2,20	4,00	4,30
Sensible cooling capacity	kW	0,63	1,13	1,20	1,10	1,82	1,94	1,45	2,18	2,36	1,98	2,73	2,85	1,71	3,00	3,20
Water flow rate system side	l/h	138	236	249	241	409	435	349	512	552	469	633	660	378	688	739
Pressure drop system side	kPa	5	14	16	7	15	17	9	13	20	13	22	25	7	18	20
Fan																
Air flow rate	m^3/h	123	240	257	225	390	424	300	470	515	410	600	630	405	730	799
High static pressure	Pa	13	50	57	16	50	59	20	50	60	23	50	55	15	50	60
Sound power level (inlet + radiated)	dB(A)	37,0	57,0	59,0	36,0	50,0	53,0	43,0	53,0	55,0	45,0	56,0	57,0	38,0	55,0	58,0
Sound power level (outlet)	dB(A)	33,0	53,0	55,0	32,0	47,0	49,0	39,0	49,0	52,0	42,0	52,0	52,0	34,0	51,0	54,0
Input power	W	7	27	31	10	30	40	14	38	48	18	50	60	21	61	78
Diametre hydraulic fittings																
Main coil	Ø		1/2"			3/4"			3/4"			3/4"			3/4"	
Secondary coil	Ø								1/2"							
Power supply																
Power supply									230V~50Hz							

(1) Room air temperature 20°C d.b.; Water (in/out) 65 °C/55 °C; EUROVENT
(2) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT

Refer to the selection software for performance data related to the different configurations.

DIMENSIONS



FCYI - C

Size		200	201	250	300	301	350	400	401	450	500	501	550	700	701	750
Dimensions and weights																
A	mm	598	598	598	829	829	829	1050	1050	1050	1050	1050	1050	1171	1171	1171
B	mm	507	507	507	735	735	735	960	960	960	960	960	960	1080	1080	1080
C	mm	550	550	550	781	781	781	1003	1003	1003	1003	1003	1003	1122	1122	1122
D	mm	529	529	529	760	760	760	982	982	982	982	982	982	1100	1100	1100
Empty weight	kg	19	20	21	23	24	26	31	32	33	31	32	33	41	43	46

FCYI - U

Size		200	201	250	300	301	350	400	401	450	500	501	550
Dimensions and weights													
A	mm	647	647	647	878	878	878	1100	1100	1100	1100	1100	1100
B	mm	508	508	508	739	739	739	960	960	960	960	960	960
C	mm	550	550	550	781	781	781	1003	1003	1003	1003	1003	1003
D	mm	529	529	529	760	760	760	982	982	982	982	982	982
Empty weight	kg	22	23	24	26	27	29	35	36	37	35	36	37

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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FCZ P - PO

Fan coil unit for ducted installations

Cooling capacity 0,65 ÷ 7,62 kW
Heating capacity 1,45 ÷ 17,02 kW

- **Very quiet**
- **Suitable for duct-type installations too**
- **Total comfort: reduced variations in temperature and relative humidity**
- **Vertical and horizontal installation**



DESCRIPTION

fan coil can be installed in any 2/4 pipe system and operates with any heat generator even at low temperatures, and thanks to varied versions and settings, it is easy to pick the ideal solution for any need.

FEATURES

Ventilation group

Consisting of double suction centrifugal fans that are particularly silent, statically and dynamically balanced, and directly coupled with the motor shaft.
The motor is wired for single phase and has three speeds, with capacitor. The motor is fitted on sealed for life bearings and is secured on anti-vibration and self-lubricating mountings.
Extractable shrouds for easy, effective cleaning

Heat exchanger coil

With copper pipes and aluminium louvers, the standard or oversized main coil and the possible secondary coil have female gas water connections on the left side and the manifolds have air vents.
The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.
Reversibility of the water connections during installation only for units with a standard or boosted main coil, or standard with BV accessory. Not reversible in all other configurations. In any case, units with the coil water connections on the right are available at the time of ordering.

Condensate drip

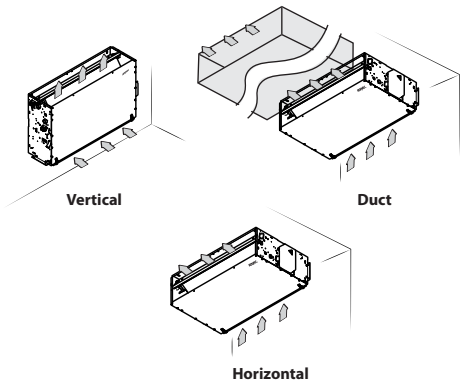
Provided standard in plastic and fixed to the interior structure; with external condensate discharge.

Air filter

Air filter class Coarse 25% for all versions easy to pull out and clean.
In the PPC version, air purification is guaranteed by the Cold Plasma purifier.
The purifier is able to reduce pollutants, decomposing their molecules using electrical charges, causing the water molecules in the air to split into positive and negative ions. These ions neutralise the molecules in the gaseous pollutants, obtaining products normally present in clean air. The device is able to eliminate 90% of the bacteria. The result is clean, ionized air, free of foul odours.

VERSIONS

Flush-mounting and duct-type versions



FCZ_P
— Flush-mounting
FCZ_PPC
— Flush-mounting with Cold Plasma purifier
FCZ_PO
— Flush-mounting, duct-type
— With useful head.

GUIDE TO SELECTING THE POSSIBLE CONFIGURATIONS

Field		Description
1,2,3		FCZ
4		Size 1, 2, 3, 4, 5, 6, 7, 8, 9, 10
5		Main coil
	0	Standard
	5	Oversized
6		Secondary coil
	0	Without coil

Field		Description
	1	Standard
	2	Oversized
7		Version
	P	Flush-mounting, without cabinet
	PO	Flush-mounting, with boosted motor
	POR	Flush-mounting, with boosted motor, with water connections on right-hand side
	PPC	Flush-mounting with Cold Plasma purifier
	PR	Flush-mounting, without cabinet, with water connections on right-hand side

SIZE AVAILABLE FOR VERSION

Size		100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550
Versions produced (by size)																					
Versions available (by size)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR	-	-	-	-	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PPC	•	-	-	•	•	-	-	•	•	-	-	•	•	-	-	•	•	-	-	•

Size		600	601	602	650	700	701	702	750	800	801	802	850	900	901	950	1000	1001
Versions produced (by size)																		
Versions available (by size)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR	•	•	•	•	•	•	•	•	-	-	-	-	•	•	•	-	-
	PPC	•	-	-	•	•	-	-	•	•	-	-	•	•	-	•	•	-

ACCESSORIES

Control panels

AER503IR: Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.
PRO503: Wall box for AER503IR and VMF-E4 thermostats.
PXAI: Thermostat on the machine for controlling the fan coils (both with asynchronous and brushless motors), complete with water and air probes to be positioned in the relative seats, and a plastic support to fix it on the side of the unit. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, purifier devices (Cold Plasma and germicidal lamp), or radiant plate.
SA5: air probe kit (L = 15 m) with probe-locking cable grommet.
SW3: Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.
SW5: water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.
TX: Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).
WMT05: Electronic thermostat with thermostated ventilation.
WMT06: Electronic thermostat with continuous ventilation.
WMT10: Electronic thermostat, white, with thermostated or continuous ventilation.

VMF system

VMF-E0X: Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe.
VMF-E19: Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe.
VMF-E3: Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, VMF-E0X with grids GLF_N/M and GLL_N, can be controlled with VMF-IR control.
VMF-E4DX: Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).
VMF-E4X: Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.
VMF-IR: User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.
VMF-SW: Water probe (L = 2.5m) used if required in place of the standard unit supplied with the VMF-E0X, VMF-E19 and VMF-E19I thermostats for mounting it upstream of the valve
VMF-SW1: Additional water probe (L = 2.5m) to be used if required for 4-pipe systems with the VMF-E19 and VMF-E19I thermostats for maximum control in the cold range

Water valves

VCZ_X: 3-way valve kit for single-coil fan coil, RH connections, (VCZ_X4R) or LH (VCZ_X4L) for 4-pipe systems. With totally separate "heating" and "cooling" circuits. This kit consists of two 3-way insulated valves and four connections, complete with electrothermal actuators, insulating shells for the valves, and the relative hydraulic couplings. X4L version for fan coils with LH connections, and X4R for fan coils with RH connections. 230V~50Hz power supply.
VCZ: 3-way motorised valve kit. The kit consists of a valve with its insulating shell, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the 3-way insulating shell. The kit consists of a valve with its insulating shell, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.
VCF44 - 45 - for the secondary coil: The 3-way motorised valve kit for the secondary coil heat only. The kit consists of a valve with its insulating shell, actuator and relevant water fittings; it is suitable to be installed on the fan coils with right and left water connections.
VCZD: 2-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.
VJP: Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components. The valve, which can guarantee a constant water flow rate in the terminal, within its operating range.

(Heating only) additional coil

BV: Single row hot water heat exchanger.
RX: Armoured electric coil with safety thermostat.
PCR: Galvanised plate protection for the controls and the electrical element.

Installation accessories

AMP: Wall mounting kit
DSC: Condensate drainage device.
BC: Condensate drip.
BCZ: Condensate drip. If the valve is paired with the BCZ5 or BCZ6 condensate drip tray, the insulating shell can be removed to ensure better housing.
Ventilcassaforma: Galvanised sheet metal template. It makes it possible to obtain directly in the wall a space for housing the fan coil.
MZA: Cabinet housing with fixed fins.
MZU: Cabinet housing with adjustable fins.
GA: Intake grid with fixed louvers
GAF: Intake grid with filter and fixed louvers
GM: Flow grid with adjustable louvers.
PA: Intake plenum in galvanised sheet metal, complete with suction couplings for circular-section ducts.
PAF: Intake plenum providing recovery and delivery on the same side, for all installations where the machine needs to be positioned outside the air conditioned rooms to minimise the noise levels and facilitate maintenance.
PM: Delivery plenum with circular flanges. Sandwich structure in hot galvanised steel, with interposed polyurethane foam (40 kg/m3). The panel is 15 mm thick. It is installed in place of the delivery panel with a rectangular flange, using the same 4 self-threading screws.
RD: Straight delivery coupling for canalisation.
RDA: Straight suction coupling for canalisation.
RP: 90° delivery coupling.
RPA: 90° suction coupling.

Accessories for ducting

MZC: Plenum with motorised dampers.
RDA_V: Straight intake connection with rectangular flange.
RPA_V: Suction plenum with rectangular flange; both sides have a circular push-out Ø 150mm that can be removed.
RDA_C: Straight intake connection with circular flanges.
PA_V: Suction plenum with circular plastic flanges; both sides have a circular push-out Ø 150mm that can be removed.
PM_V: Internally insulated delivery plenum with circular flanges; both sides have a circular push-out Ø 150mm that can be removed.
RPM_V: Internally insulated delivery plenum with rectangular flange; both sides have a circular push-out Ø 150mm that can be removed.
RDM_V: Straight delivery coupling in galvanised sheet metal.
RDM_C: Straight discharge internally insulated, with circular flanges.

ACCESSORIES COMPATIBILITY

Control panels

Model	Ver	100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550
AER503IR (1)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PPC	•			•	•			•	•			•	•			•	•			•
PRO503	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PPC	•			•	•			•	•			•	•			•	•			•
PXAI	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PPC	•			•	•			•	•			•	•			•	•			•
SA5 (2)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PPC	•			•	•			•	•			•	•			•	•			•
SW3 (2)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PPC	•			•	•			•	•			•	•			•	•			•
SW5 (2)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PPC	•			•	•			•	•			•	•			•	•			•
TX (1)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PPC	•			•	•			•	•			•	•			•	•			•
WMT05 (1)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PPC	•			•	•			•	•			•	•			•	•			•
WMT06 (1)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PPC	•			•	•			•	•			•	•			•	•			•
WMT10 (1)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PPC	•			•	•			•	•			•	•			•	•			•

Model	Ver	600	601	602	650	700	701	702	750	800	801	802	850	900	901	950	1000	1001
AER503IR (1)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR	•	•	•	•	•	•	•	•					•	•	•		
	PPC	•			•	•			•	•			•	•		•	•	
PRO503	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR	•	•	•	•	•	•	•	•					•	•	•		
	PPC	•			•	•			•	•			•	•		•	•	
PXAI	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR	•	•	•	•	•	•	•	•					•	•	•		
	PPC	•			•	•			•	•			•	•		•	•	
SA5 (2)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR	•	•	•	•	•	•	•	•					•	•	•		
	PPC	•			•	•			•	•			•	•		•	•	
SW3 (2)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR	•	•	•	•	•	•	•	•					•	•	•		
	PPC	•			•	•			•	•			•	•		•	•	
SW5 (2)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR	•	•	•	•	•	•	•	•					•	•	•		
	PPC	•			•	•			•	•			•	•		•	•	
TX (1)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR	•	•	•	•	•	•	•	•					•	•	•		
	PPC	•			•	•			•	•			•	•		•	•	
WMT05 (1)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR	•	•	•	•	•	•	•	•					•	•	•		
	PPC	•			•	•			•	•			•	•		•	•	
WMT06 (1)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR	•	•	•	•	•	•	•	•					•	•	•		
	PPC	•			•	•			•	•			•	•		•	•	
WMT10 (1)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR	•	•	•	•	•	•	•	•					•	•	•		
	PPC	•			•	•			•	•			•	•		•	•	

(1) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.
(2) Probe for AER503IR-TX thermostats, if fitted.

VMF system

For more information about VMF system, refer to the dedicated documentation.

Model	Ver	100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550
VMF-E0X (1)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PPC	•			•	•			•	•			•	•			•	•			•
VMF-E19 (1)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PPC	•			•	•			•	•			•	•			•	•			•
VMF-E3	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PPC	•			•	•			•	•			•	•			•	•			•
VMF-E4DX	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PPC	•			•	•			•	•			•	•			•	•			•
VMF-E4X	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PPC	•			•	•			•	•			•	•			•	•			•
VMF-IR	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PPC	•			•	•			•	•			•	•			•	•			•
VMF-SW	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PPC	•			•	•			•	•			•	•			•	•			•
VMF-SW1	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PPC	•			•	•			•	•			•	•			•	•			•

Model	Ver	600	601	602	650	700	701	702	750	800	801	802	850	900	901	950	1000	1001
VMF-E0X (1)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR	•	•	•	•	•	•	•	•					•	•	•		
	PPC	•			•	•			•	•			•	•		•	•	
VMF-E19 (1)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR	•	•	•	•	•	•	•	•					•	•	•		
	PPC	•			•	•			•	•			•	•		•	•	
VMF-E3	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR	•	•	•	•	•	•	•	•					•	•	•		
	PPC	•			•	•			•	•			•	•		•	•	
VMF-E4DX	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR	•	•	•	•	•	•	•	•					•	•	•		
	PPC	•			•	•			•	•			•	•		•	•	
VMF-E4X	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR	•	•	•	•	•	•	•	•					•	•	•		
	PPC	•			•	•			•	•			•	•		•	•	
VMF-IR	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR	•	•	•	•	•	•	•	•					•	•	•		
	PPC	•			•	•			•	•			•	•		•	•	
VMF-SW	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR	•	•	•	•	•	•	•	•					•	•	•		
	PPC	•			•	•			•	•			•	•		•	•	
VMF-SW1	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR	•	•	•	•	•	•	•	•					•	•	•		
	PPC	•			•	•			•	•			•	•		•	•	

(1) Also the accessory VMF-SIT3V is mandatory if the unit exceeds 0.7 Amperes.

Water valves

3 way valve kit

	100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450
Main coil	VCZ41 VCZ4124	VCZ41 VCZ4124	VCZ41 VCZ4124	VCZ41 VCZ4124	VCZ41 VCZ4124	VCZ41 VCZ4124	VCZ41 VCZ4124	VCZ41 VCZ4124	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224
Secondary coil	-	VCF44 VCF4424	VCF44 VCF4424	-	-	VCF44 VCF4424	VCF44 VCF4424	-	-	VCF44 VCF4424	VCF44 VCF4424	-	-	VCF44 VCF4424	VCF44 VCF4424	-
Additional coil "BV"	VCF44 VCF4424	-	-	-	VCF44 VCF4424	-	-	-	VCF44 VCF4424	-	-	-	VCF44 VCF4424	-	-	-

	500	501	502	550	600	601	602	650	700	701	702	750	800	801	802	850
Main coil	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224
Secondary coil	-	VCF44 VCF4424	VCF44 VCF4424	-	-	VCF44 VCF4424	VCF44 VCF4424	-	-	VCF44 VCF4424	VCF44 VCF4424	-	-	VCF44 VCF4424	VCF44 VCF4424	-
Additional coil "BV"	VCF44 VCF4424	-	-	-	VCF44 VCF4424	-	-	-	VCF44 VCF4424	-	-	-	VCF44 VCF4424	-	-	-

	900	901	950	1000	1001
Main coil	VCZ43 VCZ4324	VCZ43 VCZ4324	VCZ43 VCZ4324	VCZ43 VCZ4324	VCZ43 VCZ4324
Secondary coil	-	VCF45 VCF4524	-	-	VCF45 VCF4524
Additional coil "BV"	VCF45 VCF4524	-	-	VCF45 VCF4524	-

2 way valve kit

	100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450
Main coil	VCZD1 VCZD124	VCZD1 VCZD124	VCZD1 VCZD124	VCZD1 VCZD124	VCZD1 VCZD124	VCZD1 VCZD124	VCZD1 VCZD124	VCZD1 VCZD124	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224
Secondary coil	-	VCFD4 VCFD424	VCFD4 VCZD424	-	-	VCFD4 VCFD424	VCFD4 VCZD424	-	-	VCFD4 VCFD424	VCFD4 VCFD424	-	-	VCFD4 VCFD424	VCFD4 VCFD424	-
Additional coil "BV"	VCFD4 VCFD424	-	-	-	VCFD4 VCFD424	-	-	-	VCFD4 VCFD424	-	-	-	VCFD4 VCFD424	-	-	-

	500	501	502	550	600	601	602	650	700	701	702	750	800	801	802	850
Main coil	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224
Secondary coil	-	VCFD4 VCFD424	VCFD4 VCFD424	-	-	VCFD4 VCFD424	VCFD4 VCFD424	-	-	VCFD4 VCFD424	VCFD4 VCFD424	-	-	VCFD4 VCFD424	VCFD4 VCFD424	-
Additional coil "BV"	VCFD4 VCFD424	-	-	-	VCFD4 VCFD424	-	-	-	VCFD4 VCFD424	-	-	-	VCFD4 VCFD424	-	-	-

	900	901	950	1000	1001
Main coil	VCZD3 VCZD324	VCZD3 VCZD324	VCZD3 VCZD324	VCZD3 VCZD324	VCZD3 VCZD324
Secondary coil	-	VCFD4 VCFD424	-	-	VCFD4 VCFD424
Additional coil "BV"	VCFD4 VCFD424	-	-	VCFD4 VCFD424	-

Valve Kit for 4 pipe systems - Requires a thermostat with valve management

Model	Ver	100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550
VCZ1X4L (1)	P,PPC,PR	•			•	•			•												
	PO,POR					•			•												
VCZ1X4R (1)	P,PPC,PR	•			•	•			•												
	PO,POR					•			•												
VCZ2X4L (1)	P,PO,POR,PPC,PR									•			•	•			•	•			•
VCZ2X4R (1)	P,PO,POR,PPC,PR									•			•	•			•	•			•

Model	Ver	600	601	602	650	700	701	702	750	800	801	802	850	900	901	950	1000	1001
VCZ2X4L (1)	P,PPC,PR	•			•	•			•	•			•					
	PO,POR	•			•	•			•									
VCZ2X4R (1)	P,PPC,PR	•			•	•			•	•			•					
	PO,POR	•			•	•			•									
VCZ3X4L (1)	P,PPC,PR													•		•	•	
	PO,POR													•		•		
VCZ3X4R (1)	P,PPC,PR													•		•	•	
	PO,POR													•		•		

(1) The valves can be combined with the units if there is a control panel for managing them.

Combined Adjustment and Balancing Valve Kit

Model	Ver	100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550
VJP060 (1)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•								
	PO,POR					•	•	•	•	•	•	•	•								
	PPC	•			•	•			•	•			•								
VJP060M (2)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•								
	PO,POR					•	•	•	•	•	•	•	•								
	PPC	•			•	•			•	•			•								
VJP090 (1)	P,PO,POR,PR													•	•	•	•	•	•	•	•
	PPC													•			•	•			•
VJP090M (2)	P,PO,POR,PR													•	•	•	•	•	•	•	•
	PPC													•			•	•			•

Model	Ver	600	601	602	650	700	701	702	750	800	801	802	850	900	901	950	1000	1001
VJP090 (1)	P,PO,POR,PR	•	•	•	•													
	PPC	•			•													
VJP090M (2)	P,PO,POR,PR	•	•	•	•													
	PPC	•			•													
VJP150 (1)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR	•	•	•	•	•	•	•	•					•	•	•		
	PPC	•			•	•			•	•			•	•		•	•	
VJP150M (2)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR	•	•	•	•	•	•	•	•					•	•	•		
	PPC	•			•	•			•	•			•	•		•	•	

(1) 230V~50Hz
(2) 24V

(Heating only) additional coil

Heating only additional coil

Model	Ver	100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550
BV117 (1)	P,PR	•																			
BV122 (1)	P,PO,POR,PR					•															
BV132 (1)	P,PO,POR,PPC,PR									•											
BV142 (1)	P,PO,POR,PPC,PR													•				•			

Model	Ver	600	601	602	650	700	701	702	750	800	801	802	850	900	901	950	1000	1001
BV162 (1)	P,PR													•			•	
	PO,POR,PPC													•				
BVZ800 (1)	P,PPC,PR	•				•				•								
	PO,POR	•				•												

(1) Not available for sizes with oversized main coil.

Electric coil - Requires a thermostat with heater management. Not available for sizes with an oversized main coil.

Model	Ver	100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500
RX17 (1)	P,PR	•																
RX22 (1)	P,PO,POR,PR					•												
RX32 (1)	P,PO,POR,PPC,PR									•								
RX42 (1)	P,PO,POR,PPC,PR													•				
RX52 (1)	P,PO,POR,PPC,PR																	•

Model	Ver	501	502	550	600	601	602	650	700	701	702	750	800	801	802	850	900	901
RX62 (1)	P,PO,POR,PPC,PR																•	
RXZ800 (1)	P,PPC,PR				•				•				•					
	PO,POR				•				•									

Model	Ver	950	1000	1001
RX62 (1)	P,PR		•	

(1) Requires a thermostat with heater management. Not available for sizes with an oversized main coil. The PCR1 or PCR2 appliance must also be provided depending on the unit.

Galvanised plate protection for the controls and the electrical element.

Model	Ver	100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500
PCR1	P,PO,POR,PR	•				•				•				•				•

Model	Ver	501	502	550	600	601	602	650	700	701	702	750	800	801	802	850	900	901
PCR1	P,PO,POR,PR				•				•				•					
PCR2	P,PO,POR,PR																•	

Model	Ver	950	1000	1001
PCR2	P,PO,POR,PR		•	

Installation accessories

Wall mounting kit

Model	Ver	100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550
AMP20	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PPC	•			•	•			•	•			•	•			•	•			•

Model	Ver	600	601	602	650	700	701	702	750	800	801	802	850	900	901	950	1000	1001
AMPZ	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR	•	•	•	•	•	•	•	•					•	•	•		
	PPC	•			•	•			•	•			•	•		•	•	

Condensate drip

Model	Ver	100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550
BCZ4 (1)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PPC	•			•	•			•	•			•	•			•	•			•
BCZ5 (2)	P		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PPC	•			•	•			•	•			•	•			•	•			•
	PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Model	Ver	600	601	602	650	700	701	702	750	800	801	802	850	900	901	950	1000	1001
BCZ4 (1)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR	•	•	•	•	•	•	•	•					•	•	•		
	PPC	•			•	•			•	•			•	•		•	•	
BCZ5 (2)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•					
	PO,POR	•	•	•	•	•	•	•	•									
	PPC	•			•	•			•	•			•					
BCZ6 (2)	P,PR													•	•	•	•	•
	PO,POR													•	•	•		
	PPC													•		•	•	

(1) For vertical installation.
(2) For horizontal installation.

Model	Ver	100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550
BC8 (1)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PPC	•			•	•			•	•			•	•			•	•			•

Model	Ver	600	601	602	650	700	701	702	750	800	801	802	850	900	901	950	1000	1001
BC8 (1)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•					
	PO,POR	•	•	•	•	•	•	•	•									
	PPC	•			•	•			•	•			•					
BC9 (1)	P,PR													•	•	•	•	•
	PO,POR													•	•	•		
	PPC													•		•	•	

(1) For horizontal installation.

Condensate recirculation device

Model	Ver	100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550
DSCZ4 (1)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PPC	•			•	•			•	•			•	•			•	•			•

Model	Ver	600	601	602	650	700	701	702	750	800	801	802	850	900	901	950	1000	1001
DSCZ4 (1)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR	•	•	•	•	•	•	•	•					•	•	•		
	PPC	•			•	•			•	•			•	•		•	•	

(1) DSC4 cannot be mounted if even just one of these accessories is also installed: AMP - AMPZ valve VCZ1-2-3-4 X4L/R and all the condensate collection trays.

Ventilcassaforma

Model	Ver	100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550
CHF17	P,PR	•	•	•	•																
	PPC	•			•																
CHF22	P,PO,POR,PR					•	•	•	•												
	PPC					•			•												
CHF32	P,PO,POR,PR									•	•	•	•								
	PPC									•			•								
CHF42	P,PO,POR,PR													•	•	•	•	•	•	•	•
	PPC													•			•	•			•

Model	Ver	600	601	602	650	700	701	702	750	800	801	802	850	900	901	950	1000	1001
CHF62	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR	•	•	•	•	•	•	•	•					•	•	•		
	PPC	•			•	•			•	•			•	•		•	•	

Cabinet housing with fixed fins.

Model	Ver	100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550
MZA100	P,PPC,PR	•	•	•	•																
MZA200	P,PPC,PR					•	•	•	•												
MZA300	P,PPC,PR									•	•	•	•								
MZA500	P,PPC,PR													•	•	•	•	•	•	•	•

Model	Ver	600	601	602	650	700	701	702	750	800	801	802	850	900	901	950	1000	1001
MZA800	P,PPC,PR	•	•	•	•	•	•	•	•	•	•	•	•					
MZA900	P,PPC,PR													•	•	•	•	•

Cabinet housing with adjustable fins.

Model	Ver	100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550
MZU100	P,PPC,PR	•	•	•	•																
MZU200	P,PPC,PR					•	•	•	•												
MZU300	P,PPC,PR									•	•	•	•								
MZU500	P,PPC,PR													•	•	•	•	•	•	•	•

Model	Ver	600	601	602	650	700	701	702	750	800	801	802	850	900	901	950	1000	1001
MZU800	P,PPC,PR	•	•	•	•	•	•	•	•	•	•	•	•					
MZU900	P,PPC,PR													•	•	•	•	•

Wall mounting and duct type installation accessories

Lower intake grille

Model	Ver	100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550
GA17	P,PR	•	•	•	•																
	PPC	•			•																
GA22	P,PO,POR,PR					•	•	•	•												
	PPC					•			•												
GA32	P,PO,POR,PR									•	•	•	•								
	PPC									•			•								
GA42	P,PO,POR,PR													•	•	•	•	•	•	•	•
	PPC													•			•	•			•

Model	Ver	600	601	602	650	700	701	702	750	800	801	802	850	900	901	950	1000	1001
GA62	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR	•	•	•	•	•	•	•	•					•	•	•		
	PPC	•			•	•			•	•			•	•		•	•	

Intake grilles with fixed louvers and filter

Model	Ver	100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550
GAF17	P,PR	•	•	•	•																
	PPC	•			•																
GAF22	P,PO,POR,PR					•	•	•	•												
	PPC					•			•												
GAF32	P,PO,POR,PR									•	•	•	•								
	PPC									•			•								
GAF42	P,PO,POR,PR													•	•	•	•	•	•	•	•
	PPC													•			•	•			•

Model	Ver	600	601	602	650	700	701	702	750	800	801	802	850	900	901	950	1000	1001
GAF62	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR	•	•	•	•	•	•	•	•					•	•	•		
	PPC	•			•	•			•	•			•	•		•	•	

Delivery grilles with adjustable louvers

Model	Ver	100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550
GM17	P,PR	•	•	•	•																
	PPC	•			•																
GM22	P,PO,POR,PR					•	•	•	•												
	PPC					•			•												
GM32	P,PO,POR,PR									•	•	•	•								
	PPC									•			•								
GM42	P,PO,POR,PR													•	•	•	•	•	•	•	•
	PPC													•			•	•			•

Model	Ver	600	601	602	650	700	701	702	750	800	801	802	850	900	901	950	1000	1001
GM62	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR	•	•	•	•	•	•	•	•					•	•	•		
	PPC	•			•	•			•	•			•	•		•	•	

Intake plenum in sheet metal complete with connectors for circular channels

Model	Ver	100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550
PA17	P,PR	•	•	•	•																
	PPC	•			•																
PA22	P,PO,POR,PR					•	•	•	•												
	PPC					•			•												
PA32	P,PO,POR,PR									•	•	•	•								
	PPC									•			•								
PA42	P,PO,POR,PR													•	•	•	•	•	•	•	•
	PPC													•			•	•			•

Model	Ver	600	601	602	650	700	701	702	750	800	801	802	850	900	901	950	1000	1001
PA62	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR	•	•	•	•	•	•	•	•					•	•	•		
	PPC	•			•	•			•	•			•	•		•	•	

Intake plenum providing recovery and delivery on the same side

Model	Ver	100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550
PA17F	P,PR	•	•	•	•																
	PPC	•			•																
PA22F	P,PO,POR,PR					•	•	•	•												
	PPC					•			•												
PA32F	P,PO,POR,PR									•	•	•	•								
	PPC									•			•								
PA42F	P,PO,POR,PR													•	•	•	•	•	•	•	•
	PPC													•			•	•			•

Model	Ver	600	601	602	650	700	701	702	750	800	801	802	850	900	901	950	1000	1001
PA62F	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR	•	•	•	•	•	•	•	•					•	•	•		
	PPC	•			•	•			•	•			•	•		•	•	

Delivery plenum with circular flanges.

Model	Ver	100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550
PM17	P,PR	•	•	•	•																
	PPC	•			•																
PM22	P,PO,POR,PR					•	•	•	•												
	PPC					•			•												
PM32	P,PO,POR,PR									•	•	•	•								
	PPC									•			•								
PM42	P,PO,POR,PR													•	•	•	•	•	•	•	•
	PPC													•			•	•			•

Model	Ver	600	601	602	650	700	701	702	750	800	801	802	850	900	901	950	1000	1001
PM62	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR	•	•	•	•	•	•	•	•					•	•	•		
	PPC	•			•	•			•	•			•	•		•	•	

Straight delivery coupling

Model	Ver	100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550
RD17	P,PR	•	•	•	•																
	PPC	•			•																
RD22	P,PO,POR,PR					•	•	•	•												
	PPC					•			•												
RD32	P,PO,POR,PR									•	•	•	•								
	PPC									•			•								
RD42	P,PO,POR,PR													•	•	•	•	•	•	•	•
	PPC													•			•	•			•

Model	Ver	600	601	602	650	700	701	702	750	800	801	802	850	900	901	950	1000	1001
RD62	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR	•	•	•	•	•	•	•	•					•	•	•		
	PPC	•			•	•			•	•			•	•		•	•	

Straight suction coupling

Model	Ver	100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550
RDA22	P,PO,POR,PR					•	•	•	•												
	PPC					•			•												
RDA32	P,PO,POR,PR									•	•	•	•								
	PPC									•			•								
RDA42	P,PO,POR,PR													•	•	•	•	•	•	•	•
	PPC													•			•	•			•

Model	Ver	600	601	602	650	700	701	702	750	800	801	802	850	900	901	950	1000	1001
RDA62	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR	•	•	•	•	•	•	•	•					•	•	•		
	PPC	•			•	•			•	•			•	•		•	•	

90° delivery coupling.

Model	Ver	100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550
RP17	P,PR	•	•	•	•																
	PPC	•			•																
RP22	P,PO,POR,PR					•	•	•	•												
	PPC					•			•												
RP32	P,PO,POR,PR									•	•	•	•								
	PPC									•			•								
RP42	P,PO,POR,PR													•	•	•	•	•	•	•	•
	PPC													•			•	•			•

Model	Ver	600	601	602	650	700	701	702	750	800	801	802	850	900	901	950	1000	1001
RP62	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR	•	•	•	•	•	•	•	•					•	•	•		
	PPC	•			•	•			•	•			•	•		•	•	

90° suction coupling.

Model	Ver	100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550
RPA22	P,PO,POR,PR					•	•	•	•												
	PPC					•			•												
RPA32	P,PO,POR,PR									•	•	•	•								
	PPC									•			•								
RPA42	P,PO,POR,PR													•	•	•	•	•	•	•	•
	PPC													•			•	•			•

Model	Ver	600	601	602	650	700	701	702	750	800	801	802	850	900	901	950	1000	1001
RPA62	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	PO,POR	•	•	•	•	•	•	•	•					•	•	•		
	PPC	•			•	•			•	•			•	•		•	•	

Accessories for ducting

Plenum with motorised dampers.

Model	Ver	100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550
MZC220	PO,POR					•	•	•	•												
MZC320	PO,POR									•	•	•	•								
MZC530	PO,POR													•	•	•	•	•	•	•	•

Model	Ver	600	601	602	650	700	701	702	750	800	801	802	850	900	901	950	1000	1001
MZC830	PO,POR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		

Straight intake connection with rectangular flange.

Model	Ver	100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550
RDA000V	PO,POR					•	•	•	•												
RDA100V	PO,POR									•	•	•	•								
RDA200V	PO,POR													•	•	•	•	•	•	•	•

Model	Ver	600	601	602	650	700	701	702	750	800	801	802	850	900	901	950	1000	1001
RDA300V	PO,POR	•	•	•	•	•	•	•	•					•	•	•		

Intake plenum with rectangular flange.

Model	Ver	100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550
RPA000V	PO,POR					•	•	•	•												
RPA100V	PO,POR									•	•	•	•								
RPA200V	PO,POR													•	•	•	•	•	•	•	•

Model	Ver	600	601	602	650	700	701	702	750	800	801	802	850	900	901	950	1000	1001
RPA300V	PO,POR	•	•	•	•	•	•	•	•					•	•	•		

Suction plenum with plastic circular flanges.

Model	Ver	100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550
PA000V	PO,POR					•	•	•	•												
PA100V	PO,POR									•	•	•	•								
PA200V	PO,POR													•	•	•	•	•	•	•	•

Model	Ver	600	601	602	650	700	701	702	750	800	801	802	850	900	901	950	1000	1001
PA300V	PO,POR	•	•	•	•	•	•	•	•					•	•	•		

Internally insulated delivery plenum with circular flanges.

Model	Ver	100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550
PM000V	PO,POR					•	•	•	•												
PM100V	PO,POR									•	•	•	•								
PM200V	PO,POR													•	•	•	•	•	•	•	•

Model	Ver	600	601	602	650	700	701	702	750	800	801	802	850	900	901	950	1000	1001
PM300V	PO,POR	•	•	•	•	•	•	•	•					•	•	•		

Internally insulated delivery plenum with rectangular flange.

Model	Ver	100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550
RPM000V	PO,POR					•	•	•	•												
RPM100V	PO,POR									•	•	•	•								
RPM200V	PO,POR													•	•	•	•	•	•	•	•

Model	Ver	600	601	602	650	700	701	702	750	800	801	802	850	900	901	950	1000	1001
RPM300V	PO,POR	•	•	•	•	•	•	•	•					•	•	•		

Straight delivery coupling in galvanised sheet metal.

Model	Ver	100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550
RDM000V	P0,POR					•	•	•	•												
RDM100V	P0,POR									•	•	•	•								
RDM200V	P0,POR													•	•	•	•	•	•	•	•

Model	Ver	600	601	602	650	700	701	702	750	800	801	802	850	900	901	950	1000	1001
RDM300V	P0,POR	•	•	•	•	•	•	•	•					•	•	•		

Straight discharge internally insulated, with circular flanges.

Model	Ver	100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550
RDMC000V	P0,POR					•	•	•	•												
RDMC100V	P0,POR									•	•	•	•								
RDMC200V	P0,POR													•	•	•	•	•	•	•	•

Model	Ver	600	601	602	650	700	701	702	750	800	801	802	850	900	901	950	1000	1001
RDMC300V	P0,POR	•	•	•	•	•	•	•	•					•	•	•		

PERFORMANCE DATA FOR UNITS WITHOUT HEAD (EUROVENT CERTIFICATE FC-H)

2-pipe

		FCZ100P			FCZ150P			FCZ200P			FCZ250P			FCZ300P			FCZ350P			FCZ400P			FCZ450P			FCZ500P			FCZ550P		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)																															
Heating capacity	kW	1,45	2,00	2,40	1,55	2,19	2,65	2,02	2,95	3,70	2,20	3,18	4,05	3,47	4,46	5,50	3,77	4,92	6,15	4,32	5,74	7,15	4,57	6,29	7,82	5,27	7,31	8,50	5,82	8,34	9,75
Water flow rate system side	l/h	125	172	206	136	192	232	177	258	324	193	278	355	304	391	482	330	431	539	379	503	627	400	551	685	462	641	745	510	731	855
Pressure drop system side	kPa	4	7	9	5	9	12	6	12	18	7	15	23	7	12	18	8	14	20	9	16	24	6	11	16	12	21	28	10	20	26
Heating performance 45 °C / 40 °C (2)																															
Heating capacity	kW	0,72	0,99	1,19	0,77	1,09	1,31	1,00	1,46	1,84	1,09	1,58	2,01	1,72	2,21	2,73	1,87	2,44	3,06	2,14	2,85	3,55	2,27	3,12	3,88	2,62	3,63	4,22	2,89	4,14	4,85
Water flow rate system side	l/h	126	173	207	134	189	229	174	254	319	190	274	350	299	385	475	325	425	531	373	495	617	394	543	675	455	631	734	502	720	842
Pressure drop system side	kPa	4	7	10	5	9	12	6	12	18	8	15	22	8	12	18	8	14	20	10	16	24	6	11	16	12	21	28	10	20	26
Cooling performance 7 °C / 12 °C (3)																															
Cooling capacity	kW	0,65	0,84	1,00	0,65	0,84	1,00	0,89	1,28	1,60	1,06	1,55	1,94	1,68	2,17	2,65	1,89	2,46	3,02	2,20	2,92	3,60	2,41	3,21	4,03	2,68	3,69	4,25	2,91	4,13	4,79
Sensible cooling capacity	kW	0,51	0,69	0,83	0,51	0,69	0,83	0,71	1,05	1,33	0,79	1,20	1,52	1,26	1,65	2,04	1,33	1,76	2,18	1,59	2,14	2,67	1,69	2,30	2,90	1,94	2,73	3,18	2,07	2,98	3,49
Water flow rate system side	l/h	112	144	172	112	144	172	153	221	275	182	267	334	288	374	456	350	460	560	379	503	619	414	552	694	460	634	731	501	711	824
Pressure drop system side	kPa	4	6	8	4	6	8	6	12	18	8	17	25	8	13	18	11	18	25	10	16	24	9	15	22	13	22	29	12	22	28
Fan																															
Type	type	Centrifugal																													
Fan motor	type	Asynchronous																													
Number	no.	1			1			1			1			2			2			2			2			2			2		
Air flow rate	m^3/h	110	160	200	110	160	200	140	220	290	140	220	290	260	350	450	260	350	450	330	460	600	330	460	600	400	600	720	400	600	720
Input power	W	19	29	35	19	29	35	25	29	33	25	29	33	25	33	44	25	33	44	30	43	57	30	43	57	38	52	76	38	52	76
Electrical wiring		V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3
Fan coil sound data (4)																															
Sound power level	dB(A)	31,0	38,0	45,0	31,0	38,0	45,0	35,0	46,0	51,0	35,0	46,0	51,0	34,0	41,0	48,0	34,0	41,0	48,0	37,0	44,0	51,0	37,0	44,0	51,0	42,0	51,0	56,0	42,0	51,0	56,0
Sound pressure	dB(A)	23,0	30,0	37,0	23,0	30,0	37,0	27,0	38,0	43,0	27,0	38,0	43,0	26,0	33,0	40,0	26,0	33,0	40,0	29,0	36,0	43,0	29,0	36,0	43,0	34,0	43,0	48,0	34,0	43,0	48,0
Water coil																															
Water content main coil	l	0,4			0,5			0,5			0,7			0,8			1,0			1,0			1,4			1,0			1,4		
Diametre hydraulic fittings																															
Main coil	Ø	1/2"			1/2"			1/2"			1/2"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"		

		FCZ600P			FCZ650P			FCZ700P			FCZ750P			FCZ800P			FCZ850P			FCZ900P			FCZ950P			FCZ1000P		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)																												
Heating capacity	kW	6,50	8,10	10,00	7,19	9,15	11,50	8,10	9,80	11,00	9,10	11,30	12,50	9,80	10,80	12,00	11,30	12,35	14,00	10,77	13,35	15,14	11,20	14,42	17,10	12,53	15,24	17,02
Water flow rate system side	l/h	570	710	877	631	802	1008	710	860	964	798	991	1096	859	947	1052	991	1083	1227	945	1171	1328	982	1264	1500	1101	1337	1493
Pressure drop system side	kPa	12	18	26	14	21	31	17	24	29	10	15	18	22	27	32	17	20	25	12	17	22	16	24	33	22	32	38
Heating performance 45 °C / 40 °C (2)																												
Heating capacity	kW	3,32	4,03	4,97	3,57	4,55	5,72	4,03	4,87	5,47	4,52	5,62	6,21	4,87	5,37	5,97	5,62	6,14	6,96	5,35	6,64	7,53	5,57	7,17	8,50	6,24	7,58	8,46
Water flow rate system side	l/h	561	699	863	621	790	993	699	846	950	786	975	1079	846	932	1036	975	1066	1209	930	1152	1307	967	1245	1476	1084	1316	1469
Pressure drop system side	kPa	12	18	26	14	20	31	16	24	29	10	14	18	22	26	32	17	20	25	12	17	22	15	24	33	22	31	38
Cooling performance 7 °C / 12 °C (3)																												
Cooling capacity	kW	3,22	3,90	4,65	3,95	4,80	5,67	3,92	4,89	5,50	4,27	5,34	6,14	4,84	5,66	6,10	5,26	6,29	6,91	4,29	5,00	6,91	5,77	7,32	8,60	5,69	6,88	7,62
Sensible cooling capacity	kW	2,56	3,17	3,92	2,78	3,43	4,12	2,99	3,76	4,30	3,20	4,05	4,72	3,72	4,42	4,83	4,00	4,83	5,36	2,97	3,78	5,68	3,80	4,87	5,78	4,42	5,34	5,53
Water flow rate system side	l/h	554	671	800	595	825	975	675	841	946	734	918	1056	833	974	1049	904	1082	1189	738	860	1189	992	1259	1479	979	1183	1311
Pressure drop system side	kPa	14	19	26	15	21	28	16	24	30	10	14	18	20	26	30	14	20	23	10	12	22	15	22	30	22	31	36
Fan																												
Type	type	Centrifugal																										
Fan motor	type	Asynchronous																										
Number	no.	3			3			3			3			3			3			3			3			3		
Air flow rate	m^3/h	520	720	920	520	720	920	700	930	1140	700	930	1140	900	1120	1300	900	1120	1300	700	930	1140	700	930	1140	900	1120	1300
Input power	W	38	60	91	38	60	91	59	80	106	59	80	106	80	100	131	80	100	131	59	80	106	59	80	106	80	100	131
Electrical wiring		V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3
Fan coil sound data (4)																												
Sound power level	dB(A)	42,0	51,0	57,0	42,0	51,0	57,0	50,0	57,0	62,0	50,0	57,0	62,0	56,0	61,0	66,0	56,0	61,0	66,0	51,0	57,0	62,0	51,0	57,0	62,0	56,0	61,0	66,0
Sound pressure	dB(A)	34,0	43,0	49,0	34,0	43,0	49,0	42,0	49,0	54,0	42,0	49,0	54,0	48,0	53,0	58,0	48,0	53,0	58,0	43,0	49,0	54,0	43,0	49,0	54,0	48,0	53,0	58,0
Water coil																												
Water content main coil	l	1,2			1,6			1,2			1,6			1,2			1,6			1,8			2,3			1,8		
Diametre hydraulic fittings																												
Main coil	Ø	3/4"																										

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C
(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C; EUROVENT
(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT
(4) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

4-pipe

		FCZ101P			FCZ201P			FCZ301P			FCZ401P			FCZ501P			FCZ601P			FCZ701P			FCZ801P			FCZ901P			FCZ1001P		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 65 °C / 55 °C (1)																															
Heating capacity	kW	0,75	1,01	1,17	1,02	1,35	1,60	1,80	2,18	2,56	2,21	2,65	3,12	2,59	3,34	3,73	2,96	3,67	4,36	3,66	4,29	4,94	4,20	4,79	5,35	4,73	5,63	5,72	4,85	5,56	6,08
Water flow rate system side	l/h	65	89	102	89	118	140	158	191	224	186	232	273	227	293	327	259	321	381	320	375	437	368	419	467	414	492	501	424	487	532
Pressure drop system side	kPa	2	4	4	4	8	10	16	23	30	4	6	8	6	8	10	8	12	16	11	14	18	16	20	24	8	12	12	10	14	16
Cooling performance 7 °C / 12 °C (2)																															
Cooling capacity	kW	0,65	0,84	1,00	0,89	1,28	1,60	1,68	2,17	2,65	2,20	2,92	3,60	2,68	3,69	4,25	3,22	3,90	4,65	3,92	4,89	5,50	4,84	5,66	6,10	4,29	5,00	6,91	5,69	6,88	7,62
Sensible cooling capacity	kW	0,51	0,69	0,83	0,71	1,05	1,33	1,26	1,65	2,04	1,59	2,14	2,67	1,94	2,73	3,18	2,56	3,17	3,92	2,99	3,76	4,30	3,72	4,42	4,83	2,97	3,78	5,68	4,42	5,34	5,53
Water flow rate system side	l/h	112	144	172	153	221	275	288	374	456	379	503	619	460	634	731	554	671	800	675	841	946	833	974	1049	738	860	1189	979	1183	1311
Pressure drop system side	kPa	4	6	8	6	12	18	8	13	18	10	16	24	13	22	29	14	19	26	16	24	30	20	26	30	10	12	22	22	31	36
Fan																															
Type	type	Centrifugal																													
Fan motor	type	Asynchronous																													
Number	no.	1			1			2			2			2			3			3			3			3			3		
Air flow rate	m^3/h	110	160	200	140	220	290	260	350	450	330	460	600	400	600	720	520	720	920	700	930	1140	900	1120	1300	700	930	1140	900	1120	1300
Input power	W	19	29	35	25	29	33	25	33	44	30	43	57	38	52	76	38	60	91	59	80	106	80	100	131	59	80	106	80	100	131
Electrical wiring		V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3
Fan coil sound data (3)																															
Sound power level	dB(A)	31,0	38,0	45,0	35,0	46,0	51,0	34,0	41,0	48,0	37,0	44,0	51,0	42,0	51,0	56,0	42,0	51,0	57,0	50,0	57,0	62,0	56,0	61,0	66,0	51,0	57,0	62,0	56,0	61,0	66,0
Sound pressure	dB(A)	23,0	30,0	37,0	27,0	38,0	43,0	26,0	33,0	40,0	29,0	36,0	43,0	34,0	43,0	48,0	34,0	43,0	49,0	42,0	49,0	54,0	48,0	53,0	58,0	43,0	49,0	54,0	48,0	53,0	58,0
Water coil																															
Water content main coil	l	0,4			0,5			0,8			1,0			1,0			1,2			1,2			1,2			1,8			1,8		
Water content the secondary coil	l	0,1			0,2			0,3			0,3			0,3			0,4			0,4			0,4			0,7			0,7		
Diametre hydraulic fittings																															
Main coil	Ø	1/2"			1/2"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"		
Secondary coil	Ø	1/2"																													

(1) Room air temperature 20°C d.b.; Water (in/out) 65 °C/55 °C; EUROVENT
(2) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT
(3) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

PERFORMANCE DATA FOR UNITS WITH HEAD (EUROVENT CERTIFICATE FCP-H)

2-pipe

		FCZ200P0			FCZ250P0			FCZ300P0			FCZ350P0			FCZ400P0			FCZ450P0			FCZ500P0			FCZ550P0		
		2	4	6	2	4	6	1	4	6	1	4	6	1	3	6	1	3	6	1	5	6	1	5	6
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)																									
Heating capacity	kW	2,11	3,00	3,32	2,29	3,24	3,60	3,50	5,03	5,45	3,80	5,59	6,10	4,49	6,02	6,74	4,79	6,62	7,40	5,27	7,22	7,59	5,81	8,25	8,67
Water flow rate system side	l/h	182	258	285	197	279	310	301	433	469	327	481	524	386	517	580	412	569	637	453	621	652	500	709	746
Pressure drop system side	kPa	7	12	15	9	16	19	8	15	18	9	18	21	11	18	22	7	12	15	12	21	23	10	19	21
Heating performance 45 °C / 40 °C (2)																									
Heating capacity	kW	1,05	1,49	1,65	1,14	1,61	1,79	1,74	2,50	2,71	1,89	2,78	3,03	2,23	2,99	3,35	2,38	3,29	3,68	2,62	3,59	3,77	2,89	4,10	4,31
Water flow rate system side	l/h	160	224	248	196	277	308	299	430	466	325	478	521	383	514	576	409	566	633	451	617	648	497	705	741
Pressure drop system side	kPa	7	12	15	9	16	19	8	15	18	9	18	21	11	18	22	7	12	15	12	21	23	10	19	21
Cooling performance 7 °C / 12 °C (3)																									
Cooling capacity	kW	0,93	1,30	1,44	1,11	1,59	1,74	1,70	2,40	2,63	1,91	2,77	3,00	2,29	3,06	3,41	2,51	3,37	3,79	2,68	3,65	3,82	2,91	4,08	4,28
Sensible cooling capacity	kW	0,74	1,14	1,18	0,83	1,23	1,36	1,27	1,86	2,03	1,34	1,99	2,16	1,66	2,24	2,52	1,76	2,42	2,73	1,94	2,70	2,83	2,07	2,94	3,09
Water flow rate system side	l/h	160	224	248	191	273	299	292	413	452	328	476	516	394	526	586	432	580	652	461	628	657	500	702	736
Pressure drop system side	kPa	8	13	15	9	18	21	8	16	18	11	22	25	11	18	22	11	16	20	13	22	24	12	21	23
Fan																									
Type	type	Centrifugal																							
Fan motor	type	Asynchronous																							
Number	no.	1			1			2			2			2			2			2			2		
Air flow rate	m^3/h	148	226	254	148	226	254	263	404	446	263	404	446	346	487	559	346	487	559	400	592	627	400	592	627
High static pressure	Pa	21	50	63	21	50	63	21	50	61	21	50	61	25	50	66	25	50	66	22	50	56	22	50	56
Input power	W	28	41	74	28	41	74	38	55	78	38	55	78	53	63	102	53	63	102	49	80	627	49	80	627
Electrical wiring		V2	V4	V6	V2	V4	V6	V1	V4	V6	V1	V4	V6	V1	V3	V6	V1	V3	V6	V1	V5	V6	V1	V5	V6
Duct type fan coil sound data (4)																									
Sound power level (inlet + radiated)	dB(A)	41,0	56,0	59,0	41,0	56,0	59,0	39,0	51,0	54,0	39,0	51,0	54,0	44,0	54,0	55,0	44,0	54,0	55,0	45,0	55,0	57,0	45,0	55,0	57,0
Sound power level (outlet)	dB(A)	37,0	52,0	55,0	37,0	52,0	55,0	35,0	47,0	49,0	35,0	47,0	49,0	40,0	50,0	52,0	40,0	50,0	52,0	41,0	51,0	53,0	41,0	51,0	53,0
Water coil																									
Water content main coil	l	0,5			0,7			0,8			1,0			1,0			1,4			1,0			1,4		
Diametre hydraulic fittings																									
Main coil	Ø	1/2"			1/2"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"		

		FCZ600P0			FCZ650P0			FCZ700P0			FCZ750P0			FCZ900P0			FCZ950P0		
		1	4	7	1	4	7	2	5	7	2	5	7	2	5	7	2	5	7
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)																			
Heating capacity	kW	6,86	8,55	10,00	7,63	9,72	11,51	8,77	10,10	10,52	10,02	11,65	12,09	11,81	13,80	14,45	12,43	15,07	16,00
Water flow rate system side	l/h	590	735	860	656	836	990	754	868	905	862	1002	1040	1016	1187	1242	1069	1296	1375
Pressure drop system side	kPa	12	20	26	15	23	31	19	25	27	12	15	16	14	18	20	19	26	29
Heating performance 45 °C / 40 °C (2)																			
Heating capacity	kW	3,41	4,25	4,97	3,79	4,83	5,72	4,36	5,02	5,23	4,98	5,79	6,01	5,87	6,86	7,18	6,18	7,49	7,95
Water flow rate system side	l/h	586	731	855	652	831	984	750	863	899	856	996	1034	1009	1180	1235	1063	1288	1367
Pressure drop system side	kPa	13	20	26	15	23	31	19	25	27	12	15	16	14	18	20	19	26	29
Cooling performance 7 °C / 12 °C (3)																			
Cooling capacity	kW	3,37	4,08	4,65	4,15	5,02	5,67	4,24	4,97	5,18	4,69	5,53	5,80	4,38	5,33	5,95	6,35	7,62	8,07
Sensible cooling capacity	kW	2,70	3,34	3,92	2,93	3,60	4,12	3,24	3,83	4,02	3,53	4,20	4,41	3,11	4,11	4,73	4,20	5,08	5,40
Water flow rate system side	l/h	580	702	800	580	702	800	729	855	28	807	951	997	753	917	1023	1092	1310	1388
Pressure drop system side	kPa	15	21	26	16	23	28	20	26	28	12	16	17	10	14	17	18	24	27
Fan																			
Type	type	Centrifugal																	
Fan motor	type	Asynchronous																	
Number	no.	3			3			3			3			3			3		
Air flow rate	m^3/h	567	770	920	567	770	920	785	978	1050	785	978	1050	785	978	1050	785	978	1050
High static pressure	Pa	27	50	71	27	50	71	32	50	58	32	50	58	32	50	58	32	50	58
Input power	W	66	89	118	66	89	118	92	117	138	92	117	138	92	117	138	92	117	138
Electrical wiring		V1	V4	V7	V1	V4	V7	V2	V5	V7	V2	V5	V7	V2	V5	V7	V2	V5	V7
Duct type fan coil sound data (4)																			
Sound power level (inlet + radiated)	dB(A)	46,0	56,0	61,0	46,0	56,0	61,0	54,0	60,0	62,0	54,0	60,0	62,0	54,0	60,0	62,0	54,0	60,0	62,0
Sound power level (outlet)	dB(A)	44,0	54,0	60,0	44,0	54,0	60,0	52,0	59,0	61,0	52,0	59,0	61,0	52,0	59,0	61,0	52,0	59,0	61,0
Water coil																			
Water content main coil	l	1,2			1,6			1,2			1,6			1,8			2,3		
Diametre hydraulic fittings																			
Main coil	Ø	3/4"																	

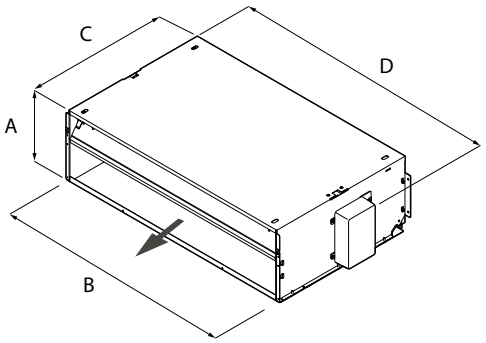
(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C
(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C; EUROVENT
(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT
(4) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

4-pipe

		FCZ201P0			FCZ301P0			FCZ401P0			FCZ501P0			FCZ601P0			FCZ701P0			FCZ901P0		
		2	4	6	1	4	6	1	3	6	1	5	6	1	4	7	2	5	7	2	5	7
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 65 °C / 55 °C (1)																						
Heating capacity	kW	1,06	1,37	1,48	1,82	2,39	2,55	2,19	2,75	2,99	2,59	3,30	3,34	3,13	3,85	4,35	4,13	4,40	4,60	5,16	5,71	5,77
Water flow rate system side	l/h	93	120	130	159	210	223	192	240	262	226	290	301	274	336	381	361	385	403	452	500	504
Pressure drop system side	kPa	5	8	9	8	12	14	5	7	8	6	9	9	9	13	16	16	15	17	10	12	12
Cooling performance 7 °C / 12 °C (2)																						
Cooling capacity	kW	0,93	1,30	1,44	1,70	2,40	2,63	2,29	3,06	3,41	2,68	3,65	3,82	3,37	4,08	4,65	4,24	4,97	5,18	4,38	5,33	5,95
Sensible cooling capacity	kW	0,74	1,14	1,18	1,27	1,86	2,03	1,66	2,24	2,52	1,94	2,70	2,83	2,70	3,34	3,92	3,24	3,83	4,02	3,11	4,11	4,73
Water flow rate system side	l/h	160	224	248	292	413	452	394	526	586	461	628	657	580	702	800	729	855	28	753	917	1023
Pressure drop system side	kPa	8	13	15	8	16	18	11	18	22	13	22	24	15	21	26	20	26	28	10	14	17
Fan																						
Type	type	Centrifugal																				
Fan motor	type	Asynchronous																				
Number	no.	1			2			2			2			3			3			3		
Air flow rate	m^3/h	148	226	254	263	404	446	346	487	559	400	592	627	567	770	920	785	978	1050	785	978	1050
High static pressure	Pa	21	50	63	21	50	61	25	50	66	22	50	56	27	50	71	32	50	58	32	50	58
Input power	W	28	41	74	38	55	78	53	63	102	49	80	627	66	89	118	92	117	138	92	117	138
Electrical wiring		V2	V4	V6	V1	V4	V6	V1	V3	V6	V1	V5	V6	V1	V4	V7	V2	V5	V7	V2	V5	V7
Duct type fan coil sound data (3)																						
Sound power level (inlet + radiated)	dB(A)	41,0	56,0	59,0	39,0	51,0	54,0	44,0	54,0	55,0	45,0	55,0	57,0	46,0	56,0	61,0	54,0	60,0	62,0	54,0	60,0	62,0
Sound power level (outlet)	dB(A)	37,0	52,0	55,0	35,0	47,0	49,0	40,0	50,0	52,0	41,0	51,0	53,0	44,0	54,0	60,0	52,0	59,0	61,0	52,0	59,0	61,0
Water coil																						
Water content main coil	l	0,5			0,8			1,0			1,0			1,2			1,2			1,8		
Water content the secondary coil	l	0,2			0,3			0,3			0,3			0,4			0,4			0,7		
Diametre hydraulic fittings																						
Main coil	Ø	1/2"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"		
Secondary coil	Ø	1/2"																				

(1) Room air temperature 20°C d.b.; Water (in/out) 65 °C/55 °C; EUROVENT
(2) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT
(3) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

DIMENSIONS



		FCZ100P	FCZ150P	FCZ200P	FCZ250P	FCZ300P	FCZ350P	FCZ400P	FCZ450P	FCZ500P	FCZ550P
Dimensions and weights											
A	mm	216	216	216	216	216	216	216	216	216	216
B	mm	412	412	522	522	753	753	973	973	973	973
C	mm	453	453	453	453	453	453	453	453	453	453
D	mm	452	452	562	562	793	793	1013	1013	1013	1013
Net weight	kg	12,00	13,00	12,00	14,00	14,00	16,00	20,00	22,00	23,00	24,00

		FCZ600P	FCZ650P	FCZ700P	FCZ750P	FCZ800P	FCZ850P	FCZ900P	FCZ950P	FCZ1000P
Dimensions and weights										
A	mm	216	216	216	216	216	216	216	216	216
B	mm	1122	1122	1122	1122	1122	1122	1122	1122	1122
C	mm	453	453	453	453	453	453	558	558	558
D	mm	1147	1147	1147	1147	1147	1147	1147	1147	1147
Net weight	kg	29,00	31,00	29,00	31,00	29,00	31,00	32,00	32,00	32,00

		FCZ101P	FCZ102P	FCZ201P	FCZ202P	FCZ301P	FCZ302P	FCZ401P	FCZ402P	FCZ501P	FCZ502P
Dimensions and weights											
A	mm	216	216	216	216	216	216	216	216	216	216
B	mm	412	412	522	522	753	753	973	973	973	973
C	mm	453	453	453	453	453	453	453	453	453	453
D	mm	452	452	562	562	793	793	1013	1013	1013	1013
Net weight	kg	12,00	13,00	13,00	14,00	15,00	16,00	21,00	22,00	23,00	24,00

		FCZ601P	FCZ602P	FCZ701P	FCZ702P	FCZ801P	FCZ802P	FCZ901P	FCZ1001P
Dimensions and weights									
A	mm	216	216	216	216	216	216	216	216
B	mm	1122	1122	1122	1122	1122	1122	1122	1122
C	mm	453	453	453	453	453	453	558	558
D	mm	1147	1147	1147	1147	1147	1147	1147	1147
Net weight	kg	30,00	31,00	30,00	31,00	30,00	31,00	32,00	32,00

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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FCZI P

Fan coil unit for ducted installations

Cooling capacity 0,89 ÷ 8,60 kW
Heating capacity 2,02 ÷ 17,02 kW

- **Electric saving equal to 50% with respect to a fan coil with 3-speed motor**
- **Suitable for duct-type installations too**
- **Total comfort: reduced variations in temperature and relative humidity**
- **Vertical and horizontal installation**
- **Very quiet**



DESCRIPTION

fan coil can be installed in any 2/4 pipe system and operates with any heat generator even at low temperatures, and thanks to varied versions and settings, it is easy to pick the ideal solution for any need.

FEATURES

Ventilation group

Centrifugal fans in anti-static plastic material with aerofoil profile designed to achieve high airflows and pressures whilst at the same time producing low noise.
Their characteristics permit energy savings compared to conventional fans.
They are statically and dynamically balanced and directly coupled to the motor shaft.
The Brushless electric motor with 0-100% continuous speed variation, which allows precise adaptation to the real demands of the internal environment without temperature fluctuations.

Heat exchanger coil

With copper pipes and aluminium louvers, the standard or oversized main coil and the possible secondary coil have female gas water connections on the left side and the manifolds have air vents.
The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.
Reversibility of the water connections during installation only for units with a standard or boosted main coil, or standard with BV accessory. Not reversible in all other configurations. In any case, units with the coil water connections on the right are available at the time of ordering.

Condensate drip

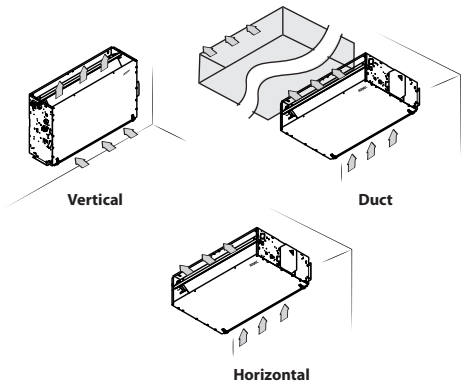
Provided standard in plastic and fixed to the interior structure; with external condensate discharge.

Air filter

Air filter class Coarse 25% for all versions easy to pull out and clean.

VERSIONS

Flush-mounting and duct-type versions



In the standard configuration there is no useful static pressure available. If necessary for canaled installations, you must act on the engine dip switches, for more details refer to the technical documentation.

GUIDE TO SELECTING THE POSSIBLE CONFIGURATIONS

Field		Description
1,2,3,4		**FCZI**
5		**Size** 2, 3, 4, 5, 7, 9
6		**Main coil**
	0	Standard
	5	Oversized
7		**Secondary coil**

Field		Description
	0	Without coil
	1	Standard
	2	Oversized
8		**Version**
	P	Flush-mounting, without cabinet
	PR	Flush-mounting, without cabinet, with water connections on right-hand side

SIZE AVAILABLE FOR VERSION

Size		200	201	202	250	300	301	302	350	400	401	402	450
Versions produced (by size)													
Versions available (by size)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•

		500	501	502	550	700	701	702	750	900	901	950
Versions produced (by size)												
Versions available (by size)	P,PR	•	•	•	•	•	•	•	•	•	•	•

ACCESSORIES

Control panels

AER503IR: Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.

PRO503: Wall box for AER503IR and VMF-E4 thermostats.

PXAI: Thermostat on the machine for controlling the fan coils (both with asynchronous and brushless motors), complete with water and air probes to be positioned in the relative seats, and a plastic support to fix it on the side of the unit. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, purifier devices (Cold Plasma and germicidal lamp), or radiant plate.

SA5: air probe kit (L = 15 m) with probe-locking cable grommet.

SW3: Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.

SW5: water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.

TX: Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).

VMF system

VMF-E19I: Thermostat for inverter unit to be fixed on the side of the fan coil, fitted as standard with an air and water probe.

VMF-E3: Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, VMF-E0X with grids GLF_N/M and GLL_N, can be controlled with VMF-IR control.

VMF-E4DX: Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).

VMF-E4X: Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.

VMF-IR: User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.

VMF-SW: Water probe (L = 2.5m) used if required in place of the standard unit supplied with the VMF-E0X, VMF-E19 and VMF-E19I thermostats for mounting it upstream of the valve

VMF-SW1: Additional water probe (L = 2.5m) to be used if required for 4-pipe systems with the VMF-E19 and VMF-E19I thermostats for maximum control in the cold range

Water valves

VCZ_X: 3-way valve kit for single-coil fan coil, RH connections, (VCZ_X4R) or LH (VCZ_X4L) for 4-pipe systems. With totally separate "heating" and "cooling" circuits. This kit consists of two 3-way insulated valves and four connections, complete with electrothermal actuators, insulating shells for the valves, and the relative hydraulic couplings. X4L version for fan coils with LH connections, and X4R for fan coils with RH connections. 230V~50Hz power supply.

VCZ41: 3-way motorised valve kit. The kit consists of a valve with its insulating shell, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the 3-way insulating shell. The kit consists of a valve with its insulating shell, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.

VCZ4124: 3-way motorised valve kit. The kit consists of a valve with its insulating shell, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the 3-way insulating shell. The kit consists of a valve with its insulating shell, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.

VCZ42: 3-way motorised valve kit. The kit consists of a valve with its insulating shell, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the 3-way insulating shell. The kit consists of a valve with its insulating shell, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.

VCZ4224: 3-way motorised valve kit. The kit consists of a valve with its insulating shell, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the 3-way insulating shell. The kit consists of a valve with its insulating shell, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.

VCZ43: 3-way motorised valve kit. The kit consists of a valve with its insulating shell, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the 3-way insulating shell. The

kit consists of a valve with its insulating shell, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.
VCZ4324: 3-way motorised valve kit. The kit consists of a valve with its insulating shell, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the 3-way insulating shell. The kit consists of a valve with its insulating shell, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.
VCF44 - 45 - for the secondary coil: The 3-way motorised valve kit for the secondary coil heat only. The kit consists of a valve with its insulating shell, actuator and relevant water fittings; it is suitable to be installed on the fan coils with right and left water connections.
VCZD: 2-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.
VJP: Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components. The valve, which can guarantee a constant water flow rate in the terminal, within its operating range.

(Heating only) additional coil

BV: Single row hot water heat exchanger.

Installation accessories

AMP: Wall mounting kit
DSC: Condensate drainage device.
BC: Condensate drip.
BCZ: Condensate drip. If the valve is paired with the BCZ5 or BCZ6 condensate drip tray, the insulating shell can be removed to ensure better housing.

Ventilcassaforma: Galvanised sheet metal template. It makes it possible to obtain directly in the wall a space for housing the fan coil.
MZA: Cabinet housing with fixed fins.
MZU: Cabinet housing with adjustable fins.
GA: Intake grid with fixed louvers
GAF: Intake grid with filter and fixed louvers
GM: Flow grid with adjustable louvers.
PA: Intake plenum in galvanised sheet metal, complete with suction couplings for circular-section ducts.
PAF: Intake plenum providing recovery and delivery on the same side, for all installations where the machine needs to be positioned outside the air conditioned rooms to minimise the noise levels and facilitate maintenance.
PM: Delivery plenum with circular flanges. Sandwich structure in hot galvanised steel, with interposed polyurethane foam (40 kg/m3). The panel is 15 mm thick. It is installed in place of the delivery panel with a rectangular flange, using the same 4 self-threading screws.
RD: Straight delivery coupling for canalisation.
RDA: Straight suction coupling for canalisation.
RP: 90° delivery coupling.
RPA: 90° suction coupling.

Accessories for ducting

MZC: Plenum with motorised dampers.
RDA_V: Straight intake connection with rectangular flange.
RPA_V: Suction plenum with rectangular flange; both sides have a circular push-out Ø 150mm that can be removed.
RDA_C: Straight intake connection with circular flanges.
PA_V: Suction plenum with circular plastic flanges; both sides have a circular push-out Ø 150mm that can be removed.
PM_V: Internally insulated delivery plenum with circular flanges; both sides have a circular push-out Ø 150mm that can be removed.
RPM_V: Internally insulated delivery plenum with rectangular flange; both sides have a circular push-out Ø 150mm that can be removed.
RDM_V: Straight delivery coupling in galvanised sheet metal.
RDM_C: Straight discharge internally insulated, with circular flanges.

ACCESSORIES COMPATIBILITY

Control panels

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550	700	701	702	750	900	901	950
AER503IR (1)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PRO503	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PXAI	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SA5 (2)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SW3 (2)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SW5 (2)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
TX (1)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

(1) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.
(2) Probe for AER503IR-TX thermostats, if fitted.

VMF system

For more information about VMF system, refer to the dedicated documentation.

VMF system

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550	700	701	702	750	900	901	950
VMF-E19I	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E3	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E4DX	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E4X	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-IR	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-SW	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-SW1	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Water valves

Valve Kit for 4 pipe systems

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550	700	701	702	750	900	901	950
VCZ1X4L (1)	P,PR	•			•																			
VCZ1X4R (1)	P,PR	•			•																			
VCZ2X4L (1)	P,PR					•			•	•			•	•			•	•			•			
VCZ2X4R (1)	P,PR					•			•	•			•	•			•	•			•			
VCZ3X4L (1)	P,PR																					•		•

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550	700	701	702	750	900	901	950
VCZ3X4R (1)	P,PR																					•		•

(1) The valves can be combined with the units if there is a control panel for managing them.

3 way valve kit

	200	201	202	250	300	301	302	350	400	401	402	450
Main coil	VCZ41 VCZ4124	VCZ41 VCZ4124	VCZ41 VCZ4124	VCZ41 VCZ4124	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224
Secondary coil	-	VCF44 VCF4424	VCF44 VCF4424	-	-	VCF44 VCF4424	VCF44 VCF4424	-	-	VCF44 VCF4424	VCF44 VCF4424	-
Additional coil "BV"	VCF44 VCF4424	-	-	-	VCF44 VCF4424	-	-	-	VCF44 VCF4424	-	-	-

	500	501	502	550	700	701	702	750	900	901	950
Main coil	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ42 VCZ4224	VCZ43 VCZ4324	VCZ43 VCZ4324	VCZ43 VCZ4324
Secondary coil	-	VCF44 VCF4424	VCF44 VCF4424	-	-	VCF44 VCF4424	VCF44 VCF4424	-	-	VCF45 VCF4524	-
Additional coil "BV"	VCF44 VCF4424	-	-	-	VCF44 VCF4424	-	-	-	VCF45 VCF4524	-	-

VCZ41 - 42 - 43; VCF44 - 45 (230V~50Hz)
VCZ4124 - 4224 - 4324; VCF4424 - 4524 (24V)

2 way valve kit

	200	201	202	250	300	301	302	350	400	401	402	450
Main coil	VCZD1 VCZD124	VCZD1 VCZD124	VCZD1 VCZD124	VCZD1 VCZD124	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224
Secondary coil	-	VCFD4 VCFD424	VCFD4 VCFD424	-	-	VCFD4 VCFD424	VCFD4 VCFD424	-	-	VCFD4 VCFD424	VCFD4 VCFD424	-
Additional coil "BV"	VCFD4 VCFD424	-	-	-	VCFD4 VCFD424	-	-	-	VCFD4 VCFD424	-	-	-

	500	501	502	550	700	701	702	750	900	901	950
Main coil	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD2 VCZD224	VCZD3 VCZD324	VCZD3 VCZD324	VCZD3 VCZD324
Secondary coil	-	VCFD4 VCFD424	VCFD4 VCFD424	-	-	VCFD4 VCFD424	VCFD4 VCFD424	-	-	VCFD4 VCFD424	-
Additional coil "BV"	VCFD4 VCFD424	-	-	-	VCFD4 VCFD424	-	-	-	VCFD4 VCFD424	-	-

VCZD1 - 2 - 3; VCFD4 (230V~50Hz)
VCZD124 - 224 - 324; VCF424 (24V)

Combined Adjustment and Balancing Valve Kit

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550	700	701	702	750	900	901	950
VJP060 (1)	P,PR	•	•	•	•	•	•	•	•															
VJP060M (2)	P,PR	•	•	•	•	•	•	•	•															
VJP090 (1)	P,PR									•	•	•	•	•	•	•	•							
VJP090M (2)	P,PR									•	•	•	•	•	•	•	•							
VJP150 (1)	P,PR																	•	•	•	•	•	•	•
VJP150M (2)	P,PR																	•	•	•	•	•	•	•

(1) 230V~50Hz
(2) 24V

(Heating only) additional coil

Heating only additional coil

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550	700	701	702	750	900	901	950
BV122 (1)	P,PR	•																						
BV132 (1)	P,PR					•																		
BV142 (1)	P,PR									•				•										
BV162 (1)	P,PR																					•		
BVZ800 (1)	P,PR																	•						

(1) Not available for sizes with oversized main coil.

Installation accessories

Wall mounting kit

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550	700	701	702	750	900	901	950
AMP20	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•							
AMPZ	P,PR																	•	•	•	•	•	•	•

Condensate drip

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550	700	701	702	750	900	901	950
BCZ4 (1)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
BCZ5 (2)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550	700	701	702	750	900	901	950
BCZ6 (2)	P,PR																					•	•	•

(1) For vertical installation.
(2) For horizontal installation.

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550	700	701	702	750	900	901	950
BC8 (1)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			
BC9 (1)	P,PR																					•	•	•

(1) For horizontal installation.

Condensate recirculation device

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550	700	701	702	750	900	901	950
DSCZ4 (1)	P,PR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

(1) DSC4 cannot be mounted if even just one of these accessories is also installed: AMP - AMPZ valve VCZ1-2-3-4 X4L/R and all the condensate collection trays.

Ventilcassaforma

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550	700	701	702	750	900	901	950
CHF22	P,PR	•	•	•	•																			
CHF32	P,PR					•	•	•	•															
CHF42	P,PR									•	•	•	•	•	•	•	•							
CHF62	P,PR																	•	•	•	•	•	•	•

Cabinet housing with fixed fins.

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550	700	701	702	750	900	901	950
MZA200	P,PR	•	•	•	•																			
MZA300	P,PR					•	•	•	•															
MZA500	P,PR									•	•	•	•	•	•	•	•							
MZA800	P,PR																	•	•	•	•			
MZA900	P,PR																					•	•	•

Cabinet housing with adjustable fins.

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550	700	701	702	750	900	901	950
MZU100	P,PR	•	•	•	•																			
MZU300	P,PR					•	•	•	•															
MZU500	P,PR									•	•	•	•	•	•	•	•							
MZU800	P,PR																	•	•	•	•			
MZU900	P,PR																					•	•	•

Wall mounting and duct type installation accessories

Lower intake grille

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550	700	701	702	750	900	901	950
GA22	P,PR	•	•	•	•																			
GA32	P,PR					•	•	•	•															
GA42	P,PR									•	•	•	•	•	•	•	•							
GA62	P,PR																	•	•	•	•	•	•	•

Intake grilles with fixed louvers and filter

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550	700	701	702	750	900	901	950
GAF22	P,PR	•	•	•	•																			
GAF32	P,PR					•	•	•	•															
GAF42	P,PR									•	•	•	•	•	•	•	•							
GAF62	P,PR																	•	•	•	•	•	•	•

Delivery grilles with adjustable louvers

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550	700	701	702	750	900	901	950
GM22	P,PR	•	•	•	•																			
GM32	P,PR					•	•	•	•															
GM42	P,PR									•	•	•	•	•	•	•	•							
GM62	P,PR																	•	•	•	•	•	•	•

Intake plenum in sheet metal complete with connectors for circular channels

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550	700	701	702	750	900	901	950
PA22	P,PR	•	•	•	•																			
PA32	P,PR					•	•	•	•															
PA42	P,PR									•	•	•	•	•	•	•	•							
PA62	P,PR																	•	•	•	•	•	•	•

Intake plenum providing recovery and delivery on the same side

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550	700	701	702	750	900	901	950
PA22F	P,PR	•	•	•	•																			
PA32F	P,PR					•	•	•	•															
PA42F	P,PR									•	•	•	•	•	•	•	•							
PA62F	P,PR																	•	•	•	•	•	•	•

Delivery plenum with circular flanges.

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550	700	701	702	750	900	901	950
PM22	P,PR	•	•	•	•																			
PM32	P,PR					•	•	•	•															
PM42	P,PR									•	•	•	•	•	•	•	•							
PM62	P,PR																	•	•	•	•	•	•	•

Straight delivery coupling

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550	700	701	702	750	900	901	950
RD22	P,PR	•	•	•	•																			
RD32	P,PR					•	•	•	•															
RD42	P,PR									•	•	•	•	•	•	•	•							
RD62	P,PR																	•	•	•	•	•	•	•

Straight suction coupling

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550	700	701	702	750	900	901	950
RDA22	P,PR	•	•	•	•																			
RDA32	P,PR					•	•	•	•															
RDA42	P,PR									•	•	•	•	•	•	•	•							
RDA62	P,PR																	•	•	•	•	•	•	•

90° delivery coupling.

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550	700	701	702	750	900	901	950
RP22	P,PR	•	•	•	•																			
RP32	P,PR					•	•	•	•															
RP42	P,PR									•	•	•	•	•	•	•	•							
RP62	P,PR																	•	•	•	•	•	•	•

90° suction coupling.

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550	700	701	702	750	900	901	950
RPA22	P,PR	•	•	•	•																			
RPA32	P,PR					•	•	•	•															
RPA42	P,PR									•	•	•	•	•	•	•	•							
RPA62	P,PR																	•	•	•	•	•	•	•

Accessories for ducting

Plenum with motorised dampers.

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550	700	701	702	750	900	901	950
MZC220	P,PR	•	•	•	•																			
MZC320	P,PR					•	•	•	•															
MZC530	P,PR									•	•	•	•	•	•	•	•							
MZC830	P,PR																	•	•	•	•	•	•	•

Straight intake connection with rectangular flange.

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550	700	701	702	750	900	901	950
RDA000V	P,PR	•	•	•	•																			
RDA100V	P,PR					•	•	•	•															
RDA200V	P,PR									•	•	•	•	•	•	•	•							
RDA300V	P,PR																	•	•	•	•	•	•	•

Intake plenum with rectangular flange.

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550	700	701	702	750	900	901	950
RPA000V	P,PR	•	•	•	•																			
RPA100V	P,PR					•	•	•	•															
RPA200V	P,PR									•	•	•	•	•	•	•	•							
RPA300V	P,PR																	•	•	•	•	•	•	•

Suction plenum with plastic circular flanges.

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550	700	701	702	750	900	901	950
PA000V	P,PR	•	•	•	•																			
PA100V	P,PR					•	•	•	•															
PA200V	P,PR									•	•	•	•	•	•	•	•							
PA300V	P,PR																	•	•	•	•	•	•	•

Internally insulated delivery plenum with circular flanges.

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550	700	701	702	750	900	901	950
PM000V	P,PR	•	•	•	•																			
PM100V	P,PR					•	•	•	•															
PM200V	P,PR									•	•	•	•	•	•	•	•							
PM300V	P,PR																	•	•	•	•	•	•	•

Internally insulated delivery plenum with rectangular flange.

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550	700	701	702	750	900	901	950
RPM000V	P,PR	•	•	•	•																			
RPM100V	P,PR					•	•	•	•															
RPM200V	P,PR									•	•	•	•	•	•	•	•							
RPM300V	P,PR																	•	•	•	•	•	•	•

Straight delivery coupling in galvanised sheet metal.

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550	700	701	702	750	900	901	950
RDM000V	P,PR	•	•	•	•																			
RDM100V	P,PR					•	•	•	•															
RDM200V	P,PR									•	•	•	•	•	•	•	•							
RDM300V	P,PR																	•	•	•	•	•	•	•

Straight discharge internally insulated, with circular flanges.

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550	700	701	702	750	900	901	950
RDMC000V	P,PR	•	•	•	•																			
RDMC100V	P,PR					•	•	•	•															
RDMC200V	P,PR									•	•	•	•	•	•	•	•							
RDMC300V	P,PR																	•	•	•	•	•	•	•

PERFORMANCE DATA FOR UNITS WITHOUT HEAD (EUROVENT CERTIFICATE FC-H)

2-pipe

		FCZI200P			FCZI250P			FCZI300P			FCZI350P			FCZI400P			FCZI450P		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)																			
Heating capacity	kW	2,02	2,95	3,70	2,20	3,18	4,05	3,47	4,46	5,50	3,77	4,92	6,15	4,32	5,74	7,15	4,57	6,29	7,82
Water flow rate system side	l/h	177	258	324	193	278	355	304	391	482	330	431	539	379	503	627	400	551	685
Pressure drop system side	kPa	6	12	18	7	15	23	7	12	18	8	14	20	9	16	24	6	11	16
Heating performance 45 °C / 40 °C (2)																			
Heating capacity	kW	1,00	1,46	1,84	1,09	1,58	2,01	1,72	2,21	2,73	1,87	2,44	3,06	2,14	2,85	3,55	2,27	3,12	3,88
Water flow rate system side	l/h	174	254	319	190	274	350	299	385	475	325	425	531	373	495	617	394	543	675
Pressure drop system side	kPa	6	12	18	8	15	22	8	12	18	8	14	20	10	16	24	6	11	16
Cooling performance 7 °C / 12 °C (3)																			
Cooling capacity	kW	0,89	1,28	1,60	1,06	1,55	1,94	1,68	2,17	2,65	1,89	2,46	3,02	2,20	2,92	3,60	2,41	3,21	4,03
Sensible cooling capacity	kW	0,71	1,05	1,33	0,79	1,20	1,52	1,26	1,65	2,04	1,33	1,76	2,18	1,59	2,14	2,67	1,69	2,30	2,90
Water flow rate system side	l/h	153	221	275	182	267	334	288	374	456	350	460	560	379	503	619	414	552	694
Pressure drop system side	kPa	6	12	18	8	17	25	8	13	18	11	18	25	10	16	24	9	15	22
Fan																			
Type	type	Centrifugal																	
Fan motor	type	Inverter																	
Number	no.	1			1			2			2			2			2		
Air flow rate	m^3/h	140	220	290	140	220	290	260	350	450	260	350	450	330	460	600	330	460	600
Input power	W	7	8	14	7	8	14	5	7	13	5	7	13	5	10	18	5	10	18
Signal 0-10V	%	44	68	90	44	68	90	52	70	90	52	70	90	49	68	90	49	68	90
Fan coil sound data (4)																			
Sound power level	dB(A)	35,0	46,0	51,0	35,0	46,0	51,0	34,0	41,0	48,0	34,0	41,0	48,0	37,0	44,0	51,0	37,0	44,0	51,0
Sound pressure	dB(A)	27,0	38,0	43,0	27,0	38,0	43,0	26,0	33,0	40,0	26,0	33,0	40,0	29,0	36,0	43,0	29,0	36,0	43,0
Water coil																			
Water content main coil	l	0,5			0,7			0,8			1,0			1,0			1,4		
Diametre hydraulic fittings																			
Main coil	Ø	1/2"			1/2"			3/4"			3/4"			3/4"			3/4"		

		FCZI500P			FCZI550P			FCZI700P			FCZI750P			FCZI900P			FCZI950P		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)																			
Heating capacity	kW	5,27	7,31	8,50	5,82	8,34	9,75	8,10	9,80	11,00	9,10	11,30	12,50	10,77	13,35	15,14	11,20	14,42	17,10
Water flow rate system side	l/h	462	641	745	510	731	855	710	860	964	798	991	1096	945	1171	1328	982	1264	1500
Pressure drop system side	kPa	12	21	28	10	20	26	17	24	29	10	15	18	12	17	22	16	24	33
Heating performance 45 °C / 40 °C (2)																			
Heating capacity	kW	2,62	3,63	4,22	2,89	4,14	4,85	4,03	4,87	5,47	4,52	5,62	6,21	5,35	6,64	7,53	5,57	7,17	8,50
Water flow rate system side	l/h	455	631	734	502	720	842	699	846	950	786	975	1079	930	1152	1307	967	1245	1476
Pressure drop system side	kPa	12	21	28	10	20	26	16	24	29	10	14	18	12	17	22	15	24	33
Cooling performance 7 °C / 12 °C (3)																			
Cooling capacity	kW	2,68	3,69	4,25	2,91	4,13	4,79	3,92	4,89	5,50	4,27	5,34	6,14	4,29	5,00	6,91	5,77	7,32	8,60
Sensible cooling capacity	kW	1,94	2,73	3,18	2,07	2,98	3,49	2,99	3,76	4,30	3,20	4,05	4,72	2,97	3,78	5,68	3,80	4,87	5,78
Water flow rate system side	l/h	460	634	731	501	711	824	675	841	946	734	918	1056	738	860	1189	992	1259	1479
Pressure drop system side	kPa	13	22	29	12	22	28	16	24	30	10	14	18	10	12	22	15	22	30
Fan																			
Type	type	Centrifugal																	
Fan motor	type	Inverter																	
Number	no.	2			2			3			3			3			3		
Air flow rate	m^3/h	400	600	720	400	600	720	700	930	1140	700	930	1140	700	930	1140	700	930	1140
Input power	W	7	18	31	4	10	19	30	40	80	30	40	80	30	40	80	30	40	80
Signal 0-10V	%	50	74	90	50	74	90	56	72	90	56	72	90	56	72	90	56	72	90
Fan coil sound data (4)																			
Sound power level	dB(A)	42,0	51,0	56,0	42,0	51,0	56,0	50,0	57,0	62,0	50,0	57,0	62,0	51,0	57,0	62,0	51,0	57,0	62,0
Sound pressure	dB(A)	34,0	43,0	48,0	34,0	43,0	48,0	42,0	49,0	54,0	42,0	49,0	54,0	43,0	49,0	54,0	43,0	49,0	54,0
Water coil																			
Water content main coil	l	1,0			1,4			1,2			1,6			1,8			2,3		
Diametre hydraulic fittings																			
Main coil	Ø	3/4"																	

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C
(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C; EUROVENT
(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT
(4) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

4-pipe

		FCZI201P			FCZI301P			FCZI401P			FCZI501P			FCZI701P			FCZI901P		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 65 °C / 55 °C (1)																			
Heating capacity	kW	1,02	1,35	1,60	1,80	2,18	2,56	2,21	2,65	3,12	2,59	3,34	3,73	3,66	4,29	4,94	4,73	5,63	5,72
Water flow rate system side	l/h	89	118	140	158	191	224	186	232	273	227	293	327	320	375	437	414	492	501
Pressure drop system side	kPa	4	8	10	16	23	30	4	6	8	6	8	10	11	14	18	8	12	12
Cooling performance 7 °C / 12 °C (2)																			
Cooling capacity	kW	0,89	1,28	1,60	1,68	2,17	2,65	2,20	2,92	3,60	2,68	3,69	4,25	3,92	4,89	5,50	4,29	5,00	6,91
Sensible cooling capacity	kW	0,71	1,05	1,33	1,26	1,65	2,04	1,59	2,14	2,67	1,94	2,73	3,18	2,99	3,76	4,30	2,97	3,78	5,68
Water flow rate system side	l/h	153	221	275	288	374	456	379	503	619	460	634	731	675	841	946	738	860	1189
Pressure drop system side	kPa	6	12	18	8	13	18	10	16	24	13	22	29	16	24	30	10	12	22
Fan																			
Type	type	Centrifugal																	
Fan motor	type	Inverter																	
Number	no.	1			2			2			2			3			3		
Air flow rate	m^3/h	140	220	290	260	350	450	330	460	600	400	600	720	700	930	1140	700	930	1140
Input power	W	7	8	14	5	7	13	5	10	18	7	16	31	30	40	80	30	40	80
Signal 0-10V	%	44	68	90	52	70	90	49	68	90	50	74	90	56	72	90	56	72	90
Fan coil sound data (3)																			
Sound power level	dB(A)	35,0	46,0	51,0	34,0	41,0	48,0	37,0	44,0	51,0	42,0	51,0	56,0	50,0	57,0	62,0	51,0	57,0	62,0
Sound pressure	dB(A)	27,0	38,0	43,0	26,0	33,0	40,0	29,0	36,0	43,0	34,0	43,0	48,0	42,0	49,0	54,0	43,0	49,0	54,0
Water coil																			
Water content main coil	l	0,5			0,8			1,0			1,0			1,2			1,8		
Water content the secondary coil	l	0,2			0,3			0,3			0,3			0,4			0,7		
Diametre hydraulic fittings																			
Main coil	Ø	1/2"			3/4"			3/4"			3/4"			3/4"			3/4"		
Secondary coil	Ø	1/2"																	

(1) Room air temperature 20°C d.b.; Water (in/out) 65 °C/55 °C; EUROVENT
(2) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT
(3) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

PERFORMANCE DATA FOR UNITS WITH HEAD (EUROVENT CERTIFICATE FCP-H)

2-pipe

		FCZI200P			FCZI250P			FCZI300P			FCZI350P			FCZI400P			FCZI450P			FCZI500P			FCZI550P		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)																									
Heating capacity	kW	1,81	3,16	3,34	2,01	3,40	3,62	3,08	4,83	5,23	3,32	5,43	5,83	3,96	5,85	6,34	4,10	6,44	6,96	5,39	7,28	7,63	5,92	8,37	8,71
Water flow rate system side	l/h	156	272	287	173	292	311	265	415	450	285	467	502	341	503	545	353	554	599	464	626	656	509	720	749
Pressure drop system side	kPa	6	13	16	7	17	19	7	14	16	7	17	19	9	17	19	5	12	13	12	22	23	11	20	21
Heating performance 45 °C / 40 °C (2)																									
Heating capacity	kW	0,90	1,57	1,66	1,00	1,69	1,80	1,53	2,40	2,60	1,65	2,70	2,90	1,97	2,91	3,15	2,04	3,20	3,46	2,68	3,62	3,79	2,94	4,16	4,33
Water flow rate system side	l/h	155	270	288	172	291	308	263	413	447	284	464	499	339	501	542	351	550	595	461	623	652	506	715	745
Pressure drop system side	kPa	6	13	16	7	17	19	7	14	16	7	17	19	9	17	19	5	12	13	12	22	23	11	20	21
Cooling performance 7 °C / 12 °C (3)																									
Cooling capacity	kW	0,80	1,37	1,45	0,95	1,67	1,76	1,40	2,38	2,53	1,66	2,70	2,88	2,03	2,98	3,21	2,22	3,28	3,55	2,73	3,68	3,84	2,97	4,15	4,31
Sensible cooling capacity	kW	0,63	1,13	1,20	0,70	1,29	1,37	1,10	1,82	1,94	1,15	1,94	2,07	1,45	2,18	2,36	1,54	2,35	2,56	1,98	2,73	2,85	2,11	2,98	3,12
Water flow rate system side	l/h	138	236	249	163	287	303	241	409	435	285	464	495	349	512	552	382	564	610	469	633	660	511	714	741
Pressure drop system side	kPa	5	13	16	8	17	19	7	14	16	9	17	19	9	17	19	8	12	13	13	22	23	12	20	21
Fan																									
Type	type	Centrifugal																							
Fan motor	type	Inverter																							
Number	no.	1			1			2			2			2			2			2			2		
Air flow rate	m^3/h	123	240	257	123	240	257	225	390	424	225	390	424	300	470	515	300	470	515	410	600	630	410	600	630
High static pressure	Pa	13	50	57	13	50	57	16	50	59	16	50	53	20	50	60	20	50	56	23	50	55	23	50	55
Input power	W	7	27	31	7	27	31	10	11	40	10	30	40	14	38	48	14	38	48	18	50	60	18	50	60
Signal 0-10V	%	43	84	90	43	84	90	48	83	90	48	83	90	52	82	90	52	82	90	58	85	90	58	85	90
Duct type fan coil sound data (4)																									
Sound power level (inlet + radiated)	dB(A)	37,0	57,0	59,0	37,0	57,0	59,0	36,0	50,0	53,0	36,0	50,0	53,0	43,0	53,0	55,0	43,0	53,0	55,0	45,0	56,0	57,0	45,0	56,0	57,0
Sound power level (outlet)	dB(A)	33,0	53,0	55,0	33,0	53,0	55,0	32,0	47,0	49,0	32,0	47,0	49,0	39,0	49,0	52,0	39,0	49,0	52,0	42,0	52,0	52,0	42,0	52,0	52,0
Water coil																									
Water content main coil	l	0,5			0,7			0,8			1,0			1,0			1,4			1,0			1,4		
Diametre hydraulic fittings																									
Main coil	Ø	1/2"			1/2"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"		

		FCZI700P			FCZI750P			FCZI900P			FCZI950P		
		1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)													
Heating capacity	kW	5,33	8,34	8,88	6,17	9,52	10,15	6,58	11,15	11,87	6,68	11,63	12,66
Water flow rate system side	l/h	468	732	779	541	835	890	566	958	1021	574	1000	1088
Pressure drop system side	kPa	8	17	20	5	11	12	5	13	14	6	17	19
Heating performance 45 °C / 40 °C (2)													
Heating capacity	kW	2,67	4,15	4,40	2,46	4,69	5,00	3,27	5,54	5,90	3,32	5,78	6,29
Water flow rate system side	l/h	460	720	767	418	806	860	562	953	1015	571	994	1082
Pressure drop system side	kPa	8	18	20	3	11	12	5	13	14	6	17	19
Cooling performance 7 °C / 12 °C (3)													
Cooling capacity	kW	2,20	4,00	4,30	2,60	4,41	4,70	2,81	4,80	5,20	3,58	6,00	6,46
Sensible cooling capacity	kW	1,71	3,00	3,20	1,90	3,30	3,50	2,10	3,60	3,90	2,33	3,94	4,27
Water flow rate system side	l/h	378	688	739	447	760	818	483	825	894	616	1032	1111
Pressure drop system side	kPa	7	18	20	4	11	12	5	13	14	7	17	19
Fan													
Type	type	Centrifugal											
Fan motor	type	Inverter											
Number	no.	3			3			3			3		
Air flow rate	m^3/h	405	730	799	405	730	799	405	730	799	405	730	799
High static pressure	Pa	15	50	60	15	50	60	15	50	60	15	50	60
Input power	W	21	61	78	21	61	78	21	61	78	21	61	78
Signal 0-10V	%	46	82	90	46	82	90	45	84	90	45	84	90
Duct type fan coil sound data (4)													
Sound power level (inlet + radiated)	dB(A)	38,0	55,0	58,0	38,0	55,0	58,0	44,0	55,0	58,0	44,0	55,0	58,0
Sound power level (outlet)	dB(A)	34,0	51,0	54,0	34,0	51,0	54,0	40,0	51,0	54,0	40,0	51,0	54,0
Water coil													
Water content main coil	l	1,2			1,6			1,8			2,3		
Diametre hydraulic fittings													
Main coil	Ø	3/4"											

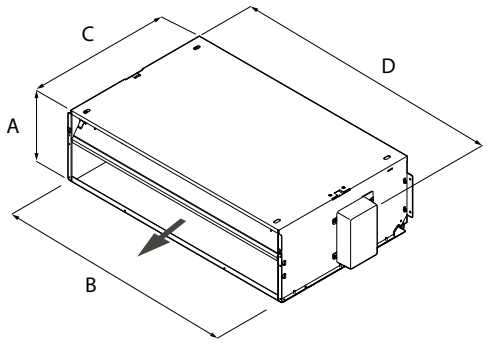
(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C
(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C; EUROVENT
(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT
(4) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

4-pipe

		FCZI201P			FCZI301P			FCZI401P			FCZI501P			FCZI701P			FCZI901P		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 65 °C / 55 °C (1)																			
Heating capacity	kW	0,94	1,42	1,49	1,60	2,34	2,47	1,99	2,69	2,85	2,62	3,59	3,45	2,99	3,70	3,92	3,17	5,09	5,47
Water flow rate system side	l/h	81	122	128	138	201	212	171	231	245	225	309	297	257	318	337	273	438	470
Pressure drop system side	kPa	4	9	9	6	12	13	4	7	8	6	9	9	8	12	13	4	10	11
Cooling performance 7 °C / 12 °C (2)																			
Cooling capacity	kW	0,80	1,37	1,45	1,40	2,38	2,53	2,03	2,98	3,21	2,73	3,68	3,84	2,20	4,00	4,30	2,80	4,80	5,24
Sensible cooling capacity	kW	0,63	1,13	1,20	1,10	1,82	1,94	1,45	2,18	2,36	1,98	2,73	2,85	1,71	3,00	3,20	2,10	3,60	3,90
Water flow rate system side	l/h	138	236	249	241	409	435	349	512	552	469	633	660	378	688	739	482	825	901
Pressure drop system side	kPa	5	14	16	7	15	17	9	13	20	13	23	25	6	18	20	5	12	13
Fan																			
Type	type	Centrifugal																	
Fan motor	type	Inverter																	
Number	no.	1			2			2			2			3			3		
Air flow rate	m^3/h	123	240	257	225	390	424	300	470	515	410	600	630	405	730	799	405	730	799
High static pressure	Pa	13	50	57	16	50	59	20	50	60	23	50	55	15	50	60	15	50	60
Input power	W	7	27	31	10	31	40	14	38	58	18	50	60	21	61	78	21	61	78
Signal 0-10V	%	43	84	90	48	83	90	52	82	90	58	85	90	46	82	90	45	84	90
Duct type fan coil sound data (3)																			
Sound power level (inlet + radiated)	dB(A)	37,0	57,0	59,0	36,0	50,0	53,0	43,0	53,0	55,0	45,0	56,0	57,0	38,0	55,0	58,0	38,0	55,0	58,0
Sound power level (outlet)	dB(A)	33,0	53,0	55,0	32,0	47,0	49,0	39,0	49,0	52,0	42,0	52,0	52,0	34,0	51,0	54,0	34,0	51,0	54,0
Water coil																			
Water content main coil	l	0,5			0,8			1,0			1,0			1,2			1,8		
Water content the secondary coil	l	0,2			0,3			0,3			0,3			0,4			0,7		
Diametre hydraulic fittings																			
Main coil	Ø	1/2"			3/4"			3/4"			3/4"			3/4"			3/4"		
Secondary coil	Ø	1/2"																	

(1) Room air temperature 20°C d.b.; Water (in/out) 65 °C/55 °C; EUROVENT
(2) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT
(3) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

DIMENSIONS



		FCZI200P	FCZI250P	FCZI300P	FCZI350P	FCZI400P	FCZI450P
Dimensions and weights							
A	mm	216	216	216	216	216	216
B	mm	522	522	753	753	973	973
C	mm	453	453	453	453	453	453
D	mm	562	562	793	793	1013	1013
Net weight	kg	12,00	14,00	14,00	16,00	20,00	22,00

		FCZI500P	FCZI550P	FCZI700P	FCZI750P	FCZI900P	FCZI950P
Dimensions and weights							
A	mm	216	216	216	216	216	216
B	mm	973	973	1122	1122	1122	1122
C	mm	453	453	453	453	558	558
D	mm	1013	1013	1147	1147	1147	1147
Net weight	kg	23,00	24,00	29,00	31,00	32,00	32,00

		FCZI201P	FCZI202P	FCZI301P	FCZI302P	FCZI401P	FCZI402P
Dimensions and weights							
A	mm	216	216	216	216	216	216
B	mm	522	522	753	753	973	973
C	mm	453	453	453	453	453	453
D	mm	562	562	793	793	1013	1013
Net weight	kg	13,00	14,00	15,00	16,00	21,00	22,00

		FCZI501P	FCZI502P	FCZI701P	FCZI702P	FCZI901P
Dimensions and weights						
A	mm	216	216	216	216	216
B	mm	973	973	1122	1122	1122
C	mm	453	453	453	453	558
D	mm	1013	1013	1147	1147	1147
Net weight	kg	23,00	24,00	30,00	31,00	32,00

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UL-P

Fan coil unit for ducted installations

- Very quiet
- Ideal for residential or office solutions
- Version with Coldplasma Air purifier



DESCRIPTION

Monobloc duct type fan coils for heating and/or cooling small and medium-sized environments for civil and commercial use.
It can be installed on 2-pipe systems and combined with any heat generator even at low temperatures. Choosing the optimal solution for any requirement is easy thanks to the various versions available and to the possibility of horizontal or vertical installation, depending on the version.

VERSIONS

P Without shell, vertical and horizontal installation, lower intake, without commands
PAF Without shell, vertical and horizontal installation, front intake, without commands

FEATURES

Ventilation group

Comprised of a dual intake centrifugal fan that is particularly silent, statically and dynamically balanced and directly coupled to the motor shaft.
The electric motor is single-phase multi-speed (3 selectable), mounted on anti-vibration supports and with a permanently inserted capacitor.

Heat exchanger coil

With copper pipes and aluminium louvers, the main coil has female gas water connections on the left side and the manifolds have air vents.
The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

■ *The hydraulic connections can be inverted during installation.*

Condensate drip

Provided standard in plastic and fixed to the interior structure; with external condensate discharge.

Air filter

The fan coils have, as standard, precharged electrostatic filters. These filters, thanks to their special execution, attracts and retains all suspended dust particles, thus garanteeing pure breathable air to the whole family.

ACCESSORIES

Control panels

AER503IR: Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.
PRO503: Wall box for AER503IR and VMF-E4 thermostats.
SA5: air probe kit (L = 15 m) with probe-locking cable grommet.
SIT3: Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat). Commands the 3 fan speeds and must be installed on each fan coil within the network; receives the commands from the selector or the SIT5 card. In case you decide to install Aermec thermostats and current absorbed by the unit exceeds 0.7 A, you're obliged to include SIT3 accessory.
SIT5: Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel. Commands the 3 fan speeds and up to 2 valves (four pipe systems); sends the thermostat's commands to the fan coil network.
SW5: water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.
TX: Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an

electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).
WMT05: Electronic thermostat with thermostated ventilation.
WMT10: Electronic thermostat, white, with thermostated or continuous ventilation.

VMF system

VMF-E0X: Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe.
VMF-E2D: User interface on the machine, to be combined with the VMF-E19 accessory.
VMF-E3: Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, VMF-E0X with grids GLF_N/M and GLL_N, can be controlled with VMF-IR control.
VMF-E4DX: Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).
VMF-E4X: Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.
VMF-IR: User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.

Common accessories

DSC: Condensate drainage device.
VCH: 3-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.
VCHD: 2-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.
BC: Condensate drip.
Ventilcassaforma: Galvanised sheet metal template. It makes it possible to obtain directly in the wall a space for housing the fan coil.

GUIDE TO SELECTING THE POSSIBLE CONFIGURATIONS

Omnia ULP

Field		Description
1,2,3		**ULP**
4,5		**Size** 11, 16, 26, 36
6		**Version**
	P	Without shell, vertical and horizontal installation, lower intake, without commands
	PAF	Without shell, vertical and horizontal installation, front intake, without commands

ACCESSORIES COMPATIBILITY

Control panels and dedicated accessories - Omnia ULP

Model	Ver	11	16	26	36
AER503IR (1)	P,PAF	•	•	•	•
PRO503	P,PAF	•	•	•	•
SA5 (2)	P,PAF	•	•	•	•
SIT3 (3)	P,PAF	•	•	•	•
SIT5 (4)	P,PAF	•	•	•	•
SW5 (2)	P,PAF	•	•	•	•
TX (1)	P,PAF	•	•	•	•
WMT05 (1)	P,PAF	•	•	•	•
WMT10 (1)	P,PAF	•	•	•	•

(1) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.
(2) Probe for AER503IR-TX thermostats, if fitted.
(3) Cards for AER503IR-TX thermostats, if present, to be installed if the unit absorption exceeds 0,7 Ampere.
(4) Probe for AER503IR-TX thermostats, if fitted.

VMF system - Omnia ULP

Model	Ver	11	16	26	36
VMF-E0X (1)	P,PAF	•	•	•	•
VMF-E19 (1)	P,PAF	•	•	•	•
VMF-E3	P,PAF	•	•	•	•
VMF-E4DX	P,PAF	•	•	•	•
VMF-E4X	P,PAF	•	•	•	•
VMF-IO	P,PAF	•	•	•	•
VMF-IR	P,PAF	•	•	•	•
VMF-LON	P,PAF	•	•	•	•
VMF-SW	P,PAF	•	•	•	•
VMF-SW1	P,PAF	•	•	•	•

(1) Also the accessory VMF-SIT3V is mandatory if the unit exceeds 0.7 Amperes.

Condensate drip

Model	Ver	11	16	26	36
BC10 (1)	P,PAF	•	•	•	•
BC20 (2)	P,PAF	•	•	•	•

(1) For vertical installation.
(2) For horizontal installation.

Condensate drainage

Model	Ver	11	16	26	36
DSC5 (1)	P,PAF	•	•	•	•

(1) The accessory cannot be fit if the accessory BC10 or BC20 is installed.

Model	Ver	11	16	26	36
VCH	P,PAF	•	•	•	•

2 way valve kit

Model	Ver	11	16	26	36
VCHD	P,PAF	•	•	•	•

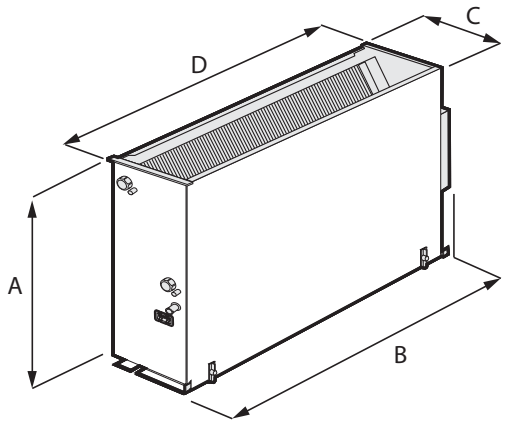
PERFORMANCE SPECIFICATIONS

2-pipe

		UL11P			UL16P			UL26P			UL36P		
		1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)													
Heating capacity	kW	1,06	1,46	2,01	1,54	2,12	2,91	2,89	3,83	4,62	3,63	4,87	5,94
Water flow rate system side	l/h	93	128	176	135	186	255	254	336	405	310	427	521
Pressure drop system side	kPa	1	1	2	1	2	4	5	8	11	3	5	7
Heating performance 45 °C / 40 °C (2)													
Heating capacity	kW	0,52	0,73	1,00	0,76	1,05	1,44	1,44	1,90	2,29	1,75	2,42	2,95
Water flow rate system side	l/h	92	126	174	133	183	251	249	331	399	305	420	513
Pressure drop system side	kPa	1	1	2	2	3	3	5	8	11	7	13	18
Cooling performance 7 °C / 12 °C (3)													
Cooling capacity	kW	0,53	0,67	0,82	0,69	0,87	1,17	1,26	1,65	1,99	1,63	2,26	2,79
Sensible cooling capacity	kW	0,38	0,52	0,68	0,52	0,69	0,96	0,97	1,30	1,61	1,13	1,59	2,00
Water flow rate system side	l/h	94	117	145	122	153	206	220	289	349	286	394	487
Pressure drop system side	kPa	1	2	2	2	3	5	5	8	11	7	13	19
Fan													
Type	type	Centrifugal											
Fan motor	type	Asynchronous											
Number	no.		1			1			2			2	
Air flow rate	m^3/h	80	120	180	110	160	240	190	270	350	240	350	460
Input power	W	8	12	18	23	25	32	24	27	35	30	35	42
Electrical wiring		V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3
Diametre hydraulic fittings													
Main coil	Ø	1/2"											
Water coil													
Water content main coil	l	0,3			0,4			0,6			0,8		
Power supply													
Power supply		230V~50Hz											

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C
(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C; EUROVENT
(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT

DIMENSIONS



		UL11P	UL16P	UL26P	UL36P
Dimensions and weights					
A	mm	465	465	465	465
B	mm	420	530	761	981
C	mm	171	171	171	171
D	mm	360	470	701	921
Net weight	kg	10,00	12,00	15,00	18,00

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ULI-P

Fan coil unit for ducted installations

- **Very quiet**
- **Ideal for residential or office solutions**



DESCRIPTION

Monobloc duct type fan coils for heating and/or cooling small and medium-sized environments for civil and commercial use.
It can be installed on 2-pipe systems and combined with any heat generator even at low temperatures. Choosing the optimal solution for any requirement is easy thanks to the various versions available and to the possibility of horizontal or vertical installation, depending on the version.

VERSIONS

P Without the shell, floor installation, ceiling mount, intake at base, without controls
PAF Without the shell, floor installation, ceiling mount, front suction, without controls

FEATURES

Ventilation group

Centrifugal fans in anti-static plastic material with aerofoil profile designed to achieve high airflows and pressures whilst at the same time producing low noise.
Their characteristics permit energy savings compared to conventional fans.
They are statically and dynamically balanced and directly coupled to the motor shaft.
The Brushless electric motor with 0-100% continuous speed variation, which allows precise adaptation to the real demands of the internal environment without temperature fluctuations.
The air flow can be continuously changed through a 1-10 V signal, coming from adjustment and control commands Aermec or from independent adjustment systems.
This lowers noise and generates a better response to heat loads and a higher stability in the desired temperature inside the room.
The high efficiency even with low speed, makes it possible to reduce power consumption (more than 50% less than fan coils with traditional motors).
The plastic augers are extractable for easy and efficient cleaning.

Heat exchanger coil

With copper pipes and aluminium louvers, the main coil has female gas water connections on the left side and the manifolds have air vents.
The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

The hydraulic connections can be inverted during installation.

Condensate drip

Provided standard in plastic and fixed to the interior structure; with external condensate discharge.

Air filter

The fan coils have, as standard, precharged electrostatic filters. These filters, thanks to their special execution, attracts and retains all suspended dust particles, thus garanteeing pure breathable air to the whole family.

ACCESSORIES

Control panels

AER503IR: Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.
PRO503: Wall box for AER503IR and VMF-E4 thermostats.
SA5: air probe kit (L = 15 m) with probe-locking cable grommet.
SW5: water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.
TX: Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).

VMF system

VMF-E0X: Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe.
VMF-E19I: Thermostat for inverter unit to be fixed on the side of the fan coil, fitted as standard with an air and water probe.
VMF-E3: Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, VMF-E0X with grids GLF_N/M and GLL_N, can be controlled with VMF-IR control.
VMF-E4DX: Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).
VMF-E4X: Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.
VMF-IO: Manage the unit exclusively from a centralized VMF control panel without area control panel.
VMF-IR: User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.
VMF-LON: Expansion allowing the thermostat to interface with BMS systems that use the LON protocol.
VMF-SW: Water probe (L = 2.5m) used if required in place of the standard unit supplied with the VMF-E0X, VMF-E19 and VMF-E19I thermostats for mounting it upstream of the valve

Common accessories

DSC: Condensate drainage device.
VCH: 3-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.
VCHD: 2-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.
BC: Condensate drip.
Ventilcassaforma: Galvanised sheet metal template. It makes it possible to obtain directly in the wall a space for housing the fan coil.

GUIDE TO SELECTING THE POSSIBLE CONFIGURATIONS

Omnia ULP

Field		Description
1,2,3		**ULP**
4,5		**Size** 11, 16, 26, 36
6		**Version**
	P	Without shell, vertical and horizontal installation, lower intake, without commands
	PAF	Without shell, vertical and horizontal installation, front intake, without commands

ACCESSORIES COMPATIBILITY

Control panels and dedicated accessories - Omnia ULP

Model	Ver	16	26	36
AER503IR (1)	P,PAF	•	•	•
PRO503	P,PAF	•	•	•
SA5 (2)	P,PAF	•	•	•
SW5 (2)	P,PAF	•	•	•
TX (1)	P,PAF	•	•	•

(1) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.
(2) Probe for AER503IR-TX thermostats, if fitted.

VMF system - Omnia ULP

Model	Ver	16	26	36
VMF-E0X (1)	P,PAF	•	•	•
VMF-E19I	P,PAF	•	•	•
VMF-E3	P,PAF	•	•	•
VMF-E4DX	P,PAF	•	•	•
VMF-E4X	P,PAF	•	•	•
VMF-IO	P,PAF	•	•	•
VMF-IR	P,PAF	•	•	•
VMF-LON	P,PAF	•	•	•
VMF-SW	P,PAF	•	•	•

(1) Also the accessory VMF-SIT3V is mandatory if the unit exceeds 0.7 Amperes.

Condensate drip

Model	Ver	16	26	36
BC10 (1)	P,PAF	•	•	•
BC20 (2)	P,PAF	•	•	•

(1) For vertical installation.
(2) For horizontal installation.

Condensate drainage

Model	Ver	16	26	36
DSC5 (1)	P,PAF	•	•	•

(1) The accessory cannot be fit if the accessory BC10 or BC20 is installed.

2 way valve kit

Model	Ver	16	26	36
VCHD	P,PAF	•	•	•

3 way valve kit

Model	Ver	16	26	36
VCH	P,PAF	•	•	•

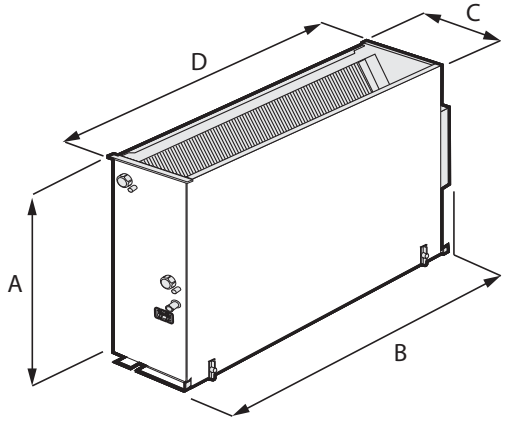
PERFORMANCE SPECIFICATIONS

2-pipe

		ULI16P			ULI26P			ULI36P		
		1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)										
Heating capacity	kW	1,54	2,12	2,91	2,89	3,83	4,62	3,53	4,87	5,94
Water flow rate system side	l/h	135	186	255	254	336	405	310	427	521
Pressure drop system side	kPa	1	2	4	5	8	11	3	5	7
Heating performance 45 °C / 40 °C (2)										
Heating capacity	kW	0,76	1,05	1,44	1,44	1,90	2,29	1,75	2,42	2,95
Water flow rate system side	l/h	133	183	251	249	331	399	305	420	513
Pressure drop system side	kPa	2	2	2	5	8	11	7	12	18
Cooling performance 7 °C / 12 °C (3)										
Cooling capacity	kW	0,69	0,87	1,17	1,26	1,65	1,99	1,63	2,26	2,79
Sensible cooling capacity	kW	0,52	0,69	0,96	0,97	1,30	1,61	1,13	1,59	2,00
Water flow rate system side	l/h	122	153	206	220	289	349	286	394	487
Pressure drop system side	kPa	2	3	5	6	8	11	7	13	19
Fan										
Type	type	Centrifugal								
Fan motor	type	Inverter								
Number	no.	1			2			2		
Air flow rate	m^3/h	110	160	240	190	270	350	240	350	460
Input power	W	6	8	12	7	10	15	8	12	18
Diametre hydraulic fittings										
Main coil	Ø	1/2"								
Water coil										
Water content main coil	l	0,4			0,6			0,8		
Power supply										
Power supply		230V~50Hz								

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C
(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C; EUROVENT
(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT

DIMENSIONS



		ULI16P	ULI26P	ULI36P
Dimensions and weights				
A	mm	465	465	465
B	mm	530	761	981
C	mm	171	171	171
D	mm	470	701	921
Net weight	kg	12,00	15,00	18,00

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VED 030-340

Fan coil unit for ducted installations

- **Horizontal and vertical installation**
- **Large range of available static pressure**
- **Inspectable ventilation group**



DESCRIPTION

Ducted fan coil, for heating, cooling and dehumidifying.
Designed to maintain the set temperature over time, ensuring very low sound levels.
Can be installed in any 2/4 pipe system and operates with any heat generator even at low temperatures.
Thanks to the availability of various options, with standard or increased coil, for horizontal or vertical installation, it is easy to choose the optimal solution for any need.

FEATURES

Case

Unit for internal installation.
Internally insulated structure with class 1 fire resistance and IP20 protection.

Ventilation group

Centrifugal fans in anti-static plastic material with aerofoil profile designed to achieve high airflows and pressures whilst at the same time producing low noise.
Their characteristics permit energy savings compared to conventional fans.
They are statically and dynamically balanced and directly coupled to the motor shaft.
The electric motor is single-phase multi-speed (3 selectable), mounted on anti-vibration supports and with a permanently inserted capacitor.
Fan housing in plastic material removable for easy and effective cleaning.

Heat exchanger coil

With copper pipes and aluminium louvers, the main coil has female gas hydraulic connections and is fitted with air vents.
The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

■ *The hydraulic connections can be inverted during installation.*

Air filter

Coarse 25% Class air filter, easy to remove and clean.

Controls and Accessoires

There is a wide selection of controls and a huge choice of accessories, to meet every system requirement.
The unit is supplied with the delivery connection supplied.

ACCESSORIES



Control panels

AER503IR: Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.
PRO503: Wall box for AER503IR and VMF-E4 thermostats.
SA5: air probe kit (L = 15 m) with probe-locking cable grommet.
SIT3: Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat). Commands the 3 fan speeds and must be installed on each fan coil within the network; receives the commands from the selector or the SIT5 card. In case you decide to install Aermec thermostats and current absorbed by the unit exceeds 0.7 A, you're obliged to include SIT3 accessory.
SIT5: Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel. Commands the 3 fan speeds and up to 2 valves (four pipe systems); sends the thermostat's commands to the fan coil network.
SW3: Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.
SW5: water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.
TX: Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).
WMT05: Electronic thermostat with thermostated ventilation.
WMT06: Electronic thermostat with continuous ventilation.
WMT10: Electronic thermostat, white, with thermostated or continuous ventilation.

VMF Components

VMF-E0X: Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe.
VMF-E19: Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe.
VMF-E3: Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, VMF-E0X with grids GLF_N/M and GLL_N, can be controlled with VMF-IR control.
VMF-E4DX: Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).
VMF-E4X: Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.
VMF-IO: Manage the unit exclusively from a centralized VMF control panel without area control panel.
VMF-IR: User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.
VMF-SIT3V: Relay interface board. Mandatory accessory on units where motor absorption exceeds 0.7 A. The relay interface board is supplied with a 2A fuse to protect the fan coil. If the fan coil absorbs more than 2A and up to 4A, the fuse inside must be replaced with a 4A fuse supplied.
VMF-SW: Water probe (L = 2.5m) used if required in place of the standard unit supplied with the VMF-E0X, VMF-E19 and VMF-E19I thermostats for mounting it upstream of the valve
VMF-SW1: Additional water probe (L = 2.5m) to be used if required for 4-pipe systems with the VMF-E19 and VMF-E19I thermostats for maximum control in the cold range

Valves and additional water coil

BV: Single row hot water heat exchanger.
VCF_X: Kit of 3-way valves for fan coils with a single coil and the water connections on the left, for installation in 4-pipe systems. This kit consists of two 3-way insulated valves and four connections, complete with electrothermal actuators, insulating shells for the valves, and the relative hydraulic couplings. 230V power supply. Water connections: Valve body Ø G 3/4" male; Valve side connection tubes Ø G 3/4" female; Unit side connection tubes Ø G 3/4" male.
VCF41 - 42 - 43 - for main coil: 3-way motorised valve kit for the main coil. The kit is made up of a valve with its insulating shell, actuator and relative hydraulic fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.
VCF44 - 45 - for the secondary coil: The 3-way motorised valve kit for the secondary coil heat only. The kit consists of a valve with its insulating shell, actuator and relevant water fittings; it is suitable to be installed on the fan coils with right and left water connections.
VCFD: Motorized 2-way valve kit without insulating shell, can be installed on the main or secondary battery or a battery that is only warm. The kit is made up of a valve, actuator and relative hydraulic fittings. It can be installed on fan coils with connections on the right and on the left.
VJP: Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components. The valve, which can guarantee a constant water flow rate in the terminal, within its operating range.

Installation accessories

AMP: Wall mounting kit
BCZ: Condensate drip. If the valve is paired with the BCZ5 or BCZ6 condensate drip tray, the insulating shell can be removed to ensure better housing.
DSC: Condensate drainage device.

Accessories for intake

GA: Intake grid with fixed louvers
GAF: Intake grid with filter and fixed louvers
SE_X: External air shutter with manual control.
RDA_V: Straight intake connection with rectangular flange.
RDA_C: Straight intake connection with circular flanges.
RPA_V: Suction plenum with rectangular flange; both sides have a circular push-out Ø 150mm that can be removed.
PA_V: Suction plenum with circular plastic flanges; both sides have a circular push-out Ø 150mm that can be removed.

Delivery accessories

MZC: Plenum with motorised dampers.
MZCAC: Mandatory electrical system for connecting the MZC plenum with a fan coil fitted with an asynchronous motor.
MZCACV: Electrical system with relay interface board. Mandatory accessory on units where motor absorption exceeds 0.7 A. The relay interface board is supplied with a 2A fuse to protect the fan coil. If the fan coil absorbs more than 2A and up to 4A, the fuse inside must be replaced with a 4A fuse supplied.
GM: Flow grid with adjustable louvers.
PM_V: Internally insulated delivery plenum with circular flanges; both sides have a circular push-out Ø 150mm that can be removed.
RPM_V: Internally insulated delivery plenum with rectangular flange; both sides have a circular push-out Ø 150mm that can be removed.
RDM_C: Straight discharge internally insulated, with circular flanges.
RDM_V: Straight delivery coupling in galvanised sheet metal.
KFV: Circular flanges kit for plenum.

ACCESSORIES COMPATIBILITY

Control panels and dedicated accessories

Model	Ver	030	040	130	140	230	240	330	340
AER503IR (1)	.	•	•	•	•	•	•	•	•
PRO503	.	•	•	•	•	•	•	•	•
SA5 (2)	.	•	•	•	•	•	•	•	•
SIT3 (3)	.	•	•	•	•	•	•	•	•
SIT5 (4)	.	•	•	•	•	•	•	•	•
SW3 (2)	.	•	•	•	•	•	•	•	•
SW5 (2)	.	•	•	•	•	•	•	•	•
TX (1)	.	•	•	•	•	•	•	•	•
WMT05 (1)	.	•	•	•	•	•	•	•	•
WMT06 (1)	.	•	•	•	•	•	•	•	•
WMT10 (1)	.	•	•	•	•	•	•	•	•

(1) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.
(2) Probe for AER503IR-TX thermostats, if fitted.
(3) Cards for AER503IR-TX thermostats, if present, to be installed if the unit absorption exceeds 0,7 Ampere.
(4) Probe for AER503IR-TX thermostats, if fitted.

VMF system

Model	Ver	030	040	130	140	230	240	330	340
VMF-E0X (1)	.	•	•	•	•	•	•	•	•
VMF-E19 (1)	.	•	•	•	•	•	•	•	•
VMF-E3	.	•	•	•	•	•	•	•	•
VMF-E4DX	.	•	•	•	•	•	•	•	•
VMF-E4X	.	•	•	•	•	•	•	•	•
VMF-IO	.	•	•	•	•	•	•	•	•
VMF-IR	.	•	•	•	•	•	•	•	•
VMF-SIT3V (2)	.							•	•
VMF-SW	.	•	•	•	•	•	•	•	•
VMF-SW1	.	•	•	•	•	•	•	•	•

(1) Also the accessory VMF-SIT3V is mandatory if the unit exceeds 0.7 Amperes.
(2) For the selection, consult the documentation for the thermostat and the fan coil.

(Heating only) additional coil

Ver	030	040	130	140	230	240	330	340
.	BV030 (1)	-	BV130 (1)	-	BV230 (1)	-	BV162 (1)	-

(1) Not available for sizes with oversized main coil.
The accessory cannot be fitted on the configurations indicated with -

Water valves

Valve Kit for 4 pipe systems with main coil

Accessory	VED030	VED040	VED130	VED140	VED230	VED240	VED330	VED340
VCF3X4L	•	•	•		•		•	•
VCF3X4LS				•		•		
VCF3X4R	•	•	•		•		•	•
VCF3X4RS				•		•		

3 way valve kit

	VED030	VED040	VED130	VED140	VED230	VED240	VED330	VED340
3 way valve kit								
Main coil	VCF43-VCF4324	VCF43-VCF4324	VCF43-VCF4324	VCF43S-VCF4324S	VCF43-VCF4324	VCF43S-VCF4324S	VCF43-VCF4324	VCF43-VCF4324
Additional coil "BV"	VCF45-VCF4524	-	VCF45-VFC4524	-	VCF45-VCF4524	-	VCF45-VCF4524	-

VCF43 - 45 Power supply 230V, VCF4324-4524 Power supply 24V - Hydraulic connections Ø 3/4"

2 way valve kit

	VED030	VED040	VED130	VED140	VED230	VED240	VED330	VED340
2 way valve kit								
Main coil	VCFD3-VCFD324	VCFD3-VCFD324	VCFD3-VCFD324	VCFD3-VCFD324	VCFD3-VCFD324	VCFD3-VCFD324	VCFD3-VCFD324	VCFD3-VCFD324
Additional coil "BV"	VCFD4-VCFD424	-	VCFD4-VCFD424	-	VCFD4-VCFD424	-	VCFD4-VCFD424	-

VCFD3 Power supply 230V, VCFD324 Power supply 24V - Hydraulic connections Ø 3/4"
VCFD4 Power supply 230V, VCFD424 Power supply 24V - Hydraulic connections Ø 1/2"; For additional coil (heating only) BV.

Combined adjustment and balancing valve cold side

Accessory	VED030	VED040	VED130	VED140	VED230	VED240	VED330	VED340
VJP060	•	•	•	•				
VJP060M	•	•	•	•				
VJP090					•	•	•	•
VJP090M					•	•	•	•
VJP150							•	•
VJP150M							•	•

Installation accessories

Accessory	VED030	VED040	VED130	VED140	VED230	VED240	VED330	VED340
AMP	•	•	•	•	•	•	•	•

Condensate drip

Accessory	VED030	VED040	VED130	VED140	VED230	VED240	VED330	VED340
BCZ4	•	•	•	•	•	•	•	•
BCZ6	•	•	•	•	•	•	•	•

Accessory	VED030	VED040	VED130	VED140	VED230	VED240	VED330	VED340
BC9	•	•	•	•	•	•	•	•

BCZ4 For vertical installation.
BCZ6 For horizontal installation.
BC9 For horizontal installation.

Condensate recirculation device

Accessory	VED030	VED040	VED130	VED140	VED230	VED240	VED330	VED340
DSC4	•	•	•	•	•	•	•	•
DSCZ4	•	•	•	•	•	•	•	•

Accessories for intake

Intake grids

Ver	030	040	130	140	230	240	330	340
.	GA22	GA22	GA32	GA32	GA42	GA42	GA62	GA62

Intake grid with filter and fixed louvers

Ver	030	040	130	140	230	240	330	340
.	GAF22	GAF22	GAF32	GAF32	GAF42	GAF42	GAF62	GAF62

External air shutter with manual control

Ver	030	040	130	140	230	240	330	340
.	SE20X	SE20X	SE30X	SE30X	SE40X	SE40X	SE80X	SE80X

Intake straight with rectangular flanges

Ver	030	040	130	140	230	240	330	340
.	RDA000V	RDA000V	RDA100V	RDA100V	RDA200V	RDA200V	RDA300V	RDA300V

Intake straight internally insulated, with circular flanges

Ver	030	040	130	140	230	240	330	340
.	RDAC000V	RDAC000V	RDAC100V	RDAC100V	RDAC200V	RDAC200V	RDAC300V	RDAC300V

Intake plenum with rectangular flanges

Ver	030	040	130	140	230	240	330	340
.	RPA000V	RPA000V	RPA100V	RPA100V	RPA200V	RPA200V	RPA300V	RPA300V

Intake plenum with circular flanges

Ver	030	040	130	140	230	240	330	340
.	PA000V	PA000V	PA100V	PA100V	PA200V	PA200V	PA300V	PA300V

Delivery accessories

Plenum with motor-driven dampers

Ver	030	040	130	140	230	240	330	340
.	MZC220	MZC220	MZC320	MZC320	MZC530	MZC530	MZC830	MZC830

Electrical system with relays

Ver	030	040	130	140	230	240	330	340
.	MZCACV (1)	MZCACV (1)	MZCACV (1)	MZCACV (1)	MZCACV (1)	MZCACV (1)	MZCACV (1)	MZCACV (1)

(1) It is mandatory to use MZCACV if the intake of the unit combined with the MZC accessory exceeds 0.7 Ampere.

Electric plant

Ver	030	040	130	140	230	240	330	340
.	MZCAC	MZCAC	MZCAC	MZCAC	MZCAC	MZCAC	MZCAC	MZCAC

Flow grid with adjustable louvers

Ver	030	040	130	140	230	240	330	340
.	GM22	GM22	GM32	GM32	GM42	GM42	GM62	GM62

Delivery plenum internally insulated, with circular flanges

Ver	030	040	130	140	230	240	330	340
.	PM000V	PM000V	PM100V	PM100V	PM200V	PM200V	PM300V	PM300V

Delivery plenum internally insulated, with rectangular flanges

Ver	030	040	130	140	230	240	330	340
.	RPM000V	RPM000V	RPM100V	RPM100V	RPM200V	RPM200V	RPM300V	RPM300V

Delivery straight internally insulated, with circular flanges

Ver	030	040	130	140	230	240	330	340
.	RDMC000V	RDMC000V	RDMC100V	RDMC100V	RDMC200V	RDMC200V	RDMC300V	RDMC300V

Straight delivery coupling

Ver	030	040	130	140	230	240	330	340
.	RDM000V	RDM000V	RDM100V	RDM100V	RDM200V	RDM200V	RDM300V	RDM300V

Circular flanges kit for plenum

Accessory	VED030	VED040	VED130	VED140	VED230	VED240	VED330	VED340
KFV10	•	•	•	•	•	•	•	•

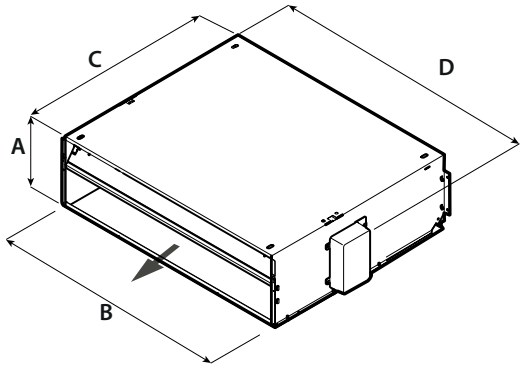
PERFORMANCE SPECIFICATIONS

2-pipe

		VED030			VED040			VED130			VED140			VED230			VED240			VED330			VED340		
		1	4	6	1	4	6	1	4	6	1	4	6	1	3	6	1	3	6	1	3	7	1	3	7
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)																									
Heating capacity	kW	1,82	3,37	3,69	2,37	3,57	3,92	4,40	5,83	6,29	4,52	6,09	6,58	5,35	6,50	7,16	5,80	7,14	7,91	7,81	9,34	10,51	8,31	10,02	10,95
Water flow rate system side	l/h	160	296	323	207	313	343	386	512	552	396	534	577	469	570	628	509	626	694	685	819	921	729	878	960
Pressure drop system side	kPa	3	7	9	4	10	12	13	22	26	9	16	18	27	30	37	18	26	32	9	13	16	22	28	32
Heating performance 45 °C / 40 °C (2)																									
Heating capacity	kW	0,90	1,67	1,83	1,18	1,77	1,94	2,18	2,90	3,12	2,24	3,02	3,27	2,66	3,23	3,56	2,88	3,55	3,93	3,88	4,64	5,22	3,98	4,98	5,44
Water flow rate system side	l/h	157	291	318	204	208	338	380	504	543	390	526	568	462	561	618	501	616	683	674	807	907	718	865	945
Pressure drop system side	kPa	3	8	9	5	11	13	15	24	28	10	16	19	26	29	36	18	27	32	10	14	17	13	20	23
Cooling performance 7 °C / 12 °C (3)																									
Cooling capacity	kW	0,97	1,41	1,56	1,10	1,68	1,84	2,05	2,74	2,91	2,24	3,00	3,22	2,55	3,07	3,33	2,86	3,57	3,93	3,62	4,35	4,90	3,92	4,72	5,26
Sensible cooling capacity	kW	0,73	1,07	1,18	0,79	1,19	1,29	1,41	1,89	2,01	1,58	2,14	2,30	1,96	2,38	2,61	2,16	2,65	2,92	2,74	3,26	3,63	2,89	3,50	3,89
Water flow rate system side	l/h	170	250	279	193	296	327	358	480	515	390	525	566	445	538	588	499	624	691	633	760	860	685	824	922
Pressure drop system side	kPa	3	7	9	5	12	14	15	27	31	11	20	23	25	36	44	16	31	37	10	14	18	16	21	26
Fan																									
Type	type	Centrifugal																							
Fan motor	type	Asynchronous																							
Number	no.	1			1			2			2			2			2			3			3		
Air flow rate	m^3/h	161	256	285	160	249	277	287	397	433	280	386	420	417	524	590	406	509	570	572	704	805	563	685	775
High static pressure	Pa	21	50	61	21	50	61	26	50	60	26	50	60	32	50	64	32	50	63	33	50	66	34	50	64
Input power	W	23	38	59	23	38	58	34	53	76	34	52	75	43	57	93	43	57	92	63	75	104	63	74	107
Electrical wiring		V1	V4	V6	V1	V4	V6	V1	V4	V6	V1	V4	V6	V1	V3	V6	V1	V3	V6	V1	V3	V7	V1	V3	V7
Duct type fan coil sound data (4)																									
Sound power level (inlet + radiated)	dB(A)	44,0	52,0	54,0	44,0	52,0	54,0	47,0	53,0	55,0	47,0	53,0	55,0	49,0	54,0	57,0	49,0	54,0	57,0	49,0	55,0	58,0	49,0	55,0	58,0
Sound power level (outlet)	dB(A)	40,0	48,0	50,0	40,0	48,0	50,0	42,0	48,0	50,0	42,0	48,0	50,0	44,0	49,0	52,0	44,0	49,0	52,0	45,0	51,0	54,0	45,0	51,0	54,0
Water coil																									
Water content main coil	l	0,7			1,0			1,1			1,5			1,5			2,1			1,8			2,3		
Diametre hydraulic fittings																									
Main coil	Ø	3/4"																							
Power supply																									
Power supply		230V~50Hz																							

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C
(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C; EUROVENT
(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT
(4) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

DIMENSIONS



		VED030	VED040	VED130	VED140	VED230	VED240	VED330	VED340
Dimensions and weights									
A	mm	217	217	217	217	217	217	217	217
B	mm	550	550	781	781	1001	1001	1122	1122
C	mm	560	560	560	560	560	560	560	560
D	mm	576	576	807	807	1027	1027	1148	1148

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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VED 030I-340I

Fan coil unit for ducted installations

- **Horizontal and vertical installation**
- **Large range of available static pressure**
- **Inspectable ventilation group**
- **Total comfort: reduced temperature and humidity oscillations**
- **Electricity savings of 50% compared with a fan coil with multi-speed motor**



DESCRIPTION

Ducted fan coil, for heating, cooling and dehumidifying.
Designed to maintain the set temperature over time, ensuring very low sound levels.
Can be installed in any 2/4 pipe system and operates with any heat generator even at low temperatures.
Thanks to the availability of various options, with standard or increased coil, for horizontal or vertical installation, it is easy to choose the optimal solution for any need.

FEATURES

Case

Unit for internal installation.
Internally insulated structure with class 1 fire resistance and IP20 protection.

Ventilation group

Centrifugal fans in anti-static plastic material with aerofoil profile designed to achieve high airflows and pressures whilst at the same time producing low noise.
Brushless motor with continuous speed variation 0-100%.
Inverter motor allows precise adaptation to the real indoor environment requirements without temperature oscillations.
The air flow can be continuously changed through a 1-10 V signal, coming from adjustment and control commands Aermec or from independent adjustment systems.
This lowers noise and generates a better response to heat loads and a higher stability in the desired temperature inside the room.
The high efficiency even with low speed, makes it possible to reduce power consumption (more than 50% less than fan coils with traditional motors).

Heat exchanger coil

With copper pipes and aluminium louvers, the main coil has female gas hydraulic connections and is fitted with air vents.
The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

The hydraulic connections can be inverted during installation.

Air filter

Air filter Class G3, for easy removal and cleaning.

Controls and Accessoires

There is a wide selection of controls and a huge choice of accessories, to meet every system requirement.
The unit is supplied with the delivery connection supplied.

ACCESSORIES



Control panels

AER503IR: Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.
SA5: air probe kit (L = 15 m) with probe-locking cable grommet.
SW3: Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.
SW5: water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.
SWAI: External air or water temperature probe.
TX: Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).
WMT21: Electronic thermostat for inverter fancoils.

VMF Components

VMF-E19I: Thermostat for inverter unit to be fixed on the side of the fan coil, fitted as standard with an air and water probe.
VMF-E3: Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, VMF-E0X with grids GLF_N/M and GLL_N, can be controlled with VMF-IR control.
VMF-E4DX: Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).
VMF-E4X: Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.
VMF-IO: Manage the unit exclusively from a centralized VMF control panel without area control panel.
VMF-IR: User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.
VMF-SW: Water probe (L = 2.5m) used if required in place of the standard unit supplied with the VMF-E0X, VMF-E19 and VMF-E19I thermostats for mounting it upstream of the valve
VMF-SW1: Additional water probe (L = 2.5m) to be used if required for 4-pipe systems with the VMF-E19 and VMF-E19I thermostats for maximum control in the cold range

Valves and additional water coil

BV: Single row hot water heat exchanger.
VCF_X: Kit of 3-way valves for fan coils with a single coil and the water connections on the left, for installation in 4-pipe systems. This kit consists of two 3-way insulated valves and four connections, complete with electrothermal actuators, insulating shells for the valves, and the relative hydraulic couplings. 230V power supply. Water connections: Valve body Ø G 3/4" male; Valve side connection tubes Ø G 3/4" female; Unit side connection tubes Ø G 3/4" male.
VCF41 - 42 - 43 - for main coil: 3-way motorised valve kit for the main coil. The kit is made up of a valve with its insulating shell, actuator and relative hydraulic fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.
VCF44 - 45 - for the secondary coil: The 3-way motorised valve kit for the secondary coil heat only. The kit consists of a valve with its insulating shell, actuator and relevant water fittings; it is suitable to be installed on the fan coils with right and left water connections.
VCFD: Motorized 2-way valve kit without insulating shell, can be installed on the main or secondary battery or a battery that is only warm. The kit is made up of a valve, actuator and relative hydraulic fittings. It can be installed on fan coils with connections on the right and on the left.
VJP: Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components. The valve, which can guarantee a constant water flow rate in the terminal, within its operating range.

Installation accessories

AMP: Wall mounting kit
BC: Condensate drip.
DSC: Condensate drainage device.

Accessories for intake

GA: Intake grid with fixed louvers
GAF: Intake grid with filter and fixed louvers
SE_X: External air shutter with manual control.
RDA_V: Straight intake connection with rectangular flange.
RDA_C: Straight intake connection with circular flanges.
RPA_V: Suction plenum with rectangular flange; both sides have a circular push-out Ø 150mm that can be removed.
PA_V: Suction plenum with circular plastic flanges; both sides have a circular push-out Ø 150mm that can be removed.

Delivery accessories

GM: Flow grid with adjustable louvers.
MZC: Plenum with motorised dampers.
PM_V: Internally insulated delivery plenum with circular flanges; both sides have a circular push-out Ø 150mm that can be removed.
RPM_V: Internally insulated delivery plenum with rectangular flange; both sides have a circular push-out Ø 150mm that can be removed.
RDM_C: Straight discharge internally insulated, with circular flanges.
RDM_V: Straight delivery coupling in galvanised sheet metal.
KFV: Circular flanges kit for plenum.

ACCESSORIES COMPATIBILITY

Control panels and dedicated accessories

Accessory	VED030I	VED040I	VED130I	VED140I	VED230I	VED240I	VED330I	VED340I
AER503IR	•	•	•	•	•	•	•	•
PR0503	•		•	•	•	•	•	•
SA5	•	•	•	•	•	•	•	•
SW3	•	•	•	•	•	•	•	•
SW5	•	•	•	•	•	•	•	•
SWAI	•	•	•	•	•	•	•	•
TX	•	•	•	•	•	•	•	•
WMT21	•	•	•	•	•	•	•	•

VMF system

Accessory	VED030I	VED040I	VED130I	VED140I	VED230I	VED240I	VED330I	VED340I
VMF-E19I	•	•	•	•	•	•	•	•
VMF-E3	•	•	•	•	•	•	•	•
VMF-E4DX	•	•	•	•	•	•	•	•
VMF-E4X	•	•	•	•	•	•	•	•
VMF-IO	•	•	•	•	•	•	•	•
VMF-IR	•		•		•	•	•	•
VMF-LON	•	•	•	•	•	•	•	•
VMF-SW	•	•	•	•	•	•	•	•
VMF-SW1	•	•	•	•	•	•	•	•

(Heating only) additional coil

Ver	030	040	130	140	230	240	330	340
I	BV030	-	BV130	-	BV230	-	BV162	-

Water valves

Valve Kit for 4 pipe systems with main coil

Accessory	VED030I	VED040I	VED130I	VED140I	VED230I	VED240I	VED330I	VED340I
VCF3X4L	•	•	•		•		•	•
VCF3X4LS				•		•		
VCF3X4R	•	•	•		•		•	•
VCF3X4RS				•		•		

3 way valve kit

	VED030I	VED040I	VED130I	VED140I	VED230I	VED240I	VED330I	VED340I
3 way valve kit								
Main coil	VCF43-VCF4324	VCF43-VCF4324	VCF43-VCF4324	VCF43S-VCF4324S	VCF43-VCF4324	VCF43S-VCF4324S	VCF43-VCF4324	VCF43-VCF4324
Additional coil "BV"	VCF45-VCF4524	-	VCF45-VFC4524	-	VCF45-VCF4524	-	VCF45-VCF4524	-

VCF43 - 45 Power supply 230V, VCF4324-4524 Power supply 24V - Hydraulic connections Ø 3/4"

2 way valve kit

	VED030I	VED040I	VED130I	VED140I	VED230I	VED240I	VED330I	VED340I
2 way valve kit								
Main coil	VCFD3-VCFD324	VCFD3-VCFD324	VCFD3-VCFD324	VCFD3-VCFD324	VCFD3-VCFD324	VCFD3-VCFD324	VCFD3-VCFD324	VCFD3-VCFD324
Additional coil "BV"	VCFD4-VCFD424	-	VCFD4-VCFD424	-	VCFD4-VCFD424	-	VCFD4-VCFD424	-

VCFD3 Power supply 230V, VCFD324 Power supply 24V - Hydraulic connections Ø 3/4"
VCFD4 Power supply 230V, VCFD424 Power supply 24V - Hydraulic connections Ø 1/2"; For additional coil (heating only) BV.

Combined adjustment and balancing valve cold side

Model	Ver	030	040	130	140	230	240	330	340
VJP060 (1)	I	•	•	•	•				
VJP060M (2)	I	•	•	•	•				
VJP090 (1)	I					•	•	•	•
VJP090M (2)	I					•	•	•	•
VJP150 (1)	I							•	•
VJP150M (2)	I							•	•

(1) 230V~50Hz
(2) 24V
VJP060 - 090 - 150 (230V~50Hz); VJP060M-090M-150M (24V)

Installation accessories

Wall mounting accessories

Accessory	VED030I	VED040I	VED130I	VED140I	VED230I	VED240I	VED340I
AMP	•	•	•	•	•	•	•

Condensate drip

Accessory	VED030I	VED040I	VED130I	VED140I	VED230I	VED240I	VED330I	VED340I
BCZ4	•	•	•	•	•	•	•	•
BCZ6	•	•	•	•	•	•	•	•

Accessory	VED030I	VED040I	VED130I	VED140I	VED230I	VED240I	VED330I	VED340I
BC9	•	•	•	•	•	•	•	•

BCZ4 For vertical installation.
BCZ6 For horizontal installation.
BC9 For horizontal installation.

Condensate drainage

Ver	030	040	130	140	230	240	330	340
I	DSC4	DSC4	DSC4	DSC4	DSC4	DSC4	DSC4	DSC4

Accessories for intake

Intake grids

Ver	030	040	130	140	230	240	330	340
I	GA22	GA22	GA32	GA32	GA42	GA42	GA62	GA62

Intake grid with filter and fixed louvers

Ver	030	040	130	140	230	240	330	340
I	GAF22	GAF22	GAF32	GAF32	GAF42	GAF42	GAF62	GAF62

External air shutter with manual control

Ver	030	040	130	140	230	240	330	340
I	SE20X (1)	SE20X (1)	SE30X (1)	SE30X (1)	SE40X (1)	SE40X (1)	SE80X (1)	SE80X (1)

(1) The SE accessories must be combined with the design and structural feet.

Intake straight with rectangular flanges

Ver	030	040	130	140	230	240	330	340
I	RDA000V	RDA000V	RDA100V	RDA100V	RDA200V	RDA200V	RDA300V	RDA300V

Intake straight internally insulated, with circular flanges

Ver	030	040	130	140	230	240	330	340
I	RDAC000V	RDAC000V	RDAC100V	RDAC100V	RDAC200V	RDAC200V	RDAC300V	RDAC300V

Intake plenum with rectangular flanges

Ver	030	040	130	140	230	240	330	340
I	RPA000V	RPA000V	RPA100V	RPA100V	RPA200V	RPA200V	RPA300V	RPA300V

Intake plenum with circular flanges

Ver	030	040	130	140	230	240	330	340
I	PA000V	PA000V	PA100V	PA100V	PA200V	PA200V	PA300V	PA300V

Delivery accessories

Outlet grille with adjustable louvers

Ver	030	040	130	140	230	240	330	340
I	GM22	GM22	GM32	GM32	GM42	GM42	GM62	GM62

Plenum with motor-driven dampers

Ver	030	040	130	140	230	240	330	340
I	MZC220	MZC220	MZC320	MZC320	MZC530	MZC530	MZC830	MZC830

Delivery plenum internally insulated, with circular flanges

Ver	030	040	130	140	230	240	330	340
I	PM000V	PM000V	PM100V	PM100V	PM200V	PM200V	PM300V	PM300V

Delivery plenum internally insulated, with rectangular flanges

Ver	030	040	130	140	230	240	330	340
I	RPM000V	RPM000V	RPM100V	RPM100V	RPM200V	RPM200V	RPM300V	RPM300V

Delivery straight internally insulated, with circular flanges

Ver	030	040	130	140	230	240	330	340
I	RDMC000V	RDMC000V	RDMC100V	RDMC100V	RDMC200V	RDMC200V	RDMC300V	RDMC300V

Straight delivery coupling

Ver	030	040	130	140	230	240	330	340
I	RDM000V	RDM000V	RDM100V	RDM100V	RDM200V	RDM200V	RDM300V	RDM300V

Circular flanges kit for plenum

Accessory	VED030I	VED040I	VED130I	VED140I	VED230I	VED240I	VED340I
KFV10	•	•	•	•	•	•	•

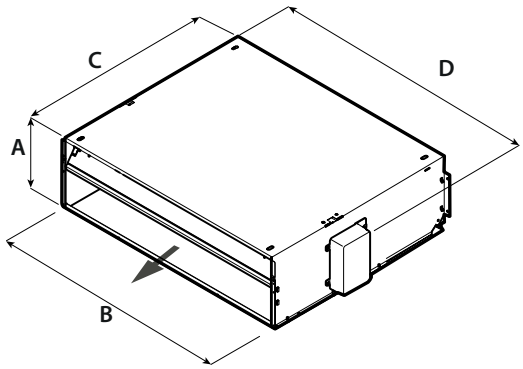
PERFORMANCE SPECIFICATIONS

2-pipe

		VED030I			VED040I			VED130I			VED140I			VED230I			VED240I			VED330I			VED340I		
		1	5	7	1	5	7	1	5	7	1	5	7	1	5	7	1	5	7	1	5	7	1	5	7
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)																									
Heating capacity	kW	1,82	3,37	3,69	2,37	3,57	3,92	4,40	5,83	6,29	4,52	6,09	6,58	5,35	6,50	7,16	5,80	7,14	7,91	7,81	9,34	10,51	8,31	10,08	10,95
Water flow rate system side	l/h	160	296	323	207	313	343	386	512	552	396	534	577	469	570	628	509	626	694	685	819	921	729	878	960
Pressure drop system side	kPa	3	7	9	4	10	12	13	22	26	9	16	18	27	30	37	18	26	32	9	13	16	22	28	32
Heating performance 45 °C / 40 °C (2)																									
Heating capacity	kW	0,90	1,67	1,83	1,17	1,77	1,94	2,18	2,90	3,12	2,24	3,02	3,27	2,66	3,23	3,56	2,88	3,55	3,93	3,88	4,64	5,22	3,98	4,98	5,44
Water flow rate system side	l/h	157	291	318	204	308	338	380	504	543	390	526	568	462	561	618	501	616	683	674	807	907	718	865	945
Pressure drop system side	kPa	3	8	9	5	11	13	15	24	28	10	16	19	26	29	36	18	27	32	10	14	17	13	20	23
Cooling performance 7 °C / 12 °C (3)																									
Cooling capacity	kW	0,98	1,42	1,58	1,11	1,69	1,86	2,06	2,76	2,95	2,25	3,02	3,25	2,57	3,09	3,37	2,88	3,59	3,97	3,62	4,36	4,91	3,95	4,72	5,27
Sensible cooling capacity	kW	0,74	1,08	1,20	0,80	1,20	1,31	1,42	1,91	2,05	1,59	2,16	2,32	1,98	2,40	2,65	2,18	2,67	2,96	2,77	3,27	3,64	2,92	3,51	3,90
Water flow rate system side	l/h	170	250	279	193	296	327	358	480	515	390	525	566	445	538	588	499	624	691	633	760	860	563	824	922
Pressure drop system side	kPa	3	7	9	5	12	14	15	27	41	11	20	23	25	36	44	16	31	37	10	14	18	34	21	26
Fan																									
Type	type	Centrifugal																							
Fan motor	type	Inverter																							
Number	no.	1			1			2			2			2			2			3			3		
Air flow rate	m^3/h	161	256	285	160	249	277	287	397	434	280	386	420	417	524	590	406	509	570	572	704	805	563	685	775
High static pressure	Pa	21	50	61	21	50	61	26	50	60	26	50	60	32	50	64	32	50	63	33	50	66	34	50	64
Input power	W	12	29	36	12	29	36	17	33	45	17	33	45	24	40	53	24	40	53	35	60	86	35	60	86
Signal 0-10V	%	54	80	90	54	80	90	58	82	90	58	82	90	66	80	90	62	80	90	62	78	90	66	84	90
Duct type fan coil sound data (4)																									
Sound power level (inlet + radiated)	dB(A)	44,0	52,0	54,0	44,0	52,0	54,0	47,0	53,0	55,0	47,0	53,0	55,0	49,0	54,0	57,0	49,0	54,0	57,0	49,0	55,0	58,0	49,0	55,0	58,0
Sound power level (outlet)	dB(A)	40,0	48,0	50,0	40,0	48,0	50,0	42,0	48,0	50,0	42,0	48,0	50,0	44,0	49,0	52,0	44,0	49,0	52,0	45,0	51,0	54,0	45,0	51,0	54,0
Diametre hydraulic fittings																									
Type	type	Gas - F																							
Main coil	Ø	3/4"																							
Power supply																									
Power supply		230V~50Hz																							

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C
(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C; EUROVENT
(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT
(4) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

DIMENSIONS



		VED030I	VED040I	VED130I	VED140I	VED230I	VED240I	VED330I	VED340I
Dimensions and weights									
A	mm	217	217	217	217	217	217	217	217
B	mm	550	550	781	781	1001	1001	1122	1122
C	mm	584	584	584	584	584	584	584	584
D	mm	576	576	807	807	1027	1027	1148	1148

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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VED 430-741

Fan coil unit for ducted installations

- **Horizontal and vertical installation**
- **Ventilation group to 5 speed**
- **Large range of available static pressure**
- **Inspectable ventilation group**



DESCRIPTION

Ducted fan coil, for heating, cooling and dehumidifying.
Designed to maintain the set temperature over time, ensuring very low sound levels.
Can be installed in any 2/4 pipe system and operates with any heat generator even at low temperatures.
Thanks to the availability of various options, with standard or increased coil, for horizontal or vertical installation, it is easy to choose the optimal solution for any need.

FEATURES

Case

Unit for internal installation.
Internally insulated structure with class 1 fire resistance and IP20 protection.

Ventilation group

Centrifugal fans in anti-static plastic material with aerofoil profile designed to achieve high airflows and pressures whilst at the same time producing low noise.
Their characteristics permit energy savings compared to conventional fans.
They are statically and dynamically balanced and directly coupled to the motor shaft.
The electric motor is single-phase multi-speed (3 selectable), mounted on anti-vibration supports and with a permanently inserted capacitor.
Fan housing in plastic material removable for easy and effective cleaning.

Heat exchanger coil

With copper pipes and aluminium louvers, the main coil has female gas hydraulic connections and is fitted with air vents.
The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

■ *The hydraulic connections can be inverted during installation.*

Air filter

Air filter Class G3, for easy removal and cleaning.

Controls and Accessoires

There is a wide selection of controls and a huge choice of accessories, to meet every system requirement.
The unit is supplied with the delivery connection supplied.

ACCESSORIES



Control panels

AER503IR: Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.
PRO503: Wall box for AER503IR and VMF-E4 thermostats.
SA5: air probe kit (L = 15 m) with probe-locking cable grommet.
SIT3: Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat). Commands the 3 fan speeds and must be installed on each

fan coil within the network; receives the commands from the selector or the SIT5 card. In case you decide to install Aermec thermostats and current absorbed by the unit exceeds 0.7 A, you're obliged to include SIT3 accessory.
SIT5: Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel. Commands the 3 fan speeds and up to 2 valves (four pipe systems); sends the thermostat's commands to the fan coil network.
SW3: Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.
SW5: water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.
TX: Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).
WMT05: Electronic thermostat with thermostated ventilation.
WMT06: Electronic thermostat with continuous ventilation.
WMT10: Electronic thermostat, white, with thermostated or continuous ventilation.

VMF system

VMF-E0X: Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe.
VMF-E19: Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe.
VMF-E3: Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, VMF-E0X with grids GLF_N/M and GLL_N, can be controlled with VMF-IR control.
VMF-E4DX: Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).
VMF-E4X: Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.
VMF-IO: Manage the unit exclusively from a centralized VMF control panel without area control panel.
VMF-IR: User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.
VMF-MOD: Expansion board for the management of modulating valves.
VMF-SIT3V: Relay interface board. Mandatory accessory on units where motor absorption exceeds 0.7 A. The relay interface board is supplied with a 2A fuse to protect the fan coil. If the fan coil absorbs more than 2A and up to 4A, the fuse inside must be replaced with a 4A fuse supplied.
VMF-SW: Water probe (L = 2.5m) used if required in place of the standard unit supplied with the VMF-E0X, VMF-E19 and VMF-E19I thermostats for mounting it upstream of the valve
VMF-SW1: Additional water probe (L = 2.5m) to be used if required for 4-pipe systems with the VMF-E19 and VMF-E19I thermostats for maximum control in the cold range

Water valves

VJP: Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components. The valve, which can guarantee a constant water flow rate in the terminal, within its operating range.
VCT: These are 3-way ball valves made of bronze, with female/female connections Ø 1/2". That can be servo-activated via servo commands. The valves do not have fittings and pipes for water connections, which are the installer's responsibility.
VCT: These are 3-way ball valves made of bronze, with female/female connections Ø 1/2". That can be servo-activated via servo commands. The valves do not have fittings and pipes for water connections, which are the installer's responsibility.
VCTK: The VCT series valves can be combined with the actuators On-Off 230V. The actuator must be selected according to the type of system/adjustment provided.
VCTKM: The VCT series valves can be combined with the actuators 24V modulating. The actuator must be selected according to the type of system/adjustment provided.
VCF45C - 47C - 47CS - for main coil: Motorized 3-way valve kit for main coil. The kit consists of a 4-way 4-way valve with its insulating shell, the actuator and the relative hydraulic fittings, it is suitable for installation on both fan coil units with hydraulic connections on the right and left. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.
VCF45H - 47H - for heating only coil: Motorized 3-way valve kit for hot only coil. The kit consists of a 3-way 4-way valve, the actuator and its hydraulic fittings, it is suitable for installation on both fan coil units with hydraulic connections on the right and left.
VCF25C - 25CS - for main coil: 2-way motorized valve kit for main coil. The kit consists of a valve with its insulating shell, the actuator and the relative hydraulic fittings, it is suitable for installation on both fan coil units with hydraulic connections on the right and left.
VCF25H - for heating only coil: 2-way motorized valve kit for hot only coil. The kit consists of a valve, actuator and relative hydraulic fittings, it is suitable for installation on both fan coils with hydraulic connections on the right and left.
BCV: Condensate drip.

Installation accessories

MZC: Plenum with motorised dampers.
RDA_V: Straight intake connection with rectangular flange.
RPA_V: Suction plenum with rectangular flange; both sides have a circular push-out Ø 150mm that can be removed.
PA_V: Suction plenum with circular plastic flanges; both sides have a circular push-out Ø 150mm that can be removed.
PM_V: Internally insulated delivery plenum with circular flanges; both sides have a circular push-out Ø 150mm that can be removed.
RPM_V: Internally insulated delivery plenum with rectangular flange; both sides have a circular push-out Ø 150mm that can be removed.
KFV: Circular flanges kit for plenum.
MZCACV: Electrical system with relay interface board. Mandatory accessory on units where motor absorption exceeds 0.7 A. The relay interface board is supplied with a 2A fuse to protect the fan coil. If the fan coil absorbs more than 2A and up to 4A, the fuse inside must be replaced with a 4A fuse supplied.
MZCAC: Mandatory electrical system for connecting the MZC plenum with a fan coil fitted with an asynchronous motor.

Configurator

Field	Description
1,2,3	**VED**
4	**Size** 4, 5, 6, 7
5	**Main coil**
3	3-row coil
4	4-row coil
6	**Secondary coil**
0	Without coil
1	1-row coil for heating only
2	2-row coil for heating only

ACCESSORIES COMPATIBILITY

Control panels and dedicated accessories

Model	Ver	430	432	440	441	530	532	540	541	630	632	640	641	730	732	740	741
AER503IR (1)	.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PRO503	.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SA5 (2)	.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SIT3 (3)	.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SIT5 (4)	.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SW3 (2)	.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SW5 (2)	.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
TX (1)	.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
WMT05 (1)	.	•		•		•		•		•		•		•		•	
WMT06 (1)	.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
WMT10 (1)	.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

(1) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.
(2) Probe for AER503IR-TX thermostats, if fitted.
(3) Cards for AER503IR-TX thermostats, if present, to be installed if the unit absorption exceeds 0,7 Ampere.
(4) Probe for AER503IR-TX thermostats, if fitted.

VMF system

Model	Ver	430	432	440	441	530	532	540	541	630	632	640	641	730	732	740	741
VMF-E0X (1)	.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E19 (1)	.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E3	.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E4DX	.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-E4X	.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-IO	.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-IR	.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-MOD	.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-SIT3V (2)	.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-SW	.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
VMF-SW1	.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

(1) Also the accessory VMF-SIT3V is mandatory if the unit exceeds 0.7 Amperes.
(2) For the selection, consult the documentation for the thermostat and the fan coil.

Water valves

3 way valve kit

	VED430	VED440	VED530	VED540	VED630	VED640	VED730	VED740
3 way valve kit								
Main coil	VCF45C	VCF45C	VCF45C	VCF45C	VCF47CS	VCF47CS	VCF47CS	VCF47CS

	VED432	VED441	VED532	VED541	VED632	VED641	VED732	VED741
3 way valve kit								
Main coil	VCF45C	VCF45C	VCF45C	VCF45C	VCF47CS	VCF47CS	VCF47CS	VCF47CS
Secondary coil x 4-pipe	VCF45H	VCF45H	VCF45H	VCF45H	VCF47H	VCF47H	VCF47H	VCF47H

230V power supply - Hydraulic connection Ø 3/4"

2 way valve kit

	VED430	VED440	VED530	VED540	VED630	VED640	VED730	VED740
2 way valve kit								
Main coil	VCF25C	VCF25C	VCF25C	VCF25C	VCF25CS	VCF25CS	VCF25CS	VCF25CS

	VED432	VED441	VED532	VED541	VED632	VED641	VED732	VED741
2 way valve kit								
Main coil	VCF25C	VCF25C	VCF25C	VCF25C	VCF25CS	VCF25CS	VCF25CS	VCF25CS
Secondary coil x 4-pipe	VCF25H	VCF25H	VCF25H	VCF25H	VCF25H	VCF25H	VCF25H	VCF25H

230V power supply - Hydraulic connection Ø 3/4"

2-way globe valves actuator excluded

Ver	430	432	440	441	530	532	540	541	630	632	640	641	730	732	740	741
.	VCT102	VCT102	VCT102	VCT102	VCT102	VCT102	VCT102	VCT102	VCT202	VCT202	VCT202	VCT202	VCT202	VCT202	VCT202	VCT202

3-way globe valves actuator excluded

Ver	430	432	440	441	530	532	540	541	630	632	640	641	730	732	740	741
.	VCT103	VCT103	VCT103	VCT103	VCT103	VCT103	VCT103	VCT103	VCT203	VCT203	VCT203	VCT203	VCT203	VCT203	VCT403	VCT403

Actuator 230V

Ver	430	432	440	441	530	532	540	541	630	632	640	641	730	732	740	741
.	VCTK	VCTK	VCTK	VCTK	VCTK	VCTK	VCTK	VCTK	VCTK	VCTK	VCTK	VCTK	VCTK	VCTK	VCTK	VCTK

Actuator 24V

Ver	430	432	440	441	530	532	540	541	630	632	640	641	730	732	740	741
.	VCTKM	VCTKM	VCTKM	VCTKM	VCTKM	VCTKM	VCTKM	VCTKM	VCTKM	VCTKM	VCTKM	VCTKM	VCTKM	VCTKM	VCTKM	VCTKM

Combined adjustment and balancing valve cold side

Model	Ver	430	432	440	441	530	532	540	541	630	632	640	641	730	732	740	741
VJP150 (1)	.	•	•	•	•	•	•	•	•								
VJP150M (2)	.	•	•	•	•	•	•	•	•								
VJP270M (2)	.									•	•	•	•	•	•	•	•

(1) 230V~50Hz
(2) 24V

VJP/VJP_M the compatibility of the hot water valves with the designed air flow in a four-pipe installation is to be verified.

Accessories for intake

Intake straight with rectangular flanges

Ver	430	432	440	441	530	532	540	541	630	632	640	641	730	732	740	741
.	RDA450V	RDA450V	RDA450V	RDA450V	RDA450V	RDA450V	RDA450V	RDA450V	RDA670V	RDA670V	RDA670V	RDA670V	RDA670V	RDA670V	RDA670V	RDA670V

Intake plenum with rectangular flanges

Ver	430	432	440	441	530	532	540	541	630	632	640	641	730	732	740	741
.	RPA450V	RPA450V	RPA450V	RPA450V	RPA450V	RPA450V	RPA450V	RPA450V	RPA670V	RPA670V	RPA670V	RPA670V	RPA670V	RPA670V	RPA670V	RPA670V

Intake plenum with circular flanges

Ver	430	432	440	441	530	532	540	541	630	632	640	641	730	732	740	741
.	PA450V	PA450V	PA450V	PA450V	PA450V	PA450V	PA450V	PA450V	PA670V	PA670V	PA670V	PA670V	PA670V	PA670V	PA670V	PA670V

Delivery accessories

Delivery plenum internally insulated, with rectangular flanges

Ver	430	432	440	441	530	532	540	541	630	632	640	641	730	732	740	741
.	RPM450V	RPM450V	RPM450V	RPM450V	RPM450V	RPM450V	RPM450V	RPM450V	RPM670V	RPM670V	RPM670V	RPM670V	RPM670V	RPM670V	RPM670V	RPM670V

Delivery plenum internally insulated, with circular flanges

Ver	430	432	440	441	530	532	540	541	630	632	640	641	730	732	740	741
.	PM450V	PM450V	PM450V	PM450V	PM450V	PM450V	PM450V	PM450V	PM670V	PM670V	PM670V	PM670V	PM670V	PM670V	PM670V	PM670V

Circular flanges kit for plenum

Ver	430	432	440	441	530	532	540	541	630	632	640	641	730	732	740	741
.	KFV	KFV	KFV	KFV	KFV	KFV	KFV	KFV	KFV	KFV	KFV	KFV	KFV	KFV	KFV	KFV

Condensate drip

Ver	430	432	440	441	530	532	540	541	630	632	640	641	730	732	740	741
.	BCV45	BCV45	BCV45	BCV45	BCV45	BCV45	BCV45	BCV45	BCV67	BCV67	BCV67	BCV67	BCV67	BCV67	BCV67	BCV67

MZC

Plenum with motor-driven dampers

Ver	430	432	440	441	530	532	540	541	630	632	640	641	730	732	740	741
.	MZC5040	MZC5040	MZC5040	MZC5040	MZC5040	MZC5040	MZC5040	MZC5040	MZC7050	MZC7050	MZC7050	MZC7050	MZC7050	MZC7050	MZC7050	MZC7050

Electric plant

Ver	430	432	440	441	530	532	540	541	630	632	640	641	730	732	740	741
.	MZCAC	MZCAC	MZCAC	MZCAC	MZCAC	MZCAC	MZCAC	MZCAC	MZCAC	MZCAC	-	-	-	-	-	-

The accessory cannot be fitted on the configurations indicated with -

Electrical system with relays

Ver	430	432	440	441	530	532	540	541	630	632	640	641	730	732	740	741
.	-	-	-	-	-	-	-	-	-	-	MZCACV (1)	MZCACV (1)	MZCACV (1)	MZCACV (1)	MZCACV (1)	MZCACV (1)

(1) It is mandatory to use MZCACV if the intake of the unit combined with the MZC accessory exceeds 0.7 Ampere.
The accessory cannot be fitted on the configurations indicated with -

■ *For more information, please refer to the MZC plenum sheet.*

PERFORMANCE SPECIFICATIONS

2-pipe

		VED430			VED440			VED530			VED540			VED630			VED640			VED730			VED740		
		1	3	5	1	3	5	2	4	5	2	4	5	1	3	5	1	3	5	1	3	5	1	3	5
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)																									
Heating capacity	kW	10,47	13,85	15,97	11,45	15,36	18,11	13,80	16,47	17,57	15,38	18,59	19,91	18,63	22,67	27,02	22,45	27,74	32,69	21,18	25,36	29,00	22,88	27,65	31,71
Water flow rate system side	l/h	918	1214	1401	1004	1347	1588	1210	1444	1541	1349	1630	1746	1634	1988	2369	1969	2433	2867	1857	2224	2543	2007	2425	2781
Pressure drop system side	kPa	9	14	19	11	18	24	13	158	21	18	25	29	30	43	58	19	29	38	38	55	67	26	36	46
Heating performance 45 °C / 40 °C (2)																									
Heating capacity	kW	5,20	5,88	7,94	5,69	7,64	9,01	6,86	8,19	8,74	7,45	9,24	9,90	9,26	11,20	13,40	9,88	12,40	14,80	10,50	12,60	14,20	11,30	13,70	15,70
Water flow rate system side	l/h	894	1183	1366	979	1314	1550	1180	1409	1503	1281	1589	1703	1593	1926	2305	1699	2133	2546	1806	2167	2442	1944	2356	2700
Pressure drop system side	kPa	9	14	19	11	18	24	14	19	21	21	25	30	30	42	58	16	24	32	38	52	66	26	36	35
Cooling performance 7 °C / 12 °C (3)																									
Cooling capacity	kW	4,54	5,98	6,72	5,21	6,88	7,79	5,99	7,16	7,49	7,26	8,31	8,70	8,67	10,43	12,19	10,20	12,50	14,80	10,17	11,92	13,48	11,73	13,95	15,71
Sensible cooling capacity	kW	3,40	4,54	5,13	3,65	4,86	5,51	4,55	5,48	5,75	4,87	5,90	6,18	7,00	8,48	9,96	7,02	8,62	10,30	8,25	9,71	11,07	8,11	9,69	10,95
Water flow rate system side	l/h	781	1029	1156	896	1183	1340	1030	1232	1288	1249	1429	1496	1491	1794	2097	1754	2150	2546	1749	2050	2319	2018	2399	2702
Pressure drop system side	kPa	8	13	17	10	17	22	12	19	21	19	25	28	26	36	48	24	34	47	35	46	58	27	37	45
Fan																									
Type	type	Centrifugal																							
Fan motor	type	Asynchronous																							
Number	no.	2			2			2			2			3			3			3			3		
Air flow rate	m^3/h	790	1130	1350	780	1100	1340	1120	1400	1520	1100	1380	1500	1380	1800	2210	1567	2004	2440	1640	2040	2410	1600	2000	2350
High static pressure	Pa	24	50	72	-	50	63	32	50	70	32	50	56	30	50	75	30	50	75	32	50	69	32	50	64
Input power	W	137	175	228	135	178	222	175	232	270	172	230	267	220	271	340	220	293	340	234	285	371	234	285	371
Electrical wiring		V1	V3	V5	V1	V3	V5	V2	V4	V5	V2	V4	V5	V1	V3	V5	V1	V3	V5	V1	V3	V5	V1	V3	V5
Duct type fan coil sound data (4)																									
Sound power level (inlet + radiated)	dB(A)	51,0	57,0	61,0	51,0	57,0	61,0	53,0	59,0	62,0	53,0	59,0	62,0	61,0	64,0	68,0	61,0	64,0	68,0	62,0	66,0	68,0	62,0	66,0	68,0
Sound power level (outlet)	dB(A)	47,0	53,0	57,0	47,0	53,0	57,0	49,0	55,0	58,0	49,0	55,0	58,0	57,0	60,0	64,0	57,0	60,0	64,0	58,0	62,0	64,0	58,0	62,0	64,0
Diametre hydraulic fittings																									
Type	type	-																							
Main coil	Ø	3/4"																							
Water coil																									
Water content main coil	l	2,9			3,9			2,9			3,9			4,7			6,3			4,7			6,3		
Power supply																									
Power supply		230V~50Hz																							

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C
(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C; EUROVENT
(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT
(4) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

4-pipe

		VED441			VED541			VED641			VED741		
		1	3	5	2	4	5	1	3	5	1	3	5
		L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 65 °C / 55 °C (1)													
Heating capacity	kW	5,53	6,68	7,30	6,70	7,62	7,89	9,65	11,00	12,30	10,50	11,80	12,90
Water flow rate system side	l/h	475	574	627	576	655	678	829	946	1057	903	1014	1109
Pressure drop system side	kPa	14	20	23	20	25	26	15	19	24	18	22	25
Cooling performance 7 °C / 12 °C (2)													
Cooling capacity	kW	5,35	7,05	8,00	7,46	8,56	8,94	10,40	12,70	15,20	11,90	14,20	16,10
Sensible cooling capacity	kW	3,79	5,03	5,74	5,07	6,14	6,42	7,26	8,92	10,70	8,37	9,96	11,30
Water flow rate system side	l/h	920	1212	1376	1283	1472	1537	1788	2184	2614	2046	2442	2769
Pressure drop system side	kPa	12	19	24	21	27	29	24	35	48	27	37	46
Fan													
Type	type	Centrifugal											
Fan motor	type	Asynchronous											
Number	no.	2			2			3			3		
Air flow rate	m^3/h	750	1060	1253	1060	1360	1453	1340	1730	2120	1600	2000	2358
High static pressure	Pa	25	50	70	32	50	57	30	50	75	32	50	69
Input power	W	121	175	215	170	229	265	224	264	341	224	288	373
Electrical wiring		V1	V3	V5	V2	V4	V5	V1	V3	V5	V1	V3	V5
Duct type fan coil sound data (3)													
Sound power level (inlet + radiated)	dB(A)	51,0	57,0	61,0	53,0	59,0	62,0	61,0	64,0	68,0	62,0	66,0	68,0
Sound power level (outlet)	dB(A)	47,0	53,0	57,0	49,0	55,0	58,0	57,0	60,0	64,0	58,0	62,0	64,0
Diametre hydraulic fittings													
Type	type	-											
Main coil	Ø	3/4"											
Secondary coil	Ø	1/2"											
Water coil													
Water content main coil	l	3,9			3,9			6,3			6,3		
Water content the secondary coil	l	1,0			1,0			1,6			1,6		
Power supply													

	VED441	VED541	VED641	VED741
Power supply	230V~50Hz			

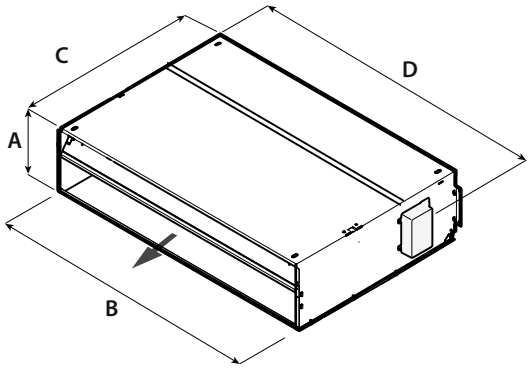
(1) Room air temperature 20°C d.b.; Water (in/out) 65 °C/55 °C; EUROVENT
(2) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT
(3) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

VED	From VED 430 to 741				
Fan speed	V1	V2	V3	V4	V5
Motor connection	L5	L4	L3	L2	L1

The speed of associates may differ from the standard factory configuration.

For more information refer to the selection program and to to the dedicated documentation.

DIMENSIONS



		VED430	VED440	VED530	VED540	VED630	VED640	VED730	VED740
Dimensions and weights									
A	mm	300	300	300	300	351	351	351	351
B	mm	1133	1133	1133	1133	1533	1533	1533	1533
C	mm	737	737	737	737	789	789	789	789
D	mm	1158	1158	1158	1158	1558	1558	1558	1558
Net weight	kg	41,00	43,00	42,00	47,00	57,00	60,00	58,00	61,00

		VED432	VED441	VED532	VED541	VED632	VED641	VED732	VED741
Dimensions and weights									
A	mm	300	300	300	300	351	351	351	351
B	mm	1133	1133	1133	1133	1533	1533	1533	1533
C	mm	737	737	737	737	789	789	789	789
D	mm	1158	1158	1158	1158	1558	1558	1558	1558
Net weight	kg	46,00	46,00	47,00	47,00	60,00	60,00	61,00	64,00

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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VED 530I-741I

Fan coil unit for ducted installations

- **Horizontal and vertical installation**
- **Ventilation group to 5 speed**
- **Large range of available static pressure**
- **Inspectable ventilation group**



DESCRIPTION

Ducted fan coil, for heating, cooling and dehumidifying.
Designed to maintain the set temperature over time, ensuring very low sound levels.
Can be installed in any 2/4 pipe system and operates with any heat generator even at low temperatures.
Thanks to the availability of various options, with standard or increased coil, for horizontal or vertical installation, it is easy to choose the optimal solution for any need.

FEATURES

Case

Unit for internal installation.
Internally insulated structure with class 1 fire resistance and IP20 protection.

Ventilation group

Centrifugal fans in anti-static plastic material with aerofoil profile designed to achieve high airflows and pressures whilst at the same time producing low noise.
Brushless motor with continuous speed variation 0-100%.
Inverter motor allows precise adaptation to the real indoor environment requirements without temperature oscillations.
The air flow can be continuously changed through a 1-10 V signal, coming from adjustment and control commands Aermec or from independent adjustment systems.
This lowers noise and generates a better response to heat loads and a higher stability in the desired temperature inside the room.
The high efficiency even with low speed, makes it possible to reduce power consumption (more than 50% less than fan coils with traditional motors).

Heat exchanger coil

With copper pipes and aluminium louvers, the main coil has female gas hydraulic connections and is fitted with air vents.
The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

■ *The hydraulic connections can be inverted during installation.*

Air filter

Air filter Class G3, for easy removal and cleaning.

Controls and Accessoires

There is a wide selection of controls and a huge choice of accessories, to meet every system requirement.
The unit is supplied with the delivery connection supplied.

ACCESSORIES



Control panels

AER503IR: Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.
PRO503: Wall box for AER503IR and VMF-E4 thermostats.
SA5: air probe kit (L = 15 m) with probe-locking cable grommet.
SW5: water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.
TX: Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).
WMT21: Electronic thermostat for inverter fancoils.

VMF system

VMF-E19I: Thermostat for inverter unit to be fixed on the side of the fan coil, fitted as standard with an air and water probe.
VMF-E3: Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, VMF-E0X with grids GLF_N/M and GLL_N, can be controlled with VMF-IR control.
VMF-E4DX: Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).
VMF-E4X: Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.
VMF-IO: Manage the unit exclusively from a centralized VMF control panel without area control panel.
VMF-IR: User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.
VMF-SW: Water probe (L = 2.5m) used if required in place of the standard unit supplied with the VMF-E0X, VMF-E19 and VMF-E19I thermostats for mounting it upstream of the valve
VMF-SW1: Additional water probe (L = 2.5m) to be used if required for 4-pipe systems with the VMF-E19 and VMF-E19I thermostats for maximum control in the cold range

Configurator

Field	Description
1,2,3	**VED**
4	**Size** 5, 7
5	**Main coil**
3	3-row coil
4	4-row coil
6	**Secondary coil**
0	Without coil
1	1-row coil for heating only
2	2-row coil for heating only

Water valves

VJP: Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components. The valve, which can guarantee a constant water flow rate in the terminal, within its operating range.
VCF45C - 47C - 47CS - for main coil: Motorized 3-way valve kit for main coil. The kit consists of a 4-way 4-way valve with its insulating shell, the actuator and the relative hydraulic fittings, it is suitable for installation on both fan coil units with hydraulic connections on the right and left. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.
VCF45H - 47H - for heating only coil: Motorized 3-way valve kit for hot only coil. The kit consists of a 3-way 4-way valve, the actuator and its hydraulic fittings, it is suitable for installation on both fan coil units with hydraulic connections on the right and left.
VCF25C - 25CS - for main coil: 2-way motorized valve kit for main coil. The kit consists of a valve with its insulating shell, the actuator and the relative hydraulic fittings, it is suitable for installation on both fan coil units with hydraulic connections on the right and left.
VCF25H - for heating only coil: 2-way motorized valve kit for hot only coil. The kit consists of a valve, actuator and relative hydraulic fittings, it is suitable for installation on both fan coils with hydraulic connections on the right and left.
BCV: Condensate drip.

Installation accessories

MZC: Plenum with motorised dampers.
RDA_V: Straight intake connection with rectangular flange.
RPA_V: Suction plenum with rectangular flange; both sides have a circular push-out Ø 150mm that can be removed.
PA_V: Suction plenum with circular plastic flanges; both sides have a circular push-out Ø 150mm that can be removed.
PM_V: Internally insulated delivery plenum with circular flanges; both sides have a circular push-out Ø 150mm that can be removed.
RPM_V: Internally insulated delivery plenum with rectangular flange; both sides have a circular push-out Ø 150mm that can be removed.
KFV: Circular flanges kit for plenum.
MZCBC: Mandatory electrical system for connecting the MZC plenum with a fan coil fitted with a brushless motor.

Field	Description
7	**Fans**

ACCESSORIES COMPATIBILITY

Control panels and dedicated accessories

Accessory	VED530I	VED540I	VED730I	VED740I
AER503IR	•	•	•	•
PRO503	•	•	•	•
SA5	•	•	•	•
SW5	•	•	•	•
TX	•	•	•	•
WMT21	•	•	•	•

Accessory	VED532I	VED541I	VED732I	VED741I
AER503IR	•	•	•	•
PRO503	•	•	•	•
SA5	•	•	•	•
SW5	•	•	•	•
TX	•	•	•	•

VMF system

Accessory	VED530I	VED540I	VED730I	VED740I
VMF-E19I	•	•	•	•
VMF-E3	•	•	•	•
VMF-E4DX	•	•	•	•
VMF-E4X	•	•	•	•
VMF-IO	•	•	•	•
VMF-IR	•	•	•	•
VMF-SW	•	•	•	•
VMF-SW1	•	•	•	•

Accessory	VED532I	VED541I	VED732I	VED741I
VMF-E19I	•	•	•	•
VMF-E3	•	•	•	•
VMF-E4DX	•	•	•	•
VMF-E4X	•	•	•	•
VMF-IO	•	•	•	•
VMF-IR	•	•	•	•
VMF-LON	•	•	•	•
VMF-SW	•	•	•	•
VMF-SW1	•	•	•	•

Water valves

3 way valve kit

	VED530I	VED540I	VED730I	VED740I
3 way valve kit				
Main coil	VCF45C	VCF45C	VCF47CS	VCF47CS
Secondary coil x 4-pipe	-	-	-	-

	VED532I	VED541I	VED732I	VED741I
3 way valve kit				
Main coil	VCF45C	VCF45C	VCF47CS	VCF47CS
Secondary coil x 4-pipe	VCF45H	VCF45H	VCF47H	VCF47H

230V power supply - Hydraulic connection Ø 3/4"

2 way valve kit

	VED530I	VED540I	VED730I	VED740I
2 way valve kit				
Main coil	VCF25C	VCF25C	VCF25CS	VCF25CS
Secondary coil x 4-pipe	-	-	-	-

	VED532I	VED541I	VED732I	VED741I
2 way valve kit				
Main coil	VCF25C	VCF25C	VCF25CS	VCF25CS
Secondary coil x 4-pipe	VCF25H	VCF25H	VCF25H	VCF25H

230V power supply - Hydraulic connection Ø 3/4"

2-way globe valves actuator excluded

Accessory	VED530I	VED540I	VED730I	VED740I
VCT102	•	•		
VCT202			•	•

Accessory	VED532I	VED541I	VED732I	VED741I
VCT102	•	•		
VCT202			•	•

Actuator 230V

Accessory	VED540I	VED730I	VED740I
VCTK	•	•	•

Accessory	VED532I	VED541I	VED732I	VED741I
VCTK	•	•	•	•

Actuator 24V

Accessory	VED540I	VED730I	VED740I
VCTKM	•	•	•

Accessory	VED532I	VED541I	VED732I	VED741I
VCTKM	•	•	•	•

Combined adjustment and balancing valve cold side

Accessory	VED530I	VED540I	VED730I	VED740I
VJP150	•	•		
VJP150M	•	•		
VJP270M			•	•

Accessory	VED532I	VED541I	VED732I	VED741I
VJP150	•	•		
VJP150M	•	•		
VJP270M			•	•

VJP/VJP_M the compatibility of the hot water valves with the designed air flow in a four-pipe installation is to be verified.

Condensate drip

Accessory	VED530I	VED540I	VED730I	VED740I
BCV45	•	•		
BCV67			•	•

Accessory	VED532I	VED541I	VED732I	VED741I
BCV45	•	•		
BCV67			•	•

Accessories for intake

Intake straight with rectangular flanges

Accessory	VED530I	VED540I	VED730I	VED740I
RDA450V	•	•		
RDA670V			•	•

Accessory	VED532I	VED541I	VED732I	VED741I
RDA450V	•	•		
RDA670V			•	•

Intake plenum with rectangular flanges

Accessory	VED530I	VED540I	VED730I	VED740I
RPA450V	•	•		
RPA670V			•	•

Accessory	VED532I	VED541I	VED732I	VED741I
RPA450V	•	•		
RPA670V			•	•

Intake plenum with circular flanges

Accessory	VED530I	VED540I	VED730I	VED740I
PA450V	•	•		
PA670V			•	•

Accessory	VED532I	VED541I	VED732I	VED741I
PA450V	•	•		
PA670V			•	•

Delivery accessories

Delivery plenum internally insulated, with rectangular flanges

Accessory	VED530I	VED540I	VED730I	VED740I
RPM450V	•	•		
RPM670V			•	•

Accessory	VED532I	VED541I	VED732I	VED741I
RPM450V	•	•		
RPM670V			•	•

Delivery plenum internally insulated, with circular flanges

Accessory	VED530I	VED540I	VED730I	VED740I
PM450V	•	•		
PM670V			•	•

Accessory	VED532I	VED541I	VED732I	VED741I
PM450V	•	•		
PM670V			•	•

Circular flanges kit for plenum

Accessory	VED530I	VED540I	VED730I	VED740I
KFV	•	•	•	•

Accessory	VED532I	VED541I	VED732I	VED741I
KFV	•	•	•	•

MZC

Plenum with motor-driven dampers

Accessory	VED530I	VED540I	VED730I	VED740I
MZC5040	•	•		
MZC7050			•	•

Accessory	VED532I	VED541I	VED732I	VED741I
MZC5040	•	•		
MZC7050			•	•

Electric plant

Accessory	VED540I	VED730I	VED740I
MZCBC	•	•	•

Accessory	VED532I	VED541I	VED732I	VED741I
MZCBC	•	•	•	•

PERFORMANCE SPECIFICATIONS

2-pipe

		VED530I			VED540I			VED730I			VED740I		
		1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)													
Heating capacity	kW	13,80	16,47	17,57	15,38	18,59	19,91	21,18	25,36	29,00	22,88	27,65	31,71
Water flow rate system side	l/h	1210	1444	1541	1349	1630	1746	1857	2224	2543	2007	2425	2781
Pressure drop system side	kPa	13	18	21	18	25	29	38	55	67	26	36	46
Heating performance 45 °C / 40 °C (2)													
Heating capacity	kW	6,86	8,19	8,74	7,65	9,24	9,90	10,53	12,61	14,22	11,34	27,65	15,81
Water flow rate system side	l/h	1180	1409	1503	1316	1589	1703	1811	2169	2446	1950	2425	2719
Pressure drop system side	kPa	14	19	21	21	25	30	38	52	66	26	36	46
Cooling performance 7 °C / 12 °C (3)													
Cooling capacity	kW	6,05	7,25	7,39	7,31	8,40	8,70	10,25	11,96	13,48	11,81	13,99	15,71
Sensible cooling capacity	kW	4,61	5,57	6,02	4,93	5,99	6,18	8,33	9,75	11,07	8,19	9,73	10,95
Water flow rate system side	l/h	1041	1247	1271	1257	1445	1496	1763	2057	2319	2031	2406	2702
Pressure drop system side	kPa	12	19	21	19	25	28	35	46	58	27	37	45
Fan													
Type	type	Centrifugal											
Fan motor	type	Inverter											
Number	no.		2			2			3			3	
Air flow rate	m^3/h	1120	1400	1520	1100	1380	1500	1640	2040	2410	1600	2000	2358
High static pressure	Pa	32	50	58	32	50	56	32	50	69	32	50	69
Input power	W	115	160	205	115	160	205	147	241	370	147	241	370
Signal 0-10V	%	66	76	62	62	76	90	62	76	90	62	76	90
Duct type fan coil sound data (4)													
Sound power level (inlet + radiated)	dB(A)	53,0	59,0	62,0	53,0	59,0	62,0	62,0	66,0	68,0	62,0	66,0	68,0
Sound power level (outlet)	dB(A)	49,0	55,0	58,0	49,0	55,0	58,0	58,0	62,0	64,0	58,0	62,0	64,0
Diametre hydraulic fittings													
Main coil	Ø	3/4"											
Power supply													
Power supply		230V~50Hz											

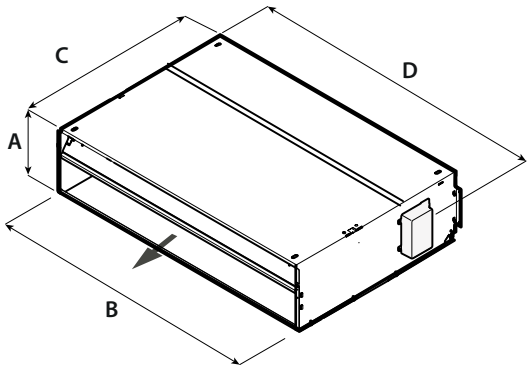
(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C
(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C; EUROVENT
(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT
(4) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

4-pipe

		VED541I			VED741I		
		1	2	3	1	2	3
		L	M	H	L	M	H
Heating performance 65 °C / 55 °C (1)							
Heating capacity	kW	6,70	7,62	7,90	10,57	11,88	12,96
Water flow rate system side	l/h	584	666	692	925	1040	1133
Pressure drop system side	kPa	19	24	26	17	21	25
Cooling performance 7 °C / 12 °C (2)							
Cooling capacity	kW	7,43	8,54	8,97	11,96	14,23	16,08
Sensible cooling capacity	kW	5,04	6,13	6,45	8,34	9,97	11,32
Water flow rate system side	l/h	1278	1469	1543	2057	2448	2766
Pressure drop system side	kPa	21	27	29	27	37	46
Fan							
Type	type	Centrifugal					
Fan motor	type	Inverter					
Number	no.		2			3	
Air flow rate	m^3/h	1060	1360	1460	1600	2000	2350
High static pressure	Pa	32	50	56	32	50	69
Input power	W	106	163	185	138	240	363
Signal 0-10V	%	66	84	90	64	78	90
Duct type fan coil sound data (3)							
Sound power level (inlet + radiated)	dB(A)	53,0	59,0	62,0	62,0	66,0	68,0
Sound power level (outlet)	dB(A)	49,0	55,0	58,0	58,0	62,0	64,0
Diametre hydraulic fittings							
Main coil	Ø	3/4"					
Secondary coil	Ø	1/2"					
Power supply							
Power supply		230V~50Hz					

(1) Room air temperature 20°C d.b.; Water (in/out) 65 °C/55 °C; EUROVENT
(2) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT
(3) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

DIMENSIONS



		VED530I	VED540I	VED730I	VED740I
Dimensions and weights					
A	mm	300	300	351	351
B	mm	1133	1133	1533	1533
C	mm	737	737	789	789
D	mm	1158	1158	1558	1558
Net weight	kg	42,00	47,00	58,00	61,00

		VED532I	VED541I	VED732I	VED741I
Dimensions and weights					
A	mm	300	300	351	351
B	mm	1133	1133	1533	1533
C	mm	737	737	789	789
D	mm	1158	1158	1558	1558
Net weight	kg	47,00	47,00	58,00	61,00

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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VES 030-340

Fan coil unit for ducted installations

- **Horizontal and vertical installation**
- **Large range of available static pressure**
- **Heat eschanger developed to optimize the performance sensitive**



DESCRIPTION

Ducted fan coil, for heating, cooling and dehumidifying.
Designed to maintain the set temperature over time, ensuring very low sound levels.
Can be installed in any 2/4 pipe system and operates with any heat generator even at low temperatures.
Thanks to the availability of various options, with standard or increased coil, for horizontal or vertical installation, it is easy to choose the optimal solution for any need.

FEATURES

Case

Unit for internal installation.
Internally insulated structure with class 1 fire resistance and IP20 protection.

Ventilation group

Centrifugal fans in anti-static plastic material with aerofoil profile designed to achieve high airflows and pressures whilst at the same time producing low noise.
Their characteristics permit energy savings compared to conventional fans.
They are statically and dynamically balanced and directly coupled to the motor shaft.
The electric motor is single-phase multi-speed (3 selectable), mounted on anti-vibration supports and with a permanently inserted capacitor.
Fan housing in plastic material removable for easy and effective cleaning.

Heat exchanger coil

With copper pipes and aluminium louvers, the main coil has female gas hydraulic connections and is fitted with air vents.

- *The heat eschanger, reversible during installation, is designed to ensure high heat transfer, ideal for applications in a sensitive environment.*
- *The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.*

Air filter

Air filter Class COARSE 25%, for easy removal and cleaning.

Controls and Accessoires

There is a wide selection of controls and a huge choice of accessories, to meet every system requirement.
The unit is supplied with the delivery connection supplied.

ACCESSORIES



Control panels

AER503IR: Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.
PRO503: Wall box for AER503IR and VMF-E4 thermostats.
SA5: air probe kit (L = 15 m) with probe-locking cable grommet.
SIT3: Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat). Commands the 3 fan speeds and must be installed on each fan coil within the network; receives the commands from the selector or the SIT5 card. In case you decide to install Aermec thermostats and current absorbed by the unit exceeds 0.7 A, you're obliged to include SIT3 accessory.
SIT5: Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel. Commands the 3 fan speeds and up to 2 valves (four pipe systems); sends the thermostat's commands to the fan coil network.
SW3: Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.
SW5: water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.
TX: Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).
WMT05: Electronic thermostat with thermostated ventilation.
WMT06: Electronic thermostat with continuous ventilation.
WMT10: Electronic thermostat, white, with thermostated or continuous ventilation.

VMF Components

VMF-E0X: Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe.
VMF-E19: Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe.
VMF-E3: Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, VMF-E0X with grids GLF_N/M and GLL_N, can be controlled with VMF-IR control.
VMF-E4DX: Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).
VMF-E4X: Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.
VMF-IO: Manage the unit exclusively from a centralized VMF control panel without area control panel.
VMF-IR: User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.
VMF-SIT3V: Relay interface board. Mandatory accessory on units where motor absorption exceeds 0.7 A. The relay interface board is supplied with a 2A fuse to protect the fan coil. If the fan coil absorbs more than 2A and up to 4A, the fuse inside must be replaced with a 4A fuse supplied.
VMF-SW: Water probe (L = 2.5m) used if required in place of the standard unit supplied with the VMF-E0X, VMF-E19 and VMF-E19I thermostats for mounting it upstream of the valve
VMF-SW1: Additional water probe (L = 2.5m) to be used if required for 4-pipe systems with the VMF-E19 and VMF-E19I thermostats for maximum control in the cold range

Valves and additional water coil

BV: Single row hot water heat exchanger.
VCF_X: Kit of 3-way valves for fan coils with a single coil and the water connections on the left, for installation in 4-pipe systems. This kit consists of two 3-way insulated valves and four connections, complete with electrothermal actuators, insulating shells for the valves, and the relative hydraulic couplings. 230V power supply. Water connections: Valve body Ø G 3/4" male; Valve side connection tubes Ø G 3/4" female; Unit side connection tubes Ø G 3/4" male.
VCF41 - 42 - 43 - for main coil: 3-way motorised valve kit for the main coil. The kit is made up of a valve with its insulating shell, actuator and relative hydraulic fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.
VCF44 - 45 - for the secondary coil: The 3-way motorised valve kit for the secondary coil heat only. The kit consists of a valve with its insulating shell, actuator and relevant water fittings; it is suitable to be installed on the fan coils with right and left water connections.
VCFD: Motorized 2-way valve kit without insulating shell, can be installed on the main or secondary battery or a battery that is only warm. The kit is made up of a valve, actuator and relative hydraulic fittings. It can be installed on fan coils with connections on the right and on the left.
VJP: Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components. The valve, which can guarantee a constant water flow rate in the terminal, within its operating range.

Installation accessories

AMP: Wall mounting kit
BCZ: Condensate drip. If the valve is paired with the BCZ5 or BCZ6 condensate drip tray, the insulating shell can be removed to ensure better housing.
DSC: Condensate drainage device.

Accessories for intake

GA: Intake grid with fixed louvers
GAF: Intake grid with filter and fixed louvers
SE_X: External air shutter with manual control.
RDA_V: Straight intake connection with rectangular flange.
RDA_C: Straight intake connection with circular flanges.
RPA_V: Suction plenum with rectangular flange; both sides have a circular push-out Ø 150mm that can be removed.
PA_V: Suction plenum with circular plastic flanges; both sides have a circular push-out Ø 150mm that can be removed.

Delivery accessories

GM: Flow grid with adjustable louvers.
MZC: Plenum with motorised dampers.
PM_V: Internally insulated delivery plenum with circular flanges; both sides have a circular push-out Ø 150mm that can be removed.
RPM_V: Internally insulated delivery plenum with rectangular flange; both sides have a circular push-out Ø 150mm that can be removed.
RDM_C: Straight discharge internally insulated, with circular flanges.
KFV: Circular flanges kit for plenum.

ACCESSORIES COMPATIBILITY

Control panels and dedicated accessories

Model	Ver	030	040	130	140	230	240	330	340
AER503IR (1)	.	•	•	•	•	•	•	•	•
FMT10	.	•	•	•	•	•	•	•	•
PX2	.	•	•	•	•	•	•	•	•
SA5 (2)	.	•	•	•	•	•	•	•	•
SIT3 (3)	.	•	•	•	•	•	•	•	•
SIT5 (4)	.	•	•	•	•	•	•	•	•
SW5 (2)	.	•	•	•	•	•	•	•	•
SWA	.	•	•	•	•	•	•	•	•
TX (1)	.	•	•	•	•	•	•	•	•
WMT05 (1)	.	•	•	•	•	•	•	•	•
WMT06 (1)	.	•	•	•	•	•	•	•	•
WMT10 (1)	.	•	•	•	•	•	•	•	•

(1) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.
(2) Probe for AER503IR-TX thermostats, if fitted.
(3) Cards for AER503IR-TX thermostats, if present, to be installed if the unit absorption exceeds 0,7 Ampere.
(4) Probe for AER503IR-TX thermostats, if fitted.

VMF system

Accessory	VES030	VES040	VES130	VES140	VES230	VES240	VES330	VES340
VMF-E0X	•	•	•	•	•		•	•
VMF-E19	•	•	•	•	•		•	•
VMF-E4DX	•	•	•	•	•	•	•	•
VMF-E4X	•	•	•	•	•	•	•	•
VMF-SW	•	•	•	•	•	•	•	•
VMF-SW1	•	•	•	•	•	•	•	•

(Heating only) additional coil

Accessory	VES030	VES130	VES230	VES330
BV030	•			
BV130		•		
BV162				•
BV230			•	

Water valves

Valve Kit for 4 pipe systems with main coil

Accessory	VES030	VES040	VES130	VES140	VES230	VES240	VES330	VES340
VCF3X4L	•	•	•					
VCF3X4LS				•	•	•	•	•
VCF3X4R	•	•	•					
VCF3X4RS				•	•	•	•	•

3 way valve kit

	VED030	VED040	VED130	VED140	VED230	VED240	VED330	VED340
3 way valve kit								
Main coil	VCF43-VCF4324	VCF43-VCF4324	VCF43-VCF4324	VCF43S-VCF4324S	VCF43-VCF4324	VCF43S-VCF4324S	VCF43-VCF4324	VCF43-VCF4324
Additional coil "BV"	VCF45-VCF4524	-	VCF45-VFC4524	-	VCF45-VCF4524	-	VCF45-VCF4524	-

VCF43 - 45 Power supply 230V, VCF4324-4524 Power supply 24V - Hydraulic connections Ø 3/4"

2 way valve kit

	VES030	VES040	VES130	VES140	VES230	VES240	VES330	VES340
2 way valve kit								
Main coil	VCFD3-VCFD324	VCFD3-VCFD324	VCFD3-VCFD324	VCFD3-VCFD324	VCFD3-VCFD324	VCFD3-VCFD324	VCFD3-VCFD324	VCFD3-VCFD324
Additional coil "BV"	VCFD4-VCFD424	-	VCFD4-VCFD424	-	VCFD4-VCFD424	-	VCFD4-VCFD424	-

VCFD3 Power supply 230V, VCFD324 Power supply 24V - Hydraulic connections Ø 3/4"
VCFD4 Power supply 230V, VCFD424 Power supply 24V - Hydraulic connections Ø 1/2"; For additional coil (heating only) BV.

Combined adjustment and balancing valve cold side

Accessory	VES030	VES040	VES130	VES140	VES230	VES240	VES330	VES340
VJP060	•	•	•	•				
VJP060M	•	•	•	•				
VJP090					•	•	•	•
VJP090M					•	•	•	•
VJP150							•	•
VJP150M							•	•

Installation accessories

Accessory	VES030	VES040	VES130	VES140	VES230	VES240	VES330	VES340
AMP	•	•	•	•	•	•	•	•

Condensate drip

Accessory	VES030	VES040	VES130	VES140	VES230	VES240	VES330	VES340
BCZ4	•	•	•	•	•	•	•	•
BCZ6	•	•	•	•	•	•	•	•

Accessory	VES030	VES040	VES130	VES140	VES230	VES240	VES330	VES340
BC9	•	•	•	•	•	•	•	•

BCZ4 For vertical installation.
BCZ6 For horizontal installation.
BC9 For horizontal installation.

Accessories for intake

Intake grids

Accessory	VED030	VED040	VED130	VED140	VED230	VED240	VED330	VED340
GA22	•	•						
GA32			•	•				
GA42					•	•		
GA62							•	•

Intake grid with filter and fixed louvers

Accessory	VES030	VES040	VES130	VES140	VES230	VES240	VES330	VES340
GAF22	•	•						
GAF32			•	•				
GAF42					•	•		
GAF62							•	•

External air shutter with manual control

Accessory	VES030	VES040	VES130	VES140	VES230	VES240	VES330	VES340
SE20X	•	•						
SE30X			•	•				
SE40X					•	•		
SE80X							•	•

Intake straight with rectangular flanges

Accessory	VES030	VES040	VES130	VES140	VES230	VES240	VES330	VES340
RDA000V	•	•						
RDA100V			•	•				
RDA200V					•	•		
RDA300V							•	•

Intake straight internally insulated, with circular flanges

Accessory	VES030	VES040	VES130	VES140	VES230	VES240	VES330	VES340
RDAC000V	•	•						
RDAC100V			•	•				
RDAC200V					•	•		
RDAC300V							•	•

VES

Intake plenum with rectangular flanges

Accessory	VES030	VES040	VES130	VES140	VES230	VES240	VES330	VES340
RPA000V	•	•						
RPA100V			•	•				
RPA200V					•	•		
RPA300V							•	•

Intake plenum with circular flanges

Accessory	VES030	VES040	VES130	VES140	VES230	VES240	VES330	VES340
PA000V	•	•						
PA100V			•	•				
PA200V					•	•		

Accessory	VES030	VES040	VES130	VES140	VES230	VES240	VES330	VES340
PA300V							•	•

Delivery accessories

Flow grid with adjustable louvers

Accessory	VES030	VES040	VES130	VES140	VES230	VES240	VES330	VES340
GM22	•	•						
GM32			•	•				
GM42					•	•		
GM62							•	•

Plenum with motor-driven dampers

Accessory	VES030	VES040	VES130	VES140	VES230	VES240	VES330	VES340
MZC220	•	•						
MZC320			•	•				
MZC530					•	•		
MZC830							•	•

VES

Delivery plenum internally insulated, with circular flanges

Accessory	VES030	VES040	VES130	VES140	VES230	VES240	VES330	VES340
PM000V	•	•						
PM100V			•	•				
PM200V					•	•		
PM300V							•	•

Delivery plenum internally insulated, with rectangular flanges

Accessory	VES030	VES040	VES130	VES140	VES230	VES240	VES330	VES340
RPM000V	•	•						
RPM100V			•	•				
RPM200V					•	•		
RPM300V							•	•

Delivery straight internally insulated, with circular flanges

Accessory	VES030	VES040	VES130	VES140	VES230	VES240	VES330	VES340
RDMC000V	•	•						
RDMC100V			•	•				
RDMC200V					•	•		
RDMC300V							•	•

Straight delivery coupling

Circular flanges kit for plenum

Accessory	VES030	VES040	VES130	VES140	VES230	VES240	VES330	VES340
KFV10	•	•	•	•	•	•	•	•

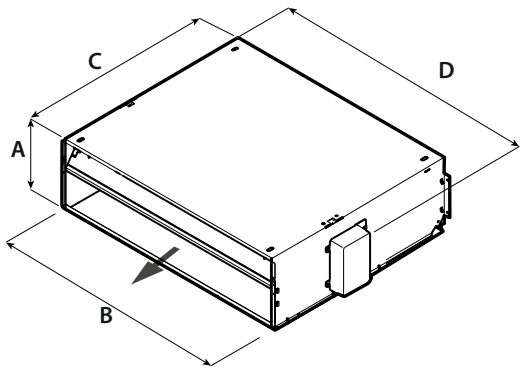
PERFORMANCE SPECIFICATIONS

2-pipe

		VES030			VES040			VES130			VES140			VES230			VES240			VES330			VES340		
		1	4	6	1	4	6	1	4	6	1	4	6	1	3	6	1	3	6	1	3	7	1	3	7
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)																									
Heating capacity	kW	1,82	3,37	3,69	2,37	3,57	3,92	4,40	5,83	6,29	4,52	6,09	6,58	5,35	6,50	7,16	5,80	7,14	7,91	7,81	9,34	10,51	8,31	10,02	10,95
Water flow rate system side	l/h	160	296	323	207	313	343	386	512	552	396	534	577	469	570	628	509	626	694	685	819	921	729	878	960
Pressure drop system side	kPa	3	7	9	4	10	12	13	22	26	9	16	18	27	30	37	18	26	32	9	13	16	22	28	32
Heating performance 50 °C / 45 °C (2)																									
Heating capacity	kW	1,09	2,03	2,22	1,42	2,15	2,36	2,65	3,52	3,79	2,72	3,67	3,96	3,22	3,92	4,31	3,49	4,30	4,77	4,71	5,63	6,33	5,01	6,04	6,60
Water flow rate system side	l/h	189	350	383	245	370	406	461	612	660	469	632	682	555	674	743	602	741	820	810	969	1090	862	1039	1136
Pressure drop system side	kPa	4	10	13	4	14	17	20	34	39	13	22	25	39	44	54	26	38	48	13	18	22	32	39	45
Cooling performance 7 °C / 12 °C (3)																									
Cooling capacity	kW	1,25	1,75	1,91	1,30	1,89	2,75	2,20	2,87	3,11	2,43	3,08	3,30	2,85	3,57	3,95	3,40	3,76	4,08	4,00	4,82	5,36	4,46	5,12	5,71
Sensible cooling capacity	kW	0,88	1,24	1,36	0,86	1,32	1,46	1,59	2,17	2,34	1,68	2,21	2,38	2,13	2,62	2,90	2,35	2,73	3,01	2,85	3,44	3,85	3,18	3,66	4,09
Water flow rate system side	l/h	215	302	330	224	325	360	379	496	535	419	530	569	491	614	679	584	646	702	689	829	922	768	880	982
Pressure drop system side	kPa	11	21	24	15	30	36	30	49	56	17	25	29	57	85	101	40	48	56	18	25	30	32	41	50
Cooling performance 13 °C / 18 °C (4)																									
Cooling capacity	kW	0,57	0,80	0,88	0,33	0,51	0,78	1,00	1,32	1,42	1,11	1,40	1,52	1,30	1,64	1,93	1,57	1,74	1,93	2,03	2,30	2,58	2,05	2,41	2,68
Sensible cooling capacity	kW	0,57	0,80	0,88	0,33	0,51	0,78	1,00	1,32	1,42	1,11	1,40	1,52	1,30	1,64	1,93	1,57	1,74	1,93	2,03	2,30	2,58	2,05	2,41	2,68
Water flow rate system side	l/h	98	138	151	57	88	136	173	228	244	192	242	262	225	283	333	270	300	333	349	397	445	354	416	461
Pressure drop system side	kPa	2	4	4	1	2	5	5	9	10	3	4	5	10	15	9	6	7	9	3	4	6	5	6	8
Fan																									
Type	type	Centrifugal			Centrifugal			Centrifugal			Centrifugal			Centrifugal			Centrifugal			Centrifugal			Centrifugal		
Air flow rate	m^3/h	161	256	285	160	249	277	287	397	434	280	386	420	417	524	590	406	509	570	572	704	805	563	685	775
High static pressure	Pa	21	50	61	21	50	61	26	50	60	26	50	60	32	50	64	32	50	63	33	50	66	34	50	64
Sound power level (inlet + radiated)	dB(A)	44,0	52,0	54,0	44,0	52,0	54,0	47,0	53,0	55,0	47,0	53,0	55,0	49,0	54,0	57,0	49,0	54,0	57,0	38,0	55,0	58,0	38,0	55,0	58,0
Sound power level (outlet)	dB(A)	40,0	48,0	50,0	40,0	48,0	50,0	42,0	48,0	50,0	42,0	48,0	50,0	44,0	49,0	52,0	44,0	49,0	52,0	45,0	51,0	54,0	34,0	51,0	54,0
Input power	W	12	38	59	-	38	58	-	53	76	-	52	75	-	57	93	-	57	92	-	75	104	-	74	103
Electrical wiring		V1	V4	V6	V1	V4	V6	V1	V4	V6	V1	V4	V6	V1	V3	V6	V1	V3	V6	V1	V3	V7	V1	V3	V7
Diametre hydraulic fittings																									
Main coil	Ø	3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"		
Secondary coil	Ø	-			-			-			-			-			-			-			-		
Fan																									
Input current	A	0,4			0,4			0,4			0,4			0,6			0,6			0,7			0,7		
Power supply																									
Power supply		230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz		

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C
(2) Room air temperature 20°C d.b.; Water (in/out) 50 °C/45 °C
(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT
(4) Room air temperature 27 °C d.b./19 °C w.b.; Water (in/out) 13 °C/18 °C;

DIMENSIONS



		VES030	VES040	VES130	VES140	VES230	VES240	VES330	VES340
Dimensions and weights									
A	mm	217	217	217	217	217	217	217	217
B	mm	550	550	781	781	1001	1001	1122	1122
C	mm	584	584	584	584	584	584	584	584
D	mm	576	576	807	807	1027	1027	1148	1148

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VES 030-340 I

Fan coil unit for ducted installations

- **Horizontal and vertical installation**
- **Large range of available static pressure**
- **Heat eschanger developed to optimize the performance sensitive**



DESCRIPTION

Ducted fan coil, for heating, cooling and dehumidifying.
Equipped with a state of the art ventilation unit with continuous modulation of the air flow rate, for increased comfort, also in terms of noise, and electrical savings.
Inverter motor allows precise adaptation to the real indoor environment requirements without temperature oscillations.
Designed to maintain the set temperature over time, ensuring very low sound levels.
Can be installed in any 2 pipe system and operates with any heat generator even at low temperatures.
Thanks to the availability of various options, with standard or increased coil, for horizontal or vertical installation, it is easy to choose the optimal solution for any need.

FEATURES

Case

Unit for internal installation.
Internally insulated structure with class 1 fire resistance and IP20 protection.

Ventilation group

Centrifugal fans in anti-static plastic material with aerofoil profile designed to achieve high airflows and pressures whilst at the same time producing low noise.
Their characteristics permit energy savings compared to conventional fans.
They are statically and dynamically balanced and directly coupled to the motor shaft.
The electric motor is single-phase multi-speed (3 selectable), mounted on anti-vibration supports and with a permanently inserted capacitor.
Fan housing in plastic material removable for easy and effective cleaning.

Heat exchanger coil

With copper pipes and aluminium louvers, the main coil has female gas hydraulic connections and is fitted with air vents.

- *The heat eschanger, reversible during installation, is designed to ensure high heat transfer, ideal for applications in a sensitive environment.*
- *The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.*

Air filter

Air filter Class G3, for easy removal and cleaning.

Controls and Accessoires

There is a wide selection of controls and a huge choice of accessories, to meet every system requirement.
The unit is supplied with the delivery connection supplied.

ACCESSORIES



Control panels

AER503IR: Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.
SA5: air probe kit (L = 15 m) with probe-locking cable grommet.
SIT3: Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat). Commands the 3 fan speeds and must be installed on each fan coil within the network; receives the commands from the selector or the SIT5 card. In case you decide to install Aermec thermostats and current absorbed by the unit exceeds 0.7 A, you're obliged to include SIT3 accessory.
SIT5: Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel. Commands the 3 fan speeds and up to 2 valves (four pipe systems); sends the thermostat's commands to the fan coil network.
SW5: water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.
SWAI: External air or water temperature probe.
TX: Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).
WMT21: Electronic thermostat for inverter fancoils.

VMF Components

VMF-E19I: Thermostat for inverter unit to be fixed on the side of the fan coil, fitted as standard with an air and water probe.
VMF-E4DX: Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).
VMF-E4X: Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.
VMF-IO: Manage the unit exclusively from a centralized VMF control panel without area control panel.
VMF-LON: Expansion allowing the thermostat to interface with BMS systems that use the LON protocol.
VMF-SW: Water probe (L = 2.5m) used if required in place of the standard unit supplied with the VMF-E0X, VMF-E19 and VMF-E19I thermostats for mounting it upstream of the valve
VMF-SW1: Additional water probe (L = 2.5m) to be used if required for 4-pipe systems with the VMF-E19 and VMF-E19I thermostats for maximum control in the cold range

Valves and additional water coil

BV: Single row hot water heat exchanger.
VCF_X: Kit of 3-way valves for fan coils with a single coil and the water connections on the left, for installation in 4-pipe systems. This kit consists of two 3-way insulated valves and four connections, complete with electrothermal actuators, insulating shells for the valves, and the relative hydraulic couplings. 230V power supply. Water connections: Valve body Ø G 3/4" male; Valve side connection tubes Ø G 3/4" female; Unit side connection tubes Ø G 3/4" male.
VCF41 - 42 - 43 - for main coil: 3-way motorised valve kit for the main coil. The kit is made up of a valve with its insulating shell, actuator and relative hydraulic fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.
VCF44 - 45 - for the secondary coil: The 3-way motorised valve kit for the secondary coil heat only. The kit consists of a valve with its insulating shell, actuator and relevant water fittings; it is suitable to be installed on the fan coils with right and left water connections.
VCFD: Motorized 2-way valve kit without insulating shell, can be installed on the main or secondary battery or a battery that is only warm. The kit is made up of a valve, actuator and relative hydraulic fittings. It can be installed on fan coils with connections on the right and on the left.
VJP: Control and balancing combination valve for 2 and 4 pipe systems to install outside the unit, supplied without fittings and hydraulic components. The valve, which can guarantee a constant water flow rate in the terminal, within its operating range.

Installation accessories

AMP: Wall mounting kit
BCZ: Condensate drip. If the valve is paired with the BCZ5 or BCZ6 condensate drip tray, the insulating shell can be removed to ensure better housing.
DSC: Condensate drainage device.

Accessories for intake

GA: Intake grid with fixed louvers
GAF: Intake grid with filter and fixed louvers
SE_X: External air shutter with manual control.
RDA_V: Straight intake connection with rectangular flange.
RDA_C: Straight intake connection with circular flanges.
RPA_V: Suction plenum with rectangular flange; both sides have a circular push-out Ø 150mm that can be removed.
PA_V: Suction plenum with circular plastic flanges; both sides have a circular push-out Ø 150mm that can be removed.

Delivery accessories

GM: Flow grid with adjustable louvers.
MZC: Plenum with motorised dampers.

PM_V: Internally insulated delivery plenum with circular flanges; both sides have a circular push-out Ø 150mm that can be removed.
RPM_V: Internally insulated delivery plenum with rectangular flange; both sides have a circular push-out Ø 150mm that can be removed.

RDM_C: Straight discharge internally insulated, with circular flanges.
KFV: Circular flanges kit for plenum.

ACCESSORIES COMPATIBILITY

Control panels and dedicated accessories

Control panels and dedicated accessories

Model	Ver	030	040	130	140	230	240	330	340
AER503IR (1)	.	•	•	•	•	•	•	•	•
SA5 (2)	.	•	•	•	•	•	•	•	•
SIT3 (3)	.	•	•	•	•	•	•	•	•
SIT5 (4)	.	•	•	•	•	•	•	•	•
SW5 (2)	.	•	•	•	•	•	•	•	•
SWAI (5)	.	•	•	•	•	•	•	•	•
TX (1)	.	•	•	•	•	•	•	•	•
WMT21	.	•	•	•	•	•	•	•	•

(1) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.
(2) Probe for AER503IR-TX thermostats, if fitted.
(3) Cards for AER503IR-TX thermostats, if present, to be installed if the unit absorption exceeds 0,7 Ampere.
(4) Probe for AER503IR-TX thermostats, if fitted.
(5) Probe for thermostat WMT21.

VMF system

VMF system

Accessory	VES030I	VES040I	VES130I	VES140I	VES230I	VES240I	VES330I	VES340I
VMF-E19I	•	•	•	•	•	•	•	•
VMF-E4DX	•	•	•	•	•	•	•	•
VMF-E4X	•	•	•	•	•	•	•	•
VMF-IO	•	•	•	•	•	•	•	•
VMF-LON	•	•	•	•	•	•	•	•
VMF-SW	•	•	•	•	•	•	•	•
VMF-SW1	•	•	•	•	•	•	•	•

(Heating only) additional coil

(Heating only) additional coil

Accessory	VES030I	VES130I	VES230I	VES330I
BV030	•			
BV130		•		
BV162				•
BV230			•	

Water valves

Valve Kit for 4 pipe systems with main coil

Accessory	VES030I	VES040I	VES130I	VES140I	VES230I	VES240I	VES330I	VES340I
VCF3X4L	•	•	•					
VCF3X4LS				•	•	•	•	•
VCF3X4R	•	•	•					
VCF3X4RS				•	•	•	•	•

3 way valve kit

	VES030I	VES040I	VES130I	VES140I	VES230I	VES240I	VES330I	VES340I
3 way valve kit								
Main coil	VCF43-VCF4324	VCF43-VCF4324	VCF43-VCF4324	VCF43-VCF4324	VCF43-VCF4324	VCF43-VCF4324	VCF43-VCF4324	VCF43-VCF4324
Additional coil "BV"	VCF45-VCF4524	-	VCF45-VFC4524	-	VCF45-VCF4524	-	VCF45-VCF4524	-

VCF43 - 45 Power supply 230V, VCF4324-4524 Power supply 24V - Hydraulic connections Ø 3/4"

2 way valve kit

	VES030I	VES040I	VES130I	VES140I	VES230I	VES240I	VES330I	VES340I
2 way valve kit								
Main coil	VCFD3-VCFD324	VCFD3-VCFD324	VCFD3-VCFD324	VCFD3-VCFD324	VCFD3-VCFD324	VCFD3-VCFD324	VCFD3-VCFD324	VCFD3-VCFD324
Additional coil "BV"	VCFD4-VCFD424	-	VCFD4-VCFD424	-	VCFD4-VCFD424	-	VCFD4-VCFD424	-

VCFD3 Power supply 230V, VCFD324 Power supply 24V - Hydraulic connections Ø 3/4"
VCFD4 Power supply 230V, VCFD424 Power supply 24V - Hydraulic connections Ø 1/2"; For additional coil (heating only) BV.

Combined adjustment and balancing valve cold side

Accessory	VES030I	VES040I	VES130I	VES140I	VES230I	VES240I	VES330I	VES340I
VJP060	•	•	•	•				
VJP060M	•	•	•	•				
VJP090					•	•	•	•
VJP090M					•	•	•	•
VJP150							•	•
VJP150M							•	•

Installation accessories

Installation accessories

Accessory	VES030I	VES040I	VES130I	VES140I	VES230I	VES240I	VES330I	VES340I
AMP	•	•	•	•	•	•	•	•

Condensate drip

Accessory	VES030I	VES040I	VES130I	VES140I	VES230I	VES240I	VES330I	VES340I
BCZ4	•	•	•	•	•	•	•	•
BCZ6	•	•	•	•	•	•	•	•

Accessory	VES030I	VES040I	VES130I	VES140I	VES230I	VES240I	VES330I	VES340I
BC9	•	•	•	•	•	•	•	•

BCZ4 For vertical installation.
BCZ6 For horizontal installation.
BC9 For horizontal installation.

Condensate recirculation device

Accessory	VES030I	VES040I	VES130I	VES140I	VES230I	VES240I	VES330I	VES340I
DSC4	•	•	•	•	•	•	•	•
DSCZ4	•	•	•	•	•	•	•	•

Accessories for intake

Intake grids

Accessory	VES040I	VES130I	VES140I	VES230I	VES240I	VES330I	VES340I
GA22	•						
GA32		•	•				
GA42				•	•		
GA62						•	•

Intake grid with filter and fixed louvers

Accessory	VES030I	VES040I	VES130I	VES140I	VES230I	VES240I	VES330I	VES340I
GAF22	•	•						
GAF32			•	•				
GAF42					•	•		
GAF62							•	•

External air shutter with manual control

Accessory	VES030I	VES040I	VES130I	VES140I	VES230I	VES240I	VES330I	VES340I
SE20X	•	•						
SE30X			•	•				
SE40X					•	•		
SE80X							•	•

Intake straight with rectangular flanges

Accessory	VES030I	VES040I	VES130I	VES140I	VES230I	VES240I	VES330I	VES340I
RDA000V	•	•						
RDA100V			•	•				
RDA200V					•	•		
RDA300V							•	•

Intake straight internally insulated, with circular flanges

Accessory	VES030I	VES040I	VES130I	VES140I	VES230I	VES240I	VES330I	VES340I
RDAC000V	•	•						
RDAC100V			•	•				
RDAC200V					•	•		
RDAC300V							•	•

Intake plenum with rectangular flanges

Accessory	VES030I	VES040I	VES130I	VES140I	VES230I	VES240I	VES330I	VES340I
RPA000V	•	•						
RPA100V			•	•				
RPA200V					•	•		
RPA300V							•	•

Intake plenum with circular flanges

Accessory	VES030I	VES040I	VES130I	VES140I	VES230I	VES240I	VES330I	VES340I
PA000V	•	•						
PA100V			•	•				
PA200V					•	•		
PA300V							•	•

Delivery accessories

Outlet grille with adjustable louvers

Accessory	VES030I	VES040I	VES130I	VES140I	VES230I	VES240I	VES330I	VES340I
GM22	•	•						
GM32			•	•				
GM42					•	•		
GM62							•	•

Plenum with motor-driven dampers

Accessory	VES030I	VES040I	VES130I	VES140I	VES230I	VES240I	VES330I	VES340I
MZC220	•	•						
MZC320			•	•				
MZC530					•	•		
MZC830							•	•

Delivery plenum internally insulated, with circular flanges

Accessory	VES030I	VES040I	VES130I	VES140I	VES230I	VES240I	VES330I	VES340I
PM000V	•	•						
PM100V			•	•				
PM200V					•	•		
PM300V							•	•

Delivery plenum internally insulated, with rectangular flanges

Accessory	VES030I	VES040I	VES130I	VES140I	VES230I	VES240I	VES330I	VES340I
RPM000V	•	•						
RPM100V			•	•				
RPM200V					•	•		
RPM300V							•	•

Delivery straight internally insulated, with circular flanges

Accessory	VES030I	VES040I	VES130I	VES140I	VES230I	VES240I	VES330I	VES340I
RDMC000V	•	•						
RDMC100V			•	•				
RDMC200V					•	•		
RDMC300V							•	•

Straight delivery coupling

Accessory	VES030I	VES040I	VES130I	VES140I	VES230I	VES240I	VES340I
RDM000V	•	•					
RDM100V			•	•			
RDM200V					•	•	
RDM300V							•

Circular flanges kit for plenum

Accessory	VES030I	VES040I	VES130I	VES140I	VES230I	VES240I	VES330I	VES340I
KFV10	•	•	•	•	•	•	•	•

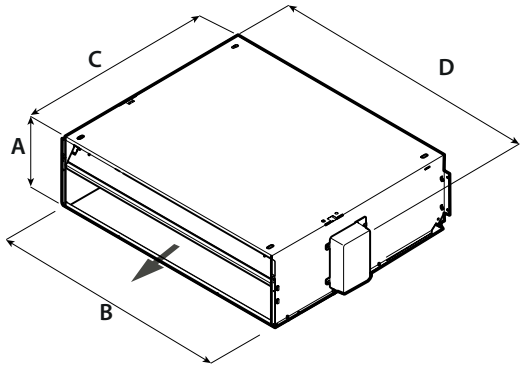
PERFORMANCE SPECIFICATIONS

2-pipe

		VES030I			VES040I			VES130I			VES140I			VES230I			VES240I			VES330I			VES340I		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)																									
Heating capacity	kW	1,82	3,37	3,69	2,37	3,57	3,92	4,40	5,83	6,29	4,52	6,09	6,58	5,35	6,50	7,16	5,80	7,14	7,91	7,81	9,34	10,51	8,31	10,02	10,95
Water flow rate system side	l/h	160	296	323	207	313	343	386	512	552	396	534	577	469	570	628	509	626	694	685	819	921	729	878	960
Pressure drop system side	kPa	3	7	9	4	10	12	13	22	26	9	16	18	27	30	37	18	26	32	9	13	16	22	28	32
Heating performance 45 °C / 40 °C (2)																									
Heating capacity	kW	0,80	1,67	1,85	1,18	1,77	1,95	2,19	2,90	3,13	2,25	3,02	3,26	2,38	2,96	3,29	2,88	3,55	3,93	3,88	4,64	5,22	4,13	4,96	5,45
Water flow rate system side	l/h	140	291	321	205	308	339	380	504	544	391	525	566	414	514	572	500	616	683	673	806	907	717	865	946
Pressure drop system side	kPa	2	7	9	5	11	12	14	24	27	9	16	18	28	41	50	18	26	32	10	13	16	17	24	28
Cooling performance 7 °C / 12 °C (3)																									
Cooling capacity	kW	1,26	1,75	1,91	1,30	1,89	2,00	2,20	2,87	3,12	2,43	3,10	3,31	2,84	3,56	3,95	3,39	3,37	4,10	3,99	4,81	5,24	4,46	5,12	5,71
Sensible cooling capacity	kW	0,89	1,24	1,35	0,86	1,32	1,45	1,59	2,17	2,34	1,68	2,20	2,38	2,12	2,61	2,89	2,34	2,73	3,02	2,84	3,44	3,86	3,18	3,66	4,09
Water flow rate system side	l/h	98	138	151	57	88	136	173	228	244	192	242	262	225	283	309	270	300	333	349	397	445	354	416	461
Pressure drop system side	kPa	12	21	25	16	31	36	30	49	57	17	23	29	56	85	102	41	49	57	18	25	31	32	41	50
Cooling performance 13 °C / 18 °C (4)																									
Cooling capacity	kW	0,57	0,80	0,88	0,33	0,51	0,78	1,00	1,32	1,42	1,11	1,40	1,52	1,30	1,64	1,80	1,57	1,74	1,93	2,03	2,30	2,58	2,05	2,41	2,68
Sensible cooling capacity	kW	0,57	0,80	0,88	0,33	0,51	0,78	1,00	1,32	1,42	1,11	1,40	1,52	1,30	1,64	1,80	1,57	1,74	1,93	2,03	2,30	2,58	2,05	2,41	2,68
Water flow rate system side	l/h	98	138	151	57	88	136	173	228	244	192	242	262	225	283	309	270	300	333	349	397	445	354	416	461
Pressure drop system side	kPa	2	4	4	1	2	5	5	9	10	3	4	5	10	15	18	6	7	9	3	4	6	5	6	8
Fan																									
Type	type	Centrifugal			Centrifugal			Centrifugal			Centrifugal			Centrifugal			Centrifugal			Centrifugal			Centrifugal		
Fan motor	type	Asynchronous			Asynchronous			Asynchronous			Asynchronous			Asynchronous			Asynchronous			Asynchronous			Asynchronous		
Number	no.	1			1			2			2			2			2			3			3		
Air flow rate	m^3/h	161	256	285	160	249	277	287	397	434	420	386	420	416	524	590	406	509	570	571	704	805	563	685	776
High static pressure	Pa	21	50	61	21	50	61	26	50	60	26	50	60	32	50	64	32	50	63	33	50	66	34	50	64
Sound power level (inlet + radiated)	dB(A)	44,0	52,0	54,0	44,0	52,0	54,0	47,0	53,0	55,0	47,0	53,0	55,0	49,0	54,0	57,0	49,0	54,0	57,0	38,0	55,0	58,0	38,0	55,0	58,0
Sound power level (outlet)	dB(A)	40,0	48,0	50,0	40,0	48,0	50,0	42,0	48,0	50,0	42,0	48,0	50,0	44,0	49,0	52,0	44,0	49,0	52,0	45,0	51,0	54,0	34,0	51,0	54,0
Input power	W	12	29	36	12	29	36	17	33	45	17	33	45	24	40	53	24	40	53	35	60	86	35	60	86
Signal 0-10V	%	54	80	90	54	80	90	58	82	90	58	82	90	62	80	90	62	80	90	62	78	90	66	78	90
Diametre hydraulic fittings																									
Main coil	Ø	3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"		
Power supply																									
Power supply		230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz		

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C
(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C; EUROVENT
(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT
(4) Room air temperature 27 °C d.b./19 °C w.b.; Water (in/out) 13 °C/18 °C;

DIMENSIONS



		VES030I	VES040I	VES130I	VES140I	VES230I	VES240I	VES330I	VES340I
Dimensions and weights									
A	mm	217	217	217	217	217	217	217	217
B	mm	550	550	781	781	1001	1001	1122	1122
C	mm	584	584	584	584	584	584	584	584
D	mm	576	576	807	807	1027	1027	1148	1148
Net weight	kg	22,00	24,00	25,00	33,00	33,00	34,00	35,00	34,00

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responsibility or liability for errors or omissions.

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VES-5300I-7400I

Fan coil unit equipped with inverter Brushless motor for ducted installations

Cooling capacity 4,44 ÷ 11,81 kW
Heating capacity 9,91 ÷ 25,37 kW

- **Horizontal or vertical installation**
- **Versions for 2/4 pipe systems**
- **Large range of available static pressure**
- **Height 217mm (slim line)**



DESCRIPTION

Ducted fan coil with inverter technology, for heating, cooling and dehumidifying, specific to work in sensible environment.
Equipped with inverter Brushless motor for an high effciency and a continuos air flow rate modulation in order to increased comfort and guarantee electric saving. The inverter motor allows a better air temperature regulation based on the real indoor environement requirements without swinging temperature.
The fan unit at available working pressures, trought internal insulation, ensure excellent acoustic comfort levels.
The small dimensions and easy installation make the fan coil designed for 2 and 4-pipe applications.
The main coil, is designed to ensure an high heat transfer, ideal for applications in sensible environment.

FEATURES

— Main standard coil or increased for 2-pipe systems
— Main standard coil and additional heating coil (accessory) for 4-pipe system
— 3-way valve accessory
— 2-way valve accessory for variable flow systems
— Fan assembly, high useful head, with aerofoil designed for high performance and simultaneously low-noise comfort
— Centrifugal fans plastic material, in order to reduce power consumption by increasing the ventilation efficiency
— Compatible with the VMF system
— Large range of controllers
— Large range of accessories to satisfy all installation requirements
— Discharge connection supplied loose
— Air filter Class G3, for easy removal and cleaning
— Internal insulation in fire Class 1
— Protective rating IP20
— Fan housing in plastic material removable for easy and useful cleaning
— Easy of installation and maintenance
— Full compliance with safety standards.

CONFIGURATOR

Field		Description
1,2,3		**VES**
4		**Size**
		5-7
5		**Main coil**
	3	Standard
	4	Increased coil

Field		Description
6,7		**Coil only hot**
	00	Without coil
	05	Coil only heating power limited
	10	Coil only heating
8		**Inverter motor**
	I	Inverter

TECHNICAL DATA

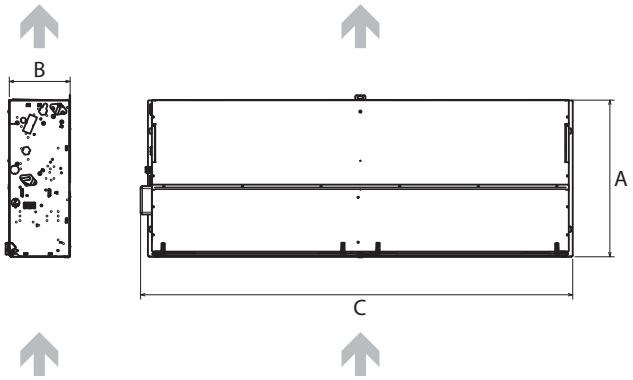
Size			5300			5400			7300			7400		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance														
2 pipe configuration														
Heating capacity (70°C)	(1)	kW	12,18	11,27	9,91	12,98	11,92	10,29	23,50	21,67	16,78	25,37	23,30	17,88
Water flow rate	(1)	l/h	1069	989	869	1139	1046	902	2061	1901	1472	2225	2044	1569
Pressure drops	(1)	kPa	32,0	26,0	22,0	16,0	14,0	11,0	47,0	40,0	23,0	33,0	28,0	18,0
Heating capacity (50°C)	(2)	kW	6,06	5,60	4,93	6,45	5,92	5,11	11,60	10,70	8,34	12,60	11,50	7,80
Water flow rate	(2)	l/h	1042	963	848	1109	1018	879	1995	1840	1434	2167	1978	1342
Pressure drops	(2)	kPa	32,0	28,0	22,0	16,0	13,5	10,0	46,0	40,0	25,0	33,0	28,0	13,8
Cooling Performance														
Total cooling capacity	(3)	kW	5,62	5,18	4,44	5,85	5,35	4,56	10,63	9,94	8,17	11,80	10,80	8,00
Sensible cooling capacity	(3)	kW	3,82	3,51	3,02	3,91	3,59	3,12	7,29	6,75	5,35	7,90	7,26	5,48
Cooling capacity (latent)	(3)	kW	1,80	1,67	1,42	1,94	1,76	1,44	3,34	3,19	2,82	3,90	3,54	2,52
Water flow rate	(3)	l/h	967	891	764	1006	920	784	1828	1710	1405	2030	1858	1376
Pressure drops	(3)	kPa	36,0	31,0	23,0	19,0	16,5	12,1	50,0	44,0	31,0	39,0	33,5	19,5
Fans														
Fans - Centrifugal		n°		4			4			6			6	
Air flow rate		m³/h	825	750	640	825	750	640	1650	1500	1138	1650	1500	1138
High static pressure		Pa	60	50	37	60	50	36	60	50	29	60	50	29
Sound data														
Sound power level (inle+radiated)	(4)	dB(A)	58	56	52	58	56	52	62	60	40	62	60	40
Sound power level (outlet)		dB(A)	54	52	48	54	52	48	58	56	36	58	56	36
Diameter connections														
Standard coil		Ø		3/4"			3/4"			3/4"			3/4"	
Additional coil		Ø		-			-			-			-	
Electrical Features														
Absorbed power		W	72	53	38	72	53	38	153	120	59	153	120	59
Signal 0-10V		%	90	82	70	90	82	70	90	82	62	90	82	62
Power supply								230V~50Hz						

Size			5305			5310			7305			7310		
Fan speed			**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**	**H**	**M**	**L**
Heating Performance														
4 pipe configuration														
Heating capacity (70°C)	(1)	kW	4,15	3,91	3,55	7,07	6,64	5,95	5,24	4,94	4,06	9,56	9,01	7,54
Water flow rate	(1)	l/h	364	343	311	621	582	522	460	434	356	838	790	662
Pressure drops	(1)	kPa	9,0	8,0	6,0	7,0	6,0	5,0	10,0	9,0	6,0	17,0	14,0	11,0
Cooling Performance														
Total cooling capacity	(3)	kW	5,63	5,18	4,44	5,63	5,18	4,44	10,37	9,94	8,17	10,37	9,94	8,17
Sensible cooling capacity	(3)	kW	3,82	3,51	3,02	3,82	3,51	3,02	7,29	6,76	5,36	7,29	6,76	5,36
Cooling capacity (latent)	(3)	kW	1,81	1,67	1,42	1,81	1,67	1,42	3,08	3,18	2,81	3,08	3,18	2,81
Water flow rate	(3)	l/h	968	891	763	968	891	763	1830	1709	1406	1830	1709	1406
Pressure drops	(3)	kPa	36,0	31,0	23,0	36,0	31,0	23,0	49,0	44,0	31,0	49,0	44,0	31,0
Fans														
Fans - Centrifugal		n°		4			4			6			6	
Air flow rate		m³/h	825	750	640	825	750	640	1650	1500	1138	1650	1500	1138
High static pressure		Pa	60	50	37	60	50	37	60	50	29	60	50	29
Sound data														
Sound power level (inle+radiator)	(4)	dB(A)	58	56	52	58	56	52	62	60	40	62	60	40
Sound power level (outlet)		dB(A)	50	48	44	50	48	44	54	52	32	54	52	32
Diameter connections														
Standard coil		Ø	3/4"			3/4"			3/4"			3/4"		
Additional coil		Ø	1/2"			1/2"			1/2"			1/2"		
Electrical Features														
Absorbed power		W	72	53	38	72	53	38	153	120	66	153	120	66
Signal 0-10V		%	90	84	66	90	84	66	90	76	62	90	78	64
Power supply								230V~50Hz						

H max. speed; **M** med.speed; **L** min.speed
(1) Room air 20°C b.s.; Water (in/out) 70°C/60°C;
(2) Room air 20°C b.s.; Water (in/out) 50°C/45°C;
(3) Room air 27°C b.s./19°C b.u.; Water (in/out) 7°C/12°C (EUROVENT)
(4) Sound power: Aermec determines sound power values on the basis of measurements made in accordance with UNI EN 16583:15, as required for Eurovent certification.

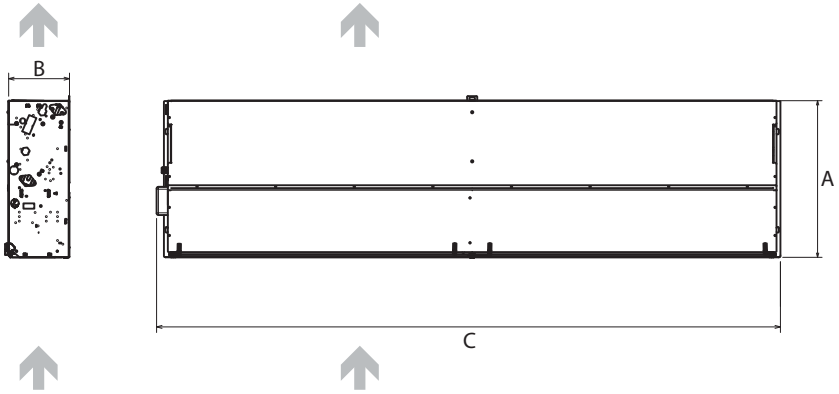
DIMENSIONS

VES: 5300I - 5305I - 5310I - 5400I



Size		5300	5305	5310	5400
Dimensions and weights					
A	mm	558	558	558	558
B	mm	217	217	217	217
C	mm	1539	1539	1539	1539
Weights	kg	46	47	47	47

VES: 7300I - 7305I - 7310I - 7400I



Size		7300	7305	7310	7400
Dimensions and weights					
A	mm	558	558	558	558
B	mm	217	217	217	217
C	mm	2222	2222	2222	2222
Weights	kg	65	68	68	68

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MZC

Plenum with motor-driven dampers

- **Multi-zone plenum for controlling air capacity**
- **Available for channelles on/off and inverter fan coils**



DESCRIPTION

The plenum with motor-driven dampers is designed for residential and tertiary applications. It combines optimal ambient comfort with assured energy savings.
Modern plant increasingly require overall air conditioning using channelled systems. Thanks to the electronic control of the dampers, the MZC accessory regulates the room's comfort by adjusting the air flow to meet the actual requirements.
MZC is designed for use in combination with all fan coils with asynchronous or brushless motors and is pre-set to distribute exchange air.

FEATURES

Structure

— Galvanized sheet metal structure, insulated with self-extinguishing material.
— From 2 to 6 delivery outlets, depending on the model. Each outlet is fitted with a motorised damper, with the possibility - if required by the system - to add an MZCSM accessory outlet (possibility not available for all models - see the accessory compatibility table)
— Fresh air injection flange, supplied as standard, for connecting the MZC plenum to a heat recovery unit.
— Pre-setting for the installation of an additional air probe (accessory MZCSA) to control modulating or pressure-independent valves.
— Possibility to install the plenum even on the fan coil intake, using a flange (accessory MZCA)
— Reversible electrical box (right/left)
— Water probe supplied as standard, for the fan coil.

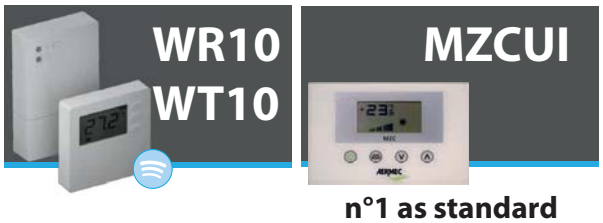
Regulation

— MCZ is equipped with a zone thermostat MZCUI to define the required temperature setting.
— The status of the dampers (open/closed) is adjusted on reaching the temperature set in each room.
— Management of up to 6 motorized dampers.
— Flow control for each damper (the maximum and minimum damper opening can be set for each outlet).
— Possibility to associate the control of several dampers with the request from the same zone thermostat (MZCUI or WT10).
— For installations in which the dampers and room thermostats are uniquely associated, the dampers can be modulated in relation to the room thermostat requirements.
— "Suction plenum" function enabling
— MZC can control the valves that may be installed on the fan coil associated with it (On/Off, modulating or pressure-independent types), for 2- or 4-pipe systems
— Possibility to set the control unit parameters via the supervision serial port.

ACCESSORIES

Control panels

WR10: Two-channel wireless receiver for WT10.
WT10: Wireless thermostat.



n°1 as standard

VMF Components

VMF-VOC: Air quality detection accessory.

Installation accessories

MZCACV: Electrical system with relay interface board. Mandatory accessory on units where motor absorption exceeds 0.7 A. The relay interface board is supplied with a 2A fuse to protect the fan coil. If the fan coil absorbs more than 2A and up to 4A, the fuse inside must be replaced with a 4A fuse supplied.

MZCAC: Mandatory electrical system for connecting the MZC plenum with a fan coil fitted with an asynchronous motor.
MZCBC: Mandatory electrical system for connecting the MZC plenum with a fan coil fitted with a brushless motor.
MZCUI: Zone thermostat in addition to the one supplied as standard whenever the plant installation so requires.
MZCSM: Single module with motorized damper.
MZCA: Adapter flange for installing the Plenum even under fan coil suction.
MZCSA: Air probe for controlling modulating or pressure independent valves.

ACCESSORIES COMPATIBILITY

Control panels and dedicated accessories

Accessory	MZC220	MZC320	MZC530	MZC830	MZC5040	MZC7050
WR10	•	•	•	•	•	•
WT10	•	•	•	•	•	•

VMF system

Accessory	MZC220	MZC320	MZC530	MZC830	MZC5040	MZC7050
VMF-VOC	•	•	•	•	•	•

Installation accessories

Relay interface board

Accessory	MZC7050
MZCACV	•

Accessory	MZC220	MZC320	MZC530	MZC830	MZC5040	MZC7050
MZCAC	•	•	•	•	•	•

Compulsory electrical plant

Accessory	MZC220	MZC320	MZC530	MZC830	MZC5040	MZC7050
MZCBC	•	•	•	•	•	•

Zone thermostat

Accessory	MZC220	MZC320	MZC530	MZC830	MZC5040	MZC7050
MZCUI	•	•	•	•	•	•

Single module with damper

Accessory	MZC320	MZC530	MZC830	MZC5040	MZC7050
MZCSM	•	•	•	•	•

Adaptation flange

Accessory	MZC220	MZC320	MZC530	MZC830
MZCA2	•			
MZCA3		•		
MZCA5			•	
MZCA8				•

Air temperature probe

Accessory	MZC220	MZC320	MZC530	MZC830	MZC5040	MZC7050
MZCSA	•	•	•	•	•	•

COMPATIBILITY OF MZC PLENUMS WITH AERMEC FAN COILS

Plenum with motorised dampers - FCZ - PO

Model	Ver	100	101	102	150	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550
MZC220	PO,POR					•	•	•	•												
MZC320	PO,POR									•	•	•	•								
MZC530	PO,POR													•	•	•	•	•	•	•	•

Model	Ver	600	601	602	650	700	701	702	750	800	801	802	850	900	901	950	1000	1001
MZC830	PO,POR	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		

Plenum with motorised dampers - FCZI - P

Model	Ver	200	201	202	250	300	301	302	350	400	401	402	450	500	501	502	550	700	701	702	750	900	901	950
MZC220	P,PR	•	•	•	•																			
MZC320	P,PR					•	•	•	•															
MZC530	P,PR									•	•	•	•	•	•	•	•							
MZC830	P,PR																	•	•	•	•	•	•	•

Plenum with motorised dampers - VED 030-340

Accessory	VED030	VED040	VED130	VED140	VED230	VED240	VED330	VED340
MZC220	•	•						
MZC320			•	•				
MZC530					•	•		
MZC830							•	•

Plenum with motorised dampers - VED 430- 741

Accessory	VED430	VED440	VED530	VED540	VED630	VED640	VED730	VED740
MZC5040	•	•	•	•				
MZC7050					•	•	•	•

Accessory	VED432	VED441	VED532	VED541	VED632	VED641	VED732	VED741
MZC5040	•	•	•	•				
MZC7050					•	•	•	•

Plenum with motorised dampers - VED 030I-340I

Accessory	VED030I	VED040I	VED130I	VED140I	VED230I	VED240I	VED330I	VED340I
MZC220	•	•						
MZC320			•	•				
MZC530					•	•		
MZC830							•	•

Plenum with motorised dampers - VED 530I-741I

Accessory	VED530I	VED540I	VED730I	VED740I
MZC5040	•	•		
MZC7050			•	•

Accessory	VED532I	VED541I	VED732I	VED741I
MZC5040	•	•		
MZC7050			•	•

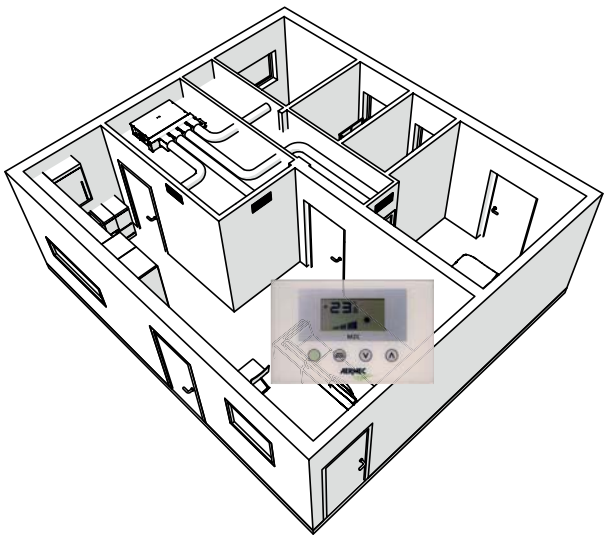
Plenum with motor-driven dampers - VES 030-340

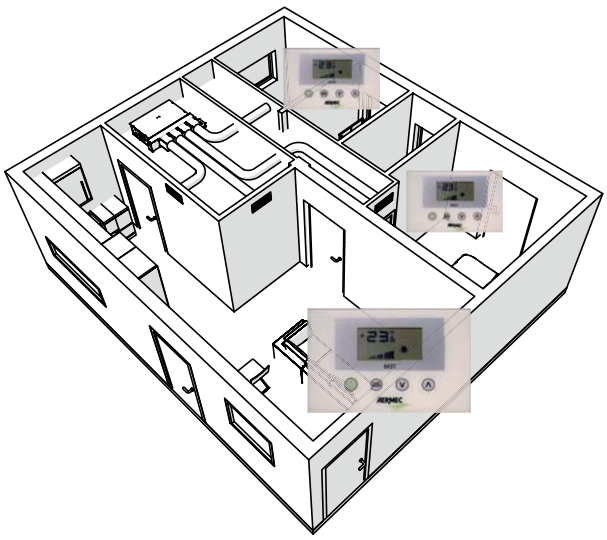
Accessory	VES030	VES040	VES130	VES140	VES230	VES240	VES330	VES340
MZC220	•	•						
MZC320			•	•				
MZC530					•	•		
MZC830							•	•

Plenum with motor-driven dampers - VES 030I-340I

Accessory	VES030I	VES040I	VES130I	VES140I	VES230I	VES240I	VES330I	VES340I
MZC220	•	•						
MZC320			•	•				
MZC530					•	•		
MZC830							•	•

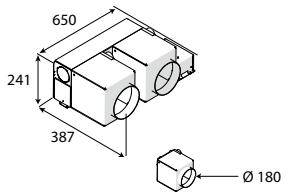
SYSTEM SOLUTIONS



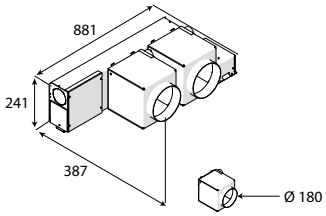


DIMENSIONS

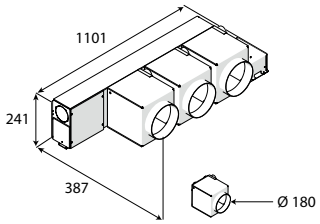
MZC220



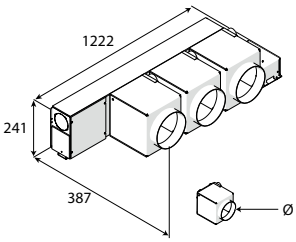
MZC320



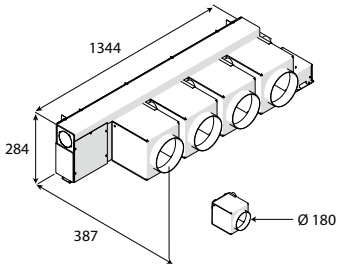
MZC530



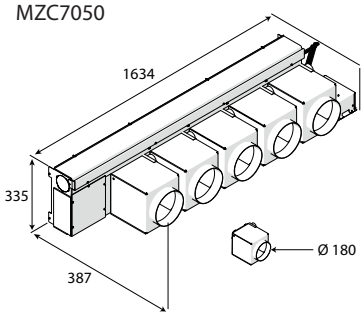
MZC830



MZC5040



MZC7050



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responsibility or liability for errors or omissions.

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www.aermec.com

VEC

Coanda-effect fan coil for cassette installation

- **Very quiet**
- **Total comfort in every season**



DESCRIPTION

Thanks to a special air intake and flow grid, these units allow a coanda-effect air flow to be generated, parallel to the ceiling, creating optimal circulation inside the room to be air-conditioned.
They are suitable to be installed inside a suspended ceiling.

FEATURES

Ventilation group

Comprised of a dual intake centrifugal fan that is particularly silent, statically and dynamically balanced and directly coupled to the motor shaft.
In addition to the traditional three-speed asynchronous motor for the "VECs", every unit can be supplied with a "VEC_I" Brushless-type inverter motor controlled by an inverter board.

Heat exchanger coil

With copper pipes and aluminium louvers, the main coil has female gas water connections on the left side and the manifolds have air vents.
Units are available with a standard coil (20-50) and a larger coil (24-54).
Only units with the standard coil can be combined with an additional electric or water coil with 1 row, both available as an accessory.
The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

■ *The hydraulic connections can be inverted during installation.*

Air filter

Fire resistance class **1** air filter.

ACCESSORY COMPULSORY

VEC_GL: Air intake and flow grid with adjustable Coanda-effect vents (white M9016 = lacquered white similar to Ral 9016).

Control panels and dedicated accessories

AER503IR: Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.
FMT10: Electronic thermostat for fan coil in to 2/4 pipe systems.
PRO503: Wall box for AER503IR and VMF-E4 thermostats.
SA5: air probe kit (L = 15 m) with probe-locking cable grommet.
SIT3: Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat). Commands the 3 fan speeds and must be installed on each fan coil within the network; receives the commands from the selector or the SIT5 card. In case you decide to install Aermec thermostats and current absorbed by the unit exceeds 0.7 A, you're obliged to include SIT3 accessory.
SIT5: Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel. Commands the 3 fan speeds and up to 2 valves (four pipe systems); sends the thermostat's commands to the fan coil network.
SW3: Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.
SW5: water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.
TX: Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).
WMT05: Electronic thermostat with thermostated ventilation.
WMT06: Electronic thermostat with continuous ventilation.
WMT10: Electronic thermostat, white, with thermostated or continuous ventilation.

VMF Components

VMF-E19: Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe.

VMF-E3: Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, VMF-E0X with grids GLF_N/M and GLL_N, can be controlled with VMF-IR control.
VMF-E4X: Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.
VMF-IR: User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.
VMF-SW: Water probe (L = 2.5m) used if required in place of the standard unit supplied with the VMF-E0X, VMF-E19 and VMF-E19I thermostats for mounting it upstream of the valve
VMF-SW1: Additional water probe (L = 2.5m) to be used if required for 4-pipe systems with the VMF-E19 and VMF-E19I thermostats for maximum control in the cold range

Common accessories

BV: Single row hot water heat exchanger.
RX: Armoured electric coil with safety thermostat.

VCFD: Motorized 2-way valve kit without insulating shell, can be installed on the main or secondary battery or a battery that is only warm. The kit is made up of a valve, actuator and relative hydraulic fittings. It can be installed on fan coils with connections on the right and on the left.
VCF41 - 42 - 43 - for main coil: 3-way motorised valve kit for the main coil. The kit is made up of a valve with its insulating shell, actuator and relative hydraulic fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.
DSC: Condensate drainage device.
BC: Condensate drip.
VCF44 - 45 - for the secondary coil: The 3-way motorised valve kit for the secondary coil heat only. The kit consists of a valve with its insulating shell, actuator and relevant water fittings; it is suitable to be installed on the fan coils with right and left water connections.
PCR: Galvanised plate protection for the controls and the electrical element.

ACCESSORIES COMPATIBILITY

Accessories mandatory

Intake grid and distribution of the air

Model	Ver	20	24	30	34	40	44	50	54
VEC20GL (1)	.	•	•						
VEC30GL (1)	.			•	•				
VEC40GL (1)	.					•	•	•	•

(1) Mandatory accessory.

Control panels and dedicated accessories

Model	Ver	20	24	30	34	40	44	50	54
AER503IR (1)	.	•	•	•	•	•	•	•	•
FMT10	.	•	•	•	•	•	•	•	•
PRO503	.	•	•	•	•	•	•	•	•
SA5 (2)	.	•	•	•	•	•	•	•	•
SIT3 (3)	.	•	•	•	•	•	•	•	•
SIT5 (4)	.	•	•	•	•	•	•	•	•
SW3 (2)	.	•	•	•	•	•	•	•	•
SW5 (2)	.	•	•	•	•	•	•	•	•
TX (1)	.	•	•	•	•	•	•	•	•
WMT05 (1)	.	•	•	•	•	•	•	•	•
WMT06 (1)	.	•	•	•	•	•	•	•	•
WMT10 (1)	.	•	•	•	•	•	•	•	•

(1) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.
(2) Probe for AER503IR-TX thermostats, if fitted.
(3) Cards for AER503IR-TX thermostats, if present, to be installed if the unit absorption exceeds 0,7 Ampere.
(4) Probe for AER503IR-TX thermostats, if fitted.

VMF Components

Model	Ver	20	24	30	34	40	44	50	54
VMF-E19 (1)	.	•	•	•	•	•	•	•	•
VMF-E3	.	•	•	•	•	•	•	•	•
VMF-E4X	.	•	•	•	•	•	•	•	•
VMF-IR	.	•	•	•	•	•	•	•	•
VMF-SW	.	•	•	•	•	•	•	•	•
VMF-SW1	.	•	•	•	•	•	•	•	•

(1) Also the accessory VMF-SIT3V is mandatory if the unit exceeds 0.7 Amperes.

Common accessories

Electric coil

Model	Ver	20	24	30	34	40	44	50	54
RX22 (1)	.	•	•						
RX32 (1)	.			•	•				
RX42 (1)	.					•	•		
RX52 (1)	.							•	•

(1) Requires a thermostat with heater management. Not available for sizes with an oversized main coil. The PCR1 or PCR2 appliance must also be provided depending on the unit.

Protection for controls and electric resistance

Model	Ver	20	24	30	34	40	44	50	54
PCR1V	.	•	•	•	•	•	•	•	•

Water coil with 1 row

Model	Ver	20	24	30	34	40	44	50	54
BV122 (1)	.	•							
BV132 (1)	.			•					
BV142 (1)	.					•		•	

(1) Not available for sizes with oversized main coil.

3-way valve kit - main coil or accessory BV coil

	VEC20	VEC24	VEC30	VEC34	VEC40	VEC44	VEC50	VEC54
Main coil	VCF41 - VCF4124	VFC42 - VCF4224	VCF41 - VCF4124	VFC42 - VCF4224	VFC42 - VCF4224	VFC42 - VCF4224	VFC42 - VCF4224	VFC42 - VCF4224
Additional coil "BV"	VCF44 - VCF4424	-	VCF44 - VCF4424	-	VCF44 - VCF4424	-	VCF44 - VCF4424	-

2-way valve kit - main coil or accessory BV coil

	VEC20	VEC24	VEC30	VEC34	VEC40	VEC44	VEC50	VEC54
Main coil	VCFD1 - VCFD124	VCFD2 - VCFD224	VCFD1 - VCFD124	VCFD2 - VCFD224	VFCD2 - VCFD224	VFCD2 - VCFD224	VFCD2 - VCFD224	VFCD2 - VCFD224
Additional coil "BV"	VCFD4 - VCFD424	-	VCFD4 - VCFD424	-	VCFD4 - VCFD424	-	VCFD4 - VCFD424	-

Valves ending with **24 ex. VCFD124,** are 24V.

Condensate drip

Ver	20	24	30	34	40	44	50	54
.	BC5 (1)	BC5 (1)	BC5 (1)	BC5 (1)	BC5 (1)	BC5 (1)	BC5 (1)	BC5 (1)

(1) For horizontal installation.

Condensate drainage

Ver	20	24	30	34	40	44	50	54
.	DSC4	DSC4	DSC4	DSC4	DSC4	DSC4	DSC4	DSC4

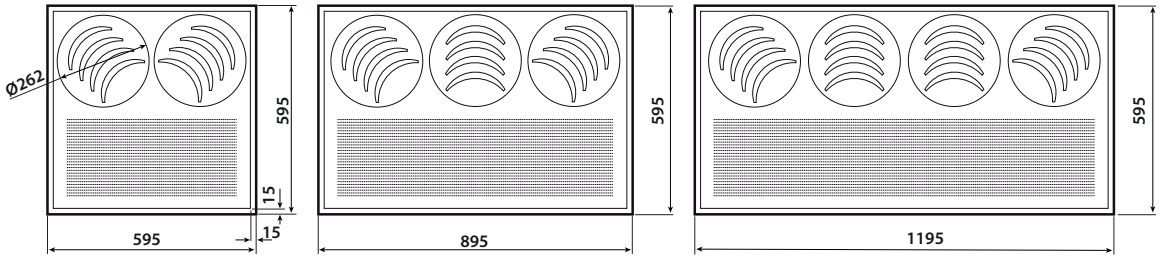
PERFORMANCE SPECIFICATIONS VEC

2-pipe

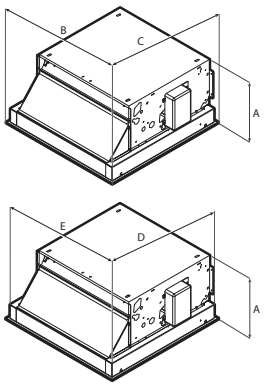
		VEC20			VEC24			VEC30			VEC34			VEC40			VEC44			VEC50			VEC54		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)																									
Heating capacity	kW	1,87	2,54	3,10	2,07	2,50	3,42	3,03	3,64	4,31	4,31	53,18	6,14	4,21	5,21	6,29	5,41	6,68	8,07	4,76	6,34	7,16	6,06	8,08	9,18
Water flow rate system side	l/h	164	223	272	181	219	300	266	319	378	378	454	538	369	457	551	474	586	708	417	556	628	532	709	805
Pressure drop system side	kPa	2	4	6	1	2	3	9	13	17	5	7	9	6	9	12	9	14	19	7	11	14	9	15	19
Heating performance 45 °C / 40 °C (2)																									
Heating capacity	kW	0,95	1,26	1,54	1,20	1,40	1,70	1,50	1,81	2,14	2,15	2,57	3,05	2,09	2,59	3,12	2,69	3,30	4,01	2,37	3,15	3,56	3,02	4,02	4,54
Water flow rate system side	l/h	163	217	265	206	241	292	258	311	368	370	442	525	359	445	537	463	568	690	408	542	612	519	691	781
Pressure drop system side	kPa	3	5	7	2	3	4	9	13	17	5	7	9	6	9	13	10	14	20	7	12	14	17	15	19
Cooling performance 7 °C / 12 °C (3)																									
Cooling capacity	kW	0,80	1,07	1,31	0,88	1,21	1,52	1,35	1,61	1,91	1,79	2,14	2,47	1,99	2,47	2,99	2,55	3,34	3,91	2,35	3,17	3,61	3,00	4,00	4,28
Sensible cooling capacity	kW	0,64	0,87	1,07	0,67	0,90	1,14	1,03	1,25	1,49	1,26	1,51	1,78	1,58	1,98	2,41	1,91	2,42	2,74	1,68	2,27	2,59	2,09	2,83	3,04
Water flow rate system side	l/h	138	184	225	151	208	261	232	277	329	308	368	425	342	425	514	439	574	673	404	545	621	516	688	736
Pressure drop system side	kPa	3	4	6	1	2	3	6	11	13	5	6	8	6	9	12	11	17	22	7	12	15	17	27	30
Fan																									
Type	type	Centrifugal																							
Fan motor	type	Asynchronous																							
Number	no.	1			1			2			2			2			2			2			2		
Air flow rate	m^3/h	130	194	247	130	167	247	241	309	383	241	309	383	306	406	511	306	406	511	371	529	613	371	529	613
Input power	W	19	22	25	19	22	25	25	33	44	25	33	44	30	43	57	30	43	57	34	46	67	34	46	67
Electrical wiring		V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3	V1	V2	V3
Fan coil sound data (4)																									
Sound power level	dB(A)	35,0	42,0	48,0	35,0	42,0	48,0	37,0	43,0	49,0	37,0	43,0	49,0	38,0	43,0	48,0	38,0	43,0	48,0	43,0	50,0	53,0	43,0	50,0	53,0
Sound pressure	dB(A)	27,0	34,0	40,0	27,0	34,0	40,0	29,0	35,0	41,0	29,0	35,0	41,0	30,0	35,0	40,0	30,0	35,0	40,0	35,0	38,0	45,0	35,0	38,0	45,0
Diametre hydraulic fittings																									
Main coil	Ø	1/2"			3/4"			1/2"			3/4"			3/4"			3/4"			3/4"			3/4"		
Power supply																									
Power supply		230V~50Hz																							

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C
(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C; EUROVENT
(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT
(4) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

GRID DIMENSIONS (MANDATORY ACCESSORY)



DIMENSIONS



Dimensions and weights of the unit with grid (maximum dimensions)

Size			20	24	30	34	40	44	50	54
Dimensions and weights										
A	.	mm	283	283	283	283	283	283	283	283
B	.	mm	595	595	895	895	1195	1195	1195	1195
C	.	mm	595	595	595	595	595	595	595	595
Empty weight	.	kg	16	16	21	21	25	25	25	25
Weight of the grid	.	kg	3,7	3,7	5,7	5,7	7,0	7,0	7,0	7,0

Dimensions of the unit with grid (dimensions for installation)

Size			20	24	30	34	40	44	50	54
Dimensions and weights										
A	.	mm	283	283	283	283	283	283	283	283
D	.	mm	574	574	574	574	574	574	574	574
E	.	mm	574	574	874	874	1174	1174	1174	1174

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VEC-I

Coanda-effect fan coil for cassette installation

- **Very quiet**
- **Electric saving equal to 50% with respect to a fan coil with 3-speed motor**
- **Total comfort: reduced variations in temperature and relative humidity in every season**



DESCRIPTION

Thanks to a special air intake and flow grid, these units allow a coanda-effect air flow to be generated, parallel to the ceiling, creating optimal circulation inside the room to be air-conditioned.
They are suitable to be installed inside a suspended ceiling.

FEATURES

Ventilation group

Comprised of a dual intake centrifugal fan that is particularly silent, statically and dynamically balanced and directly coupled to the motor shaft.
The Brushless electric motor with 0-100% continuous speed variation, which allows precise adaptation to the real demands of the internal environment without temperature fluctuations.
Continuous air flow rate variation is made possible by a 0-10V signal generated by Aermec adjustment and control commands or by independent regulation systems.
This lowers noise and generates a better response to heat loads and a higher stability in the desired temperature inside the room.
The high efficiency even with low speed, makes it possible to reduce power consumption (more than 50% less than fan coils with traditional motors).
Apart from the inverter motor of the "VEC-I" models, each unit can be supplied with a single-phase asynchronous "VEC" motor.

Heat exchanger coil

With copper pipes and aluminium louvers, the main coil has female gas water connections on the left side and the manifolds have air vents.
Units are available with a standard coil (20-50) and a larger coil (24-54).
Only units with the standard coil can be combined with an additional electric or water coil with 1 row, both available as an accessory.
The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

The hydraulic connections can be inverted during installation.

Air filter

Fire resistance class **1** air filter.

ACCESSORY COMPULSORY

Control panels and dedicated accessories

AER503IR: Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.
SA5: air probe kit (L = 15 m) with probe-locking cable grommet.
SW5: water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.
TX: Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).

VMF Components

VMF-E19I: Thermostat for inverter unit to be fixed on the side of the fan coil, fitted as standard with an air and water probe.
VMF-E4DX: Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).
VMF-E4X: Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.
VMF-SW: Water probe (L = 2.5m) used if required in place of the standard unit supplied with the VMF-E0X, VMF-E19 and VMF-E19I thermostats for mounting it upstream of the valve
VMF-SW1: Additional water probe (L = 2.5m) to be used if required for 4-pipe systems with the VMF-E19 and VMF-E19I thermostats for maximum control in the cold range

Common accessories

BV: Single row hot water heat exchanger.
RX: Armoured electric coil with safety thermostat.
VCFD: Motorized 2-way valve kit without insulating shell, can be installed on the main or secondary battery or a battery that is only warm. The kit is made up of a valve, actuator and relative hydraulic fittings. It can be installed on fan coils with connections on the right and on the left.
VCF41 - 42 - 43 - for main coil: 3-way motorised valve kit for the main coil. The kit is made up of a valve with its insulating shell, actuator and relative hydraulic fittings. It can be installed on fan coils with both right and left connections. If the valve is combined with the BCZ5 or BCZ6 condensate drain pan, to ensure a better housing it is possible to remove the insulating shell.
DSC: Condensate drainage device.
BC: Condensate drip.
PCR: Galvanised plate protection for the controls and the electrical element.

ACCESSORIES COMPATIBILITY

Accessories mandatory

Intake grid and distribution of the air

Accessory	VEC24I	VEC30I	VEC34I	VEC40I	VEC44I	VEC50I	VEC54I
VEC20GL	•						
VEC30GL		•	•				
VEC40GL				•	•	•	•

Control panels and dedicated accessories

Accessory	VEC20I	VEC24I	VEC30I	VEC34I	VEC40I	VEC44I	VEC50I	VEC54I
AER503IR	•	•	•	•	•	•	•	•
PRO503	•	•	•	•	•	•	•	•
SA5	•	•	•	•	•	•	•	•
SW5	•	•	•	•	•	•	•	•
TX	•	•	•	•	•	•	•	•

VMF Components

Model	Ver	20	24	30	34	40	44	50	54
VMF-E19 (1)	.	•	•	•	•	•	•	•	•
VMF-E3	.	•	•	•	•	•	•	•	•
VMF-E4X	.	•	•	•	•	•	•	•	•
VMF-IR	.	•	•	•	•	•	•	•	•
VMF-SW	.	•	•	•	•	•	•	•	•
VMF-SW1	.	•	•	•	•	•	•	•	•

(1) Also the accessory VMF-SIT3V is mandatory if the unit exceeds 0.7 Amperes.

Common accessories

Electric coil

Accessory	VEC20I	VEC24I	VEC30I	VEC34I	VEC40I	VEC44I	VEC50I	VEC54I
RX22	•	•						
RX32			•	•				
RX42					•	•		
RX52							•	•

Protection for controls and electric resistance

Accessory	VEC20I	VEC24I	VEC30I	VEC34I	VEC40I	VEC44I	VEC50I	VEC54I
PCR1V	•	•	•	•	•	•	•	•

Water coil with 1 row

Accessory	VEC20I	VEC30I	VEC40I	VEC50I
BV122	•			
BV132		•		
BV142			•	•

3-way valve kit - main coil or accessory BV coil

	VEC20I	VEC24I	VEC30I	VEC34I	VEC40I	VEC44I	VEC50I	VEC54I
Main coil	VCF41 - VCF4124	VFC42 - VCF4224	VCF41 - VCF4124	VFC42 - VCF4224	VFC42 - VCF4224	VFC42 - VCF4224	VFC42 - VCF4224	VFC42 - VCF4224
Additional coil "BV"	VCF44 - VCF4424	-	VCF44 - VCF4424	-	VCF44 - VCF4424	-	VCF44 - VCF4424	-

2-way valve kit - main coil or accessory BV coil

	VEC20I	VEC24I	VEC30I	VEC34I	VEC40I	VEC44I	VEC50I	VEC54I
Main coil	VCFD1 - VCFD124	VCFD2 - VCFD224	VCFD1 - VCFD124	VCFD2 - VCFD224	VFCD2 - VCFD224	VFCD2 - VCFD224	VFCD2 - VCFD224	VFCD2 - VCFD224
Additional coil "BV"	VCFD4 - VCFD424	-	VCFD4 - VCFD424	-	VCFD4 - VCFD424	-	VCFD4 - VCFD424	-

Valves ending with **24 ex. VCFD124,** are 24V.

Condensate drip

Accessory	VEC20I	VEC24I	VEC30I	VEC34I	VEC40I	VEC44I	VEC50I	VEC54I
BC5	•	•	•	•	•	•	•	•

Condensate drainage

Accessory	VEC20I	VEC24I	VEC30I	VEC34I	VEC40I	VEC44I	VEC50I	VEC54I
DSC4	•	•	•	•	•	•	•	•

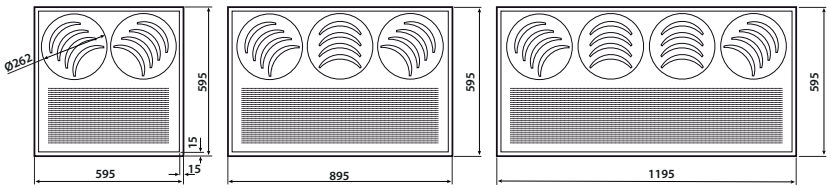
PERFORMANCE SPECIFICATIONS VEC

2-pipe

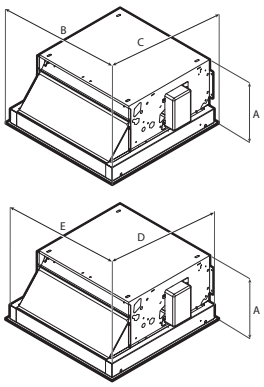
		VEC20I			VEC24I			VEC30I			VEC34I			VEC40I			VEC44I			VEC50I			VEC54I		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)																									
Heating capacity	kW	1,87	2,54	3,10	2,07	2,50	3,42	3,03	3,64	4,31	4,31	53,18	6,14	4,21	5,21	6,29	5,41	6,68	8,07	4,76	6,34	7,16	6,06	8,08	9,18
Water flow rate system side	l/h	164	223	272	181	219	300	266	319	378	378	454	538	369	457	551	474	586	708	417	556	628	532	709	805
Pressure drop system side	kPa	2	4	6	1	2	3	9	13	17	5	7	9	6	9	12	9	14	19	7	11	14	9	15	19
Heating performance 45 °C / 40 °C (2)																									
Heating capacity	kW	0,95	1,26	1,54	1,20	1,40	1,70	1,50	1,81	2,14	2,15	2,57	3,05	2,09	2,59	3,12	2,69	3,30	4,01	2,37	3,15	3,56	3,02	4,02	4,54
Water flow rate system side	l/h	163	217	265	206	241	292	258	311	368	370	442	525	359	445	537	463	568	690	408	542	612	519	691	781
Pressure drop system side	kPa	3	5	7	2	3	4	9	13	17	5	7	9	6	9	13	10	14	20	7	12	14	17	15	19
Cooling performance 7 °C / 12 °C (3)																									
Cooling capacity	kW	0,80	1,07	1,31	0,88	1,21	1,52	1,35	1,61	1,91	1,79	2,14	2,47	1,99	2,47	2,99	2,55	3,34	3,91	2,35	3,17	3,61	3,00	4,00	4,28
Sensible cooling capacity	kW	0,64	0,87	1,07	0,67	0,90	1,14	1,03	1,25	1,49	1,26	1,51	1,78	1,58	1,98	2,41	1,91	2,42	2,74	1,68	2,27	2,59	2,09	2,83	3,04
Water flow rate system side	l/h	138	184	225	151	208	261	232	277	329	308	368	425	342	425	514	439	574	673	404	545	621	516	688	736
Pressure drop system side	kPa	3	4	6	1	2	3	6	11	13	5	6	8	6	9	12	11	17	22	7	12	15	17	27	30
Fan																									
Type	type	Centrifugal																							
Fan motor	type	Inverter																							
Number	no.	1			1			2			2			2			2			2			2		
Air flow rate	m^3/h	130	194	247	130	167	247	241	309	383	241	309	383	306	406	511	306	406	511	371	529	613	371	529	613
Input power	W	4	9	14	4	9	14	11	16	35	11	16	35	16	20	26	16	20	26	18	27	34	18	27	34
Signal 0-10V	%	48	70	90	48	70	90	58	66	90	58	66	90	54	72	90	54	72	90	56	78	90	56	78	90
Fan coil sound data (4)																									
Sound power level	dB(A)	35,0	42,0	48,0	35,0	42,0	48,0	37,0	43,0	49,0	37,0	43,0	49,0	38,0	43,0	48,0	38,0	43,0	48,0	43,0	50,0	53,0	43,0	50,0	53,0
Sound pressure	dB(A)	27,0	34,0	40,0	27,0	34,0	40,0	29,0	35,0	41,0	29,0	35,0	41,0	30,0	35,0	40,0	30,0	35,0	40,0	35,0	38,0	45,0	35,0	38,0	45,0
Diametre hydraulic fittings																									
Main coil	Ø	1/2"			3/4"			1/2"			3/4"			3/4"			3/4"			3/4"			3/4"		
Power supply																									
Power supply		230V~50Hz																							

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C
(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C; EUROVENT
(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT
(4) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

GRID DIMENSIONS (MANDATORY ACCESSORY)



DIMENSIONS



Dimensions and weights of the unit with grid (maximum dimensions)

Size			20	24	30	34	40	44	50	54
Dimensions and weights										
A	.	mm	283	283	283	283	283	283	283	283
B	.	mm	595	595	895	895	1195	1195	1195	1195
C	.	mm	595	595	595	595	595	595	595	595
Empty weight	.	kg	16	16	21	21	25	25	25	25
Weight of the grid	.	kg	3,7	3,7	5,7	5,7	7,0	7,0	7,0	7,0

Dimensions of the unit with grid (dimensions for installation)

Size			20	24	30	34	40	44	50	54
Dimensions and weights										
A	.	mm	283	283	283	283	283	283	283	283
D	.	mm	574	574	574	574	574	574	574	574
E	.	mm	574	574	874	874	1174	1174	1174	1174

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FCL

Cassette Type Fan Coil Unit

- **Standard internal three-way valve**
- **Version with 2-way valve for variable water flow rate systems**
- **Version without valves**



DESCRIPTION

4-way cassettes that can be installed in any type of 2- or 4-pipe system with any heat generator, even at low temperatures. Thanks to the selection of versions and configurations, it's easy to choose the best solution for every need.

FEATURES

Intake grid and distribution of the air

The recovery and air diffusion grille has an elegant design. In plastic, RAL 9010.
The dimensions of the first nine sizes respect the 600x600 mm modularity of false ceilings, whereas the larger sizes measuring 840x840 mm are designed for quiet operation and optimum performance.

Load-bearing structure

Models with a 600x600 mm module have a reinforced load-bearing structure with side panels in galvanised steel sheet, thermally insulated with internal polystyrene foam elements.
The structure of models with a 840x840 mm module is made entirely of galvanised steel sheet, thermally insulated with polyethylene foam on the inside and with an anti-condensate felt coating.

Ventilation group

Formed of a particularly quiet axial-centrifugal fan, statically and dynamically balanced.
The single-phase electric motor offers three or four speeds (depending on the size), is mounted on anti-vibration supports, and has a permanently enabled condenser.

Heat exchanger coil

Heat exchanger with shaped profile to increase the exchange surface, and easily accessible drain valves.
There are models with a single coil for 2-pipe systems, with the possibility to add an electric heater too, and models with two coils for 4-pipe systems.
There is the possibility to combine outside air with the inlet ambient air, and to distribute it in separate rooms.
The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.
There is the possibility to combine outside air with the inlet ambient air, and to distribute it in separate rooms.

Condensate drip

Condensation drip tray in one piece, with V0 self-extinguishing level and overmoulding to insulation in expanded polystyrene with flame retardant additive.

Air filter

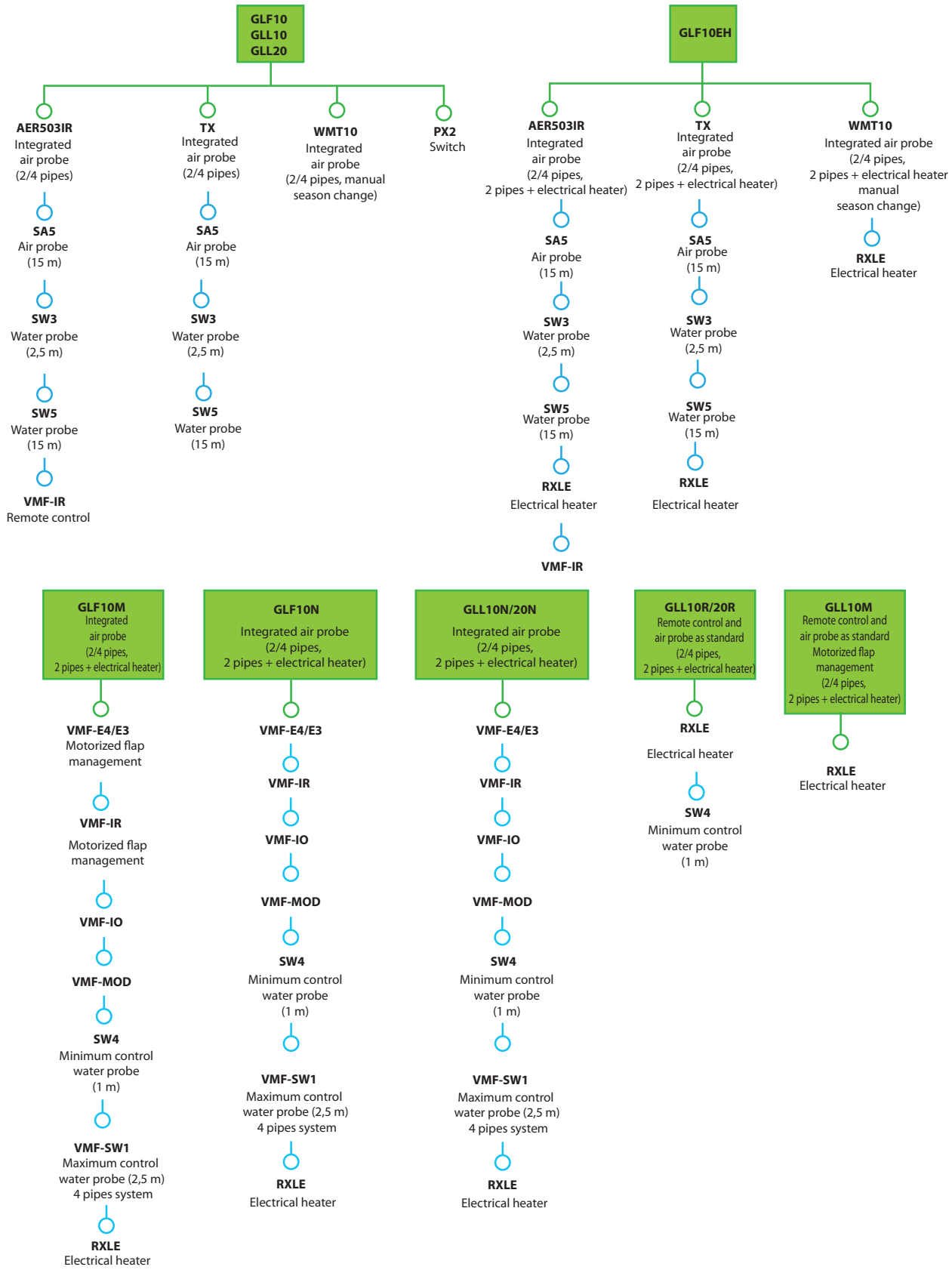
Air filter easily removed and cleaned, self-supporting structure, characterised by a high efficiency and low pressure drops, with class-V0 fire resistance (UL 94).

Versions

FCL Standard with internal 3-way valve
V2 With internal 2-way valve
VL Without internal valve

ACCESSORIES

Accessories that can be combined with the grilles



Intake grids and distribution of the air, compulsory accessory

GLF10: Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm adapts perfectly to standard false ceilings without overlapping parts. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits with manually orientated louvers. Must be combined with a wall-mounted panel. (size 840x840 mm not available).

GLF10EH: Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm; adapts perfectly to standard false ceilings without overlapping parts. Suitable for use with the RXLE heater. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits with manually orientated fins. Must be combined with a wall-mounted panel. (size 840x840 mm not available).

GLF10M: Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm adapts perfectly to standard false ceilings without overlapping parts. It is equipped with an infrared receiver with an emergency operation button, a thermostat card which also requires the installation of the VMF-E4 panel or the VMF-IR remote control. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be orientated with the remote control. (size 840x840 not available).

GLF10N: Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm, adapts perfectly to standard false ceilings without overlapping parts. Fitted with a thermostat board that necessarily requires the installation of the VMF-E4 or VMF-IR panel as well. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be manually orientated. (size 800x800 mm not available).

GLL10: Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm; adapts perfectly to standard false ceilings without overlapping parts. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be manually orientated. Must be combined with a wall-mounted panel.

GLL10M: Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm, adapts perfectly to standard false ceilings without overlapping parts. Fitted with an infrared receiver with an emergency operation button, and a remote control. Suitable for use with the RXLE heater. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be orientated with the remote control.

GLL10N: Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm, adapts perfectly to standard false ceilings without overlapping parts. Fitted with a thermostat board that necessarily requires the installation of the VMF-E4X or VMF-IR panel as well. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be manually orientated.

GLL10R: Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm, adapts perfectly to standard false ceilings without overlapping parts. Fitted with an infrared receiver with an emergency operation button, and a remote control. Suitable for use with the RXLE heater. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be manually orientated.

GLL20: Recovery and air supply grille in plastic, RAL 9010 colour, measuring 840x840 mm, adapts perfectly to standard false ceilings without overlapping parts. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be manually orientated. Must be combined with a wall-mounted panel.

GLL20N: Recovery and air supply grille in plastic, RAL 9010 colour, measuring 840x840 mm, adapts perfectly to standard false ceilings without overlapping parts. Fitted with a thermostat board that necessarily requires the installation of the VMF-E4X or VMF-IR panel as well. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be manually orientated.

GLL20R: Recovery and air supply grille in plastic, RAL 9010 colour, measuring 840x840 mm, adapts perfectly to standard false ceilings without overlapping parts. Fitted with an infrared receiver with an emergency operation button, and a remote control. Suitable for use with the RXLE heater. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be manually orientated.

VMF system

VMF-E3: Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, VMF-E0X with grids GLF_N/M and GLL_N, can be controlled with VMF-IR control.

VMF-E4DX: Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).

VMF-E4X: Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.

VMF-IO: Manage the unit exclusively from a centralized VMF control panel without area control panel.

VMF-IR: User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.

VMF-MOD: Expansion board for the management of modulating valves.

VMF-SW1: Additional water probe (L = 2.5m) to be used if required for 4-pipe systems with the VMF-E19 and VMF-E19I thermostats for maximum control in the cold range

Control panels and their accessories

AER503IR: Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.

SA5: air probe kit (L = 15 m) with probe-locking cable grommet.

SIT3: Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat). Commands the 3 fan speeds and must be installed on each fan coil within the network; receives the commands from the selector or the SIT5 card. In case you decide to install Aermec thermostats and current absorbed by the unit exceeds 0.7 A, you're obliged to include SIT3 accessory.

SIT5: Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel. Commands the 3 fan speeds and up to 2 valves (four pipe systems); sends the thermostat's commands to the fan coil network.

SW3: Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.

SW4: Water temperature probe allowing automatic season change on electronic controllers supplied with water-side change over.

SW5: water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.

TX: Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).

WMT10: Electronic thermostat, white, with thermostated or continuous ventilation.

Electric heaters

RXLE: Electric heater for heating, can be installed on board the units.

RXLE20: Electric heater for heating, can be installed on board the units.

Water valve kit

VCFLX4: 3-way valve kit for single-coil fan coil for 4-pipe systems. With totally separate "heating" and "cooling" circuits. This kit consists of two 3-way insulated valves and four connections, complete with electrothermal actuators, insulating shells for the valves, and the relative hydraulic couplings.

VHL1: 3-way motorised valve kit with 4 connections including the actuator. 230V~50Hz power supply.

VHL124: 3-way motorised valve kit with 4 connections including the actuator. 24V power supply.
VHL20: Motorised 3-way valve kit with 4 connections, complete with actuator and the relative hydraulic couplings. 230V~50Hz power supply.
VHL2024: Motorised 3-way valve kit with 4 connections, complete with actuator and the relative hydraulic couplings. 24V power supply.
VHL2: 2-way motorised valve kit with 2 connections including the actuator. Power supply 230V~50Hz;
VHL22: Motorised 2-way valve kit with 2 connections, complete with actuator and the relative hydraulic couplings. Power supply 230V~50Hz;
VHL2224: Motorised 2-way valve kit with 2 connections, complete with actuator and the relative hydraulic couplings. 24V power supply.
VHL224: 2-way motorised valve kit with 2 connections including the actuator. 24V power supply.

Installation accessories

FEL10: Kit n°5 electrostatically pre-charged air filter, with fire resistance class 2 (UL 900).

KFL: Delivery flange, allowing the air to be directed to an adjacent room.
KFL20: Delivery flange, allowing the air to be directed to an adjacent room. Up to three KFL20 can be assembled on a single unit.
KFLD: Suction flange, allows to introduce external air directly into the room without mixing.
KFLD20: Suction flange, allows to introduce external air directly into the room without mixing. Up to two KFL20D can be assembled on a single unit.
FCLMC10: Perimeter housing in painted galvanised sheet metal, 600x600 mm, used when the fan coil is installed outside the false ceiling. It has an aesthetic and protective purpose only, so the technical characteristics of the fan coil remain unaltered. Can only be combined with GLL/GLLI grilles.
FCLMC20: Perimeter housing in painted sheet metal, 840x840 mm, used when the fan coil is installed outside the false ceiling. It has an aesthetic and protective purpose only, so the technical characteristics of the fan coil remain unaltered. Can only be combined with GLL/GLLI grilles.

ACCESSORIES COMPATIBILITY

Intake grids and distribution of the air

Model	Ver	32	34	36	38	42	44	62	64
GLF10 (1)	FCL,V2,VL	•	•	•	•	•	•	•	•
GLF10EH (2)	FCL,V2,VL	•	•	•	•	•	•	•	•
GLF10M (3)	FCL,V2,VL	•	•	•	•	•	•	•	•
GLF10N (3)	FCL,V2,VL	•	•	•	•	•	•	•	•

Model	Ver	72	82	84	102	104	122	124
GLF10 (1)	FCL,V2,VL	•						
GLF10EH (2)	FCL,V2,VL	•						
GLF10M (3)	FCL,V2,VL	•						
GLF10N (3)	FCL,V2,VL	•						

(1) Not compatible with the VMF system and electric heaters.
(2) Not compatible with the VMF system, but compatible with electric heaters.
(3) Compatible with the VMF system and electric heaters.

Intake grid and distribution of the air

Model	Ver	32	34	36	38	42	44	62	64
GLL10 (1)	FCL,V2,VL	•	•	•	•	•	•	•	•
GLL10M (2)	FCL,V2,VL	•	•	•	•	•	•	•	•
GLL10N (3)	FCL,V2,VL	•	•	•	•	•	•	•	•
GLL10R (2)	FCL,V2,VL	•	•	•	•	•	•	•	•

Model	Ver	72	82	84	102	104	122	124
GLL10 (1)	FCL,V2,VL	•						
GLL10M (2)	FCL,V2,VL	•						
GLL10N (3)	FCL,V2,VL	•						
GLL10R (2)	FCL,V2,VL	•						
GLL20 (1)	FCL,V2,VL		•	•	•	•	•	•
GLL20N (3)	FCL,V2,VL		•	•	•	•	•	•
GLL20R (4)	FCL,V2,VL		•	•	•	•	•	•

(1) Not compatible with the VMF system and electric heaters.
(2) Not compatible with the VMF system, but compatible with electric heaters.
(3) Compatibility with VMF system.
(4) Not compatible with the VMF system.

VMF system

Model	Ver	32	34	36	38	42	44	62	64
VMF-E3	FCL,V2,VL	•	•	•	•	•	•	•	•
VMF-E4DX	FCL,V2,VL	•	•	•	•	•	•	•	•
VMF-E4X	FCL,V2,VL	•	•	•	•	•	•	•	•
VMF-IO	FCL,V2,VL	•	•	•	•	•	•	•	•
VMF-IR	FCL,V2,VL	•	•	•	•	•	•	•	•
VMF-MOD	FCL,V2,VL	•	•	•	•	•	•	•	•
VMF-SW1	FCL,V2,VL	•	•	•	•	•	•	•	•

Model	Ver	72	82	84	102	104	122	124
VMF-E3	FCL,V2,VL	•	•	•	•	•	•	•
VMF-E4DX	FCL,V2,VL	•	•	•	•	•	•	•
VMF-E4X	FCL,V2,VL	•	•	•	•	•	•	•
VMF-IO	FCL,V2,VL	•	•	•	•	•	•	•
VMF-IR	FCL,V2,VL	•	•	•	•	•	•	•
VMF-MOD	FCL,V2,VL	•	•	•	•	•	•	•

Model	Ver	72	82	84	102	104	122	124
VMF-SW1	FCL,V2,VL	•	•	•	•	•	•	•

Control panels and dedicated accessories

Model	Ver	32	34	36	38	42	44	62	64	72	82	84	102	104	122	124
AER503IR (1)	FCL,V2,VL	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SA5 (2)	FCL,V2,VL	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SIT3 (3)	FCL,V2,VL	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SIT5 (4)	FCL,V2,VL	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SW3 (2)	FCL,V2,VL	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SW4	FCL,V2,VL	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SW5 (2)	FCL,V2,VL	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
TX (1)	FCL,V2,VL	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
WMT10 (1)	FCL,V2,VL	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

(1) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.
(2) Probe for AER503IR-TX thermostats, if fitted.
(3) Cards for AER503IR-TX thermostats, if present, to be installed if the unit absorption exceeds 0,7 Ampere.
(4) Probe for AER503IR-TX thermostats, if fitted.

3 way valve kit

Model	Ver	32	34	36	38	42	44	62	64
VHL1 (1)	FCL,V2,VL		•		•		•		•
VHL124 (1)	FCL,V2,VL		•		•		•		•

Model	Ver	72	82	84	102	104	122	124
VHL20 (1)	FCL,V2,VL			•		•		•
VHL2024 (1)	FCL,V2,VL			•		•		•

(1) Obligatory accessory in 4-pipe systems.

2 way valve kit

Model	Ver	32	34	36	38	42	44	62	64
VHL2 (1)	FCL,V2,VL		•		•		•		•
VHL224 (1)	FCL,V2,VL		•		•		•		•

Model	Ver	72	82	84	102	104	122	124
VHL22 (1)	FCL,V2,VL			•		•		•
VHL2224 (1)	FCL,V2,VL			•		•		•

(1) Compulsory accessory in 4-pipe systems with variable flow rate.

Valve Kit for 4 pipe systems

Model	Ver	32	34	36	38	42	44	62	64	72
VCFLX4 (1)	VL	•		•		•		•		•

(1) The valve must be commanded via command panels enabled for valve control.

Air filters

Model	Ver	32	34	36	38	42	44	62	64
FEL10	FCL,V2,VL	•	•	•	•	•	•	•	•

Model	Ver	72	82	84	102	104	122	124
FEL10	FCL,V2,VL	•						

Delivery flange

Model	Ver	32	34	36	38	42	44	62	64
KFL	FCL,V2,VL	•	•	•	•	•	•	•	•
KFLD	FCL,V2,VL	•	•	•	•	•	•	•	•

Model	Ver	72	82	84	102	104	122	124
KFL	FCL,V2,VL	•						
KFL20	FCL,V2,VL		•	•	•	•	•	•
KFLD	FCL,V2,VL	•						
KFLD20	FCL,V2,VL		•	•	•	•	•	•

Perimeter case

Model	Ver	32	34	36	38	42	44	62	64
FCLMC10 (1)	FCL,V2,VL	•	•	•	•	•	•	•	•

Model	Ver	72	82	84	102	104	122	124
FCLMC10 (1)	FCL,V2,VL	•						
FCLMC20 (1)	FCL,V2,VL		•	•	•	•	•	•

(1) Can only be combined with GLL/GLLI grilles

PERFORMANCE SPECIFICATIONS

2-pipe

		FCL32			FCL36			FCL42			FCL62			FCL72			FCL82			FCL102			FCL122		
		1	2	3	1	2	3	1	2	4	1	2	4	1	2	4	1	2	4	1	2	4	1	2	4
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)																									
Heating capacity	kW	2,22	2,95	4,00	3,42	4,50	6,27	3,32	4,47	7,34	5,19	6,37	10,49	6,14	7,57	11,32	5,88	8,12	11,88	8,30	11,71	17,73	10,53	14,73	21,75
Water flow rate system side	l/h	194	258	350	300	394	549	290	391	642	454	558	918	538	662	991	514	710	1039	726	1025	1551	921	1289	1903
Pressure drop system side	kPa	4	6	10	6	10	19	6	10	24	12	17	42	14	20	42	7	13	26	6	12	25	11	21	42
Heating performance 45 °C / 40 °C (2)																									
Heating capacity	kW	1,10	1,47	1,98	1,70	2,24	3,12	1,65	2,22	3,64	2,58	3,17	5,21	3,50	3,76	5,63	2,92	4,03	5,90	4,12	5,82	8,81	5,23	7,32	10,80
Water flow rate system side	l/h	192	254	345	295	389	541	287	386	633	448	550	905	530	654	977	507	701	1025	716	1011	1530	909	1271	1877
Pressure drop system side	kPa	4	6	11	6	9	17	5	9	23	10	15	36	13	19	40	7	12	23	4	7	15	10	17	35
Cooling performance 7 °C / 12 °C (3)																									
Cooling capacity	kW	1,14	1,44	1,86	1,77	2,22	2,96	1,94	2,51	3,88	2,63	3,17	4,90	2,75	3,29	5,35	2,76	3,97	5,85	4,00	5,82	8,85	5,31	7,40	10,83
Sensible cooling capacity	kW	0,97	1,22	1,48	1,37	1,75	2,36	1,36	1,79	3,09	1,83	2,23	3,73	1,84	2,29	3,99	1,86	2,69	4,05	2,89	4,22	6,51	3,99	5,63	8,30
Water flow rate system side	l/h	200	253	327	308	387	516	337	437	679	458	551	856	484	571	938	482	695	1032	697	1012	1547	921	1292	1893
Pressure drop system side	kPa	4	7	10	6	9	15	7	11	25	12	16	36	13	18	43	7	14	28	7	13	28	10	19	38
Fan																									
Type	type	Centrifugal			Centrifugal			Centrifugal			Centrifugal			Centrifugal			Centrifugal			Centrifugal			Centrifugal		
Fan motor	type	Asynchronous			Asynchronous			Asynchronous			Asynchronous			Asynchronous			Asynchronous			Asynchronous			Asynchronous		
Number	no.	1			1			1			1			1			1			1			1		
Air flow rate	m^3/h	300	410	600	300	410	600	260	360	700	380	500	880	400	520	900	460	680	1100	560	830	1350	750	1100	1750
Sound power level	dB(A)	35,0	38,0	46,0	35,0	38,0	46,0	35,0	38,0	53,0	41,0	47,0	61,0	44,0	49,0	60,0	39,0	43,0	50,0	40,0	45,0	54,0	44,0	50,0	60,0
Input power	W	21	31	45	21	31	45	-	32	75	26	37	83	50	58	110	45	80	150	50	80	155	55	105	175
Diametre hydraulic fittings																									
Type	type	Gas - F			Gas - F			Gas - F			Gas - F			Gas - F			Gas - F			Gas - F			Gas - F		
Main coil	Ø	3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"		
Water coil																									
Water content main coil	l	0,6			0,8			0,8			1,3			1,3			2,6			4,0			4,0		
Power supply																									
Power supply		230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz		

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C
(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C; EUROVENT
(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT

4-pipe

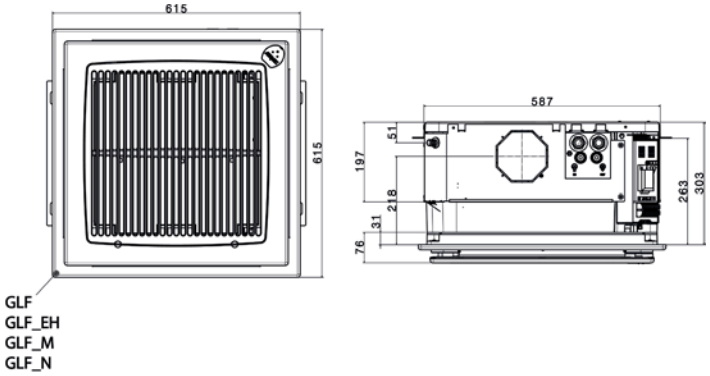
4-pipe

		FCL34			FCL38			FCL44			FCL64			FCL84			FCL104			FCL124		
		1	2	3	1	2	3	1	2	3	1	2	4	1	2	4	1	2	4	1	2	4
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 65 °C / 55 °C (1)																						
Heating capacity	kW	1,74	1,95	2,32	1,74	1,95	2,32	1,75	2,04	2,44	2,21	2,50	3,19	4,73	5,71	7,59	5,27	6,53	8,93	6,30	8,31	11,17
Water flow rate system side	l/h	152	171	203	152	171	203	153	178	240	194	219	279	414	500	664	461	571	782	551	727	977
Pressure drop system side	kPa	6	7	10	6	7	10	6	7	10	10	10	19	6	8	12	7	10	17	9	15	25
Cooling performance 7 °C / 12 °C (2)																						
Cooling capacity	kW	1,14	1,44	1,86	1,63	2,05	2,73	1,79	2,31	2,95	2,43	2,93	4,51	2,76	3,97	5,85	3,45	4,84	7,05	4,52	6,11	8,63
Sensible cooling capacity	kW	0,97	1,22	1,48	1,28	1,63	2,20	1,25	1,65	2,13	1,69	2,06	3,43	1,86	2,69	4,05	2,43	3,45	5,15	3,32	4,57	6,60
Water flow rate system side	l/h	200	253	327	284	358	476	314	396	626	424	510	793	482	695	1032	602	845	1238	786	1068	1513
Pressure drop system side	kPa	4	7	10	5	8	13	6	10	15	11	16	35	6	12	25	7	13	26	12	22	38
Fan																						
Type	type	Centrifugal			Centrifugal			Centrifugal			Centrifugal			Centrifugal			Centrifugal			Centrifugal		
Fan motor	type	Asynchronous			Asynchronous			Asynchronous			Asynchronous			Asynchronous			Asynchronous			Asynchronous		
Number	no.	1			1			1			1			1			1			1		
Air flow rate	m^3/h	300	410	600	300	410	600	260	360	530	380	500	880	460	680	1100	560	830	1350	750	1100	1750
Sound power level	dB(A)	35,0	38,0	46,0	35,0	38,0	46,0	35,0	39,0	46,0	41,0	47,0	61,0	39,0	43,0	50,0	40,0	45,0	54,0	46,0	50,0	60,0
Input power	W	21	31	45	21	31	45	22	32	47	32	45	101	45	80	150	50	80	155	55	105	175
Diametre hydraulic fittings																						
Type	type	Gas - F			Gas - F			Gas - F			Gas - F			Gas - F			Gas - F			Gas - F		
Main coil	Ø	3/4"			3/4"			3/4"			3/4"			3/4"			3/4"			3/4"		
Secondary coil	Ø	1/2"			1/2"			1/2"			1/2"			1/2"			1/2"			1/2"		
Water coil																						
Water content main coil	l	0,8			0,8			0,8			1,1			2,6			2,6			2,6		
Water content the secondary coil	l	0,2			0,2			0,2			0,2			1,4			1,4			1,4		
Power supply																						
Power supply		230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz		

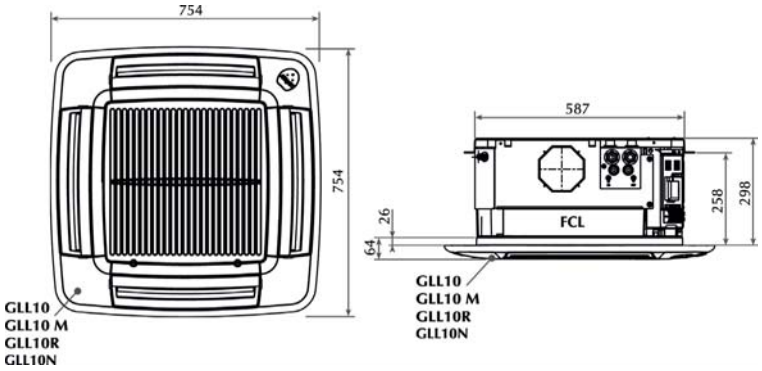
(1) Room air temperature 20°C d.b.; Water (in/out) 65 °C/55 °C; EUROVENT
(2) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT

DIMENSIONS

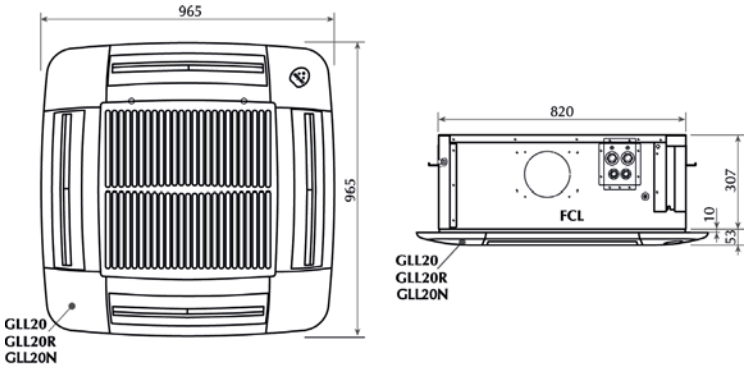
Dimensions FCL 32 - 34 - 36 - 38 - 42 - 44 - 64 - 72 con GLF



Dimensions FCL 32 - 34 - 36 - 38 - 42 - 44 - 64 - 72 con GLL



Dimensions FCL 82 - 84 - 102- 104 - 122 - 124 con GLL



Size			102	104	122	124	32	34	36	38	42	44	62	64	72	82	84
Dimensions and weights																	
	FCL	kg	36	36	36	36	20	21	20	21	21	21	22	22	22	35	36
Empty weight	V2	kg	36	36	36	36	20	21	20	21	20	21	21	22	22	35	36
	VL	kg	35	35	35	35	20	20	20	20	20	20	22	22	22	34	35

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FCLI

Cassette Type Fan Coil Unit

- **Electric saving equal to 50% with respect to a fan coil with 3-speed motor**
- **Total comfort: reduced variations in temperature and relative humidity**
- **Standard internal three-way valve**
- **Version with 2-way valve for variable water flow rate systems**
- **Version without valves**



DESCRIPTION

4-way cassettes that can be installed in any type of 2- or 4-pipe system with any heat generator, even at low temperatures. Thanks to the selection of versions and configurations, it's easy to choose the best solution for every need.

FEATURES

Intake grid and distribution of the air

The recovery and air diffusion grille has an elegant design. In plastic, RAL 9010. The dimensions of the first 5 sizes comply with the 600x600 mm modularity of false ceilings, whereas the larger sizes measuring 840x840 mm are designed for quiet operation and optimum performance of these large models.

Load-bearing structure

Models with a 600x600 mm module have a reinforced load-bearing structure with side panels in galvanised steel sheet, thermally insulated with internal polystyrene foam elements.
The structure of models with a 840x840 mm module is made entirely of galvanised steel sheet, thermally insulated with polyethylene foam on the inside and with an anti-condensate felt coating.

Ventilation group

Formed of a particularly quiet axial-centrifugal fan, statically and dynamically balanced.
The Brushless electric motor with 0-100% continuous speed variation, which allows precise adaptation to the real demands of the internal environment without temperature fluctuations.
The air flow can be continuously changed through a 1-10 V signal, coming from adjustment and control commands Aermec or from independent adjustment systems.
This lowers noise and generates a better response to heat loads and a higher stability in the desired temperature inside the room.
The high efficiency even with low speed, makes it possible to reduce power consumption (more than 50% less than fan coils with traditional motors).

Heat exchanger coil

Heat exchanger with shaped profile to increase the exchange surface, and easily accessible drain valves.
There are models with a single coil for 2-pipe systems, with the possibility to add an electric heater too, and models with two coils for 4-pipe systems.
There is the possibility to combine outside air with the inlet ambient air, and to distribute it in separate rooms.
The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

Condensate drip

Condensation drip tray in one piece, with V0 self-extinguishing level and overmoulding to insulation in expanded polystyrene with flame retardant additive.

Air filter

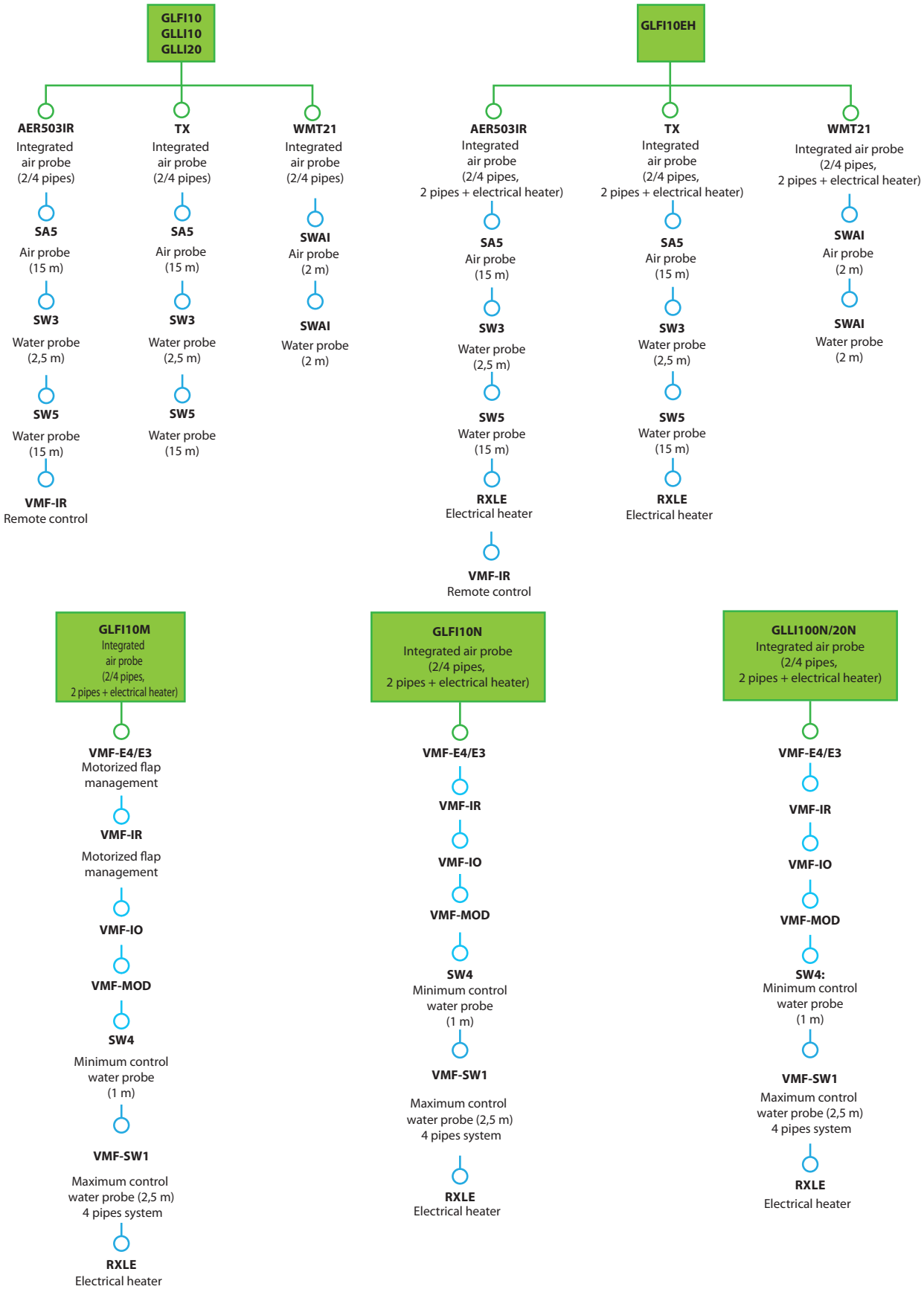
Air filter easily removed and cleaned, self-supporting structure, characterised by a high efficiency and low pressure drops, with class-V0 fire resistance (UL 94).

Versions

FCLI Standard
V2 With internal 2-way valve
VL Without internal valve

ACCESSORIES

Accessories that can be combined with the grilles



Intake grids and distribution of the air, compulsory accessory

GLFI10: Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm adapts perfectly to standard false ceilings without overlapping parts. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits with manually orientated louvers. Must be combined with a wall-mounted panel. (size 840x840 mm not available).

GLFI10EH: Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm; adapts perfectly to standard false ceilings without overlapping parts. Suitable for use with the RXLE heater. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits with manually orientated fins. Must be combined with a wall-mounted panel. (size 840x840 mm not available).

GLFI10M: Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm adapts perfectly to standard false ceilings without overlapping parts. It is equipped with an infrared receiver with an emergency operation button, a thermostat card which also requires the installation of the VMF-E4 panel or the VMF-IR remote control. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be orientated with the remote control. (size 840x840 not available).

GLFI10N: Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm, adapts perfectly to standard false ceilings without overlapping parts. Fitted with a thermostat board that necessarily requires the installation of the VMF-E4 or VMF-IR panel as well. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be manually orientated. (size 800x800 mm not available).

GLLI100: Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm; adapts perfectly to standard false ceilings without overlapping parts. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be manually orientated. Must be combined with a wall-mounted panel.

GLLI100EH: Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm; adapts perfectly to standard false ceilings without overlapping parts. Suitable for use with the RXLE heater. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits with manually orientated fins. Must be combined with a wall-mounted panel. (size 840x840 mm not available).

GLLI100N: Recovery and air supply grille in plastic, RAL 9010 colour, measuring 600x600 mm; adapts perfectly to standard false ceilings without overlapping parts. Fitted with a thermostat board that necessarily requires the installation of the VMF-E4X panel as well, and suitable for use with the RXLE heater. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be manually orientated.

GLLI20: Recovery and air supply grille in plastic, RAL 9010 colour, measuring 840x840 mm, adapts perfectly to standard false ceilings without overlapping parts. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be manually orientated. Must be combined with a wall-mounted panel.

GLLI20N: Recovery and air supply grille in plastic, RAL 9010 colour, measuring 840x840 mm, adapts perfectly to standard false ceilings without overlapping parts. Fitted with a thermostat board that necessarily requires the installation of the VMF-E4X or VMF-IR panel as well. Intake is in the central part, where the easily removable air filter is housed. Delivery is via the perimeter slits that can be manually orientated.

VMF system

VMF-E3: Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, VMF-E0X with grids GLF_N/M and GLL_N, can be controlled with VMF-IR control.

VMF-E4DX: Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).

VMF-E4X: Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.

VMF-IO: Manage the unit exclusively from a centralized VMF control panel without area control panel.

VMF-IR: User interface compatible with the AER503IR, VMF-E3 thermostat and with all the grids of cassettes equipped with the infrared receiver compatible with the VMF system.

VMF-MOD: Expansion board for the management of modulating valves.

VMF-SW: Water probe (L = 2.5m) used if required in place of the standard unit supplied with the VMF-E0X, VMF-E19 and VMF-E19I thermostats for mounting it upstream of the valve

VMF-SW1: Additional water probe (L = 2.5m) to be used if required for 4-pipe systems with the VMF-E19 and VMF-E19I thermostats for maximum control in the cold range

Control panels and their accessories

AER503IR: Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.

SA5: air probe kit (L = 15 m) with probe-locking cable grommet.

SW3: Water probe (L = 2.5 m) for controlling the minimum and maximum and to allow automatic seasonal switching for electronic thermostats fitted with water side changeover.

SW4: Water temperature probe allowing automatic season change on electronic controllers supplied with water-side change over.

SW5: water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.

SWAI: External air or water temperature probe.

TX: Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).

WMT21: Electronic thermostat for inverter fancoils.

Electric heaters

RXLE: Electric heater for heating, can be installed on board the units.

RXLE20: Electric heater for heating, can be installed on board the units.

Water valve kit

VCFLX4: 3-way valve kit for single-coil fan coil for 4-pipe systems. With totally separate "heating" and "cooling" circuits. This kit consists of two 3-way insulated valves and four connections, complete with electrothermal actuators, insulating shells for the valves, and the relative hydraulic couplings.

VHL1: 3-way motorised valve kit with 4 connections including the actuator. 230V~50Hz power supply.

VHL124: 3-way motorised valve kit with 4 connections including the actuator. 24V power supply.

VHL20: Motorised 3-way valve kit with 4 connections, complete with actuator and the relative hydraulic couplings. 230V~50Hz power supply.

VHL2024: Motorised 3-way valve kit with 4 connections, complete with actuator and the relative hydraulic couplings. 24V power supply.

VHL2: 2-way motorised valve kit with 2 connections including the actuator. Power supply 230V~50Hz;

VHL22: Motorised 2-way valve kit with 2 connections, complete with actuator and the relative hydraulic couplings. Power supply 230V~50Hz;

VHL2224: Motorised 2-way valve kit with 2 connections, complete with actuator and the relative hydraulic couplings. 24V power supply.

VHL224: 2-way motorised valve kit with 2 connections including the actuator. 24V power supply.

Installation accessories

FEL10: Kit n°5 electrostatically pre-charged air filter, with fire resistance class 2 (UL 900).

KFL: Delivery flange, allowing the air to be directed to an adjacent room.

KFL20: Delivery flange, allowing the air to be directed to an adjacent room. Up to three KFL20 can be assembled on a single unit.

KFLD: Suction flange, allows to introduce external air directly into the room without mixing.
KFLD20: Suction flange, allows to introduce external air directly into the room without mixing. Up to two KFL20D can be assembled on a single unit.
FCLMC10: Perimeter housing in painted galvanised sheet metal, 600x600 mm, used when the fan coil is installed outside the false ceiling. It has an aesthetic and protective purpose only, so the technical characteristics of the fan coil remain unaltered. Can only be combined with GLL/GLLI grilles.
FCLMC20: Perimeter housing in painted sheet metal, 840x840 mm, used when the fan coil is installed outside the false ceiling. It has an aesthetic and protective purpose only, so the technical characteristics of the fan coil remain unaltered. Can only be combined with GLL/GLLI grilles.
FCLMC20IK: Installation kit for the inverter controller. Mandatory for units with FCLMC20.

ACCESSORIES COMPATIBILITY

Intake grids and distribution of the air

Model	Ver	32	34	42	44	62	64	82	122	124
GLFI10 (1)	FCLI,V2,VL	•	•	•	•	•	•			
GLFI10EH (2)	FCLI,V2,VL	•	•	•	•	•	•			
GLFI10M (3)	FCLI,V2,VL	•	•	•	•	•	•			
GLFI10N (3)	FCLI,V2,VL	•	•	•	•	•	•			

(1) Not compatible with the VMF system and electric heaters.
(2) Not compatible with the VMF system, but compatible with electric heaters.
(3) Compatible with the VMF system and electric heaters.

Intake grid and distribution of the air

Model	Ver	32	34	42	44	62	64	82	122	124
GLLI100 (1)	FCLI,V2,VL	•	•	•	•	•	•			
GLLI100EH (2)	FCLI,V2,VL	•	•	•	•	•	•			
GLLI100N (3)	FCLI,V2,VL	•	•	•	•	•	•			
GLLI20 (1)	FCLI,V2,VL							•	•	•
GLLI20N (4)	FCLI,V2,VL							•	•	•

(1) Not compatible with the VMF system and electric heaters.
(2) Not compatible with the VMF system, but compatible with electric heaters.
(3) Compatible with the VMF system and electric heaters.
(4) Compatibility with VMF system.

VMF system

Model	Ver	32	34	42	44	62	64	82	122	124
VMF-E3	FCLI,V2,VL	•	•	•	•	•	•	•	•	•
VMF-E4DX	FCLI,V2,VL	•	•	•	•	•	•	•	•	•
VMF-E4X	FCLI,V2,VL	•	•	•	•	•	•	•	•	•
VMF-IO	FCLI,V2,VL	•	•	•	•	•	•	•	•	•
VMF-IR	FCLI,V2,VL	•	•	•	•	•	•	•	•	•
VMF-MOD	FCLI,V2,VL	•	•	•	•	•	•	•	•	•
VMF-SW	FCLI,V2,VL	•	•	•	•	•	•	•	•	•
VMF-SW1	FCLI,V2,VL	•	•	•	•	•	•	•	•	•

Control panels and dedicated accessories

Model	Ver	32	34	42	44	62	64	82	122	124
AER503IR (1)	FCLI,V2,VL	•	•	•	•	•	•	•	•	•
SA5 (2)	FCLI,V2,VL	•	•	•	•	•	•	•	•	•
SW3 (2)	FCLI,V2,VL	•	•	•	•	•	•	•	•	•
SW4	FCLI,V2,VL	•	•	•	•	•	•	•	•	•
SW5 (2)	FCLI,V2,VL	•	•	•	•	•	•	•	•	•
SWAI (3)	FCLI,V2,VL	•	•	•	•	•	•	•	•	•
TX (1)	FCLI,V2,VL	•	•	•	•	•	•	•	•	•
WMT21	FCLI,V2,VL	•	•	•	•	•	•	•	•	•

(1) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.
(2) Probe for AER503IR-TX thermostats, if fitted.
(3) Probe for thermostat WMT21.

3 way valve kit

Model	Ver	32	34	42	44	62	64	82	122	124
VHL1 (1)	VL		•		•		•			
VHL124 (1)	VL		•		•		•			
VHL20 (1)	VL									•
VHL2024 (1)	VL									•

(1) Obligatory accessory in 4-pipe systems.

2 way valve kit

Model	Ver	32	34	42	44	62	64	82	122	124
VHL2 (1)	VL		•		•		•			
VHL22 (1)	VL									•
VHL2224 (1)	VL									•
VHL224 (1)	VL		•		•		•			

(1) Compulsory accessory in 4-pipe systems with variable flow rate.

Valve Kit for 4 pipe systems

Model	Ver	32	34	42	44	62	64	82	122	124
VCFLX4 (1)	VL	•		•		•				

(1) The valve must be commanded via command panels enabled for valve control.

Air filters

Model	Ver	32	34	42	44	62	64	82	122	124
FEL10	FCLI,V2,VL	•	•	•	•	•	•			

Delivery and suction flange

Model	Ver	32	34	42	44	62	64	82	122	124
KFL	FCLI,V2,VL	•	•	•	•	•	•			
KFL20	FCLI,V2,VL							•	•	•
KFLD	FCLI,V2,VL	•	•	•	•	•	•			
KFLD20	FCLI,V2,VL							•	•	•

Perimeter case

Model	Ver	32	34	42	44	62	64	82	122	124
FCLMC10 (1)	FCLI,V2,VL	•	•	•	•	•	•			
FCLMC20 (1)	FCLI,V2,VL							•	•	•
FCLMC20IK (2)	FCLI,V2,VL							•	•	•

(1) Can only be combined with GLL/GLLI grilles
(2) Mandatory for units with FCLMC20.

PERFORMANCE SPECIFICATIONS

2-pipe

		FCLI32			FCLI42			FCLI62			FCLI82			FCLI122		
		1	2	3	1	2	4	1	2	4	1	2	4	1	2	4
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)																
Heating capacity	kW	2,22	2,95	4,00	3,32	4,47	7,34	5,19	6,37	10,49	5,88	8,12	11,88	10,53	14,73	21,75
Water flow rate system side	l/h	194	258	350	290	391	642	454	558	918	514	710	1039	921	1289	1903
Pressure drop system side	kPa	4	6	10	6	10	24	12	17	42	7	13	26	11	21	42
Heating performance 45 °C / 40 °C (2)																
Heating capacity	kW	1,10	1,47	1,98	1,67	2,21	3,64	2,58	3,21	5,21	2,94	4,05	5,90	5,28	7,37	10,80
Water flow rate system side	l/h	192	254	345	287	386	633	448	550	905	507	701	1025	909	1271	1877
Pressure drop system side	kPa	4	6	11	5	9	21	10	17	41	7	13	23	12	21	41
Cooling performance 7 °C / 12 °C (3)																
Cooling capacity	kW	1,15	1,46	1,88	1,95	2,52	3,90	2,65	3,19	4,92	2,79	4,04	5,97	5,34	7,47	10,87
Sensible cooling capacity	kW	0,98	1,24	1,50	1,37	1,80	3,11	1,85	2,25	3,75	1,89	2,76	4,17	4,02	5,70	8,34
Water flow rate system side	l/h	200	253	327	337	437	679	458	551	856	482	695	1032	921	1292	1893
Pressure drop system side	kPa	4	4	13	7	11	25	12	16	36	7	12	28	10	19	38
Fan																
Type	type	Centrifugal			Centrifugal			Centrifugal			Centrifugal			Centrifugal		
Fan motor	type	Inverter			Inverter			Inverter			Inverter			Inverter		
Number	no.	1			1			1			1			1		
Air flow rate	m^3/h	300	410	600	260	360	700	380	500	880	460	680	1100	750	1100	1750
Input power	W	10	13	18	12	16	55	14	20	61	10	14	33	16	33	135
Signal 0-10V	%	42	62	90	34	46	90	40	52	90	38	54	90	38	54	90
Cassettes sound data (4)																
Sound power level	dB(A)	35,0	38,0	46,0	35,0	38,0	53,0	41,0	47,0	61,0	39,0	43,0	50,0	44,0	50,0	60,0
Sound pressure	dB(A)	26,0	29,0	37,0	26,0	30,0	44,0	32,0	38,0	52,0	30,0	34,0	41,0	35,0	41,0	51,0
Diametre hydraulic fittings																
Main coil	Ø	3/4"			3/4"			3/4"			3/4"			3/4"		
Secondary coil	Ø	-			-			-			-			-		
Power supply																
Power supply		230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz		

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C
(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C; EUROVENT
(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT
(4) For the cassettes, Aermec determines the value of the sound power on the basis of measurements carried out in accordance with the standard UNI EN 16583:15, in observance of the EUROVENT certification and the level of sound pressure (weighed A) measured in an environment with volume V=100m3, reverberation time t=0.5s direction factor Q=2; distance r=2.5m.

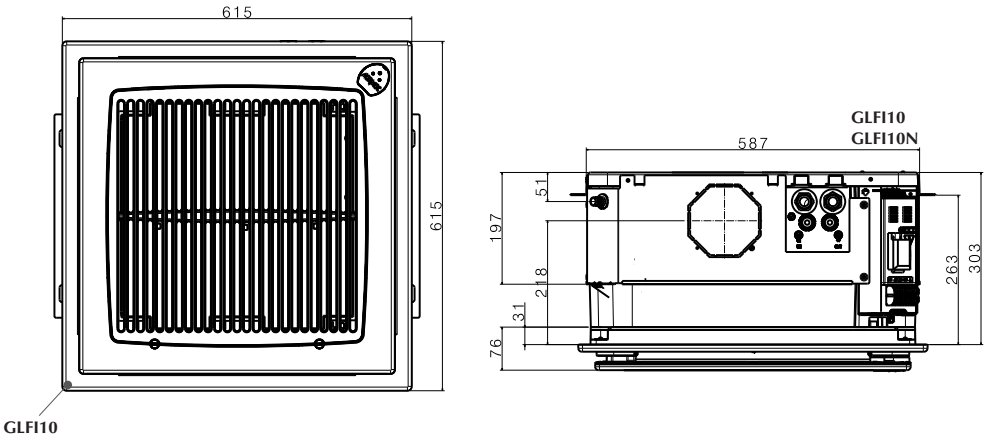
4-pipe

		FCLI34			FCLI44			FCLI64			FCLI124		
		1	2	3	1	2	3	1	2	4	1	2	4
		L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 65 °C / 55 °C (1)													
Heating capacity	kW	1,70	1,97	2,32	1,70	2,02	2,74	2,05	2,76	3,14	6,46	8,30	11,10
Water flow rate system side	l/h	152	171	203	153	178	240	194	219	279	551	727	977
Pressure drop system side	kPa	5	7	9	6	7	12	9	11	19	10	15	25
Cooling performance 7 °C / 12 °C (2)													
Cooling capacity	kW	1,15	1,46	1,88	1,80	2,32	3,59	2,29	2,76	4,25	4,55	6,19	8,67
Sensible cooling capacity	kW	0,98	1,24	1,50	1,26	1,66	2,87	1,59	1,93	3,22	3,35	4,64	6,64
Water flow rate system side	l/h	200	253	327	314	396	626	424	510	793	786	1068	1513
Pressure drop system side	kPa	4	7	10	6	10	23	16	23	50	10	20	38
Fan													
Type	type	Centrifugal											
Fan motor	type	Inverter											
Number	no.	1			1			1			1		
Air flow rate	m^3/h	300	410	600	260	360	700	380	500	880	750	1100	1750
Input power	W	10	13	18	12	16	55	14	20	61	16	33	135
Signal 0-10V	%	42	62	90	34	46	90	40	52	90	38	58	90
Cassettes sound data (3)													
Sound power level	dB(A)	35,0	38,0	46,0	35,0	39,0	53,0	41,0	47,0	61,0	44,0	52,0	60,0
Sound pressure	dB(A)	26,0	29,0	37,0	26,0	30,0	44,0	32,0	38,0	52,0	35,0	41,0	51,0
Diametre hydraulic fittings													
Main coil	Ø	3/4"											
Secondary coil	Ø	1/2"											
Power supply													
Power supply		230V~50Hz											

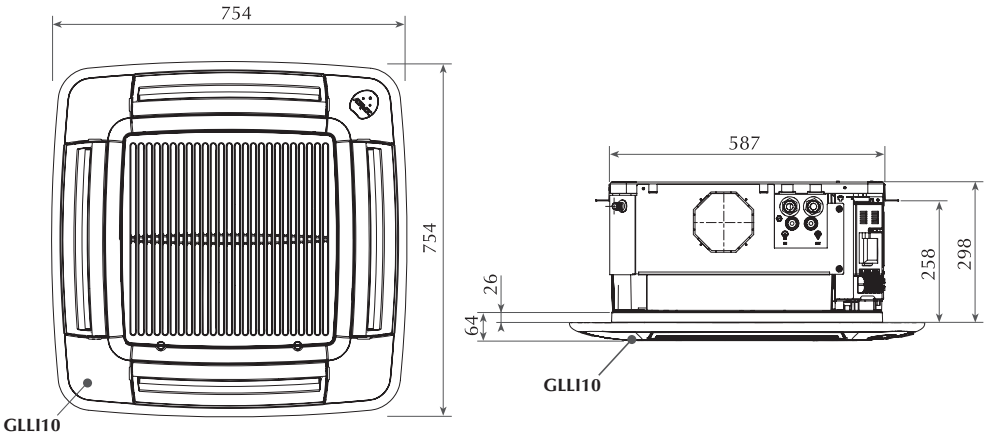
(1) Room air temperature 20°C d.b.; Water (in/out) 65 °C/55 °C; EUROVENT
(2) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT
(3) For the cassettes, Aermec determines the value of the sound power on the basis of measurements carried out in accordance with the standard UNI EN 16583:15, in observance of the EUROVENT certification and the level of sound pressure (weighed A) measured in an environment with volume V=100m3, reverberation time t=0.5s direction factor Q=2; distance r=2.5m.

DIMENSIONS

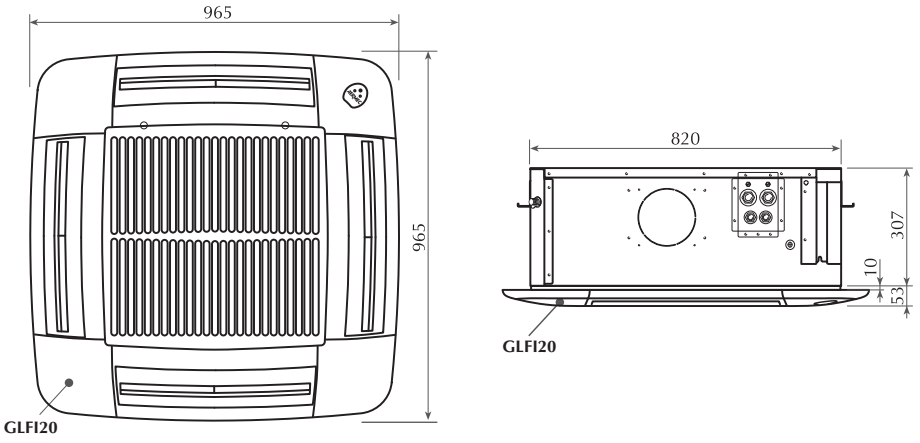
Dimensions FCLI 32 - 34 - 42 - 44 - 62 - 64 con GLFI



Dimensions FCLI 32 - 34 - 42 - 44 - 62 - 64 con GLLI



Dimensions FCLI 82 - 122 - 124 con GLLI



Size			122	124	32	34	42	44	62	64	82
Dimensions and weights											
Empty weight	FCLI	kg	36	36	21	21	22	21	22	23	35
	V2	kg	36	36	21	21	21	21	22	23	35
	VL	kg	35	35	20	21	20	21	22	22	34

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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FCW

Fan coils wall-mount installation

- **Versions with internal 2 or 3-way valve**
- **Compact dimensions**



DESCRIPTION

Fan coil model for wall-mount installations, whose elegance and reduced dimensions make it aesthetically pleasing; this terminal is thus suitable for applications in residential or light commercial sectors.
To respond to the various system requirements, the product is configurable and available with or without (2- or 3-way) valve, as well as with or without control board, which ensures compatibility with various system requirements. Fan coils without control board must be necessarily combined with an external control device.

VERSIONS

2V Internal 2-way valve and microprocessor control
2VN Internal 2-way valve without microprocessor control
3V Internal 3-way valve and microprocessor control
3VN Internal 3-way valve without microprocessor control
VL Without internal valve but with microproccessor control
VLN Without internal valve and microproccessor control

FEATURES

Case

Aesthetically styled with flat panel:
— Microprocessor control
— Air flow louvered louvers with horizontal adjustment facility
— Colors pure white pantone GRIS 1C RAL 9010.

Ventilation group

Consisting of a tangential fan, especially quiet and directly coupled to the motor shaft.
Three-speed cross flow fan.

Heat exchanger coil

With copper pipes and aluminium louvers, the main coil has female gas hydraulic connections and is fitted with air vents.
The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

Air filter

Fan coils are fitted with air filters easy to remove and clean.

Control

The versions with microprocessor control have:
— Timer for programming switch-off or switch-on (TLW2 and PFW2)
— Program for operation in automatic, cooling, heating, ventilation and air ionising mode (TLW2 and PFW2)
— Night time Well-being Program (TLW2)
— Automatic season change (TLW2 and PFW2)
— Automatic re-start after power cut.

ACCESSORIES

For models with control board installed

FCW_2V, 3V, VL it is mandatory to select among the user interfaces designed for the FCW series (TLW2 or PFW2)

PFW2: Wired panel to control all the functions of the unit. It is supplied separately and can control only one unit. The panel must be installed on the wall and connected to the fan coil with the supplied cable, 7.5 meters long.

TLW2: Infrared remote control with liquid crystal display for controlling all unit functions. The remote control is delivered separately from the fan coil; with a single remote control it is possible to control more than one fan coil. The remote control is equipped with a support that allows you to hang it on the wall, from which it can be operated without having to be removed.

TLW2



PFW2



For models without control board installed

FCW_2VN, 3VN, VLN a user interface must be mounted outside the fan coil, using either a visible or a recessed wall-mount installation.

To make the selection please refer to the "control panels" or "VMF system shett" where you will find comprehensive information on this topic.

VMF-E0X: Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe.

VMF-E19: Thermostat to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe.

VMF-E4DX: Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).

VMF-E4X: Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.

ACCESSORIES COMPATIBILITY

VMF system

Control panels and dedicated accessories

Model	Ver	22	32	42	52
PFW2	2V,3V,VL	•	•	•	•
TLW2 (1)	2V,3V,VL	•	•	•	•

(1) Accessory is required for operating the fan coil as an alternative to the wired remote control panel PFW2. mandatory accessory for versions with controller FCW_2V, FCW_3V, FCW_VL.

PERFORMANCE SPECIFICATIONS

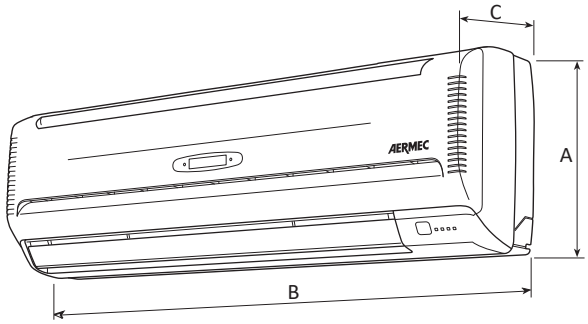
2-pipe

		FCW22VL			FCW32VL			FCW42VL			FCW52VL			FCW222V			FCW223V		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)																			
Heating capacity	kW	2,85	3,66	4,29	3,73	4,51	5,24	6,44	7,84	8,56	8,20	13,06	15,28	2,35	3,02	4,03	2,35	3,02	4,03
Water flow rate system side	l/h	250	321	377	328	396	460	565	688	751	718	1145	1339	206	265	354	206	265	354
Pressure drop system side	kPa	4	6	9	9	12	16	16	22	26	10	23	30	9	14	24	9	14	24
Heating performance 45 °C / 40 °C (2)																			
Heating capacity	kW	1,42	1,82	2,14	1,85	2,24	2,61	3,21	3,90	4,26	4,10	6,50	7,60	1,17	1,50	2,00	1,17	1,50	2,00
Water flow rate system side	l/h	246	316	371	322	390	453	556	677	739	712	1129	1320	203	261	348	203	261	348
Pressure drop system side	kPa	4	6	8	9	12	16	15	22	25	10	22	29	9	14	24	9	14	24
Cooling performance 7 °C / 12 °C (3)																			
Cooling capacity	kW	1,37	1,74	2,05	1,78	2,15	2,50	3,07	3,74	4,08	4,40	6,50	7,45	1,10	1,45	1,90	1,10	1,45	1,90
Sensible cooling capacity	kW	1,16	1,47	1,73	1,51	1,82	2,04	2,59	3,10	3,47	3,30	5,05	5,80	0,92	1,20	1,55	0,92	1,20	1,55
Water flow rate system side	l/h	236	299	353	306	370	430	528	643	702	755	1115	1278	189	249	327	189	249	327
Pressure drop system side	kPa	5	7	9	8	11	15	15	21	26	12	24	30	9	14	23	9	14	23
Fan																			
Type	type	Tangential			Tangential			Tangential			Tangential			Tangential			Tangential		
Fan motor	type	Asynchronous			Asynchronous			Asynchronous			Asynchronous			Asynchronous			Asynchronous		
Number	no.	1			1			1			1			1			1		
Air flow rate	m^3/h	280	340	389	330	400	446	476	602	684	592	945	1179	270	330	380	270	330	380
Input power	W	23	24	27	22	23	27	31	41	48	38	55	75	23	24	27	23	24	27
Fan coil sound data (4)																			
Sound power level	dB(A)	42,0	48,0	53,0	42,0	48,0	53,0	44,0	49,0	54,0	44,0	54,0	60,0	42,0	48,0	53,0	42,0	48,0	53,0
Sound pressure	dB(A)	34,0	39,5	44,5	34,0	39,5	44,5	35,5	40,5	45,5	35,5	45,5	51,5	34,0	39,5	44,5	34,0	39,5	44,5
Diametre hydraulic fittings																			
Main coil	Ø	1/2"			1/2"			1/2"			3/4"			1/2"			1/2"		
Power supply																			
Power supply		230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz		

		FCW322V			FCW323V			FCW422V			FCW423V			FCW522V			FCW523V		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)																			
Heating capacity	kW	3,25	4,36	5,03	3,25	4,36	5,03	6,29	7,23	7,97	6,29	7,23	7,97	8,04	11,80	14,00	8,04	11,80	14,00
Water flow rate system side	l/h	286	383	442	286	383	442	552	635	699	552	635	699	704	1034	1227	704	1034	1227
Pressure drop system side	kPa	13	22	29	13	22	29	21	27	32	21	27	32	10	21	28	10	21	28
Heating performance 45 °C / 40 °C (2)																			
Heating capacity	kW	1,62	2,17	2,50	1,62	2,17	2,50	3,13	3,60	3,96	3,13	3,60	3,96	4,00	5,90	7,00	4,00	5,90	7,00
Water flow rate system side	l/h	281	377	434	281	377	434	543	624	688	543	624	688	695	1025	1216	695	1025	1216
Pressure drop system side	kPa	13	22	29	13	22	29	20	26	31	20	26	31	11	22	30	11	22	30
Cooling performance 7 °C / 12 °C (3)																			
Cooling capacity	kW	1,55	2,08	2,40	1,55	2,08	2,40	3,00	3,45	3,80	3,00	3,45	3,80	4,00	6,00	7,00	4,00	6,00	7,00
Sensible cooling capacity	kW	1,28	1,68	1,97	1,28	1,68	1,97	2,01	2,50	2,85	2,01	2,50	2,85	2,85	4,50	5,30	2,85	4,50	5,30
Water flow rate system side	l/h	267	358	413	267	358	413	516	593	654	516	593	654	686	1030	1201	686	1030	1201
Pressure drop system side	kPa	13	22	29	13	22	29	21	27	32	21	27	32	11	23	30	11	23	30
Fan																			
Type	type	Tangential			Tangential			Tangential			Tangential			Tangential			Tangential		
Fan motor	type	Asynchronous			Asynchronous			Asynchronous			Asynchronous			Asynchronous			Asynchronous		
Number	no.	1			1			1			1			1			1		
Air flow rate	m^3/h	320	390	440	320	390	440	370	470	540	370	470	540	535	859	1082	535	859	1082
Input power	W	22	23	27	22	23	27	31	41	48	31	41	48	38	55	75	38	55	75
Fan coil sound data (4)																			
Sound power level	dB(A)	42,0	48,0	53,0	42,0	48,0	53,0	44,0	49,0	54,0	44,0	49,0	54,0	44,0	54,0	60,0	44,0	54,0	60,0
Sound pressure	dB(A)	34,0	39,5	44,5	34,0	39,5	44,5	35,5	40,5	45,5	35,5	40,5	45,5	35,5	45,5	51,5	35,5	45,5	51,5
Diametre hydraulic fittings																			
Main coil	Ø	1/2"			1/2"			1/2"			1/2"			3/4"			3/4"		
Power supply																			
Power supply		230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz			230V~50Hz		

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C
(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C; EUROVENT
(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT
(4) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

DIMENSIONS



		FCW22VL	FCW32VL	FCW42VL	FCW52VL	FCW222V	FCW223V
Dimensions and weights							
A	mm	298	305	360	365	298	298
B	mm	880	990	1170	1450	880	880
C	mm	205	210	220	230	205	205
Empty weight	kg	9	10	19	28	9	9

		FCW322V	FCW323V	FCW422V	FCW423V	FCW522V	FCW523V
Dimensions and weights							
A	mm	305	305	360	360	365	365
B	mm	990	990	1170	1170	1450	1450
C	mm	210	210	220	220	230	230
Empty weight	kg	10	10	19	19	28	28

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FCWI

Fan coils wall-mount installation

- **Versions with internal 2 or 3-way valve**
- **Electric saving equal to 50% with respect to a fan coil with 3-speed motor**
- **Total comfort: reduced temperature and humidity oscillations**
- **Fully silent operation**



DESCRIPTION

Fan coil model for wall-mount installations, whose elegance and reduced dimensions make it aesthetically pleasing; this terminal is thus suitable for applications in residential or light commercial sectors.
The product is configurable and available with or without (2- or 3-way) valve which ensures compatibility with various system requirements.

VERSIONS

2V Internal 2-way valve and microprocessor control
3V Internal 3-way valve and microprocessor control
VL Without internal valve but with microproccessor control

FEATURES

Case

Aesthetically styled with flat panel:
— Air flow louvered louvers with horizontal adjustment facility
— Motorised deflector louvers that can be activated by remote control TLW3 for vertical orientation of the outlet air with steps fixed positions and continuous oscillation
— Colors pure white pantone GRIS 1C RAL 9010.

Ventilation group

Consisting of a tangential fan, especially quiet and directly coupled to the motor shaft.
Brushless motor with continuous speed variation 0-100%.
Inverter motor allows precise adaptation to the real indoor environment requirements without temperature oscillations.
This lowers noise and generates a better response to heat loads and a higher stability in the desired temperature inside the room.
The high efficiency even with low speed, makes it possible to reduce power consumption (more than 50% less than fan coils with traditional motors).

Heat exchanger coil

With copper pipes and aluminium louvers, the main coil has female gas hydraulic connections and is fitted with air vents.
The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

Air filter

Fan coils are fitted with air filters easy to remove and clean.

Control

The versions with microprocessor control have:
— Timer for programming switch-off or switch-on (TLW3/ PFW3)
— Program for operation in automatic, cooling, heating, ventilation and air ionising mode (TLW3/ PFW3)
— Night time Well-being Program (TLW3/ PFW3)
— Automatic season change (TLW3/ PFW3)
— Automatic re-start after power cut.
— Option of contact on the terminal board which enables to obtain a signal (230V, max 1A) with which to control the system pump.

ACCESSORIES

For models with control board installed

FCWI_2V, 3V, VL it is mandatory to select among the user interfaces designed for the FCWI series (TLW3 o PFW3)

PFW3: This accessory is essential for fan coil operation (as an alternative to TLW3). The PFW3 wired panel is supplied separately from the fan coil. It is used to set the main device operating parameters, and is essential for setting the Modbus address of the unit (handy only if you want to command the unit via the RS-485 port).

TLW3: Mandatory accessory. Infrared remote control with liquid crystal display for controlling all unit functions. The remote control is delivered separately from the fan coil; with a single remote control it is possible to control more than one fan coil. The remote control is equipped with a support that allows you to hang it on the wall, from which it can be operated without having to be removed.

VMF-485LINK: Expansion to interface the unit with the VMF communication protocol, making it possible to manage it from the VMF-E5 or VMF-E6 supervisors.

TLW3



PFW3



ACCESSORIES COMPATIBILITY

Control panels and dedicated accessories

Model	Ver	22	32	42	52
PFW3 (1)	2V,3V,VL	•	•	•	•
TLW3 (1)	2V,3V,VL	•	•	•	•

(1) Mandatory accessory.

Model	Ver	22	32	42	52
VMF-485LINK	2V,3V,VL	•	•	•	•

PERFORMANCE SPECIFICATIONS

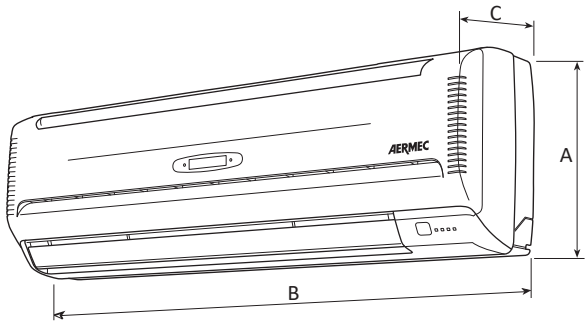
2-pipe

		FCWI22VL			FCWI32VL			FCWI42VL			FCWI52VL			FCWI222V			FCWI223V		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)																			
Heating capacity	kW	2,85	3,66	4,29	3,73	4,51	5,24	6,44	7,84	8,56	8,20	13,06	15,28	2,35	3,02	4,03	2,35	3,02	4,03
Water flow rate system side	l/h	250	321	377	328	396	460	565	688	751	718	1145	1339	206	265	354	206	265	354
Pressure drop system side	kPa	4	6	9	9	12	16	16	22	26	10	23	30	9	14	24	9	14	24
Heating performance 45 °C / 40 °C (2)																			
Heating capacity	kW	1,42	1,82	2,14	1,85	2,24	2,61	3,21	3,90	4,26	4,10	6,50	7,60	1,17	1,50	2,00	1,17	1,50	2,00
Water flow rate system side	l/h	246	316	371	322	390	453	556	677	739	712	1129	1320	203	261	348	203	261	348
Pressure drop system side	kPa	4	6	8	9	12	16	15	22	25	10	22	29	9	14	24	9	14	24
Cooling performance 7 °C / 12 °C (3)																			
Cooling capacity	kW	1,37	1,74	2,05	1,78	2,15	2,50	3,07	3,74	4,08	4,40	6,50	7,45	1,10	1,45	1,90	1,10	1,45	1,90
Sensible cooling capacity	kW	1,16	1,47	1,73	1,51	1,82	2,04	2,59	3,10	3,47	3,30	5,05	5,80	0,92	1,20	1,55	0,92	1,20	1,55
Water flow rate system side	l/h	236	299	353	306	370	430	528	643	702	755	1115	1278	189	249	327	189	249	327
Pressure drop system side	kPa	5	7	9	8	11	15	15	21	26	12	24	30	9	14	23	9	14	23
Fan																			
Type	type	Tangential																	
Fan motor	type	Inverter																	
Number	no.	1			1			1			1			1			1		
Air flow rate	m^3/h	280	340	389	330	400	446	476	602	684	592	945	1179	270	330	380	270	330	380
Input power	W	13	17	22	14	18	22	24	29	33	22	36	55	13	17	22	13	17	22
Fan coil sound data (4)																			
Sound power level	dB(A)	42,0	48,0	53,0	42,0	48,0	53,0	44,0	49,0	54,0	44,0	54,0	60,0	42,0	48,0	53,0	42,0	48,0	53,0
Sound pressure	dB(A)	34,0	39,5	44,5	34,0	39,5	44,5	35,5	40,5	45,5	35,5	45,5	51,5	34,0	39,5	44,5	34,0	39,5	44,5
Diametre hydraulic fittings																			
Main coil	Ø	1/2"			1/2"			1/2"			3/4"			1/2"			1/2"		
Power supply																			
Power supply		230V~50Hz																	

		FCWI322V			FCWI323V			FCWI422V			FCWI423V			FCWI522V			FCWI523V		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Heating performance 70 °C / 60 °C (1)																			
Heating capacity	kW	3,25	4,36	5,03	3,25	4,36	5,03	6,29	7,23	7,97	6,29	7,23	7,97	8,04	11,80	14,00	8,04	11,80	14,00
Water flow rate system side	l/h	286	383	442	286	383	442	552	635	699	552	635	699	704	1034	1227	704	1034	1227
Pressure drop system side	kPa	13	22	29	13	22	29	21	27	32	21	27	32	10	21	28	10	21	28
Heating performance 45 °C / 40 °C (2)																			
Heating capacity	kW	1,62	2,17	2,50	1,62	2,17	2,50	3,13	3,60	3,96	3,13	3,60	3,96	4,00	5,90	7,00	4,00	5,90	7,00
Water flow rate system side	l/h	281	377	434	281	377	434	543	624	688	543	624	688	695	1025	1216	695	1025	1216
Pressure drop system side	kPa	13	22	29	13	22	29	20	26	31	20	26	31	11	22	30	11	22	30
Cooling performance 7 °C / 12 °C (3)																			
Cooling capacity	kW	1,55	2,08	2,40	1,55	2,08	2,40	3,00	3,45	3,80	3,00	3,45	3,80	4,00	6,00	7,00	4,00	6,00	7,00
Sensible cooling capacity	kW	1,28	1,68	1,97	1,28	1,68	1,97	2,01	2,50	2,85	2,01	2,50	2,85	2,85	4,50	5,30	2,85	4,50	5,30
Water flow rate system side	l/h	267	358	413	267	358	413	516	593	654	516	593	654	686	1030	1201	686	1030	1201
Pressure drop system side	kPa	13	22	29	13	22	29	21	27	32	21	27	32	11	23	30	11	23	30
Fan																			
Type	type	Tangential																	
Fan motor	type	Inverter																	
Number	no.		1			1			1			1			1			1	
Air flow rate	m^3/h	320	390	440	320	390	440	370	470	540	370	470	540	535	859	1082	535	859	1082
Input power	W	14	18	22	14	18	22	24	29	33	24	29	33	22	36	55	22	36	55
Fan coil sound data (4)																			
Sound power level	dB(A)	42,0	48,0	53,0	42,0	48,0	53,0	44,0	49,0	54,0	44,0	49,0	54,0	44,0	54,0	60,0	44,0	54,0	60,0
Sound pressure	dB(A)	34,0	39,5	44,5	34,0	39,5	44,5	35,5	40,5	45,5	35,5	40,5	45,5	35,5	45,5	51,5	35,5	45,5	51,5
Diametre hydraulic fittings																			
Main coil	Ø		1/2"			1/2"			1/2"			1/2"			3/4"			3/4"	
Power supply																			
Power supply		230V~50Hz																	

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C
(2) Room air temperature 20°C d.b.; Water (in/out) 45°C/40°C; EUROVENT
(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT
(4) Aermec determines the sound power value on the basis of measurements taken in accordance with standard UNI EN 16583:15, respecting the Eurovent certification.

DIMENSIONS



		FCWI22VL	FCWI32VL	FCWI42VL	FCWI52VL	FCWI222V	FCWI223V
Dimensions and weights							
A	mm	298	305	360	365	298	298
B	mm	880	990	1170	1450	880	880
C	mm	205	210	220	230	205	205
Empty weight	kg	9	10	19	28	9	9

		FCWI322V	FCWI323V	FCWI422V	FCWI423V	FCWI522V	FCWI523V
Dimensions and weights							
A	mm	305	305	360	360	365	365
B	mm	990	990	1170	1170	1450	1450
C	mm	210	210	220	220	230	230
Empty weight	kg	10	10	19	19	28	28

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UFB

Handling units Floating floor installation

- **Low electrical consumption**
- **Fully silent operation**
- **Easy maintenance.**



DESCRIPTION

Air handling terminal for installations in floating floor, also called floating or raised floor.Is a unit consisting of a fan unit with brushless inverter motor, enclosed in a metal structure with mixing chamber equipped with motor-driven damper, filter and electronic card.The use of these units is expected within a floating floor, often used in offices or equipment rooms for data centre and similar. In these systems there is often an air handling unit that cools the environment by entering the treated air in the underfloor and the buster units combine to improve the distribution in the rooms and, depending on the version, perform localized after-treatment.Using the two ambient air temperature sensors (return air) and the underfloor air temperature sensors, the electronic regulation through the positioning of the motor-driven damper, performs a mix to reach the temperature setpoint set with the local user interface (type VMF-E4) or by the supervision system.

VERSIONS

UFB20: booster unit for the distribution of the UTA treated air, the mix with room air for the room temperature control.
UFB20W: booster unit for UTA treated air distribution, the mix with the ambient air and any post-treatment using a water coil (heating, cooling, dehumidification) for the control of the room temperature.
UFB20HE: booster unit for UTA treated air distribution, the mix with the ambient air and any post-treatment using electric heating coil (only in heating) for the control of the room temperature.

FEATURES

— Unit is easy to install, as completely compatible with squares 600x600 mm used in these applications. Using the normal support systems of such floating floors allow to fully replace a square, obtaining a perfect joint, in line with the rest of the floor, with no "step".
— Centrifugal fan with Brushless inverter with continuous speed variation, 0-100%, which allows the exact adjustment to the requests of the internal environment without temperature fluctuations. Also allows an electric savings and better acoustic comfort.
— Compact dimensions, thickness 129 mm
— For a better air quality, the UFB are equipped with electro-statically pre-loaded filters.

ACCESSORIES ONLY AVAILABLE FOR UFB20W

USC4UFB: Condensate drainage device for use when natural run-off is not possible.
VCF-U: Kit consisting of motor-driven 3-way valve with insulating shell, insulated copper couplings and pipes. Versions with 230V~50Hz power supply.
VMF-E3: Wall mounted user interface, to be combined with accessories VMF-E19, VMF-E19I, VMF-E0X with grids GLF_N/M and GLL_N, can be controlled with VMF-IR control.
VMF-E4DX: Wall-mounted user interface. Grey front panel PANTONE 425C (METAL).
VMF-E4X: Wall-mounted user interface. Light grey front panel PANTONE COOL GRAY 1C.
For more information about the VMF system, refer to the specific documentation available on the site www.aermec.com

TECHNICAL DATA

2-pipe

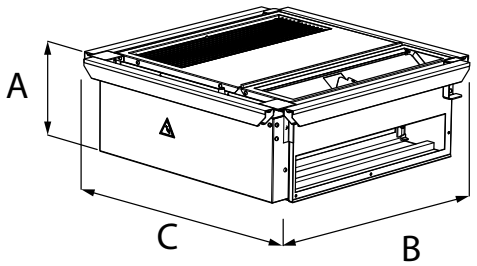
		UFB20W		
		1	2	3
		L	M	H
Heating performance 70 °C / 60 °C (1)				
Heating capacity	kW	1,91	2,53	2,96
Water flow rate system side	l/h	167	222	260
Pressure drop system side	kPa	3	4	6
Heating performance 50 °C (2)				
Heating capacity	kW	1,13	1,51	1,77
Water flow rate system side	l/h	144	210	258
Pressure drop system side	kPa		5	6
Cooling performance 7 °C / 12 °C (3)				
Cooling capacity	kW	0,84	1,22	1,50
Sensible cooling capacity	kW	0,67	1,00	1,24
Water flow rate system side	l/h	144	210	258
Pressure drop system side	kPa	3	5	6
Fan				
Type	type		Centrifugal	
Fan motor	type		Inverter	
Number	no.		1	
Air flow rate	m^3/h	140	220	290
Input power	W	5	8	12
Electrical wiring		V1	V2	V3
Diametre hydraulic fittings				
Main coil	Ø		1/2"	
Power supply				
Power supply			230V~50Hz	

(1) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C
(2) Room air 20 °C d.b.; Water (in) 50 °C; Water flow rate as in cooling mode
(3) Room air temperature 27°C d.b./19°C w.b.; Water (in/out) 7 °C/12 °C; EUROVENT

2-pipe

		UFB20			UFB20HE		
		1	2	3	1	2	3
		L	M	H	L	M	H
Fan							
Type	type		Centrifugal			Centrifugal	
Fan motor	type		-			-	
Number	no.		1			1	
Air flow rate	m^3/h	140	220	290	140	220	290
Input power	W	5	8	12	5	8	12
Electrical wiring		V1	V2	V3	V1	V2	V3
Diametre hydraulic fittings							
Main coil	Ø		1/2"			1/2"	
Electric heater							
Input power	W		-			500	
Maximum current	A		-			0,20	
Power supply							
Power supply			230V~50Hz			230V~50Hz	

DIMENSIONS AND WEIGHTS



		UFB20W
Dimensions and weights		
A	mm	219
B	mm	571
C	mm	572
Empty weight	kg	17

		UFB20	UFB20HE
Dimensions and weights			
A	mm	219	219
B	mm	571	571
C	mm	572	572
Empty weight	kg	17	17

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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EHT

Active chilled beams

Primary air flow rate 17,0 ÷ 947,0 m³/h
Nominal width 600 mm

- **Easy installation, thanks to the integrated valves.**
- **Extremely high induction ratios - measured values up to 6 (*).**
- **Basse perdite di carico lato aria.**
- **Twin heat exchanger (water side) with reduced pressure drops.**
- **Compatible with modular false ceilings 600 x 600 mm.**
- **4-pipe unit that can be installed in both 2-pipe and 4-pipe systems.**
- **Maximum access to internal components.**



DESCRIPTION

EHT is the latest range of active chilled beams developed by Aermec in collaboration with the **University of Aachen** (Germany). These terminals are particularly easy to install because their size makes them compatible with modular 600 x 600mm false ceilings, and they're already fitted with two-way water valves.
The innovative design of the nozzles (with a form developed and optimised on the basis of CFD analyses) along with their moulded production quality guarantees induction ratios amongst the highest on the market (up to 6), as seen in tests carried out by Aermec in collaboration with the prestigious University of Aachen. All this means higher perceivable output with the same length, with the added advantage of limited costs and dimensions.
In addition, the air-side pressure drops are notably lower (on average 10% less than the market standard for the same length and air flow rate), offering the user the possibility to reduce energy consumption from ventilation and therefore at the same time cut environmental sound levels.
The decision to use the twin air-water heat exchanger with tilted symmetrical coils boosts heat exchange efficiency and considerably lowers the pressure drops.
The possibility to choose the side for delivering primary air into the plenum, and the easy access to all the components, make cleaning and maintenance work quicker and easier.

A system like this guarantees limited operating costs, thanks to its high energy efficiency level which also safeguards the environment. This is one of the foremost goals of Aermec, whose product development focuses on maximum practicality combined with the minimum environmental impact.

These cooling terminals can be used in systems with two different chilled water production levels: low-temperature chilled water is usually used in the air handling unit dedicated to primary air treatment, whereas medium-temperature water is always adopted for the chilled beam coils.

APPLICATION

Chilled beams are ideal for the ventilation, cooling and heating of rooms with a ceiling height up to 4m. They can be installed in open-plan offices, hotel rooms, shops, airports and railway stations, hospital wards and large areas in general, always ensuring the correct flow of fresh air and distributing it evenly to optimise the temperature in every part of the room.

ADVANTAGES OF THE EHT ACTIVE CHILLED BEAMS RANGE

— quiet operation, thanks to the innovative design of the nozzles and the lack of moving parts;
— energy savings;
— optimum environmental comfort because of the perfect air distribution;



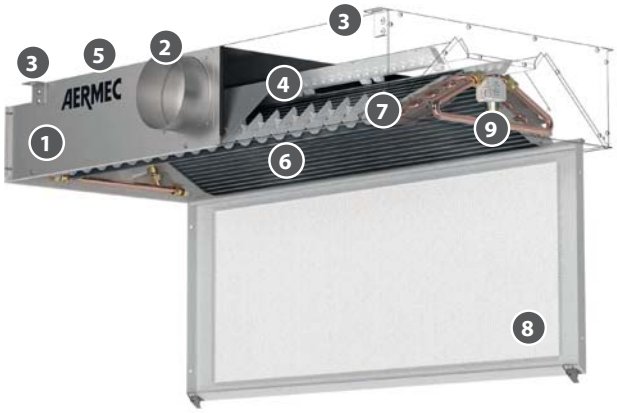




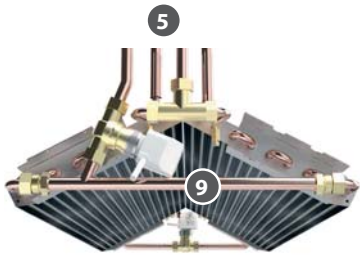


— excellent hygiene standards: the primary air is dehumidified during the initial treatment phase, so there is no condensate at all on the chilled beam, eliminating the root cause of mould proliferation caused by stagnating condensate;
— optimum access to components: the components are accessed from below, just by opening the suction grille;
— continuous service, thanks to the head positioning of two adjacent units;
— no maintenance: filtering is handled by the air treatment unit.

MAIN COMPONENTS



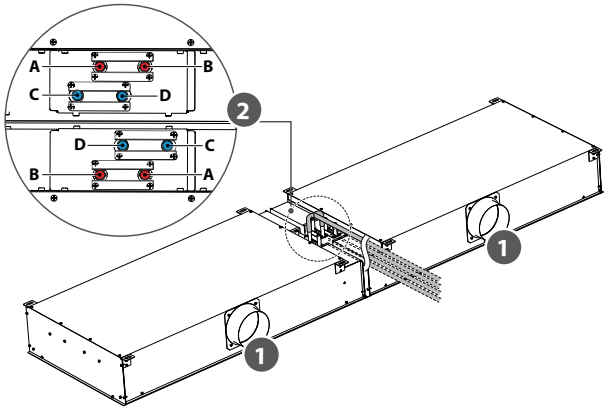
1	Plenum
2	Primary air inlet
3	Suspension brackets
4	Nozzles
5	Hydraulic connections
6	Coils
7	Deflectors
8	Grille
9	Control component



Water connections and control component.

HYDRAULIC CONNECTIONS

Illustrative drawing of the hydraulic connection between two EHT active chilled beams.
The image is an example only. It should not be considered a system model. The installation must be handled by qualified technicians.



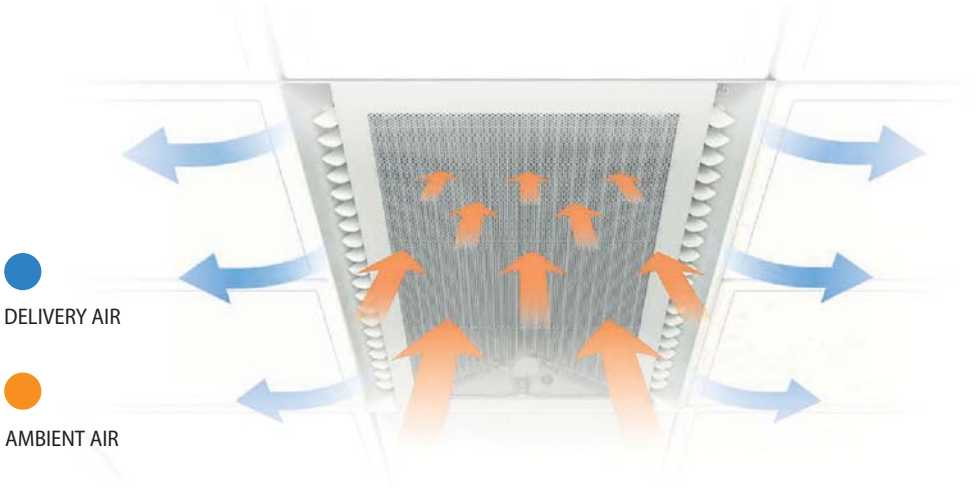
1	Primary air inlet
2	Hydraulic connections

CHOICE OF UNIT

By suitably combining the numerous options available, it is possible to configure each model in such a way as to meet the most specific system requirements.

Description			
	EHT		
Nominal width			
6	600 mm		
Nominal length			
09	900 mm	**21**	2100 mm
12	1200 mm	**24**	2400 mm
15	1500 mm	**27**	2700 mm
18	1800 mm	**30**	3000 mm
Delivery range			
0	XS air flow rate		
1	S air flow rate		
2	M air flow rate		
3	L air flow rate		
4	XL air flow rate		

FLUSSO DELL'ARIA



When the ambient air enters the exchange coils, it heats up or cools down depending on the operating season

FUNCTION

The EHT chilled beams are designed with the aim of producing high output whilst guaranteeing the best possible level of comfort in the room.
This goal is satisfied by taking advantage of the coanda effect, that keeps the air flow up against the ceiling until it reaches residual speeds and temperatures that trigger critical situations such as currents of cold air.



Coanda effect.



TECHNICAL DATA

			Cooling performances						Heating performances				
Size	q_p	Δp_a	$\Delta\theta_c$	$q_{wN,c}$	$\Delta p_{w,c}$	$\Delta\theta_{w,c}$	**P**	$P_{w,c}$	$\Delta\theta_h$	$q_{wN,h}$	$\Delta p_{w,h}$	$\Delta\theta_{w,h}$	$P=P_{w,h}$
	m^3/h	**Pa**	**K**	**l/h**	**kPa**	**K**	**W**	**W**	**K**	**l/h**	**kPa**	**K**	**W**
EHT 6090	17	50	9	141	1,2	2,0	383	325	30	69	0,9	4,1	328
EHT 6090	24	100	9	155	1,4	2,2	478	396	30	69	0,9	4,7	372
EHT 6090	29	150	9	155	1,4	2,4	535	436	31	69	0,9	5,0	398
EHT 6091	34	50	9	141	1,2	2,4	511	395	31	69	0,9	5,2	406
EHT 6091	47	100	9	151	1,4	2,7	630	470	31	69	0,9	5,6	455
EHT 6091	58	150	9	155	1,4	2,9	724	526	31	69	0,9	6,1	492
EHT 6092	67	50	9	141	1,2	2,7	673	445	30	69	0,9	4,9	380
EHT 6092	95	100	9	155	1,4	3,0	865	541	31	69	0,9	5,4	430
EHT 6092	116	150	8	155	1,4	3,3	989	594	31	69	0,9	5,8	463
EHT 6093	84	50	9	151	1,4	2,7	755	469	31	69	0,9	5,3	417
EHT 6093	118	100	8	141	1,2	3,3	945	543	31	69	0,9	6,1	473
EHT 6093	145	150	8	155	1,4	3,4	1111	617	31	69	0,9	6,5	510
EHT 6094	135	50	9	151	1,4	2,8	950	490	31	69	0,9	5,8	463
EHT 6094	190	100	8	151	1,4	3,3	1223	576	31	69	0,9	6,5	524
EHT 6094	232	150	8	151	1,4	3,6	1426	635	32	69	0,9	7,0	565
EHT 6120	24	50	9	137	1,6	2,6	500	418	31	73	1,1	5,7	482
EHT 6120	34	100	9	144	1,8	3,0	616	500	31	73	1,1	6,6	549
EHT 6120	42	150	8	144	1,8	3,3	697	554	32	73	1,1	7,0	593
EHT 6121	49	50	8	130	1,4	3,3	668	501	32	73	1,1	7,3	605
EHT 6121	68	100	8	144	1,8	3,6	833	601	32	73	1,1	8,4	686
EHT 6121	83	150	8	141	1,7	4,0	938	655	32	73	1,1	8,8	738
EHT 6122	97	50	8	137	1,6	3,6	902	571	31	73	1,1	6,9	566
EHT 6122	137	100	8	141	1,7	4,1	1144	677	32	73	1,1	7,6	642
EHT 6122	167	150	8	141	1,7	4,5	1306	737	32	73	1,1	8,1	691
EHT 6123	121	50	8	144	1,8	3,6	1011	599	32	73	1,1	7,4	622
EHT 6123	171	100	8	144	1,8	4,2	1285	702	32	73	1,1	8,5	710
EHT 6123	208	150	8	144	1,8	4,6	1472	763	33	73	1,1	9,1	764
EHT 6124	194	50	8	126	1,4	4,1	1256	595	32	73	1,1	8,1	691
EHT 6124	273	100	8	141	1,7	4,4	1652	722	33	73	1,1	9,4	790
EHT 6124	334	150	8	141	1,7	4,8	1926	788	33	73	1,1	10,2	854
EHT 6150	32	50	8	144	2,3	3,1	625	516	31	80	1,4	6,9	646
EHT 6150	45	100	8	144	2,3	3,6	762	609	32	80	1,4	7,9	735
EHT 6150	54	150	8	141	2,2	4,0	839	655	32	80	1,4	8,4	787
EHT 6151	63	50	8	144	2,3	3,7	830	615	32	80	1,4	8,7	804
EHT 6151	89	100	8	144	2,3	4,3	1024	721	33	80	1,4	10,1	920
EHT 6151	109	150	8	144	2,3	4,7	1158	787	33	80	1,4	10,6	992
EHT 6152	127	50	8	137	2,1	4,3	1117	684	32	80	1,4	8,2	755
EHT 6152	178	100	8	144	2,3	4,8	1415	808	33	80	1,4	9,5	861
EHT 6152	218	150	7	141	2,2	5,3	1614	871	33	80	1,4	10,2	931
EHT 6153	158	50	8	144	2,3	4,3	1255	717	32	80	1,4	8,9	831
EHT 6153	223	100	8	144	2,3	5,0	1590	830	33	80	1,4	10,2	951
EHT 6153	272	150	7	144	2,3	5,4	1829	902	33	80	1,4	10,9	1027
EHT 6154	254	50	8	141	2,2	4,5	1606	741	33	80	1,4	10,2	932
EHT 6154	357	100	7	141	2,2	5,2	2071	855	34	80	1,4	11,3	1062
EHT 6154	436	150	7	144	2,3	5,6	2416	930	34	80	1,4	12,7	1158

			Cooling performances						Heating performances				
Size	q_p	Δp_a	$\Delta\theta_{,c}$	$q_{wN,c}$	$\Delta p_{w,c}$	$\Delta\theta_{w,c}$	**P**	$P_{w,c}$	$\Delta\theta_{,h}$	$q_{wN,h}$	$\Delta p_{w,h}$	$\Delta\theta_{w,h}$	$P=P_{w,h}$
	m³/h	Pa	K	l/h	kPa	K	W	W	K	l/h	kPa	K	W
EHT 6180	39	50	8	141	2,7	3,6	725	592	32	84	1,6	8,3	811
EHT 6180	55	100	8	141	2,7	4,2	880	693	33	84	1,6	9,5	927
EHT 6180	67	150	8	141	2,7	4,6	982	754	33	84	1,6	10,5	1005
EHT 6181	78	50	8	141	2,7	4,3	972	706	33	84	1,6	10,5	1020
EHT 6181	110	100	8	141	2,7	5,0	1192	817	34	84	1,6	12,1	1171
EHT 6181	135	150	7	141	2,7	5,4	1352	892	35	84	1,6	13,3	1275
EHT 6182	157	50	8	137	2,6	4,9	1320	785	33	84	1,6	9,9	957
EHT 6182	220	100	7	141	2,7	5,6	1653	903	34	84	1,6	11,3	1094
EHT 6182	269	150	7	141	2,7	6,0	1899	982	34	84	1,6	12,2	1185
EHT 6183	195	50	8	141	2,7	5,0	1475	811	34	84	1,6	11,1	1061
EHT 6183	275	100	7	141	2,7	5,7	1874	937	34	84	1,6	12,8	1219
EHT 6183	336	150	7	141	2,7	6,2	2149	1004	35	84	1,6	13,7	1319
EHT 6184	313	50	7	141	2,7	5,2	1905	838	34	84	1,6	12,2	1185
EHT 6184	441	100	7	141	2,7	5,9	2468	965	35	84	1,6	14,1	1366
EHT 6184	538	150	7	141	2,7	6,4	2866	1033	36	84	1,6	15,2	1482
EHT 6210	47	50	9	231	8,7	2,9	939	779	33	87	1,8	9,9	994
EHT 6210	66	100	8	231	8,7	3,4	1142	917	34	87	1,8	11,4	1138
EHT 6210	80	150	8	234	9,0	3,7	1278	1005	34	87	1,8	12,1	1226
EHT 6211	93	50	8	231	8,7	3,5	1247	930	34	87	1,8	12,6	1252
EHT 6211	131	100	8	227	8,4	4,1	1533	1087	35	87	1,8	14,5	1443
EHT 6211	160	150	8	234	9,0	4,4	1744	1199	36	87	1,8	15,9	1573
EHT 6212	186	50	8	234	9,0	3,9	1688	1054	34	87	1,8	11,9	1171
EHT 6212	262	100	8	227	8,4	4,6	2112	1219	35	87	1,8	13,6	1347
EHT 6212	320	150	8	231	8,7	5,0	2418	1328	35	87	1,8	14,6	1460
EHT 6213	233	50	8	234	9,0	4,0	1889	1095	34	87	1,8	12,8	1295
EHT 6213	327	100	8	231	8,7	4,7	2378	1264	35	87	1,8	14,7	1491
EHT 6213	400	150	7	234	9,0	5,1	2741	1378	36	87	1,8	16,4	1631
EHT 6214	373	50	8	231	8,7	4,2	2400	1129	35	87	1,8	14,6	1461
EHT 6214	524	100	8	223	8,2	5,0	3072	1287	36	87	1,8	17,0	1690
EHT 6214	640	150	7	231	8,7	5,3	3600	1419	37	87	1,8	18,3	1839
EHT 6240	54	50	8	231	10,1	3,2	1046	862	34	91	2,1	11,4	1176
EHT 6240	76	100	8	227	9,8	3,8	1265	1006	35	91	2,1	13,1	1350
EHT 6240	93	150	8	234	10,4	4,1	1428	1111	35	91	2,1	13,9	1461
EHT 6241	108	50	8	234	10,4	3,8	1407	1039	35	91	2,1	14,5	1493
EHT 6241	152	100	8	231	10,1	4,5	1719	1201	36	91	2,1	16,7	1726
EHT 6241	186	150	8	231	10,1	4,9	1944	1310	37	91	2,1	18,3	1887
EHT 6242	216	50	8	223	9,5	4,4	1886	1150	35	91	2,1	13,0	1382
EHT 6242	304	100	8	231	10,1	5,0	2381	1345	36	91	2,1	15,6	1608
EHT 6242	371	150	7	234	10,4	5,4	2728	1464	36	91	2,1	16,8	1746
EHT 6243	270	50	8	195	7,2	5,0	2042	1122	35	91	2,1	14,7	1544
EHT 6243	379	100	7	234	10,4	5,1	2685	1394	36	91	2,1	16,9	1782
EHT 6243	463	150	7	231	10,1	5,6	3076	1498	37	91	2,1	18,8	1955
EHT 6244	432	50	8	205	8,0	5,0	2657	1185	36	91	2,1	16,8	1746
EHT 6244	608	100	7	234	10,4	5,3	3510	1438	38	91	2,1	19,5	2029
EHT 6244	742	150	7	231	10,1	5,8	4071	1543	39	91	2,1	21,0	2211

			Cooling performances						Heating performances				
Size	q_p	Δp_a	$\Delta\theta_{,c}$	$q_{wN,c}$	$\Delta p_{w,c}$	$\Delta\theta_{w,c}$	**P**	$P_{w,c}$	$\Delta\theta_{,h}$	$q_{wN,h}$	$\Delta p_{w,h}$	$\Delta\theta_{w,h}$	$P=P_{w,h}$
	m³/h	Pa	K	l/h	kPa	K	W	W	K	l/h	kPa	K	W
EHT 6270	61	50	8	231	11,5	3,5	1147	939	35	91	2,3	13,1	1368
EHT 6270	86	100	8	231	11,5	4,1	1392	1099	36	91	2,3	15,0	1576
EHT 6270	106	150	8	231	11,5	4,5	1566	1205	36	91	2,3	16,7	1729
EHT 6271	123	50	8	231	11,5	4,2	1545	1126	36	91	2,3	16,6	1751
EHT 6271	173	100	8	227	11,1	4,9	1889	1300	38	91	2,3	19,2	2031
EHT 6271	211	150	7	231	11,5	5,3	2134	1415	39	91	2,3	21,1	2224
EHT 6272	246	50	8	231	11,5	4,7	2100	1262	36	91	2,3	15,6	1633
EHT 6272	346	100	7	227	11,1	5,5	2617	1438	37	91	2,3	18,0	1889
EHT 6272	422	150	7	220	10,4	6,0	2979	1541	38	91	2,3	19,3	2054
EHT 6273	307	50	8	227	11,1	4,9	2338	1292	37	91	2,3	17,7	1829
EHT 6273	432	100	7	231	11,5	5,6	2962	1490	38	91	2,3	20,3	2123
EHT 6273	527	150	7	231	11,5	6,0	3414	1618	39	91	2,3	21,7	2308
EHT 6274	492	50	7	223	10,8	5,1	3009	1333	38	91	2,3	19,3	2056
EHT 6274	692	100	7	227	11,1	5,8	3893	1535	40	91	2,3	23,4	2428
EHT 6274	845	150	7	231	11,5	6,2	4545	1666	41	91	2,3	25,2	2654
EHT 6300	69	50	8	231	12,9	3,8	1255	1020	35	95	2,6	14,4	1567
EHT 6300	97	100	8	227	12,5	4,5	1508	1177	36	95	2,6	16,5	1808
EHT 6300	118	150	8	223	12,1	4,9	1681	1279	37	95	2,6	18,3	1978
EHT 6301	138	50	8	223	12,1	4,6	1672	1202	37	95	2,6	18,3	2009
EHT 6301	194	100	7	227	12,5	5,3	2048	1387	39	95	2,6	21,1	2335
EHT 6301	237	150	7	227	12,5	5,7	2317	1509	40	95	2,6	23,2	2562
EHT 6302	276	50	7	227	12,5	5,1	2287	1347	37	95	2,6	17,2	1871
EHT 6302	388	100	7	231	12,9	5,8	2873	1551	38	95	2,6	19,8	2169
EHT 6302	473	150	7	227	12,5	6,3	3271	1659	39	98	2,7	21,3	2362
EHT 6303	344	50	7	231	12,9	5,2	2567	1395	38	95	2,6	19,4	2099
EHT 6303	484	100	7	227	12,5	6,0	3234	1585	39	95	2,6	22,4	2443
EHT 6303	591	150	7	231	12,9	6,4	3733	1719	40	98	2,7	23,8	2660
EHT 6304	551	50	7	231	12,9	5,4	3314	1437	39	98	2,7	21,3	2363
EHT 6304	775	100	7	227	12,5	6,2	4272	1631	41	95	2,6	25,8	2801
EHT 6304	947	150	7	231	12,9	6,6	4995	1768	42	95	2,6	27,7	3067

Symbols referring to Standard UNI EN ISO 15116:2008(E)

	Reference values in cooling	**Reference values in heating**
θr	Reference room air temperature 26 °C	Reference room air temperature 22 °C
θw	Average temperature of the water in cooling mode	Average temperature of the water in cooling mode
θw₁	Water inlet temperature 16 °C	Water inlet temperature 50 °C
θw₂	Water outlet temperature	Water outlet temperature
θp	Primary air temperature 16 °C	Primary air temperature 22 °C

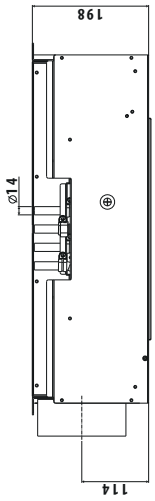
Legend

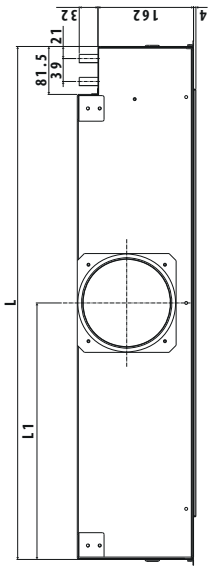
	Reference values in cooling		**Reference values in heating**
$\Delta\theta_{,c}$	Difference between the reference room air temperature and the average temperature of the water entering the coil $\Delta\Theta = \Theta_r - \Theta_{w1}$	$\Delta\theta_{,h}$	Difference between the reference room air temperature and the average temperature of the water entering the coil $\Delta\Theta = \Theta_r - \Theta_{w1}$
q_p	Primary air flow rate	q_p	Primary air flow rate
Δp_a	Air side pressure drop	Δp_a	Air side pressure drop
$q_{wN,c}$	Nominal water flow rate	$q_{wN,h}$	Nominal water flow rate
$\Delta p_{w,c}$	Water side pressure drop	$\Delta p_{w,h}$	Water side pressure drop
$\Delta\theta_{w,c}$	Water side temperature difference	$\Delta\theta_{w,h}$	Water side temperature difference
P	Total cooling capacity	**P**	Total heating capacity
$P_{w,c}$	Water side cooling capacity	$P_{w,h}$	Water side heating capacity

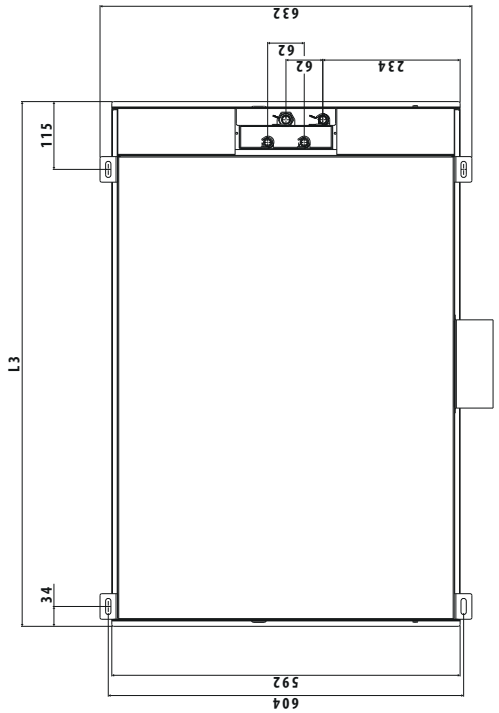
DIMENSIONS AND WEIGHTS

EHT6090 ÷ EHT6214

[mm]

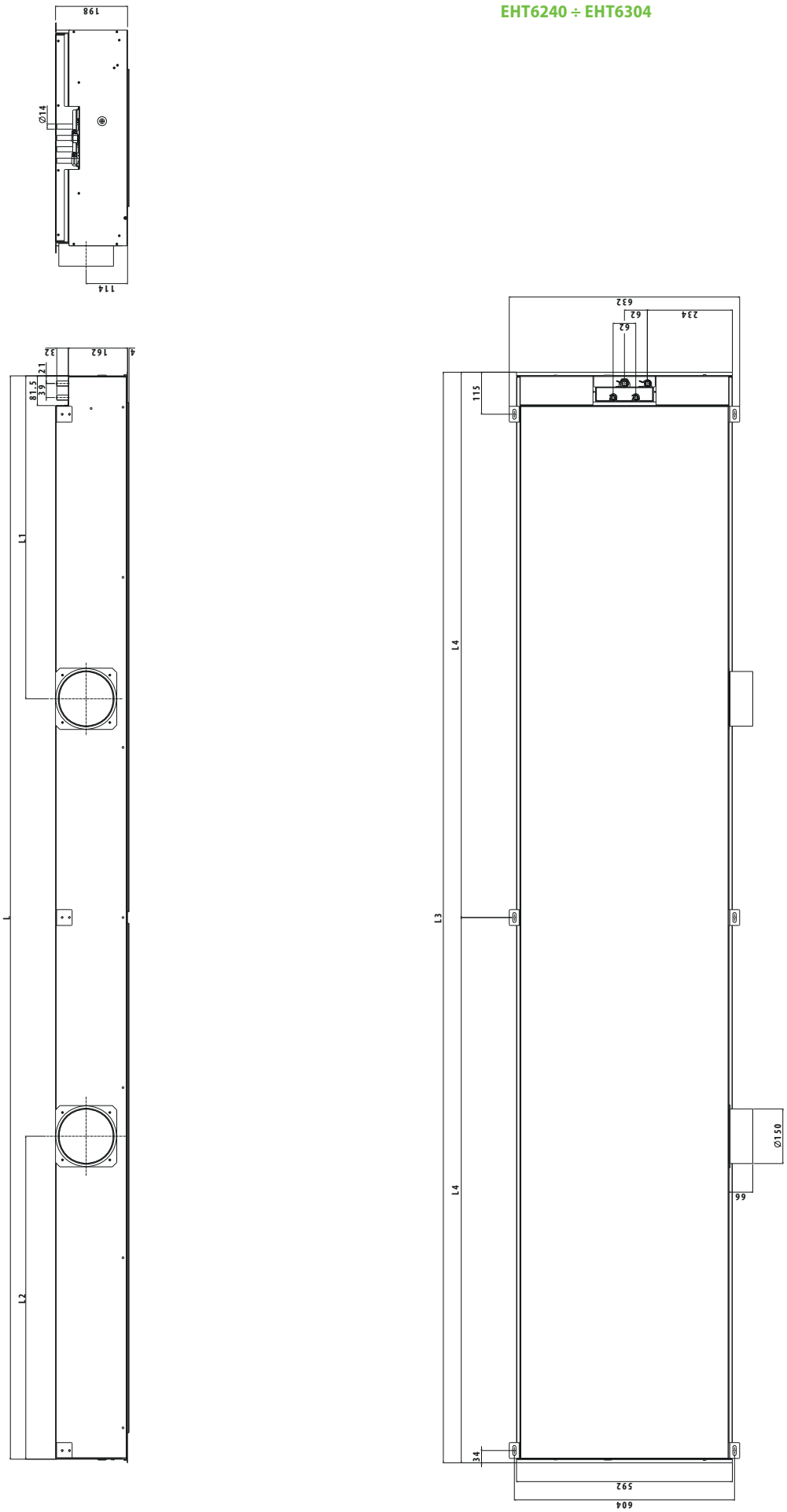






[mm]

EHT6240 ÷ EHT6304



Size	L	L1	L2	L3	L4
	mm	mm	mm	mm	mm
EHT 6090	872	436	-	892	-
EHT 6120	1172	586	-	1192	-
EHT 6150	1472	736	-	1492	-
EHT 6180	1772	886	-	1792	-
EHT 6210	2072	1036	-	2092	-
EHT 6240	2372	711	711	2392	1196
EHT 6270	2672	881	881	2692	1346
EHT 6300	2972	886	886	2992	1496

Size	Width	Nominal length	Total length	Net weight	Gross weight
	mm	mm	mm	kg	kg
EHT 6090	592	900	892	26	31
EHT 6091	592	900	892	26	31
EHT 6092	592	900	892	26	31
EHT 6093	592	900	892	26	31
EHT 6094	592	900	892	26	31
EHT 6120	592	1200	1192	35	41
EHT 6121	592	1200	1192	35	41
EHT 6122	592	1200	1192	35	41
EHT 6123	592	1200	1192	35	41
EHT 6124	592	1200	1192	35	41
EHT 6150	592	1500	1492	43	52
EHT 6151	592	1500	1492	43	52
EHT 6152	592	1500	1492	43	52
EHT 6153	592	1500	1492	43	52
EHT 6154	592	1500	1492	43	52
EHT 6180	592	1800	1792	52	62
EHT 6181	592	1800	1792	52	62
EHT 6182	592	1800	1792	52	62
EHT 6183	592	1800	1792	52	62
EHT 6184	592	1800	1792	52	62
EHT 6210	592	2100	2092	61	72
EHT 6211	592	2100	2092	61	72
EHT 6212	592	2100	2092	61	72
EHT 6213	592	2100	2092	61	72
EHT 6214	592	2100	2092	61	72
EHT 6240	592	2400	2392	69	83
EHT 6241	592	2400	2392	69	83
EHT 6242	592	2400	2392	69	83
EHT 6243	592	2400	2392	69	83
EHT 6244	592	2400	2392	69	83
EHT 6270	592	2700	2692	78	93
EHT 6271	592	2700	2692	78	93
EHT 6272	592	2700	2692	78	93
EHT 6273	592	2700	2692	78	93
EHT 6274	592	2700	2692	78	93
EHT 6300	592	3000	2992	87	103
EHT 6301	592	3000	2992	87	103
EHT 6302	592	3000	2992	87	103
EHT 6303	592	3000	2992	87	103
EHT 6304	592	3000	2992	87	103

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Ventilcassaforma

Template for recessed installation of fancoils in the wall



DESCRIPTION

Ventilcassaforma has been designed to respond to the needs to rationalise spaces to suit modern interior architecture. Ventilcassaforma is a galvanised template that makes it possible to make a space to house fan coils in the wall. The template will make masonry work easier during the construction of a niche where the fan coil will be installed. When the work is finished, the fan coil will be completely hidden from view.

VERSIONS

CHU-L for fan coils in the Omnia UL-P series
CHF for fan coils in the FCX-P , FCX-PV and FCXI-P series in 2 pipe systems, 2 pipe systems with resistance and with 4 pipe systems

FEATURES

Ventilcassaforma is made up of the following parts to be assembled:

- Recess box;
- Closure panel;
- Outer frame with deflector;
- Cover bases, cross-members, covers.

All parts are made of galvanised steel and treated with epoxy-polyester resin-based thermo-hardening base paint in grey with rough glazed finish in order to hold the paint. The final colour can be chosen by the client.

Closure Panel

Made of galvanised steel, this is the box housing the fan coil. The box is recessed in the wall during building work making the construction of a niche where the fan coils will be installed much easier. Holes for fitting the fan coil and preparing an electric plant with a socket and GEWISS fuse holder are already present on the back panel. The box can accommodate the hydraulic system pipes and condensation drain pipes thanks to the presence of several easily-removable elements on the sides and base.

Closure Panel

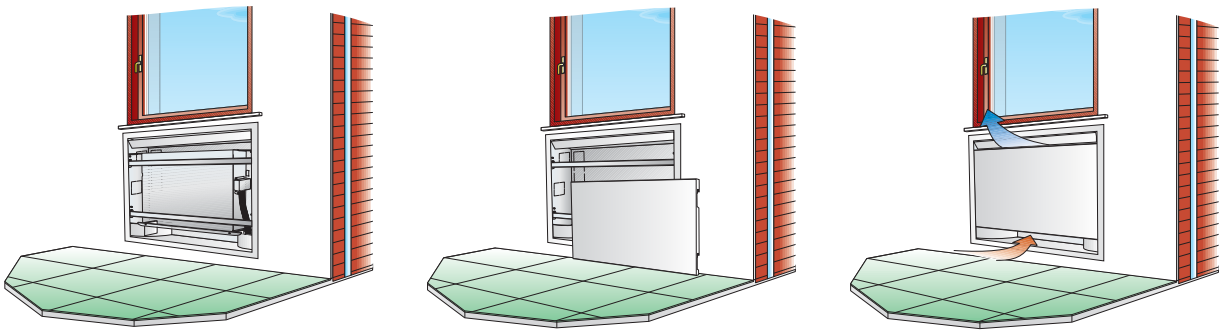
Made of steel pre-treated with base paint and no slots present. Easily removable for servicing and cleaning the air filter.

Outer Frame

The perimeter of the box has an outer frame made of pre-treated steel making it possible to cover the perimeter part of the wall and hide any imperfections that overtime show possible crumbling on the edge of the plaster work.

Deflector

Manual, with which the flow of air can be directed into the room. The deflector is incorporated in the frame.



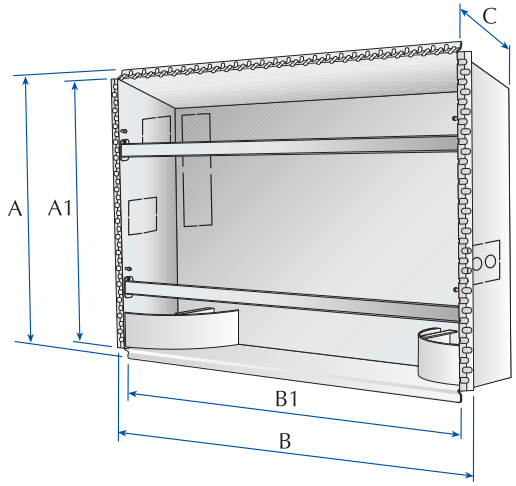
VENTILCASSAFORMA - COMBINATION

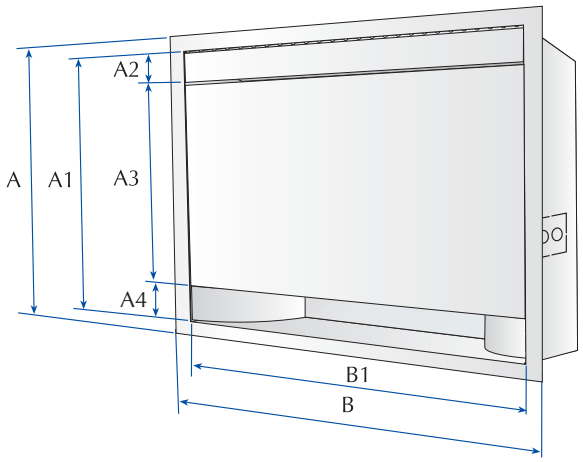
Ventilcassaforma CHU L + Omnia UL combination				
Ventilcassaforma	CHU 12 L	CHU 17 L	CHU 27 L	CHU 37 L
Fan coil	Omnia UL 11 P	Omnia UL 16 P	Omnia UL 26 P	Omnia UL 36 P

Combination Ventilcassaforma CHF - FCX P / FCX PV / FCXI P / FCZ P / FCZI P					
Ventilcassaforma	CHF 17	CHF 22	CHF 32	CHF 42	CHF 62
Fan coil	FCX 17 P FCX 17 PV FCZ 1 P-PPC *	FCX 22 P	FCX 32 P - 36 P	FCX 42 P - 50 P - 56 P	FCX 62 P - 82 P - 102 P
		FCX 22 PV	FCX 32 PV - 36 PV	FCX 42 PV - 50 PV - 56 PV	FCX 62 PV - 82 PV - 102 PV
		FCX 24 P	FCX 34 P	FCX 44 P - 54 P	FCX 64 P - 84 P
		FCX 24 PV	FCX 34 PV	FCX 44 PV - 54 PV	FCX 64 PV - 84 PV
		FCXI 20/24 P	FCXI 30/34/36 P	FCXI 40/44 P - 50/54/56 P	FCXI 80/84 P
		FCZ 2 P-PPC-P0 *	FCZ 3 P-PPC-P0 *	FCZ 4/5 P-PPC-P0 *	FCZ 6/7/8/9/10 P-PPC-P0*
		FCZI 2 P *	FCZI 3 P *	FCZI 4/5 P *	FCZI 7/9 P *

The fan coils FCX-P , FCX-PV and FCXI-P can be inserted into 2 pipe systems, 2 pipe systems with resistance and 4 pipe systems
* For fan coils FCZ and FCZI, with 1, 2, 3, 4 .... means all sizes available es. with "1" means 100/101/102/150

DIMENSIONS





Size		CHU12 L	CHU17 L	CHU27 L	CHU37 L	CHF17	CHF22	CHF32	CHF42	CHF62
A	mm	691	691	691	691	728	728	728	728	833
A1	mm	648	648	648	648	684	684	684	684	789
B	mm	692	802	1032	1252	732	842	1073	1293	1414
B1	mm	644	754	984	1204	684	794	1025	1245	1366
C	mm	186	186	186	186	240	240	240	240	240

Outer frame and closure panel

Size		CHU12 L	CHU17 L	CHU27 L	CHU37 L	CHF17	CHF22	CHF32	CHF42	CHF62
A	mm	724	724	724	724	760	760	760	760	865
A1	mm	634	634	634	634	680	680	680	680	785
A2	mm	70	70	70	70	93	93	93	93	93
A3	mm	494	494	494	494	493	493	493	493	598
A4	mm	-	-	-	-	94	94	94	94	94
B	mm	713	823	1053	1273	753	863	1094	1314	1435
B1	mm	633	743	973	1193	673	783	1014	1234	1355

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Control panels

Range of control panels for fan coils

- **Wide range of panels for the simple, complete control of all the fan coil functions.**

T-TOUCH AND T-TOUCH-I



Characteristics and equipment supplied as standard

— Installation on the fan coil.
— Air and water probes supplied as standard.
— RS485 serial port for connection with the VMF network (MASTER).
— Connection with VMF-E4 user interface.
— Control of the 3 speeds of the asynchronous motors.
— 0-10 V and/or PWM output for brushless motors.
— Two triac outputs for control of valves and/or accessories.
— MS input (micro switch).
— Inverter fault input.
— Visualisation of the speeds and the temperature set-point.
— NFC chip.
— Compatible with the ThermApp application (Android systems).

ThermApp

With the electronic thermostat **T-Touch-I** and the ThermApp **application** the operating mode and hourly weekly programming can be set by simply resting the smart device on the fan coil. Furthermore, numerous additional information like the alarms list, the closest Sat, etc., can be accessed with the graphic interface of the app.
Available for Android operating systems.



Compatibility with the hydronic terminals

Thermostat	Unit	Range
T-TOUCH	FCZ	AS - U - UA - DS
T-TOUCH-I	FCZI	AS - U

Compatibility with 2 and 4 pipes systems

2-pipe systems	Air temperature probe	Water temperature probe
without accessories	supplied as standard	supplied as standard
with 2-way valve		
with 3-way valve		
with Cold Plasma purifier		
with 2-way valve and Cold Plasma purifier		
with 3-way valve and Cold Plasma purifier		
with heater		
with 2-way valve and heater		
with 3-way valve and heater		
cooling only, with heater for heating		
cooling only, with heater for heating and 3-way valve		
4-pipe systems		
with 2-way valve	supplied as standard	supplied as standard
with 3-way valve		

AER503IR



Characteristics and equipment supplied as standard

— Flush installation (503-502 module box, or plasterboard boxes).
— Management of fan coils with asynchronous and brushless motor.
— Automatic / manual season changeover.
— Control of up to 2 On/Off valves.
— Control of 1 modulating valve 0-10.
— Temperature and ventilation control.
— Internal air probe.
— Compatible with the VMF-IR.
— Overall dimensions (mm): H=86 - W=125 - D=46.

Compatibility with the hydronic terminals

Compatible with all ON/OFF fancoil and INVERTER fancoil, without on board controls.

Compatibility with 2 and 4 pipes systems

2-pipe systems	Air temperature probe	Water temperature probe
without accessories		
with 2-way valve		
with 3-way valve		
with Cold Plasma purifier		
with 2-way valve and Cold Plasma purifier		
with 3-way valve and Cold Plasma purifier		
with heater		
with 2-way valve and heater	SA5	SW5
with 3-way valve and heater		
cooling only, with heater for heating		
cooling only, with heater for heating and 3-way valve		
with 2-way valve and radiant panel (heating)		
radiant panel only (heating)		
4-pipe systems		
with 2-way valve	SA5	SW5
with 3-way valve		

TX



Characteristics and equipment supplied as standard

— Wall-mount installation.
— Management of fan coils with asynchronous and brushless motor.
— Automatic / manual season changeover.
— Control of up to 2 On/Off valves.
— Temperature and ventilation control (3 speeds).
— Internal air probe
— Management of fins and external contact.
— Overall dimensions (mm): H=148 - W=70 - D=27.5.

Compatibility with the hydronic terminals

Compatible with all ON/OFF fancoil and INVERTER fancoil, without on board controls.

Compatibility with 2 and 4 pipes systems

2-pipe systems	Air temperature probe	Water temperature probe
without accessories		
with 2-way valve		
with 3-way valve		
with Cold Plasma purifier		
with 2-way valve and Cold Plasma purifier		
with 3-way valve and Cold Plasma purifier		
with heater		
with 2-way valve and heater	SA5	SW3 / SW5
with 3-way valve and heater		
cooling only, with heater for heating		
cooling only, with heater for heating and 3-way valve		
with 2-way valve and radiant panel (heating)		
radiant panel only (heating)		
with twin delivery (Dualjet)		
4-pipe systems		
with 2-way valve	SA5	SW3 / SW5
with 3-way valve		

PXAI



Characteristics and equipment supplied as standard

— Installation on the fan coil.
— Automatic / manual season changeover.
— Control of up to 2 On/Off valves.
— Temperature and ventilation control (3 speeds).
— Internal water probe (2.5m) and air probe (2.3m).
— Management of fins and external contact.
— Overall dimensions (mm): H=148 - W=70 - D=27.5.

Compatibility with the hydronic terminals

Compatible with all ON/OFF fancoil without on board controls.

Compatibility with 2 and 4 pipes systems

2-pipe systems	Air temperature probe	Water temperature probe
without accessories	supplied as standard	supplied as standard
with 2-way valve		
with 3-way valve		
with Cold Plasma purifier		
with 2-way valve and Cold Plasma purifier		
with 3-way valve and Cold Plasma purifier		
with heater		
with 2-way valve and heater		
with 3-way valve and heater		
cooling only, with heater for heating		
cooling only, with heater for heating and 3-way valve		
4-pipe systems		
with 2-way valve	supplied as standard	supplied as standard
with 3-way valve		

TXB AND TXBI



Characteristics and equipment supplied as standard

— Installation on the fan coil.
— Automatic / manual season changeover.
— Control of up to 2 On/Off valves.
— Temperature and ventilation control (3 speeds).
— Internal air probe.
— Water probe (supplied) for controlling the minimum or maximum depending on the system, with the possibility to fit an external air probe (SA5).

Compatibility with the hydronic terminals

TXB

Compatible with all fancoil of the series FCZ.

TXBI

Compatible with all fancoil of the series FCZI.

Compatibility with 2 and 4 pipes systems

2-pipe systems	Air temperature probe	Water temperature probe
without accessories	supplied as standard	supplied as standard
with 2-way valve		
with 3-way valve		
with Cold Plasma purifier		
with 2-way valve and Cold Plasma purifier		
with 3-way valve and Cold Plasma purifier		
with heater		
with 2-way valve and heater		
with 3-way valve and heater		
cooling only, with heater for heating		
cooling only, with heater for heating and 3-way valve		
with 2-way valve and radiant panel (heating)		
radiant panel only (heating)		
with twin delivery (Dualjet)		
4-pipe systems		
with 2-way valve	supplied as standard	supplied as standard
with 3-way valve		

WMT05



Characteristics and equipment supplied as standard

— Wall-mount installation.
— Manual season changeover.
— Temperature and ventilation control (3 speeds).
— Internal air probe.
— Overall dimensions (mm): H=75 - W=127 - D=25.

Compatibility with the hydronic terminals

Compatible with all ON/OFF fancoil without on board controls.

Compatibility with 2 pipe systems

2-pipe systems	Air temperature probe	Water temperature probe
without accessories	internal	-

WMT06



Characteristics and equipment supplied as standard

— Wall-mount installation.
— Manual season changeover.
— Thermostat control of 2 On/Off valves.
— Temperature and ventilation control (3 speeds).
— Internal air probe.
— Overall dimensions (mm): H=75 - W=127 - D=25.

Compatibility with the hydronic terminals
Compatible with all ON/OFF fancoil without on board controls.

Compatibility with 2 and 4 pipes systems

2-pipe systems	Air temperature probe	Water temperature probe
without accessories	internal	-
with 2-way valve		
4-pipe systems		
with 2-way valve	internal	-

WMT10



Characteristics and equipment supplied as standard
— Wall-mount installation.
— Manual season changeover.
— Control of up to 2 On/Off valves.
— Temperature and ventilation control (3 speeds).
— Internal air probe.
— Overall dimensions (mm): H=75 - W=127 - D=25.

Compatibility with the hydronic terminals
Compatible with all ON/OFF fancoil without on board controls.

Compatibility with 2 and 4 pipes systems

2-pipe systems	Air temperature probe	Water temperature probe
without accessories	internal	-
with 2-way valve		
with heater		
with 2-way valve and heater		
cooling only, with heater for heating		
4-pipe systems		
with 2-way valve	internal	-

FMT10



Characteristics and equipment supplied as standard
— Wall-mount installation.
— Automatic / manual season changeover.
— Control of up to 2 On/Off valves, or 1 valve and 1 heater.
— Temperature and ventilation control (3 speeds).
— Air probe (supplied) to be installed on the fan coil intake.
— Overall dimensions (mm): H=80 - W=118 - D=40.

Compatibility with the hydronic terminals
Compatible with all ON/OFF fancoil and INVERTER fancoil, without on board controls.

Compatibility with 2 and 4 pipes systems

2-pipe systems	Air temperature probe	Water temperature probe
without accessories	supplied as standard	-
with 2-way valve		
with heater		
with 2-way valve and heater		
cooling only, with heater for heating		
4-pipe systems		
with 2-way valve	supplied as standard	-

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VMF

Multi Flow Variable Systems

Range of components for the management of air conditioning, heating and domestic hot water production systems



DESCRIPTION

Hydronic system management and control unit for air conditioning, heating and domestic hot water production. The VMF system ensures the complete control of every single component of a hydronic system, both local and centralised, through communication between the various system components, managing the performance without neglecting the end user's request for comfort at any time, but reaching it as efficiently as possible, with consequent energy savings.
Summing up the advantages of a such an innovative control with the flexibility of a hydronic system, you achieve a more effective and efficient alternative to variable refrigerant volume (VRF) systems. The VMF system can manage different areas, each of which has one of the following types of terminals:

- Fancoil;
- Radiant only (heating only);
- Fancoil + Radiant;
- MZC Zone;
- MZC Zone + Radiant;

FEATURES

The VMF system is extremely flexible, to the extent that it offers various control and management steps, also expandable at different times:

1. Control of a single zone;
2. Control of a Master/Slave zone (one MASTER fancoil and up to 5 SLAVE fancoils);
3. Control of a network consisting of several independent zones (one MASTER fancoil and up to 5 SLAVE fancoils for each zone, or another of the types of terminals provided);
4. Control of several zones, plus heat pump management (if compatible with the VMF system);
5. Control of several zones, of heat pumps and management of the domestic hot water;
6. Control of several zones, heat pumps, domestic hot water production and additional pumps (up to a maximum of 12 using 3 additional VMF-CRP modules);
7. Control of several zones, heat pumps, domestic hot water production, additional pumps and management of up to 3 heat recovery units (with the possibility to manage up to 3 VMF-VOC probes) and/or a boiler;

CONTROL PANELS

The VMF system can pilot and manage a different number of areas, depending on the panel used: VMF-E6 / E5: maximum 64 zones (so a maximum of 64 Master Fancoil, each of which will pilot 5 Slave, for a total of 384 Fancoil); VMF-RCC: maximum 10 zones (then a maximum of 10 Master Fancoil, each of which will pilot 5 Slave, for a total of 50 Fancoil).

In addition to the centralised control provided by the VMF-E6/E5/RCC panel, the MASTER system terminal must be equipped with a local control interface; this interface can be mounted on board the terminal itself or on a wall panel.

Via panel VMF-E6/E5/RCC it is possible to control several functions:

- Identify the various zones by giving each of them a name that characterises it
- Control and set the ON-OFF function and the temperature setting of each zone
- Set and manage the heat pump temperature
- Schedule time slots

Simple installation of the fancoil network thanks to the SELF-DETECTION function of the MASTER fancoils

SYSTEM COMPONENTS

Control interfaces

VMF-E2Z: as VMF-E2 but for FCZ fan coils
VMF-E2D: is the machine user interface (just like the previous one) to be combined with VMF-E19 accessory, dedicated to the DUALJET range
VMF-E2H: is the machine user interface (just like the previous one) to be combined with VMF-E19 accessory, dedicated to the HL range
VMF-IR: is the user interface, only available in combination with the GLF M and GLFI M grid, supplied as infrared remote control
VMF-E3: is the simplified user interface, to be installed on the wall, can be combined with VMF-E19 and VMF-E19I accessories, with the GLF_N/M and GLL_N grids and with the VMF-E0X thermostats; it can also be controlled through VMF-IR command
VMF-E4X: is a wall-mounted user interface to be combined with VMF-E19 and VMF-E19I accessories for drawer grids. Featuring an innovative, extremely slim and cost-effective design, it allows running functions via a capacitive touchscreen keyboard with LCD display. You can choose to adjust the environment with a panel-mounted sensor probe (standard), or with the fan coil probe to which it is connected, or through mediated reading. It also enables the activation of an air purifier (Cold Plasma / UV Lamp) and a heating element. Light grey front panel PANTONE COOL GRAY 1C
VMF-E4DX: is a variant of the previous code but with a light grey front panel PANTONE 425C (METAL)
VMF-E6: a white recessed panel with 4.3 inch touchscreen display, it allows the centralised command/control of a complete hydronic/aeraulic system consisting of: fan coils (up to 64 fan coil zones consisting of 1 master + up to 5 slaves), heat pumps (up to 4), MZC accessories (up to 5), radiant panels management (using a suitable number of VMF-REB accessories, up to 64 radiant panels associated with the fancoil zones and up to 32 radiant panels associated with the zones served by MZC), complete management of the domestic hot water production, control of the RAS heating element and/or boiler, digital I/O management, control of recovery units and VOC probes (up to 4)
VMF-E5B: a white recessed panel with backlit graphic LCD display and capacitive keyboard, it allows the centralised command/control of a complete hydronic system consisting of Fan coils: up to 64 fan coil zones consisting of 1 master + up to 5 slaves; Chiller/heat pump (accessory required for RS 485 interface), pumps: up to 12 configurable zone pumps; boiler: boiler hook-up management for hot water production; heat recovery units: up to 3 hook-ups per programmable recovery units based on timing and/or by measuring air quality with the VMF-VOC accessory; domestic water module: complete management of the domestic hot water production through the control of: diverting valve/pump, integrated heating element, accumulation temperature sensor, anti-legionella circuit system
VMF-E5N: is a variant of the previous code but with black plastic
VMF-VOC: an accessory for measuring air quality (see related point in VMF-E5B description)

Thermostats

VMF-E0X: a thermostat accessory to be secured to the side of the fan coil, fitted as standard with an air probe and a water probe, it controls systems with 2 pipes, 4 pipes, 2 pipes + Cold Plasma, 2 pipes + UV lamps, 2 pipes + Heating element. Equipped with an external contact to be used as a remote ON-OFF at low voltage. By means of 2-wire serial communication, this thermostat allows for the creation of a single fan coil area (1 master + maximum 5 slaves). Compared to the previous model, thanks to a different dip switch configuration, it allows implementing new features:

- In systems with two pipes and a heating element, the latter can be activated as a complete replacement, allowing you to warm the environment exclusively with this accessory.
- Dualjet features are available in standard software and can be set via dip switch.

The thermostat is protected by a fuse
VMF-E19: like VMF-E0X plus:

- Economy contact/presence sensor
- Additional water sensor for overall control in 4-pipe systems (with VMF-SW1 accessory).
- Serial RS485, ModBus RTU protocol, for centralised control.
- Possibility of inserting expansion boards for future developments. The VMF-E19 accessory must be therefore used in masters in the presence of multiple zones, or for communication with the chiller/heat pump
- Compatibility with the VMF-IO accessory
- Compatibility with VMF-LON expansion board

VMF-E19I: the same as VMF-E19, but for fan coils with inverter motors
VMF-IO: Expansion board that expands the availability of Digital Inputs and Outputs, configurable via dip switches, thus making it possible to control the thermostat via an external BMS without using a local user interface (e.g. VMF-E2 or VMF-E4X). The expansion board can be used to configure the MODBUS addresses of the single thermostats included in a system, thus avoiding having to interact with the user interface for allocating an address and, most importantly, in order to replicate the address when replacing thermostats.
VMF-LON: Expansion that allows interfacing with a thermostat with BMS systems using the LON protocol.
GLL / GLF N: grid for FCL units, equipped with thermostat board for serial communication, with features equivalent to those of the VMF-E19 accessory; (this grid is a MANDATORY accessory for FCL units)
GLLI/GLFI N: grid for FCLI units, equipped with thermostat board for serial communication, with features equivalent to those of the VMF-E19I accessory; (this grid is a MANDATORY accessory for FCLI units)
GLF M: grid for FCL units, equipped with thermostat board for serial communication, with features equivalent to those of the VMF-E19 accessory; (this grid is a MANDATORY accessory for FCL units), furthermore, this grid is supplied with IR receiver (so are compatible with the VMF-IR accessory)
GLFI M: grid for FCL units, equipped with thermostat board for serial communication, with features equivalent to those of the VMF-E19I accessory; (this grid is a MANDATORY accessory for FCLI units), furthermore, this grid is supplied with IR receiver (so are compatible with the VMF-IR accessory)

Probes

VMF-SW: water probe to be used, if necessary, to replace the one supplied as standard with VMF-E0X, VMF-E19 and VMF-E19I thermostats, for installation upstream of the valve
VMF-SW1: extra water probe to be used for 4-pipe systems with VMF-E19 and VMF-E19I thermostats for overall control in the cold range

Modules

VMF-CRP: accessory module for the control of the boilers, heat recovery units and pumps (if associated with VMF-E5/RCC panels); if associated with the VMF-E6 panel the VMF-CRP modules will be able to manage recovery units, RAS, boiler, domestic hot water management, I/O control, pumps
VMF-SIT3: Interface boards that allow connecting thermostats VMF-E0X to a fan coil with a high-power motor (for selection, see all the thermostat and fan coil documentation); if a VMF-E19 thermostat is used, this accessory will be replaced by the normal SIT3s
VMF-REB: only available for VMF-E6, manages the heads of the radiant panels (each module can manage up to 8), one pump and up to 3 thermostats through digital input
VMF-REB 1: only available for VMF-RCC, manages the heads of 10 radiant panels associated with fancoil and up to 10 thermostats through digital input
VMF-REB 2: only available for VMF-RCC, manages the heads of 10 radiant panels associated with MZC and up to 10 thermostats through digital input
VMF-REB 3: only available for VMF-RCC, manages the heads of 8 radiant panels associated with MZC and up to 10 thermostats through digital input
VMF-485LINK: serial interface for VMF communication protocol
IC-2P: connection cable required to connect the outdoor HMI units to the VMF-485LINK accessory

Electrical panels for DHW (Domestic hot water management for other suppliers' storage tanks, not available for VMF-E6)

VMF-ACS3KM: electrical panel for the complete command/control of a hot water storage tank (3-way control valve, integrated single phase 3kW resistor command, anti-legionella function and temperature sensor)
VMF-ACS3KTN: electrical panel for the complete command/control of a hot water storage tank (3-way control valve, integrated three-phase 3kW resistor command, anti-legionella function and temperature sensor)
VMF-ACS6KTN: electrical panel for the complete command/control of a hot water storage tank (3-way control valve, integrated three-phase 6kW resistor command, anti-legionella function and temperature sensor)
VMF-ACS8KTN: electrical panel for the complete command/control of a hot water storage tank (3-way control valve, integrated three-phase 8kW resistor command, anti-legionella function and temperature sensor)

Heat storage tank with integrated domestic hot water management (no need to be combined with a VMF-ACS accessory)

SAF: heat storage tank for the instant production of domestic hot water. It integrates as a single unit both an energy storage element and a heat exchange one, in addition to various adjustment functions (not available for VMF-E6)

Control systems

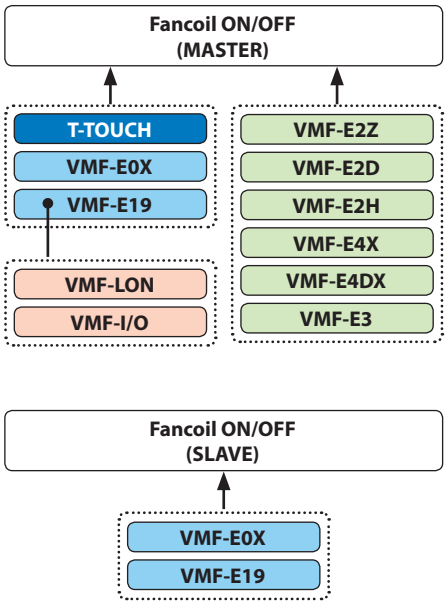
AERCONNECT: web server that allows the supervision of the VMF-E6 system locally and remotely (by appropriately configuring the DNS service provided with the purchase of the accessory) through web pages; allows simultaneous access for up to 8 users

VMF-Monitoring: PC software to monitor and control the operation of one or several VMF controlled systems. Through the VMF-E5/RCC expansion board, the VMF-485EXP panel provides the RS485 serial communication port used by the VMF-MONITORING application for controlling the hydronic system. The maximum number of controllable systems, each with VMF-E5 and VMF-485EXP expansion, is 10 (not available for VMF-E6)

AERLINK: Wifi Gateway with an RS485 serial port that can be installed on all machines or on all controllers having an RS485 serial port themselves. The module is capable of simultaneously activating the AP WIFI (Access point) and WIFI Station functions, the latter making it possible to connect to the home or business LAN (not available for VMF-E6) (AERAPP available only on android systems)

VMF-485EXP: This accessory, specifically mounted in the VMF-E5/RCC panel, adds an RS485 serial communication port to external supervision (BMS, Aerweb or Aermec supervision systems) not available for VMF-E6

COMPATIBILITY OF VMF COMPONENTS WITH ON/OFF FAN COILS

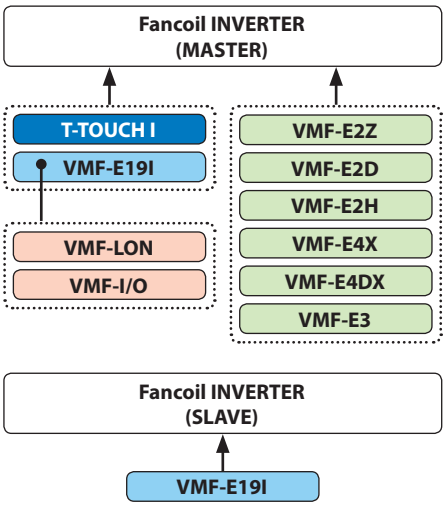


Notes:

- Each fan coil (Master or Slave) may have just one thermostat board, selected from those that are compatible
- The E19 thermostat board can manage just one expansion board, selected from those available
- Each Master fan coil must have just ONE command interface, selected from those that are compatible:

Command interfaces	Compatible ranges or models
VMF-E2Z	FCZ (AS-AF-U-UA-UF) FCZ D (DS) FCZ H
VMF-E2D	Omnia UL (S)
VMF-E2H	Onmia HL (S-SM)
VMF-E4X (E4DX)	FCZ (AS-AF-U-UA-UF) FCZ D (DS) FCZ H Omnia UL (S) Omnia radiant VEC FCW
T-TOUCH	FCZ (AS-AF-U-UA-UF-DS) FCZ D (DS) FCZ H

COMPATIBILITY OF VMF COMPONENTS WITH INVERTER FAN COILS



Notes:

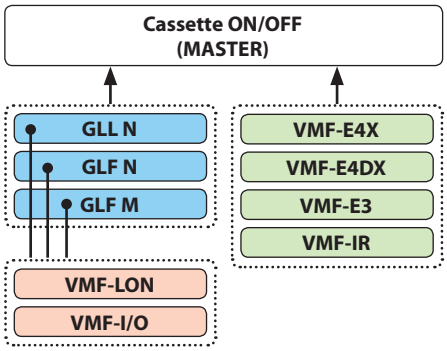
- Each fan coil (Master or Slave) may have just one thermostat board, selected from those that are compatible
- The E19I thermostat board can manage just one expansion board, selected from those available
- Each Master fan coil must have just ONE command interface, selected from those that are compatible:

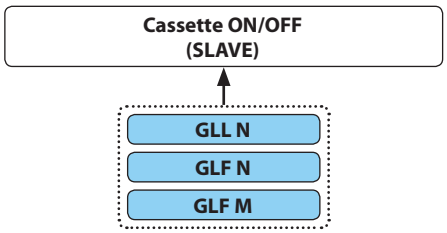
Command interfaces	Compatible ranges or models
VMF-E2Z	FCZI (AS-AF-U-UF) FCZI H
VMF-E2D	Omnia ULI (S)
VMF-E4X (E4DX)	FCZI (AS-AF-U-UF) FCZI D (DS) Omnia ULI (S) Omnia radiant plus VEC I FCW I
T-TOUCH I	FCZI (AS-AF-U-UF)

Type of component:

- Thermostat boards
- Thermostat board + Command interface
- Expansion board
- Command interfaces

COMPATIBILITY OF VMF COMPONENTS WITH ON/OFF CASSETTES



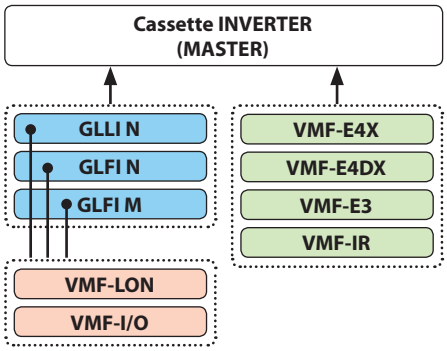


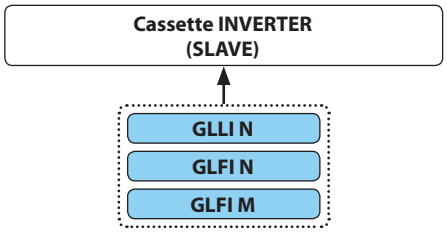
Notes:

- Each Cassette (Master or Slave) must have a delivery recovery grille (fitted with a VMF thermostat board) selected from those that are compatible
- The delivery recovery grilles can manage just one expansion board, selected from those available
- Each Master Cassette must have just ONE command interface, selected from those that are compatible:

Command interfaces	Compatible ranges or models
VMF-E4X (E4DX)	FCL
VMF-IR	FCL

COMPATIBILITY OF VMF COMPONENTS WITH INVERTER CASSETTES





Notes:

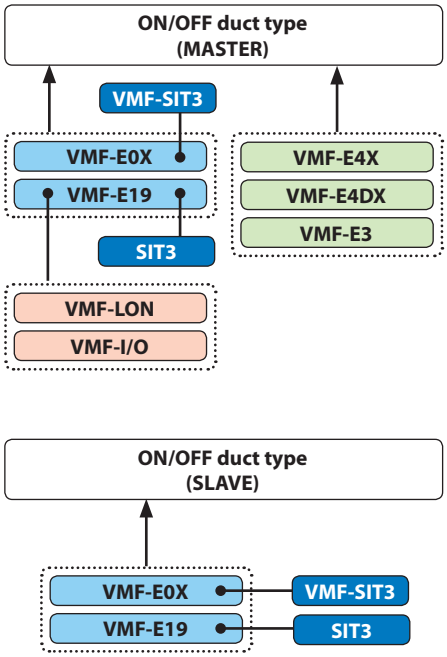
- Each Cassette (Master or Slave) must have a delivery recovery grille (fitted with a VMF thermostat board) selected from those that are compatible
- The delivery recovery grilles can manage just one expansion board, selected from those available
- Each Master Cassette must have just ONE command interface, selected from those that are compatible:

Command interfaces	Compatible ranges or models
VMF-E4X (E4DX)	FCLI
VMF-IR	FCLI

Type of component:

- Delivery suction grille with thermostat board
- Expansion board
- Command interfaces

COMPATIBILITY OF VMF COMPONENTS WITH ON/OFF DUCT TYPE FAN COILS

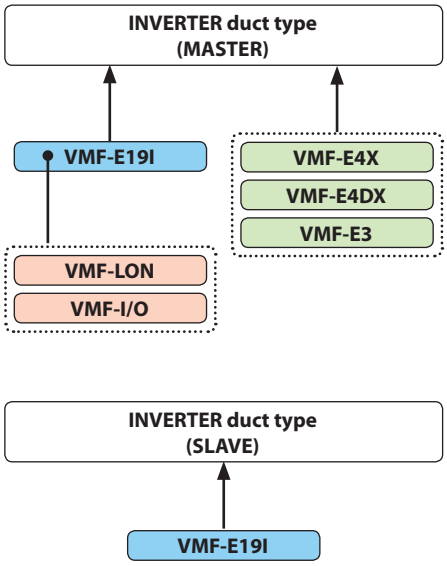


Notes:

- Each duct type fan coil (Master or Slave) may have just one thermostat board, selected from those that are compatible
- The E19 thermostat board can manage just one expansion board, selected from those available
- Depending on the size of the duct type fan coil, a motor control board (VMF-SIT3 or SIT-3) may be needed
- Each Master fan coil must have just ONE command interface, selected from those that are compatible:

Command interfaces	Compatible ranges or models
VMF-E4X (E4DX)	VED VES FCZ P0 FCY Omnia UL (P - PAF) FCZ H (P-P0)

COMPATIBILITY OF VMF COMPONENTS WITH INVERTER DUCT TYPE FAN COILS



Notes:

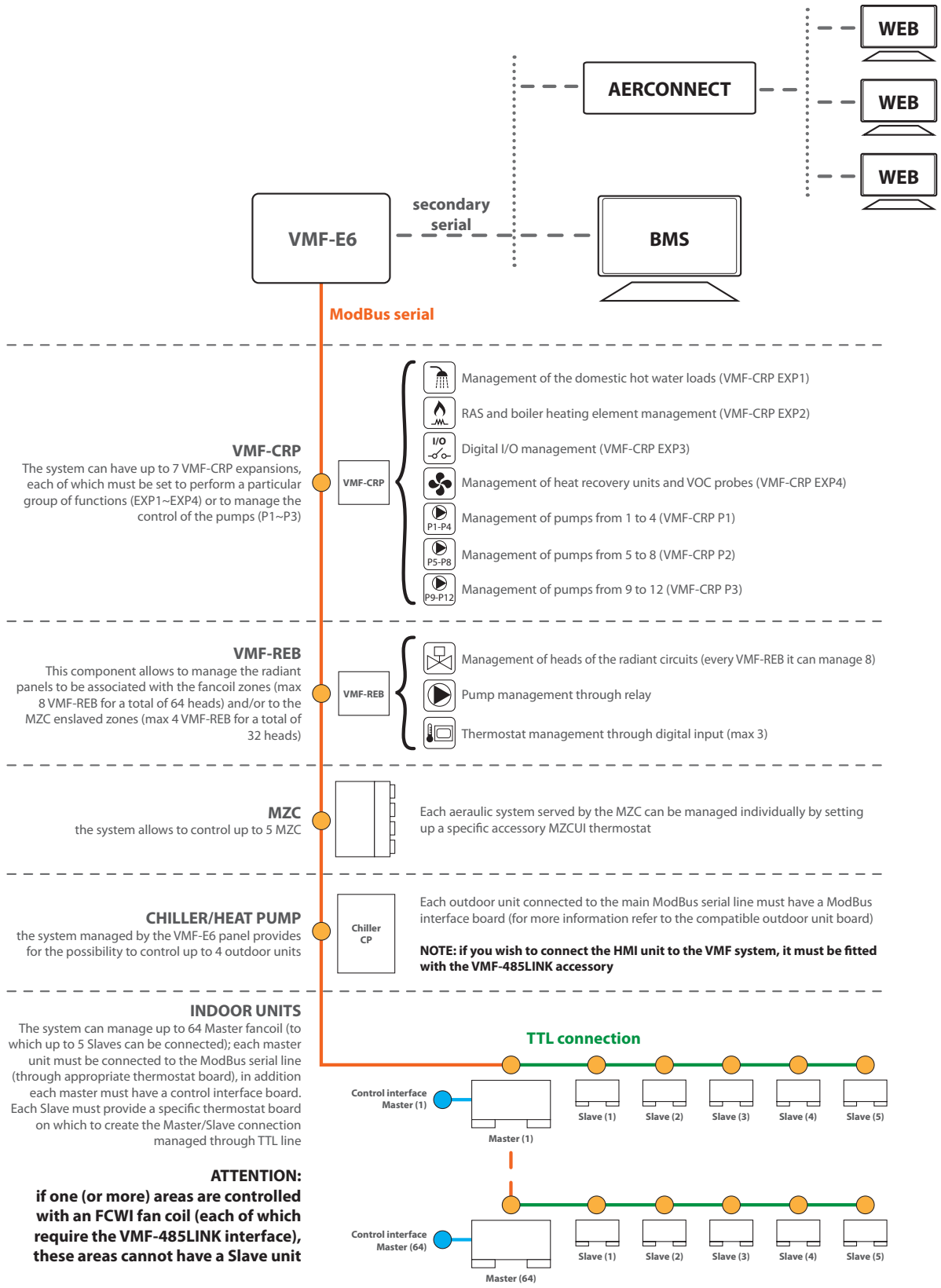
- Each duct type fan coil (Master or Slave) may have just one thermostat board, selected from those that are compatible
- The E19I thermostat board can manage just one expansion board, selected from those available
- Depending on the size of the duct type fan coil, a motor control board (VMF-SIT3 or SIT-3) may be needed
- Each Master fan coil must have just ONE command interface, selected from those that are compatible:

Command interfaces	Compatible ranges or models
VMF-E4X (E4DX)	VED I VES I FCZI P FCY I Omnia UL (P - PAF) FCZI H (P-P0)

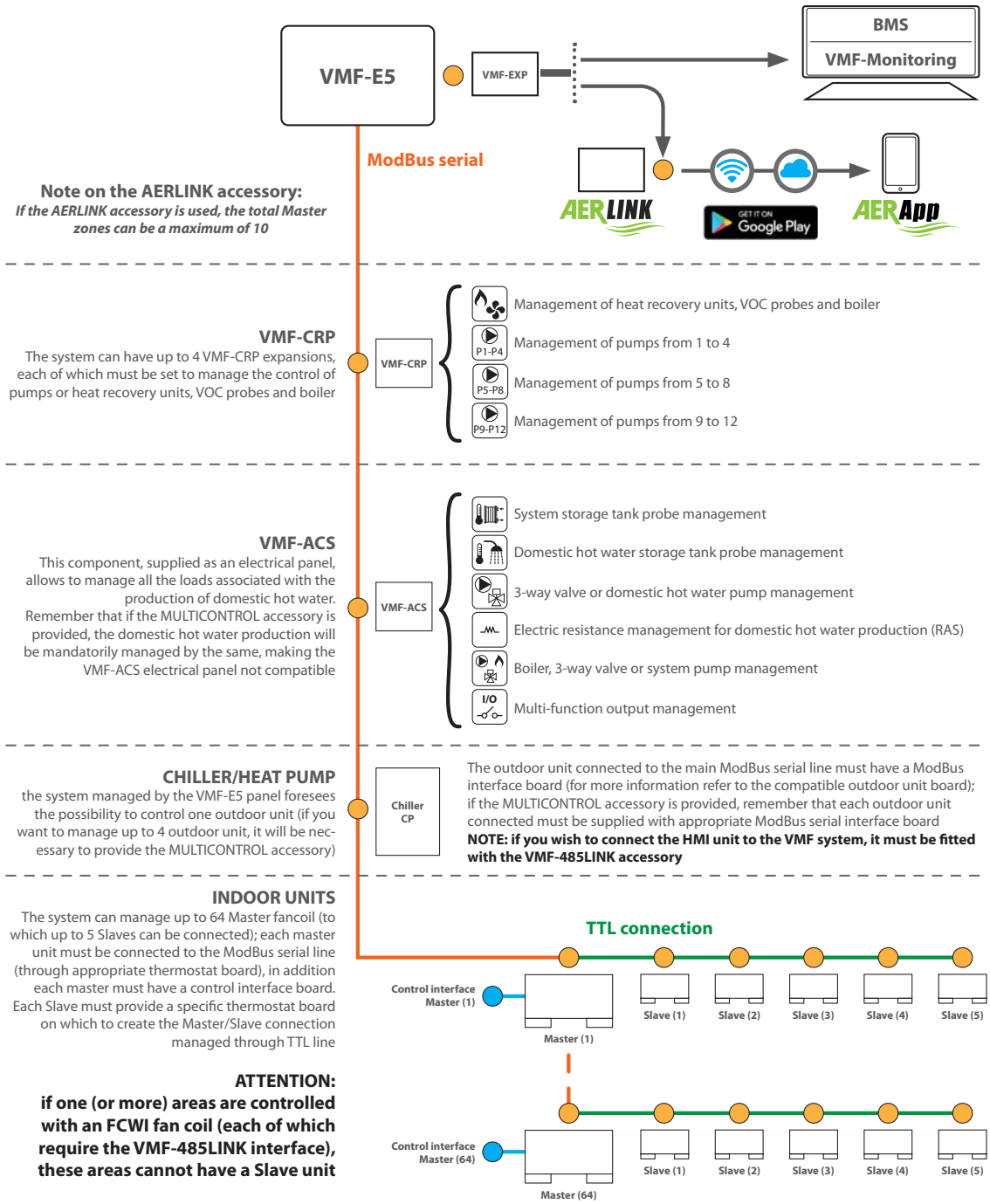
Type of component:

- Thermostat boards
- Motor control board
- Expansion board
- Command interfaces

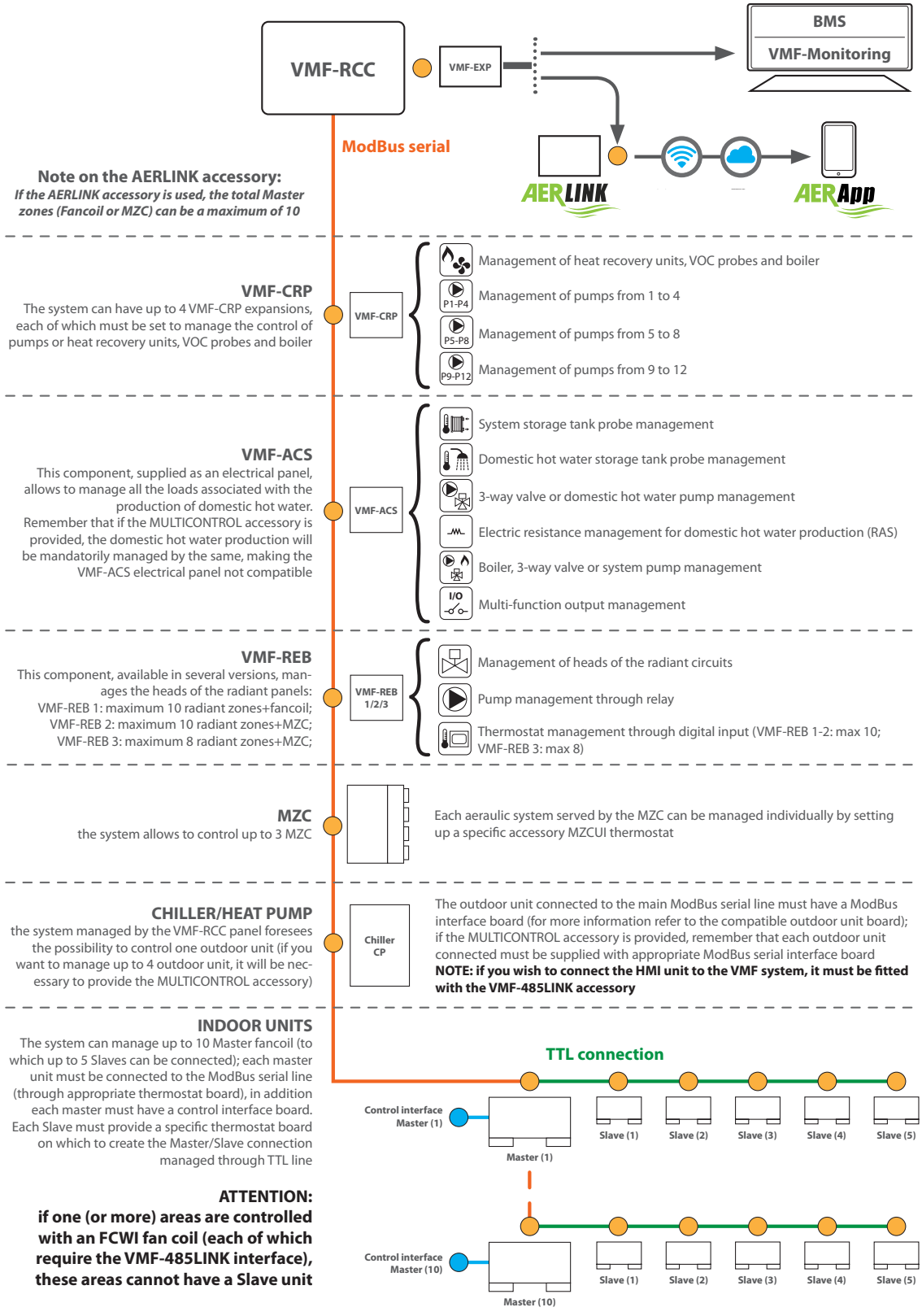
EXAMPLE OF SYSTEM COMPONENTS WITH VMF-E6



EXAMPLE OF SYSTEM COMPONENTS WITH VMF-E5



EXAMPLE OF SYSTEM COMPONENTS WITH VMF-RCC



Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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www.aermec.com

HEAT RECOVERY UNIT

Objective air quality and energy saving: Aermec offers a large range of air-air heat recovery units for industrial and commercial systems and for Controlled Mechanical Ventilation Systems for residential.
The heat recovery units, provided with appropriate accessories (heat exchange coils, heat pump refrigerant circuit, etc.), actively participate in the air treatment providing an important contribution to the air conditioning of the spaces served.
The catalogued range of nominal available air flow rates is from 100 to around 16.100 m^3/h.

HEAT RECOVERY UNITS

		Air flow rate (m^3/h)	Cool. Cap. (kW)	Heat. Cap. (kW)	Page
REPURO	With cross-flow exchanger	100-650	-	-	228
TRS	Heat recovery unit with enthalpy exchanger	250-1300	-	-	234
RPLI	Counter-current flow heat recovery unit with inverter motor	200-3900	-	-	236
RTD	Thermodynamic recovery unit with integrated heat pump	1100-3200	-	-	241
RPF	High performance heat recovery unit with cross-current recuperator	790-4250	-	-	245
URX-CF	With cross-flow exchanger and refrigerant circuit	750-3300	-	-	249
URHE-CF	High efficiency version with cross-flow exchanger and refrigerant circuit	1000-3300	-	-	253
ERSR	High-efficiency heat recovery with rotary recovery unit	1100-16100	-	-	257

REPURO

Duct-type residential 2-way ventilation unit with heat recovery

- **Compact dimensions**
- **High efficiency, reaching 90%+ (UNI EN 308)**
- **Cold Plasma purifier**



DESCRIPTION

REPURO it's an innovative counter-current heat recovery system that ensures the right air renewal in closed areas.
Thanks to the use of high-efficiency heat exchangers, REPURO allows fresh air to be delivered at a temperature close to that of the room itself, thereby cutting the energy costs that would be incurred with a traditional air renewal system or mechanical ventilation alone.

VERSIONS

. Standard
R With electric heater
Installation:
— **Ceiling or wall**: (100 - 170)
— **Floor or wall**: (250 - 650)

FEATURES

— Hexagonal heat recovery unit with a wider heat exchange surface;
— Free-standing sheet metal panels with internal insulation;
— Standard G4 filter on the fresh air;
— Standard G2 filter on the exhaust air;
— The filters can be removed for cleaning or replacement;
— The unit has in-built protection against frost formation with temperatures > -10°C;
— High efficiency, reaching 90%+ (UNI EN 308);
— Free cooling in the intermediate seasons, thanks to the automatic bypass function (not available for sizes 100 - 170);
— "No frost" bypass (RePuro 450-550-650), with PLSNF accessory;
— Air purification guaranteed by the Cold Plasma purifier: this is able to reduce pollutants, decomposing their molecules using electrical charges, causing the water molecules in the air to split into positive and negative ions. These ions neutralise the molecules in the gaseous pollutants, obtaining products normally present in clean air. The device is able to eliminate 90% of the bacteria. The result is clean, ionised air, free of foul odours;
— Nominal flow rate regulation from 0 to 100%;
— Centrifugal fans, directly coupled with the EC high-efficiency brushless electric motors with variable speed (ERP2015);
— Microprocessor control card that interfaces with the VMF system;
— Unit control by means of a wired panel (supplied as standard) with an innovative, extremely thin design. The functions are controlled via the capacitive touch keypad with an LCD display. Electric heater activation in the RePuro_R versions. Light grey front panel PANTONE COOL GRAY 1C;
— The 6-metre wired cable is provided as standard;
— Easy mounting on the wall (with the plate (provided), or on the floor (with the AVM accessory);
— Can adapt to an existing system;
— Compact dimensions;
— Silent operation;
— Filter change warning;
— Installation requires a condensate discharge system.

ACCESSORIES

VCH: 3-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.
VCHD: 2-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.
BC: Condensate drip.
AVM: Anti-vibration supports.
SSR: Wall mounting kit
FF7: Filter with F7 efficiency class for the fresh air.

Plenum with multi-way flange

PLS350: Vacuum delivery plenum with sound-absorbent covering and multi-way flange.
PLS350E: Delivery plenum with sound-absorbent covering and multi-way flange. An electric heater is housed inside.
PLS350L: Delivery plenum with sound-absorbent covering and multi-way flange. A germicidal lamp is housed inside.

PLS350LE: Delivery plenum with sound-absorbent covering and multi-way flange. A germicidal lamp and an electric heater are housed inside.
PLS350W: Delivery plenum with sound-absorbent covering and multi-way flange. A water coil with condensate collection tray is housed inside; it is mandatory to fit the water valve as well.
PLS350WE: Delivery plenum with sound-absorbent covering and multi-way flange. An electric heater and a water coil with condensate collection tray are housed inside; it is mandatory to fit the water valve as well.
PLS350WL: Delivery plenum with sound-absorbent covering and multi-way flange. A germicidal lamp and a water coil with condensate collection tray are housed inside; it is mandatory to fit the water valve as well.
PLS350WLE: Delivery plenum with sound-absorbent covering and multi-way flange. A water coil with condensate collection tray, a germicidal lamp, and an electric heater are housed inside; it is mandatory to fit the water valve as well.
PLS650: Vacuum delivery plenum with sound-absorbent covering and multi-way flange.
PLS650E: Delivery plenum with sound-absorbent covering and multi-way flange. An electric heater is housed inside.
PLS650L: Delivery plenum with sound-absorbent covering and multi-way flange. A germicidal lamp is housed inside.
PLS650LE: Delivery plenum with sound-absorbent covering and multi-way flange. A germicidal lamp and an electric heater are housed inside.
PLS650W: Delivery plenum with sound-absorbent covering and multi-way flange. A water coil with condensate collection tray is housed inside; it is mandatory to fit the water valve as well.
PLS650WE: Delivery plenum with sound-absorbent covering and multi-way flange. An electric heater and a water coil with condensate collection tray are housed inside; it is mandatory to fit the water valve as well.
PLS650WL: Delivery plenum with sound-absorbent covering and multi-way flange. A germicidal lamp and a water coil with condensate collection tray are housed inside; it is mandatory to fit the water valve as well.
PLS650WLE: Delivery plenum with sound-absorbent covering and multi-way flange. A water coil with condensate collection tray, a germicidal lamp, and an electric heater are housed inside; it is mandatory to fit the water valve as well.

Plenum with 1-way flange

PLSM350: Vacuum delivery plenum with sound-absorbent covering and 1-way flange.
PLSM350E: Delivery plenum with sound-absorbent covering and 1-way flange. An electric heater is housed inside.
PLSM350L: Delivery plenum with sound-absorbent covering and 1-way flange. A germicidal lamp is housed inside.
PLSM350LE: Delivery plenum with sound-absorbent covering and 1-way flange. A germicidal lamp and an electric heater are housed inside.
PLSM350W: Delivery plenum with sound-absorbent covering and 1-way flange. A water coil with condensate collection tray is housed inside; it is mandatory to fit the water valve as well.
PLSM350WE: Delivery plenum with sound-absorbent covering and 1-way flange. An electric heater and a water coil with condensate collection tray are housed inside; it is mandatory to fit the water valve as well.
PLSM350WL: Delivery plenum with sound-absorbent covering and 1-way flange. A germicidal lamp and a water coil with condensate collection tray are housed inside; it is mandatory to fit the water valve as well.
PLSM350WLE: Delivery plenum with sound-absorbent covering and 1-way flange. A water coil with condensate collection tray, a germicidal lamp, and an electric heater are housed inside; it is mandatory to fit the water valve as well.
PLSM650: Vacuum delivery plenum with sound-absorbent covering and 1-way flange.
PLSM650E: Delivery plenum with sound-absorbent covering and 1-way flange. An electric heater is housed inside.
PLSM650L: Delivery plenum with sound-absorbent covering and 1-way flange. A germicidal lamp is housed inside.
PLSM650LE: Delivery plenum with sound-absorbent covering and 1-way flange. A germicidal lamp and an electric heater are housed inside.
PLSM650W: Delivery plenum with sound-absorbent covering and 1-way flange. A water coil with condensate collection tray is housed inside; it is mandatory to fit the water valve as well.
PLSM650WE: Delivery plenum with sound-absorbent covering and 1-way flange. An electric heater and a water coil with condensate collection tray are housed inside; it is mandatory to fit the water valve as well.
PLSM650WL: Delivery plenum with sound-absorbent covering and 1-way flange. A germicidal lamp and a water coil with condensate collection tray are housed inside; it is mandatory to fit the water valve as well.
PLSM650WLE: Delivery plenum with sound-absorbent covering and 1-way flange. A water coil with condensate collection tray, a germicidal lamp, and an electric heater are housed inside; it is mandatory to fit the water valve as well.

VMF system

VMF-E5B: White recessed panel with backlit graphic LCD display and capacitive keypad for centralised command/control of a complete hydronic system.
VMF-E5N: Black recessed panel with backlit graphic LCD display and capacitive keypad for centralised command/control of a complete hydronic system.
VMF-VOC: Air quality detection accessory.

VMF system

VMF-E5B: White recessed panel with backlit graphic LCD display and capacitive keypad for centralised command/control of a complete hydronic system.
VMF-E5N: Black recessed panel with backlit graphic LCD display and capacitive keypad for centralised command/control of a complete hydronic system.
VMF-VOC: Air quality detection accessory.
KSAE: External air sensor.
VMF-CRP: Accessory module for controlling boilers, heat recover units and pumps (if associated with VMF-E5 / RCC panels); if associated with the VMF-E6 panel, the VMF-CRP modules will be able to manage heat recovery units, RAS, boiler, sanitary management, I/O control, pumps.

ACCESSORIES COMPATIBILITY

Plenum with multi-way flange

Model	Ver	100	170	250	350	450	550	650
PLS350	.	•						
PLS350E	.	•						
PLS350L	.	•						
PLS350LE	.	•	•	•	•			
	R	•	•	•				
PLS350W (1)	.	•						
PLS350WE (1)	.	•						
PLS350WL (1)	.	•						
PLS350WLE (1)	.	•						
PLS650	.,R					•	•	•
PLS650E	.,R					•	•	•
PLS650L	.,R					•	•	•
PLS650LE	.,R					•	•	•
PLS650W (1)	.,R					•	•	•
PLS650WE (1)	.,R					•	•	•
PLS650WL (1)	.,R					•	•	•
PLS650WLE (1)	.,R					•	•	•

(1) It is mandatory to also provide for the water valve.

Water valves

3 way valve kit

Ver	100	170	250	350	450	550	650
.,R	VCH	VCH	VCH	VCH	VCH	VCH	VCH

2 way valve kit

Ver	100	170	250	350	450	550	650
.,R	VCHD	VCHD	VCHD	VCHD	VCHD	VCHD	VCHD

Installation accessories

Condensate drip

Model	Ver	100	170	250	350	450	550	650
BC10 (1)	.,R	•	•	•	•	•	•	•
BC20 (2)	.,R	•	•	•	•	•	•	•

(1) For vertical installation.
(2) For horizontal installation.

Anti-vibration support feet

Ver	100	170	250	350	450	550	650
.,R	-	-	AVM	AVM	AVM	AVM	AVM

The accessory cannot be fitted on the configurations indicated with -

Wall mounting kit

Ver	100	170	250	350	450	550	650
.,R	-	-	SSR	SSR	SSR	SSR	SSR

The accessory cannot be fitted on the configurations indicated with -

External air sensor

Ver	100	170	250	350	450	550	650
.,R	KSAE	KSAE	KSAE	KSAE	KSAE	KSAE	KSAE

Accessories

Plenum with multi-way flange

Model	Ver	100	170	250	350	450	550	650
PLS350	.	•						
PLS350E	.	•						
PLS350L	.	•						
PLS350LE	.	•	•	•	•			
	R	•	•	•				
PLS350W (1)	.	•						
PLS350WE (1)	.	•						
PLS350WL (1)	.	•						
PLS350WLE (1)	.	•						
PLS650	.,R					•	•	•
PLS650E	.,R					•	•	•
PLS650L	.,R					•	•	•
PLS650LE	.,R					•	•	•
PLS650W (1)	.,R					•	•	•
PLS650WE (1)	.,R					•	•	•
PLS650WL (1)	.,R					•	•	•
PLS650WLE (1)	.,R					•	•	•

(1) It is mandatory to also provide for the water valve.

Plenum with 1-way flange

Model	Ver	100	170	250	350	450	550	650
PLSM350	.,R	•	•	•	•			
PLSM350E	.,R	•	•	•	•			
PLSM350L	.,R	•	•	•	•			
PLSM350LE	.,R	•	•	•	•			
PLSM350W (1)	.,R	•	•	•	•			
PLSM350WE (1)	.,R	•	•	•	•			
PLSM350WL (1)	.,R	•	•	•	•			
PLSM350WLE (1)	.,R	•	•	•	•			
PLSM650	.,R					•	•	•
PLSM650E	.,R					•	•	•
PLSM650L	.,R					•	•	•
PLSM650LE	.,R					•	•	•
PLSM650W (1)	.,R					•	•	•
PLSM650WE (1)	.,R					•	•	•
PLSM650WL (1)	.,R					•	•	•
PLSM650WLE (1)	.,R					•	•	•

(1) It is mandatory to also provide for the water valve; if you intend to use the system with post heating battery, or in any case in all those cases in which the air temperature in the channels could cause condensation on the external surfaces of the pipes, it is mandatory to adequately isolate the components of the system.

VMF system

Model	Ver	100	170	250	350	450	550	650
VMF-E5B	.,R	•	•	•	•	•	•	•
VMF-E5N	.,R	•	•	•	•	•	•	•
VMF-VOC	.,R	•	•	•	•	•	•	•

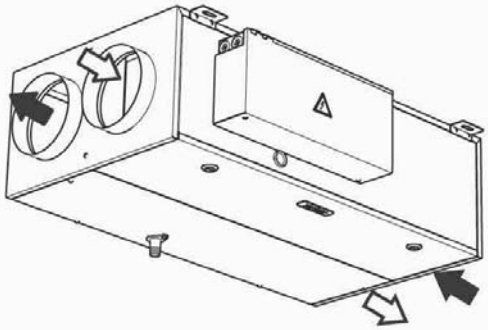
PERFORMANCE SPECIFICATIONS

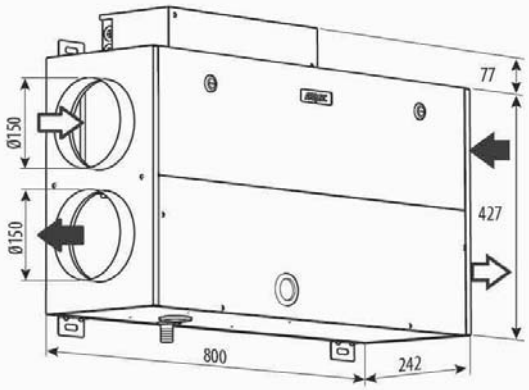
Size		100 (1)	170 (1)	250 (2)	350 (2)	450 (2)	550 (2)	650 (2)
Heat recovery unit								
Power supply					230V ~ 50Hz			
Summer recovery (3)								
Recovery efficiency	%	90	85	86	82	83	81	78
Recovered heating power	W	180	289	430	573	750	887	1015
Winter recovery (4)								
Recovery efficiency	%	94	91	91	89	90	88	87
Recovered heating power	W	957	1573	2329	3171	4118	4940	5734
General data								
SEC	kWh/(m²a)	-36	-38	-37	-40	-40	-40	-40
CLASS					A			
Total input power	W	45	65	160	180	220	280	360
Heat recovery unit performance								
Nominal air flow rate	m³/h	100	170	250	350	450	550	650
High static pressure	Pa	85	20	195	133	100	120	70

(1) Ceiling or wall installation
(2) Floor or wall installation
(3) Exhaust air temperature 26°C D.B., 50% R.H; Fresh air temperature 32°C D.B., 50% R.H.
(4) Exhaust air temperature 20°C D.B., 50% R.H; Fresh air temperature -10°C D.B., 80% R.H.

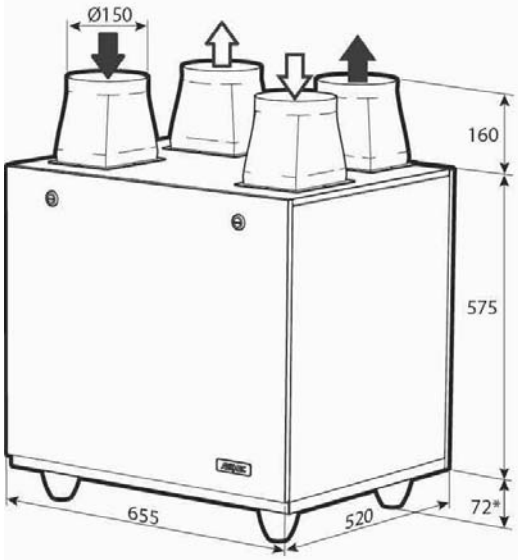
DIMENSIONS (MM) AND WEIGHTS

RePuro 100 - 170

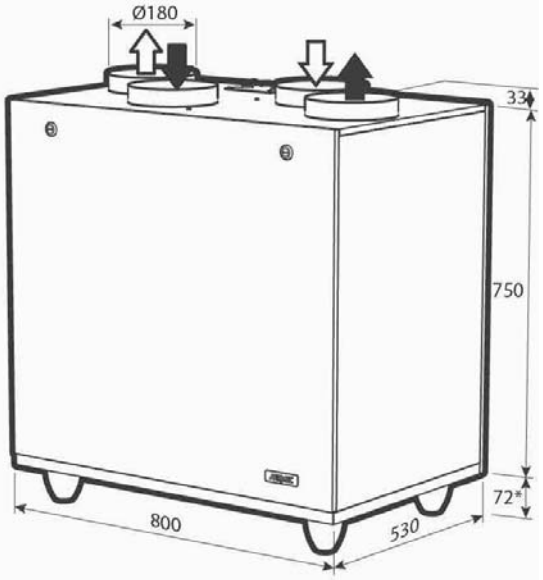


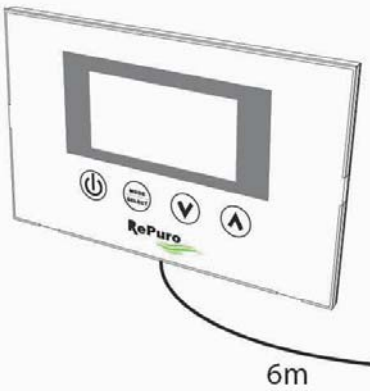


RePuro 250 - 350



RePuro 450 - 550 - 650





VMF - E4 RePuro

Size			100 (1)	170 (1)	250 (2)	350 (2)	450 (2)	550 (2)	650 (2)
Dimensions and weights									
Empty weight	.,R	kg	25	25	48	48	55	55	55

(1) Ceiling or wall installation
(2) Floor or wall installation

AIR DISTRIBUTION

RePuro Distribution

A complete range for air distribution which, combined with the innovative RePuro heat recovery and air purification units, provides designers, installers and users with an efficient, practical installation solution that guarantees optimum comfort throughout the lifecycle of the system.

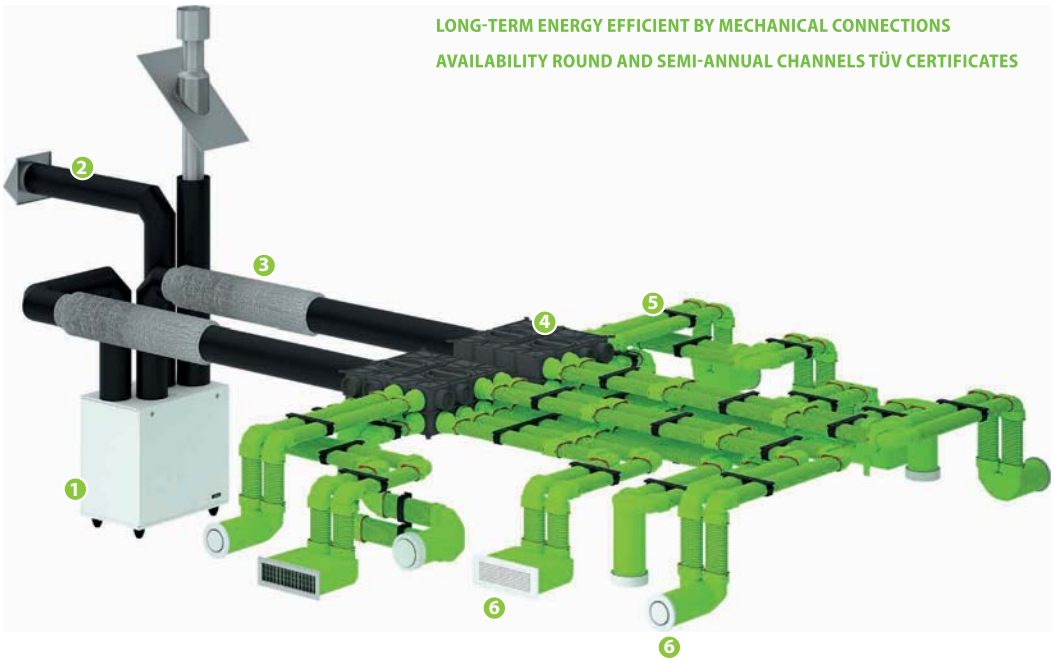
EASY "PLUG & PLAY" INSTALLATION

LOW DUCT HEIGHT FOR IN-WALL AND SCREED-FLOOR APPLICATION

ANTI-STATIC AND ANTI-BACTERIAL PROPERTIES

LONG-TERM ENERGY EFFICIENT BY MECHANICAL CONNECTIONS

AVAILABILITY ROUND AND SEMI-ANNUAL CHANNELS TÜV CERTIFICATES



The picture is intended purely as an example of a system with semi-rigid, semi-oval, antibacterial ducts. This example consists of:

1 RePuro heat recovery units
2 Duct with fresh/exhaust air intake
3 Interconnection between RePuro and the distribution box
4 Hydronic box
5 Air distribution with semi-rigid, semi-oval, antibacterial ducts
6 Terminals with designer intakes or grilles

In addition to point 5, the Aermec range also includes a further 2 air distribution systems:

— Air distribution with semi-rigid, round ducts
— Air distribution with rigid, rectangular ducts

For more information about all the types and solutions available, refer to the "AerDistribution" selection program and the technical documentation, both available at www.aermec.com

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TRS

Heat recovery unit with enthalpy exchanger

- **Compact dimensions**
- **Fans coupled to brushless Ec motors with low energy consumption**
- **Easy installation**
- **Horizontal installation**



DESCRIPTION

The TRS heat recoveries, for horizontal inside installation allow the combination of maximum comfort with a safe energy saving.
It is more and more necessary in modern systems to create a forced ventilation, but also involves the expulsion of climate-controlled air, thus determining a higher energy consumption.
TRSintends to solve these problems using a static heat recovery unit that saves most of the energy that would otherwise be lost.
The unit adopts high-efficiency heat recovery with countercurrent flows which consists of flat sheets of special paper that allow you to recover both sensible and latent heat (humidity). Therefore, no condensate drip tray or the relative drain pipe is required.
The high static pressures available allow ducts to be mounted, thereby allowing the extraction or input of air across multiple environments simultaneously.
They can be integrated in the direct expansion and hydronic systems both in heating and cooling mode.

FEATURES

— Very compact units that can only be installed horizontally, which require simple maintenance of the heat exchanger and filters both removable from the side.
— Free-cooling in mid-season thanks to the automatic by-pass function;
— Centrifugal fans with Brushless EC motor, with the possibility to adjust the speed on 10 different levels through the obligatory accessory TRSPTS, touch screen control panel. In the absence of this accessory it will only be possible, by acting on the remote on-off contact, to operate the fans always at maximum speed;
— Built-in electrical panel with electronic board for the control of ventilation and free-cooling functions;
— Hexagonal-shaped enthalpy recovery unit to increase the exchange surface;
— Self-supporting panels in galvanized sheet with insulation, both internal and external. Access via the side door;
— ISO 16890 ePM2.5 95% efficiency class filter with synthetic cleanable media and COARSE 50% pre-filter on fresh air, COARSE 50% filter on return air intake;
— Pressure switch with integrated dirty filter signal;
— Connections to funnels with plastic fittings;
— Silent operation;
— The installation does not require a condensate drain system.

ACCESSORIES

The following accessories are available for complete control of the TRS recovery units:
TRSPTS: Control panel with Touch Screen. Mandatory accessory.
TRSQSW: Wall CO2 probe.
TRSUSW: Wall humidity probe.

ACCESSORIES COMPATIBILITY

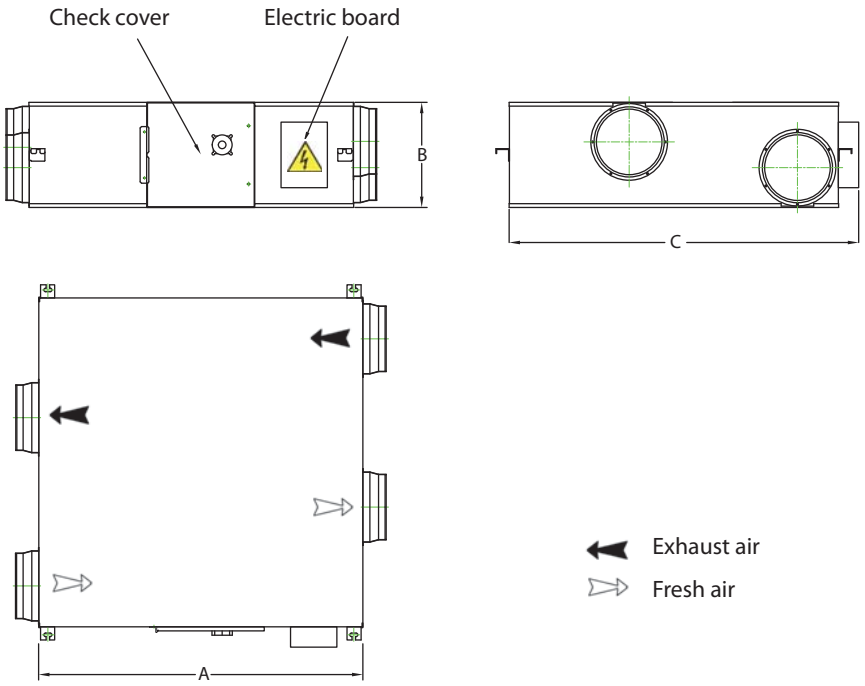
Accessory	TRS251	TRS351	TRS501	TRS651	TRS801	TRS1001	TRS1301
TRSPTS	•	•	•	•	•	•	•
TRSQSW	•	•	•	•	•	•	•
TRSUSW	•	•	•	•	•	•	•

PERFORMANCE SPECIFICATIONS

		TRS251	TRS351	TRS501	TRS651	TRS801	TRS1001	TRS1301
Fans (1)								
Nominal air flow rate	m^3/h	250	350	500	650	800	1000	1300
Nominal useful head	Pa	90	140	110	100	140	140	140
Maximum input power	A	0,5	0,6	0,6	1,2	1,4	2,1	2,7
Type	type				EC			
Speed number	no.	10	10	10	10	10	10	10
SFP int.	$W/(m^3/s)$	812,00	670,00	547,00	846,00	865,00	881,00	873,00
Maximum input power	kW	0,08	0,13	0,15	0,23	0,32	0,39	0,50
Sound data (2)								
Sound pressure level (1 m)	dB(A)	34,0	37,0	39,0	40,0	42,0	43,0	44,0
Heating performances (3)								
Winter thermal efficiency	%	73,0	74,0	76,0	74,0	76,0	76,0	74,2
Enthalpy winter efficiency	%	65,0	65,0	67,0	65,0	65,0	62,0	59,0
Cooling performances (4)								
Summer thermal efficiency	%	73,0	74,0	76,0	74,0	76,0	76,0	74,0
Summer enthalpy efficiency	%	62,0	62,0	63,0	60,0	63,0	60,0	58,0
Heat recovery unit								
Dry heating efficiency (5)	%	73,0	74,0	76,0	74,0	76,0	76,0	74,0
Power supply					230V~50Hz - 60Hz			

(1) Performances referring to clean filters
(2) Sound pressure level assessed at 1m from suction / discharge ports and the inspection side at nominal conditions in free field.
(3) Recovery air 20 °C 50%; External air 5 °C 80%.
(4) Recovery air 26 °C 50%; External air 34 °C 50%.
(5) Relation between the inlet air heating gain and the expulsion air heating loss, both relating to the outside temperature, measured in dry reference conditions, with balanced mass flow and an internal/external air heating difference of 20K , excluding the heating gain generated by the fan motors and the internal leakage.

DIMENSIONS AND WEIGHTS



		TRS251	TRS351	TRS501	TRS651	TRS801	TRS1001	TRS1301
Dimensions and weights								
A	mm	599	804	904	884	1134	1216	1216
B	mm	814	814	894	1186	1186	1199	1199
C	mm	100	100	107	85	85	85	85
Empty weight	kg	30	37	43	65	71	83	83

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RPLI

Counter-current flow heat recovery unit with inverter motor

- **Compact dimensions**
- **EC fan Plug-fan**
- **Versions with water coil or electric for the post-heating**
- **Horizontal installation**



DESCRIPTION

The RPLI heat recoveries, for horizontal inside installation allow the combination of maximum comfort with a safe energy saving.
It is more and more necessary in modern systems to create a forced ventilation, but also involves the expulsion of climate-controlled air, thus determining a higher energy consumption.
The unit is equipped with a counter-current heat recovery unit and allows an effective heat exchange between the expulsion air flow and fresh air that is pre-heated or pre-cooled, depending on the season, thus saving the energy that would otherwise be lost with the expelled exhaust air.
They can be integrated in the direct expansion and hydronic systems both in heating and cooling mode.

VERSIONS

Horizontal installation:

— **RPLI (L o P)**: L low , P high, useful static pressure
— **RPLI_W: With water coil: Cooled / hot** for the sizes up 030 to 100
Hot for the size up 140 to 400.
— **RPLI_E**:With electric heating coil

FEATURES

— Plug-fan radial fan with EC motors;
— **Aluminium plate counter-current flow heat recovery unit with heating efficiency in compliance with the European regulation 1253, housing in condensate collection basin;**
— **Ventilation by-pass of the external air flow equipped with internal damper, with free cooling and even anti-freeze function;**
— **Synthetic filter class M5 according to EN779 placed on the expelled air intake;**
— **Synthetic filter class F7 according to EN779 placed on the external air inlet;**
— Filters fouling pressure switches assembled;
— Self-supporting sandwich panels in galvanised sheet metal with injected polyurethane insulation density 45 kg/m^3 and a thickness of 25 mm. The polyurethane is in compliance with the standard UL 94 class HBF and the panel with the standard NF P 512: 1986 in class M1;
— Condensate collection basin in galvanised steel;
— Easy accessible fans, from bottom for the sizes 030-100, from the side for the sizes 140-400;
— Accessible filters, from the top and from the bottom for the sizes 030-100, from the side for the sizes 140-400;
— The fan can be controlled with a 0-10 Vdc controller, RVC or RVCL accessory.

ACCESSORIES

Regulation

HRC: Electrical panel (IP56) to be installed outside the heat recovery unit. It is formed of a plastic electric box 300x380x120. It houses an electronic board for controlling the loads, 3 NCT temperature probes (6m long), a 4-pole serial cable + shield for connecting the control card to the user interface of the system, and an interface panel. Via the configuration of 8 dip switches, the electronic board in the kit can control: an electric heater for pre-warming the air taken in from the room; up to 2 electric heaters (with cascade management) for the post-treatment of the fresh air delivered back into the room; a component for air purification (e.g. UV lamp, Plasmacluster, etc.). Furthermore, the management of the RS485 serial is available as standard so the units can be added to a network supervised by the Modbus communication protocol.
RVC: Speed regulator supplied in n°2 pieces.

Additional modules

M4F: External module equipped with pre-filters class G4 (according to EN779) to be placed on the external air inlet.
MBF: External module with water cooling coil and condensate collection basin (only for sizes 140-400).
MBF_X: External module with water cooling coil and condensate collection basin (only for sizes 140X-400X).
MBP: Module with post-heating water coil.
MBE: Module with electric coil (anti-freeze and/or post-heating function).

MSU: Module equipped with silencer baffles. The accessory is supplied in n°1 piece.
FGC: Circular flanges. The accessory is supplied in n°1 piece.

Adjustment accessories

TWWV050: 3-way valve (the valve body only - does not include the pipe kit for connection to the heat recovery unit or external module with coil) PN16 KVS 1.0 DN15.
TWWV100: 3-way valve (the valve body only - does not include the pipe kit for connection to the heat recovery unit or external module with coil) PN16 KVS 2.5 DN15.
TWWV400: 3-way valve (the valve body only - does not include the pipe kit for connection to the heat recovery unit or external module with coil) PN16 KVS 6.3 DN20.
TF100: DN15 threaded couplings with shank and flat-seal idle nut for heat recovery unit / external module with coil.
TF400: DN20 threaded couplings with shank and flat-seal idle nut for heat recovery unit / external module with coil.
TWWVA: Actuator for 3-way valve, for receiving ON-OFF or modulating commands (0-10V)
FCDA: Servomotor for free cooling damper.
VMF-MOD: Expansion board for the management of modulating valves.

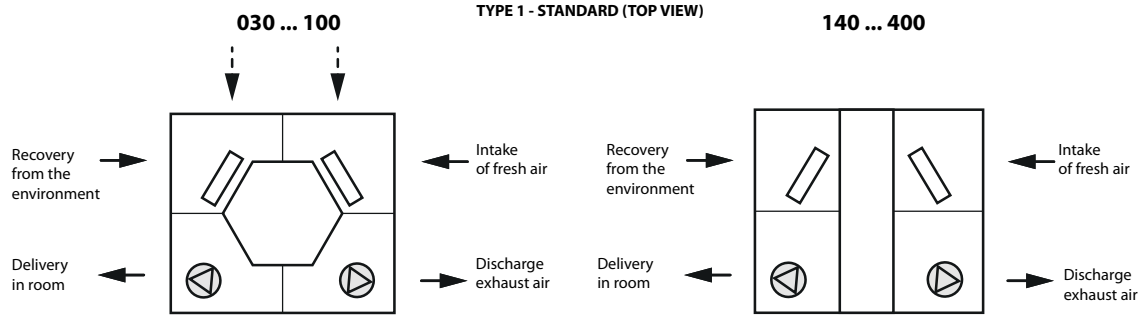
CONFIGURATOR

Field		Description
1,2,3,4		**RPLI**
5,6,7		**Size** 030, 050, 070, 100, 140, 200, 300, 400
8		**Version**
	L	Low useful static pressure
	P	High useful static pressure
9		**Installation**
	°	Horizontal
10		**Flow orientation**
	°	Type 1
	X	Type 2
11		**Exchanger**
	°	No internal coil
	E	Post-heating electric internal coil
	W	Water coil (1)

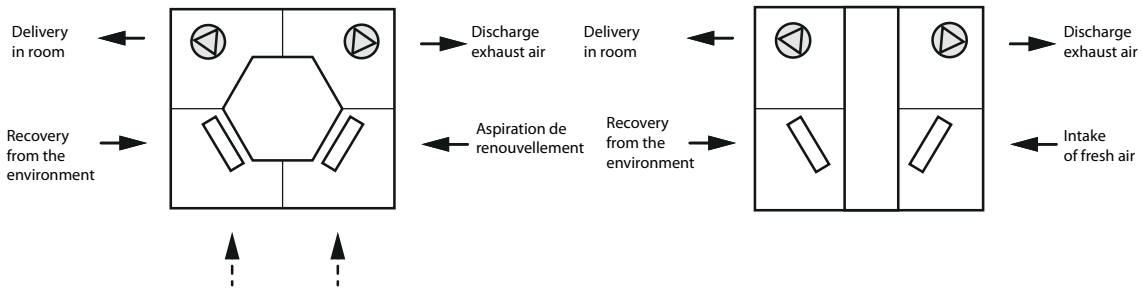
(1) Also to be used with cooled water only for sizes 030-100 including, for sizes 140-400 only be used with hot water.

AVAILABLE ORIENTATION

TYPE 1 - STANDARD (TOP VIEW)



TYPE 2 - TO BE REQUESTED DURING ORDER (TOP VIEW)



ACCESSORIES COMPATIBILITY

Regulation

Regulation and control panel (outside the heat recovery unit)

Ver	030	050	070	100	140	200	300	400
L,P	HRC	HRC	HRC	HRC	HRC	HRC	HRC	HRC

Speed regulator

Ver	030	050	070	100	140	200	300	400
L	RVC40	RVCL	RVCL	RVC40	RVCL	RVC40	RVC40	RVC40
P	RVC40	RVC40	RVC40	RVC40	RVC40	RVC40	RVC40	RVC40

Additional modules

External module equipped with pre-filters

Ver	030	050	070	100	140	200	300	400
L,P	M4F03	M4F05	M4F07	M4F10	M4F14	M4F20	M4F30	M4F40

External module with water cooling coil

Ver	030	050	070	100	140	200	300	400
L,P	-	-	-	-	MBF14	MBF20	MBF30	MBF40

The accessory cannot be fitted on the configurations indicated with -

Ver	030	050	070	100	140	200	300	400
L,P	-	-	-	-	MBF14X	MBF20X	MBF30X	MBF40X

The accessory cannot be fitted on the configurations indicated with -

3 way valve kit

Accessory	MBF14	MBF14X	MBF20	MBF20X	MBF30	MBF30X	MBF40	MBF40X
TWWV020	•	•	•	•				
TWWV400					•	•	•	•

Threaded coupling

Accessory	MBF14	MBF14X	MBF20	MBF20X	MBF30	MBF30X	MBF40	MBF40X
TF100	•	•	•	•				
TF400					•	•	•	•

Actuator for valves

Accessory	MBF14	MBF14X	MBF20	MBF20X	MBF30	MBF30X	MBF40	MBF40X
TWWVA	•	•	•	•	•	•	•	•

Module with post-heating water coil.

Ver	030	050	070	100	140	200	300	400
L,P	MBP03	MBP05	MBP07	MBP10	MBP14	MBP20	MBP30	MBP40

Module with electric coil

Ver	030	050	070	100	140	200	300	400
L,P	MBE03	MBE05	MBE07	MBE10	MBE14	MBE20	MBE30	MBE40

Module equipped with silencer baffles

Ver	030	050	070	100	140	200	300	400
L,P	MSU03	MSU05	MSU07	MSU10	MSU14	MSU20	MSU30	MSU40

Circular flanges

Ver	030	050	070	100	140	200	300	400
L,P	FGC030	FGC050	FGC070	FGC100	FGC140	FGC200	FGC300	FGC400

Accessories

3 way valve kit

Ver	030	050	070	100	140	200	300	400
L,P	TWWV050	TWWV050	TWWV100	TWWV100	TWWV400	TWWV400	TWWV400	TWWV400

Threaded coupling

Ver	030	050	070	100	140	200	300	400
L,P	TF100	TF100	TF100	TF100	TF400	TF400	TF400	TF400

Actuator for 3-way valves

Ver	030	050	070	100	140	200	300	400
L,P	TWWVA	TWWVA	TWWVA	TWWVA	TWWVA	TWWVA	TWWVA	TWWVA

Free cooling damper actuator

Ver	030	050	070	100	140	200	300	400
L,P	FCDA	FCDA	FCDA	FCDA	FCDA	FCDA	FCDA	FCDA

Expansion board for managing the modulating valves

Ver	030	050	070	100	140	200	300	400
L,P	VMF-MOD	VMF-MOD	VMF-MOD	VMF-MOD	VMF-MOD	VMF-MOD	VMF-MOD	VMF-MOD

PERFORMANCE SPECIFICATIONS

RPLI - L

Size		030	050	070	100	140	200	300	400
Heat recovery unit									
Power supply		230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	400V 3~50Hz
Unit type		UVNR (non-residential ventilation unit)							
Heat recovery system type	Type/n°	Static at counter-current flow / 1							
Heat capacity recovered (EN308) (1)	kW	1,6	2,4	3,6	4,8	7,1	10,0	14,9	19,7
Dry heating efficiency (2)	%	81,1	78,1	76,8	75,3	76,0	76,3	75,5	75,6
Information in compliance with Annex V of regulation EU no. 1253/2014									
Nominal air flow rate supply / recovery	m^3/s	0,08	0,13	0,19	0,26	0,39	0,54	0,82	1,08
Nominal air flow rate supply / recovery	m^3/h	300	450	700	950	1400	1950	2950	3900
Minimum air flow rate	m^3/h	200	250	400	550	800	1150	1750	2350
Fans (3)									
Commissioning	type	Analogue signal of EC fan (0-10Vdc)							
Type	type	EC							
Number	no.	2	2	2	2	4	2	2	2
Supplied electrical power consumption	kW	0,07	0,09	0,14	0,21	0,33	0,45	0,47	0,73
Recovered electrical power consumption	kW	0,06	0,09	0,14	0,20	0,31	0,41	0,44	0,69
Total input electric power	kW	0,13	0,17	0,28	0,41	0,64	0,86	0,91	1,42
SFP int.	$W/(m^3/s)$	820,00	953,00	907,00	1120,00	1132,00	1103,00	748,00	928,00
SFP int. lim. 2018	$W/(m^3/s)$	1329	1234	1185	1131	1132	1118	1053	1015
Filters face velocity	m/s	0,8	1,2	1,0	1,4	2,2	2,2	1,9	2,5
Nominal external pressure Δp (3)	Pa	100	100	110	110	110	110	110	110
Useful static supply pressure	Pa	323	401	191	143	112	110	132	196
Useful static recovery pressure	Pa	328	416	198	161	154	149	164	242
Supplied internal pressure drop Δps int.	Pa	115	228	189	293	268	270	245	290
Recovered internal pressure drop Δps int.	Pa	110	213	182	274	228	230	213	244
Fans static efficiency (4)	%	35.8%	57.0%	57.0%	59.7%	57.0%	49.2%	67.2%	66.9%
Internal leakage (5)	%	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%
External leakage	%	<3%	<3%	<3%	<3%	<3%	<3%	<3%	<3%
Air filter									
Expelled air filter	Type/n°	M5/1							
Delivery air filter	Type/n°	F7/1							
Delivery filter energy classification		On request							
Recovery filter energy classification		On request							

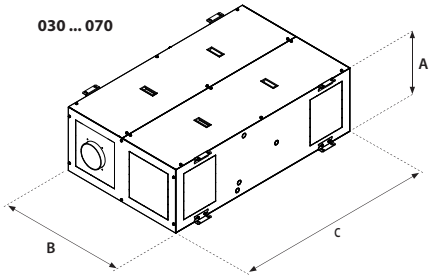
(1) Expelled air: Tdb=25°C; Twb<14°C. Fresh air: Tdb=5°C.
(2) Relation between the inlet air heating gain and the expulsion air heating loss, both relating to the outside temperature, measured in dry reference conditions, with balanced mass flow and an internal/external air heating difference of 20K , excluding the heating gain generated by the fan motors and the internal leakage.
(3) Performances referring to clean filters
(4) According to regulation EU 327/2011
(5) External leakage test performed at +400 Pa and -400 Pa; internal leakage test performed at 250 Pa

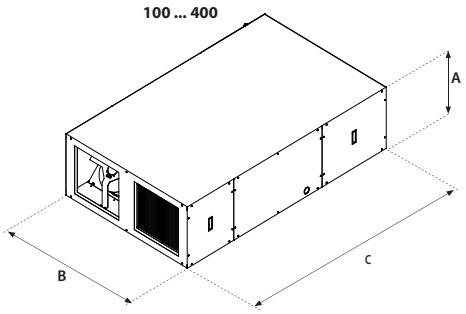
RPLI - P

Size		030	050	070	100	140	200	300	400
Heat recovery unit									
Power supply		230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	230V~50Hz	400V 3~50Hz	400V 3~50Hz
Unit type		UVNR (non-residential ventilation unit)							
Heat recovery system type	Type/n°	Static at counter-current flow / 1							
Heat capacity recovered (EN308) (1)	kW	1,6	2,4	3,6	4,8	7,1	10,0	14,9	19,7
Dry heating efficiency (2)	%	81,1	78,1	76,8	75,3	76,0	76,3	75,5	75,6
Information in compliance with Annex V of regulation EU no. 1253/2014									
Nominal air flow rate supply / recovery	m^3/s	0,08	0,13	0,19	0,26	0,39	0,54	0,82	1,08
Nominal air flow rate supply / recovery	m^3/h	300	450	700	950	1400	1950	2950	3900
Minimum air flow rate	m^3/h	200	250	400	550	800	1150	1750	2300
Fans (3)									
Commissioning	type	Analogue signal of EC fan (0-10Vdc)							
Type	type	EC							
Number	no.	2	2	2	2	2	4	4	2
Supplied electrical power consumption	kW	0,04	0,08	0,11	0,22	0,35	0,41	0,55	0,87
Recovered electrical power consumption	kW	0,04	0,08	0,11	0,21	0,33	0,38	0,50	0,82
Total input electric power	kW	0,09	0,16	0,23	0,42	0,68	0,79	1,04	1,69
SFP int.	$W/(m^3/s)$	543,00	903,00	694,00	1116,00	1095,00	918,00	770,00	999,00
SFP int. lim. 2018	$W/(m^3/s)$	1329	1234	1185	1131	1132	1118	1053	1015
Filters face velocity	m/s	0,8	1,2	1,0	1,4	2,2	2,2	1,9	2,5
Nominal external pressure Δp (3)	Pa	100	100	125	125	145	145	150	150
Useful static supply pressure	Pa	506	338	279	638	412	469	462	303
Useful static recovery pressure	Pa	511	353	285	656	452	509	493	349
Supplied internal pressure drop Δps int.	Pa	115	228	189	293	268	270	245	290
Recovered internal pressure drop Δps int.	Pa	110	213	182	274	228	230	213	244
Fans static efficiency (4)	%	61,7	61,7	61,7	57,2	57,2	61,8	66,9	62,7
Internal leakage (5)	%	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%	3.9%
External leakage	%	<3%	<3%	<3%	<3%	<3%	<3%	<3%	<3%
Air filter									
Expelled air filter	Type/n°	M5/1							
Delivery air filter	Type/n°	F7/1							
Delivery filter energy classification		On request							
Recovery filter energy classification		On request							

(1) Expelled air: Tdb=25°C; Twb<14°C. Fresh air: Tdb=5°C.
(2) Relation between the inlet air heating gain and the expulsion air heating loss, both relating to the outside temperature, measured in dry reference conditions, with balanced mass flow and an internal/external air heating difference of 20K , excluding the heating gain generated by the fan motors and the internal leakage.
(3) Performances referring to clean filters
(4) According to regulation EU 327/2011
(5) External leakage test performed at +400 Pa and -400 Pa; internal leakage test performed at 250 Pa

DIMENSIONS AND WEIGHTS





Size		030	050	070	100	140	200	300	400
Dimensions and weights									
A	mm	400	400	435	435	460	460	600	600
B	mm	800	800	945	945	1100	1600	1700	2050
C	mm	1300	1300	1600	1600	1800	1800	2350	2350
Empty weight	kg	95	93	125	123	160	210	287	340

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RTD

Thermodynamic recovery unit with integrated heat pump

Air flow rate 1100 - 3200 m³/h

- **Compact dimensions**
- **Compressor with inverter**
- **EC fan Plug-fan**
- **Fixed point adjustment in delivery**
- **Horizontal installation**



DESCRIPTION

Is an air replacement, filtration and treatment unit equipped with high efficiency thermodynamic recovery performed by an integrated cooling circuit.
The inverter compressor allows a high energy saving at the same time as maintaining the set delivery temperature.
The unit can be integrated in the direct expansion and hydronic systems both in heating and cooling mode.

FEATURES

Versions

Horizontal installation:

— **RTD**: Standard unit with constant flow-rate control.
— **RTD_Q**: Units with flow modulation according to the concentration of CO_2
— **RTD_W**: Unit with internal hot/cold water coil complete with three-way valve, modulating servo-control and anti-freeze thermostat.

Main components

— Cooling circuit **BLDC inverter compressor.**
— Plug fans with EC inverter motor.
— Safety valve.
— Lower sandwich panels in galvanised sheet metal with injected polyurethane insulation; upper and side panel in galvanised sheet metal internally lined with insulating mat
— Synthetic filter class Coarse 85% according to EN16890 on the outside air inlet complete with fouling detection pressure switch.
— Condensate collection tank in aluminium alloy with side discharge.

Regulation

— **Power and control electrical panel** on the machine.
— Programmable controller able to manage all the advanced functions present on the unit (with fixed point adjustment in delivery; cooling, heating, automatic, free cooling functions; compressor, fans and eventual water coil modulation).
— **Remote panel (mandatory accessory))** in graphic display version or Touch version.

ACCESSORIES

CPVR: Recovery fan constant air flow rate control (accessory supplied separately; the function is enabled on the controller).
PRGD1: Control panel for wall or flush-mount installation with graphic display. Maximum installation distance of 10m.
PRGDX: Touch screen control panel for wall or flush-mount installation complete with black and white frame. Maximum installation distance of 150m.
MRE: Single-stage anti-freeze electric heater module 2 kW to be installed on the external air intake (required for outdoor air temperatures below -5° C).
MF: Coarse 85% efficiency filters module (EN16890) to be positioned in recovery (side extraction) complete with filter clogging pressure switch.

The remote controller is required for unit operation, it is possible to select between PRGD1 and PRGDX.

ACCESSORIES COMPATIBILITY

Recovery fan constant air flow rate control and xontrol panel

Model	Ver	11	14	17	21	26	32
CPVR (1)	.,Q,QW,W	•	•	•	•	•	•
PRGD1 (2)	.,Q,QW,W	•	•	•	•	•	•
PRGDX	.,Q,QW,W	•	•	•	•	•	•

(1) Accessory supplied separately.
(2) The remote controller is required for unit operation, it is possible to select between PRGD1 and PRGDX.

Anti-freeze electric heater module

Model	Ver	11	14	17	21	26	32
MRE2M	.,Q,QW,W	•	•				
MRE3M	.,Q,QW,W			•			
MRE3T	.,Q,QW,W				•		
MRE5T	.,Q,QW,W					•	•

Coarse 85% efficiency filters module (EN16890)

Model	Ver	11	14	17	21	26	32
MF5R1	.,Q,QW,W	•	•				
MF5R2	.,Q,QW,W			•	•		
MF5R3	.,Q,QW,W					•	•
MF7M1	.,Q,QW,W	•	•				
MF7M2	.,Q,QW,W			•	•		
MF7M3	.,Q,QW,W					•	•

CONFIGURATOR

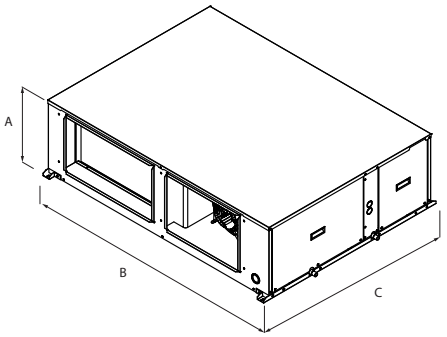
Field	Description
1,2,3	**RTD**
4,5	**Size** 11, 14, 17, 21, 26, 32
6	**Ventilation control type**
°	Constant flow (standard unit)
Q	Control via air quality probe
7	**Internal hot/cold water coil**
°	No coil (standard unit)
W	Internal water coil

PERFORMANCE SPECIFICATIONS

		RTD11	RTD14	RTD17	RTD21	RTD26	RTD32
Air flow rates							
Nominal air flow rate	m^3/h	1100	1400	1700	2100	2600	3200
Minimum air flow rate	m^3/h	950	1200	1450	1800	2200	2700
Maximum air flow rate	m^3/h	1200	1550	1850	2300	2850	3500
Delivery fan							
Type	type	Plug-fan					
Fan motor	type	EC Inverter motors					
Number	no.	1	1	1	1	1	1
Nominal useful head	Pa	150	150	150	150	150	150
Maximum useful head	Pa	510	580	520	360	570	380
Cooling input power	kW	-	-	-	-	-	-
Heating input power	kW	-	-	-	-	-	-
Expulsion fan							
Type	type	Plug-fan					
Fan motor	type	EC Inverter motors					
Number	no.	1	1	1	1	1	1
Nominal useful head	Pa	150	150	150	150	150	150
Maximum useful head	Pa	530	600	520	370	590	400
Cooling input power	kW	0,17	0,16	0,19	0,27	0,33	0,46
Heating input power	kW	0,18	0,18	0,22	0,31	0,39	0,54
Performance in cooling mode at maximum compressor speed (1)							
Cooling capacity	kW	6,70	8,00	8,80	11,20	14,10	16,30
Sensible cooling capacity	kW	5,70	6,80	7,80	9,80	12,10	13,80
Compressors absorbed power	kW	1,80	2,20	2,30	3,20	4,00	4,50
Total input power EN14511 2017	kW	2,09	2,43	2,58	3,55	4,48	5,15
EER EN14511:2017	W/W	3,20	3,30	3,42	3,16	3,14	3,16
EER	W/W	3,11	3,15	3,24	2,96	2,95	2,92
Performance in heating mode at maximum compressor speed							
Heating capacity	kW	7,70	9,30	10,60	13,80	16,90	20,00
Compressors absorbed power	kW	1,60	2,00	2,20	2,90	3,30	4,10
COP refrigerant circuit	W/W	4,83	4,64	4,82	4,74	5,12	4,87
COP EN14511:2017 (2)	W/W	4,07	4,13	4,26	4,20	4,45	4,18
COP	W/W	3,94	3,92	4,02	3,91	4,15	3,84
Total input power EN14511 2017	kW	1,90	2,20	2,50	3,30	3,80	4,80
Total input power	kW	2,00	2,40	2,60	3,50	4,10	5,20
Compressor							
Type	type	Twin-rotary BLDC					
Compressor regulation	Type	Inverter					
Number	no.	1	1	1	1	1	1
Refrigerant	type	R410A					
Potential global heating	GWP						
Electric data							
Input power at full load	kW	4,30	4,50	4,50	5,30	6,10	6,10
Input current at full load	A	14,40	13,80	13,80	17,90	16,90	16,90

(1) Cooling mode: aire temperature 35°C Tbs / 24 °C Tbh ; ambient air 27°C Tbs /19°C Tbh .
(2) Heating mode: aire temperature 7°C Tbs / 6°C Tbh ; ambient air 20°C Tbs /15°C Tbh.

DIMENSIONS



Size			11	14	17	21	26	32
Dimensions and weights								
A	.,Q,QW,W	mm	430	430	530	530	630	630
B	.,Q,QW,W	mm	1508	1508	1508	1508	1508	1508
C	.,Q,QW,W	mm	1100	1100	1100	1100	1100	1100
Empty weight	.	kg	133	135	148	160	179	179
	Q	kg	135	137	150	162	181	181
	QW	kg	135	142	161	172	197	197
	W	kg	140	142	159	170	195	195
Weight functioning	.	kg	133	135	148	160	179	179
	Q,QW,W	kg	-	-	-	-	-	-

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RPF

High performance heat recovery unit with cross-current recuperator

Air flow rate 790 - 4250 m³/h

- **Cross-current heat recovery with performances superior than 90%**
- **Plug fans coupled with ec brushless motors for energy costs reduction**



DESCRIPTION

Heat recovery units RPF have been designed for commercial applications and permits to combine an excellent ambient comfort with a sure energy saving.
It is more and more necessary in modern systems to create a forced ventilation, but also involves the expulsion of climate-controlled air, thus determining a higher energy consumption.
The units RPF thanks to the cross-current heat recuperator permit to save more than 90% of energy which otherwise would be lost with expelled stuffy air.
RPF could be integrated with traditional systems realized with fan coils, chillers, and could work both in winter and in summer. This series is indicated for both horizontal and vertical installation.

CONFIGURATIONS

O Horizontal right supply
P Horizontal left supply
V Vertical right supply
Z Vertical left supply
Each of the different configurations could be further customized thanks to the choice of the accessories.
For further information, please refer to the technical documentation on the website.

STRUCTURE

The structure is formed by aluminium profiles with thermic cut, connected by nylon angles charged with glassfibre.
The sealing panels, of 50 mm thickness, are of the sandwich type in pre-painted plate RAL 9002 (external) and galvanized sheet iron (internal) insulated with polyurethane with density 45 kg/m³. The expandent of the polyurethane foam is based on water permitting to reach GWP=0 (Global Warming Potential).
The casing is in fire reaction class M1 according to the French regulation NF P 92-512:1986. Removable panels are also foreseen to access to internal components, equipped with safety locks, condensate drain and internal modulating rolling shutter of motorized and controlled bypass for free-cooling.

Fans

Fans of supply and extract of plug-fan-type with synchronous motor with electronic control permanent magnetos (EC). The impellers are oriented in such a way to grant an optimal air flow which goes through the internal components, with the minimum noise.

Air filters

Air filtration with a filter with G4 efficiency (according to EN779) with low pressure drops on extracted air flow and a compact filter and with efficiency F7 (according to EN779) having a large filtrating surface made of glass microfibre paper, inserted in the intake flow.
The two typologies of filters are positioned upstream of the components to be protected, in order to grant low pressure drops, having a large surface available. The filtrating cells are fixed on a proper bearing frame to avoid any by-pass of non-treated air.
Their extractability is guaranteed from a proper side opening (standard), superior or inferior (optional) [with reference to the horizontal version].

Heat recovery unit

Static high efficiency cross-current heat recovery unit with high efficiency and aluminium plate.
The heat recovery unit guarantees the non-contamination of air flows, because the plates are properly sealed. Its performance is not inferior to 90% (EN308) in function to the external conditions: Air of intake: -10°C/90% - Air of extract 20°C/50% and equal capacities between supply and extract.
It is included also the function of automatic defrosting made easy by the internal modulating rolling shutter and from the possible modulation with intake flow.

REGULATION

Costituted by power electric panel and programmable controller with integrated graphic display. Everything is internally fitted in the unit in an accessible position. The function of regulation are:
— Ventilation control (manual control of the standard fans speed);

— Thermo-regulation completed with all electric/electronic components (modality of regulation in standard extract);
— Integrated logics of energy savings: modulating free-cooling / free-heating, anti-freeze, night cooling, air quality control, dynamic set point, speed economy of ventilation, ranges of time;
— Complete interfaceability with BMS systems.

FUNCTIONALITY AND TECHNOLOGICAL ADVANTAGES

The elimination from closed rooms of the polluting elements, produced mainly from people and the simultaneous external air input, are at the basis of the concept of controlled mechanical ventilation (VMC) of the internal rooms.
The purpose of ventilation is to raise the standard of internal air quality with consequent positive effects for health and productivity of the occupiers. The change of air has positive effects also on the good maintenance of the building.
For the building to be requalified, the Controlled Mechanical Ventilation is almost a mandatory choice in order to reach high energy standards, which are imposed by the current legislation.

Very high ventilation efficiency

Since the ventilation represents one of the major factor of energy consumption, particular attention has been given to the study and to the creation of the ventilation system.
Fans of the plug-fan type with EC brushless motors have been used both in supply and in extraction; they permit high performances and reduced consumptions. Furthermore, compared with the traditional centrifugal fans, they don't have belts or pulleys with consequent easiness of capacity regulation, compactness, versatility, and an easy maintenance.

A particular adaptative logic permits to adjust the effective air capacity required from the system with more consequent advatages in terms of reduction of consumptions.

Maximum efficiencies

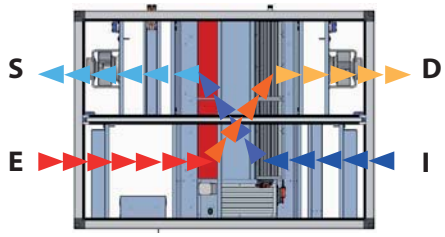
In this context RPF is proposed as the high efficient and performing solution for double flow ventilation systems with heat recovery.
The key-concept on which is based the RPF proposal are:
— Very high efficiency heat recovery attested by EUROVENT certification and maintenance of the complete separation of intake and discharge air flow;
— Reduced ventilation energy consumptions, thanks to a detailed dimensioning of the components in order to have low total values of SFP (Specific Fan Power or rather energy consumption for m^3/h of total processed capacity);
— High efficiency filtration and low pressure drops;
— Advanced electronic management for the energy saving and of controlling of internal pollutants functions VOC (Volatile Organic Compounds);
— Compactness of dimensions and logic of installation "plug and play".

Air quality in room

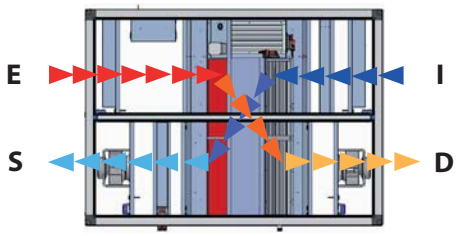
Particular attention has been given naturally also to the quality of air in the room, standard assigned to filters with efficiency G4 on extracted air flow and on compact filter with efficiency F7 included on intake air flow.
Naturally all these technological advantages are controlled by a thermoregulation of last generation, able to manage the different working procedures; assuring the maximum energy saving in every usage condition by using a proper software.

BASIC CONFIGURATION

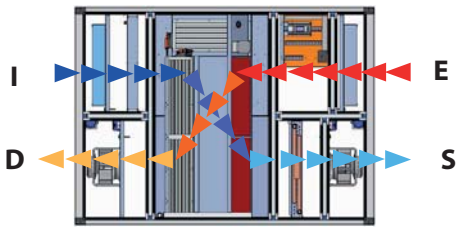
RPF O Horizontal configuration
Right supply (seen from above)



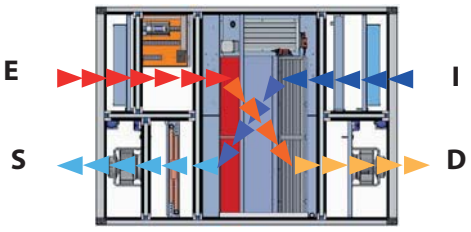
RPF P Horizontal configuration
Left supply (seen from above)



RPF V Vertical configuration
Right supply (seen from the accessible side)



RPF Z Vertical configuration
Left supply (seen from the accessible side)



D = Discharge
I = Intake
S = Supply
E = Extract

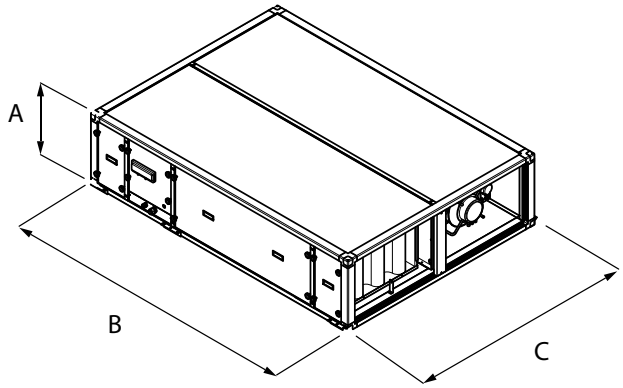
PERFORMANCE SPECIFICATIONS

		RPF008	RPF010	RPF013	RPF020	RPF031	RPF042
Heat recovery unit							
Power supply				230V~50Hz		400V 3~50Hz	
Unit type				UVNR (non-residential ventilation unit)			
Heat recovery system type	Type/n°			Static at counter-current flow / 1			
Heat capacity recovered (EN308) (1)	kW	4,2	5,4	7,0	10,7	16,6	22,8
Dry heating efficiency (2)	%	80,0	79,9	80,0	79,9	79,9	83,8
Information in compliance with Annex V of regulation EU no. 1253/2014							
Nominal air flow rate supply / recovery	m^3/s	0,22	0,28	0,36	0,56	0,86	1,18
Nominal air flow rate supply / recovery	m^3/h	790	1000	1300	2000	3100	4250
Minimum air flow rate	m^3/h	200	200	400	1000	1000	1300
Maximum air flow rate	m^3/h	980	1260	1530	2350	3700	4600
Fans (3)							
Commissioning	type			Analogue signal of EC fan (0-10Vdc)			
Type	type			EC			
Number	no.	2	2	2	2	2	2
Supplied electrical power consumption	kW	0,16	0,24	0,33	0,60	0,79	1,30
Recovered electrical power consumption	kW	0,15	0,23	0,33	0,56	0,76	1,20
Total input electric power	kW	0,31	0,47	0,66	1,16	1,55	2,50
Maximum input power	kW	0,60	1,24	1,26	1,66	5,26	5,26
Maximum input power	A	4,6	7,5	7,5	9,3	11,1	11,1
SFP int.	$W/(m^3/s)$	625,00	667,00	743,00	1142,00	919,00	1211,00
SFP int. lim. 2018	$W/(m^3/s)$	1127	1118	1109	1227	1031	1253
Filters face velocity	m/s	1,8	2,0	1,8	2,2	2,2	2,1
Nominal external pressure Δp (3)	Pa	200	250	250	250	250	225
Useful static supply pressure	Pa	191	218	169	134	215	143
Useful static recovery pressure	Pa	196	233	175	152	255	184
Supplied internal pressure drop Δps int.	Pa	174	198	219	319	304	372
Recovered internal pressure drop Δps int.	Pa	176	189	227	355	293	379
Fans static efficiency (4)	%	61,7	57,2	57,2	61,8	66,9	62,7
Internal leakage (5)	%	0,3	0,3	0,3	0,1	0,3	0,2
External leakage	%	< 3	< 3	< 3	< 3	< 3	< 3
Air filter							
Delivery filter energy classification				B			
Recovery filter energy classification				On request			

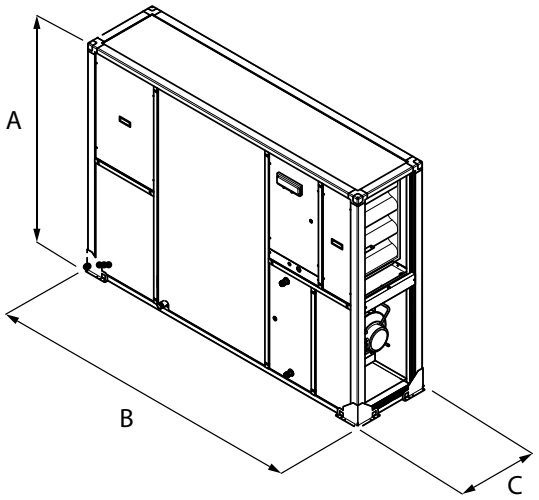
(1) Expelled air: Tdb=25°C; Twb<14°C. Fresh air: Tdb=5°C.
(2) Relation between the inlet air heating gain and the expulsion air heating loss, both relating to the outside temperature, measured in dry reference conditions, with balanced mass flow and an internal/external air heating difference of 20K , excluding the heating gain generated by the fan motors and the internal leakage.
(3) Performances referring to clean filters
(4) According to regulation EU 327/2011
(5) External leakage test performed at +400 Pa and -400 Pa; internal leakage test performed at 250 Pa

DIMENSIONS

RPF 008 - 031
Horizontal Installation



RPF 008 - 042
Vertical Installation



Size			008	010	013	020	031	042
Dimensions and weights								
A	O,P	mm	450	450	524	560	700	-
	V,Z	mm	1054	1258	1374	1694	1948	1550
B	O,P	mm	1915	1915	2174	2334	2654	-
	V,Z	mm	1915	1915	2174	2334	2654	2974
C	O,P	mm	1054	1258	1374	1694	1948	-
	V,Z	mm	450	450	524	560	700	1130
Empty weight	O,P	kg	194	220	264	328	452	-
	V,Z	kg	194	220	264	328	452	585

The weights are standard configuration units without accessories.

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URX-CF

Heat recovery unit with refrigerant circuit

Air flow rate 750 - 3300 m³/h

- **Heat pump cooling circuit with high yield and low noise scroll compressors.**



DESCRIPTION

The URX-CF series is the mono-bloc solution designed for the installation requirements typical for public spaces like bars, restaurants, offices, meeting rooms.

The URX-CF units combine in one mono-bloc unit, besides the fan, filter, and heat recovery sections, a heat pump refrigerant circuit with scroll compressors of high output and low noise.

The supply air is heated or cooled, based on the season, through the heat pump refrigerant circuit located within the unit and charged with refrigerant R410A.

This allows for a complete machine, with autonomous operation during every season and able to provide both the required air renewal for rooms and an efficient heat recovery.

The careful design of the machine combines very compact dimensions, which permit easy installation in false ceilings, with an excellent accessibility for maintaining all the internal components.

FEATURES

Panels

Self-supporting sandwich panel 20 mm thick in galvanised steel for internal and external surfaces with injected polyurethane insulation (density 40 kg/m³).

Heat recovery

Cross flow plate heat exchanger in aluminium with outputs over 50% in winter conditions.

Air filters

Class G4, located before the heat recovery both in the supply and return air flow.

Fans

Double inlet forward curved blades with direct drive motor. Single phase 230V-50Hz single speed motor. The air flow is controlled, within +/- 15% of the nominal, through an electronic speed controller supplied as standard.

Refrigerant circuit

Heat pump complete with high efficiency low noise scroll compressors, 4 way refrigerant cycle reversing valve, evaporator coil, condenser coil, liquid receiver, liquid separator, double thermostatic expansion valve, liquid sight glass (only for models 150, 210, 330), filter drier, high/low pressure pressostats.

Accessibility

From below for the heat recovery, the filters, the condensate drain tray and the fans.

Regulation

The unit is provided with an electrical panel complete with power and control section (included the control for the 3 way valve for the supplementary hot water coil and associated actuators), ensuring the control of all the refrigerant circuit functions.

Included are:

— NTC return air temperature sensor;
— External air temperature sensor;
— Dampers and actuators in the free-cooling version;
— Pressure switch in the supply air filter;
— Card RS485

Supplied loose is a remote mounted control terminal for automatic control of the unit and an outlet to power and control a light to conform with the current regulation for smoking zones.

ACCESSORIES COMPATIBILITY

Circular flanges

Accessory	URX07CF	URX10CF	URX15CF	URX21CF
FGC07	•			
FGC10		•		
FGC15			•	
FGC21				•

Hot water coil module

Accessory	URX07CF	URX10CF	URX15CF	URX21CF	URX33CF
MBC07	•				
MBC10		•			
MBC15			•		
MBC21				•	
MBC33					•

Free-cooling module

Accessory	URX07CF	URX10CF	URX15CF	URX21CF	URX33CF
FCE07	•				
FCE10		•			
FCE15			•		
FCE21				•	
FCE33					•

Module with electric coil

Accessory	URX07CF	URX10CF	URX15CF	URX21CF	URX33CF
MBX07	•				
MBX10		•			
MBX15			•		
MBX21				•	
MBX33					•

Module equipped with silencer baffles

Accessory	URX07CF	URX10CF	URX15CF	URX21CF	URX33CF
SUF07	•				
SUF10		•			
SUF15			•		
SUF21				•	
SUF33					•

PERFORMANCE SPECIFICATIONS

		URX07CF	URX10CF	URX15CF	URX21CF	URX33CF
Heat recovery unit						
Power supply		230V~50Hz	230V~50Hz	400V~ 3N 50Hz	400V~ 3N 50Hz	400V~ 3N 50Hz
Cooling performances (1)						
Total cooling capacity (heat recovery + refrigerant circuit)	kW	6,1	7,3	10,2	15,0	23,0
Cooling capacity available	kW	1,4	1,7	2,2	3,4	5,1
Cooling capacity recovered	kW	0,9	1,3	2,0	2,8	4,2
Summer thermal efficiency	%	46,2	51,2	53,2	53,6	53,6
Total input power	kW	2,60	2,80	3,80	5,00	6,90
Heating performances (2)						
Heating capacity total (heat recovery + refrigerant circuit)	kW	8,8	10,8	15,8	22,8	33,3
Heating capacity available	kW	2,4	2,3	3,0	4,8	5,2
Recovered heating power	kW	2,9	4,3	7,1	10,1	14,3
Winter thermal efficiency	%	46,2	51,2	53,2	53,6	53,6
Total input power	kW	2,00	2,00	3,30	4,00	5,50
Compressor						
Type	type	Scroll	Scroll	Scroll	Scroll	Scroll
Compressor regulation	Type	On-Off	On-Off	On-Off	On-Off	On-Off
Number	no.	1	1	1	1	1
Refrigerant	type	R410A	R410A	R410A	R410A	R410A
Refrigerant charge (3)	kg	2,4	2,9	3,0	3,7	4,5
Delivery fan						
Type	type	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal
Number	no.	1	1	1	1	1
Nominal air flow rate	m^3/h	750	1000	1500	2100	3300
Minimum air flow rate	m^3/h	640	850	1275	1785	2800
High static pressure	Pa	278	233	239	166	289
Total fan input power	kW	0,37	0,42	0,51	0,62	1,25
Total fan input current	A	2,4	2,4	3,6	3,6	6,6
Recovery fan						
Type	type	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal
Number	no.	1	1	1	1	1
Nominal air flow rate	m^3/h	750	1000	1500	2100	3300
Minimum air flow rate	m^3/h	640	850	1275	1785	2800
High static pressure	Pa	248	218	233	163	273
Total fan input power	kW	0,37	0,42	0,51	0,62	1,25
Total fan input current	A	2,4	2,4	3,6	3,6	6,6

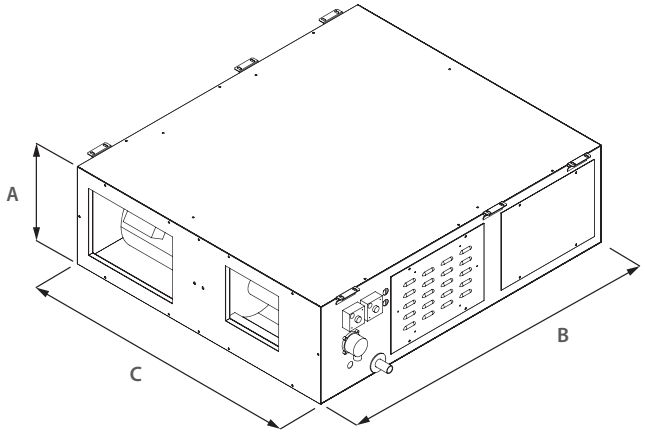
(1) Recovery air 26 °C 50%; External air 34 °C 50%.
(2) Recovery air 20 °C 50%; External air 5 °C 80%.
(3) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

		URX07CF	URX10CF	URX15CF	URX21CF	URX33CF
Hot water coil (accessory)						
Row	no.	2	2	2	2	2
Pressure drop - air side	Pa	11	18	23	42	78
Heating operations 70 °C / 60 °C (1)						
Heating capacity	kW	5,00	6,00	8,70	10,30	16,80
Water flow rate	l/h	442	523	763	902	1475
Pressure drop	kPa	16	22	9	12	31
Heating operations 45 °C / 40 °C (2)						
Heating capacity	kW	1,90	2,20	3,40	3,70	7,50
Water flow rate	l/h	336	382	584	638	1306
Pressure drop	kPa	11	14	6	7	28

(1) Water temperature (in/out) 70°C / 60°C; Compressor operating.
(2) Water temperature (in/out) 45°C / 40°C; Compressor operating.

		URX07CF	URX10CF	URX15CF	URX21CF	URX33CF
Electric heating coil - (accessory)						
Power supply				400V 3 ~ 50Hz		
Stages	no.	1	1	1	1	1
Heating capacity	kW	3,00	4,50	6,00	9,00	12,00
Input current	A	4,6	6,8	11,4	17,2	26,0
Pressure drop - air side	Pa	10	10	10	10	10

DIMENSIONS



		URX07CF	URX10CF	URX15CF	URX21CF	URX33CF
Dimensions and weights						
A	mm	450	450	550	550	600
B	mm	1300	1300	1500	1500	1600
C	mm	1500	1500	1800	1800	1800
Empty weight	kg	205	218	272	298	328

The weights are standard configuration units without accessories.

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URHE-CF

Heat recovery unit with refrigerant circuit

Air flow rate 1000 - 3300 m³/h

- **Heat pump cooling circuit with high yield and low noise scroll compressors.**
- **High efficiency**



DESCRIPTION

The units of the series URHE-CF are a highly efficient solution for satisfying the requirements of thermohygrometric wellness and air changes in air conditioning systems that are used in civil and service sector environments such as offices, bars, restaurants, etc.

The URHE-CF units are perfectly efficient machines in that they use a high performance plate cross flow heat recovery unit together with a heat pump refrigerant circuit operating with the R410A. refrigerant.

The use of the high performance cross flow heat recovery unit allows you to substantially reduce the start-up period of the refrigerant circuit during the year, thereby minimizing electrical energy consumption.

The unit's small size makes it easy to install also in false ceilings, maintaining excellent accessibility for the upkeep of all its internal components.

The numerous accessories that are available upon request, like for example the compact high efficiency filters, the water coils or the silencers, complete the functions of the machine that is generally combined with an air conditioning system.

FEATURES

Panels

Structure made of aluminium profiles with fibreglass reinforced nylon corners.

Sandwich panels, 25 mm thick, in galvanised sheet metal for the inner surface, pre-painted for the external surface with injected polyurethane insulation (density 42 kg/m³).

Heat recovery

Aluminium cross flow plates optimised to guarantee elevated performance.

Air filters

Class G4, 80% gravimetric efficiency, according to EN 779, thickness 48 mm, located before the heat recovery both in the supply and return air flow.

Fans

Centrifugal fans with forward-curved blades with high pressure head motor directly attached. The air flow rate is kept constant by means of an electronic control device.

Refrigerant circuit

Heat pump with R410A refrigerant, equipped with high performance, quiet rotary or scroll compressors (depending on the size), 4-way cycle inversion valves, evaporator coil, condenser coil, liquid receiver, thermostatic valve, liquid indicator, filter-drier, high pressure switch, low pressure switch, safety valve, bypass valve (for smaller sizes).

Regulation

The unit is provided with an electrical panel complete with power and control section (included the control for the 3 way valve for the supplementary hot water coil and associated actuators), ensuring the control of all the refrigerant circuit functions.

Included are:

— NTC return air temperature sensor;
— External air temperature sensor;
— Dampers and actuators in the free-cooling version;
— Pressure switch in the supply air filter;
— Card RS485

Supplied loose is a remote mounted control terminal for automatic control of the unit and an outlet to power and control a light to conform with the current regulation for smoking zones.

ACCESSORIES COMPATIBILITY

Hot water coil module

Accessory	URHE10CF	URHE15CF	URHE25CF	URHE33CF
MBCX1	•			
MBCX2		•		
MBCX3			•	
MBCX4				•

Module with electric coil

Accessory	URHE10CF	URHE15CF	URHE25CF	URHE33CF
MBCH1	•	•	•	
MBCH2				•

F7 compact high efficiency filters.

Accessory	URHE15CF	URHE25CF	URHE33CF
FCT1	•		
FCT2		•	
FCT3			•

Module equipped with silencer baffles.

Accessory	URHE10CF	URHE15CF	URHE25CF	URHE33CF
MSS1	•	•	•	
MSS2				•

Free-cooling module

Accessory	URHE10CF	URHE15CF	URHE25CF	URHE33CF
FGE1	•	•	•	•

Base for floor installation.

Accessory	URHE10CF	URHE15CF	URHE25CF	URHE33CF
BIT1	•	•		
BIT2			•	
BIT3				•

Base for floor installation of the additional modules.

Accessory	URHE10CF	URHE15CF	URHE25CF	URHE33CF
BIM1	•	•	•	•

Roof for outdoor installation.

Accessory	URHE10CF	URHE15CF	URHE25CF	URHE33CF
TPE1	•	•		
TPE2			•	
TPE3				•

Roof for outdoor installation of the additional modules.

Accessory	URHE10CF	URHE15CF	URHE25CF	URHE33CF
TPM1	•	•	•	
TPM2				•

Kit free-cooling.

Accessory	URHE10CF	URHE15CF	URHE25CF	URHE33CF
FCH1	•	•		
FCH2			•	•

Roof for silencer baffles.

Accessory	URHE10CF	URHE15CF	URHE25CF	URHE33CF
TPMSS1	•	•	•	
TPMSS2				•

PERFORMANCE SPECIFICATIONS

		URHE10CF	URHE15CF	URHE25CF	URHE33CF
Heat recovery unit					
Power supply		230V~50Hz	230V~50Hz	400V~ 3N 50Hz	400V~ 3N 50Hz
Cooling performances (1)					
Total cooling capacity (heat recovery + refrigerant circuit)	kW	6,6	8,7	13,8	19,8
Cooling capacity available	kW	1,8	3,1	3,3	5,4
Cooling capacity recovered	kW	2,2	3,2	4,5	5,8
Summer thermal efficiency	%	82,0	80,0	68,0	65,0
Total input power	kW	2,60	2,90	5,10	6,50
Heating performances (2)					
Heating capacity total (heat recovery + refrigerant circuit)	kW	10,9	14,2	24,8	33,1
Heating capacity available	kW	2,8	2,9	3,9	7,0
Recovered heating power	kW	3,6	10,0	15,3	19,6
Winter thermal efficiency	%	82,0	80,0	73,0	71,0
Total input power	kW	2,20	2,40	4,20	4,90
Compressor					
Number	no.	1	1	1	1
Refrigerant	type	R410A	R410A	R410A	R410A
Delivery fan					
Type	type	Centrifugal	Centrifugal	Centrifugal	Centrifugal
Number	no.	1	1	1	1
Nominal air flow rate	m^3/h	1000	1500	2500	3300
Minimum air flow rate	m^3/h	800	1100	2000	2500
High static pressure	Pa	320	245	140	220
Total fan input power	kW	0,42	0,46	1,10	1,10
Total fan input current	A	3,1	3,1	5,3	5,3
Recovery fan					
Type	type	Centrifugal	Centrifugal	Centrifugal	Centrifugal
Number	no.	1	1	1	1
Nominal air flow rate	m^3/h	1000	1500	2500	3300
Minimum air flow rate	m^3/h	800	1100	2000	2500
High static pressure	Pa	320	245	140	220
Total fan input power	kW	0,42	0,46	1,10	1,10
Total fan input current	A	3,1	3,1	5,3	5,3

(1) Recovery air 26 °C 50%; External air 34 °C 50%.
(2) Recovery air 20 °C 50%; External air 5 °C 80%.

Technical data MBCH - Hot water coil (accessory)

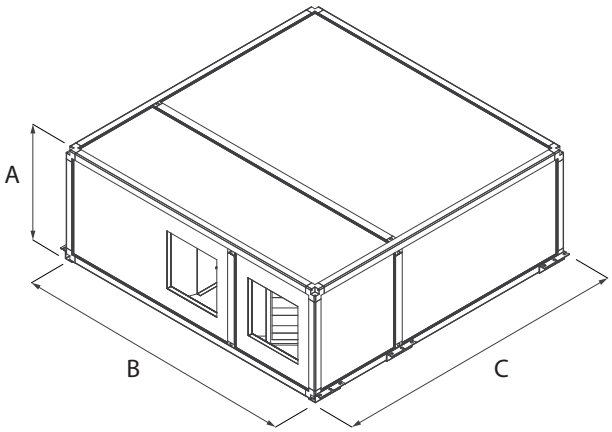
		URHE10CF	URHE15CF	URHE25CF	URHE33CF
Hot water coil (accessory)					
Row	no.	2	2	2	2
Pressure drop - air side	Pa	7	18	37	37
Heating operations 70 °C / 60 °C (1)					
Heating capacity	kW	7,70	10,30	15,60	19,70
Water flow rate	l/h	673	906	1363	1725
Pressure drop	kPa	11	8	18	32
Heating operations 45 °C / 40 °C (2)					
Heating capacity	kW	2,60	4,00	6,50	7,60
Water flow rate	l/h	446	700	1118	1311
Pressure drop	kPa	3	6	14	22

(1) Water temperature (in/out) 70°C / 60°C; Compressor operating.
(2) Water temperature (in/out) 45°C / 40°C; Compressor operating.

Technical data MBCX - Electric heating coil - (accessory)

		URHE10CF	URHE15CF	URHE25CF	URHE33CF
Electric heating coil - (accessory)					
Power supply			400V/3/50Hz		
Stages	no.	1	1	1	1
Heating capacity	kW	5,00	7,50	12,50	10,00
Input current	A	7,6	11,4	19,0	25,1
Pressure drop - air side	Pa	10	10	10	10

DIMENSIONS



		URHE10CF	URHE15CF	URHE25CF	URHE33CF
Dimensions and weights					
A	mm	580	580	580	580
B	mm	1640	1640	1640	1970
C	mm	1500	1500	1990	2310
Empty weight	kg	300	310	373	410

The weights are standard configuration units without accessories.

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ERSR

High-efficiency heat recovery with rotary recovery unit

Air flow rate 1000 - 30000 m³/h

- **Technology high efficiency**
- **Mechanically controlled ventilation**
- **Recovery of up to 80% of the energy of the expelled air**
- **Air purification**



DESCRIPTION

The ERSR heat recovery units for indoor and outdoor installation are designed for commercial applications and are able to combine maximum environmental comfort with definite energy saving.
It is more and more necessary in modern systems to create a forced ventilation, but also involves the expulsion of climate-controlled air, thus determining a higher energy consumption.
But ERSR units are equipped with a rotary heat recovery unit (upon request, also hygroscopic rotary) that enables you to save more than 80% of the energy that would otherwise be lost with the expelled stale air.
These units can be integrated with fan coils and chillers, and can operate both in winter and summer.

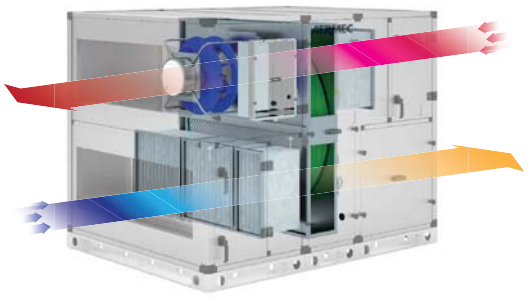
VERSIONS

H With a hygroscopic rotary recovery
T With a sensitive rotary recovery

STRUCTURE

— Rotary heat recovery unit (with the option in hygroscopic material), high-efficiency and low pressure drops.
— Soft air bag F7 filters (flow and recovery) equipped with a standard differential pressure switch, which can be extracted from either side facilitate their periodic cleaning.
— **Fans (intake and flow), Plug fan with back curved blades with a directly coupled, electronically controlled motor for sizes 07-17 and with an inverter for sizes 21-24.**
— Support frame and sandwich panels, 50 mm thick, in galvanised sheet steel for internal surfaces and pre-painted externally, and with mineral wool insulation (density 40 kg/m³). Base in galvanised sheet steel continuous profiles. Sizes 07 to 09 are monoblocs whilst the other sizes are divided into sections. The unit can be inspected from both sides.
— The unit is equipped with a power electric control board on the machine and adjustment purposely designed to reduce energy consumption. Equipped with a communication serial port on RS485 with MODBUS Master/Slave protocol.

FEATURES



- Air expelled
- Air recovery from the room
- Outdoor fresh air
- Air introduced into the room

Quality of the air

Nowadays, the quality of air inside rooms is fundamental. The mechanically controlled ventilation system is not only indispensable from an energetic point of view, but also for the comfort of the rooms.

Harmful elements and smells in the air are eliminated by the efficient filtration system with bag filters (F7), which are easily extracted and regenerated.

High-efficiency air circulation thanks to plug-fans with electronically controlled motors or inverters, depending on the sizes

Freecooling: free comfort

During in-between seasons, outdoor climatic conditions can be more pleasant than those indoors. In such situations, the ERSRs stop the recovery unit enabling the intake of fresh outdoor air to air-condition indoor rooms at zero cost.

High-efficiency recovery unit (80% of the energy of the expelled air)

Air heat recovery both in summer and winter, thanks to the rotary recovery unit (hygroscopic version also available). Air introduced into the room is always optimised, thanks to the heat exchange between the air recovery and outdoor fresh air.

State of the art electronic control

Naturally, all these technological advantages are controlled by state of the art heat regulation, thus ensuring maximum energy savings in every condition of use.

ACCESSORIES

CAP: Intake waterproof cover.
BDL: Delivery waterproof cover.
TDP: Roof for outdoor installation.
VRC: Condensate drip tray.
VVR: Variable speed recovery unit.
KDP: Dehumidification and post-heating management kit.
RBC: 3-way valve hot water coil module.
RBF: 3-way valve cold water coil module.
RBE: Electric coil module.
RBP: 3-way valve cold water and post-heating coil module.
MSS: Module equipped with silencer baffles.
FRR: Rectangular flange.
GAR: Rectangular anti-vibration joint.
HSR: Fresh air intake damper with servocontrol.
RSR: Recirculation damper module.
HG4: Flat filters efficiency G4.

ACCESSORIES COMPATIBILITY

Regulation

Rectangular flange.

Ver	07	09	12	15	17	21	24
H,T	FRR09	FRR09	FRR12	FRR15	FRR17	FRR21	FRR24

Condensate drain tray.

Ver	07	09	12	15	17	21	24
H,T	VRC07	VRC09	VRC12	VRC15	VRC17	VRC21	VRC24

Additional modules

Rectangular anti-vibration joint.

Ver	07	09	12	15	17	21	24
H,T	GAR07	GAR09	GAR12	GAR15	GAR17	GAR21	GAR24

Recirculation damper module.

Ver	07	09	12	15	17	21	24
H,T	-	-	RSR12	RSR15	RSR17	RSR21	RSR24

The accessory cannot be fitted on the configurations indicated with -

Flat filters efficiency G4.

Ver	07	09	12	15	17	21	24
H,T	HG407	HG409	HG412	HG415	HG417	HG421	HG424

Fresh air intake damper with servocontrol.

Ver	07	09	12	15	17	21	24
H,T	HSR07	HRS09	HRS12	HRS15	HRS17	HRS21	HRS24

Roof protection for basic unit in the case of outdoor installation.

Ver	07	09	12	15	17	21	24
H,T	TDP07	TDP09	TDP12	TDP15	TDP17	TDP21	TDP24

Delivery waterproof cover.

Ver	07	09	12	15	17	21	24
H,T	BDL07	BDL09	BDL12	BDL15	BDL17	BDL21	BDL24

Accessories

Air quality probe (VOC).

Ver	07	09	12	15	17	21	24
H,T	QP	QP	QP	QP	QP	QP	QP

Variable speed recovery unit.

Ver	07	09	12	15	17	21	24
H,T	VVR07	VVR09	VVR12	VVR15	VVR17	VVR21	VVR24

Dehumidification and post-heating management kit.

Ver	07	09	12	15	17	21	24
H,T	KDP	KDP	KDP	KDP	KDP	KDP	KDP

Intake waterproof cover.

Ver	07	09	12	15	17	21	24
H,T	CAP07	CAP09	CAP12	CAP15	CAP17	CAP21	CAP24

3-way valve hot water coil module.

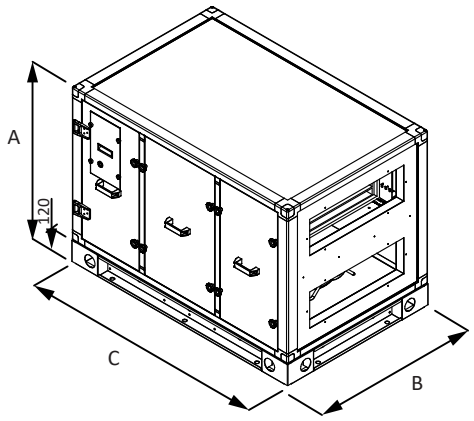
Ver	07	09	12	15	17	21	24
H,T	RBC07	RBC09	RBC12	RBC15	RBC17	RBC21	RBC24

PERFORMANCE SPECIFICATIONS

Size		07	09	12	15	17	21	24
Heat recovery unit								
Power supply		400V 3N ~ 50Hz						
Unit type		UVNR (Unit ventilation not residential)						
Heat recovery system type	Type/n°							
Heat capacity recovered (EN308) (1)	kW	5,8	10,3	19,4	31,4	41,3	64,3	85,0
Dry heating efficiency (2)	%	79,0	78,9	78,3	78,8	78,9	78,5	78,7
Information in compliance with Annex V of regulation EU no. 1253/2014								
Nominal air flow rate supply / recovery	m^3/s	0,31	0,54	1,03	1,65	2,17	3,39	4,47
Nominal air flow rate supply / recovery	m^3/h	1100	1950	3700	5950	7800	12200	16100
Minimum air flow rate	m^3/h	-	-	-	-	-	-	-
Fans (3)								
Commissioning	type	Analog signal of EC fan						
Type	type	Plug-fan						
Number	no.	1	1	1	1	1	1	1
Supplied electrical power consumption	kW	0,27	0,48	0,85	1,31	1,90	2,20	2,80
Recovered electrical power consumption	kW	0,27	0,48	0,86	1,30	1,90	2,20	2,80
Total input electric power	kW	0,84	2,04	6,10	8,78	10,20	22,37	30,37
SFP int.	$W/(m^3/s)$	1061,00	994,00	927,00	733,00	669,00	778,00	759,00
SFP int. lim. 2018	$W/(m^3/s)$	1141	1106	1033	942	887	886	887
Filters face velocity	m/s	1,8	1,9	1,8	1,8	1,8	1,6	1,7
Nominal external pressure Δp (3)	Pa	100	100	100	100	100	100	100
Useful static supply pressure	Pa	360	520	1000	1100	900	1440	1500
Useful static recovery pressure	Pa	360	520	1000	1100	900	1440	1500
Supplied internal pressure drop Δps int.	Pa	269	262	276	222	216	240	241
Recovered internal pressure drop Δps int.	Pa	272	265	280	225	219	243	244
Fans static efficiency (4)	%	64,5	65,5	62,8	64,1	67,2	64,7	65,8
Internal leakage (5)	%	< 3	< 3	< 3	< 3	< 3	< 3	< 3
External leakage	%	0,2	0,2	0,1	0,1	0,1	0,1	0,1
Air filter								
Expelled air filter	Type/n°							
Delivery air filter	Type/n°							
Delivery filter energy classification		D						
Recovery filter energy classification		D						

(1) Expelled air: Tdb=25°C; Twb<14°C. Fresh air: Tdb=5°C.
(2) Relation between the inlet air heating gain and the expulsion air heating loss, both relating to the outside temperature, measured in dry reference conditions, with balanced mass flow and an internal/external air heating difference of 20K , excluding the heating gain generated by the fan motors and the internal leakage.
(3) Performances referring to clean filters
(4) According to regulation EU 327/2011
(5) External leakage test performed at +400 Pa and -400 Pa; internal leakage test performed at 250 Pa

DIMENSIONS AND WEIGHTS



Size		07	09	12	15	17	21	24
Dimensions and weights								
A	mm	965	1285	1445	1765	2085	2405	2725
B	mm	895	1005	1375	1695	1855	2335	2665
C	mm	1375	1535	2045	2365	2365	3005	3005
Empty weight	kg	240	340	570	820	1010	1610	1980

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AIR CONDITIONING

The air handling units customized according to different needs of the installer to carry the best comfort and the best quality in civil commercial and industrial.

AIR HANDLING UNITS

		Air flow rate (m^3/h)	Cool. Cap. (kW)	Heat. Cap. (kW)	Page
Compact air handling units					
TUN	Air flow rate 900÷4000 m^3/h	900-4000	4,16-29,40	5,07-56,10	264
TS	Air flow rate 810÷4225 m^3/h	810-4225	4,39-24,93	8,89-52,44	270
TDA	Air flow rate 800÷3500 m^3/h	800-3500	4,90-22,30	2,50-45,40	274
TA	Air flow rate 800÷5000 m^3/h	800-5000	4,2-39,6	3,9-72,8	276
TN	Air flow rate 3000÷23000 m^3/h	3000-23000	12,6-127,8	14,7-277,3	281
Modular air handling units					
NCD	Air handling units	1134-79475	-	-	288
SPL 025-130	For wellness areas	4000-13000	-	-	291
SPL 160-250	For wellness areas	16000-25000	-	-	295
ENERGY	High energy efficiency version	4000-25000	-	-	299
Packaged ROOF-TOP units					
RTX N1-N8	For medium crowding applications	-	12,70-49,95	13,50-50,79	303
RTX 09-16	For medium crowding applications	-	50-135	49-141	308
RTX 17-23	For medium crowding applications	-	151-307	152-310	314
RTY 01-10	For high crowding applications	-	30,2-133,6	29,3-137,9	319

TUN

Air handling unit

- Very quiet
- Available units with heat exchanger with 4-6 rows
- Ductable units



DESCRIPTION

The air-conditioning units of the TUN series are intended for civil, commercial and hotel systems in small to medium sized environments. They are distinguished by their compactness (a necessary requisite for false ceiling applications) and low noise. The wide range of accessories meets various system requirements.

STRUCTURE

Case

Structure made with 1.5 mm thick hot-dip galvanized sheet metal insulated internally with class V0 insulation. The unit is predisposed for connection with any delivery or intake channels.
Specific mounts help with the task of fixing the unit to the wall either horizontally or vertically.

Ventilation group

Double suction centrifugal fans with forward blades and directly coupled motor. The single-phase 230V□50Hz motor offers multiple speeds, three of which can be selected using a command.

Heat exchanger coil

The 4, 6 row coils, which can be fed with hot or refrigerated water, are made of copper tubing with aluminium fins blocked by the mechanical expansion of the tubes.
They are equipped with threaded sleeves for the plumbing connections and the air breather valve. The coils can be rotated at the work site.
Also available, 2-row post-heating coils made of copper tubing with aluminium fins blocked by mechanical expansion of the tubes.

Condensate drip

Insulated internal condensation collection tub made of 1 mm thick hot-dip galvanised sheet metal.

ACCESSORIES

AER503IR: Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.
SA5: air probe kit (L = 15 m) with probe-locking cable grommet.
SIT3: Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat). Commands the 3 fan speeds and must be installed on each fan coil within the network; receives the commands from the selector or the SIT5 card. In case you decide to install Aermec thermostats and current absorbed by the unit exceeds 0.7 A, you're obliged to include SIT3 accessory.
SW5: water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.
WMT05: Electronic thermostat with thermostated ventilation.
WMT10: Electronic thermostat, white, with thermostated or continuous ventilation.
VCT: These are 3-way ball valves made of bronze, with female/female connections Ø 1/2". That can be servo-activated via servo commands. The valves do not have fittings and pipes for water connections, which are the installer's responsibility.
VCT: These are 3-way ball valves made of bronze, with female/female connections Ø 1/2". That can be servo-activated via servo commands. The valves do not have fittings and pipes for water connections, which are the installer's responsibility.
VCTK: The VCT series valves can be combined with the actuators On-Off 230V. The actuator must be selected according to the type of system/adjustment provided.
VCTKM: The VCT series valves can be combined with the actuators 24V modulating. The actuator must be selected according to the type of system/adjustment provided.
M2S: Galvanised steel mixing chamber with two dampers for air calibration. Louver pitch 50 mm, the galvanised steel adjustment knob (diameter 8 mm) can be motorised.

M3S: Galvanised steel mixing chamber with three air calibration dampers and galvanised steel plates. Must necessarily be paired with the VRF accessory.
FTF: Soft bag filters. Section in galvanised steel sheet metal with F6 soft bag filters. Must necessarily be paired in the powered units.
B2R: Hot water coil with 2 rows for lines with 4 tubes. Positioned internally at the base of the equipment, downstream from the main coil.
PBE: Section with post heating coil composed of armoured heaters equipped with a double safety thermostat.
SSL: Module with seven galvanised steel sheet metal silencers and seven stone wool silencers covered by polyethylene film to prevent chipping.
S2Z: Galvanised steel opposed louvers dampers for mixing outside air with recirculating air.
VRF: Recovery fan unit equipped with electronic variable speed control. The unit is contained in a galvanised steel sheet metal section equipped with flat filters, efficiency level G4 (EN779).
SAS: Air calibration damper with galvanised sheet metal louvers to be positioned for intake. Louver pitch 50 mm; the galvanised steel adjustment knob can be motorised.
GMD: Air delivery grill with louvers that can be positioned for the delivery of air in the room to be treated. May be installed directly on the device by removing the flanges or installed on the wall.
GAP: Intake grille with louvers at a fixed 45° angle. May be installed directly on the device by removing the flanges or installed on the wall.
FPI: ISO COARSE 50% filter flange for intake at base.
FPF: Filter ISO COARSE 50%.

ACCESSORIES COMPATIBILITY

Control panels

Accessory	TUN104	TUN104P	TUN106	TUN106P	TUN154	TUN156	TUN204	TUN206	TUN254	TUN256	TUN404	TUN404P	TUN406	TUN406P
AER503IR	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SA5	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SIT3	•	•	•	•	•	•	•	•	•	•	•	•	•	•
SW5	•	•	•	•	•	•	•	•	•	•	•	•	•	•
WMT05	•	•	•	•	•	•	•	•	•	•	•	•	•	•
WMT10	•	•	•	•	•	•	•	•	•	•	•	•	•	•

With WMT05 and WMT10 control panels: when paired with units TUN154-156-254-256-404-404P-406-406P use of the SIT3 accessory is mandatory and the 2A fuse must be replaced by a 4A fuse.

2 way valve kit

Accessory	TUN104	TUN104P	TUN106	TUN106P	TUN154	TUN156	TUN204	TUN206	TUN254	TUN256	TUN404	TUN404P	TUN406	TUN406P
VCT102	•	•	•	•										
VCT202					•	•	•	•						
VCT402									•	•				
VCT402P											•	•	•	•

3 way valve kit

Accessory	TUN104	TUN104P	TUN106	TUN106P	TUN154	TUN156	TUN204	TUN206	TUN254	TUN256	TUN404	TUN404P	TUN406	TUN406P
VCT103	•	•	•	•										
VCT203					•	•	•	•						
VCT403									•	•				
VCT403P											•	•	•	•

Actuator VCTK 230V

Accessory	TUN104	TUN104P	TUN106	TUN106P	TUN154	TUN156	TUN204	TUN206	TUN254	TUN256	TUN404	TUN404P	TUN406	TUN406P
VCTK	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Actuator 24V

Accessory	TUN104	TUN104P	TUN106	TUN106P	TUN154	TUN156	TUN204	TUN206	TUN254	TUN256	TUN404	TUN404P	TUN406	TUN406P
VCTKM	•	•	•	•	•	•	•	•	•	•	•	•	•	•

2-damper mixing chamber

Accessory	TUN104	TUN104P	TUN106	TUN106P	TUN154	TUN156	TUN204	TUN206	TUN254	TUN256	TUN404	TUN404P	TUN406	TUN406P
M2S1	•	•	•	•										
M2S2					•	•								
M2S3							•	•						
M2S4									•	•	•		•	
M2S5												•		•

3-damper mixing chamber

Accessory	TUN104	TUN104P	TUN106	TUN106P	TUN154	TUN156	TUN204	TUN206	TUN254	TUN256	TUN404	TUN404P	TUN406	TUN406P
M3S1	•	•	•	•										
M3S2					•	•								
M3S3							•	•						
M3S4									•	•	•		•	
M3S5												•		•

Soft bag filter section

Accessory	TUN104	TUN104P	TUN106	TUN106P	TUN154	TUN156	TUN204	TUN206	TUN254	TUN256	TUN404	TUN404P	TUN406	TUN406P
FTF1	•	•	•	•										
FTF2					•	•								
FTF3							•	•						
FTF4									•	•	•		•	
FTF5												•		•

2 row water coil

Accessory	TUN104	TUN104P	TUN106	TUN106P	TUN154	TUN156	TUN204	TUN206	TUN254	TUN256	TUN404	TUN404P	TUN406	TUN406P
B2R11	•	•	•	•										
B2R21					•	•								
B2R31							•	•						
B2R41									•	•	•		•	
B2R51												•		•

Section with post-heating coil

Accessory	TUN104	TUN104P	TUN106	TUN106P	TUN154	TUN156	TUN204	TUN206	TUN254	TUN256	TUN404	TUN404P	TUN406	TUN406P
PBE2	•	•	•	•										
PBE24M	•	•	•	•										
PBE24T	•	•	•	•										
PBE3					•	•								
PBE34M					•	•								
PBE36T					•	•								
PBE4							•	•						
PBE44M							•	•						
PBE46T							•	•						
PBE5									•	•				
PBE6											•		•	
PBE7												•		•

Silencer baffles module

Accessory	TUN104	TUN104P	TUN106	TUN106P	TUN154	TUN156	TUN204	TUN206	TUN254	TUN256	TUN404	TUN404P	TUN406	TUN406P
SSL1	•	•	•	•										
SSL2					•	•								
SSL3							•	•						
SSL4									•	•	•		•	
SSL5												•		•

2 zone damper (70-30%)

Accessory	TUN104	TUN104P	TUN106	TUN106P	TUN154	TUN156	TUN204	TUN206	TUN254	TUN256	TUN404	TUN404P	TUN406	TUN406P
S2Z1	•	•	•	•										
S2Z2					•	•								
S2Z3							•	•						
S2Z4									•	•	•		•	
S2Z5												•		•

Recovery fan section with ISO COARSE 50% filter

Accessory	TUN104	TUN104P	TUN106	TUN106P	TUN154	TUN156	TUN204	TUN206	TUN254	TUN256	TUN404	TUN404P	TUN406	TUN406P
VRF1	•	•	•	•										
VRF3					•	•								
VRF4							•	•						
VRF5									•	•				
VRF6											•		•	
VRF7												•		•

Plenum with multiple circular deliveries

Accessory	TUN104	TUN104P	TUN106	TUN106P	TUN154	TUN156	TUN204	TUN206	TUN254	TUN256	TUN404	TUN404P	TUN406	TUN406P
PMM1	•	•	•	•										
PMM2					•	•								
PMM3							•	•						
PMM4									•	•	•		•	
PMM5												•		•

Delivery plenum

Accessory	TUN104	TUN104P	TUN106	TUN106P	TUN154	TUN156	TUN204	TUN206	TUN254	TUN256	TUN404	TUN404P	TUN406	TUN406P
TPMC1	•	•	•	•										
TPMC2					•	•								
TPMC3							•	•						
TPMC4									•	•	•		•	
TPMC5												•		•

Closed delivery plenum

Accessory	TUN104P	TUN106	TUN106P	TUN154	TUN156	TUN204	TUN206	TUN254	TUN256	TUN404	TUN404P	TUN406	TUN406P
PMC1	•	•	•										
PMC2				•	•								
PMC3						•	•						
PMC4								•	•	•		•	
PMC5											•		•

Suction damper

Accessory	TUN104	TUN104P	TUN106	TUN106P	TUN154	TUN156	TUN204	TUN206	TUN254	TUN256	TUN404	TUN404P	TUN406	TUN406P
SAS1	•	•	•	•										
SAS2					•	•								
SAS3							•	•						
SAS3									•	•	•		•	
SAS5												•		•

Outlet grille with adjustable louvers

Accessory	TUN104	TUN104P	TUN106	TUN106P	TUN154	TUN156	TUN204	TUN206	TUN254	TUN256	TUN404	TUN404P	TUN406	TUN406P
GMD1	•	•	•	•										
GMD2					•	•								
GMD3							•	•						
GMD4									•	•	•		•	
GMD5												•		•

Intake grids

Accessory	TUN104	TUN104P	TUN106	TUN106P	TUN154	TUN156	TUN204	TUN206	TUN254	TUN256	TUN404	TUN404P	TUN406	TUN406P
GAP1	•	•	•	•										
GAP2					•	•								
GAP3							•	•						
GAP4									•	•	•		•	
GAP5												•		•

Filter flange

Accessory	TUN104	TUN104P	TUN106	TUN106P	TUN154	TUN156	TUN204	TUN206	TUN254	TUN256	TUN404	TUN404P	TUN406	TUN406P
FPI11	•	•	•	•										
FPI12					•	•								
FPI13							•	•						
FPI14									•	•	•		•	
FPI15												•		•

Filter ISO COARSE 80%

Accessory	TUN104	TUN104P	TUN106	TUN106P	TUN154	TUN156	TUN204	TUN206	TUN254	TUN256	TUN404	TUN404P	TUN406	TUN406P
FPF1	•	•	•	•										
FPF2					•	•								
FPF3							•	•						
FPF4									•	•	•		•	
FPF5												•		•

PERFORMANCE SPECIFICATIONS

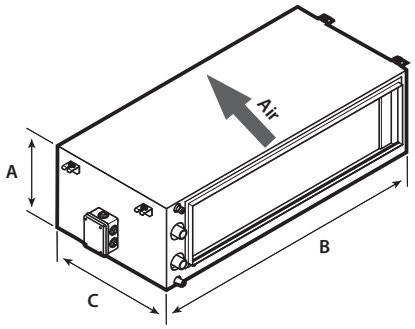
		TUN104	TUN104P	TUN106	TUN106P	TUN154	TUN156	TUN204	TUN206
Cooling performance 7 °C / 12 °C (1)									
Cooling capacity	kW	4,16	4,16	5,60	5,60	9,30	11,10	12,50	14,10
Sensible cooling capacity	kW	3,30	3,30	4,00	4,00	6,60	7,60	8,70	9,80
Latent cooling capacity	kW	0,86	0,86	1,60	1,60	2,70	3,50	3,80	4,30
Water flow rate system side	l/h	715	715	963	963	1599	1910	2141	2420
Pressure drop system side	kPa	3	3	9	9	16	34	33	20
Heating performance 70 °C / 60 °C (2)									
Heating capacity	kW	10,20	10,20	11,30	11,30	19,00	21,10	24,90	27,50
Water flow rate system side	l/h	880	880	975	975	1663	1849	2183	2410
Pressure drop system side	kPa	3	3	6	6	13	24	25	15
Heating performance 45 °C / 40 °C (3)									
Heating capacity	kW	5,07	5,07	5,62	5,62	9,45	10,50	12,39	13,68
Electric heating coil - (accessory)									
Heating capacity	kW	4,00	6,00	4,00	6,00	8,00	8,00	10,00	10,00
Stages	no.	2	2	2	2	2	2	2	2
Power supply		400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz
Fan									
Type	type	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal
Fan motor	type	Asynchronous	Asynchronous	Asynchronous	Asynchronous	Asynchronous	Asynchronous	Asynchronous	Asynchronous
Number	no.	1	2	1	2	2	2	1	1
Air flow rate	m^3/h	900	900	900	900	1500	1500	2000	2000
High static pressure	Pa	110	330	110	330	150	150	170	170
Diametre hydraulic fittings									
Main coil	Ø	1″	1″	1″	1″	1″	1″	1″	1″
Secondary coil	Ø	1/2″	1/2″	1/2″	1/2″	1/2″	1/2″	1/2″	1/2″
Condensate discharge diameter	mm	20,5	20,5	20,5	20,5	20,5	20,5	20,5	20,5

		TUN254	TUN256	TUN404	TUN404P	TUN406	TUN406P
Cooling performance 7 °C / 12 °C (1)							
Cooling capacity	kW	16,50	18,50	23,30	26,40	26,60	29,40
Sensible cooling capacity	kW	11,40	12,70	16,30	18,20	18,50	20,10
Latent cooling capacity	kW	5,10	5,80	7,00	8,20	8,10	9,30
Water flow rate system side	l/h	2832	3184	4002	4536	4572	5051
Pressure drop system side	kPa	33	20	60	37	56	28
Heating performance 70 °C / 60 °C (2)							
Heating capacity	kW	32,30	35,40	46,70	51,10	52,20	56,10
Water flow rate system side	l/h	2831	3101	4089	4475	4573	4909
Pressure drop system side	kPa	24	14	46	41	28	20
Heating performance 45 °C / 40 °C (3)							
Heating capacity	kW	16,07	17,61	23,23	25,42	25,97	27,91
Electric heating coil - (accessory)							
Heating capacity	kW	12,00	12,00	20,00	20,00	20,00	20,00
Stages	no.	2	2	2	2	2	2
Power supply		400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz
Fan							
Type	type	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal
Fan motor	type	Asynchronous	Asynchronous	Asynchronous	Asynchronous	Asynchronous	Asynchronous
Number	no.	1	1	2	2	2	2
Air flow rate	m^3/h	2500	2500	4000	4000	4000	4000
High static pressure	Pa	150	150	120	220	120	220
Diametre hydraulic fittings							
Main coil	Ø	1″	1″	1″	1″	1″	1″
Secondary coil	Ø	1/2″	1/2″	1/2″	1/2″	1/2″	1/2″
Condensate discharge diameter	mm	20,5	20,5	20,5	20,5	20,5	20,5

(1) Room air temperature 27 °C d.b./19 °C w.b.; Water (in/out) 7 °C/12 °C;
(2) Room air temperature 10 °C d.b.; Water (in/out) 70 °C/60 °C
(3) Room air temperature 10°C d.b.; Water (in/out) 45 °C/40 °C;

Unit designed to operate with all recirculating air or maximum 10% of external air.

DIMENSIONS



		TUN104	TUN104P	TUN106	TUN106P	TUN154	TUN156	TUN204	TUN206	TUN254	TUN256	TUN404	TUN404P	TUN406	TUN406P
Dimensions and weights															
A	mm	300	300	300	300	300	300	390	390	390	390	390	390	390	390
B	mm	700	700	700	700	1050	1050	1050	1050	1475	1475	1475	2100	1475	2100
C	mm	700	700	700	700	700	700	850	850	850	850	850	1000	850	1000
D	mm	82	82	82	82	82	82	82	82	82	82	82	82	82	82
Net weight	kg	33,00	37,00	35,00	38,00	47,00	49,00	59,00	61,00	88,00	92,00	88,00	108,00	92,00	108,00

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TS

Air handling unit

- **Very quiet**
- **Available units with heat exchanger with 3-4-6 rows**
- **Ductable units**



DESCRIPTION

The air-conditioning units of the TS series are intended for civil, commercial and hotel systems in small to medium sized environments. They are distinguished by their compactness (a necessary requisite for false ceiling applications) and low noise. The wide range of accessories meets various system requirements.

STRUCTURE

Case

Structure made of Galvanized steel 10/10 sheet steel and internally covered with sheets of polyethylene and polyester to obtain improved thermal and acoustic insulation.

Ventilation group

Statically and dynamically balanced centrifugal fans:

— Three-speed electrical motor with running capacitor permanently activated and internal thermal protection
— Transmission system relay card for each speed (excluding the models TS13 and TS16)
— Useful static pressure available for any canalisation

Heat exchanger coil

3, 4 or 6 row coils, powered with hot or cold water and made of copper piping with aluminium louvered fins blocked by mechanical expansion of the pipes. The threaded sleeves for the hydraulic connections and the air bleeding valve are supplied. The coils can be rotated on site.
The coil is not suitable for use in corrosive atmosphere or in environments where aluminium may be subject to corrosion.

Condensate drip

Condensate drip tray in stainless steel AISI 304 with insulation.

ACCESSORIES

AER503IR: Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.
FMT10: Electronic thermostat for fan coil in to 2/4 pipe systems.
PXAE: Electronic thermostat with thermostated or continuous ventilation.
SA5: air probe kit (L = 15 m) with probe-locking cable grommet.
SW5: water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.
TX: Wall-mounting thermostat for controlling either brushless fan coils or those with asynchronous motors for 2/4 pipe. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices, radiant plate or FCZ-D twin delivery (Dualjet).
WMT05: Electronic thermostat with thermostated ventilation.
WMT06: Electronic thermostat with continuous ventilation.
WMT10: Electronic thermostat, white, with thermostated or continuous ventilation.
TSBA: 2-row coil for post-heating, contained in a delivery installation plenum.
TSFA: Air filter class Coarse 50%
TSGA: Horizontal suction grille with fixed louvers to produce suction from below together with the TSPA accessory.
TSMX: Section that mixes the recirculating air and the external air. Calibration of the mix via the damper, motorisation is possible.
VCT: These are 3-way ball valves made of bronze, with female/female connections Ø 1/2". That can be servo-activated via servo commands. The valves do not have fittings and pipes for water connections, which are the installer's responsibility.
VCT: These are 3-way ball valves made of bronze, with female/female connections Ø 1/2". That can be servo-activated via servo commands. The valves do not have fittings and pipes for water connections, which are the installer's responsibility.

VCTK: The VCT series valves can be combined with the actuators On-Off 230V. The actuator must be selected according to the type of system/adjustment provided.
TSFM: Delivery flange with rectangular section.

VCTKM: The VCT series valves can be combined with the actuators 24V modulating. The actuator must be selected according to the type of system/adjustment provided.

ACCESSORIES COMPATIBILITY

Control panels

Model	13	16	23	34	36	43	46	53	56	63	74	76
AER503IR (1)	•	•	•	•	•	•	•	•	•	•	•	•
FMT10	•	•	•	•	•	•	•	•	•	•	•	•
PXAE	•	•	•	•	•	•	•	•	•	•	•	•
SA5 (2)	•	•	•	•	•	•	•	•	•	•	•	•
SW5 (2)	•	•	•	•	•	•	•	•	•	•	•	•
TX (1)	•	•	•	•	•	•	•	•	•	•	•	•
WMT05 (1)	•	•	•	•	•	•	•	•	•	•	•	•
WMT06 (1)	•	•	•	•	•	•	•	•	•	•	•	•
WMT10 (1)	•	•	•	•	•	•	•	•	•	•	•	•

(1) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.
(2) Probe for AER503IR-TX thermostats, if fitted.

2-row coil for post-heating

13	16	23	34	36	43	46	53	56	63	74	76
TSBA10	TSBA10	TSBA20/30	TSBA20/30	TSBA20/30	TSBA40	TSBA40	TSBA50	TSBA50	TSBA60/70	TSBA60/70	TSBA60/70

Air filter

13	16	23	34	36	43	46	53	56	63	74	76
TSFA10	TSFA10	TSFA20/30	TSFA20/30	TSFA20/30	TSFA40	TSFA40	TSFA50	TSFA50	TSFA60/70	TSFA60/70	TSFA60/70

Section that mixes

13	16	23	34	36	43	46	53	56	63	74	76
TSMX10	TSMX10	TSMX20/30	TSMX20/30	TSMX20/30	TSMX40	TSMX40	TSMX50	TSMX50	TSMX60/70	TSMX60/70	TSMX60/70

Plenum with suction

13	16	23	34	36	43	46	53	56	63	74	76
TSPA10	TSPA10	TSPA20/30	TSPA20/30	TSPA20/30	TSPA40	TSPA40	TSPA50	TSPA50	TSPA60/70	TSPA60/70	TSPA60/70

Delivery plenum

13	16	23	34	36	43	46	53	56	63	74	76
TSPM10	TSPM10	TSPM20/30	TSPM20/30	TSPM20/30	TSPM40	TSPM40	TSPM50	TSPM50	TSPM60/70	TSPM60/70	TSPM60/70

2 way valve kit

13	16	23	34	36	43	46	53	56	63	74	76
VCT102	VCT102	VCT102	VCT102	VCT102	VCT202	VCT202	VCT202	VCT402	VCT402	VCT402P	VCT402P

3 way valve kit

13	16	23	34	36	43	46	53	56	63	74	76
VCT103	VCT103	VCT103	VCT103	VCT103	VCT203	VCT203	VCT203	VCT403	VCT403	VCT403P	VCT403P

Actuator VCTK 230V

13	16	23	34	36	43	46	53	56	63	74	76
VCTK	VCTK	VCTK	VCTK	VCTK	VCTK	VCTK	VCTK	VCTK	VCTK	VCTK	VCTK

Actuator 24V

13	16	23	34	36	43	46	53	56	63	74	76
VCTKM	VCTKM	VCTKM	VCTKM	VCTKM	VCTKM	VCTKM	VCTKM	VCTKM	VCTKM	VCTKM	VCTKM

PERFORMANCE SPECIFICATIONS

2-pipe

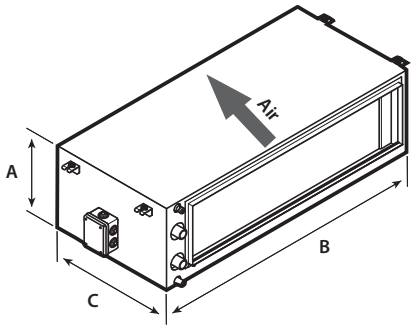
		TS13			TS16			TS23			TS34			TS36			TS43		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Cooling performance 7 °C / 12 °C (1)																			
Cooling capacity	kW	4,39	4,65	4,85	4,44	5,21	5,81	7,18	7,65	7,98	8,59	9,20	9,61	9,40	10,08	10,52	7,14	9,35	11,11
Sensible cooling capacity	kW	3,39	3,60	3,75	3,41	3,99	4,45	5,82	6,20	6,46	6,80	7,28	7,61	7,43	7,96	8,31	5,75	7,54	8,96
Water flow rate system side	l/h	754	800	835	764	896	999	1235	1315	1372	1478	1583	1653	1617	1733	1809	1227	1608	1912
Pressure drop system side	kPa	17	19	21	6	7	9	20	23	24	20	22	24	13	15	16	10	17	23
Heating performance 70 °C / 60 °C (2)																			
Heating capacity	kW	8,89	9,43	9,83	9,75	11,34	12,61	14,14	15,04	15,67	17,71	18,92	19,76	19,36	20,71	21,60	14,24	18,33	21,67
Water flow rate system side	l/h	780	827	862	856	995	1106	1240	1319	1375	1553	1660	1733	1698	1816	1894	1249	1068	1900
Pressure drop system side	kPa	10	12	13	5	7	8	10	12	12	17	19	21	11	13	14	8	13	18
Fan																			
Air flow rate	m^3/h	810	877	930	656	803	930	1316	1432	1518	1376	1507	1600	1376	1510	1601	1170	1631	2050
High static pressure	Pa	68	80	90	27	41	55	77	91	102	62	75	85	33	40	45	37	72	114
Input power	kW	0,1	0,1	0,2	0,1	0,1	0,2	0,2	0,3	0,3	0,2	0,3	0,3	0,2	0,3	0,3	0,3	0,3	0,4
Type	type	Centrifugal																	
Fan motor	type	On-Off																	
Number	no.	1			1			2			2			2			2		
Diametre hydraulic fittings																			
Type	type	Gas																	
Main coil	Ø	3/4"			1"			3/4"			3/4"			1"			3/4"		
Power supply																			
Power supply		230V~50Hz																	

		TS46			TS53			TS63			TS74			TS76		
		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
		L	M	H	L	M	H	L	M	H	L	M	H	L	M	H
Cooling performance 7 °C / 12 °C (1)																
Cooling capacity	kW	8,57	11,27	13,44	8,05	11,06	13,86	8,11	12,84	16,62	17,47	20,65	21,92	19,79	23,38	24,93
Sensible cooling capacity	kW	6,90	9,06	10,81	5,68	7,80	9,77	6,40	10,12	13,11	14,20	16,78	17,82	16,04	18,95	20,21
Water flow rate system side	l/h	1474	1938	2311	1385	1902	2384	1395	2208	2858	3006	3551	3771	3405	4022	4289
Pressure drop system side	kPa	8	13	17	12	21	32	7	16	26	19	25	28	17	23	26
Heating performance 70 °C / 60 °C (2)																
Heating capacity	kW	18,17	23,45	27,83	15,55	20,82	25,89	18,32	27,78	35,61	37,33	43,80	46,45	42,00	49,25	52,44
Water flow rate system side	l/h	1593	2056	2440	1364	1826	2270	1607	2436	3123	3274	3841	4073	3683	4319	4599
Pressure drop system side	kPa	6	10	14	9	15	22	6	13	21	16	22	24	15	20	22
Fan																
Air flow rate	m^3/h	1173	1642	2076	1211	1775	2387	1493	2570	3599	3117	3869	4200	3119	3869	4225
High static pressure	Pa	24	48	76	26	57	104	20	61	120	63	97	115	41	63	75
Input power	kW	0,3	0,3	0,4	0,3	0,4	0,5	0,3	0,4	0,6	0,7	0,8	0,8	0,7	0,8	0,8
Type	type	Centrifugal														
Fan motor	type	On-Off														
Number	no.	2			2			2			2			2		
Diametre hydraulic fittings																
Type	type	Gas														
Main coil	Ø	1"			3/4"			1"			1"			1"1/4		
Power supply																
Power supply		230V~50Hz														

(1) Room air temperature 27 °C d.b./19 °C w.b.; Water (in/out) 7 °C/12 °C;
(2) Room air temperature 20 °C d.b.; Water (in/out) 70 °C/60 °C;

Unit designed to operate with all recirculating air or maximum 10% of external air.

DIMENSIONS



Size		13	16	23	34	36	43	46	53	56	63	74	76
Dimensions and weights													
A	mm	295	295	295	295	295	325	325	325	325	375	375	375
B	mm	645	645	1000	1000	1000	1100	1100	1345	1345	1345	1345	1345
C	mm	520	520	520	520	520	600	600	600	600	600	600	600
Empty weight	kg	25	27	35	38	42	42	46	48	52	56	61	67

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TDA

Air handling units

Air flow rate 800 ÷ 3500 m³/h

- **Horizontal or vertical installation**
- **Version with 3-4 row water-type coil**
- **Version with 2-row direct expansion coil**
- **Version with extractor**



DESCRIPTION

The conditioning units in the TDA range have been designed for small and medium sized rooms in civil, commercial and hotel type systems.
The units are designed to guarantee high head levels and are suitable for both vertical and horizontal installation, to ensure greater versatility of use. The outstanding aesthetic finish of the product makes it perfect for installation in box rooms, bathrooms, suspended ceilings or in the room itself.
The wide range of sizes and accessories available means it's easy to choose the best model for the specific requirements.

Structure

Structure with hot galvanised steel sandwich panels, 15mm thick, with interposed polyurethane foam (density 40kg/m3). The delivery and suction panels are equipped with flanges for the collets to any air channels and can be moved to create different air flow configurations. The horizontal or vertical fixing to the walls of the unit is made possible by the appropriate brackets.

New centrifugal fans

New centrifugal fans with high head levels, double suction, forward blades and directly coupled motor. The single-phase 230V-50Hz motor is multi-speed (of which three speeds can be selected).

Condensated collection basin

Condensated collection basin in galvanised steel, suitable for both vertical and horizontal installation.

Coils with 3-4 rows

Coils with 3-4 rows, that can be fed with hot or refrigerated water. Made of copper pipes with aluminium finning held in place by the mechanical expansion of the pipes. They are equipped with threaded sleeves for the plumbing connections and the air breather valve. The coils can be rotated on site.

A 2-row, direct expansion coil **is also available.** It is made of copper pipes with aluminium finning held in place by the mechanical expansion of the pipes.

ACCESSORIES

FAF filter G4 on intake: Contained in the special housing, it is made of synthetic fibre and pleated geometry; the U-shaped frame is in galvanised sheet metal with two galvanised wire support nets

SM Mixing chamber with G4 filter and dampers: Galvanised steel housing complete with two air adjustment dampers with opposed fins in galvanised steel. The housing comes complete with a synthetic fibre filter (efficiency class G4, in accordance with standard EN779).
SR Intake damper: Consisting of a frame with galvanised steel ribbed fins. The fins are moved by nylon toothed wheels.
GM Delivery grille: Grille with double row of adjustable fins to introduce air into the room.
GA Suction grille: With tilted fins fixed at 45°; can be installed directly on the device (by removing the flange) or on the wall.
CMA: Outer casing for grille
BP One-row water-type post-heating coil applied outside the unit: Contained in a special, thermally-insulated housing, it is installed on the air delivery flange only and consists of a 1-row turbo-type coil.
BR Electric post-heating coil applied outside the unit: The machines can be fitted with the electric coil accessory of suitable capacity. It is installed downstream of the finned coil only.
VCT 2-way or 3-way valve: These are 2-way and 3-way ball valves made of bronze, with female/female connections that can be servo-activated via servo commands. **The VCT valves do not have fittings and pipes for water connections, which are the installer's responsibility. These can be commanded via control panels (accessories) which are enabled for the valve control function. Consult the control panel characteristics before selecting a panel.**
VCTA Two or three-way valve actuator: The VCT series valves can be combined with one of the two actuators, VCTA230 on/off 230V or 24V modulating VCTA24M. **The actuator must be selected according to the type of system/adjustment provided.**
PM Delivery plenum with circular start-up: Sandwich panel in hot galvanised steel, with interposed polyurethane foam (40kg/m3). The panel is 15mm thick. It is installed in place of the delivery panel with rectangular flange, using the same 4 self-threading screws.

CONTROL PANELS

PX: with selector only
WMT05 Electromechanical thermostat
WMT10 control panel

ACCESSORIES COMPATIBILITY

Size	09	15	21	28	37
FAF	FAF1	FAF2	FAF3	FAF4	FAF4
SM	SM1	SM2	SM3	SM4	SM5
SR	SR1	SR2	SR3	SR4	SR4
GM	GM5	GM6	GM7	GM8	GM8
GA	GA5	GA6	GA7	GA8	GA8
CMA	CMA5	CMA6	CMA7	CMA8	CMA8
BP	BP1	BP2	BP3	BP4	BP5
BR	BR1	BR2	BR3	BR4	BR5
VCT (2 way)	VCT102	VCT202	VCT402	VCT402P	VCT402P
VCT (3 way)	VCT103	VCT203	VCT403	VCT403P	VCT403P
VCTA230	•	•	•	•	•
VCTA24M	•	•	•	•	•
PM	PM1	PM2	PM3	PM4	PM4
PX	•	•	•	•	•(2)
WMT05	•	•(1)	•(1)	•(1)	•(2)
WMT10	•	•(1)	•(1)	•(1)	•(2)

(1) Envision the use of SIT3 and the replacement of the 2A fuse with one 4A fuse
(2) Envisions return relay, one per speed

CONFIGURATOR

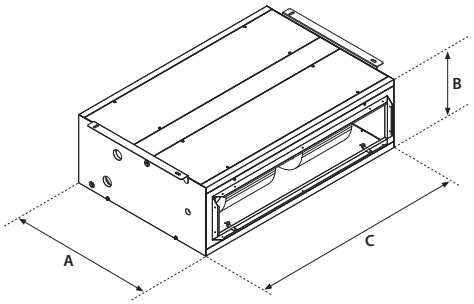
Field	Description
	TDA
	Size
	09, 15, 21, 28, 37
	Version
3	3-row water coil
4	4-row water coil
E	2-row direct expansion coil
X	Extractor (without coil)

TECHNICAL DATA

Size			9	15	21	28	37
Nominal air flow rate		m^3/h	800	1400	2000	2700	3500
		l/s	222	389	556	750	972
Useful static pressure (1)		Pa	277	330	227	150	240
Cooling capacity with 3-row coil (2)	total	kW	4,90	7,40	11,10	14,70	17,90
	sensible	kW	3,50	5,60	8,20	10,90	13,70
Cooling capacity with 4-row coil (2)	total	kW	6,10	9,70	13,10	18,40	22,30
	sensible	kW	4,30	6,90	9,40	12,50	15,20
Cooling capacity with R-407C coil (3)	total	kW	5,10	7,50	10,70	14,10	16,70
	sensible	kW	3,50	5,20	7,40	9,90	12,40
Heating capacity with 3-row coil (4)		kW	10,40	16,60	24,20	32,10	41,20
Heating capacity with 4-row coil (4)		kW	12,10	19,90	27,30	36,80	45,40
Heating coil capacity for 4-pipe systems (4)		kW	5,20	8,80	12,60	16,40	20,90
Heating capacity with 3-row coil (5)		KW	5,10	8,10	11,90	15,70	20,10
Heating capacity with 4-row coil (5)		KW	6,00	9,80	13,40	18,20	22,30
Heating capacity with coil for 4-pipe systems (5)		KW	2,50	4,30	6,00	7,80	10,00
Electric coil capacity		KW	4	6	8	10	12
Electric coil power supply			230/1	400V/3	400V/3	400V/3	400V/3
Fnas		n°	1	2	2	1	2
Motors			1	2	2	1	2
Total fan input power		kW	0,357	0,713	0,736	0,874	1,771
Fan input current		A	1,6	3,1	3,2	3,8	7,7
Fan power supply					230V~/50Hz		
Filter efficiency (6)			G4	G4	G4	G4	G4
Sound power level (7)		dB(A)	62	63	70	72	73
Connections							
Water battery collectors		Ø mm	1″	1″	1″	1″	1″
Direct expansion liquid coil pipes		Ø mm	10	10	12	16	16
Direct expansion gas coil pipes		Ø mm	18	22	22	28	28
Condensate discharge		Ø mm	3/8″	3/8″	1/2″	1/2″	1/2″

Unit designed to operate with all recirculating air or maximum 10% of external air
(1) At nominal flow rate with 3-row coil
(2) Incoming air temperature 27°C d.b. 19°C w.b.; water temperature (In-Out) 7°C-12°C
(3) Incoming air temperature 27°C d.b. 19°C w.b.; average evap. temp. 7°C
(4) Incoming air temperature 20°C; water temperature (In-Out) 70°C-60°C
(5) Incoming air temperature 20°C; water temperature (In-Out) 45°C-40°C
(6) In accordance with standard EN 779
(7) In accordance with standard UNI EN ISO 9614

DIMENSIONS



Size			9	15	21	28	37
Dimensions and weights							
Height	B	mm	300	320	320	380	380
Width	C	mm	920	1000	1400	1400	1400
Lenght	A	mm	630	670	670	790	790
Net weight *		kg	42	53,00	71,00	88,00	91,00

(*) with 4-row coil

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TA

Air handling unit

- **Horizontal or vertical, configurations**
- **Available units with heat exchanger with 4-6 rows**
- **Version with 4 row expansion coil using R410A**
- **Version with extractor**



DESCRIPTION

The air-conditioning units of the TA series are intended for civil, commercial and hotel systems in small to medium sized environments. They are distinguished by their compactness (a necessary requisite for false ceiling applications) and low noise. The wide range of accessories meets various system requirements.

FEATURES

Structure

Structure made of Galvanized steel 10/10 sheet steel and internally covered with sheets of polyethylene and polyester to obtain improved thermal and acoustic insulation.

Air filtration

Filtration of the air entrusted to class G4 filters in compliance with EN779 (thickness 50mm) as per standard positioned at intake.

Ventilation group

Fans double intake centrifugal with forward blades and directly coupled motor. The 230V-50Hz single-phase motor has many speeds, of which three can be selected via the control panel.

Heat exchanger coil

4 or 6 row coils, powered with hot or cold water and made of copper piping with aluminium louvered fins blocked by mechanical expansion of the pipes. The threaded sleeves for the hydraulic connections and the air bleeding valve are supplied. The coils can be rotated on site.
The possibility to rotate the coils on site is envisioned.

■ *Also available are coils with 4 rows with direct expansion operating with R410A fluid and post-heating coils with 2 rows realised in copper piping with aluminium louvers blocked via mechanical expansion of the pipes.*

Condensate drip

Condensate drip tray interior isolated in aluminium alloy.

ACCESSORIES

AER503IR: Flush-mounting thermostat with backlit display, capacitive keypad and infrared receiver, for controlling both brushless fan coils and those with an asynchronous motor. In 2-pipe systems, the thermostat can control standard fan coils or those equipped with an electric heater, with air purifying devices (Cold Plasma and germicidal lamp), with radiant plate or with FCZ-D twin delivery (Dualjet). In addition, it can control systems with radiant panels or mixed (fan coil and radiant floor) systems. Being equipped with an infrared receiver, it can, in turn, be controlled by the VMF-IR remote control.
SA5: air probe kit (L = 15 m) with probe-locking cable grommet.
SIT3: Thermostat Interface Card allowing the creation of a network of fan coils (max. 10) commanded by a central control panel (selector or thermostat). Commands the 3 fan speeds and must be installed on each fan coil within the network; receives the commands from the selector or the SIT5 card. In case you decide to install Aermec thermostats and current absorbed by the unit exceeds 0.7 A, you're obliged to include SIT3 accessory.
SW5: water probe kit (L = 15m) with probe-holder connection point, fixing clip and probe-holder from heat exchanger.
WMT05: Electronic thermostat with thermostated ventilation.
WMT06: Electronic thermostat with continuous ventilation.
WMT10: Electronic thermostat, white, with thermostated or continuous ventilation.
VCT: These are 3-way ball valves made of bronze, with female/female connections Ø 1/2". That can be servo-activated via servo commands. The valves do not have fittings and pipes for water connections, which are the installer's responsibility.
VCT: These are 3-way ball valves made of bronze, with female/female connections Ø 1/2". That can be servo-activated via servo commands. The valves do not have fittings and pipes for water connections, which are the installer's responsibility.
VCTK: The VCT series valves can be combined with the actuators On-Off 230V. The actuator must be selected according to the type of system/adjustment provided.

VCTKM: The VCT series valves can be combined with the actuators 24V modulating. The actuator must be selected according to the type of system/adjustment provided.
M2S: Galvanised steel mixing chamber with two dampers for air calibration. Louver pitch 50 mm, the galvanised steel adjustment knob (diameter 8 mm) can be motorised.
M3S: Galvanised steel mixing chamber with three air calibration dampers and galvanised steel plates. Must necessarily be paired with the VRF accessory.
FTF: Soft bag filters. Section in galvanised steel sheet metal with F6 soft bag filters. Must necessarily be paired in the powered units.
B2R: Hot water coil with 2 rows for lines with 4 tubes. Positioned internally at the base of the equipment, downstream from the main coil.
PBE: Section with post heating coil composed of armoured heaters equipped with a double safety thermostat.
SSL: Module with seven galvanised steel sheet metal silencers and seven stone wool silencers covered by polyethylene film to prevent chipping.
S2Z: Galvanised steel opposed louvers dampers for mixing outside air with recirculating air.
VRF: Recovery fan unit equipped with electronic variable speed control. The unit is contained in a galvanised steel sheet metal section equipped with flat filters, efficiency level G4 (EN779).
SAS: Air calibration damper with galvanised sheet metal louvers to be positioned for intake. Louver pitch 50 mm; the galvanised steel adjustment knob can be motorised.
GMD: Air delivery grill with louvers that can be positioned for the delivery of air in the room to be treated. May be installed directly on the device by removing the flanges or installed on the wall.
GAP: Intake grille with louvers at a fixed 45° angle. May be installed directly on the device by removing the flanges or installed on the wall.
PMM: Plenum with circular multiple delivery, thickness 1.5 mm. The plenum is equipped with multi-diameter circular connections (200 mm, 180 mm, 150 mm) made of plastic to permit the connection of circular conduits.
PMC: Closed delivery plenum in 1.5 mm thick hot-dip galvanised sheet metal. The plenum allows for flow to be rotated by 90°. Opening the delivery outlet is the installer's responsibility.

ACCESSORIES COMPATIBILITY

Control panels

Model	Ver	09	11	15	19	24	33	40	50
AER503IR (1)	H4,H6,HE,V4,V6,X	•	•	•	•	•	•	•	•
SA5 (2)	H4,H6,HE,V4,V6,X	•	•	•	•	•	•	•	•
SIT3 (3)	H4,H6,HE,V4,V6,X	•	•	•	•	•	•	•	•
SW5 (2)	H4,H6,HE,V4,V6,X	•	•	•	•	•	•	•	•
WMT05 (1)	H4,H6,HE,V4,V6,X	•	•	•	•	•	•	•	•
WMT06 (1)	H4,H6,HE,V4,V6,X	•	•	•	•	•	•	•	•
WMT10 (1)	H4,H6,HE,V4,V6,X	•	•	•	•	•	•	•	•

(1) Wall-mounting. If the unit intake exceeds 0.7A, or several units need to be managed with a single thermostat, board SIT3 and/or SIT5 is required.
(2) Probe for AER503IR-TX thermostats, if fitted.
(3) Cards for AER503IR-TX thermostats, if present, to be installed if the unit absorption exceeds 0,7 Ampere.

2 way valve kit

Ver	09	11	15	19	24	33	40	50
H4,H6,V4,V6	VCT102	VCT102	VCT202	VCT202	VCT202	VCT402	VCT402P	VCT402P

3 way valve kit

Ver	09	11	15	19	24	33	40	50
H4,H6,V4,V6	VCT103	VCT103	VCT203	VCT403, VCT403P	VCT403, VCT403P	-	-	-

The accessory cannot be fitted on the configurations indicated with -

Actuator VCTK 230V

Ver	09	11	15	19	24	33	40	50
H4,H6,V4,V6	VCTK	VCTK	VCTK	VCTK	VCTK	VCTK	VCTK	VCTK

Actuator 24V

Ver	09	11	15	19	24	33	40	50
H4,H6,V4,V6	VCTKM	VCTKM	VCTKM	VCTKM	VCTKM	VCTKM	VCTKM	VCTKM

2-damper mixing chamber

Ver	09	11	15	19	24	33	40	50
H4,H6,HE,V4,V6,X	M2S1	M2S1	M2S2	M2S3	M2S4	M2S4	M2S5	M2S5

3-damper mixing chamber

Ver	09	11	15	19	24	33	40	50
H4,H6,HE,V4,V6,X	M3S1 (1)	M3S1 (1)	M3S2 (1)	M3S3 (1)	M3S4 (1)	M3S4 (1)	M3S5 (1)	M3S5 (1)

(1) It must necessarily be combined with the VRF accessory.

Closed delivery plenum

Ver	09	11	15	19	24	33	40	50
H4,H6,HE,V4,V6,X	PMC1	PMC1	PMC2	PMC3	PMC4	PMC4	PMC5	PMC5

Soft bag filter section

Ver	09	11	15	19	24	33	40	50
H4,H6,HE,V4,V6,X	FTF1 (1)	FTF1 (1)	FTF2 (1)	FTF3 (1)	FTF4 (1)	FTF4 (1)	FTF5 (1)	FTF5 (1)

(1) It must necessarily be combined in the enhanced units.

PMM

Ver	09	11	15	19	24	33	40	50
H4,H6,HE,V4,V6,X	PMM1	PMM1	PMM2	PMM3	PMM4	PMM4	PMM5	PMM5

Section with post-heating coil

Ver	09	11	15	19	24	33	40	50
H4,H6,HE,V4,V6,X	PBE1	PBE2	PBE3	PBE4	PBE5	PBE6	PBE7	PBE8

Silencer baffles module

Ver	09	11	15	19	24	33	40	50
H4,H6,HE,V4,V6,X	SSL1	SSL1	SSL2	SSL3	SSL4	SSL4	SSL5	SSL5

2 zone damper

Ver	09	11	15	19	24	33	40	50
H4,H6,HE,V4,V6,X	S2Z1	S2Z1	S2Z2	S2Z3	S2Z4	S2Z4	S2Z5	S2Z5

Return ventilating section with a G4 filter

Ver	09	11	15	19	24	33	40	50
H4,H6,HE,V4,V6,X	VRF1	VRF2	VRF3	VRF4	VRF5	VRF6	VRF7	VRF8

Suction damper

Ver	09	11	15	19	24	33	40	50
H4,H6,HE,V4,V6,X	SAS1	SAS1	SAS2	SAS3	SAS3	SAS3	SAS5	SAS5

Outlet grille with adjustable louvers

Ver	09	11	15	19	24	33	40	50
H4,H6,HE,V4,V6,X	GMD1	GMD1	GMD2	GMD3	GMD4	GMD4	GMD5	GMD5

Intake grids

Ver	09	11	15	19	24	33	40	50
H4,H6,HE,V4,V6,X	GAP1	GAP1	GAP2	GAP3	GAP4	GAP4	GAP5	GAP5

4-ROW COIL UNIT PERFORMANCE DATA

Versions H/V

		TA09H4	TA09V4	TA11H4	TA11V4	TA15H4	TA15V4	TA19H4	TA19V4	TA24H4	TA24V4	TA33H4	TA33V4	TA40H4	TA40V4	TA50H4	TA50V4
Cooling performances 7 °C / 12 °C - 2 pipe system (1)																	
Cooling capacity	kW	4,20	4,20	5,70	5,70	8,70	8,70	12,40	12,40	17,30	17,30	21,70	21,70	27,20	27,20	33,50	33,50
Sensible cooling capacity	kW	3,50	3,50	4,20	4,20	6,20	6,20	8,30	8,30	11,20	11,20	14,30	14,30	18,00	18,00	20,90	20,90
Water flow rate	l/h	722	722	980	980	1496	1496	2132	2132	2975	2975	3732	3732	4678	4678	5761	5761
Pressure drop	kPa	6	6	6	6	7	7	12	12	16	16	23	23	11	11	31	31
Heating performance 70 °C / 60 °C - 2 pipe system																	
Heating capacity	kW	10,40	10,40	13,30	13,30	19,10	19,10	24,70	24,70	34,10	34,10	41,90	41,90	52,80	52,80	58,30	58,30
Water flow rate	l/h	894	894	1139	1139	1642	1642	2124	2124	2932	2932	3603	3603	4538	4538	5013	5013
Pressure drop	kPa	5	5	8	8	7	7	10	10	13	13	19	19	10	10	22	22
Heating operations 70 °C / 60 °C (2)																	
Heating capacity	kW	3,90	3,90	8,50	8,50	12,70	12,70	16,00	16,00	21,70	21,70	26,70	26,70	34,80	34,80	40,00	40,00
Water flow rate	l/h	333	333	731	731	1092	1092	1371	1371	1866	1866	2291	2291	2988	2988	3439	3439
Pressure drop	kPa	8	8	11	11	13	13	14	14	18	18	26	26	18	18	23	23
Electric heating coil - (accessory)																	
Heating capacity	kW	4,00	4,00	6,00	6,00	8,00	8,00	10,00	10,00	12,00	12,00	16,00	16,00	20,00	20,00	24,00	24,00
Stages	no.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Power supply		400V~3 50Hz															
Fan																	
Type	type	Centrifugal															
Number	no.	1	1	2	2	2	2	1	1	1	1	2	2	2	2	2	2
Air flow rate	m^3/h	800	800	1100	1100	1500	1500	1900	1900	2400	2400	3300	3300	4000	4000	5000	5000
High static pressure	Pa	145	145	290	290	176	176	240	240	211	211	245	245	248	248	153	153
Input power	kW	0.25		0.31		0.38		0.61		0.83		0.81		0.98		1.28	
Air filter																	
Type	type	G4 / F6															
Sound data																	
Sound power level	dB(A)	62,0	62,0	66,0	66,0	67,0	67,0	72,0	72,0	74,0	74,0	75,0	75,0	76,0	76,0	79,0	79,0
Power supply																	
Power supply		230V~50Hz															

(1) Room air 27 °C b.s.47% U.R.; Water (in/out) 7 °C/12 °C
(2) Water temperature (in/out) 70°C / 60°C; Compressor operating.

Unit designed to operate with all recirculating air or maximum 10% of external air.

6-ROW COIL UNIT PERFORMANCE DATA

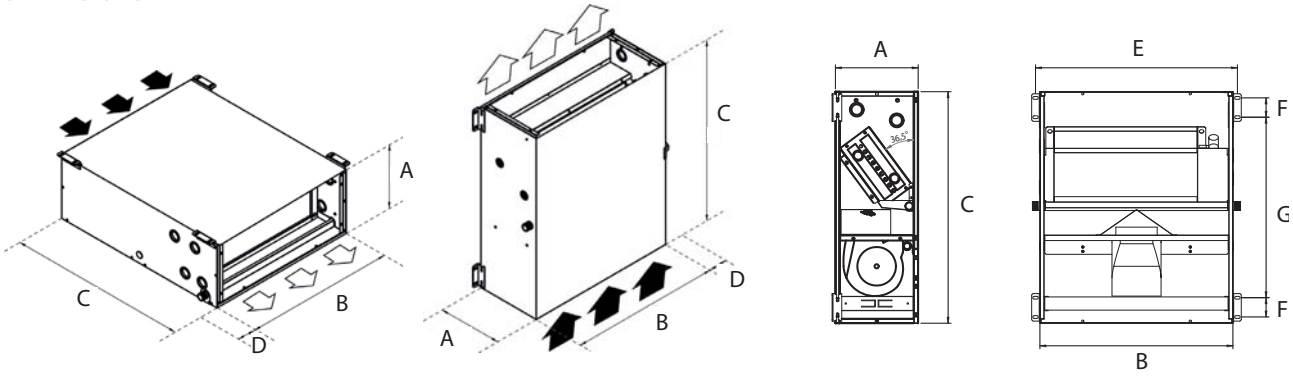
Versions H/V

		TA09H6	TA09V6	TA11H6	TA11V6	TA15H6	TA15V6	TA19H6	TA19V6	TA24H6	TA24V6	TA33H6	TA33V6	TA40H6	TA50H6	TA50V6
Cooling performances 7 °C / 12 °C - 2 pipe system (1)																
Cooling capacity	kW	5,10	5,10	6,70	6,70	11,70	11,70	15,50	15,50	20,60	20,60	26,30	26,30	33,50	39,60	39,60
Sensible cooling capacity	kW	3,40	3,40	4,70	4,70	7,50	7,50	9,80	9,80	12,80	12,80	16,60	16,60	20,90	25,00	25,00
Water flow rate	l/h	868	868	1152	1152	2012	2012	2666	2666	3543	3543	4523	4523	5761	6810	6810
Pressure drop	kPa	4	4	6	6	15	15	29	29	27	27	41	41	31	42	42
Heating performance 70 °C / 60 °C - 2 pipe system																
Heating capacity	kW	11,40	11,40	14,80	14,80	21,40	21,40	27,40	27,40	35,60	35,60	46,60	46,60	58,30	72,80	72,80
Water flow rate	l/h	976	976	1273	1273	1838	1838	2356	2356	3058	3058	4005	4005	5013	6260	6260
Pressure drop	kPa	4	4	7	7	16	16	23	23	21	21	34	34	22	30	30
Heating operations 70 °C / 60 °C (2)																
Heating capacity	kW	3,90	3,90	8,50	8,50	12,70	12,70	16,00	16,00	21,70	21,70	26,70	26,70	34,80	40,00	40,00
Water flow rate	l/h	333	333	731	731	1092	1092	1371	1371	1866	1866	2291	2291	2988	3439	3439
Pressure drop	kPa	8	8	11	11	13	13	14	14	18	18	26	26	18	23	23
Electric heating coil - (accessory)																
Heating capacity	kW	4,00	4,00	6,00	6,00	8,00	8,00	10,00	10,00	12,00	12,00	16,00	16,00	20,00	24,00	24,00
Stages	no.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Power supply		400V~3 50Hz														
Fan																
Type	type	Centrifugal														
Number	no.	1	1	2	2	2	2	1	1	1	1	2	2	2	2	2
Air flow rate	m^3/h	800	800	1100	1100	1500	1500	1900	1900	2400	2400	3300	3300	4000	5000	5000
High static pressure	Pa	131	131	265	265	158	158	224	224	199	199	224	224	234	131	131
Input power	kW	0.25		0.31		0.38		0.61		0.83		0.81		0.98	1.28	
Air filter																
Type	type	G4 / F6														
Sound data																
Sound power level	dB(A)	62,0	62,0	66,0	66,0	67,0	67,0	72,0	72,0	74,0	74,0	75,0	75,0	76,0	79,0	79,0
Power supply																
Power supply		230V~50Hz														

(1) Room air 27 °C b.s.47% U.R.; Water (in/out) 7 °C/12 °C
(2) Water temperature (in/out) 70°C / 60°C; Compressor operating.

Unit designed to operate with all recirculating air or maximum 10% of external air.

DIMENSIONS



Unit for horizontal installation

Unit H

		TA09H4	TA09H6	TA11H4	TA11H6	TA15H4	TA15H6	TA19H4	TA19H6	TA24H4	TA24H6	TA33H4	TA33H6	TA40H4	TA40H6	TA50H4	TA50H6
Dimensions and weights																	
A	mm	300	300	300	300	300	300	390	390	390	390	390	390	390	390	390	390
B	mm	700	700	700	700	1050	1050	1050	1050	1475	1475	1475	1475	2100	2100	2100	2100
C	mm	700	700	700	700	700	700	850	850	850	850	850	850	1000	1000	1000	1000
D	mm	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82
E	mm	732	732	732	732	732	732	1082	1082	1507	1507	1507	1507	2131	2131	2131	2131
F	mm	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
G	mm	655	655	655	655	655	655	905	905	905	905	905	905	905	905	905	905
Weights																	
With 4-row water coil	kg	28	28	33	33	45	45	60	60	78	78	86	86	135	135	140	140
With 6-row water coil	kg	30	30	35	35	47	47	62	62	81	81	89	89	139	139	144	144

Unit for vertical installation

Unit V

		TA09H4	TA09H6	TA11H4	TA11H6	TA15H4	TA15H6	TA19H4	TA19H6	TA24H4	TA24H6	TA33H4	TA33H6	TA40H4	TA40H6	TA50H4	TA50H6
Dimensions and weights																	
A	mm	300	300	300	300	300	300	390	390	390	390	390	390	390	390	390	390
B	mm	700	700	700	700	1050	1050	1050	1050	1475	1475	1475	1475	2100	2100	2100	2100
C	mm	700	700	700	700	700	700	850	850	850	850	850	850	1000	1000	1000	1000
D	mm	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82	82
E	mm	732	732	732	732	732	732	1082	1082	1507	1507	1507	1507	2131	2131	2131	2131
F	mm	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
G	mm	655	655	655	655	655	655	905	905	905	905	905	905	905	905	905	905
Weights																	
With 4-row water coil	kg	28	28	33	33	45	45	60	60	78	78	86	86	135	135	140	140
With 6-row water coil	kg	30	30	35	35	47	47	62	62	81	81	89	89	139	139	144	144

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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TN

Air handling unit

- **Maximum installation flexibility**
- **EC fan Plug-fan**
- **Wide choice of accessories.**
- **Large range of capacities and static pressures.**
- **Versions available with water coil or with direct expansion.**



DESCRIPTION

The TN range offers an alternative to the air treatment unit for flow rates from 2300 to 23000m^3/h when the only treatment required is filtering, cooling and/or heating. Designed for domestic, commercial, industrial or hotel systems in small or medium sized contexts.
The units can be installed horizontally or vertically for greater flexibility of use.
All the units are always supplied and shipped in the vertical configuration. The customer is responsible for any possible modification from vertical to horizontal.
TN series are characterised by their compact size, low noise levels, and the wide choice of accessories.
The units are available with a plug fan unit with EC motor, or with a transmission centrifugal fan unit with AC motor (the latter comes in both the standard version and the boosted high head version).

FEATURES

Structure

The structure is made of aluminium profiles with sandwich cover paneling made of galvanised steel on the inside and pre-coated RAL 9003 galvanised steel on the outside with polyurethane insulation (density 40 kg/m^3) with 25 mm thickness.
Both the panels of the base unit as well as the panels of the plenum have pre-shearing that render them compatible with the insertion of the accessories.
The fixing of the paneling using a panel block profile ensures a perfect seal between the panel and the frame and makes it extremely easy to mount and remove the panels. The 3-way corner joint is made of glass-fibre reinforced nylon.
The condensate drip tray, in galvanised steel, has a threaded drain connection on both sides and can be used whether the unit is installed horizontally or vertically.

Water heat exchanger coils

With copper pipes. Aluminium fins blocked via the mechanical expansion of the pipes. With 4 or 6 rows for the main one (heating or cooling) and 2,3 or 4 rows for the secondary one (heating only).

Evaporative heat exchanger coils

An alternative to the main water coil.
Suitable for R410A refrigerant. With copper pipes. Aluminium fins blocked via the mechanical expansion of the pipes. With 4 or 6 rows and both RH and LH versions.

Electric heating coil

Electric heating coil with finned, armoured elements. With twin safety thermostat (automatic and manual reset). Includes the implementation contactors (commanded with 24Volt AC voltage).
Can be used both for summer post-heating and winter heating. The coil has two asymmetric levels (1/3, 2/3 of the total power) so it can be commanded at up to 3 levels.

Air filter

The air is filtered through synthetic 50mm filters with an efficiency level of Coarse 55% (as per the ISO 16890 standard) on the intake points.
The filters are housed on guides in the main coil section, and can be easily removed for cleaning and maintenance; just remove the panel on the side of the water connections and then take out the filters.
With the FT7MxT accessory, filtering takes place via compact filters with an EPM1 55% efficiency level (as per the ISO 16890 standard).

VENTILATION GROUP

The configurator allows you to choose between two different types of fan unit, to meet every possible system request.

Ventilation group with inverter EC fan plug fun

Fan
The fans are of the plug-fan type with reversed blades for excellent performance with single intake.
Motor
The electric motors with extremely high efficiency, directly coupled to the fans, have an external EC rotor with integrated electronic control. They can be controlled continuously by a 0-10V signal. IP55 Protection rating. The motors can be powered with 380-480V / 3ph / 50-60Hz (the range is however reduced to the power supply required by the ByyExT

or ByyExTZ electric battery accessory, if required immediately or if installed at a later date).
A standard control option via the ModBus protocol.

Fan unit with transmission

Fan

The fans are of the double suction centrifugal variety with high performance forward blades.

Motor

The single-speed (4-pole) electric motors are of the three-phase asynchronous type, with a closed construction and external ventilation, caged rotor and B3 configuration with horizontal shaft, complying with the IEC, CEI and UNEL standards. IP55 protection rating. They are powered at 400V-3ph-50Hz (standard) or 460V-3ph-60Hz (units with "Z" power supply).

Transmission

The pulleys (supplied with a Taperlock-type conical shrink disk) are statically and dynamically balanced, with a variable diameter for improved fan calibration. The transmission belts may be of the SPA or SPB type.

ACCESSORIES

PLxT: Plenum composed of pre-sheared panels that can be opened on 3 sides, it can be mounted as an inlet or as an outlet; it is compatible with the accessories GAxT, GMxT, SAxT and TPPLxT. It includes mounting brackets and feet (for horizontal and vertical configurations).

FT7MxT: Compact filters with filtering degree ePM1 55% (according to ISO 16890), composed of a plenum that can be opened on two sides, which can be positioned on the outlet of the machine; it is compatible with the accessories GMxT, SAxT and TPPxT. It includes fixing plates and feet (for horizontal and vertical configurations).

B2RxT: Hot water coil with 2 rows for lines with 4 tubes. Positioned internally at the base of the equipment, downstream from the main coil, and made of copper piping and aluminium finning blocked by the mechanical expansion of the pipes.

B3RxT: Hot water coil with 3 rows for lines with 4 tubes. Positioned internally at the base of the equipment, downstream from the main coil, and made of copper piping and aluminium finning blocked by the mechanical expansion of the pipes.

BR4xT: Hot water coil with 4 rows for lines with 4 tubes. Positioned internally at the base of the equipment, downstream from the main coil, and made of copper piping and aluminium finning blocked by the mechanical expansion of the pipes.

SAxT: Air calibration damper with galvanised steel louvers. Louvers pitch 50mm; galvanised steel adjusting pin : can be installed on the equipment base or the plenum.

GMxT: Outlet grille with double row of louvers that can be adjusted when emitting air into the room. Can be installed on the plenum.

GAxT: Suction grille with louvers fixed at an angle of 45°; Can be installed directly on the equipment base or on the plenum accessories.

TPVSxT: Protective roof for Vertical installation with top outlet. Composed of a pre-coated metal sheet, fastened to the side of the unit. To be installled on the unit base. The accessory is not compatible with units equipped with EC plug fans.

TPVFxT: Protective roof for Vertical installation with front delivery. Composed of pre-coated diamond sheet, fastened to the side of the unit. To be installed on: PLxT, FT7MxT and vertical unit base with front outlet.

TPLxT: Protective roof for horizontal installation with Front outlet. Composed of pre-coated diamond sheet, fastened to the side of the unit. To be installed on unit base.

TPPLxT: Protective roof for the plenum, for horizontal installation with front delivery. Made of pre-painted diamond sheet metal fixed to the sides of the unit (to be installed on PLxT and FT7MxT, from size 3 to size 8).

TPFTLxT: Protective roof for the bag filters, for line installation with front delivery. Made of pre-painted diamond sheet metal fixed to the sides of the unit (to be installed on FT7MxT, on sizes 1 and 2).

P50MBT: Corner support feet for both the horizontal and vertical version. Made of galvanised sheet: they can be fixed directly to the unit with the screws supplied. The accessory has 4 corner feet and 2 side feet.

P50ACT: Lateral support feet for the horizontal version. Made of galvanised sheet: they come with the accessories unit together with the bolts and screws.

ByyExT: Electric coil 400V/3ph/50Hz. Can be positioned inside the standard device, downstream from the main coil. Consists of a sheet metal frame, heating elements (armoured and finned), command contactors (24V AC) and two thermostats (one with automatic reset and the other manual). The electrical heating power (yy in kW) is divided over two sets of heaters 1/3+2/3 that can be controlled up to max. 3 levels. WARNING: To avoid the risk of overheating, make sure the fan is working at the correct flow rate when the coil is activated, and that there is a minimum post-ventilation time when the coil is deactivated.

BYYExTZ: Electric coil 460V/3ph/60Hz. Can be positioned inside the standard device, downstream from the main coil. Consists of a sheet metal frame, heating elements (armoured and finned), command contactors (24V AC) and two thermostats (one with automatic reset and the other manual). The electrical heating power (yy in kW) is divided over two sets of heaters 1/3+2/3 that can be controlled up to max. 3 levels. WARNING: To avoid the risk of overheating, make sure the fan is working at the correct flow rate when the coil is activated, and that there is a minimum post-ventilation time when the coil is deactivated.

CPxT: Adjustment module with sensor for volumetric flow rate (accessory for TNxxE version only).

CPxTP: Adjustment module with sensor for differential pressure (accessory for TNxxE version only).

CPxTV: Speed regulatory (accessory only for TNxxE versions).

ACCESSORIES COMPATIBILITY

Plenum

1	2	3	4	5	6	7	8
PL1T (1)	PL2T (1)	PL3T (1)	PL4T (1)	PL5T (1)	PL6T (1)	PL7T (1)	PL8T (1)

(1) For horizontal and vertical configurations.

Compact ePM1 55% filters on the fan delivery

1	2	3	4	5	6	7	8
FT7M1T (1)	FT7M2T (1)	FT7M3T (1)	FT7M4T (1)	FT7M5T (1)	FT7M6T (1)	FT7M7T (1)	FT7M8T (1)

(1) For horizontal and vertical configurations.

Hot water coil with 2 rows for lines with 4 pipes

1	2	3	4	5	6	7	8
B2R1T	B2R2T	B2R3T	B2R4T	B2R5T	B2R6T	B2R7T	B2R8T

Hot water coil with 3 rows for lines with 4 pipes

1	2	3	4	5	6	7	8
B3R1T	B3R2T	B3R3T	B3R4T	B3R5T	B3R6T	B3R7T	B3R8T

Hot water coil with 4 rows for lines with 4 pipes

1	2	3	4	5	6	7	8
B4R1T	B4R2T	B4R3T	B4R4T	B4R5T	B4R6T	B4R7T	B4R8T

Suction damper

1	2	3	4	5	6	7	8
SA1T	SA2T	SA3T	SA4T	SA5T	SA6T	SA7T	SA8T

Outlet grille with adjustable louvers

1	2	3	4	5	6	7	8
GM1T	GM2T	GM3T	GM4T	GM5T	GM6T	GM7T	GM8T

Intake grids

1	2	3	4	5	6	7	8
GA1T	GA2T	GA3T	GA4T	GA5T	GA6T	GA7T	GA8T

Protective roof for Vertical installation with top outlet

1	2	3	4	5	6	7	8
TPVS1T (1)	TPVS2T (1)	TPVS3T (1)	TPVS4T (1)	TPVS5T (1)	TPVS6T (1)	TPVS7T (1)	TPVS8T (1)

(1) The accessory is not compatible with units equipped with EC plug fans.

Protective roof for Vertical installation with front outlet

1	2	3	4	5	6	7	8
TPVF1T	TPVF2T	TPVF3T	TPVF4T	TPVF5T	TPVF6T	TPVF7T	TPVF8T

Protective roof for horizontal installation with front outlet

1	2	3	4	5	6	7	8
TPL1T	TPL2T	TPL3T	TPL4T	TPL5T	TPL6T	TPL7T	TPL8T

Protective roof for horizontal installation with Front outlet

1	2	3	4	5	6	7	8
TPPL1T (1)	TPPL2T (1)	TPPL3T (1)	TPPL4T (1)	TPPL5T (1)	TPPL6T (1)	TPPL7T (1)	TPPL8T (1)

(1) To be installed on PLxT and FT7MxT from size 3 to size 8.

Roof for protecting pocket filters for installation on Line with Front outlet

1	2	3	4	5	6	7	8
TPFTL1T (1)	TPFTL2T (1)	-	-	-	-	-	-

(1) To be installed on FT7MxT on sizes 1 and 2.
The accessory cannot be fitted on the configurations indicated with -

Corner support feet

1	2	3	4	5	6	7	8
P50MBT	P50MBT	P50MBT	P50MBT	P50MBT	P50MBT	P50MBT	P50MBT

Lateral support feet

1	2	3	4	5	6	7	8
P50ACT	P50ACT	P50ACT	P50ACT	P50ACT	P50ACT	P50ACT	P50ACT

Electric coil 400V~3 50Hz

1	2	3	4	5	6	7	8
B07E1T	B10E2T	B14E3T	B18E4T	B25E5T	B30E6T	B40E7T	B50E8T

Electric coil 460V~3 60Hz

1	2	3	4	5	6	7	8
B07E1TZ	B10E2TZ	B14E3TZ	B18E4TZ	B25E5TZ	B30E6TZ	B40E7TZ	B50E8TZ

Adjustment module with sensor for volumetric flow rate

1	2	3	4	5	6	7	8
CP1T (1)	CP1T (1)	CP2T (1)	CP2T (1)	CP2T (1)	CP2T (1)	CP2T (1)	CP2T (1)

(1) Accessory only available for TNxxE versions.

Adjustment module with sensor for differential pressure

1	2	3	4	5	6	7	8
CP1TP (1)	CP1TP (1)	CP1TP (1)	CP1TP (1)	CP1TP (1)	CP1TP (1)	CP1TP (1)	CP1TP (1)

(1) Accessory only available for TNxxE versions.

Speed regulatory

1	2	3	4	5	6	7	8
CP1TV (1)	CP1TV (1)	CP1TV (1)	CP1TV (1)	CP1TV (1)	CP1TV (1)	CP1TV (1)	CP1TV (1)

(1) Accessory only available for TNxxE versions.

CONFIGURATOR

Field		Description
1,2		**TN**
3		**Size** 1, 2, 3, 4, 5, 6, 7, 8
4		**Version**
	4	Water coil, 4 rows (LH side for connections - the connections side can be altered on site)
	6	Water coil, 6 rows (LH side for connections - the connections side can be altered on site)
	A	R410A direct expansion coil, 4 rows (RH side for connections - the connections side cannot be altered on site) (1)
	B	R410A direct expansion coil, 4 rows (LH side for connections - the connections side cannot be altered on site) (2)
	C	R410A direct expansion coil, 6 rows (RH side for connections - the connections side cannot be altered on site) (1)
	D	R410A direct expansion coil, 6 rows (LH side for connections - the connections side cannot be altered on site) (2)
5		**Fans (3)**
	B	Centrifugal with AC motor (low head)
	E	Plug fans with EC motor
	P	Centrifugal with AC motor (high head)
6		**Power supply (4)**
	°	400V ~ 3 50Hz
	Z	460V ~ 3 60Hz

(1) With vertical configuration, the coil connections are on the opposite side to motor inspection. When transformed to horizontal configuration, the coil connections may be on the same side as motor inspection or on the opposite side, depending on the type of conversion.
(2) With vertical configuration, the coil connections and motor inspection are on the same side. When transformed to horizontal configuration, the coil connections may be on the same side as motor inspection or on the opposite side, depending on the type of conversion.
(3) The unit is always supplied with fan delivery directed upwards. The delivery flow direction can be altered on site.
(4) Field to be specified only in the case of a "B" or "P" fan unit. In the case of an "E" fan unit, the permitted power supply range is 380-480V ~ 3 50-60 Hz.

* VERSION: the definition of "RH connections side" or "LH connections side" refers to the position of the coil connections in relation to the air flow direction (convection: air flow from behind a hypothetical operator inserted in the flow).

** All the units are always supplied and shipped in the vertical configuration. The customer is responsible for any possible modification from vertical to horizontal.

PERFORMANCE SPECIFICATIONS

TN 1-8 with 4-row water coil

Size		1	2	3	4	5	6	7	8
Cooling performance 7 °C / 12 °C (1)									
Cooling capacity	kW	15,6	21,3	29,1	38,1	44,8	56,7	74,7	96,4
Sensible cooling capacity	kW	10,7	14,7	20,1	26,2	33,3	41,7	55,1	70,9
Heating performance 70 °C / 60 °C (2)									
Heating capacity	kW	40,0	54,5	74,9	97,6	131,1	162,9	216,1	277,3
Performance in heating mode with additional coil for 4-pipe systems									
Heating capacity with 2 row water coil	kW	25,2	34,0	46,8	61,5	84,4	103,8	138,0	178,5
Heating capacity with 3 row water coil	kW	33,5	45,6	62,7	82,0	110,8	137,3	182,5	234,4
Heating capacity with 4 row water coil	kW	40,0	54,5	74,9	97,6	131,1	162,9	216,1	277,3
Heating performance 45 °C / 40 °C (3)									
Heating capacity	kW	23,4	31,9	43,7	57,0	76,3	94,8	125,8	161,4
Performance in heating mode with additional coil for 4-pipe systems									
Heating capacity with 2 row water coil	kW	14,7	19,8	27,3	36,0	49,0	60,3	80,1	103,8
Heating capacity with 3 row water coil	kW	19,6	26,6	36,6	47,9	64,4	79,8	106,1	136,3
Heating capacity with 4 row water coil	kW	23,4	31,9	43,7	57,0	76,3	94,8	125,8	161,4

(1) Room air temperature 27 °C d.b./19 °C w.b.; Water (in/out) 7 °C/12 °C;
(2) Room air temperature 10 °C d.b.; Water (in/out) 70 °C/60 °C
(3) Room air temperature 10°C d.b.; Water (in/out) 45 °C/40 °C;

TN 1-8 with 4-row direct expansion coil

Size		1	2	3	4	5	6	7	8
Performance in cooling mode with incoming air at 27°C / 50% R.H. (1)									
Cooling capacity	kW	12,6	17,1	23,5	30,2	38,5	47,7	63,7	81,5
Sensible cooling capacity	kW	9,9	13,5	18,5	24,1	30,4	38,0	50,7	65,2

(1) Incoming air temperature 27°C D.B. 50% R.H.; R410A refrigerant, t.at. EVAP. 10°C, up to 8K, lower transformation at 0K, vapour - liquid vapour from 0 to 1; refer to the selection software.

TN 1-8 with 6-row water coil

Size		1	2	3	4	5	6	7	8
Cooling performance 7 °C / 12 °C (1)									
Cooling capacity	kW	20,0	27,4	37,7	49,2	58,3	74,5	98,9	127,8
Sensible cooling capacity	kW	13,4	18,3	25,2	32,8	41,1	51,8	68,8	88,5
Heating performance 70 °C / 60 °C (2)									
Heating capacity	kW	48,7	66,6	91,5	119,2	157,5	196,8	260,4	334,1
Performance in heating mode with additional coil for 4-pipe systems									
Heating capacity with 2 row water coil	kW	25,2	34,0	46,8	61,5	84,4	103,8	138,0	178,5
Heating capacity with 3 row water coil	kW	33,5	45,6	62,7	82,0	110,8	137,3	182,5	234,4
Heating capacity with 4 row water coil	kW	40,0	54,5	74,9	97,6	131,1	162,9	216,1	277,3
Heating performance 45 °C / 40 °C (3)									
Heating capacity	kW	28,5	38,9	53,5	69,6	91,7	114,3	151,7	194,6
Performance in heating mode with additional coil for 4-pipe systems									
Heating capacity with 2 row water coil	kW	14,7	19,8	27,3	36,0	49,0	60,3	80,1	103,8
Heating capacity with 3 row water coil	kW	19,6	26,6	36,6	47,9	64,4	79,8	106,1	136,3
Heating capacity with 4 row water coil	kW	23,4	31,9	43,7	57,0	76,3	94,8	125,8	161,4

(1) Room air temperature 27 °C d.b./19 °C w.b.; Water (in/out) 7 °C/12 °C;
(2) Room air temperature 10 °C d.b.; Water (in/out) 70 °C/60 °C
(3) Room air temperature 10°C d.b.; Water (in/out) 45 °C/40 °C;

GENERAL TECHNICAL DATA

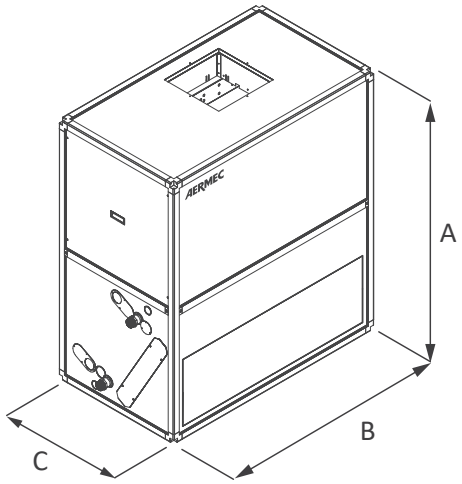
Fans

Size			1	2	3	4	5	6	7	8
Fans: B										
Fan										
Number	4,6,A,B,C,D	no.	1	1	1	1	1	1	1	1
Nr. poles	4,6,A,B,C,D	no.	4	4	4	4	4	4	4	4
Maximum air flow rate with cooling coil	4,6,A,B,C,D	m^3/h	3000	4100	5650	7350	9400	11700	15500	20000
Maximum air flow rate with heating coil	4,6,A,B,C,D	m^3/h	3500	4700	6400	8000	9750	13400	17800	20000
High static pressure - maximum	4,6,A,B,C,D	Pa	425	455	452	440	383	425	436	400
Total fan input power	4,6,A,B,C,D	kW	0,8	1,1	1,5	2,2	2,2	4,0	4,0	5,5
Version without resistance										
Rated current input	4,6,A,B,C,D	A	1,8	2,4	3,2	4,7	4,7	8,2	8,2	11,1
Peak current	4,6,A,B,C,D	A	5,3	6,2	6,8	6,4	6,4	7,0	7,0	5,9
Version with electric heater										
Rated current input	4,6,A,B,C,D	A	11,9	16,9	15,0	23,4	30,7	40,8	51,6	83,4
Peak current	4,6,A,B,C,D	A	11,9	16,9	23,4	30,7	40,8	51,6	66,0	83,4
Fan										
Power supply	4,6,A,B,C,D		400~3 50Hz	400~3 50Hz	400~3 50Hz	400~3 50Hz	400~3 50Hz	400~3 50Hz	400~3 50Hz	400~3 50Hz
Fans: E										
Fan										
Number	4,6,A,B,C,D	no.	1	1	1	1	1	1	2	2
Nr. poles	4,6,A,B,C,D	no.	-	-	-	-	-	-	-	-
Maximum air flow rate with cooling coil	4,6,A,B,C,D	m^3/h	3000	4100	5650	7350	9400	11700	15500	20000
Maximum air flow rate with heating coil	4,6,A,B,C,D	m^3/h	3500	4700	6400	8400	10500	13400	17800	23000
High static pressure - maximum	4,6,A,B,C,D	Pa	700	660	700	700	660	640	700	580
Total fan input power	4,6,A,B,C,D	kW	1,5	1,5	2,5	3,4	3,4	3,4	3,4	3,4
Version without resistance										
Rated current input	4,6,A,B,C,D	A	2,4	2,4	4,0	5,4	5,4	5,4	2x5,4	2x5,4
Peak current	4,6,A,B,C,D	A	-	-	-	-	-	-	-	-
Version with electric heater										
Rated current input	4,6,A,B,C,D	A	12,5	16,9	24,2	31,4	41,5	48,8	68,6	83,1
Peak current	4,6,A,B,C,D	A	-	-	-	-	-	-	-	-
Fan										
Power supply	4,6,A,B,C,D		400~3 50Hz	400~3 50Hz	400~3 50Hz	400~3 50Hz	400~3 50Hz	400~3 50Hz	400~3 50Hz	400~3 50Hz
Fans: P										
Fan										
Number	4,6,A,B,C,D	no.	1	1	1	1	1	1	1	1
Nr. poles	4,6,A,B,C,D	no.	4	4	4	4	4	4	4	4
Maximum air flow rate with cooling coil	4,6,A,B,C,D	m^3/h	3000	4100	5650	7350	9400	11700	15500	20000
Maximum air flow rate with heating coil	4,6,A,B,C,D	m^3/h	3500	4700	6400	8400	10500	13400	17800	23000
High static pressure - maximum	4,6,A,B,C,D	Pa	600	627	674	672	567	670	625	610
Total fan input power	4,6,A,B,C,D	kW	1,1	1,5	2,2	3,0	3,0	5,5	5,5	7,5
Version without resistance										
Rated current input	4,6,A,B,C,D	A	2,4	3,2	4,7	6,3	6,3	11,1	11,1	14,9
Peak current	4,6,A,B,C,D	A	6,2	6,8	6,4	7,7	7,7	5,9	5,9	5,6
Version with electric heater										
Rated current input	4,6,A,B,C,D	A	12,5	17,7	24,9	32,3	42,4	54,5	68,9	87,2
Peak current	4,6,A,B,C,D	A	12,5	17,7	24,9	32,3	42,4	54,5	68,9	87,2
Fan										
Power supply	4,6,A,B,C,D		400~3 50Hz	400~3 50Hz	400~3 50Hz	400~3 50Hz	400~3 50Hz	400~3 50Hz	400~3 50Hz	400~3 50Hz

It is the maximum static pressure that can be supplied by the fan; it is equal to the internal pressure drops + the useful static pressure.

Size			1	2	3	4	5	6	7	8
Water coil										
H		mm	475	475	550	550	720	720	960	960

DIMENSIONS



Size			1	2	3	4	5	6	7	8
Dimensions and weights										
A	4,6,A,B,C,D	mm	1334	1334	1497	1497	1822	1822	2309	2309
B	4,6,A,B,C,D	mm	928	1172	1334	1659	1659	1984	1984	2472
C	4,6,A,B,C,D	mm	684	684	765	765	928	928	1172	1172

Size			1	2	3	4	5	6	7	8
Fans: B										
Dimensions and weights										
Empty weight	4	kg	187	216	270	314	408	466	619	793
	6	kg	190	220	275	320	415	475	630	807
	A,B	kg	191	220	274	318	412	470	623	797
	C,D	kg	195	225	280	325	420	480	635	812
Fans: E										
Dimensions and weights										
Empty weight	4	kg	175	199	249	304	388	466	611	769
	6	kg	178	203	254	310	395	475	622	783
	A,B	kg	179	203	253	308	392	470	615	773
	C,D	kg	183	208	259	315	400	480	627	788
Fans: P										
Dimensions and weights										
Empty weight	4	kg	197	219	279	316	410	493	646	799
	6	kg	200	223	283	321	417	502	657	813
	A,B	kg	201	223	283	320	414	497	650	803
	C,D	kg	205	228	289	327	422	507	662	818

Add 50mm to the height of the unit (A), to allow for the feet.
The vertical configuration (B/D), the connections and motor inspection are on the same side.

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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www.aermec.com

- **Maximum installation flexibility**
- **EC fan Plug-fan**
- **Large range of capacities.**



FEATURES

— Central air handling units with double panelling with panel thickness of 50 mm;
— Support structure realised in aluminium alloy sections and a large choice of panels;
— Wide range of sections and components to satisfy all plant engineering requirements
— Double intake centrifugal fans with forward or reverse blades.
— PLUG FAN type fan with Inverter regulation, able to adapt to the most varied system requirements.

Structure

— In aluminium sections;
— New panelling and gaskets, able to guarantee reduced seepage in compliance with the EN1886 Standard;
— Reduction of noise emission thanks to the use of material with high sound-absorption power;
— Small dimensions and contained height.

Internal components

— New high-efficiency heat exchangers with small pressure drops
— 3-damper mixing chamber.

Mixing chamber with three dampers. The configurations for the mixing chambers with three dampers are the following:

— two upper dampers and an internal one for recirculation;
— two front dampers and a horizontal one for recirculation (for overlapping control units);
— two lateral internal dampers and an internal for recirculation (configuration for expulsion and non-ducted fresh air intake).

Large availability of filters

— Filters with large surfaces to reduce the pressure drops and increase the duration;
— Cell pre-filters;
— Roll filters;
— Bag filters;
— Absolute filters;
— Activated carbon filters;
— Germicidal lamp;
— New efficient drop eliminator in PVC;
— New heat recoverers with high heat exchange.

Electric components

— Electronic regulation available able to optimise the performance and simplify installation of the control unit itself;
— New high performance selection software.

ACCESSORIES

Technical rooms;

Accessories for air intake/exhaust sections:

— Flange;
— Blank panel (to be perforated with care by the customer);
— Anti-vibration sheet on the intake/flow vents (with or without damper) with earth cable;
— Aluminium grille (for internal dampers only);
— Manual command on the dampers;
— Proportional servo-control;
— Proportional servo-control with spring return;
— Pedestrian grill on the floor dampers.

Accessories for the fan-motor sections:

— Damper on the flow vent;
— Damper on the flow vent;
— Micro switch on the inspection hatch.

Accessories common to several sections:

— Spot light with window with 24V bulb (the installer must envision the 24V power supply);
— Manometer with dial;
— Pressure switche;
— Instruments-probes holder GJ 1/4" double sleeve;
— Floor reinforced with non-slip sheet steel.

PERFORMANCE SPECIFICATIONS

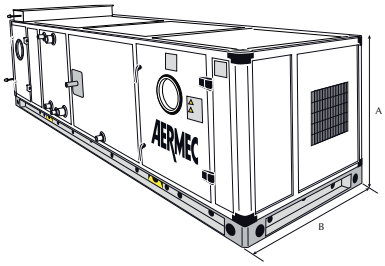
	Air flow rate m^3/h	Section heating coil m^2
NCD 1	1134	0,13
NCD 2	1958	0,22
NCD 3	2390	0,27
NCD 4	3132	0,35
NCD 5	3823	0,42
NCD 6	4307	0,48
NCD 7	5257	0,58
NCD 8	6207	0,69
NCD 9	8019	0,89
NCD 10	9477	1,05
NCD 11	11548	1,28
NCD 12	14213	1,58
NCD 13	16978	1,89
NCD 14	19742	2,19
NCD 15	25761	2,86
NCD 16	30772	3,42
NCD 17	37139	4,13
NCD 18	47187	4,80
NCD 19	49235	5,47
NCD 20	55283	6,14
NCD 21	61331	6,81
NCD 22	67379	7,49
NCD 23	73427	8,16
NCD 24	79475	8,83

The performance refers to an air speed through the coils equal to 2.5 m/s.

	EXT		734	894	1054	1214	1374	1534	1694	1854	2014
Height with base		**INT**	**620**	**780**	**940**	**1100**	**1260**	**1420**	**1580**	**1740**	**1900**
			NCD1	**NCD1A**	**NCD2**	**NCD2**	**NCD3C**	**NCD4B**	**NCD5B**	**NCD6B**	**NCD6D**
645	**525**	**410**	1370-1640 m^3/h	1880-2260 m^3/h	2350-2820 m^3/h	2350-2820 m^3/h	3390-4070 m^3/h	3890-4670 m^3/h	4380-5250 m^3/h	4860-5840 m^3/h	5330-6400 m^3/h
			NCD1B	**NCD3A**	**NCD4**	**NCD5**	**NCD6A**	**NCD7A**	**NCD8A**	**NCD8C**	**NCD8F**
805	**685**	**570**	1970-2360 m^3/h	2720-3260 m^3/h	3400-4080 m^3/h	4150-4980 m^3/h	4900-5870 m^3/h	5620-6740 m^3/h	6320-7590 m^3/h	7020-8430 m^3/h	7700-9240 m^3/h
			NCD2A	**NCD4A**	**NCD6**	**NCD7**	**NCD8**	**NCD8D**	**NCD9**	**NCD9C**	**NCD9F**
965	**845**	**730**	2580-3090 m^3/h	3550-4260 m^3/h	4440-5330 m^3/h	5420-6500 m^3/h	6400-7680 m^3/h	7350-8820 m^3/h	8270-9920 m^3/h	9180-11020 m^3/h	10070-12090 m^3/h
			NCD3B	**NCD5A**	**NCD6E**	**NCD8B**	**NCD8H**	**NCD9A**	**NCD10**	**NCD10C**	**NCD11**
1125	**1005**	**890**	3180-3820 m^3/h	4390-5270 m^3/h	5490-6580 m^3/h	6700-8030 m^3/h	7910-9490 m^3/h	9080-10890 m^3/h	10210-12250 m^3/h	11340-13610 m^3/h	12440-14930 m^3/h
				NCD6C	**NCD7B**	**NCD8G**	**NCD9E**	**NCD10A**	**NCD10F**	**NCD11A**	**NCD12**
1285	**1165**	**1050**		5220-6270 m^3/h	6530-7830 m^3/h	7970-9560 m^3/h	9410-11290 m^3/h	10800-12960 m^3/h	12150-14580 m^3/h	13500-16200 m^3/h	14810-17770 m^3/h
					NCD8E	**NCD9B**	**NCD10B**	**NCD10G**	**NCD11D**	**NCD12A**	**NCD12C**
1445	**1325**	**1210**			7570-9090 m^3/h	9240-11090 m^3/h	10910-13100 m^3/h	12530-15040 m^3/h	14100-16920 m^3/h	15660-18800 m^3/h	17180-20610 m^3/h
						NCD10D	**NCD11B**	**NCD12B**	**NCD13A**	**NCD13D**	**NCD14B**
1765	**1645**	**1530**				11790-14150 m^3/h	13920-16710 m^3/h	15990-19190 m^3/h	17990-21580 m^3/h	19980-23980 m^3/h	21920-26300 m^3/h
								NCD13B	**NCD14A**	**NCD14E**	**NCD15**
2085	**1965**	**1850**						19440-23330 m^3/h	21870-26250 m^3/h	24300-29160 m^3/h	26650-31980 m^3/h
										NCD15D	**NCD15G**
2405	**2285**	**2170**								28620-34350 m^3/h	31390-37670 m^3/h
											NCD16B
2565	**2445**	**2330**									33760-40510 m^3/h

Height with base		INT	2220	2540	2860	3180	3500	3820	4140	4460
645	525	410								
			NCD9D							
805	685	570	9200-11040 m^3/h							
			NCD10E	NCD11C						
965	845	730	12030-14440 m^3/h	13990-16790 m^3/h						
			NCD11E	NCD12D	NCD13C					
1125	1005	890	14860-17830 m^3/h	17280-20730 m^3/h	19700-23640 m^3/h					
			NCD13	NCD14	NCD14C	NCD15B				
1285	1165	1050	17690-21230 m^3/h	20570-24680 m^3/h	23450-28140 m^3/h	26330-31590 m^3/h				
			NCD13E	NCD14D	NCD15C	NCD15E	NCD16A			
1445	1325	1210	20520-24620 m^3/h	23860-28630 m^3/h	27200-32640 m^3/h	30540-36650 m^3/h	33880-40660 m^3/h			
			NCD15A	NCD15F	NCD16C	NCD17A	NCD17D	NCD18B		
1765	1645	1530	26180-31410 m^3/h	30440-36530 m^3/h	34700-41640 m^3/h	38970-46760 m^3/h	43230-51870 m^3/h	47490-56990 m^3/h		
			NCD16	NCD16D	NCD17C	NCD18C	NCD19A	NCD20A	NCD21A	NCD21C
2085	1965	1850	31840-38200 m^3/h	37020-44430 m^3/h	42210-50650 m^3/h	47390-56870 m^3/h	52570-63090 m^3/h	57760-69310 m^3/h	62940-75530 m^3/h	68130-81750 m^3/h
			NCD17	NCD18	NCD19	NCD20	NCD21	NCD22	NCD23	NCD24
2405	2285	2170	37500-45000 m^3/h	43600-52320 m^3/h	49710-59650 m^3/h	55810-66980 m^3/h	61920-74300 m^3/h	68030-81630 m^3/h	74130-88960 m^3/h	80240-96280 m^3/h
			NCD17B	NCD18A	NCD19B	NCD20B	NCD21B	NCD22A	NCD23A	NCD24A
2565	2445	2330	40330-48390 m^3/h	46890-56270 m^3/h	53460-64150 m^3/h	60030-72030 m^3/h	66590-79910 m^3/h	73160-87790 m^3/h	79730-95670 m^3/h	86290-103550 m^3/h

DIMENSIONS



	Section A (mm)	Section B (mm)
NCD1	645	735
NCD2	645	1055
NCD3	645	1215
NCD4	805	1055
NCD5	805	1215
NCD6	965	1055
NCD7	965	1215
NCD8	965	1375
NCD9	965	1695
NCD10	1130	1695
NCD11	1130	2015
NCD12	1285	2015
NCD13	1285	2335
NCD14	1285	2655
NCD15	2085	2015
NCD16	2085	2335
NCD17	2405	2335
NCD18	2405	2655
NCD19	2405	2975
NCD20	2405	3295
NCD21	2405	3615
NCD22	2405	3935
NCD23	2405	4255
NCD24	2405	4575

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SPL 025-130

Swimming Pool Lines air handling unit for health centres

Air flow rate 4000 ÷ 13000 m³/h

- **Maximum installation flexibility**
- **EC fan Plug-fan**
- **Large range of capacities.**



DESCRIPTION

The units from the SPL series represent the ideal solution to guarantee the comfort conditions in small-medium spaces such as health centres, spa areas, fitness centres, small swimming pools, sports facilities, etc.
The unit contains a refrigerant circuit and a system for the recovery of sensible and latent heat coming from the humid air extracted from the space, thereby being optimised for the reduction of energy consumption.
The main function of the unit, which is a "plug and play" machine ready for use, is that of dehumidifying and at the same time ensuring control of the temperature and humidity conditions of the area served.

The unit is fitted with an efficient heat recovery system on the water side, to be used to partially heat the swimming pool water at no cost.
The structure and all the internal components are built to ensure the maximum resistance to corrosion

FEATURES

Fitted as standard with panel filters in extract (G4 efficiency class according to EN779) and panel + bag filters (G4 + F9 efficiency class according to EN779) meet the requirements for the applicable standards for indoor air quality. Dirty filter differential pressure switches are provided as standard.

Structure

Anodised aluminium profile with reinforced nylon corner pieces.
Casing made from sandwich type panels (50mm thickness), with internal surface pre-painted galvanised steel, external in pre-painted galvanised steel and insulating material hot injected polyurethane with a density of 42 kg/m³, fixed without screws but with panel locking profiles, doors with keyless handles.
This fixing method allows a uniform pressure on the casing, ensuring an excellent resistance to the leakage of air and water.
The support structures and the seals around components are completely painted to ensure the maximum corrosion resistance. The bottom surfaces of the unit are fitted with drain panels in pre-painted galvanised steel with a central drain point piped sideways.

Thermal recovery section

High efficiency static cross flow in pre-painted aluminium. Including dampers: recirculating damper used for the quick start up of the space, recirculating damper for the "primary" cycle, dampers on the air inlet and extract. All dampers are manufactured in anodised aluminium and are individually controlled by an external actuator for precise air flow control.

Refrigerant circuit

Fitted with scroll compressor supplied with rubber anti-vibration feet, refrigerant gas/air heat exchanger coil with copper tubes and pre-painted aluminium fins and painted frame, filter, electronic expansion valve, liquid receiver, filter drier, controls (pressure transducers and visual indicators) and safeties (high and low pressure pressostats), brazed copper connections, refrigerant charge of environmentally friendly R410A.
The refrigerant circuit is installed in a compartment isolated from the air flow to facilitate checks and maintenance.
The units on request can also be realized without the refrigerant circuit. The size of the machine remains unchanged.

Fan section

Treated with epoxy paint resistant to corrosion, fitted with "plug fans" with backward curved impeller of high output. Electrical motor directly coupled to the impeller suitable for inverter control (standard).

Filtration systems

Hot water heating coil

With copper tubes and pre-painted aluminium fins to heat the supply air after dehumidification, controlled by a modulating 3 way valve (standard); this allows the accurate control of the supply air temperature. The frame of the coil is in painted galvanised steel to ensure the maximum resistance to corrosion.

Electric power board

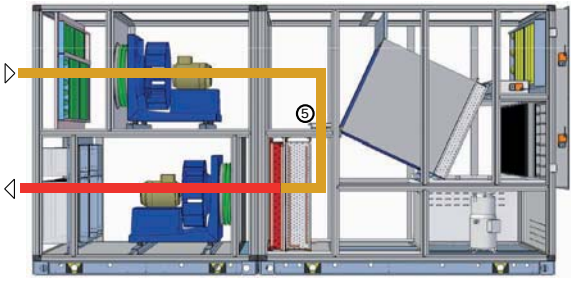
Power and controls panel unit mounted. Electrical installation for the connection of power and controls, set in tubes or conduits with glands and grommets, IP55 protective rating. Remote panel supplied as standard for the control of all the main functions and display of alarms.

OPERATING SCHEMATICS

The principal operation modes of the unit are shown in the example schematics below.

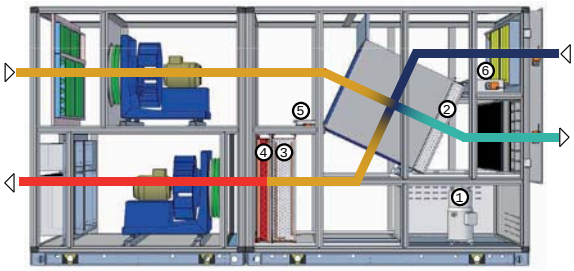
In all the following schematics the hot water coil is always operating because the external air temperature is below 10°C with a required supply air temperature to compensate for the heat losses from the building.

"START UP" CYCLE



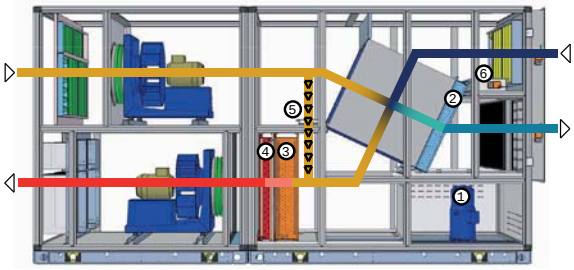
The operating mode is with no external air flow. The whole air flow is recirculated through damper 5 and returned to the pool area.
The hot water coil is operational.
The "start up cycle" is activated for the time necessary to heat up the area.

"DEHUMIDIFICATION" CYCLE



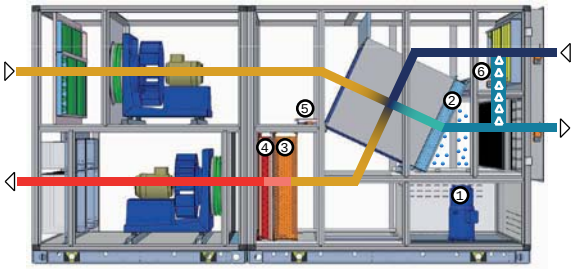
In night time mode the unit modifies the operating settings to adapt to the changes of evaporation from the pool and reduce consumption to the minimum.

Dehumidification with external air



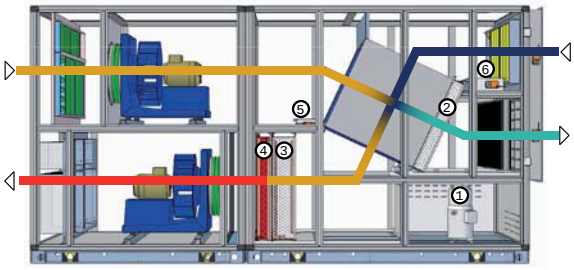
The operating mode is with external air dehumidifying the space, compensating for evaporation from the pool. The refrigerant circuit (consisting of the compressor 1 and the coils 2 and 3) allows the sensible and latent heat recovery of the extracted air to be transferred to the supply air or the water, through the thermal heat exchange consisting of the double heat exchanger on the water side.
The hot water coil 4 supplements, if necessary, the heating capacity provided by the refrigerant circuit, placed downstream of the entering air flow (condensing coil 3).

ehumidification with external air and primary cycle



When required the compressor also assists in the dehumidification of the pool area.
The supply air flow is modulated by the fan inverter to reach the required hygrometric conditions.
As a function of the external ambient temperature the unit modifies the operating mode to achieve the best efficiency possible.

Dehumidification with external air (night cycle)



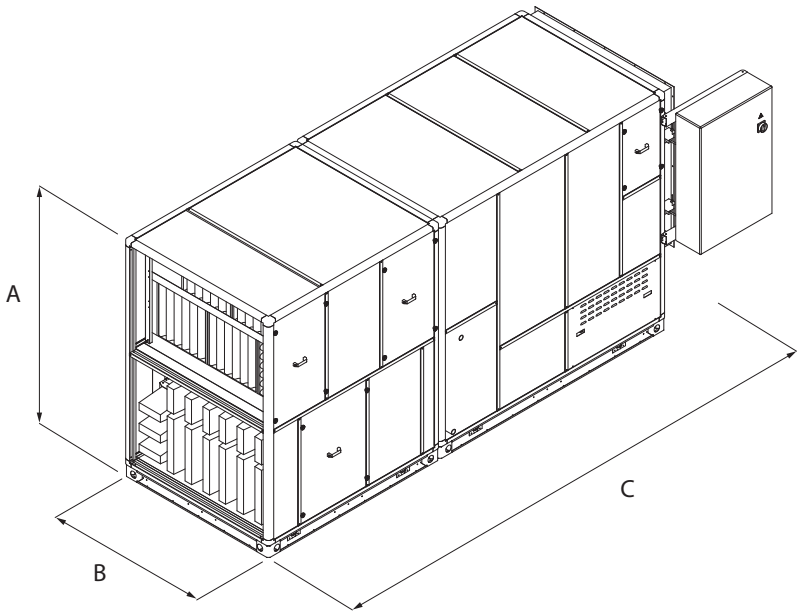
In night time mode the unit modifies the operating settings to adapt to the changes of evaporation from the pool and reduce consumption to the minimum.

PERFORMANCE SPECIFICATIONS

			025	040	060	100	130
Nominal airflow (supply/extract)		M^3/h	2500	4000	6300	10000	13000
Available pressure (supply/extract)		Pa	400	400	400	400	400
Heat recovery capacity recovered	(1)	KW	7,90	12,60	20,40	32,00	41,50
Max heat recovery efficiency	(1)	%	80,80	79,30	80,10	79,50	79,40
Refrigerant circuit recovered capacity	(1)	KW	7,50	10,50	21,30	31,70	45,70
Total recovered capacity	(1)	KW	15,40	23,10	41,60	63,70	87,30
Compressor absorbed power	(1)	KW	1,30	1,60	3,70	6,00	8,40
COP	(1)	-	11,80	14,40	11,20	10,60	10,40
COP	(2)	-	3,90	4,00	4,10	4,00	4,10
Total dehumidification capacity	(1)	Kg/h	15,50	25,20	40,10	63,70	82,70
Supply fan power input		KW	1,60	2,60	3,70	5,90	7,60
Extract fan power input		KW	1,20	1,90	2,70	4,50	5,70
Type / number of compressors		No.			Scroll / 1		
Hot water heating coil (standard)							
Capacity (without recovery active)	(1)	KW	26,10	35,40	61,60	95,30	124,50
Water flow rate	(3)	L/h	2250	3050	5300	8200	10700
Water pressure drop	(3)	KPa	23,50	43,70	33,10	48,80	46,30
Plate heat exchanger R410A/non aggressive water (standard)							
Nominal water flow rate	(4)	L/h	950	1120	2500	3600	5400
Pressure drops	(4)	KPa	19,00	19,00	31,00	32,00	33,00
Plate heat exchanger accessible non aggressive water/pool water (standard)							
Water flow rate nominal pool	(5)	L/h	1200	1400	3100	4500	6800
Pressure drop pool side	(5)	KPa	32,40	34,00	31,40	33,00	34,50
Pressure drop intermediate circuit side	(5)	KPa	21,20	22,30	20,60	21,60	22,50
Electric data							
Unit power supply					400 V-3- 50 Hz		
Maximum total current input supply fan		A	3,50	6,20	11,00	14,60	15,00
Maximum total current input extract fan		A	2,60	4,90	6,40	11,30	11,30
Unit maximum current input		A	11,60	17,10	32,40	49,30	61,30
Unit starting current		A	32,10	46,10	91,40	181,90	184,30

1. External air 0°C,80% RH; internal air 29°C,60% RH.
2. Values as per conditions of D.M. 7 april 2008 for heating only operation
3. Water temperature inlet/outlet 70/60°C; water pressure drop including 3 way valve
4. Water temperature inlet/outlet non aggressive 27/37°C
5. Water temperature inlet/outlet intermediate circuit 37/27°C; water temperature inlet/outlet pool 25/35°C

DIMENSIONS



		025	040	060	100	130
A	mm	1765	1765	2245	2405	2405
B	mm	895	895	1055	1375	1695
C	mm	3230	3390	4190	4190	4670
Weight	Kg	900	1000	1350	2060	2600

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SPL 160-250

Swimming Pool Lines
Air handling unit
high efficiency for health centres.

Air flow from 16000 to 25000 m³/h.



DESCRIPTION

The units from the SPL series represent the ideal solution to guarantee the comfort conditions in small-medium spaces such as health centres, spa areas, fitness centres, small swimming pools, sports facilities, etc.
The unit contains a refrigerant circuit and a system for the recovery of sensible and latent heat coming from the humid air extracted from the space, thereby being optimised for the reduction of energy consumption. The main function of the unit, which is a "plug and play" machine ready for use, is that of dehumidifying and at the same time ensuring control of the temperature and humidity conditions of the area served. The unit is fitted with an efficient heat recovery system on the water side, to be used to partially heat the swimming pool water at no cost. The structure and all the internal components are built to ensure the maximum resistance to corrosion.

CHARACTERISTICS

Sizes

- 3 sizes available

Structure

- Anodised aluminium profile with reinforced nylon corner pieces. Casing made from sandwich type panels (50mm thickness), with internal surface pre-painted galvanised steel, external in pre-painted galvanised steel and insulating material hot injected polyurethane with a density of 42 kg/m^3, fixed without screws but with panel locking profiles, doors with keyless handles. This fixing method allows a uniform pressure on the casing, ensuring an excellent resistance to the leakage of air and water. The support structures and the seals around components are completely painted to ensure the maximum corrosion resistance. The bottom surfaces of the unit are fitted with drain panels in pre-painted galvanised steel with a central drain point piped sideways.

Thermal recovery section

- High efficiency static cross flow in pre-painted aluminium. Including dampers: recirculating damper used for the quick start up of the space, recirculating damper for the "primary" cycle, dampers on the air inlet and extract. All dampers are manufactured in anodised aluminium and are individually controlled by an external actuator for precise air flow control.

Refrigerant circuit

- Fitted with scroll compressor supplied with rubber anti-vibration feet, refrigerant gas/air heat exchanger coil with copper tubes and pre-painted aluminium fins and painted frame, filter, electronic expansion valve, liquid receiver, filter drier, controls (pressure transducers and visual indicators) and safeties (high and low pressure pressostats), brazed copper connections, refrigerant charge of environmentally friendly R410A. The refrigerant circuit is installed in a compartment isolated from the air flow to facilitate checks and maintenance.
- The units on request can also be realized without the refrigerant circuit. The size of the machine remains unchanged

Fan section:

- Treated with epoxy paint resistant to corrosion, fitted with "plug fans" with backward curved impeller of high output. Electrical motor directly coupled to the impeller suitable for inverter control (standard).

Filtration systems:

- Fitted as standard with panel filters in extract (G4 efficiency class according to EN779) and panel + bag filters (G4 + F9 efficiency class according to EN779) meet the requirements for the applicable standards for indoor air quality. Dirty filter differential pressure switches are provided as standard.

Hot water heating coil:

- With copper tubes and pre-painted aluminium fins to heat the supply air after dehumidification, controlled by a modulating 3 way valve (standard); this allows the accurate control of the supply air temperature. The frame of the coil is in painted galvanised steel to ensure the maximum resistance to corrosion.

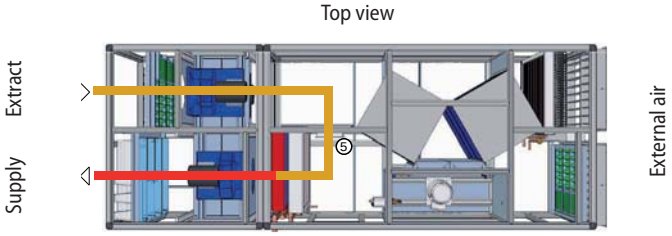
Electrical panel:

- Power and controls panel unit mounted. Electrical installation for the connection of power and controls, set in tubes or conduits with glands and grommets, IP55 protective rating. Remote panel supplied as standard for the control of all the main functions and display of alarms.

OPERATING SCHEMATICS

The principal operation modes of the unit are shown in the example schematics below.
In all the following schematics the hot water coil is always operating because the external air temperature is below 10°C with a required supply air temperature to compensate for the heat losses from the building.

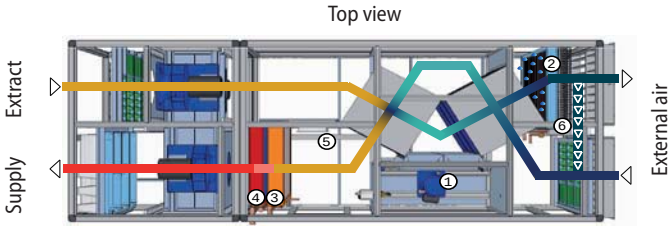
"START UP" CYCLE



The operating mode is with no external air flow. The whole air flow is recirculated through damper 5 and returned to the pool area.
The hot water coil is operational.
The "start up cycle" is activated for the time necessary to heat up the area

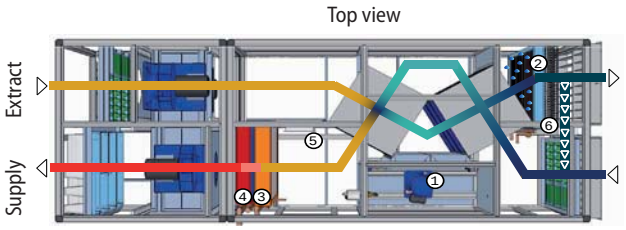
"DEHUMIDIFICATION" CYCLE

Dehumidification with external air



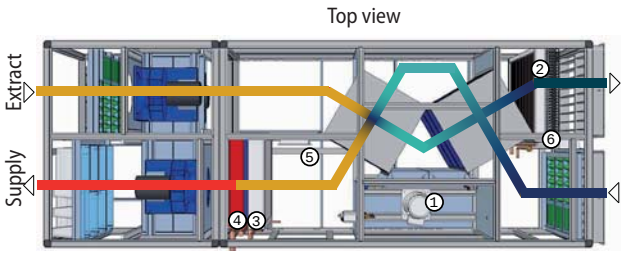
The operating mode is with external air dehumidifying the space, compensating for evaporation from the pool. The refrigerant circuit (consisting of the compressor 1 and the coils 2 and 3) allows the sensible and latent heat recovery of the extracted air to be transferred to the supply air or the water, through the thermal heat exchange consisting of the double heat exchanger on the water side.
The hot water coil 4 supplements, if necessary, the heating capacity provided by the refrigerant circuit, placed downstream of the entering air flow (condensing coil 3).

Dehumidification with external air and alpha cycle



When required the compressor also assists in the dehumidification of the pool area.
The supply air flow is modulated by the fan inverter to reach the required hygrometric conditions.
As a function of the external ambient temperature the unit modifies the operating mode to achieve the best efficiency possible.

Dehumidification with external air (night cycle)



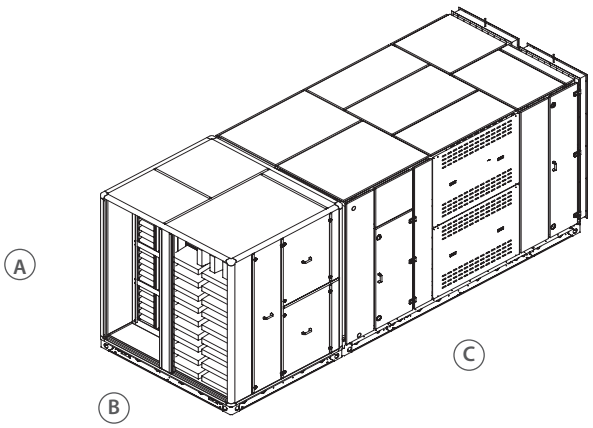
In night time mode the unit modifies the operating settings to adapt to the changes of evaporation from the pool and reduce consumption to the minimum.

TECHNICAL DATA

SPL		160	200	250
Nominal airflow (supply/extract)	m^3/h	16000	20000	25000
Available pressure (supply/extract)	Pa	400	400	400
Heat recovery capacity recovered [1]	kW	59,6	68,6	89,2
Max heat recovery efficiency [1]	%	93	86	89
Refrigerant circuit recovered capacity [1]	kW	46,3	53,6	69,4
Total recovered capacity [1]	kW	105,9	122,2	158,6
Compressor power input [1]	kW	8,5	9,2	12,8
COP [1]	-	12,5	13,3	12,4
COP [2]	-	4,0	3,9	3,9
Total dehumidification capacity [1]	kg/h	102,2	127,6	159,5
Supply fan power input	kW	10,9	13,7	17,7
Extract fan power input	kW	8,3	9,8	12,4
Type / number of compressors	n°		Scroll / 1	
Hot water heating coil (standard)				
Capacity (without recovery active) [1]	kW	131,9	182,7	205,9
Water flow rate 3	l/h	11300	15700	17700
Water pressure drop [3]	kPa	43,7	37,9	42,2
Plate heat exchanger R410A/non aggressive water (standard)				
Water flow rate nominal [4]	l/h	5760	6450	8260
Pressure drop [4]	kPa	33	33	33
Plate heat exchanger accessible non aggressive water/pool water (standard)				
Water flow rate nominal pool [5]	l/h	7200	8100	10400
Pressure drop pool side [5]	kPa	34,2	34,7	34,2
Pressure drop intermediate circuit side [5]	kPa	22,3	22,7	22,2
Electrical data				
Unit power supply			400 V - 3 ph - 50 Hz	
Maximum total current input supply fan	A	29,2	41	42
Maximum total current input extract fan	A	22	22,6	30
Unit maximum current input	A	86,2	99,6	123
Unit starting current	A	209	223	287

1 External air 0°C,80% RH; internal air 29°C,60% RH.
2 Values as per conditions of D.M. 7 april 2008 for heating only operation.
3 Water temperature inlet/outlet 70/60°C; water pressure drop including 3 way valve.
4 Water temperature inlet/outlet non aggressive 27/37°C.
5 Water temperature inlet/outlet intermediate circuit 37/27°C;
water temperature inlet/outlet pool 25/35°C
Preliminary technical data, subject to modification.

DIMENSIONAL DATA



SPL			160	200	250
Height (including base H=120mm) *	A	mm	2085	2405	2405
Width *	B	mm	2015	2175	2335
Length *	C	mm	5790	5790	6430
Weight		kg	2780	3250	3580

* The dimensions remain unchanged even if the unit, on request, is supplied without a refrigerant circuit.

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ENERGY

Air handling unit for outside air with high energy efficiency

Airflow from 4000 to 25000 m³/h



DESCRIPTION

The units of the Energy series represent the maximum expression of technical innovation for the treatment of outside air. The Energy series has been specifically designed to reduce to the minimum the operating energy consumption, which represents around 80% of the entire life cycle cost of an air treatment unit. The double heat recovery system (static and active) and the innovative cooling and adiabatic humidification system, allow the supply of air at the desired conditions with the minimum energy expenditure. The damper for total bypass allows free-cooling in the intermediate season, exploiting to the maximum the free external thermal contribution. The Energy series is manufactured in full compliance with the standard EN1886 with regards to mechanical resistance, air leakage, thermal and acoustical insulation of the casing.

CHARACTERISTICS

Versions
- 5 sizes available

Plug and play
- The units of the Energy series are delivered ready for use. In particular, the machine is equipped with a complete control system and the refrigerant circuit is completely assembled and tested, minimising the time and cost of installation and start up

Structural assembly
- In aluminium profile with rounded edges and reinforced nylon corner pieces. The casing is manufactured from sandwich panels of 50 mm thickness, fixed to the frame with an exclusive panel fixing without the use of screws. This fixing method allows a uniform pressure on the casing, ensuring an excellent resistance to the leakage of air and water

Modulating bypass damper
- In aluminium with opposed aerofoil blades, installed in the extract air flow to permit free-cooling. Additional recirculating damper (only in the Eco version). The accurate manufacturing minimises air leakage

Plug fans
- Very high efficiency directly coupled to the motor. Inverter for continuous control of supply and extract air flow

Filtration systems
- Various types of filters are available (panel and bag), to satisfy any filtration requirement and ensure compliance with the current air quality standards. Dirty filter pressure switches supplied as standard

Static heat recovery
- Integrated reversible heat pump. Tandem scroll compressor (single for sizes 040 and 060) supplied with rubber anti-vibration feet; continuous capacity control through an inverter to ensure the maximum energy savings even at part load. Double expansion valve electronically controlled. 4 way refrigerant cycle reversing valve. Coils manufactured with copper tubes and prepainted aluminium fins. Environmentally friendly refrigerant R410A ensures improved energy efficiency for the refrigerant cycle

Re-heat coil
- Water in the Standard version (optional) and Eco version (standard), hot gas in the Dry version (standard)

Cooling system
- Adiabatic with water spray in the extract air, with self cleaning spray nozzles and high pressure pump module, having the function of maximising the heat exchange in the double heat recovery system

Water humidification system
- Spray in the supply air. Lower surfaces of the unit equipped with drain panels with central condensate drain to ensure the continuous drainage of water and avoid stagnation

Electrical panel
- Complete with power and controls unit mounted. Remote panel for the control of all the main functions and display of alarms

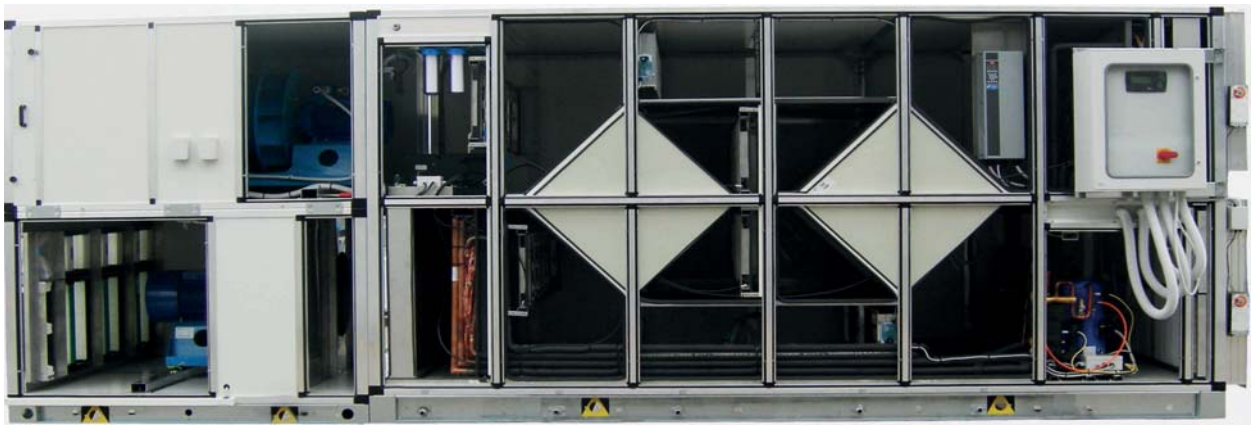
Microprocessor controller
- Capable of controlling the various operating modes (control of outside air, control of total air), ensuring the maximum energy saving in each operating condition. RS485 interface supplied as standard (MODBUS protocol) for connection to a supervisory systems and remote control. Manual season change over (summer/winter)

On demand
- Hot water re-heat coil (only Standard version, as standard on Eco version), enthalpy free-cooling (available only with ambient temperature control), bag filters

Refrigerant circuit with inverter compressor

Modulating dampers for free-cooling

Humidification system pump



Fan inverter

Re-heater coil (optional)

Electrical panel with power and controls

Double static heat recovery

VERSION	Adiabatic cooling / humidification	Recirculating damper	Hot gas re-heat	Water re-heat
Energy Std	●	-	-	Optional
Energy Dry	●	-	●	-
Energy Eco	●	●	-	●

TECHNICAL DATA

Model - ENERGY Dry			040	060	100	160	250
Air flow rate (supply/return)	(nom)	m^3/h	4000	6000	10000	16000	25000
	(min)	m^3/h	3600	5100	8500	13000	20000
	(max)	m^3/h	4800	7200	11500	17600	25000
Cooling Capacity		kW	40	57	99	155	203
Total input power		kW	10,2	14,6	25,7	39,1	56
EER		W/W	3,92	3,90	3,85	3,96	3,63
Heating Capacity		kW	67	88	146	229	313
Total input power		kW	13,5	14,3	22,1	34,7	50,5
COP		W/W	4,96	6,15	6,61	6,60	6,20
Thermodynamic recovery							
Cooling Capacity - max (f.a cooling)		kW	24,4	34,4	63,5	93	114,9
Total input power - max (f.a cooling)		kW	7,1	9,1	17	23,7	30,1
Heating capacity - max. (f.a Heating)		kW	28,5	32,1	54,9	78,6	99,6
Total input power - max (f.a Heating)		kW	10,4	8,7	13,2	18,9	23,8
Static recovery + adiabatic							
Max recovered summer power		kW	15,2	22,7	35,5	61,6	87,9
Sensitive Summer Static Efficiency		%	72	71	69	74	66
Max capacity recovered Winter		kW	38,7	55,9	90,8	150,8	213,4
Static Efficiency Sensitive Winter		%	84	82	80	80	76

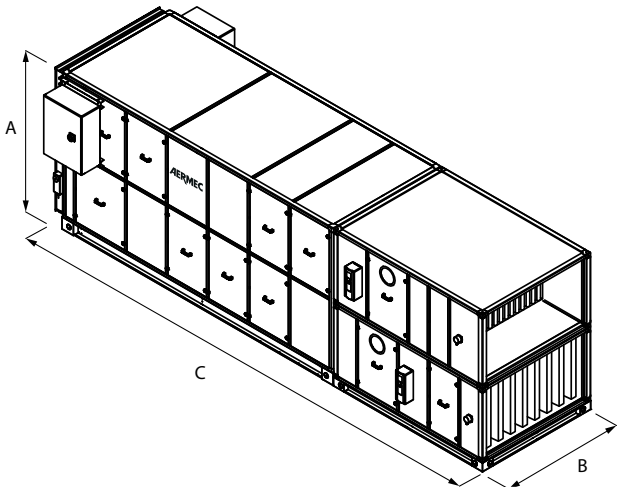
Model - ENERGY Eco/Std			040	060	100	160	250
Air flow rate (supply/return)	(nom)	m^3/h	4000	6000	10000	16000	25000
	(min)	m^3/h	3600	5100	8500	13000	20000
	(max)	m^3/h	4800	7200	11500	17600	25000
Cooling Capacity		kW	37	54	95	148	194
Total input power		kW	12,2	16,8	28,8	43,9	62,8
EER		W/W	3,03	3,21	3,30	3,37	3,09
Heating Capacity		kW	60	88	146	229	313
Total input power		kW	8,9	14,3	22,1	34,7	50,5
COP		W/W	6,74	6,15	6,61	6,60	6,20
Thermodynamic recovery							
Cooling Capacity - max (f.a cooling)		kW	22,1	31,3	59,2	87,0	93,5
Total input power - max (f.a cooling)		kW	9,1	11,3	20,1	28,5	36,9
Heating capacity - max. (f.a Heating)		kW	21,0	32,1	54,9	78,6	99,6
Total input power - max (f.a Heating)		kW	5,8	8,7	13,2	18,9	23,8
Static recovery + adiabatic							
Max recovered summer power		kW	15,2	22,7	35,5	61,6	73,8
Sensitive Summer Static Efficiency		%	72	71	69	74	69
Max capacity recovered Winter		kW	38,7	55,9	90,8	150,8	179,6
Static Efficiency Sensitive Winter		%	84	82	80	80	79

Cooling Mode
External Air Temperature: 35 °C; RH 40%; Ambient Temperature: 26 °C; Humidity Ambient 50 %
Heating Mode
External Air Temperature: -10 °C; Humidity External Air 90%; Ambient Temperature: 20 °C; Humidity Ambient 50 %

TECHNICAL DATA

GENERAL DATA		040	060	100	160	250
Electrical data						
Maximum absorbed current	A	50,3	53,6	80,3	113,4	146
Compressors						
Compressors	type	scroll	scroll	scroll	scroll	scroll
	n°	1	1	2	2	2
Circuits	n°	1	1	1	1	1
Refrigerant gas	type	R410A	R410A	R410A	R410A	R410A
Supply fans						
Fans	type			plug-fan		
	n°			1		
Recovery fans						
Fans	type			plug-fan		
	n°			1		
Power supply	V/ph/Hz			400V/3N		

DIMENSIONAL DATA



Mod. ENERGY			Vers.	040	060	100	160	250
Height	(mm)	A	tutte	1810	1810	2130	2450	2450
Width	(mm)	B	tutte	1055	1375	1695	2015	2335
Lenght	(mm)	C	tutte	4830	4830	5630	6270	6270
Waeight Standard version	(kg)			1400	1800	2300	2900	3500

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50Hz R410A

RTX-N1-N8

Roof-Top for applications in medium crowed

Cooling capacity 12,70 ÷ 49,95 kW
Heating capacity 13,50 ÷ 50,79 kW

- For medium crowding applications
- Upgraded thermodynamic heat recovery
- Handling section with plug fan coupled with BRUSHLESS EC motors
- Free-cooling / enthalpic free-cooling / photocatalytic system option



DESCRIPTION

Independent Roof-Top air-cooled air conditioner to treat, filter and renew air based on the selected configuration. Being fitted to function with 30% external and expelled air (MB4 versions), RTX units are designed for medium density applications like shopping malls, shops, offices and production areas.
Based on the version and accessories selected, the units allow you to manage free-cooling mode and, in the MB4 versions, there is thermodynamic recovery of the energy contained in the expelled air, allowing for higher performance and efficiency.

CONFIGURATIONS

MB1: Single ventilating cross-section for recovery air.
Recovery air only configuration where no fresh air is required.
The useful flow and recovery static pressure is provided by the flow ventilating cross-section.

MB2: Single ventilating cross-section for recovery and external air.
Recovery and external air configuration. The useful flow and recovery static pressure is provided by the flow ventilating cross-section.
The presence of the recirculation damper (optional) allows for total free-cooling (100% external air).
If there are no extraction systems, the room will be in overpressure.

MB4: double ventilating cross-section (flow and expulsion) for recovery air, external air and exhaust air, thermodynamic recovery.
Recovery, external and exhaust air configuration. The flow ventilating cross-section provides the flow and recovery useful static pressure. The exhaust ventilating cross-section only controls the air flow rate to be expelled, with consequent reduction of the installed ventilation power. The double flow and exhaust ventilating cross-section allows for partial free-cooling and has the thermodynamic recovery function.
Advantages of thermodynamic recovery (MB4):
— Energy recovery from the exhaust air flow that would otherwise be lost
— No further components are introduced and, therefore, there are no additional pressure drops
— Cooling circuit functioning with heat sources at more advantageous temperatures
— Reduction of defrosting cycles
— Increase in thermal and cooling efficiency
— Efficiency increase (EER/COP)

FEATURES

— 2 cooling circuits with electronic thermostatic expansion valve;
— High efficiency scroll compressors with low power consumption;
— Finned pack direct expansion internal and external exchangers;
— Plug fan type (EC) flow and exhaust fans (if any). The impellers are facing so as to ensure that the air flows through all the internal components with minimum noise;
— Axial fan unit for extremely silent functioning positioned on the condensing section.
— Filter with 55% COARSE efficiency (according to EN ISO 16890) on the fresh air flow; Also available: compact filter with ePM1 50% efficiency (according to EN ISO 16890). Positioning upstream of the components to be protected to ensure low pressure drops, having a large surface. Air quality control systems are also available (VOC and $CO_{2\ probe}$);
— The structure consists of a galvanised sheet metal base, frame in galvanised sheet metal shaped profiles powder coated in RAL9003 (self-bearing structure), pre-painted sheet metal panels (external) insulated with 28kg/mc dense adhesive insulation and sandwich type panels insulated with 25 mm thick 45kg/mc polyurethane, eco-friendly "GWP 0" (Global Warming Potential);
— The casing, designed to allow the internal components to be accessed for routine and extraordinary maintenance.

CONTROL

Microprocessor control able to manage the different functioning modes, ensuring maximum energy savings in any conditions of use. Interfaces to connect to remote supervision and control systems available as options.

FUNCTIONALITY AND TECHNOLOGICAL ADVANTAGES

RTX units are designed with the aim of reducing the energy consumption that subsequently dictated the technological choices made on the unit we will now introduce in brief.

Very high ventilation efficiency

As ventilation is one of the major power consumption factors, we dedicated particular attention to designing and constructing the ventilation system.

State-of-the-art plug fans with EC brushless motors have been used both in flow and in recovery (if any), which enable high performance and reduced consumption. Furthermore, compared to conventional centrifugal fans, they have no belts or pulleys, thus facilitating flow rate adjustment and resulting in compactness, versatility and easy maintenance.

Special adaptive logic allows you to adjust the air flow rate to actual system demand with further resulting advantages in terms of consumption reduction.

Axial fans for the external section of the unit are helical. Electronic condensation control is available as an accessory, which regulates fan speed based on the load required, allowing for noise reduction. As an option, the motors can have electronic control (EC) to reduce consumption even in the condensing part.

Room air quality

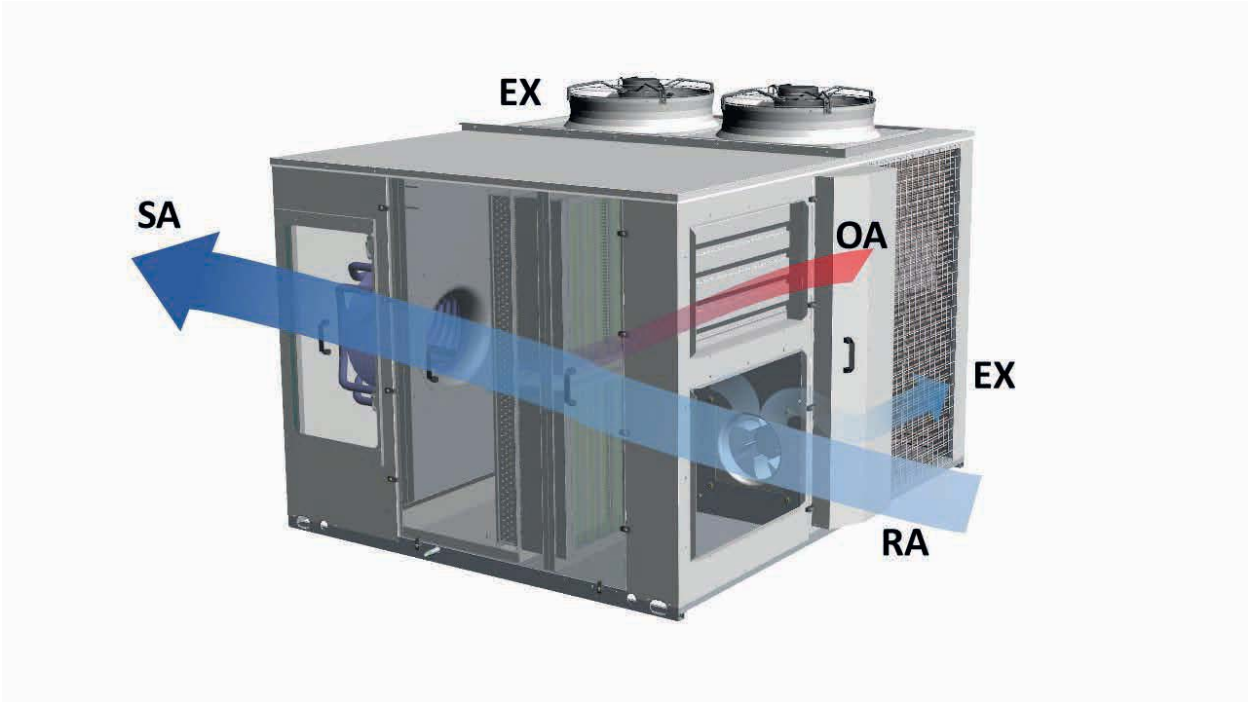
Special attention was paid to the quality of the room air, entrusted to the standard 55% COARSE efficiency filters. F7 filters are also available as optional.

Active thermodynamic recovery

In the MB4 configurations, the units have a thermodynamic recovery function to recover the energy contained in the exhaust air, causing the expelled air flow to hit the external finned pack exchanger, allowing for higher performance and efficiency.

All of these technological advantages are controlled by a thermoregulation that is able to manage the different functioning modes, ensuring maximum energy savings in all conditions of use via dedicated software.

MB4 CONFIGURATION WITH DOUBLE VENTILATING SECTION FOR RETURN AIR, EXTERNAL AIR AND EXPELLED AIR. STANDARD FREE-COOLING AND THERMODYNAMIC HEAT RECOVERY FUNCTION



SA Supply air
EX Exhaust air
OA Fresh air
RA Return air

ACCESSORIES

AXEC: Axial fans with EC motors with speed control function according to the pressure of condensation and evaporation.
AXECP: EC axial fans with available useful static pressure.
BAC: Interface card BACnet MS/TP pCOnet.
BE: Electric heating coil 2 stages.
BIP: Interface card Ethernet-pCOweb (BACNET IP)
BPGC: After heating coil with hot gas.
BW: 2-rows-heating coil with hot water.
BWV2V: 2 -rows -heating coil with hot water, with 2-way modulating valve.
BWV3V: 2-rows heating coil with hot water, with 3-way modulating valve.
CA: Waterproof covers on external air intake.
DP: Dehumidification control (humidity probe in recovery) and of after-he- ating (if present).
FCT: Partial Temperature Free-Cooling for MB2, MB4 versions.
FT7: F7 efficiency pocket filters positioned on the supply air flow.
GP: External coil protection grid.
LW: Interface card LonWorks.
PRT1: Wall/recessed (up to 50 m) remote control panel.
PRT2: Wall/recessed (up to 200 m) remote control panel.
PSF4: Differential pressure switch signalling dirty recovery and renewal filters (if any).
PSTEP: Adjusting constant flow, step flow in function of the modulation of the cooling circuit.
RFC: Smoke detector and damper management.

RS: Serial card BMS RS485.
SCM: Modulating servo-controls (standard on MB3 model or if temperature or enthalpic free-cooling is present).
SCMRM: Modulating Servo-control with spring return.
SCO2: Probe CO2 (not available on MB1 fittings).
STA: Room temperature probe
SUA: Room humidity probe.
SVOC: Probe VOC (not available on MB1 fittings).
VT: Antivibration mounts.

PERFORMANCE SPECIFICATIONS

Size		N1	N2	N3	N4	N5	N6	N7	N8
Configuration: MB1									
Cooling performances (1)									
Cooling capacity	kW	12,70	15,50	19,10	22,20	28,60	33,00	43,00	47,00
Sensible cooling capacity	kW	8,60	10,40	12,80	14,80	19,00	22,40	28,80	32,10
Compressors absorbed power	kW	3,30	4,20	5,00	6,00	7,20	8,70	11,40	12,50
EER compressors		3,87	3,71	3,82	3,69	3,98	3,79	3,75	3,75
Heating performances (2)									
Heating capacity	kW	13,50	16,10	19,90	23,00	29,60	34,00	44,70	48,50
Compressors absorbed power	kW	3,07	3,65	4,28	5,15	6,23	6,86	9,43	10,02
Compressor COP		4,40	4,41	4,64	4,47	4,75	4,96	4,74	4,84

(1) Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.
(2) Ambient air 20°C D.B./15°C W.B.; Outside air 7°C D.B./6°C W.B. (EN14511); Operation with 30% outside and expelled air.

Size		N1	N2	N3	N4	N5	N6	N7	N8
Configuration: MB2									
Cooling performances (1)									
Cooling capacity	kW	13,42	16,34	20,16	23,35	30,21	34,79	45,26	49,44
Sensible cooling capacity	kW	8,92	10,86	13,40	15,40	19,70	23,40	30,00	33,50
Compressors absorbed power	kW	3,33	4,22	5,04	6,07	7,29	8,85	11,65	12,74
EER compressors		4,03	3,87	4,00	3,85	4,14	3,93	3,88	3,88
Heating performances (2)									
Heating capacity	kW	13,65	16,24	20,02	23,18	29,87	34,22	45,17	48,94
Compressors absorbed power	kW	2,77	3,31	3,86	4,65	5,62	6,15	8,58	9,22
Compressor COP		4,92	4,91	5,18	4,99	5,32	5,57	5,26	5,31

(1) Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.
(2) Ambient air 20°C D.B./15°C W.B.; Outside air 7°C D.B./6°C W.B. (EN14511); Operation with 30% outside and expelled air.

Size		N1	N2	N3	N4	N5	N6	N7	N8
Configuration: MB4									
Cooling performances (1)									
Cooling capacity	kW	13,49	16,49	20,33	23,58	30,45	35,16	45,65	49,95
Sensible cooling capacity	kW	8,93	10,91	13,40	15,50	19,80	23,50	30,20	33,60
Compressors absorbed power	kW	3,27	4,12	4,92	5,90	7,13	8,59	11,39	12,43
EER compressors		4,13	4,00	4,13	4,00	4,27	4,10	4,01	4,02
Heating performances (2)									
Heating capacity	kW	14,00	16,81	20,69	24,05	30,77	35,50	46,63	50,79
Compressors absorbed power	kW	2,81	3,36	3,92	4,73	5,71	6,27	8,74	9,38
Compressor COP		4,98	5,00	5,28	5,08	5,39	5,67	5,33	5,41

(1) Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.
(2) Ambient air 20°C D.B./15°C W.B.; Outside air 7°C D.B./6°C W.B. (EN14511); Operation with 30% outside and expelled air.

ENERGY INDEX

Size			N1	N2	N3	N4	N5	N6	N7	N8
Energy index										
SEER	H	W/W	3,73	3,60	3,76	3,70	3,86	3,86	3,80	3,77
ηsc	H	%	146.1%	141.2%	147.5%	144.8%	151.5%	151.5%	148.8%	147.8%
Pdesignh	H	kW	7	9	11	13	16	19	25	26
SCOP	H		3,47	3,34	3,46	3,36	3,29	3,50	3,47	3,44
ηsh	H	%	135.6%	130.5%	135.4%	131.2%	128.7%	137.1%	135.7%	134.4%

GENERAL TECHNICAL DATA

Size		N1	N2	N3	N4	N5	N6	N7	N8
Power supply									
Power supply		400V~3N 50Hz	400V~3N 50Hz	400V~3N 50Hz	400V~3N 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz
Compressor									
Type	type	Scroll							
Number	no.	2	2	2	2	2	2	2	2
Circuits	no.	2	2	2	2	2	2	2	2
Refrigerant	type	R410A							
Sound data									
Sound power level	dB(A)	73,3	73,7	76,4	76,3	81,2	79,7	82,8	82,9
Sound pressure (1)	dB(A)	65,3	65,8	68,5	68,3	73,2	71,7	74,8	74,9

(1) MB1 configuration sound pressure measured in free field (Q=2), 1m away from the outer surface of the ducted unit, high static pressure 50 Pa (EN ISO 9614-2).. 3 dB(A) tolerance on sound power level (Eurovent 8/1).

FANS

Size			N1	N2	N3	N4	N5	N6	N7	N8
Configuration: MB1, MB2, MB4										
External fans										
Type	H	type	axials	axials	axials	axials	axials	axials	axials	axials
Number	H	no.	2	2	2	2	2	2	2	2

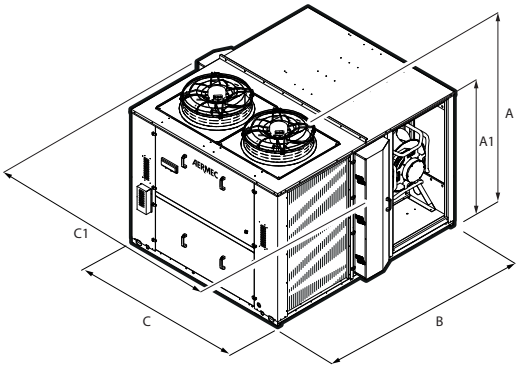
Size			N1	N2	N3	N4	N5	N6	N7	N8
Configuration: MB1, MB2, MB4										
Internal fans										
Nominal air flow rate	H	m^3/h	2000	2800	3500	4000	5000	6500	8000	9500
Minimum air flow rate	H	m^3/h	1800	1800	2700	2700	4000	4000	6500	6500
Maximum air flow rate	H	m^3/h	2900	2900	4100	4100	6900	6900	10100	10100

Size			09	10	11	12	13	14	15	16
Configuration: MBT										
Exhaust										
Type	H	type	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC
Number	H	no.	1	1	1	2	2	2	2	2

Size			N1	N2	N3	N4	N5	N6	N7	N8
Configuration: MB1, MB2										
Delivery										
Type	H	type	Brushless EC	Brushless EC	Brushless EC	Brushless EC	Brushless EC	Brushless EC	Brushless EC	Brushless EC
Number	H	no.	1	1	1	1	1	1	1	1
Maximum useful head (1)	H	Pa	755	575	460	555	435	460	575	765
High static pressure (EN14511) (1)	H	Pa	100	100	124	124	124	150	150	200
Configuration: MB4										
Delivery										
Type	H	type	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC
Number	H	no.	1	1	1	1	1	1	1	1
Maximum useful head (1)	H	Pa	755	575	460	555	435	460	575	765
High static pressure (EN14511) (1)	H	Pa	100	100	124	124	124	150	150	200

(1) At the nominal/maximum flow rate with a new, clean air filter.

DIMENSIONS



Size			N1	N2	N3	N4	N5	N6	N7	N8
Configuration: MB1										
Dimensions and weights										
A	H	mm	1170	1170	1470	1470	1610	1610	1710	1710
A1	H	mm	910	910	1210	1210	1410	1410	1510	1510
B	H	mm	1460	1460	1460	1460	1860	1860	2310	2310
C	H	mm	1560	1560	1560	1560	1910	1910	1910	1910
C1	H	mm	-	-	-	-	-	-	-	-
Empty weight	H	kg	335	335	405	405	594	594	745	745
Configuration: MB2										
Dimensions and weights										
A	H	mm	1170	1170	1470	1470	1610	1610	1710	1710
A1	H	mm	910	910	1210	1210	1410	1410	1510	1510
B	H	mm	1460	1460	1460	1460	1860	1860	2310	2310
C	H	mm	1560	1560	1560	1560	1910	1910	1910	1910
C1	H	mm	-	-	-	-	-	-	-	-
Empty weight	H	kg	335	335	405	405	594	594	745	745
Configuration: MB4										
Dimensions and weights										
A	H	mm	1170	1170	1470	1470	1610	1610	1710	1710
A1	H	mm	910	910	1210	1210	1410	1410	1510	1510
B	H	mm	1460	1460	1460	1460	1860	1860	2310	2310
C	H	mm	-	-	-	-	-	-	-	-
C1	H	mm	1850	1850	1850	1850	2200	2200	2200	2200
Empty weight	H	kg	345	345	429	429	619	619	775	775

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RTX 09-16

Roof-Top for applications in medium crowed

Cooling capacity 50 ÷ 135 kW
Heating capacity 49 ÷ 141 kW

- **For medium crowding applications**
- **Upgraded thermodynamic heat recovery**
- **Handling section with plug fan coupled with BRUSHLESS EC motors**
- **Free-cooling / enthalpic free-cooling / photocatalytic system option**



DESCRIPTION

Independent Roof -top type air cooled air conditioner, for treatment, filtration and renewal of the air , based on the chosen configuration.
RTX 09-16units are designed fot medium crowding applications, like shopping malls, shops, offices , production areas being designed for operation with 30% external and expelled air (version MB3). The unit based on the version and selected accessories allows the management of the free-cooling operation, and can be equipped with a recuperator to recover the energy contained in the exaust air allowing higher perfomances and efficiencies.

VERSIONS

F Cooling only
H Heat pump.

FEATURES

Refrigerant circuit

functioning with R410A refrigerant, consisting of scroll compressors in "uneven" tandem configuration (except for sizes 09, 10 and 14) to ensure maximum energy savings at partial loads and better adaptability to system demands, providing only the energy actually needed. The compressors are equipped with electric resistances on the guards and thermal protection on the exhaust. The compressor compartment is isolated from the air flow.

Ventilation

The air treatment cross-section ventilation, which represents the highest expense in terms of machine operating costs, is entrusted to the plug fans with EC brushless motors which enable high performance, easy flow rate adjustment, compactness, low noise, versatility and easy maintenance. Furthermore, a special adaptive logic allows you to adjust the air flow rate to actual system demand with further advantages in terms of consumption reduction.

Axial fans

The axial fans, located in the condensing section of the unit, are the helical type, statically and dynamically balanced, protected electrically and mechanically by grids. Electronic condensation control is optional in F versions and condensation and evaporation during winter functioning in H versions. The fans are also available with electronically controlled (EC) permanent magnet synchronous motor.

Exchangers

The internal and external heat exchangers are finned pack direct expansion, made with copper pipes arranged in staggered rows and mechanically expanded to better adhere to the collar of the louvers. The louvers are made of aluminium with a special corrugated surfaces, suitably spaced to ensure maximum heat exchange yield.

Air filtration

Entrusted to a filter with 55% Coarse efficiency (according to EN ISO 16890) on the fresh air flow.
Also available: compact filter with ePM1 50% efficiency or ePM1 80% efficiency (according to EN ISO 16890) and electronic filter on fresh air flow. Positioning upstream of the components to be protected to ensure low pressure drops, having a large surface. Air quality control systems are also available (VOC and CO2 probe).

Cleaning system with photocatalytic lamp

The Photocatalytic Oxidation technology generates natural oxidising ions capable of attracting and destroying the pollutants present in the air and on surfaces, by means of the combined action of UV rays with a catalyst structure composed of a four-metal alloy, mainly consisting of TiO_2 (titanium dioxide).

Thermoregulation

Electronic controller able to manage the different functioning modes, ensuring maximum energy savings in all conditions of use by means of special software. Interfaces to connect to remote supervision and control systems available as options. The electrical panel complete with all devices is easily accessible.
The free-cooling/heating and defrosting logics are particularly sophisticated. As soon as the external conditions allow it, the unit is able to automatically activate the free-cooling or free-heating mode, which cools or heats the served room, while keeping the compressors off and introducing suitably treated external air. This mode significantly reduces both energy consumption and wear of the compressors. These func-

tions are also used when the external air energy content is not enough to cool or heat the room. In this case, the thermal cooling capacity is integrated by the compressors.

CONFIGURATIONS

MB1: Single ventilating cross-section for recovery air.
Recovery air only configuration where no fresh air is required.
The useful flow and recovery static pressure is provided by the flow ventilating cross-section.

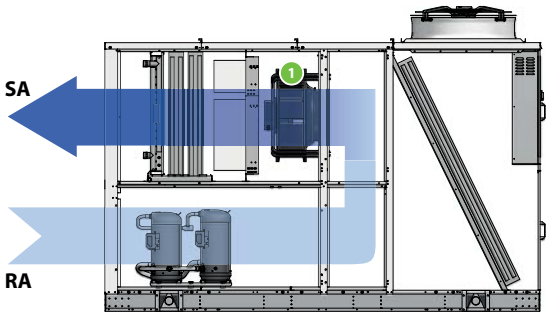
MB2: Single ventilating cross-section for recovery and external air.
Recovery and external air configuration. The useful flow and recovery static pressure is provided by the flow ventilating cross-section.
The presence of the recirculation damper (optional) allows for total free-cooling (100% external air).
If there are no extraction systems, the room will be in overpressure.

MB3: double ventilating cross-section (flow and return) for recovery air, external air and exhaust air, thermodynamic recovery.
Recovery, external and exhaust air configuration. The flow ventilating cross-section provides the useful flow static pressure while the recovery ventilating cross-section provides the useful recovery static pressure.
The double flow and recovery ventilating cross-section allows for total freecooling (100% external air) without the need for a dedicated extraction system. The room overpressure or depression can be obtained by unbalancing the flow rates.

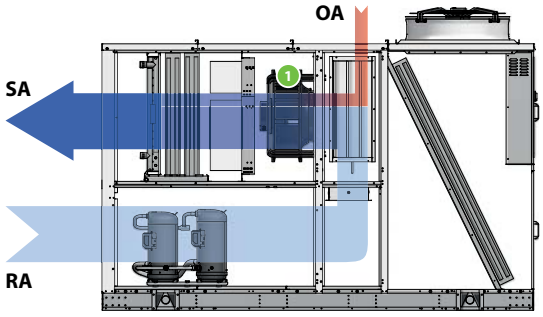
Thermodynamic recovery is performed by conveying expelled air on the external heat exchanger.

MB4: double ventilating cross-section (flow and expulsion) for recovery air, external air and exhaust air, thermodynamic recovery.
Recovery, external and exhaust air configuration. The flow ventilating cross-section provides the flow and recovery useful static pressure. The exhaust ventilating cross-section only controls the air flow rate to be expelled, with consequent reduction of the installed ventilation power.
The double flow and exhaust ventilating cross-section allows for partial free-cooling.
As for the MB3 version, it has the thermodynamic recovery function.
Advantages of thermodynamic recovery (MB3 - MB4 version):
- Energy recovery from the exhaust air flow that would otherwise be lost
- No further components are introduced and, therefore, there are no additional pressure drops
- Cooling circuit functioning with heat sources at more advantageous temperatures
- Reduction of defrosting cycles
- Increase in thermal and cooling efficiency
- Efficiency increase (EER/COP)

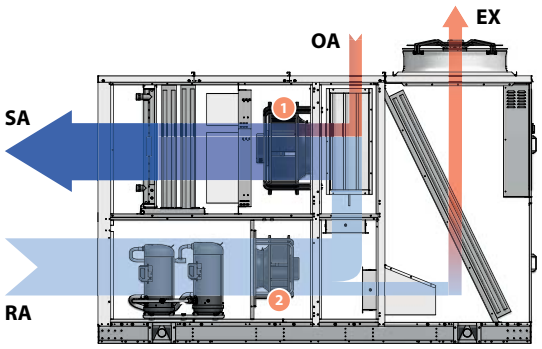
MB1



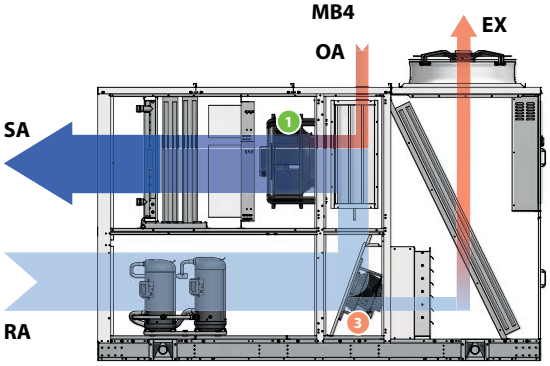
MB2



MB3



MB4



SA supply air
RA fresh air
OA fresh air
EX Exhaust air

1 Delivery fan
2 Return fan
3 Expulsion fan

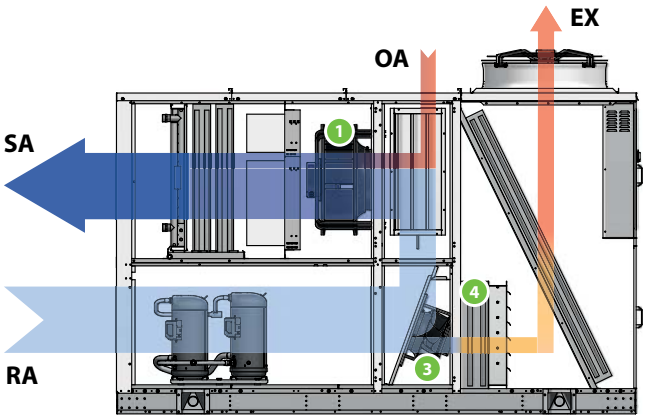
MBT: DOUBLE VENTILATING CROSS-SECTION (FLOW AND EXPULSION) FOR RECOVERY AIR, EXTERNAL AIR AND EXHAUST AIR, UPGRADED THERMODYNAMIC RECOVERY.

Recovery, external and exhaust air configuration. The flow ventilating cross-section provides the flow and recovery useful static pressure.
The exhaust ventilating cross-section only controls the air flow rate to be expelled, with consequent reduction of the installed ventilation power.
The double flow and exhaust ventilating cross-section allows for partial free-cooling.
The MBT configuration allows for the upgraded thermodynamic recovery on the exhaust air by fully exploiting the energy content still present in it. The exhaust flow rate, controlled by the dedicated exhaust fan,

is conveyed to the innovative finned pack recovery coil, integrated in the cooling circuit of the unit.
The coil, perfectly hit by the air flow, recovers the energy still present in the exhaust flow and transfer it to the cooling circuit, increasing the treatment coil performance without increasing the input power of the compressors.
In summer functioning, the coil makes it possible to increase the liquid subcooling, while in winter functioning, the coil takes on part of the evaporation by operating the cooling circuit at more advantageous temperatures.

Advantages of upgraded thermodynamic recovery (MBT version):

— High heat exchange efficiency thanks to the dedicated recovery coil
— Further increase in unit cooling and heating capacity
— Further increase in unit efficiency (EER/COP)
— Reduced additional air side pressure drops (expelled air side only)
— The unit remains compact
— In heating functioning, the defrost cycles are further reduced due to the increase in evaporation temperature. The result is an increase in efficiency and greater room comfort.
— Compared to traditional passive recuperators, in heating functioning it allows for exhaust air recovery even with low temperature difference between external and indoor air (mild winters)
— Compared to traditional passive recuperators, in cooling functioning it allows for exhaust air recovery even with low temperature difference between external and indoor air (continental and temperate climate)
— The presence of the dedicated coil determines the recovery efficiency that can be used in the energy certification calculations.



SA supply air
RA fresh air
OA fresh air
EX Exhaust air

1 Delivery fan
2 Return fan
3 Expulsion fan
4 Dedicated thermodynamic recovery coil

ACCESSORIES

AXEC: Axial fans with EC motors with speed control function according to the pressure of condensation and evaporation.
AXECP: EC axial fans with available useful static pressure.
BAC: Interface card BACnet MS/TP pCOnet.
BE: Electric heating coil 2 stages.
BEM: Modulating electric heating coil.
BIP: Interface card Ethernet-pCOweb (BACNET IP)
BPGC: After heating coil with hot gas.
BW: 2-rows-heating coil with hot water.
BWV2V: 2 -rows -heating coil with hot water, with 2-way modulating valve.
BWV3V: 2-rows heating coil with hot water, with 3-way modulating valve.
CA: Waterproof covers on external air intake.
CF: Flue, only on unit with gas burner module.
CUR: Humidification control (humidity probe in recovery, limit humidity probe in supply , contact ON/OFF and modulating analog output).
DCPR: AC fans with pressure switch device of speed control function of the pressure of condensation and evaporation.
DP: Dehumidification control (humidity probe in recovery) and of after-he- ating (if present).
FCT: Partial Temperature Free-Cooling for MB2, MB4 versions.
FT7: F7 efficiency pocket filters positioned on the supply air flow.
FT9: Pocket filters F9 efficiency placed on the flow of supply air.
FTE: Electronic filters placed on the flow of supply air.
FTH: Enthalpy free-cooling.
GP: External coil protection grid.
Gx: Heating module with gas burner.
LFX: Device with photocatalytic effect.
LW: Interface card LonWorks.
MAN: High and low pressure gauges.
MSSM: Flow silencer module, only for rear flow.
MSSR: Recovery silencer module, only for rear air recovery.
PRT1: Wall/recessed (up to 50 m) remote control panel.
PRT2: Wall/recessed (up to 200 m) remote control panel.
PSFT: Differential pressure switch signalling dirty filters.
PSTEP: Adjusting constant flow, step flow in function of the modulation of the cooling circuit.
RF: Smoke detector.
RFC: Smoke detector and damper management.
RS: Serial card BMS RS485.
SCM: Modulating servo-controls (standard on MB3 model or if temperature or enthalpic free-cooling is present).
SCMRM: Modulating Servo-control with spring return.
SCO2: Probe CO2 (not available on MB1 fittings).
STA: Room temperature probe
SUA: Room humidity probe.
SVOC: Probe VOC (not available on MB1 fittings).
UP: Manufacturer of immersed electrodes supplied and steam ramp installed.
VT: Antivibration mounts.

PERFORMANCE SPECIFICATIONS

MB1

Size		09	10	11	12	13	14	15	16
Configuration: MB1									
Cooling performances (1)									
Cooling capacity	kW	50,00	60,10	68,60	81,00	93,40	103,50	114,00	125,30
Sensible cooling capacity	kW	40,10	46,10	52,70	63,20	70,90	81,80	89,30	97,10
Compressors absorbed power	kW	11,90	14,40	18,80	17,90	23,10	25,60	30,50	35,50
EER compressors		4,20	4,17	3,65	4,53	4,04	4,04	3,74	3,53
Heating performances (2)									
Heating capacity	kW	49,40	61,10	69,30	80,60	93,70	102,20	113,70	126,60
Compressors absorbed power	kW	9,80	12,20	15,50	15,70	20,60	21,00	24,40	28,40
Compressor COP		5,04	5,01	4,47	5,13	4,55	4,87	4,66	4,46

(1) Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.
(2) Ambient air 20°C D.B./15°C W.B.; Outside air 7°C D.B./6°C W.B. (EN14511); Operation with 30% outside and expelled air.

MB2

Size		09	10	11	12	13	14	15	16
Configuration: MB2									
Cooling performances (1)									
Cooling capacity	kW	52,90	63,30	72,30	85,30	98,40	108,80	120,10	131,60
Sensible cooling capacity	kW	42,70	48,80	55,90	67,10	75,00	86,70	94,80	102,80
Compressors absorbed power	kW	12,10	14,60	19,00	18,10	23,30	25,90	30,90	35,90
EER compressors		4,37	4,34	3,81	4,71	4,22	4,20	3,89	3,67
Heating performances (2)									
Heating capacity	kW	50,50	61,90	70,60	82,20	94,90	103,60	115,30	128,10
Compressors absorbed power	kW	9,00	11,20	14,10	14,30	18,90	19,20	22,50	26,00
Compressor COP		5,61	5,53	5,01	5,75	5,02	5,40	5,12	4,93

(1) Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.
(2) Ambient air 20°C D.B./15°C W.B.; Outside air 7°C D.B./6°C W.B. (EN14511); Operation with 30% outside and expelled air.

MB3

Size		09	10	11	12	13	14	15	16
Configuration: MB3									
Cooling performances (1)									
Cooling capacity	kW	53,40	63,70	73,10	86,10	99,30	110,00	121,30	133,30
Sensible cooling capacity	kW	43,00	48,90	56,20	67,40	75,30	87,00	95,10	103,20
Compressors absorbed power	kW	11,80	14,20	18,50	17,70	22,80	25,10	30,10	34,80
EER compressors		4,53	4,49	3,95	4,86	4,36	4,38	4,03	3,83
Heating performances (2)									
Heating capacity	kW	52,10	64,10	74,10	85,00	98,60	107,80	120,60	134,30
Compressors absorbed power	kW	9,20	11,40	14,40	14,60	19,10	19,40	22,90	26,70
Compressor COP		5,66	5,62	5,15	5,82	5,16	5,56	5,27	5,03

(1) Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.
(2) Ambient air 20°C D.B./15°C W.B.; Outside air 7°C D.B./6°C W.B. (EN14511); Operation with 30% outside and expelled air.

MB4

Size		09	10	11	12	13	14	15	16
Configuration: MB4									
Cooling performances (1)									
Cooling capacity	kW	53,40	63,70	73,10	86,10	99,30	110,00	121,30	133,30
Sensible cooling capacity	kW	43,00	48,90	56,20	67,40	75,30	87,00	95,10	103,20
Compressors absorbed power	kW	11,80	14,20	18,50	17,70	22,80	25,10	30,10	34,80
EER compressors		4,53	4,49	3,95	4,86	4,36	4,38	4,03	3,83
Heating performances (2)									
Heating capacity	kW	52,10	64,10	74,10	85,00	98,60	107,80	120,60	134,30
Compressors absorbed power	kW	9,20	11,40	14,40	14,60	19,10	19,40	22,90	26,70
Compressor COP		5,66	5,62	5,15	5,82	5,16	5,56	5,27	5,03

(1) Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.
(2) Ambient air 20°C D.B./15°C W.B.; Outside air 7°C D.B./6°C W.B. (EN14511); Operation with 30% outside and expelled air.

MBT

Size			09	10	11	12	13	14	15	16
Configuration: MBT										
Cooling performances (1)										
Cooling capacity		kW	57,10	67,80	78,00	90,50	103,70	116,90	128,80	140,60
Sensible cooling capacity		kW	46,60	53,00	61,20	71,90	79,70	94,00	102,60	110,60
Compressors absorbed power		kW	11,80	14,20	18,50	17,70	22,80	25,10	30,10	34,80
EER compressors			4,84	4,77	4,22	5,11	4,55	4,66	4,28	4,04
Heating performances (2)										
Heating capacity		kW	55,40	68,00	78,30	90,10	103,60	114,40	127,50	141,40
Compressors absorbed power		kW	9,20	11,40	14,40	14,60	19,10	19,40	22,90	26,70
Compressor COP			6,02	5,96	5,44	6,17	5,42	5,90	5,57	5,30
Recovery efficiency		%	84%	92%	87%	90%	85%	85%	82%	78%

(1) Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.
(2) Ambient air 20°C D.B./15°C W.B.; Outside air 7°C D.B./6°C W.B. (EN14511); Operation with 30% outside and expelled air.

ENERGY INDEX

Size			09	10	11	12	13	14	15	16
Energy index										
SEER	H	W/W	4,24	3,94	3,76	3,92	3,89	4,22	4,10	4,05
ηsc	H	%	166.6%	154.5%	147.2%	153.9%	152.7%	165.7%	161.1%	159.1%
Pdesignh	H	kW	29	34	38	46	52	57	62	71
SCOP	H		3,59	3,50	3,30	3,27	3,22	3,47	3,41	3,38
ηsh	H	%	140.5%	137.0%	128.8%	127.7%	126.0%	135.9%	133.5%	132.3%

GENERAL TECHNICAL DATA

Size			09	10	11	12	13	14	15	16
Power supply										
Power supply	H		400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz
Compressor										
Type	H	type	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Number	H	no.	2	2	2	2	2	2	2	2
Circuits	H	no.	1	1	1	1	1	1	1	1
Refrigerant	H	type	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Partialisation step	H	no.	2	2	3	3	3	2	3	3

FANS

External fans

Size			09	10	11	12	13	14	15	16
Configuration: MB1, MB2, MB3, MB4, MBT										
External fans										
Type	H	type	Assiali AC	Assiali AC	Assiali AC	Assiali AC	Assiali AC	Assiali AC	Assiali AC	Assiali AC
Number	H	no.	2	2	2	2	2	2	2	2

Internal fans MB1-MB2-MB3-MB4-MBT

Size			09	10	11	12	13	14	15	16
Configuration: MB1, MB2, MB3, MB4, MBT										
Internal fans										
Nominal air flow rate	H	m^3/h	9500	11000	13000	15000	17000	20000	22000	24000
Minimum air flow rate	H	m^3/h	6650	7700	9100	10850	12600	14000	15400	16800
Maximum air flow rate	H	m^3/h	9500	11000	13000	15500	18000	20000	22000	24000

Internal recovery fans

Size			09	10	11	12	13	14	15	16
Configuration: MB3										
Recovery										
Type	H	type	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC
Number	H	no.	1	1	1	2	2	2	2	2

Expulsion fan MB4-MBT

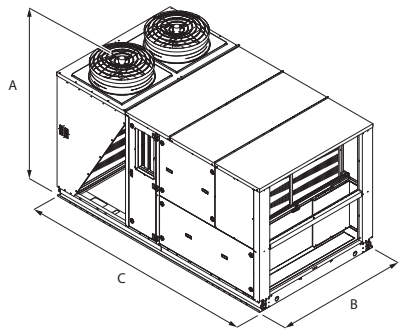
Size			09	10	11	12	13	14	15	16
Configuration: MBT										
Exhaust										
Type	H	type	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC
Number	H	no.	1	1	1	2	2	2	2	2

Internal flow fans

Size			09	10	11	12	13	14	15	16
Configuration: MB1, MB2, MB3, MB4, MBT										
Delivery										
Type	H	type	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC
Number	H	no.	1	1	1	2	2	2	2	2
Maximum useful head (1)	H	Pa	770	510	445	555	740	640	525	675
High static pressure (EN14511) (1)	H	Pa	200	200	200	200	250	250	250	300

(1) At the nominal/maximum flow rate with a new, clean air filter.

DIMENSIONS



Size			09	10	11	12	13	14	15	16
Dimensions and weights										
A	H	mm	2061	2061	2061	2373	2373	2440	2440	2440
B	H	mm	1900	1900	1900	2100	2100	2200	2200	2200
C	H	mm	3400	3400	3400	3400	3400	4000	4000	4000

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RTX-17-23

Roof-Top for applications in medium crowed

Cooling capacity 151 ÷ 307 kW
Heating capacity 152 ÷ 310 kW

- **For medium crowding applications**
- **Thermodynamic heat recovery**
- **Handling section with plug fan coupled with BRUSHLESS EC motors**
- **Free cooling / Enthalpy free cooling**



DESCRIPTION

Independent Roof -top type air cooled air conditioner, for treatment, filtration and renewal of the air , based on the chosen configuration.
The RTX 09-16 units are designed for installation in places with an average degree of crowding such as shopping centres, shops, offices and production sites, as operation uses 30% outside expelled air (versions MB3 and MB4).

CONFIGURATIONS

MB1: Single ventilating cross-section for recovery air.
Recovery air only configuration where no fresh air is required.
The useful flow and recovery static pressure is provided by the flow ventilating cross-section.

MB2: Single ventilating cross-section for recovery and external air.
Recovery and external air configuration. The useful flow and recovery static pressure is provided by the flow ventilating cross-section.
The presence of the recirculation damper (optional) allows for total free-cooling (100% external air).
If there are no extraction systems, the room will be in overpressure.

MB3: double ventilating cross-section (flow and return) for recovery air, external air and exhaust air, thermodynamic recovery.
Recovery, external and exhaust air configuration. The flow ventilating cross-section provides the useful flow static pressure while the recovery ventilating cross-section provides the useful recovery static pressure.
The double flow and recovery ventilating cross-section allows for total freecooling (100% external air) without the need for a dedicated extraction system. The room overpressure or depression can be obtained by unbalancing the flow rates.
Thermodynamic recovery is performed by conveying expelled air on the external heat exchanger.

MB4: double ventilating cross-section (flow and expulsion) for recovery air, external air and exhaust air, thermodynamic recovery.

Depending on the version and the accessories chosen, the unit can manage free cooling mode. Versions MB3 and MB4 feature the thermodynamic recovery of the energy contained in the exhaust air, leading to higher performance and efficiency levels.

VERSIONS

F Cooling only
H Heat pump.

Recovery, external and exhaust air configuration. The flow ventilating cross-section provides the flow and recovery useful static pressure. The exhaust ventilating cross-section only controls the air flow rate to be expelled, with consequent reduction of the installed ventilation power. The double flow and exhaust ventilating cross-section allows for partial free-cooling.
As for the MB3 version, it has the thermodynamic recovery function.
Advantages of thermodynamic recovery (MB3 - MB4 version):
— Energy recovery from the exhaust air flow that would otherwise be lost
— No further components are introduced and, therefore, there are no additional pressure drops
— Cooling circuit functioning with heat sources at more advantageous temperatures
— Reduction of defrosting cycles
— Increase in thermal and cooling efficiency
— Efficiency increase (EER/COP)

FEATURES

— 2 cooling circuits with electronic thermostatic expansion valve;
— Scroll compressors (UNEVEN tandem) with high capacity and low electrical power consumption;
— Finned pack direct expansion internal and external exchangers;
— Plug fan type (EC) flow and exhaust fans (if any). The impellers are facing so as to ensure that the air flows through all the internal components with minimum noise;

— Axial fan unit for extremely silent functioning positioned on the condensing section.
— Filter with 55% COARSE efficiency (according to EN ISO 16890) on the fresh air flow; Also available: compact filter with ePM1 50% efficiency (according to EN ISO 16890). Positioning upstream of the components to be protected to ensure low pressure drops, having a large surface. Air quality control systems are also available (VOC and $CO_{2\ probe}$);
— The structure consists of a galvanised sheet metal base, frame in galvanised sheet metal shaped profiles powder coated in RAL9003 (self-bearing structure), pre-painted sheet metal panels (external) insulated with 28kg/mc dense adhesive insulation and sandwich type panels insulated with 25 mm thick 45kg/mc polyurethane, eco-friendly "GWP 0" (Global Warming Potential);
— The casing, designed to allow the internal components to be accessed for routine and extraordinary maintenance.

CONTROL

Microprocessor control able to manage the different functioning modes, ensuring maximum energy savings in any conditions of use. Interfaces to connect to remote supervision and control systems available as options.

FUNCTIONALITY AND TECHNOLOGICAL ADVANTAGES

RTX units are designed with the aim of reducing the energy consumption that subsequently dictated the technological choices made on the unit we will now introduce in brief.

Very high ventilation efficiency

As ventilation is one of the major power consumption factors, we dedicated particular attention to designing and constructing the ventilation system.
State-of-the-art plug fans with EC brushless motors have been used both in flow and in recovery (if any), which enable high performance and reduced consumption. Furthermore, compared to conventional centrifugal fans, they have no belts or pulleys, thus facilitating flow rate adjustment and resulting in compactness, versatility and easy maintenance.
Special adaptive logic allows you to adjust the air flow rate to actual system demand with further resulting advantages in terms of consumption reduction.
Axial fans for the external section of the unit are helical. Electronic condensation control is available as an accessory, which regulates fan speed based on the load required, allowing for noise reduction. As an option, the motors can have electronic control (EC) to reduce consumption even in the condensing part.

Maximum seasonal efficiency

To improve the efficiency of the cooling circuit, tandem scroll compressors of different power levels are used (UNEVEN compressors on all sizes). This distinctive trait, combined with the use of next generation fans, means reduced consumption and enhanced adaptability to system requests (particularly in partial load operation), guaranteeing boosted seasonal efficiency levels.

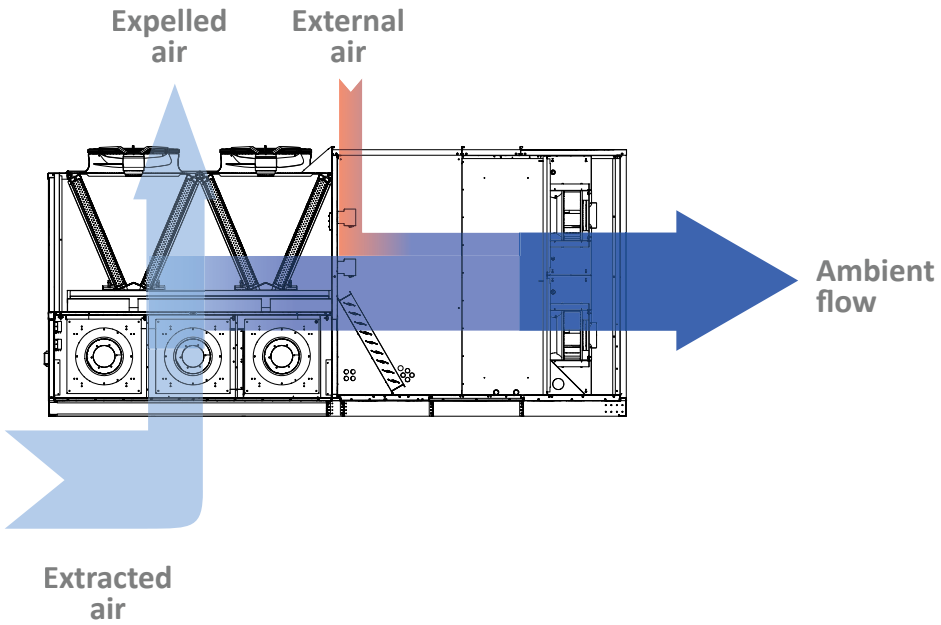
Room air quality

Special attention has been paid to the quality of the air in the room, entrusted to filters that ensure 55% COARSE efficiency as standard. There is also the option of F7, F9 or electronic filters on the fresh air flow.

Active thermodynamic recovery

In the MB3-MB4 configuration, the unit with thermodynamic recovery function also takes advantage of the energy contained in the exhaust air, which would otherwise be lost; this ensures better performance and efficiency.
All of these technological advantages are controlled by a thermoregulation that is able to manage the different functioning modes, ensuring maximum energy savings in all conditions of use via dedicated software.

MB3 CONFIGURATION WITH TWIN FAN SECTION FOR RECIRCULATION AIR, OUTSIDE AIR AND EXHAUST AIR. TOTAL FREE COOLING FUNCTION (WITH 100% OUTSIDE AIR) AND THERMODYNAMIC RECOVERY FUNCTION AS STANDARD.



ACCESSORIES

AXEC: Axial fans with EC motors with speed control function according to the pressure of condensation and evaporation.
AXECP: EC axial fans with available useful static pressure.
BAC: Interface card BACnet MS/TP pCOnet.
BE: Electric heating coil 2 stages.
BEM: Modulating electric heating coil.
BIP: Interface card Ethernet-pCOweb (BACNET IP)
BPGC: After heating coil with hot gas.
BW: 2-rows-heating coil with hot water.
BWV2V: 2 -rows -heating coil with hot water, with 2-way modulating valve.

BWV3V: 2-rows heating coil with hot water, with 3-way modulating valve.
CA: Waterproof covers on external air intake.
CF: Flue, only on unit with gas burner module.
CUR: Humidification control (humidity probe in recovery, limit humidity probe in supply , contact ON/OFF and modulating analog output).
DCPR: AC fans with pressure switch device of speed control function of the pressure of condensation and evaporation.
DP: Dehumidification control (humidity probe in recovery) and of after-he- ating (if present).
FCT: Partial Temperature Free-Cooling for MB2, MB4 versions.
FT7: F7 efficiency pocket filters positioned on the supply air flow.
FT9: Pocket filters F9 efficiency placed on the flow of supply air.
FTE: Electronic filters placed on the flow of supply air.
FTH: Enthalpy free-cooling.
GP: External coil protection grid.
Gx: Heating module with gas burner.
LFX: Device with photocatalytic effect.
LW: Interface card LonWorks.
MAN: High and low pressure gauges.
MSSM: Flow silencer module, only for rear flow.
MSSR: Recovery silencer module, only for rear air recovery.
PRT1: Wall/recessed (up to 50 m) remote control panel.
PRT2: Wall/recessed (up to 200 m) remote control panel.
PSFT: Differential pressure switch signalling dirty filters.
PSTEP: Adjusting constant flow, step flow in function of the modulation of the cooling circuit.
RF: Smoke detector.
RFC: Smoke detector and damper management.
RS: Serial card BMS RS485.
SCM: Modulating servo-controls (standard on MB3 model or if temperature or enthalpic free-cooling is present).
SCMRM: Modulating Servo-control with spring return.
SCO2: Probe CO2 (not available on MB1 fittings).
STA: Room temperature probe
SUA: Room humidity probe.
SVOC: Probe VOC (not available on MB1 fittings).
UP: Manufacturer of immersed electrodes supplied and steam ramp installed.
VT: Antivibration mounts.

PERFORMANCE SPECIFICATIONS

MB1

Size		17	18	19	20	21	22	23
Configuration: MB1								
Cooling performances (1)								
Cooling capacity	kW	151,90	170,10	191,70	213,30	231,70	246,10	289,10
Sensible cooling capacity	kW	114,30	125,40	136,10	151,60	164,70	178,50	202,30
Compressors absorbed power	kW	32,70	39,20	45,30	54,00	60,70	69,00	68,90
EER compressors		4,65	4,34	4,23	3,95	3,82	3,57	4,20
Heating performances (2)								
Heating capacity	kW	152,70	170,80	192,80	216,20	230,80	245,50	296,30
Compressors absorbed power	kW	28,20	33,90	39,20	43,90	46,30	51,20	58,60
Compressor COP		5,41	5,04	4,92	4,92	4,98	4,79	5,06

(1) Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.
(2) Ambient air 20°C D.B./15°C W.B.; Outside air 7°C D.B./6°C W.B. (EN14511); Operation with 30% outside and expelled air.

MB2

Size		17	18	19	20	21	22	23
Configuration: MB2								
Cooling performances (1)								
Cooling capacity	kW	160,20	179,40	201,80	224,60	243,90	258,90	304,50
Sensible cooling capacity	kW	120,90	132,60	143,20	159,70	173,50	188,30	212,90
Compressors absorbed power	kW	33,10	39,50	45,60	54,60	61,60	69,80	69,70
EER compressors		4,84	4,54	4,43	4,11	3,96	3,71	4,37
Heating performances (2)								
Heating capacity	kW	155,10	174,20	195,50	219,50	234,00	248,60	300,70
Compressors absorbed power	kW	25,80	31,10	35,70	40,40	42,50	47,00	54,10
Compressor COP		6,01	5,60	5,48	5,43	5,51	5,29	5,56

(1) Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.
(2) Ambient air 20°C D.B./15°C W.B.; Outside air 7°C D.B./6°C W.B. (EN14511); Operation with 30% outside and expelled air.

MB3

Size		17	18	19	20	21	22	23
Configuration: MB3								
Cooling performances (1)								
Cooling capacity	kW	161,30	181,10	203,70	226,90	246,70	262,10	307,20
Sensible cooling capacity	kW	121,30	133,30	143,80	160,50	174,50	189,20	213,90
Compressors absorbed power	kW	32,50	38,80	44,50	53,20	59,90	67,70	68,30
EER compressors		4,96	4,67	4,58	4,27	4,12	3,87	4,50
Heating performances (2)								
Heating capacity	kW	159,10	179,00	202,30	227,70	243,60	259,90	310,90
Compressors absorbed power	kW	26,20	31,40	36,30	41,00	43,30	47,90	55,00
Compressor COP		6,07	5,70	5,57	5,55	5,63	5,43	5,65

(1) Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.
(2) Ambient air 20°C D.B./15°C W.B.; Outside air 7°C D.B./6°C W.B. (EN14511); Operation with 30% outside and expelled air.

MB4

Size			17	18	19	20	21	22	23
Configuration: MB4									
Cooling performances (1)									
Cooling capacity		kW	161,30	181,10	203,70	226,90	246,70	262,10	307,20
Sensible cooling capacity		kW	121,30	133,30	143,80	160,50	174,50	189,20	213,90
Compressors absorbed power		kW	32,50	38,80	44,50	53,20	59,90	67,70	68,30
EER compressors			4,96	4,67	4,58	4,27	4,12	3,87	4,50
Heating performances (2)									
Heating capacity		kW	159,10	179,00	202,30	227,70	243,60	259,90	310,90
Compressors absorbed power		kW	26,20	31,40	36,30	41,00	43,30	47,90	55,00
Compressor COP			6,07	5,70	5,57	5,55	5,63	5,43	5,65

(1) Ambient air 27°C d.b./19°C w.b.; External air 35°C/24°C w.b.; Functioning with 30% of external and expelled air.
(2) Ambient air 20°C D.B./15°C W.B.; Outside air 7°C D.B./6°C W.B. (EN14511); Operation with 30% outside and expelled air.

ENERGY INDEX

Size			17	18	19	20	21	22	23
Energy index									
SEER	H	W/W	4,01	3,94	4,18	3,92	4,15	3,94	3,85
ηsc	H	%	157.6%	154.6%	164.3%	153.8%	162.9%	154.5%	150.9%
Pdesignh	H	kW	89	98	109	123	130	141	168
SCOP	H		3,47	3,31	3,45	3,36	3,49	3,43	3,26
ηsh	H	%	135.7%	129.4%	134.8%	131.5%	136.4%	134.2%	127.3%

GENERAL TECHNICAL DATA

Size			17	18	19	20	21	22	23
Power supply									
Power supply	H		400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz	400V~3 50Hz
Compressor									
Type	H	type	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Number	H	no.	4	4	4	4	4	4	4
Circuits	H	no.	2	2	2	2	2	2	2
Refrigerant	H	type	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Partialisation step	H	no.	6	6	6	6	6	6	6

FANS

External fans

Size			17	18	19	20	21	22	23
Configuration: MB1, MB2, MB3, MB4									
External fans									
Type	H	type	Assiali AC	Assiali AC	Assiali AC	Assiali AC	Assiali AC	Assiali AC	Assiali AC
Number	H	no.	4	4	4	4	4	4	4

Internal fans

Size			17	18	19	20	21	22	23
Configuration: MB1, MB2, MB3, MB4									
Internal fans									
Nominal air flow rate	H	m^3/h	26000	29000	33000	37000	40000	44000	48000
Minimum air flow rate	H	m^3/h	18200	20300	23100	25900	28000	30800	33600
Maximum air flow rate	H	m^3/h	36000	36000	44000	44000	53000	53000	53000

Internal recovery fans

Size			17	18	19	20	21	22	23
Configuration: MB3									
Recovery									
Type	H	type	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC
Number	H	no.	3	3	3	3	3	3	3

Expulsion fan

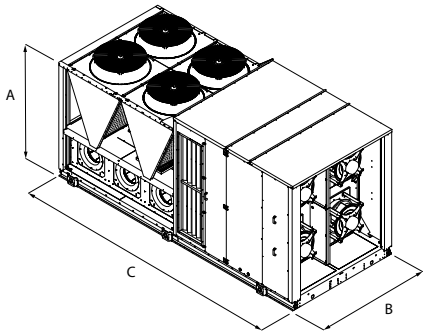
Size			17	18	19	20	21	22	23
Configuration: MB4									
Exhaust									
Type	H	type	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC
Number	H	no.	2	2	2	2	2	2	2

Internal flow fans

Size			17	18	19	20	21	22	23
Configuration: MB1									
Delivery									
Type	H	type	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC
Number	H	no.	2	2	3	3	3	4	4
Maximum useful head (1)	H	Pa	700	475	520	580	520	690	550
High static pressure (EN14511) (1)	H	Pa	350	350	350	350	350	350	350
Configuration: MB2, MB3, MB4									
Delivery									
Type	H	type	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC	RAD EC
Number	H	no.	2	2	3	3	3	4	4
Maximum useful head (1)	H	Pa	519	341	330	470	460	636	467
High static pressure (EN14511) (1)	H	Pa	350	350	350	350	350	350	350

(1) At the nominal/maximum flow rate with a new, clean air filter.

DIMENSIONS



Size			17	18	19	20	21	22	23
Dimensions and weights									
A	H	mm	2430	2430	2430	2430	2430	2430	2430
B	H	mm	2200	2200	2200	2200	2200	2200	2200
C	H	mm	5210	5210	5210	5210	7750	7750	7750

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50Hz R410A

RTY 01-10

Rooftop

Cooling capacity 30,2 ÷ 133,6 kW
Heating capacity 29,3 ÷ 137,9 kW

- **Handling section with plug fans coupled with brushless EC motors**
- **Thermodynamic heat recovery**
- **Free-cooling operation**
- **For high crowding applications**



Independent Roof-top type air conditioner for treatment, filtration and renewal of the air, based on the chosen configuration. RTY units are designed for high crowding applications, such as cinemas, conference rooms, restaurants, nightclubs being intended for operation with 80% external and expelled air .
The standard unit allows to manage the cooling operation and the recovery of the energy contained in the exhaust air allowing higher performances and efficiencies.

VERSIONS

RTY_H heat pumps

CONFIGURATIONS

MB3 with mixing chamber with three dampers, return fan and heat recovery from expelled air.

The configuration can be further customized with a wide choice of accessories

— 1 refrigerant circuit
— High efficiency scroll compressors (tandem UNEVEN) and low power consumption
— Finned exchangers of the refrigerant circuit direct expansion.
— Supply and return fans, of plug fan type (EC). The impellers are so oriented to ensure that the air flow passes through all the internal components, with the minimum noise.
— Group of axial fans for extremely silent operation placed on the condensing section.
— Electronic control of condensation and evaporation are standard to extend further the operating limits of the unit.
— G4 air filter on the flow of outside air and on the recovery; they are installed upstream of the components, to ensure low pressure drops.

CONTROL

Microprocessor control can handle the different modes of operation ensuring maximum energy savings in any conditions C
Interfaces for connections to remote control supervision system, available as optional.

ACCESSORIES AND FITTINGS

SSV: Supervision system
RS: Serial card BMS RS485
LW: Interface card LonWorks
BIP: Interface card Ethernet-pCOweb (BACNET IP)
BAC: interface card BACnet MS/TP pCOnet
FTH: Enthalpic free-cooling
PSTEP: Adjusting constant flow, step flow in function of the modulation of the cooling circuit
FT7: pocket filters F7 efficiency placed on the flow of supply air.
FT9: Pocket filters F9 efficiency placed on the flow of supply air
H10: Electronic filters placed on the flow of supply air.
PSF2: Differential pressure switch signaling fouled filters of recovery, renewal and discharge
Gx: Heating module with gas burner
BW: 2-rows heating coil with hot water
BWV2V: 2-rows heating coil with with hot water, with 2-way modulating valve.
BWV3V: 2-rows heating coil with hot water, with 3-way modulating valve.
BE: Electric heating coil 2 stages **(not available with hot air generator)**
BEM: Modulating electric heating coil **(not available with hot air generator)**
BPGC: After heating coil with hot gas .
AXEC: Axial fans with EC motors with speed control function according to the pressure of condensation and evaporation.
MAN: High and low pressure gauges
U: installed steam ramp
UP: Immersed electrode producer standard supplied and installed steam ramp
CUR: Humidification control (Humidity probe in recovery , limit humidity probe in supply, contact ON/OFF and modulating analog output)
DP: Dehumidification control (humidity probe in recovery) and of after-heating (if present)
SCO2: Probe CO2
SVOC: Probe VOC
STA: Room temperature probe
SUA: Room humidity probe

RF: Smoke detector
RFC: Smoke detector and recirculation damper closure management and external air intake
PR1: Remote control panel
SCMRM: Modulating servo-controls with spring return
CA: Waterproof headphones on external air intake
CF: Flue pipe (only on version with gas burner module)

GP: Protection grille for external coils
VT: antivibration mounts
MSSM: Delivery silencers forms (only for rear air delivery)
MSSR: Recovery silencers forms (only for rear air delivery)

NOTE: for more details on accessories and equipment, please refer to the technical handbook.

FEATURES AND TECHNOLOGICAL ADVANTAGES

RTY units have been designed with the aim of reducing energy consumption that dictated the result of technological choices present on the unit that we briefly present.

HIGH EFFICIENCY VENTILATION

Ventilation is one of the major factors of power consumption, for this reason particular attention has been given to the study and the construction of the ventilation system.

Fans type plug-fans with brushless EC motors have been used in both supply and recovery; they enables high performances and low power consumption; also comparing them to conventional centrifugal fans, they have no belts or pulleys allowing easy flow regulation, compactness, versatility and ease of maintenance.
A particular adaptive logic allows to adjust the air flow to the actual demand of the system with more consequent advantages in terms of reduction of consumption.

Axial fans for the external section of the unit are of helycal type; the electronic control of condensation is standard and it regulates the fan speed according to the load required, allowing a noise reduction.
As an option, the motors can be electronically controlled (EC) for the reduction in consumption of the condenser section.

MAXIMUM SEASONAL EFFICIENCIES

To improve the efficiency of the refrigerant circuit, we have used scroll tandem compressors with different power between them (compressors UNEVEN except for size 08. This feature allows a reduction of consumptions and a better adaptability to the demands of the system, especially in the operation at partial loads, ensuring higher seasonal efficiency.

AIR QUALITY IN THE ROOM

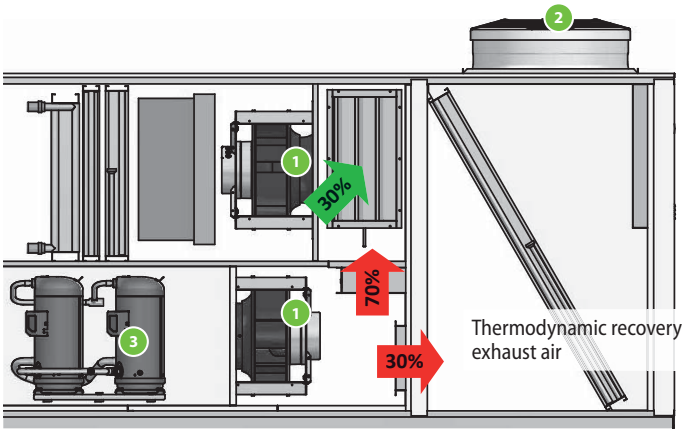
Particular attention has been given naturally also to the quality of air in the room, **entrusted to the standard filters with G4 efficiency on the flow of outside air, also available on the recovery (optional) for process applications.**
They are also available as an (optional) compact filters F7 and F9 or electronic H10 on the flow of fresh air.

ACTIVE THERMODYNAMIC RECOVERY

It is also available a thermodynamic recovery for the recovery of the energy contained in the exhaust air in such a way that the flow of exhaust air invests the external finned heat exchanger, allowing higher performances and efficiencies.

Of course all these technological advantages are controlled by a temperature control of the latest generation, able to handle the different modes of operation; ensuring maximum energy savings in all operating conditions by means of a special software.

CONFIGURATION WITH THERMODYNAMIC RECOVERY "MB3"



1 Plugfan supply and recovery
2 Axial fans
3 Tandem scroll compressors

PERFORMANCE SPECIFICATIONS

Mod. RTY Heat pump

Size			01	02	03	04	05	06	07	08	09	10
Cooling capacity	(1)	kW	30,2	39,6	48,7	65,4	75,3	84,3	90,9	107,6	121,4	133,6
Sensitive cooling capacity		kW	21,2	27,1	32,6	43,1	48,9	55,2	61,1	70,5	80,6	87,4
Sensitive / total cooling power		kW	0,70	0,68	0,67	0,66	0,65	0,66	0,67	0,66	0,66	0,65
Compressor input power		kW	5,3	8,4	9,7	13,1	15,2	17,5	18,5	23,3	27,6	32,6
EER		W/W	5,70	4,71	5,00	5,00	4,96	4,82	4,92	4,61	4,39	4,09
EER global		W/W	4,63	4,02	3,86	3,54	3,54	3,44	3,41	3,33	3,20	3,01
Heating capacity	(2)	kW	29,3	39,7	48,5	66,5	76,6	85,8	91,4	110,4	123,4	137,9
Compressor input power		kW	4,4	7,0	8,4	12,4	14,2	15,7	15,5	19,2	21,8	25,5
COP		W/W	6,67	5,68	5,77	5,38	5,39	5,47	5,89	5,73	5,66	5,41
COP global		W/W	5,21	4,70	4,30	3,75	3,78	3,77	3,85	3,91	3,84	3,70

(1) Internal temperature 27°C d.b., 19°C w.b.; External temperature 35°C d.b., 24°C w.b.; U.R. 40%;
(2) Internal temperature 20°C d.b., 15°C w.b.; External temperature 7°C d.b. 6°C w.b.;

GENERAL TECHNICAL DATA

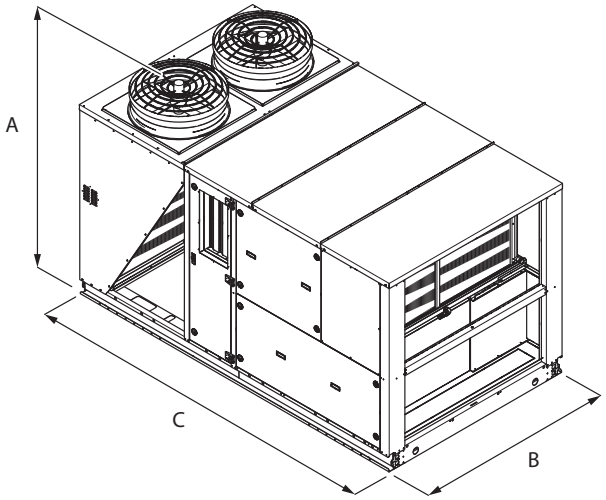
Size				01	02	03	04	05	06	07	08	09	10
Compressors													
Compressors			type	Scroll									
			n°	2	2	2	2	2	2	2	2	2	2
Circuits			n°	1	1	1	1	1	1	1	1	1	1
Capacity steps	(1)		%	3	3	3	3	3	3	3	2	3	3
Refrigerant gas			type	R410A									
Fans													
External fans			type	Axials AC									
			n°	1	1	2	2	2	2	2	2	2	2
Internal fans of flow			type	RAD EC									
			n°	1	1	1	1	1	1	1	1	1	2
			Ø mm	400	450	450	450	450	450	500	560	630	450
Internal fans of recovery			type	RAD EC									
			n°	1	1	1	1	1	1	1	2	2	2
			Ø mm	400	450	450	450	450	500	500	450	450	450
Air flow of inside fan		nom/max	m^3/h	3500	4500	5500	7000	8000	9500	11500	14000	15000	16500
		min	m^3/h	2450	3150	3850	4900	5600	6650	8050	9800	10500	11550
Available static pressure of supply	(2)	max	Pa	150	150	200	200	200	250	250	250	300	300
Available static pressure of recovery	(2)	max	Pa	171	184	248	235	245	311	336	372	439	465
Power supply			V/ph/Hz	400V/3/50Hz									

(1) Sizes 08 don't have UNEVEN compressors
(2) At the nominal/maximum flow rate, G4 medium fouling filter

Sound pressure: Sound pressure measured in free field, (1m, Q=2) away from the external surface of the ducted unit, available static pressure 300Pa at a nominal flow (in accordance with the UNI EN ISO 3744).

Note: For more informations please refer to the technical documentation available on the website www.aermec.com

DIMENSIONS



Size		Vers.	01	02	03	04	05	06	07	08	09	10
Dimensions												
A	mm	All	2061	2061	2061	2373	2373	2373	2373	2373	2373	2373
B	mm	All	1900	1900	1900	2100	2100	2100	2100	2100	2100	2100
C	mm	All	3400	3400	3400	3400	3400	3400	3400	3400	3400	3400

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AIR/WATER CHILLERS AND HEAT PUMPS

Aermec plant engineering really comes into its own in the field of machines and technology for centralised systems. Aermec offer a full range of chillers and heat pumps from the small domestic system up to that of the large size for the service industry.

The cooling capacity range is extremely wide, and the fittings solutions are equally diverse, for scroll, screw or centrifugal compressor applications.

The careful selection of materials and the close attention paid to every detail of assembly coupled with the huge selection of accessories complete the industry-leading products designed for use in this sector, making Aermec units a real "must" in the world of Italian and European climate control.

AIR / WATER CHILLERS AND HEAT PUMPS

			Air flow rate (m³/h)	Cool. Cap. (kW)	Heat. Cap. (kW)	Page
	Units with scroll compressors					
	ANKI 020-080	Reversible heat pumps inverter	-	5,8-24,8	6,1-20,8	326
	HMI	Reversible air/water heat pump	-	3,0-14,5	4,0-15,5	330
	BHP	Air/Water split type reversible heat pump	-	3,2-8,5	4,0-9,5	336
	HMG	Reversible air/water heat pump	-	32-60	35-65	347
	ANLI	Reversible heat pumps inverter	-	28,9	31,5	352
	ANK 020-150	Reversible air/water heat pump	-	6,8-39,8	8,0-35,3	356
	SWP	High temperature air cooled heat pumps for production of DHW	-	-	1,9	363
	ANL 021-202	Air-water chiller	-	5,7-43,3	-	366
	ANL 021H-203H	Reversible air/water heat pump	-	5,7-49,1	6,2-43,3	372
	ANL 290-650	Air-water chiller	-	54,7-133,5	-	379
	ANL 292H-652H	Reversible air/water heat pump	-	52,9-128,8	60,8-141,4	384
	NRK 0090-0150	Reversible air/water heat pump	-	18,4-31,0	20,8-34,4	390
	NRK 0200-0700	Reversible air/water heat pump	-	35,5-148,0	42,3-175,0	394
	NRV 0550	Air-water chiller	-	108,3	-	399
	NRB 0282-0754	Air-water chiller	-	56-202	-	403
	NRB 0282H-0754H	Reversible air/water heat pump		52-261	57-193	412
	NRG 0282-0804	Air-water chiller	-	55,8-224,6	-	420
	NRG 0282H-0804H	Reversible air/water heat pump	-	52,5-212,0	56,6-214,4	428
	NRGI 151-602	Air-water chiller	-	31,0-132,2	-	435
	NRGI 151H-602H	Reversible air/water heat pump	-	28,9-123,7	31,6-133,9	440
	NRL 0280-0700	Air-water chiller	-	56,0-194,0	-	445
	NRL 0280H-0700H	Reversible air/water heat pump	-	51,0-180,0	58,0-204,0	450
new	**NRG 0800-2400**	Air-water chiller	-	225,7-725,0	-	456
new	**NRG 0800H-2400H**	Reversible air/water heat pump	-	195,2-639,6	209,3-674,2	464
	NRB 0800-3600	Air-water chiller (plate heat exchanger)	-	217-1049	-	471
	NRB 0800-3600 T	Air-water chiller (shell and tube heat exchanger)	-	217-1049	-	479
	NRB 0800H-3600H	Reversible air/water heat pump (plate heat exchanger)	-	196-971	209-1006	487
	NRB 0800H-3600H-T	Reversible air/water heat pump (shell and tube heat exchanger)	-	196-971	209-1006	496
	CL 025-200	Air-water chiller with Plug Fan	-	5,8-41,0	-	504
	CL 025H-200H	Reversible air/water heat pump with Plug Fan	-	6,5-50,9	7,7-44,8	509
	NLC 0280-1250	Air-water chiller with Plug Fan	-	53-322	-	515
	NLC 0280H-1250H	Reversible air/water heat pump with Plug Fan	-	53-322	55-342	522
	Units with screw compressors					
	NSM 1402-9603	Air-water chiller	-	302-2100	-	527
	NSMI 1251-6102	Chiller with Inverter screw compressors	-	285,6-1342,6	-	541
	NSH	Reversible air/water heat pump	-	251-731	281-786	545
	NSG	Air-water chiller (with R1234ze)	-	228-1580	-	551
	Units with centrifugal compressors					
	TBA 1300-4325	Air-water chiller	-	328-1404	-	563
	TBG 1230-4310	Air-water chiller	-	200-1165	-	568

ANKI 020-080

Reversible air/water heat pump

Cooling capacity 5,8 ÷ 24,8 kW
Heating capacity 6,1 ÷ 20,8 kW

- **Production of hot water up to 60 °C**
- **Production of hot domestic water with outside temperatures from –20 °C up to 42 °C**
- **Quick & easy installation**



DESCRIPTION

Reversible air/water heat pump for air conditioning systems with cold water production for cooling rooms and hot water for heating and/or domestic hot water services, suitable for connection with small or medium users.
It's optimised for use in heating mode, and can be combined not only with low-temperature emission systems such as floor heating or fan coils, but also conventional radiators.
All the units are equipped with inverter scroll compressors, axial fans, external coils with aluminium louvers, a plate heat exchanger on the side.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

° Standard
X With inverter pump

FEATURES

Operating field

Working at full load up to -20°C outside air temperature in winter, and up to 46°C in summer. Possibility production technical hot water production up to 60°C (for more information see the technical documentation).

Version with Integrated hydronic kit

If a plug&play solution is required, there's also a version with an integrated hydronic unit containing the main hydraulic components including the water filter (supplied).

The water filter must be installed to validate the warranty.

CONTROL PCO

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.
Adjustment includes complete management of the alarms and their log.
The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.

ACCESSORIES

MOD485K: RS-485 simplified interface for supervision systems with MODBUS protocol.
MULTICONTROL: Allows the simultaneous control of several units (up to 4), installed in the same hydraulic system.
PGD1: Allows you to control the unit at a distance.
PR3: Simplified remote panel. This makes it possible to carry out the unit's basic controls with the signalling of alarms. Can be made remote with shielded cable up to 150 m.
SAF: Thermal buffer tank kit with instantaneous Domestic Hot Water production.
SDHW: Domestic hot water sensor. To be used with a storage tank for the control of water temperature produced.
SPLW: System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring
DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.
VT: Anti-vibration supports.
BDX: Condensate drip.
BSKW: Electric heaters kit with IP44 panel for remote mounting in a sheltered area.

FACTORY FITTED ACCESSORIES

KR: Anti-freeze electric heater for the plate heat exchanger.
KRB: Electric anti-freeze resistance kit for base.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

Accessories

Model	Ver	020	025	040	045	070	075	080
MOD485K	°,X	•	•	•	•	•	•	•
MULTICONTROL	°,X	•	•	•	•	•	•	•
PGD1	°,X	•	•	•	•	•	•	•
PR3	°,X	•	•	•	•	•	•	•
SAF (1)	°,X	•	•	•	•	•	•	•
SDHW (2)	°,X	•	•	•	•	•	•	•
SPLW (3)	°,X	•	•	•	•	•	•	•

(1) For more information about SAF refer to the dedicated documentation.
(2) Probe required for MULTICONTROL for managing the domestic hot water system.
(3) Probe required for MULTICONTROL to manage the secondary circuit system.

Condensation control temperature

Ver	020	025	040	045	070	075	080
°,X	DCPX71	DCPX71	DCPX71	DCPX71	DCPX71	DCPX71	DCPX71

Antivibration

Ver	020	025	040	045	070	075	080
°,X	VT9	VT9	VT9	VT9	VT9	VT9	VT9

Condensate drip

Ver	020	025	040	045	070	075	080
°,X	BDX30	BDX30	BDX30	BDX30	BDX50	BDX50	BDX50

Heater exchanger

Ver	020	025	040	045	070	075	080
°,X	KR2	KR2	KR2	KR2	KR2	KR2	KR2

A grey background indicates the accessory must be assembled in the factory

Electric heater kit for the base

Ver	020	025	040	045	070	075	080
°,X	KRB1	KRB1	KRB1	KRB1	KRB2	KRB2	KRB2

CONFIGURATOR

Field		Description
1,2,3,4		**ANKI**
5,6,7		**Size** 020, 025, 040, 045, 070, 075, 080
8		**Model**
	H	Heat pump
9		**Version**
	°	Standard
	X	With inverter pump
10		**Heat recovery**
	°	Without heat recovery
11		**Coils**
	°	Copper-aluminium
	V	Copper pieps-Coated aluminium fins
12		**Fans**

Field		Description
	°	Standard
	F	Phase cut
	J	Inverter
13		**Operating field**
	°	Electronic thermostatic expansion valve
14		**Evaporator**
	°	Standard - PED
15		**Power supply**
	M	230V ~ 50Hz (1)
	T	400V ~ 3N 50Hz (2)
16		**Field for future development**
	°	Future developments

(1) For sizes from 020 ÷ 045
(2) For sizes from 070 ÷ 080

PERFORMANCE SPECIFICATIONS

ANKI - (°) - (230V ~ 50Hz / 400V 3N ~ 50Hz)

Size		020	025	040	045	070	075	080
Cooling performance 12 °C / 7 °C (1)								
Cooling capacity	kW	5,8	7,3	9,4	11,7	13,7	16,4	18,5
Input power	kW	2,0	2,6	3,2	4,3	4,8	6,2	7,7
Cooling total input current - 230V	A	8,3	11,0	14,0	18,0	-	-	-
Cooling total input current - 400V	A	-	-	-	-	7,3	9,4	11,0
EER	W/W	2,93	2,75	2,94	2,75	2,82	2,63	2,41
Water flow rate system side	l/h	1005	1256	1613	2024	2354	2818	3196
Pressure drop system side	kPa	16	22	13	19	17	25	31
Heating performance 40 °C / 45 °C (2)								
Heating capacity	kW	6,2	7,8	9,3	12,3	15,3	17,7	20,2
Input power	kW	1,9	2,4	3,0	4,1	4,8	6,0	7,2
Heating total input current - 230V	A	8,2	10,0	13,0	18,0	-	-	-
Heating total input current - 400V	A	-	-	-	-	7,3	9,1	11,0
COP	W/W	3,23	3,18	3,06	3,01	3,18	2,94	2,80
Water flow rate system side	l/h	1077	1345	1619	2131	2660	3072	3507
Pressure drop system side	kPa	14	21	10	17	17	23	30

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ANKI - (X) - (230V ~ 50Hz / 400V 3N ~ 50Hz)

Size		020	025	040	045	070	075	080
Cooling performance 12 °C / 7 °C (1)								
Cooling capacity	kW	5,9	7,4	9,5	11,8	13,8	16,5	18,7
Input power	kW	2,0	2,6	3,1	4,2	4,8	6,2	7,7
Cooling total input current - 230V	A	8,9	12,0	14,0	19,0	-	-	-
Cooling total input current - 400V	A	-	-	-	-	8,3	10,0	12,0
EER	W/W	3,00	2,82	3,01	2,81	2,88	2,68	2,44
Water flow rate system side	l/h	1005	1256	1613	2024	2354	2818	3196
Useful head system side	kPa	75,0	68,0	73,0	60,0	82,0	62,0	43,0
Heating performance 40 °C / 45 °C (2)								
Heating capacity	kW	6,1	7,7	9,2	12,2	15,2	17,6	20,1
Input power	kW	1,9	2,4	3,0	4,0	4,8	6,0	7,2
Heating total input current - 230V	A	8,7	11,0	14,0	18,0	-	-	-
Heating total input current - 400V	A	-	-	-	-	8,2	10,0	12,0
COP	W/W	3,23	3,19	3,07	3,02	3,19	2,95	2,80
Water flow rate system side	l/h	1077	1345	1619	2131	2660	3072	3507
Useful head system side	kPa	76,0	67,0	74,0	59,0	73,0	55,0	33,0

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ENERGY DATA

Size			020	025	040	045	070	075	080
Cooling capacity with low leaving water temp (UE n° 2016/2281)									
SEER	°	W/W	3,50	3,54	3,76	3,77	3,49	3,47	3,44
	X	W/W	4,12	4,25	4,38	4,37	3,78	3,81	3,77
ηsc	°	%	137,10	138,40	147,30	147,70	136,70	135,60	134,40
	X	%	161,70	167,00	172,30	171,90	148,00	149,40	147,80

Size			020	025	040	045	070	075	080
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)									
Pdesignh	°	kW	6	7	9	12	14	17	19
	X	kW	6	7	9	12	14	16	19
SCOP	°		3,58	3,55	3,40	3,20	3,50	3,33	3,30
	X		3,83	3,83	3,60	3,35	3,60	3,43	3,40
ηsh	°	%	140,00	139,00	133,00	125,00	137,00	130,00	129,00
	X	%	150,00	150,00	141,00	131,00	141,00	134,00	133,00
Efficiency energy class	°		A+	A+	A+	A+	A+	A+	A+
	X		A++	A++	A+	A+	A+	A+	A+

(1) Efficiencies for low temperature applications (35 °C)

Size			020	025	040	045	070	075	080
UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 70 kW (1)									
Pdesignh	°	kW	6	7	-	-	14	16	19
	X	kW	5	7	-	-	13	16	18
SCOP	°		2,87	2,89	-	-	2,90	2,88	2,83
	X		2,90	2,95	-	-	2,88	2,88	2,83
ηsh	°	%	112,00	113,00	-	-	113,00	112,00	110,00
	X	%	113,00	115,00	-	-	112,00	112,00	110,00
Efficiency energy class	°,X		A+	A+	-	-	A+	A+	A+

(1) Efficiencies for average temperature applications (55 °C)

ELECTRIC DATA

Size			020	025	040	045	070	075	080
Electric data									
Maximum current (FLA)	°	A	12,1	14,1	20,0	23,6	12,5	13,5	15,0
	X	A	12,9	14,9	20,8	24,4	13,6	14,6	16,1
Peak current (LRA)	°	A	8,0	8,0	10,0	10,0	15,0	15,0	15,0
	X	A	8,8	8,8	10,8	10,8	16,1	16,1	16,1
Power supply									
Power supply	°,X		230V ~ 50Hz	230V ~ 50Hz	230V ~ 50Hz	230V ~ 50Hz	400V ~ 3N 50Hz	400V ~ 3N 50Hz	400V ~ 3N 50Hz

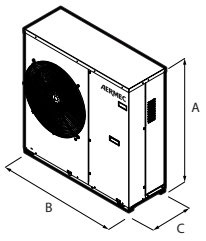
GENERAL TECHNICAL DATA

Size			020	025	040	045	070	075	080
Compressor									
Type	°,X	type	Rotary	Rotary	Rotary	Rotary	Scroll	Scroll	Scroll
Compressor regulation	°,X	Type				Inverter			
Number	°,X	no.	1	1	1	1	1	1	1
Circuits	°,X	no.	1	1	1	1	1	1	1
Refrigerant	°,X	type				R410A			
Refrigerant charge (1)	°,X	kg	1,4	1,4	2,3	2,3	3,5	3,5	3,5
System side heat exchanger									
Type	°,X	type				Brazed plate			
Number	°,X	no.	1	1	1	1	1	1	1
Hydraulic connections									
Connections (in/out)	°,X	Type				Gas-M			
Size (in)	°,X	Ø				1″			
Size (out)	°,X	Ø				1″			
Fan									
Type	°,X	type				Axial			
Fan motor	°,X	type				Asynchronous			
Number	°,X	no.	1	1	2	2	2	2	2
Air flow rate	°,X	m^3/h	3590	3590	7480	7480	7400	7400	7400
Sound data calculated in cooling mode (2)									
Sound power level	°,X	dB(A)	64,0	65,4	66,7	67,7	67,7	69,0	69,0
Sound pressure level (10 m)	°,X	dB(A)	32,7	34,1	35,4	36,3	36,3	37,6	37,6

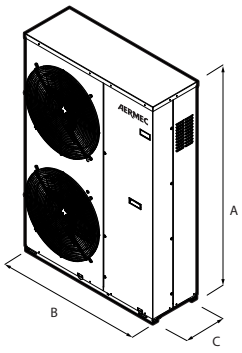
(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS

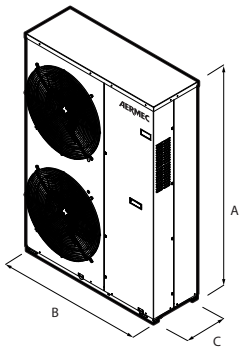
ANKI020
ANKI025



ANKI040
ANKI045



ANKI070
ANKI075
ANKI080



Size			020	025	040	045	070	075	080
Dimensions and weights									
A	°,X	mm	1028	1028	1481	1481	1481	1481	1481
B	°,X	mm	1000	1000	1000	1000	1000	1000	1000
C	°,X	mm	346	346	346	346	450	450	450
Empty weight	°	kg	80	80	113	113	174	174	174
	X	kg	82	82	115	115	178	178	178

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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HMI

Reversible air/water heat pump

Cooling capacity 3,0 ÷ 14,5 kW
Heating capacity 4,0 ÷ 15,5 kW

- **New R32 ecological refrigerant gas**
- **Production of hot water up to 60 °C**
- **Production of hot domestic water with external temperatures from -25 °C to 48 °C**
- **Quick & easy installation**



DESCRIPTION

Reversible outdoor heat pump for air-conditioning systems where, in addition to cooling rooms, high-temperature hot water is required for heating or for the production of domestic hot water. **For the production of DHW it is mandatory to combine it with the domestic hot water storage tank DHWT300S**.
HMI is designed to meet the needs of both the new constructions market and the renovation market, **replacing or working alongside conventional boilers**.
It can be combined with low-temperature emission systems such as floor heating or fan coils, and also with more traditional radiators, **and comes supplied with the main hydraulic components needed, thereby facilitating the final installation**.

FEATURES

Operating limits

Working at full load up to -25 °C outside air temperature in winter, and up to 48 °C in summer. Maximum temperature of water produced in heating mode 60 °C.
— Refrigerant circuit with economizer.
— DC brushless axial flow fans designed for aerodynamic optimisation, reducing the noise level whilst at the same time increasing the efficiency and air flow rate.
— Fitted with a electrical anti-freeze heater (in unit base) to avoid the formation of ice and encourage the drainage of condensate during heating operation.
— Electronic expansion valve.

Main hydraulic components

— Inverter pump.
— Plate heat exchanger.
— Expansion tank
— Safety valve.
— Flow switch.
— Water filter supplied **(mandatory installation)**.

Regulation

Adjustment via **a multi-language touch-screen control panel:**
— Management of a 3 way diverting valve (not supplied) for the production of domestic hot water.
— Management of a 2 way valve (not supplied) for shutting off part of the system.
— Weekly programming in time periods.
— **Auto-restart** function.
— Emergency operation (a supplementary heat source may be activated).
— **Quick hot water** function, for quickly heating domestic hot water.
— **Weather dependent mode** function for climate control.
— **Quiet** function for reduced noise operation (programmable with a timer).
— Condensation check
— When the anti-legionella cycle is activated (it's easily set via the control panel), the whole tank is heated once a week to a temperature (max. 70 °C) that weakens the bacteria responsible for the infection.

Special golden fin coil

Unlike normal batteries, this special golden epoxy coating silicon free is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



Smart APP Ewpe

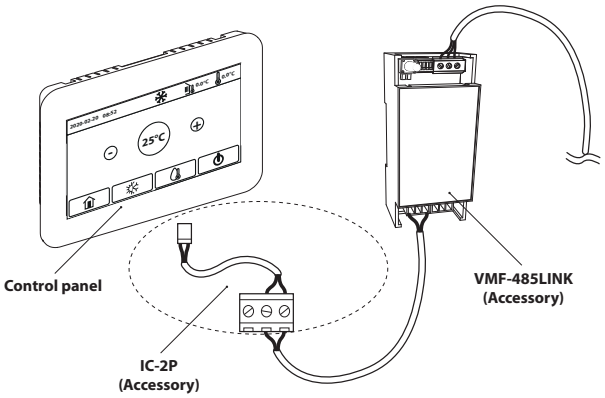
The system is equipped standard with the Wi-Fi module; using this module and the app for iOS and Android devices (available free on Apple Store and Google Play, the system can be directly controlled from a distance on your smartphone or tablet. Remote control is possible via Cloud, using a wireless router connected to the Internet.



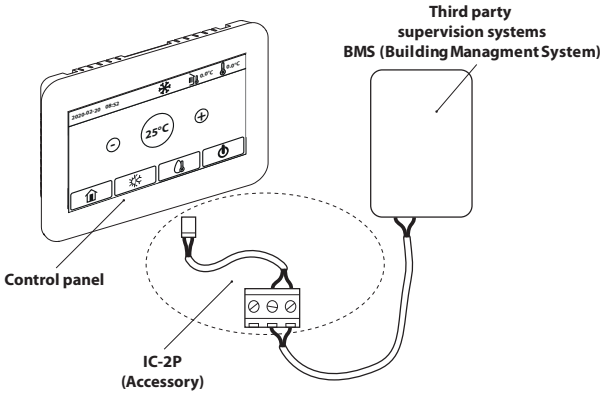
ACCESSORIES

DHWT300S: (220-240V~50Hz) DHW storage tank in enamelled steel. Single-phase power supply, tank capacity 300 litres with main and secondary coils and 3 kW back-up electric heater. Magnesium sacrificial anode. Indoor installation, as indicated in the installation manual.
HMICB15: Connection cable for the control panel. Cable length 15m.
IC-2P: Connector for communication via Mod Bus or VMF -485LINK. Accessory compulsory if combined with VMF-485LINK, or for third party supervision systems.
VMF-485LINK: Expansion to interface the unit with the VMF communication protocol, making it possible to manage it from the VMF-E5 or VMF-E6 supervisors.
For more information about VMF system, refer to the dedicated documentation.

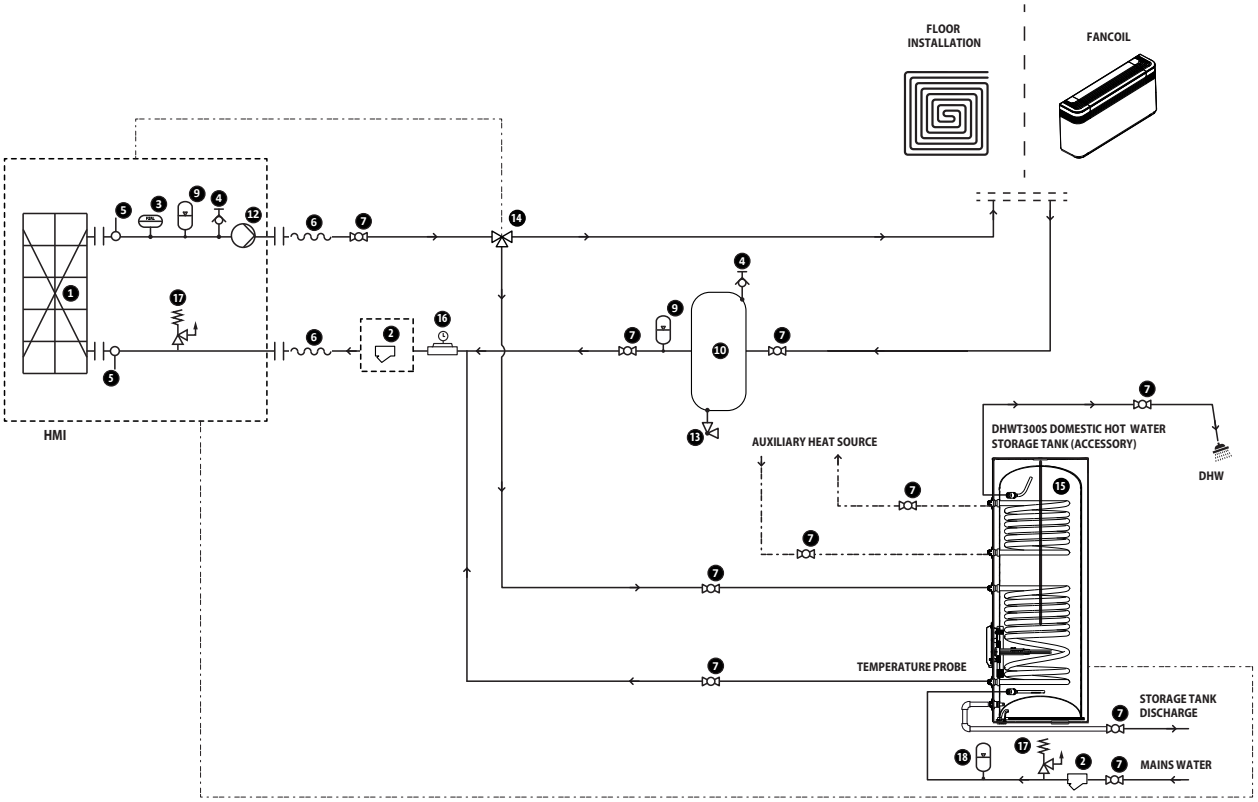
Connection with VMF-485LINK



Connection with third party supervision systems



FLOOR SYSTEM + DHW



COMPONENTS AS STANDARD

— **1** Plate heat exchanger
— **2** Water filter (**supplied**)
— **3** Flow switch
— **4** Air drain valve
— **5** Water temperature sensor (IN/OUT)
— **9** Expansion tank
— **12** Pump

WARNING: in the case of a free-standing system, the bypass valve must be installed to ensure the circulation of a minimum amount of water to the system.

HYDRAULIC COMPONENTS NOT PROVIDED AND RESPONSIBILITY OF THE INSTALLER

— **4** Air drain valve
— **6** Anti-vibration joints
— **7** Flow shut-off valve
— **9** Expansion tank
— **10** System storage tank (installation recommended if the system water content is lower than the value indicated in the technical manual).
— **13** Drain tap
— **14** 3 way valve
— **15** **DHWT300S** accessory
— **16** Loading unit
— **17** Safety valve
— **18** Expansion tank **NOT supplied**

PERFORMANCE SPECIFICATIONS

EUROVENT TECHNICAL DATA EN 14511:2013

		HMI040	HMI060	HMI080	HMI100	HMI100T	HMI120	HMI120T	HMI140	HMI140T	HMI160	HMI160T
Cooling performance 12 °C / 7 °C - EN 14511:2013 (1)												
Cooling capacity	kW	3,00	4,00	5,00	7,80	7,80	9,50	9,50	12,00	12,00	13,00	13,00
Input power	kW	0,94	1,29	1,61	2,48	2,64	3,20	3,11	4,14	4,38	4,96	4,91
Input current	A	4,3	5,9	7,7	11,4	4,0	14,7	4,7	19,0	6,7	22,7	7,5
EER	W/W	3,19	3,10	3,11	3,15	2,95	2,97	3,05	2,90	2,74	2,62	2,65
Water flow rate	l/h	516	672	860	1320	1270	1650	1665	2080	2065	2270	2231
Useful head	kPa	75,0	74,0	74,0	71,0	71,0	65,0	64,0	51,0	51,0	45,0	46,0
Heating performance 40 °C / 45 °C - EN 14511:2013 (2)												
Heating capacity	kW	4,00	6,00	7,50	10,00	10,00	12,00	12,00	14,00	14,00	15,50	15,50
Input power	kW	1,00	1,58	2,00	2,70	2,70	3,48	3,48	4,18	4,18	4,70	4,70
Input current	A	4,6	7,2	9,2	12,4	4,1	15,9	5,3	19,1	6,4	21,5	7,1
COP	W/W	4,00	3,80	3,75	3,70	3,70	3,45	3,45	3,35	3,35	3,30	3,30
Water flow rate	l/h	690	977	1240	1700	1710	2050	2040	2500	2474	2700	2734
Useful head	kPa	74,0	73,0	72,0	63,0	63,0	52,0	52,0	37,0	38,0	30,0	29,0

(1) Data EN 14511:2013; System side water heat exchanger 12 °C / 7 °C; External air 35 °C
(2) Data EN 14511:2013; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

		HMI040	HMI060	HMI080	HMI100	HMI100T	HMI120	HMI120T	HMI140	HMI140T	HMI160	HMI160T
Cooling performance 23 °C / 18 °C - EN 14511:2013 (1)												
Cooling capacity	kW	3,80	5,80	6,80	8,80	8,80	11,00	11,00	12,50	12,50	14,50	14,50
Input power	kW	0,82	1,32	1,55	1,96	1,96	2,56	2,56	3,05	3,05	3,82	3,82
Input current	A	3,8	6,0	7,1	9,0	3,0	11,7	3,9	14,0	4,6	17,5	5,8
EER	W/W	4,63	4,39	4,39	4,49	4,49	4,30	4,30	4,10	4,10	3,80	3,80
Water flow rate	l/h	660	981	1220	1510	1500	1926	1900	2238	2200	2640	2570
Useful head	kPa	74,0	73,0	72,0	69,0	69,0	56,0	57,0	46,0	47,0	32,0	34,0
Heating performance 30 °C / 35 °C - EN 14511:2013 (2)												
Heating capacity	kW	4,00	6,00	7,50	10,00	10,00	12,00	12,00	14,00	14,00	15,50	15,50
Input power	kW	0,79	1,20	1,63	2,17	2,17	2,64	2,64	3,22	3,22	3,60	3,60
Input current	A	3,6	5,5	7,5	9,9	3,3	12,1	4,0	14,7	4,9	16,5	5,5
COP	W/W	5,10	5,00	4,60	4,61	4,61	4,55	4,55	4,35	4,35	4,31	4,31
Water flow rate	l/h	690	1030	1247	1736	1720	2137	2100	2524	2400	2703	2626
Useful head	kPa	74,0	73,0	72,0	62,0	62,0	49,0	50,0	36,0	40,0	30,0	32,0

(1) Data EN 14511:2013; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2013; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

EUROVENT TECHNICAL DATA EN 14511:2018

		HMI040	HMI060	HMI080	HMI100	HMI100T	HMI120	HMI120T	HMI140	HMI140T	HMI160	HMI160T
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	2,98	3,97	4,96	7,75	7,75	9,45	9,45	11,94	11,94	12,95	12,95
Input power	kW	0,94	1,29	1,61	2,48	2,64	3,20	3,11	4,14	4,38	4,96	4,91
Input current	A	4,7	6,4	7,9	12,0	4,6	15,0	5,3	20,0	7,3	23,0	8,1
EER	W/W	3,17	3,08	3,08	3,12	2,94	2,95	3,04	2,88	2,73	2,61	2,64
Water flow rate	l/h	504	673	842	1318	1318	1609	1609	2038	2038	2210	2210
Useful head	kPa	74,0	74,0	74,0	69,0	69,0	64,0	64,0	52,0	52,0	47,0	47,0
Heating performance 40 °C / 45 °C (2)												
Heating capacity	kW	4,03	6,04	7,55	10,06	10,06	12,06	12,06	14,05	14,05	15,54	15,54
Input power	kW	1,00	1,58	2,00	2,70	2,70	3,48	3,48	4,18	4,18	4,70	4,70
Input current	A	5,1	7,8	9,7	13,0	4,7	17,0	5,9	20,0	6,9	22,0	7,7
COP	W/W	4,03	3,83	3,78	3,72	3,72	3,46	3,46	3,36	3,36	3,31	3,31
Water flow rate	l/h	710	1062	1326	1762	1762	2110	2110	2456	2456	2714	2714
Useful head	kPa	74,0	73,0	71,0	60,0	60,0	50,0	50,0	39,0	39,0	29,0	29,0

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

		HMI040	HMI060	HMI080	HMI100	HMI100T	HMI120	HMI120T	HMI140	HMI140T	HMI160	HMI160T
Cooling performance 23 °C / 18 °C (1)												
Cooling capacity	kW	3,77	5,76	6,75	8,75	8,75	10,94	10,94	12,44	12,44	14,45	14,45
Input power	kW	0,82	1,32	1,55	1,96	1,96	2,56	2,56	3,05	3,05	3,82	3,82
Input current	A	4,2	6,6	7,6	9,5	3,6	12,0	4,5	15,0	5,2	18,0	6,4
EER	W/W	4,60	4,36	4,36	4,46	4,46	4,27	4,27	4,08	4,08	3,78	3,78
Water flow rate	l/h	641	982	1152	1495	1495	1873	1873	2132	2132	2478	2478
Useful head	kPa	74,0	74,0	73,0	66,0	66,0	57,0	57,0	50,0	50,0	38,0	38,0
Heating performance 30 °C / 35 °C (2)												
Heating capacity	kW	4,03	6,04	7,55	10,06	10,06	12,06	12,06	14,05	14,05	15,54	15,54
Input power	kW	0,79	1,20	1,63	2,17	2,17	2,64	2,64	3,22	3,22	3,60	3,60
Input current	A	4,1	6,0	8,0	11,0	3,9	13,0	4,6	15,0	5,5	17,0	6,1
COP	W/W	5,10	5,04	4,63	4,63	4,63	4,57	4,57	4,36	4,36	4,32	4,32
Water flow rate	l/h	708	1058	1321	1756	1756	2102	2102	2447	2447	2704	2704
Useful head	kPa	74,0	73,0	71,0	60,0	60,0	50,0	50,0	39,0	39,0	30,0	30,0

(1) Data EN 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2018; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

ENERGY DATA

		HMI040	HMI060	HMI080	HMI100	HMI100T	HMI120	HMI120T	HMI140	HMI140T	HMI160	HMI160T
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)												
Pdesignh	kW	5	5	6	9	9	11	11	11	11	13	13
ηsh	%	185,00	185,00	183,00	176,00	176,00	175,00	175,00	168,00	168,00	164,00	164,00
Efficiency energy class		A+++	A+++	A+++	A+++	A+++	A+++	A+++	A++	A++	A++	A++
UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 70 kW (2)												
Pdesignh	kW	6	6	7	8	8	10	10	11	11	13	13
ηsh	%	126,00	126,00	127,00	128,00	128,00	126,00	126,00	125,00	125,00	125,00	125,00
Efficiency energy class		A++	A++	A++	A++	A++	A++	A++	A++	A++	A++	A++

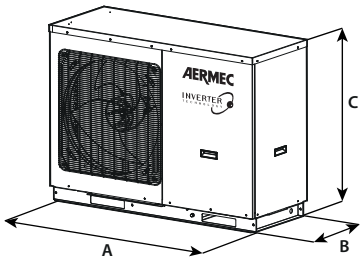
(1) Efficiencies for low temperature applications (35 °C)
(2) Efficiencies for average temperature applications (55 °C)

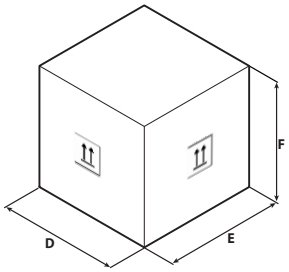
GENERAL TECHNICAL DATA

		HMI040	HMI060	HMI080	HMI100	HMI100T	HMI120	HMI120T	HMI140	HMI140T	HMI160	HMI160T
Electric data												
Rated current input (1)	A	10,4	10,4	10,4	23,0	12,0	25,0	12,0	29,0	12,0	29,0	12,0
Compressor												
Type	type	Rotary DC Inverter										
Number	no.	1	1	1	1	1	1	1	1	1	1	1
Circuits	no.	1	1	1	1	1	1	1	1	1	1	1
Refrigerant	type	R32										
Potential global heating	GWP	675 $kgCO_2eq$										
Refrigerant charge (2)	kg	0,9	0,9	0,9	2,2	2,2	2,2	2,2	2,2	2,2	2,2	2,2
Oil	Type	FW68DA										
Total oil charge	kg	0,5	0,5	0,5	1,1	1,1	1,1	1,1	1,1	1,1	1,1	1,1
System side heat exchanger												
Type	type	Brazed plate										
Number	no.	1	1	1	1	1	1	1	1	1	1	1
Connections (in/out)	Type	Gas Maschio										
Size (in)	Ø	1"										
Size (out)	Ø	1"										
Fan												
Type	type	Axial										
Fan motor	type	Inverter										
Number	no.	1	1	1	1	1	1	1	1	1	1	1
Air flow rate	m^3/h	2600	2600	2600	4500	4500	4500	4500	4500	4500	4500	4500
Sound data calculated in cooling mode (3)												
Sound pressure level (1 m)	dB(A)	51,0	52,0	53,0	56,0	56,0	56,0	56,0	57,0	57,0	59,0	59,0
Sound data calculated in heating mode (3)												
Sound power level	dB(A)	64,0	64,0	65,0	69,0	69,0	69,0	69,0	70,0	70,0	72,0	72,0
Sound pressure level in heating mode (1 m)	dB(A)	50,0	50,0	51,0	54,0	54,0	54,0	54,0	55,0	55,0	57,0	57,0
Power supply												
Power supply		220-240V ~ 50Hz				380-415V 3N ~ 50Hz	220-240V ~ 50Hz	380-415V 3N ~ 50Hz	220-240V ~ 50Hz	380-415V 3N ~ 50Hz	220-240V ~ 50Hz	380-415V 3N ~ 50Hz

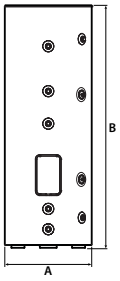
(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.
(2) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(3) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS





Carton Box Example



		HMI040	HMI060	HMI080	HMI100	HMI100T	HMI120	HMI120T	HMI140	HMI140T	HMI160	HMI160T
Dimensions and weights												
A	mm	1150	1150	1150	1200	1200	1200	1200	1200	1200	1200	1200
B	mm	345	345	345	460	460	460	460	460	460	460	460
C	mm	758	758	758	878	878	878	878	878	878	878	878
D	mm	1260	1260	1260	1295	1295	1295	1295	1295	1295	1295	1295
E	mm	490	490	490	595	595	595	595	595	595	595	595
F	mm	900	900	900	1020	1020	1020	1020	1020	1020	1020	1020
Net weight	kg	96,00	96,00	96,00	151,00	151,00	151,00	151,00	151,00	151,00	151,00	151,00
Weight for transport	kg	109,00	109,00	109,00	166,00	166,00	166,00	166,00	166,00	166,00	166,00	166,00

		DHWT300S
Dimensions and weights		
A	mm	620
B	mm	1725
Net weight	kg	140,00

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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BHP

Reversible air/water split heat pump

Cooling capacity 3,2 ÷ 11,5 kW
Heating capacity 4,0 ÷ 16,0 kW

- **Indoor unit available in two versions, with and without DHW**
- **New R32 ecological refrigerant gas**
- **Production of hot water up to 60 °C**
- **Anti-legionella function**
- **Multi-language touch-screen control panel**



DESCRIPTION

BHP It's the new "split" type inverter heat pump system, more efficient than standard boiler systems as it guarantees sustainable, efficient heating, cooling and domestic hot water supply in every season.
BHP is designed to meet the needs of both the new constructions market and the renovation market, replacing or working alongside conventional boilers.
The system can be installed in systems with any hydronic terminal, and is already supplied with the main hydraulic components, thus facilitating final installation.
The indoor unit comes in two versions:

— **BHP_W wall-mounting**, without DHW storage tank but complete with a 3-way DHW-system diverting valve. **For the production of DHW it is mandatory to combine it with the domestic hot water storage tank** DHWT300S**.**
— **BHP_F with base**, complete with DHW storage tank.

FEATURES

Main hydraulic components

BHP outdoor unit
— inverter compressor,
— finned pack heat exchanger with copper pipes and aluminium louvers, with protective golden fin treatment,
— economizer,
— electronic valve,
— DC axial brushless fan,
— electric heater for the base.

BHP_W wall indoor unit
— plate heat exchanger,
— flow switch,
— inverter pump,
— expansion tank,
— drain valve,
— safety valve,
— supplementary electric heater,
— 3 way valve,
— DHW-system connections,
— water filter supplied **(mandatory installation)**.

BHP_F indoor base unit
— plate heat exchanger,
— flow switch,
— inverter pump,
— expansion tank,
— drain valve,
— safety valve,
— supplementary electric heater,
— 3 way valve,
— DHW-system connections,
— water filter supplied **(mandatory installation)**,
— DHW storage tank of 185 litres with coil and supplementary electric heater, and anti-legionella function,
— tank with magnesium sacrificial anode.

The indoor and outdoor units are connected by means of suitably sized cooling lines (supplied by the installer).
Cooling circuit use R32 refrigerant with low GWP.

Operating limits

Full load operation down to -25°C (outside air temperature in winter), and up to 48°C in summer.

Regulations

Adjustment via **multi-language touch-screen control panel**:
— ganagement of a 3-way diverting valve for the production of domestic hot water,
— management of a 2 way valve (not supplied) for shutting off part of the system,
— weekly programming in time periods,
— **auto-restart** function,
— emergency operation,
— function **quick water heating** for a quick heating of domestic hot water
— forced operating **mode**,

— intelligent operation **based on weather conditions** for climate adjustment,
— **quiet** function for reduced noise operation (programmable with a timer),
— **Anti-freeze** function,
— condensation check,
— when the **anti-legionella cycle** is activated (it's easily set via the control panel), the whole tank is heated once a week to a temperature (max. 70 °C) that weakens the bacteria responsible for the infection,
— pre heating **function of the floor** to pre-heat the floor system before unit commissioning.



Special golden fin coil

Unlike normal batteries, this special golden epoxy coating silicon free is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



Smart APP Ewpe

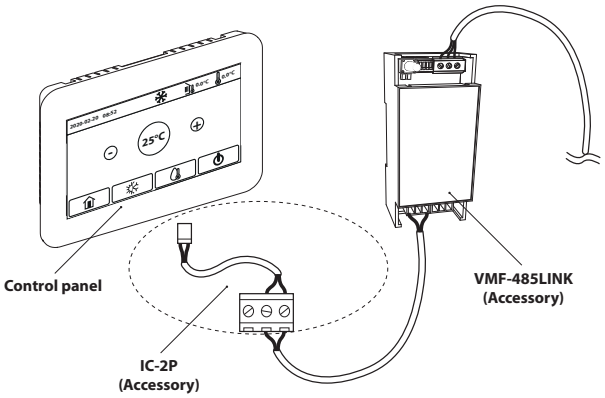
The system is equipped standard with the Wi-Fi module; using this module and the app for iOS and Android devices (available free on Apple Store and Google Play, the system can be directly controlled from a distance on your smartphone or tablet. Remote control is possible via Cloud, using a wireless router connected to the Internet.



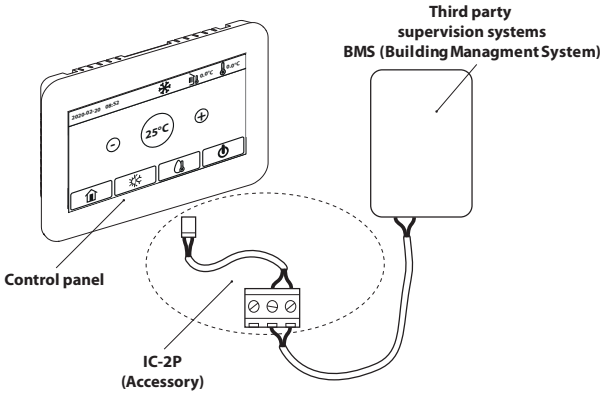
ACCESSORIES

DHWT300S: (220-240V~50Hz) DHW storage tank in enamelled steel. Single-phase power supply, tank capacity 300 litres with main and secondary coils and 3 kW back-up electric heater. Magnesium sacrificial anode. Indoor installation, as indicated in the installation manual.
For the production of DHW it is mandatory to combine it with BHP_W.
IC-2P: Connector for communication via Mod Bus or VMF -485LINK. Accessory compulsory if combined with VMF-485LINK, or for third party supervision systems.
VMF-485LINK: Expansion to interface the unit with the VMF communication protocol, making it possible to manage it from the VMF-E5 or VMF-E6 supervisors.

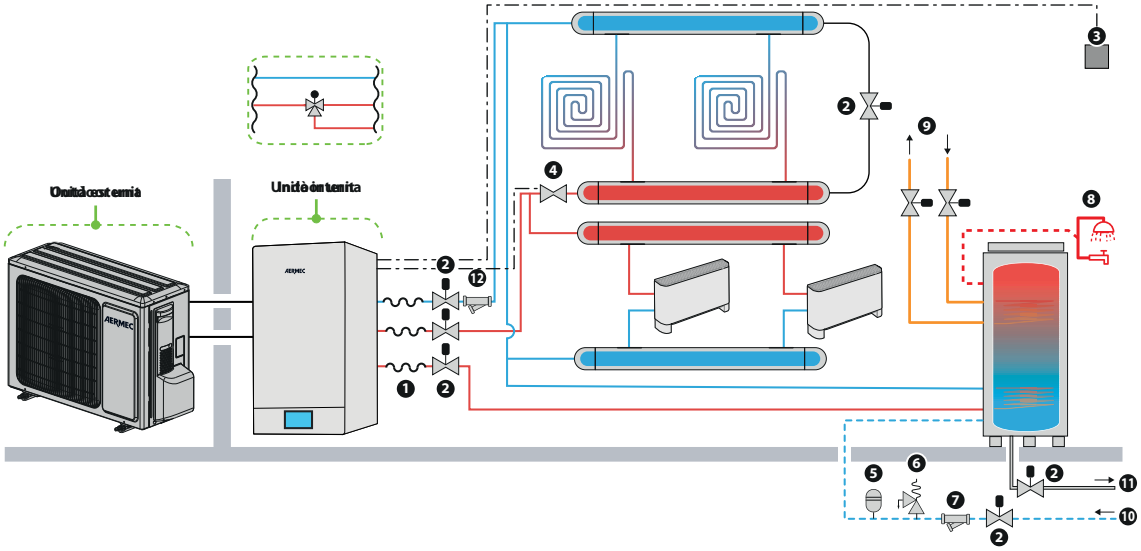
Connection with VMF-485LINK



Connection with third party supervision systems



BHP_W: DOMESTIC HOT WATER STORAGE TANK CONNECTION AND CONNECTION TO THE FLOOR SYSTEM AND FCU



HYDRAULIC COMPONENTS SUPPLIED AS STANDARD IN THE INDOOR UNIT

— Plate heat exchanger
— Flow switch
— Inverter circulator
— Expansion vessel
— Drain valve
— Pressure relief valve
— Electric resistance (system side)
— 3 way valve
— DHW-system connections

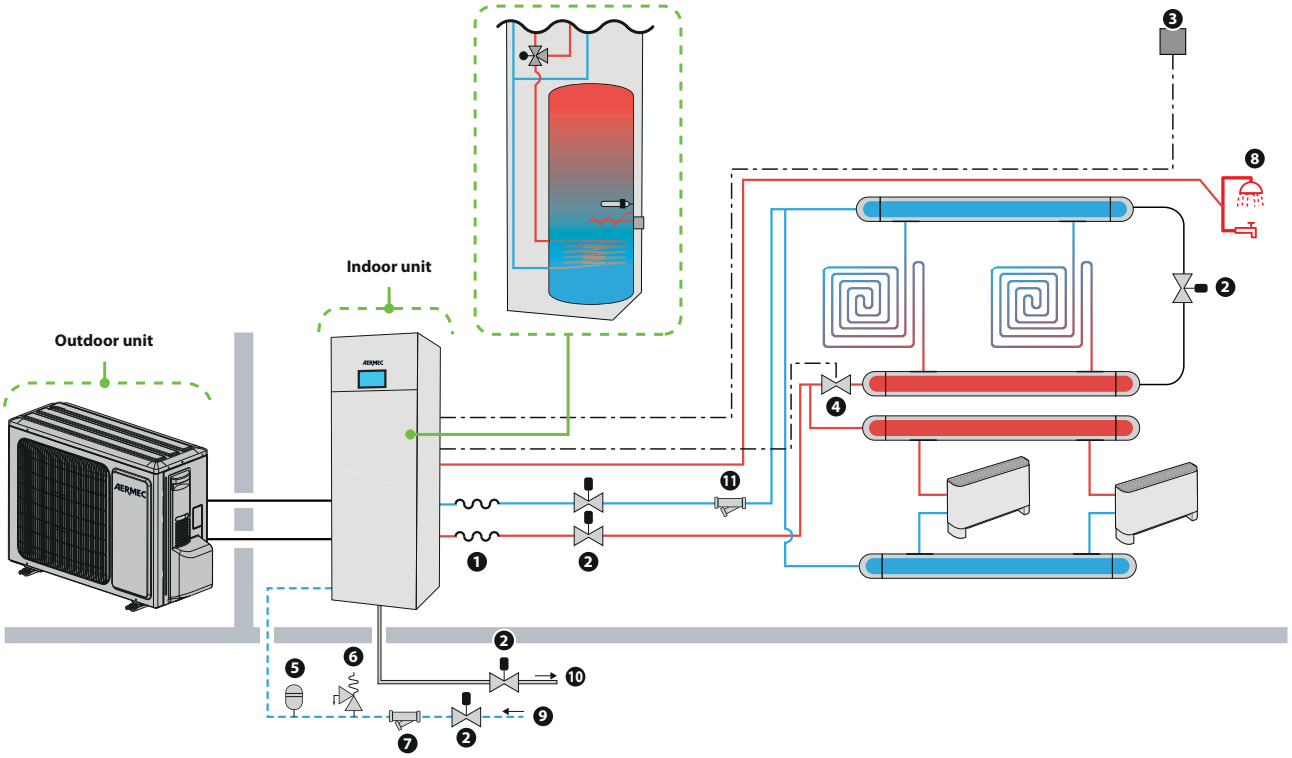
SUPPLIED HYDRAULIC COMPONENTS

— **12** Water filter supplied **(mandatory installation)**

HYDRAULIC COMPONENTS RECOMMENDED OUTSIDE THE UNIT (AT THE INSTALLER'S RESPONSIBILITY)

1. Anti-vibration joints
2. Shut-off tap
3. Ambient thermostat
4. 2 way valve
5. Expansion tank **NOT supplied**
6. Safety valve **supplied with DHWT300S (installation is mandatory)**
7. Water filter **NOT supplied (installation is mandatory)**
8. Hot domestic water
9. Auxiliary heat sources
10. Aqueduct
11. Storage discharge

BHP_F: CONNECTION TO THE FLOOR SYSTEM AND FCU



HYDRAULIC COMPONENTS SUPPLIED AS STANDARD IN THE INDOOR UNIT

— Plate heat exchanger
— Flow switch
— Inverter pump
— Expansion vessel
— Drain valve
— Pressure relief valve
— Supplementary electric heater
— 3 way valve
— DHW-system connections

SUPPLIED HYDRAULIC COMPONENTS

— **11** Water filter supplied **(mandatory installation)**

HYDRAULIC COMPONENTS RECOMMENDED OUTSIDE THE UNIT (AT THE INSTALLER'S RESPONSIBILITY)

1. Anti-vibration joints
2. Shut-off tap
3. Ambient thermostat
4. 2 way valve
5. Expansion tank **NOT supplied**
6. Safety valve **NOT supplied (installation is mandatory)**
7. Water filter **NOT supplied (installation is mandatory)**
8. Hot domestic water
9. Aqueduct
10. Storage discharge

PERFORMANCE SPECIFICATIONS

Technical data Wall unit

Indoor unit		BHP060W	BHP060W	BHP100W	BHP100W	BHP160W	BHP160W	BHP160W
Outdoor unit		**BHP040**	**BHP060**	**BHP080**	**BHP100**	**BHP120**	**BHP140**	**BHP160**
Cooling performance 12 °C / 7 °C (1)								
Cooling capacity	kW	3,15	4,09	5,30	6,50	10,59	11,07	11,51
Input power	kW	0,92	1,28	1,73	2,27	3,79	4,18	4,49
EER	W/W	3,42	3,20	3,06	2,86	2,79	2,65	2,57
Water flow rate system side	l/h	535	696	903	1108	1819	1902	1978
Heating performance 40 °C / 45 °C (2)								
Heating capacity	kW	4,00	5,90	8,00	9,50	12,40	14,48	16,09
Input power	kW	1,02	1,51	2,14	2,64	3,29	3,93	4,44
COP	W/W	3,92	3,91	3,74	3,60	3,77	3,68	3,62
Water flow rate system side	l/h	702	1034	1400	1661	2155	2517	2796
Cooling performance 23 °C / 18 °C (3)								
Cooling capacity	kW	3,80	5,80	7,00	8,50	11,00	12,60	13,00
Input power	kW	0,82	1,32	1,75	2,24	2,50	3,41	3,60
EER	W/W	4,63	4,39	4,00	3,79	4,40	3,70	3,61
Water flow rate system side	l/h	649	992	1198	1457	1897	2173	2242
Heating performance 30 °C / 35 °C (4)								
Heating capacity	kW	4,00	6,00	8,00	9,50	12,00	14,00	15,50
Input power	kW	0,78	1,20	1,70	2,07	2,40	2,98	3,44
COP	W/W	5,13	5,00	4,71	4,59	5,00	4,70	4,51
Water flow rate system side	l/h	700	1047	1395	1655	2078	2424	2684

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.
(3) Data EN 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(4) Data EN 14511:2018; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

Three-phase Wall unit technical data

Indoor unit		BHP100WT	BHP100WT	BHP160WT	BHP160WT	BHP160WT
Outdoor unit		**BHP080T**	**BHP100T**	**BHP120T**	**BHP140T**	**BHP160T**
Cooling performance 12 °C / 7 °C (1)						
Cooling capacity	kW	7,60	8,20	10,59	11,07	11,51
Input power	kW	2,35	2,73	3,79	4,18	4,49
EER	W/W	3,23	3,00	2,79	2,65	2,57
Water flow rate system side	l/h	1306	1049	1819	1902	1978
Heating performance 40 °C / 45 °C (2)						
Heating capacity	kW	8,00	10,20	12,40	14,48	16,09
Input power	kW	1,93	2,55	3,29	3,93	4,44
COP	W/W	4,16	4,00	3,77	3,68	3,62
Water flow rate system side	l/h	1390	1773	2155	2517	2796
Cooling performance 23 °C / 18 °C (3)						
Cooling capacity	kW	8,50	10,00	11,00	12,60	13,00
Input power	kW	1,74	2,33	2,50	3,41	3,60
EER	W/W	4,89	4,29	4,40	3,70	3,61
Water flow rate system side	l/h	1466	1725	1897	2173	2242
Heating performance 30 °C / 35 °C (4)						
Heating capacity	kW	8,00	10,00	12,00	14,00	15,50
Input power	kW	1,63	2,15	2,40	2,98	3,44
COP	W/W	4,91	4,65	5,00	4,70	4,51
Water flow rate system side	l/h	1385	1732	2078	2424	2684

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.
(3) Data EN 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(4) Data EN 14511:2018; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

Technical data base unit

Indoor unit		BHP060F	BHP060F	BHP100F	BHP100F
Outdoor unit		**BHP040**	**BHP060**	**BHP080**	**BHP100**
Cooling performance 12 °C / 7 °C (1)					
Cooling capacity	kW	3,15	4,09	5,30	6,50
Input power	kW	0,92	1,28	1,73	2,27
EER	W/W	3,42	3,20	3,06	2,86
Water flow rate system side	l/h	535	696	903	1108
Heating performance 40 °C / 45 °C (2)					
Heating capacity	kW	4,00	5,90	8,00	9,50
Input power	kW	1,02	1,51	2,14	2,64
COP	W/W	3,92	3,91	3,74	3,60
Water flow rate system side	l/h	702	1034	1400	1661
Cooling performance 23 °C / 18 °C (3)					
Cooling capacity	kW	3,80	5,80	7,00	8,50
Input power	kW	0,82	1,32	1,75	2,24
EER	W/W	4,63	4,40	4,00	3,79
Water flow rate system side	l/h	649	992	1198	1457
Heating performance 30 °C / 35 °C (4)					
Heating capacity	kW	4,00	6,00	8,00	9,50
Input power	kW	0,78	1,20	1,70	2,07
COP	W/W	5,13	5,00	4,71	4,59
Water flow rate system side	l/h	700	1047	1395	1655

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.
(3) Data EN 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(4) Data EN 14511:2018; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

ENERGY DATA

Energy data Wall unit

Indoor unit		BHP060W	BHP060W	BHP100W	BHP100W	BHP160W	BHP160W	BHP160W
Outdoor unit		**BHP040**	**BHP060**	**BHP080**	**BHP100**	**BHP120**	**BHP140**	**BHP160**
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)								
Pdesignh	kW	5	6	7	9	11	12	13
SCOP		4,66	4,54	4,60	4,60	4,63	4,65	4,61
ηsh	%	183,50	178,70	181,00	181,00	182,00	183,00	181,20
Efficiency energy class		A+++	A+++	A+++	A+++	A+++	A+++	A+++
UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 70 kW (2)								
Pdesignh	kW	5	5	7	8	11	13	13
ηsh	%	128,10	127,40	129,00	127,00	126,40	137,00	137,00
Efficiency energy class		A++	A++	A++	A++	A++	A++	A++
Performance as combined heat generator								
Bleeding profile		XL	XL	XL	XL	XL	XL	XL
Efficiency energy class		A	A	A	A	A	A	A
UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 70 kW (2)								
SCOP		3,28	3,26	3,30	3,25	3,24	3,50	3,50

(1) Efficiencies for low temperature applications (35 °C)
(2) Efficiencies for average temperature applications (55 °C)

Three-phase Wall unit energy data

Indoor unit		BHP100WT	BHP100WT	BHP160WT	BHP160WT	BHP160WT
Outdoor unit		**BHP080T**	**BHP100T**	**BHP120T**	**BHP140T**	**BHP160T**
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)						
Pdesignh	kW	8	9	11	12	13
ηsh	%	178,10	185,20	176,00	176,00	175,00
Efficiency energy class		A+++	A+++	A+++	A+++	A+++
UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 70 kW (2)						
Pdesignh	kW	9	10	11	13	13
ηsh	%	136,10	136,70	126,00	132,00	132,00
Efficiency energy class		A++	A++	A++	A++	A++
Performance as combined heat generator						
Bleeding profile		XL	XL	XL	XL	XL
Efficiency energy class		A	A	A	A	A

(1) Efficiencies for low temperature applications (35 °C)
(2) Efficiencies for average temperature applications (55 °C)

Energy data base unit

Indoor unit		BHP060F	BHP060F	BHP100F	BHP100F
Outdoor unit		**BHP040**	**BHP060**	**BHP080**	**BHP100**
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)					
Pdesignh	kW	5	6	7	9
ηsh	%	184,00	179,00	181,00	181,00
Efficiency energy class		A+++	A+++	A+++	A+++
UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 70 kW (2)					
Pdesignh	kW	5	5	7	8
ηsh	%	128,00	127,00	129,00	127,00
Efficiency energy class		A++	A++	A++	A++
Performance as combined heat generator					
Bleeding profile		L	L	L	L
Efficiency energy class		A	A	A	A

(1) Efficiencies for low temperature applications (35 °C)
(2) Efficiencies for average temperature applications (55 °C)

INDOOR UNIT

BHP_W indoor wall unit

		BHP060W	BHP100W	BHP160W
Electric data				
Rated power input (1)	kW	3,1	6,1	6,1
Electric heater				
Number	no.	2	2	2
Power of the single heater	kW	1,50	3,00	3,00
System side heat exchanger				
Type	type		Brazed plate	
Number	no.	1	1	1
Unit / system input	type		G1 male	
Unit / system output	type		G1 male	
DHW output	type		G1 male	
Circulator				
Quantity	no.	1	1	1
Motor	type		DC brushless	
Expansion vessel				
Number	no.	1	1	1
Volume	l	10,0	10,0	10,0
Maximum pressure	bar	2,5	2,5	2,5
Sound data calculated in cooling mode (2)				
Sound power level	dB(A)	42,0	42,0	42,0
Sound pressure	dB(A)	29,0	29,0	29,0
Power supply				
Power supply			230V ~ 50Hz	

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

Three-phase wall unit BHP_WT

		BHP100WT	BHP160WT
Electric data			
Rated power input (1)	kW	6,1	6,1
Electric heater			
Number	no.	2	2
Power of the single heater	kW	3,00	3,00
System side heat exchanger			
Type	type	Brazed plate	
Number	no.	1	1
Unit / system input	type	G1 male	
Unit / system output	type	G1 male	
DHW output	type	G1 male	
Circulator			
Quantity	no.	1	1
Motor	type	DC brushless	
Expansion vessel			
Number	no.	1	1
Volume	l	10,0	10,0
Maximum pressure	bar	2,5	2,5
Sound data calculated in cooling mode (2)			
Sound power level	dB(A)	42,0	42,0
Sound pressure	dB(A)	29,0	29,0
Power supply			
Power supply		400V ~ 3N 50Hz	

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

BHP_F indoor base unit

		BHP060F	BHP100F
Electric data			
Rated power input (1)	kW	3,1	6,1
Electric heater			
Number	no.	2	2
Power of the single heater	kW	1,50	3,00
System side heat exchanger			
Type	type	Brazed plate	
Number	no.	1	1
Unit / system input	type	G1 male	
Mains water input	type	G1 male	
Unit / system output	type	G1 male	
DHW output	type	G1 male	
Circulator			
Quantity	no.	1	1
Motor	type	DC brushless	
Expansion vessel			
Number	no.	1	1
Volume	l	10,0	10,0
Maximum pressure	bar	2,5	2,5
Sound data calculated in cooling mode (2)			
Sound power level	dB(A)	42,0	42,0
Sound pressure	dB(A)	29,0	29,0
Power supply			
Power supply		230V ~ 50Hz	

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

OUTDOOR UNIT

		BHP040	BHP060	BHP080	BHP080T	BHP100	BHP100T
Electric data							
Rated current input (1)	A	10,0	10,0	19,0	7,5	22,0	7,5
Compressor							
Type	type	Rotativo doppio stadio inverter					
Number	no.	1	1	1	1	1	1
Circuits	no.	1	1	1	1	1	1
Refrigerant	type	R32					
Potential global heating	GWP	675kgCO_2eq					
Oil							
Type	type	FW68DA					
Quantity	l	0,47	0,47	0,84	0,84	0,84	0,84
Refrigeration pipework							
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")					
Diameter of refrigerant gas connections	mm (inch)	12,7 (1/2")					
Exchanger							
Type	type	Finned coil					
Louvers type	type	Golden fin					
Number	no.	1	1	1	1	1	1
Expansion vessel							
Type	type	Electronic expansion valve					
Number	no.	1	1	1	1	1	1
Fan							
Type	type	Inverter axial					
Fan motor	type	DC brushless					
Number	no.	1	1	1	1	1	1
Air flow rate	m^3/h	3200	3200	3300	3300	3300	3300
Sound data calculated in cooling mode (2)							
Sound power level	dB(A)	62,0	62,0	67,0	68,0	68,0	68,0
Sound pressure level (1 m)	dB(A)	52,0	52,0	55,0	55,0	55,0	55,0
Sound pressure level (10 m)	dB(A)	34,0	34,0	39,0	40,0	40,0	40,0
Power supply							
Power supply		230V ~ 50Hz			400V 3N ~ 50Hz	230V ~ 50Hz	400V 3N ~ 50Hz

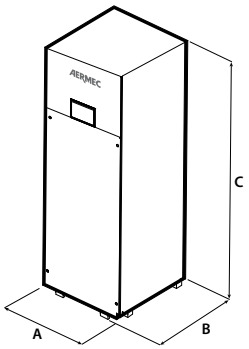
		BHP120	BHP120T	BHP140	BHP140T	BHP160	BHP160T
Electric data							
Rated current input (1)	A	25,6	9,2	28,7	11,5	30,3	11,5
Compressor							
Type	type	Rotativo doppio stadio inverter					
Number	no.	1	1	1	1	1	1
Circuits	no.	1	1	1	1	1	1
Refrigerant	type	R32					
Potential global heating	GWP	675kgCO_2eq					
Oil							
Type	type	FW68DA					
Quantity	l	1,05	1,05	1,05	1,05	1,05	1,05
Refrigeration pipework							
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")					
Diameter of refrigerant gas connections	mm (inch)	12,7 (1/2")			15,87 (5/8")		
Exchanger							
Type	type	Finned coil					
Louvers type	type	Golden fin					
Number	no.	1	1	1	1	1	1
Expansion vessel							
Type	type	Electronic expansion valve					
Number	no.	1	1	1	1	1	1
Fan							
Type	type	Inverter axial					
Fan motor	type	DC brushless					
Number	no.	1	1	1	1	1	1
Air flow rate	m^3/h	5044	5044	5044	5044	5044	5044
Sound data calculated in cooling mode (2)							
Sound power level	dB(A)	68,0	68,0	68,0	68,0	68,0	68,0
Sound pressure level (1 m)	dB(A)	60,0	60,0	61,0	61,0	61,0	61,0
Sound pressure level (10 m)	dB(A)	40,0	40,0	40,0	40,0	40,0	40,0
Power supply							
Power supply		230V ~ 50Hz	400V 3N ~ 50Hz	230V ~ 50Hz	400V 3N ~ 50Hz	230V ~ 50Hz	400V 3N ~ 50Hz

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

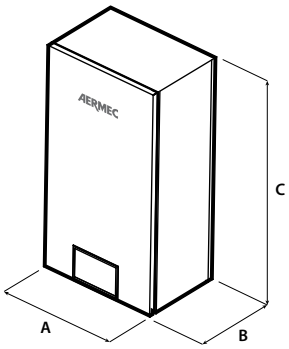
DIMENSIONS AND WEIGHTS

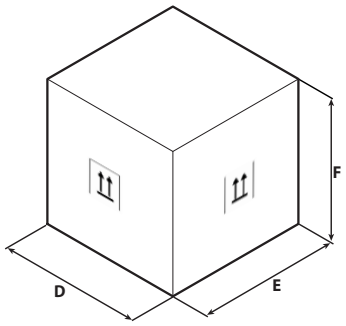
Indoor units and domestic hot water storage tank

BHP_F



BHP_W





Carton Box Example

BHP_W

		BHP060W	BHP100W	BHP160W
Indoor unit				
A	mm	460	460	460
B	mm	318	318	318
C	mm	860	860	860
D	mm	568	568	568
E	mm	390	390	390
F	mm	1133	1133	1133
Net weight	kg	62,00	62,00	62,00
Weight for transport	kg	71,00	71,00	71,00

BHP_WT

		BHP100WT	BHP160WT
Indoor unit			
A	mm	460	460
B	mm	318	318
C	mm	860	860
D	mm	568	568
E	mm	390	390
F	mm	1133	1133
Net weight	kg	62,00	62,00
Weight for transport	kg	71,00	71,00

BHP_F

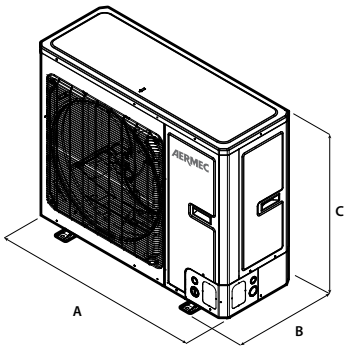
		BHP060F	BHP100F
Indoor unit			
A	mm	600	600
B	mm	600	600
C	mm	1755	1755
D	mm	803	803
E	mm	683	683
F	mm	2000	2000
Net weight	kg	210,00	210,00
Weight for transport	kg	233,00	233,00

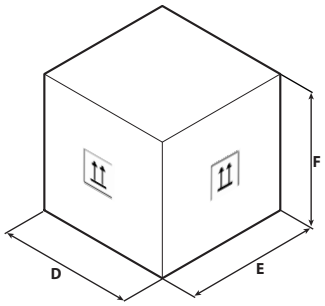
DHWT300S

		DHWT300S
Dimensions and weights		
A	mm	620
B	mm	1725
Net weight	kg	140,00

Outdoor units

BHP





Carton Box Example

BHP

		BHP040	BHP060	BHP080	BHP080T	BHP100	BHP100T
Outdoor unit							
A	mm	975	975	982	982	982	982
B	mm	396	396	427	360	427	360
C	mm	702	702	787	787	787	787
D	mm	1028	1028	1097	1097	1097	1097
E	mm	458	458	478	478	478	478
F	mm	830	830	937	937	937	937
Net weight	kg	55,00	55,00	82,00	88,00	82,00	88,00
Weight for transport	kg	65,00	65,00	92,00	98,00	92,00	98,00

		BHP120	BHP120T	BHP140	BHP140T	BHP160	BHP160T
Outdoor unit							
A	mm	940	940	940	940	940	940
B	mm	460	460	460	460	460	460
C	mm	820	820	820	820	820	820
D	mm	1103	1103	1103	1103	1103	1103
E	mm	573	573	573	573	573	573
F	mm	973	973	973	973	973	973
Net weight	kg	104,00	110,00	104,00	110,00	104,00	110,00
Weight for transport	kg	114,00	121,00	114,00	121,00	114,00	121,00

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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HMG

Reversible air/water heat pump

Cooling capacity 32 ÷ 60 kW
Heating capacity 35 ÷ 65 kW

- New R32 ecological refrigerant gas
- Touch-screen control panel
- Easy and quick to install
- Reliability and compactness
- Modularity



DESCRIPTION

HMG the new outdoor reversible inverter heat pump system for producing chilled and heated water.
These units are designed to meet the plant engineering needs of residential or commercial contexts, or industrial applications.
HMG formed of fully independent modules that can be linked together to create a modular system, with the possibility to connect units of different power levels.
The base, the structure and the panels are made of galvanized steel treated with polyester paint.

FEATURES

Operating limits

Operation from -20°C outside air temperature (winter) to 52°C (summer).
Production of hot water up to 50 °C.
For more information about the operating limits of these units, refer to the specific paragraph on this product data sheet.

Modularity

HMG an outdoor modular system of reversible inverter heat pumps for producing hot and chilled water, with connectable base modules purposely designed to minimise the overall dimensions. Units of different power levels can be connected.
Modularity allows the installation of these units to be adapted to the real system development requirements, so the installed power can be increased over time in a simple and cost effective manner.
On the basis of these requirements, the user can choose either: **homogeneous modularity** or **sequential modularity**.

Homogeneous modularity

Made possible with the use of a control panel **TCP** (mandatory accessory) to be connected to the master unit of the system.
This type of modularity allows the modules to work with a homogeneous capacity control logic whilst still guaranteeing delay switch-on and switch-off to avoid power consumption peaks and intelligent defrosting (the simultaneous defrosting of up to 1/3 of the modules installed).
Up to 16 modules can be linked together with this operating mode.
To take full advantage of the characteristics of this working mode, you are advised to use it in systems with a pump (or a group of pumps) that serves all the units. The control logic manages the switch-on and switch-off of the pump(s) on the basis of the operating conditions of the generation system.

Sequential modularity

Made possible with the use of accessories **TCP, IC-2P, VMF-485LINK** and **VMF-E6.**
This type of modularity allows the HMG units to be added to the control system of the whole hydraulic/aeraulic system, so DHW can also be managed.
Unit switch-on and switch-off is managed in a sequential manner, according to a selected control logic (free regulation, regulation by load or regulation by temperature difference).
For more information about VMF system, refer to the dedicated documentation.
Up to 4 modules can be linked together with this operating mode HMG.
Management is optimised for systems where each unit commands its own pump.

Main components

— Flow switch.
— DC brushless axial flow fans designed for aerodynamic optimisation, reducing the noise level whilst at the same time increasing the efficiency and air flow rate.
— Compressor twin rotary inverter.
— Special coil with fin golden coating.
— High-efficiency shell & tube heat exchanger (system side) for excellent reliability and a long lifespan.
— Electronic expansion valve.
— Fitted with a electrical anti-freeze heater (in unit base) to avoid the formation of ice and encourage the drainage of condensate during heating operation.

Regulation

Adjustment via **touch-screen control panel (TCP accessory compulsory)**::

— management of (up to) two pumps (not supplied) that can work alternately, boosting the reliability of the system,
— management of (up to) two auxiliary electric resistors (not supplied),
— **Quiet** function for reduced noise operation,
— climatic regulation function,
— unit anti-freeze protection at low temperatures,
— weekly programming in time periods,
— high and low pressure protection,
— smart compressor control, extending the lifespan of the unit and enhancing its reliability,
— alarm history.

Special golden fin coil

Unlike normal batteries, this special golden epoxy coating silicon free is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



ACCESSORIES

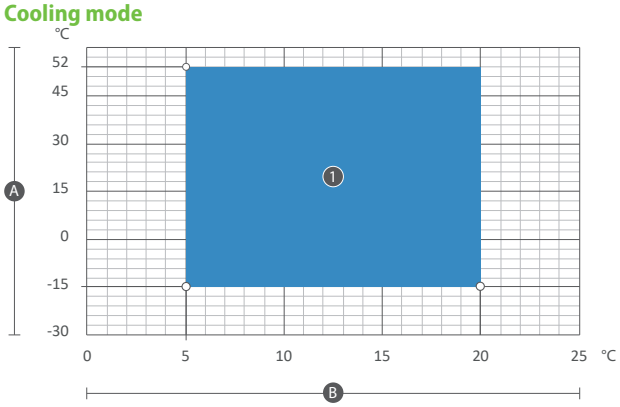
TCP: Touch-screen control panel. (Accessory compulsory).
IC-2P: Connector for communication via Mod Bus or VMF -485LINK. Accessory compulsory if combined with VMF-485LINK, or for third party supervision systems.
VMF-485LINK: Expansion to interface the unit with the VMF communication protocol, making it possible to manage it from the VMF-E5 or VMF-E6 supervisors.
VMF-E6: White flush-mounting panel with 4.3 inch colour touchscreen. For the centralised command/control of a complete hydronic/aeraulic system consisting of: fan coils (up to 64 fan coil zones formed of 1 master + max. 5 slaves), heat pumps (up to 4), MZC accessories (up to 5) for the management of radiant panels (using a suitable number of VMF-REB accessories, up to 64 radiant panels associated with the fan coil zones and up to 32 radiant panels associated with the zones served by MZC), the complete management of DHW production, control of the RAS heater and/or the boiler, management of digital I/Os, control of heat recovery units and VOC probes (up to 4).

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

OPERATING LIMITS

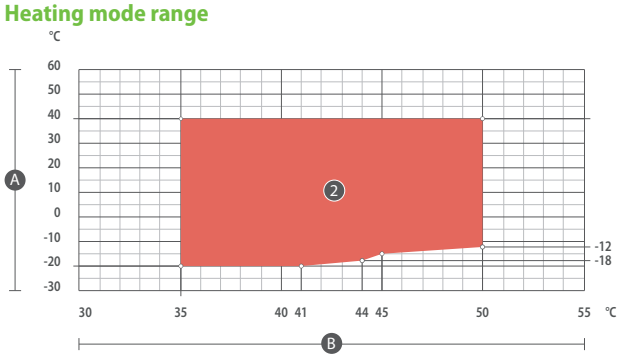
Cooling mode



KEY

1 cooling mode
A outdoor air temperature (°C)
B water produced temperature (°C)

Heating mode range

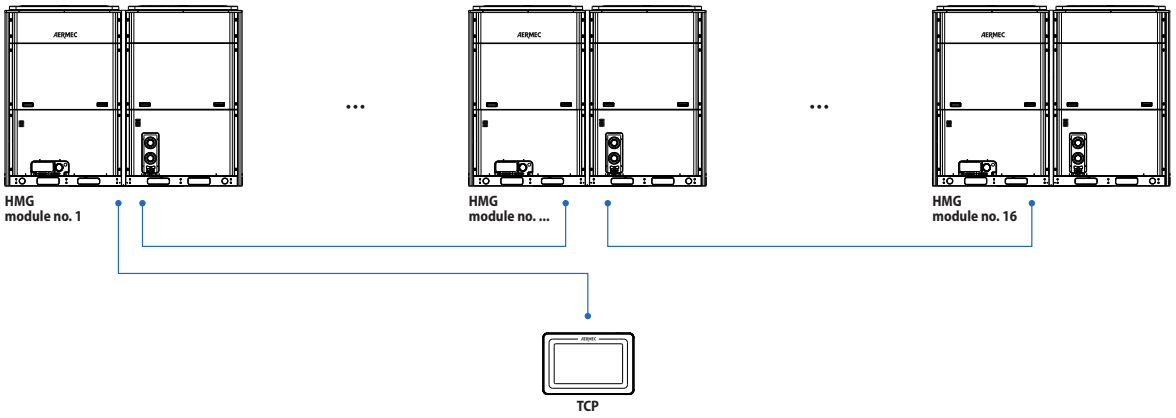


KEY

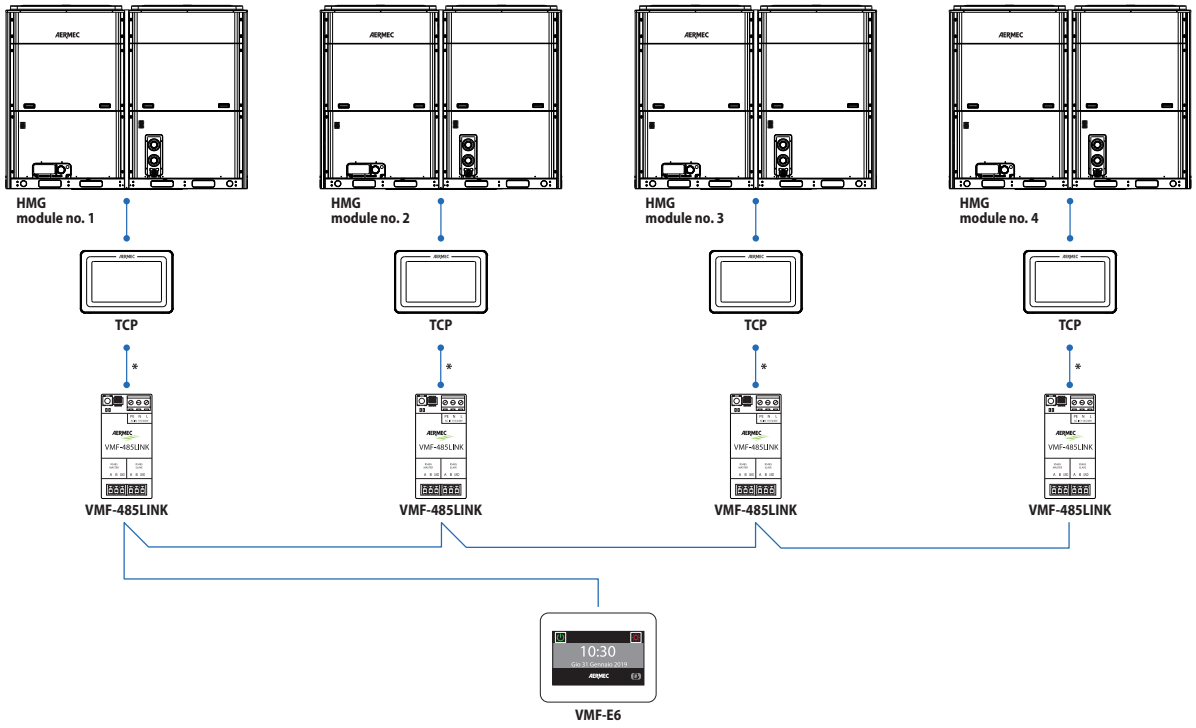
2 heating mode
A outdoor air temperature (°C)
B water produced temperature (°C)

MODULARITY

Homogeneous modularity - connection diagram



Sequential modularity - connection diagram



* Connection to be made with the aid of the accessory IC-2P.

PERFORMANCE SPECIFICATIONS

		HMG0350	HMG0600
Cooling performance 12 °C / 7 °C (1)			
Cooling capacity	kW	32,0	60,0
Input power	kW	11,7	20,8
Water flow rate system side	l/h	5500	10320
Pressure drop system side	kPa	80	55
Cooling total input current	A	19,2	32,9
EER	W/W	2,74	2,88
Heating performance 40 °C / 45 °C (2)			
Heating capacity	kW	35,0	65,0
Input power	kW	10,6	19,9
Water flow rate system side	l/h	6020	11180
Heating total input current	A	17,5	30,7
COP	W/W	3,30	3,27
Cooling performance 23 °C / 18 °C (3)			
Cooling capacity	kW	41,4	72,5
Input power	kW	10,5	19,1
Water flow rate system side	l/h	7120	12470
Cooling total input current	A	16,2	31,0
EER	W/W	3,94	3,80
Heating performance 30 °C / 35 °C (4)			
Heating capacity	kW	36,0	62,6
Input power	kW	8,8	15,1
Water flow rate system side	l/h	6190	10770
Heating total input current	A	12,4	24,2
COP	W/W	4,09	4,15

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.
(3) Data EN 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(4) Data EN 14511:2018; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

ENERGY DATA

		HMG0350	HMG0600
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)			
Pdesignh	kW	24	51
SCOP		3,90	3,90
ηsh	%	153,00	153,00
Efficiency energy class		A++	A++
Cooling capacity with low leaving water temp (UE n° 2016/2281)			
ηsc	%	173,00	181,00
SEER	W/W	4,40	4,60

(1) Efficiencies for low temperature applications (35 °C)

ELECTRIC DATA

		HMG0350	HMG0600
Electric data			
Rated current input (1)	A	22,0	52,0
Power supply			
Power supply		380-415V 3N ~ 50Hz	380-415V 3N ~ 50Hz

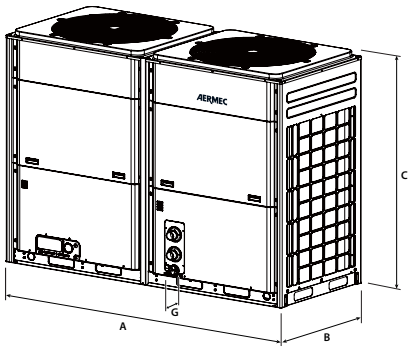
(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

GENERAL TECHNICAL DATA

		HMG0350	HMG0600
Compressor			
Type	type	Inverter rotary	
Number	no.	1	2
Circuits	no.	1	2
Refrigerant	type	R32	
Refrigerant charge	kg	5,50	11,00
System side heat exchanger			
Type	type	Shell and tube	
Number	no.	1	1
Connections (in/out)	Type	G1" 1/2 (male)	G2" (male)
Fan			
Type	type	Axial	
Fan motor	type	Inverter	
Number	no.	2	2
Air flow rate	m^3/h	12600	24000
Sound data calculated in heating mode			
Sound power level (1)	dB(A)	80,0	84,0
Sound pressure level (1 m) (2)	dB(A)	64,0	67,0
Sound pressure level (10 m) (2)	dB(A)	44,0	47,0

(1) Sound power calculated on the basis of measurements made in free field in accordance with UNI EN ISO 3744.
(2) Sound pressure calculated in free field.

DIMENSIONS



		HMG0350	HMG0600
Dimensions and weights			
A	mm	1340	2200
B	mm	765	880
C	mm	1605	1675
G	mm	80	85
D	mm	1420	2267
E	mm	920	1030
F	mm	1775	1867
Net weight	kg	405,00	686,00
Weight for transport	kg	422,00	722,00

G: tap protrusion

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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www.aermec.com

ANLI

Reversible heat pumps inverter

Cooling capacity 28,9 kW
Heating capacity 31,5 kW

- **Version with built-in hydronic kit inverter**
- **High efficiency even at part load**
- **Production of hot domestic water (D.H.W.)**



DESCRIPTION
Reversible Heat pumps units

VERSION
ANLI_H standard
ANLI_HX with inverter pump
ANLI_HP with on/off pump

OPERATIONAL LIMITS
Max. external air temperature 42°C, max. leaving water temperature 60°C

For more details on operating limits, refer to the technical documentation

— Capable of variable water flow rates on primary circuit (terminals with 2-way valves)
— Perfect water temperature control even in systems with low water content
— Suitable for heat pump mode summer operation to provide domestic hot water (DHW) with the DCPX fan speed controller accessory (when provided)
— High efficiency scroll and Twin rotary compressors with permanent magnet DC motors of "high side" type (with high pressure casing), designed for variable speed operation

Inverter pumps variable speed pump with water side pressure transducer installed and unit mounted microprocessor, capable of controlling various operating modes:
— Constant ΔP: maintains constant pressure differential between pump inlet and outlet; pump speed reduces as terminal valves close
— Variable ΔP: reduces pressure differential with flow reduction, in consideration of the pressure reduction in the pipe-work system to the terminals (recommended for larger pipe-work systems)

— Water filter, differential pressure switch, depending on the model, fitted on all units.
— High efficiency heat exchangers with trace heating as standard
— Axial flow fan units for extremely quiet operation
— Fitted with EMC filters

The built-in hydraulic kit includes
— Expansion vessel
— Safety valve water side
— Air vent valve

CONTROLLER
Aermec Modu_Control circuit board
— User interface with 6 soft-touch keys, 4 digit display, 6 LEDs
— Control of the leaving water temperature with PID algorithm
— Set-point compensation based on the external air temperature
— Display of operating frequency
— Control of compressor ramp speed
— Auto-adaptive intelligent defrosting
— Condensing control in summer with a 0-10 V modulating signal based on pressure and compensated for external air temperature (with DCPX accessory (when provided)
— Load limiting safety control by reducing compressor speed
— High and low pressure transducers
— Automatic reset of alarms before tripping
— Alarms history

ACCESSORIES
MODU-485BL: RS-485 interface for supervising systems with MODBUS protocol.
AERSET: accessory allows the automatic compensation of the operating set point of the unit to which it is connected, based on a 0-10V MODBUS input signal. **Mandatory accessory: MODU-485BL**
MULTICONTROL: Allows the simultaneous control of several chillers or heat pumps (up to 4) fitted with our MODUCONTROL controller and installed in the same hydraulic system. For complete control the following accessories are available:
SPLW: System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring.

SDHW: Domestic hot water temperature sensor. Used with the storage tank to control the temperature of water produced. **VMF-CRP to predict accessory for the management of the probes SPLW / SDHW if provided with the MULTICONTROL**
PR3: Simplified remote panel. Allows to perform the basic controls of the unit with alarm signals. It can be controlled with a shielded cable at a distance up to 150 m.
DCPX: Allows correct operation, in cooling mode, with outside temperatures lower than 20 °C and as low as – 10 °C, in heating mode up to 42 °C.
BSKW: Electric heater kit with IP44 panel for remote mounting in a sheltered area. Available in single and three phase power supply:
— BS6KW400T (6 kW, 400V/3/50Hz)
— BS9KW400T (9 kW, 400V/3/50Hz)
VT: Anti-vibration mounts.

SAF: Thermal accumulator for the instantaneous production of domestic hot water. **Refer to the dedicated "SAF" card for more information necessary for the correct operation of the system, as well as details on the required or recommended accessories. Please consult the VMF system for the production of DHW with Thermal Accumulator not supplied by Aermec.**

ACCESSORIES FACTORY FITTED ONLY

KR: Electric anti-freeze resistance for plate heat exchanger.
KRB: Electric anti-freeze resistance kit for base; prevents the formation of ice on the base.

COMPATIBILITY WITH VMF SYSTEM

For further information on system, refer to specific documentation.

ACCESSORIES COMPATIBILITY

Size	Version	Power supply	101
MODU-485BL	all		•
AERSET	all		•
MULTICONTROL	all		•
SPLW	all		•
SDHW	all		•
VMF-CRP	all		•
PR3	all		•
BS6KW400T		400V/3N	•
BS9KW400T		400V/3N	•
SAF	all		•

Condensation control temperature

Version	101
all	DCPX53

Antivibration

Version	101
all	VT15

Electric anti-freeze resistance for exchanger

Version	101
all	KR100

A grey background indicates the accessories assembled in the factory

Electric anti-freeze resistance kit for base

Version	101
all	KRB3

A grey background indicates the accessories assembled in the factory

CONFIGURATOR

Field		Description
1,2,3,4		**ANLI**
5,6,7		**Size**
		101
8		**Model**
	H	Heat pump
9		**Version**
	°	Standard
	X	With inverter pump
	P	With on/off pump
10		**Heat recovery**
	°	Without heat recovery

Field		Description
11		**Coil**
	°	Aluminium
	R	Copper
	S	Tinned copper
	V	In painted aluminium-copper (epoxy paint)
12		**Operating field**
	°	Electronic expansion valve (leaving water temperature down to 4°C) contact head office for lower temperatures
13		**Evaporator**
	°	Standard
14		**Power supply**
	T	400V/3N/50Hz

TECHNICAL DATA

ANLI - H

Size		101
Cooling performance 12 °C / 7 °C (1)		
Cooling capacity	kW	28,9
Input power	kW	11,7
Cooling total input current	A	16
EER		2,48
Water flow rate system side	l/h	4985
Pressure drop system side	kPa	50
Heating performance 40 °C / 45 °C (2)		
Heating capacity	kW	31,5
Input power	kW	11,3
Heating total input current	A	16
COP		2,78
Water flow rate system side	l/h	5457
Pressure drop system side	kPa	59
Cooling performance 23 °C / 18 °C (3)		
Cooling capacity	kW	42,0
Input power	kW	13,7
EER		3,08
Water flow rate system side	l/h	7301
Pressure drop system side	kPa	107
Heating performance 30 °C / 35 °C (4)		
Heating capacity	kW	33,4
Input power	kW	9,7
Heating total input current	A	13
COP		3,43
Water flow rate system side	l/h	5762
Pressure drop system side	kPa	66

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C
(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.
(3) Data 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(4) Data 14511:2018; System side water heat exchanger 30 °C/ 35 °C; Outside air 7 °C d.b. / 6 °C w.b.

ANLI - HX-HP

Size		101
Cooling performance 12 °C / 7 °C (1)		
Cooling capacity	kW	29,3
Input power	kW	11,9
Cooling total input current	A	18
EER		2,47
Water flow rate system side	l/h	4985
Pressure drop system side	kPa	175
Heating performance 40 °C / 45 °C (2)		
Heating capacity	kW	31,2
Input power	kW	11,5
Heating total input current	A	17
COP		2,70
Water flow rate system side	l/h	5457
Pressure drop system side	kPa	158
Cooling performance 23 °C / 18 °C (3)		
Cooling capacity	kW	42,6
Input power	kW	13,8
EER		3,08
Water flow rate system side	l/h	7301
Pressure drop system side	kPa	81
Heating performance 30 °C / 35 °C (4)		
Heating capacity	kW	33,0
Input power	kW	9,9
Heating total input current	A	15
COP		3,33
Water flow rate system side	l/h	5762
Pressure drop system side	kPa	147

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C
(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.
(3) Data 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(4) Data 14511:2018; System side water heat exchanger 30 °C/ 35 °C; Outside air 7 °C d.b. / 6 °C w.b.

ENERGY DATA

Size	Version		101
Cooling capacity with low leaving water temp (UE n° 2016/2281)			
SEER	H	W/W	3,81
	HX,HP	W/W	3,57
ηsc	H	%	149,2
	HX,HP	%	139,8
Performance under average climatic conditions (Average) UE n°811/2013 Pdesignh ≤ 70kW (1)			
Pdesignh	H		30
	HX		29
	HP		30
SCOP	H		2,73
	HX		3,23
	HP		3,25
ηsh	H	%	106
	HX	%	126
	HP	%	127
Efficiency Energy Class	H,HX,HP		A+

(1) Efficiencies for low temperature applications (35°C)

ELECTRIC DATA

Size		Version	101
Electric data (1)			
Maximum current (FLA)	A	H	21,00
Peak current (LRA)	A	H	30,00

(1) Unit standar configuration without hydronic kit

GENERAL TECHNICAL DATA

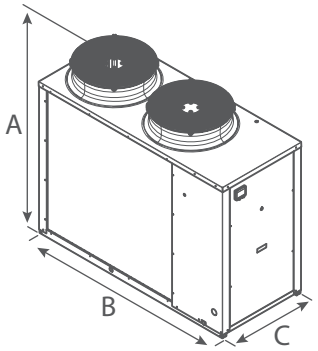
Size			101
Compressor			
Compressor		type/n°	Scroll/1
Circuit		n°	1
Refrigerant		type	R410A
System side heat exchanger			
Exchanger		type/n°	Plates/1
Connections	(in/out)	Ø	1"1/4
Axials fans			
Fans		type/n°	On-Off/2
Air flow rate		m³/h	13200
Sound data (1)			
Sound power		dB(A)	76,0
Sound pressure		dB(A)	44,0

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

Note: For more information, refer to the selection program or the technical documentation available on the website www.aermec.com

DIMENSIONS

Size	Version		101
Dimensions and weights			
A	all	mm	1450
B	all	mm	1750
C	all	mm	750
Empty weight	H	kg	293
	HX/HP	kg	308



ANLI 101H

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ANK 020-150

Reversible air/water heat pump

Cooling capacity 6,8 ÷ 39,8 kW
Heating capacity 8,0 ÷ 35,3 kW

- **Production of hot water up to 60 °C**
- **Production of hot domestic water with external temperatures from –20 °C up to 42 °C**
- **Compact dimensions**
- **Quick & easy installation**



EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

DESCRIPTION

Reversible air/water heat pump for air conditioning systems with cold water production for cooling rooms and hot water for heating and/or domestic hot water services, suitable for connection with small or medium users.
It's optimised for use in heating mode, and can be combined not only with low-temperature emission systems such as floor heating or fan coils, but also conventional radiators.
Equipped with scroll compressors, axial fans, external coil with aluminium louvers, plate heat exchanger on the side.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

° Standard
A With storage tank and pump
P With pump

FEATURES

Operating field

Working at full load up to -20°C outside air temperature in winter, and up to 46°C in summer. Possibility production technical hot water production up to 60°C (for more information see the technical documentation).

Soft-start

Le unità monofase sono equipaggiate di serie del Soft-start, un dispositivo elettronico per la riduzione della corrente di spunto

Version with Integrated hydronic kit

To have a Plug & Play solution is also available the version with the integrated Hydronic group that contains the main hydraulic components including the water filter.

Inverter fan

Inverter fans as standard in size up 020 to 085 in all versions.

■ *The DCPX accessory is not required for these sizes.*

MODUCONTROL CONTROL

The command panel of the unit allows the rapid setting of the working parameters of the machine, and their visualisation. The display consists of 4 figures and various LEDs for indicating the type of operational mode, the visualisation of the parameters set and of any alarms triggered. The card stores all the default settings and any modifications.

ACCESSORIES

AERSET: It makes it possible to automatically compensate for the operation setting of the unit to which it is connected, based on a 0-10V MODBUS input signal. Mandatory accessory MODU-485BL.
MODU-485BL: RS-485 interface for supervision systems with MODBUS protocol.
MULTICONTROL: Allows the simultaneous control of several units (up to 4), installed in the same hydraulic system.
PR3: Simplified remote panel. This makes it possible to carry out the unit's basic controls with the signalling of alarms. Can be made remote with shielded cable up to 150 m.
SDHW: Domestic hot water sensor. To be used with a storage tank for the control of water temperature produced.
SPLW: System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring
VMF-CRP: Accessory module for controlling boilers, heat recover units and pumps (if associated with VMF-E5 / RCC panels); if associated with the VMF-E6 panel, the VMF-CRP modules will be able to manage heat recovery units, RAS, boiler, sanitary management, I/O control, pumps.
DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.
VT: Anti-vibration supports.
BSKW: Electric heaters kit with IP44 panel for remote mounting in a sheltered area.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.

KRB: Electric anti-freeze resistance kit for base.
BDX: Condensate drip with resistance

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

Model	Ver	020	030	040	045	050	085	100	150
AERSET	°,A,P	•	•	•	•	•	•	•	•
MODU-485BL	°,A,P	•	•	•	•	•	•	•	•
MULTICONTROL	°,A,P	•	•	•	•	•	•	•	•
PR3	°,A,P	•	•	•	•	•	•	•	•
SDHW (1)	°,A,P	•	•	•	•	•	•	•	•
SPLW (2)	°,A,P	•	•	•	•	•	•	•	•
VMF-CRP	°,A,P	•	•	•	•	•	•	•	•

(1) Probe required for MULTICONTROL for managing the domestic hot water system.
(2) Probe required for MULTICONTROL to manage the secondary circuit system.

Ver	020	030	040	045	050	085	100	150
°,A,P	-	-	-	-	-	-	DCPX53	DCPX53

The accessory cannot be fitted on the configurations indicated with -

Ver	020	030	040	045	050	085	100	150
Power supply: °								
°,A,P	BS6KW400T, BS9KW400T	BS6KW400T, BS9KW400T	BS6KW400T, BS9KW400T	BS6KW400T, BS9KW400T	BS6KW400T, BS9KW400T	BS6KW400T, BS9KW400T	BS6KW400T, BS9KW400T	BS6KW400T, BS9KW400T
Power supply: M								
°,A,P	BS4KW230M, BS6KW230M	BS4KW230M, BS6KW230M	BS4KW230M, BS6KW230M	-	-	-	-	-

Ver	020	030	040	045	050	085	100	150
°,P	VT9	VT9	VT9	VT9	VT9	VT9	VT15	VT15
A	VT15A	VT15A	VT15A	VT15A	VT15A	VT15A	VT15	VT15

Ver	020	030	040	045	050	085	100	150
Power supply: °								
°,A,P	DRE5 (1)	DRE5 (1)	DRE5 (1)	DRE5 (1)	DRE5 (1)	DRE5 (1)	DRE5 x 2 (1)	DRE5 x 2 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
A grey background indicates the accessory must be assembled in the factory

Ver	020	030	040	045	050	085	100	150
°,A,P	KRB1 (1)	KRB2 (1)	KRB2 (1)	KRB2 (1)	KRB2 (1)	KRB2 (1)	KRB3 (1)	KRB3 (1)

(1) Incompatible with the condensate collection basin accessory with integrated resistance.
A grey background indicates the accessory must be assembled in the factory

Ver	020	030	040	045	050	085	100	150
°,A,P	BDX8	BDX9	BDX9	BDX9	BDX9	BDX9	-	-

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field		Description
1,2,3		**ANK**
4,5,6		**Size** 020, 030, 040, 045, 050, 085, 100, 150
7		**Model**
	H	Heat pump
8		**Version**
	°	Standard
	A	With storage tank and pump
	P	With pump
9		**Execution**
	°	Standard
10		**Coils**
	°	Copper-aluminium
	R	Copper pipes-copper fins
	S	Copper pipes-Tinned copper fins
	V	Copper pieps-Coated aluminium fins
11		**Operating field**
	°	Standard mechanic thermostatic valve (1)
	Y	Low temperature mechanic thermostatic valve (2)
	Z	Low temperature electronic thermostatic valve (3)
12		**Evaporator**
	°	Standard
13		**Power supply**
	°	400V 3N ~ 50Hz (4)
	M	230V ~ 50Hz (5)

(1) Water produced up to +4 °C
(2) Water produced from 0 °C ÷ -8 °C
(3) Water produced from +4 °C up to +0 °C
(4) For ANK 020 ÷ 045 sizes
(5) Only for ANK 020 ÷ 045 sizes

PERFORMANCE SPECIFICATIONS 12 °C/ 7 °C - 40 °C/ 45 °C

ANK - (°) / 12/7 °C - 40/45 °C

Size		020	030	040	045	050	085	100	150
Power supply: °									
Cooling performance 12 °C / 7 °C (1)									
Cooling capacity	kW	6,8	8,2	10,5	11,6	13,1	15,5	25,3	29,3
Input power	kW	2,3	2,8	3,5	4,0	4,3	5,2	8,1	10,0
Cooling total input current	A	4,3	5,6	7,1	7,7	8,7	11,0	17,0	20,0
EER	W/W	2,93	2,91	2,98	2,93	3,03	3,00	3,12	2,92
Water flow rate system side	l/h	1169	1406	1811	1997	2253	2677	4362	5056
Pressure drop system side	kPa	16	9	16	14	18	24	32	36
Heating performance 40 °C / 45 °C (2)									
Heating capacity	kW	8,0	10,0	12,2	14,0	15,3	17,4	27,1	33,3
Input power	kW	2,5	3,1	3,8	4,2	4,4	5,0	8,3	10,5
Heating total input current	A	4,7	6,2	7,6	8,0	9,0	10,0	18,0	21,0
COP	W/W	3,21	3,24	3,25	3,38	3,48	3,46	3,24	3,19
Water flow rate system side	l/h	1376	1738	2117	2430	2656	3021	4689	5774
Pressure drop system side	kPa	22	14	22	21	25	31	37	47
Power supply: M									
Cooling performance 12 °C / 7 °C (1)									
Cooling capacity	kW	6,8	8,2	9,6	11,7	-	-	-	-
Input power	kW	2,3	2,8	3,2	3,7	-	-	-	-
Cooling total input current	A	11,0	13,0	16,0	19,0	-	-	-	-
EER	W/W	2,92	2,91	2,97	3,16	-	-	-	-
Water flow rate system side	l/h	1179	1406	1649	2018	-	-	-	-
Pressure drop system side	kPa	16	9	14	14	-	-	-	-
Heating performance 40 °C / 45 °C (2)									
Heating capacity	kW	8,0	10,0	10,9	13,5	-	-	-	-
Input power	kW	2,5	3,1	3,4	3,8	-	-	-	-
Heating total input current	A	12,0	15,0	17,0	19,0	-	-	-	-
COP	W/W	3,16	3,24	3,15	3,50	-	-	-	-
Water flow rate system side	l/h	1376	1738	1881	2332	-	-	-	-
Pressure drop system side	kPa	22	14	18	19	-	-	-	-

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ANK - (A/P) / 12/7 °C - 40/45 °C

Size		020	030	040	045	050	085	100	150
Power supply: °									
Cooling performance 12 °C / 7 °C (1)									
Cooling capacity	kW	6,9	8,2	10,6	11,7	13,2	15,7	25,6	29,7
Input power	kW	2,3	2,8	3,5	4,0	4,3	5,2	8,2	10,4
Cooling total input current	A	4,9	6,2	7,8	8,7	9,8	12,0	18,0	22,0
EER	W/W	3,00	2,97	3,05	2,95	3,06	3,03	3,12	2,87
Water flow rate system side	l/h	1169	1406	1811	1997	2253	2677	4362	5056
Useful head system side	kPa	78,0	82,0	70,0	81,0	74,0	63,0	115,0	144,0
Heating performance 40 °C / 45 °C (2)									
Heating capacity	kW	7,9	9,9	12,1	13,9	15,2	17,3	26,8	33,0
Input power	kW	2,4	3,0	3,7	4,2	4,4	5,0	8,4	10,8
Heating total input current	A	5,3	6,9	8,3	9,1	10,0	12,0	19,0	23,0
COP	W/W	3,22	3,26	3,27	3,35	3,46	3,44	3,18	3,05
Water flow rate system side	l/h	1376	1738	2117	2430	2656	3021	4689	5774
Useful head system side	kPa	72,0	76,0	61,0	68,0	59,0	50,0	105,0	109,0
Power supply: M									
Cooling performance 12 °C / 7 °C (1)									
Cooling capacity	kW	6,9	8,2	9,7	11,8	-	-	-	-
Input power	kW	2,3	2,8	3,2	3,7	-	-	-	-
Cooling total input current	A	12,0	14,0	16,0	20,0	-	-	-	-
EER	W/W	2,99	2,96	3,02	3,17	-	-	-	-
Water flow rate system side	l/h	1179	1406	1649	2018	-	-	-	-
Useful head system side	kPa	78,0	71,0	62,0	70,0	-	-	-	-
Heating performance 40 °C / 45 °C (2)									
Heating capacity	kW	7,9	9,9	10,8	13,4	-	-	-	-
Input power	kW	2,5	3,1	3,4	3,9	-	-	-	-
Heating total input current	A	13,0	15,0	18,0	20,0	-	-	-	-
COP	W/W	3,17	3,25	3,16	3,45	-	-	-	-
Water flow rate system side	l/h	1376	1738	1881	2332	-	-	-	-
Useful head system side	kPa	72,0	58,0	52,0	57,0	-	-	-	-

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

PERFORMANCE SPECIFICATIONS 23 °C/ 18 °C - 30 °C/ 35 °C

ANK - (°) / 23/18 °C - 30/35 °C

Size		020	030	040	045	050	085	100	150
Power supply: °									
Cooling performance 23 °C / 18 °C (1)									
Cooling capacity	kW	9,5	11,4	14,7	16,2	18,2	21,7	34,0	39,4
Input power	kW	2,4	2,9	3,7	4,2	4,5	5,5	8,8	10,9
Cooling total input current	A	4,5	5,8	7,4	8,0	9,1	11,0	18,0	22,0
EER	W/W	3,88	3,86	3,95	3,89	4,02	3,96	3,86	3,61
Water flow rate system side	l/h	1637	1969	2536	2797	3155	3749	5889	6826
Pressure drop system side	kPa	31	18	31	27	35	47	58	66
Heating performance 30 °C / 35 °C (2)									
Heating capacity	kW	8,5	10,6	13,0	14,6	16,2	18,2	29,2	35,6
Input power	kW	2,1	2,6	3,1	3,5	3,8	4,3	6,9	8,8
Heating total input current	A	4,0	5,2	6,2	6,8	7,7	8,9	15,0	18,0
COP	W/W	4,03	4,04	4,20	4,15	4,31	4,18	4,21	4,07
Water flow rate system side	l/h	1473	1830	2253	2525	2799	3137	5041	6147
Pressure drop system side	kPa	25	15	25	22	28	33	43	53
Power supply: M									
Cooling performance 23 °C / 18 °C (1)									
Cooling capacity	kW	9,5	11,4	13,3	16,3	-	-	-	-
Input power	kW	2,5	2,9	3,4	3,9	-	-	-	-
Cooling total input current	A	12,0	14,0	17,0	19,0	-	-	-	-
EER	W/W	3,86	3,86	3,94	4,19	-	-	-	-
Water flow rate system side	l/h	1652	1969	2310	2826	-	-	-	-
Pressure drop system side	kPa	31	18	27	27	-	-	-	-
Heating performance 30 °C / 35 °C (2)									
Heating capacity	kW	8,5	10,6	11,6	14,0	-	-	-	-
Input power	kW	2,2	2,6	2,8	3,3	-	-	-	-
Heating total input current	A	10,0	12,0	14,0	16,0	-	-	-	-
COP	W/W	3,96	4,04	4,08	4,30	-	-	-	-
Water flow rate system side	l/h	1473	1830	2001	2424	-	-	-	-
Pressure drop system side	kPa	25	15	21	20	-	-	-	-

(1) Data EN 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2018; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

ANK - (A/P) / 23/18 °C - 30/35 °C

Size		020	030	040	045	050	085	100	150
Power supply: °									
Cooling performance 23 °C / 18 °C (1)									
Cooling capacity	kW	9,5	11,5	14,8	16,3	18,4	21,8	34,3	39,8
Input power	kW	2,4	2,9	3,6	4,2	4,5	5,5	8,9	11,4
Cooling total input current	A	5,1	6,5	8,1	9,2	10,0	12,0	19,0	24,0
EER	W/W	4,00	3,98	4,06	3,92	4,05	3,99	3,85	3,48
Water flow rate system side	l/h	1637	1969	2536	2797	3155	3749	5889	6826
Useful head system side	kPa	62,0	70,0	45,0	55,0	38,0	16,0	66,0	51,0
Heating performance 30 °C / 35 °C (2)									
Heating capacity	kW	8,4	10,5	12,9	14,5	16,1	18,0	28,9	35,3
Input power	kW	2,1	2,6	3,0	3,5	3,8	4,3	7,0	9,2
Heating total input current	A	4,6	5,9	6,9	7,9	8,8	10,0	16,0	20,0
COP	W/W	4,07	4,08	4,26	4,12	4,28	4,16	4,11	3,85
Water flow rate system side	l/h	1473	1830	2253	2525	2799	3137	5041	6147
Useful head system side	kPa	69,0	73,0	56,0	65,0	54,0	45,0	95,0	90,0
Power supply: M									
Cooling performance 23 °C / 18 °C (1)									
Cooling capacity	kW	9,6	11,5	13,4	16,4	-	-	-	-
Input power	kW	2,4	2,9	3,4	3,9	-	-	-	-
Cooling total input current	A	12,0	14,0	17,0	20,0	-	-	-	-
EER	W/W	3,99	3,93	4,00	4,18	-	-	-	-
Water flow rate system side	l/h	1652	1969	2310	2826	-	-	-	-
Useful head system side	kPa	62,0	47,0	29,0	32,0	-	-	-	-
Heating performance 30 °C / 35 °C (2)									
Heating capacity	kW	8,6	10,8	11,9	13,8	-	-	-	-
Input power	kW	2,2	2,6	2,9	3,4	-	-	-	-
Heating total input current	A	11,0	13,0	15,0	17,0	-	-	-	-
COP	W/W	3,88	4,11	4,10	4,11	-	-	-	-
Water flow rate system side	l/h	1486	1877	2061	2397	-	-	-	-
Useful head system side	kPa	58,0	65,0	58,0	79,0	-	-	-	-

(1) Data EN 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2018; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

ENERGY DATA

Energy index ANK - H°

Size		020	030	040	045	050	085	100	150
Power supply: °									
Cooling capacity with low leaving water temp (UE n° 2016/2281)									
SEER	W/W	3,07	3,18	3,32	3,32	3,45	3,45	3,81	3,63
ηsc	%	119,80	124,10	129,80	129,80	135,00	135,00	149,40	142,30
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)									
Pdesignh	kW	7	9	11	13	14	16	26	32
SCOP		3,38	3,40	3,50	3,48	3,60	4,65	3,90	3,90
ηsh	%	3,38	3,40	3,50	3,48	3,60	3,40	3,90	3,90
Efficiency energy class		A+	A+	A+	A+	A+	A+	A++	A++
Power supply: M									
Cooling capacity with low leaving water temp (UE n° 2016/2281)									
SEER	W/W	3,07	3,18	3,27	3,55	-	-	-	-
ηsc	%	119,60	124,10	127,80	139,00	-	-	-	-
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)									
Pdesignh	kW	7	9	10	12	-	-	-	-
SCOP		3,33	3,40	3,43	3,55	-	-	-	-
ηsh	%	130,00	133,00	134,00	139,00	-	-	-	-
Efficiency energy class		A+	A+	A+	A+	-	-	-	-

(1) Efficiencies for low temperature applications (35 °C)

Energy index ANK - HP/HA

Size		020	030	040	045	050	085	100	150
Power supply: °									
Cooling capacity with low leaving water temp (UE n° 2016/2281)									
SEER	W/W	3,09	3,20	3,39	3,33	3,46	3,50	3,74	3,50
ηsc	%	121,00	125,00	132,00	130,00	135,00	137,00	147,00	137,00
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)									
Pdesignh	kW	7	9	11	13	14	15	25	30
SCOP		3,45	3,50	3,58	3,53	3,65	3,45	3,83	3,70
ηsh	%	135,00	137,00	140,00	138,00	143,00	135,00	150,00	145,00
Efficiency energy class		A+	A+	A+	A+	A+	A+	A++	A++
Power supply: M									
Cooling capacity with low leaving water temp (UE n° 2016/2281)									
SEER	W/W	3,10	3,20	3,34	3,54	-	-	-	-
ηsc	%	121,00	125,00	131,00	138,00	-	-	-	-
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)									
Pdesignh	kW	7	9	10	12	-	-	-	-
SCOP		-	-	-	-	-	-	-	-
ηsh	%	133,00	137,00	137,00	141,00	-	-	-	-
Efficiency energy class		A+	A+	A+	A+	-	-	-	-

(1) Efficiencies for low temperature applications (35 °C)

ELECTRIC DATA

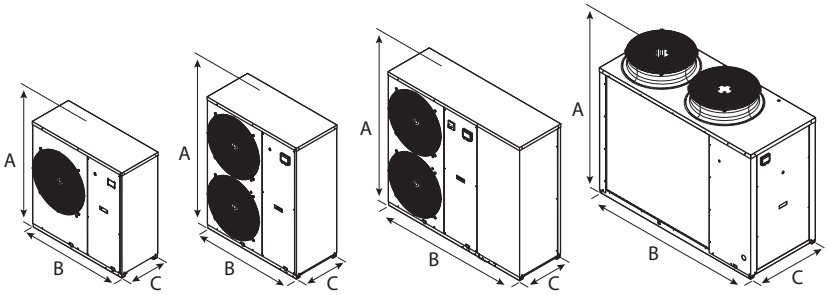
Size			020	030	040	045	050	085	100	150
Power supply: °										
Electric data										
Maximum current (FLA)	°	A	6,0	8,0	9,0	11,0	12,0	12,0	22,0	26,0
	A,P	A	6,8	8,4	9,8	11,9	13,1	13,6	23,6	28,9
Peak current (LRA)	°	A	40,0	40,0	54,0	61,0	71,0	91,0	73,0	105,0
	A,P	A	40,4	41,0	55,0	62,6	72,6	92,6	74,6	107,8
Peak current with Soft-start	°,A,P	A	-	-	-	-	-	-	-	-
Power supply: M										
Electric data										
Maximum current (FLA)	°	A	14,0	19,0	22,0	25,0	-	-	-	-
	A	A	14,6	20,1	22,9	26,3	-	-	-	-
	P	A	14,6	20,1	22,9	26,3	-	-	-	-
Peak current (LRA)	°,P	A	-	-	-	-	-	-	-	-
	A	A	-	-	-	-	-	-	-	-
Peak current with Soft-start	°	A	45,0	45,0	45,0	45,0	-	-	-	-
	A	A	45,7	45,7	45,7	46,3	-	-	-	-
	P	A	45,7	45,7	45,7	46,3	-	-	-	-

GENERAL TECHNICAL DATA

Size			020	030	040	045	050	085	100	150
Compressor										
Type	°,A,P	type	Scroll							
Compressor regulation	°,A,P	Type	On-off							
Number	°,A,P	no.	1	1	1	1	1	1	1	2
Circuits	°,A,P	no.	1	1	1	1	1	1	1	1
Refrigerant	°,A,P	type	R410A							
Refrigerant charge (1)	°,A,P	kg	2,9	4,3	4,3	5,5	6,0	6,0	12,0	14,5
System side heat exchanger										
Type	°,A,P	type	Brazed plate							
Number	°,A,P	no.	1	1	1	1	1	1	1	1
Hydraulic connections										
Connections (in/out)	°,A,P	Type	Gas - F							
Size (in)	°,A,P	Ø	1"¼							
Size (out)	°,A,P	Ø	1"¼							
Fan										
Type	°,A,P	type	Axial							
Fan motor	°,A,P	type	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter	Asynchronous	Asynchronous
Number	°,A,P	no.	1	1	2	2	2	2	2	2
Air flow rate	°,A,P	m^3/h	3500	8000	8000	7500	7500	7500	14500	14500
Sound data calculated in cooling mode (2)										
Sound power level	°,A,P	dB(A)	68,0	70,5	70,5	70,5	70,5	70,5	77,0	78,0
Sound pressure level (10 m)	°,A,P	dB(A)	36,7	39,2	39,1	39,1	39,1	39,1	72,6	73,6

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



ANK H-HP **ANK HA** **ANK 100-150 H-HP-HA**

Size			020	030	040	045	050	085	100	150
Dimensions and weights										
A	°,A,P	mm	1028	1281	1281	1281	1281	1281	1450	1450
B	°,P	mm	1000	1000	1000	1000	1000	1000	1450	1450
	A	mm	1358	1450	1450	1450	1450	1450	1750	1750
C	°,A,P	mm	400	400	450	450	450	450	750	750
Empty weight	°	kg	118	149	152	165	172	174	296	341
	A	kg	160	211	214	232	238	241	364	412
	P	kg	123	154	157	175	182	184	314	362

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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SWP

High-temperature air-water heat pump for DHW production

- **Production of hot water up to 60°C (70°C with the electric heater)**
- **Operation with suction air from 8°C to 35°C (extended to -15°C to 45°C with the electric heater)**
- **Versions with standard storage tank or with 1 or 2 coils to be used in combination with several additional sources**



DESCRIPTION

The SWP heat pumps use the thermal energy of air for production of domestic hot water. The process occurs in the most efficient and profitable way with average COPs > 3. The energy advantage of the SWP heat pumps also safeguards the environment, using most of its energy from solar radiation.
Easy installation, silent and reliable functioning and very low maintenance requirements complete the benefits of this highly ecological and economic system.

FEATURES

— Steel tank with a double vitrification.
— Condenser wrapped externally to the boiler with no scales and refrigerant-water fluid contamination
— Auxiliary coil to be used together with a boiler or solar panels
— Integrated NTC sensor to control the water temperature
— External air sensor for automatic connection of the electric heater with unfavourable temperatures in heat pump mode
— Anti-corrosion magnesium anode
— Hydraulic connections located at rear of unit
— Thermal insulation made of very thick expanded polyurethane foam with a silver grey RAL 2006 external covering (ABS)
— Adjustable support feet
— Gas R134a
— Electric heater 1500 W 230V
— High pressure safety devices
— Rotary compressor
— Radial fan with an adjustment of 40 % of the nominal flow rate

Electronic controller:
— water set point adjustment
— external air temperature sensing
— auto-diagnostic with display of the high/low pressure alarm, water overheating alarm and disconnected sensors alarm
— record of run hours
— control of minimum time between successive compressor starts
— setting of parameters from the keyboard
— control of electric heater in manual mode or in supplementary automatic mode for low external temperatures
— periodic antibacterial treatment cycle to eliminate and prevent Legionella from developing
— user display to set the operating mode and various parameters with different levels of accessibility by means of passwords

VERSIONS

SWP301: Standard where the heat pump and the electric heater are the source of heat.
SWP 301S1: With auxiliary coil to be used together with a boiler or solar panels.
SWP301S2: With double auxiliary coils for simultaneous use of three heat sources.

PERFORMANCE SPECIFICATIONS

		SWP301	SWP301S1	SWP301S2
Performance in heating mode from 10°C to 54°C (1)				
Heating capacity	W	1950	1950	1950
Electric input power (average)	W	488	488	488
Electric input power (maximum)	W	700	700	700
Input power in standby (Pes)	W	43	43	43
COP (2)	W/W	2,91	2,91	2,91
Heating time	hh:mm	07:22	07:22	07:22

(1) Values measured when heating the water from 10°C to 54°C with 15°C inlet air temperature and 71% relative humidity
(2) Value obtained on the entire L-type withdrawal cycle, at the reference temperature of 54° C (as required by EN 16147)

ELECTRIC DATA

		SWP301	SWP301S1	SWP301S2
Power supply				
Power supply		230V~50Hz	230V~50Hz	230V~50Hz
Electric heater				
Number	no.	1	1	1
Input power	W	1500	1500	1500
Maximum current	A	10,00	10,00	10,00

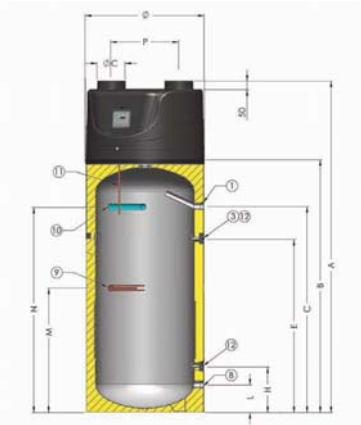
GENERAL TECHNICAL DATA

		SWP301	SWP301S1	SWP301S2
Accumulation inertial				
Storage tank capacity	l	273	268	265
Insulation thickness	mm	50	50	50
Type of corrosion protection	type		Anodo sacrificale in magnesio	
Maximum operating pressure	bar	6	6	6
Maximum working pressure of auxiliary coil (inf./sup.)	bar	10,0	10,0	10,0
Auxiliary serpentine surface (inf./sup.)		-	1,5	1,5/0,6
Capacity required for the coil 80/60 ° C (inf./sup.)		-	1,6	1,6/0,6
Domestic hot water production 80/60 ° C - 10/45 ° C (DIN 4708)		-	0,9	0,9/0,3
Maximum volume of DHW usable at 40 ° C (Vmax)	l	370	370	370
Max DHW temperature with heat pump	°C		60 (55 di fabbrica)	
Fan				
Type	type		Radiale	
Number	no.	1	1	1
Air flow rate	m^3/h	450	450	450
High static pressure	Pa	80	80	80
Sound data				
Sound power level	dB(A)	60,0	60,0	60,0
Sound pressure level (L_pA at 1 metre) (1)	dB(A)	49,0	49,0	49,0

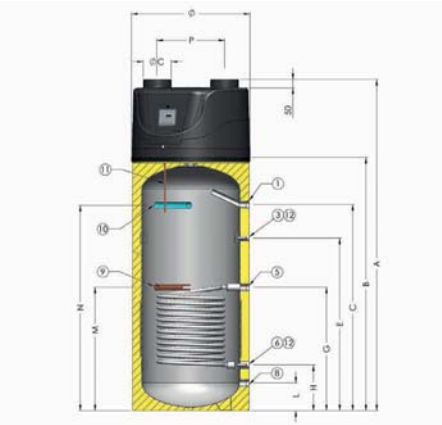
(1) In free field, with non-ducted inlets/outlets

DIMENSIONS

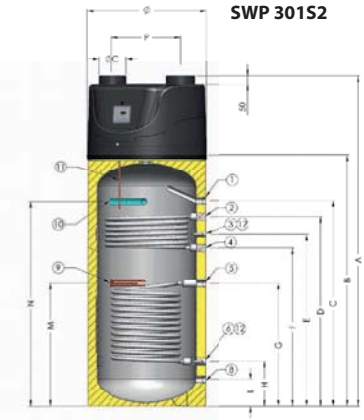
SWP 301



SWP 301S1



SWP 301S2





Key:

1 Hot water withdrawal - Rp 1"
2 Heating delivery - Rp 1"
3 Recirculation - Rp 1/2"
4 Heating return - Rp 1"
5 Solar delivery - Rp 1"
6 Solar return - Rp 1"
7 Condensate drainage - Rp 1/2"
8 Chilled water inlet Rp 1"
9 Electric heater Rp 1" 1/4
10 Anode Rp 1" 1/4
11 Control probe sump L = 700 mm Rp 1/2"
12 Probe sump L = 70 mm, Ø 12 mm

		SWP301	SWP301S1	SWP301S2
Dimensions and weights				
A	mm	1845	1845	1845
B	mm	1410	1410	1410
C	mm	1150	1150	1150
D	mm	-	-	1060
E	mm	965	965	965
F	mm	-	-	890
G	mm	-	690	690
H	mm	-	255	255
I	mm	965	965	965
L	mm	155	155	155
M	mm	690	690	690
N	mm	1145	1145	1145
Ø	mm	660	660	660
Øc	mm	160	160	160
Weight for transport	kg	112,00	127,00	145,00

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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ANL 021-202

Air-water chiller

Cooling capacity 5,7 ÷ 43,3 kW

- **Standard version**
- **Version with Integrated hydronic kit system side**



DESCRIPTION

Chillers for external installation for chilled water production with scroll compressors, axial fans, external copper coils with aluminum louvers from size 020 to 090, microchannel from size 102 to 202.
The base, the structure and the panels are made of steel treated with polyester paint RAL 9003.

VERSIONS

° Standard
A With storage tank and pump
N With increased pump
P With pump
Q With storage tank and increased pump

FEATURES

Operating field

Operation at full load up to 46°C external air temperature. Unit can produce chilled water up to -10°C.

Version with Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations to obtain a solution that allows you to facilitate installation.

Hot water production

In the configuration with desuperheater, it is also possible to produce free-hot water.

Double mechanical thermostat

On the configurator it is also possible to select the option **"W"** double mechanical thermostatic valve for low temperatures.
Using two electronic valves in parallel guarantees a precise and efficient control in a wide operating range. This allows them to produce chilled water from -10 °C to +18 °C.

The option is only available for sizes from 050 to 090 in the °-A-Q versions and from size 102 to 202 in all versions.

MODUCONTROL CONTROL

The command panel of the unit allows the rapid setting of the working parameters of the machine, and their visualisation. The display consists of 4 figures and various LEDs for indicating the type of operational mode, the visualisation of the parameters set and of any alarms triggered. The card stores all the default settings and any modifications.

ACCESSORIES

MODU-485BL: RS-485 interface for supervision systems with MODBUS protocol.
MULTICONTROL: Allows the simultaneous control of several units (up to 4), installed in the same hydraulic system.
PR3: Simplified remote panel. This makes it possible to carry out the unit's basic controls with the signalling of alarms. Can be made remote with shielded cable up to 150 m.
SPLW: System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring
VMF-CRP: Accessory module for controlling boilers, heat recover units and pumps (if associated with VMF-E5 / RCC panels); if associated with the VMF-E6 panel, the VMF-CRP modules will be able to manage heat recovery units, RAS, boiler, sanitary management, I/O control, pumps.
DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.
VT: Anti-vibration supports.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.
RA: Anti-freeze electric heater for the buffer tank.
KR: Anti-freeze electric heater for the plate heat exchanger.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

Accessories

Model	Ver	021	026	031	041	050	070	080	090	102	152	202
MODU-485BL	°,A,P	•	•	•	•	•	•	•	•	•	•	•
	N									•	•	•
	Q					•	•	•	•	•	•	•
MULTICONTROL	°,A,P	•	•	•	•	•	•	•	•	•	•	•
	N									•	•	•
	Q					•	•	•	•	•	•	•
PR3	°,A,P	•	•	•	•	•	•	•	•	•	•	•
	N									•	•	•
	Q					•	•	•	•	•	•	•
SPLW (1)	°,A,P	•	•	•	•	•	•	•	•	•	•	•
	N									•	•	•
	Q					•	•	•	•	•	•	•
VMF-CRP	°,A,P	•	•	•	•	•	•	•	•	•	•	•
	N									•	•	•
	Q					•	•	•	•	•	•	•

(1) Probe required for MULTICONTROL to manage the secondary circuit system.

DCPX: Condensation control temperature

Ver	021	026	031	041	050	070	080	090	102	152	202
°,A,P	DCPX50	DCPX50	DCPX50	DCPX50	DCPX50	DCPX50	DCPX50	DCPX50	DCPX52	DCPX52	DCPX52
N	-	-	-	-	-	-	-	-	DCPX52	DCPX52	DCPX52
Q	-	-	-	-	DCPX50	DCPX50	DCPX50	DCPX50	DCPX52	DCPX52	DCPX52

VT: Antivibration

Ver	021	026	031	041	050	070	080	090	102	152	202
°,P	VT9	VT9	VT9	VT9	VT9	VT9	VT9	VT9	VT15	VT15	VT15
A	VT9	VT9	VT9	VT9	VT15	VT15	VT15	VT15	VT15	VT15	VT15
N	-	-	-	-	-	-	-	-	VT15	VT15	VT15
Q	-	-	-	-	VT15	VT15	VT15	VT15	VT15	VT15	VT15

DRE: Device for peak current reduction

Ver	050	070	080	090	102	152	202
Power supply: °							
°,A,P,Q	DRE5 (1)	DRE5 (1)	DRE5 (1)	DRE5 (1)	DRE5 x 2 (1)	DRE5 x 2 (1)	DRE5 x 2 (1)
N	-	-	-	-	DRE5 x 2 (1)	DRE5 x 2 (1)	DRE5 x 2 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
A grey background indicates the accessory must be assembled in the factory

KR: electric heater for the plate heat exchanger

Ver	021	026	031	041	050	070	080	090	102	152	202
°,P	KR2	KR2	KR2	KR2	KR2	KR2	KR2	KR2	KR100	KR100	KR100
A,Q	-	-	-	-	KR2	KR2	KR2	KR2	KR100	KR100	KR100
N	-	-	-	-	-	-	-	-	KR100	KR100	KR100

A grey background indicates the accessory must be assembled in the factory

RA: electric heater for the buffer tank

Ver	021	026	031	041	050	070	080	090	102	152	202
A	RA	RA	RA	RA	RA	RA	RA	RA	RA100	RA100	RA100
Q	-	-	-	-	RA	RA	RA	RA	RA100	RA100	RA100

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3	**ANL**
4,5,6	**Size** 021, 026, 031, 041, 050, 070, 080, 090, 102, 152, 202
7	**Model**
°	Cooling only
8	**Version**
°	Standard
A	With storage tank and pump
N	With increased pump (1)
P	With pump
Q	With storage tank and increased pump (2)
9	**Heat recovery**
°	Without heat recovery
D	With desuperheater (3)
10	**Coils**
°	Copper-aluminium (4)
R	Copper pipes-copper fins
S	Copper pipes-Tinned copper fins
V	Copper pieps-Coated aluminium fins
11	**Operating field**
°	Standard mechanic thermostatic valve (5)
W	Double mechanical thermostat for low temperature (6)
Y	Low temperature mechanic thermostatic valve (7)
Z	Low temperatures mechanic thermostatic valve (8)
12	**Evaporator**
°	Standard
13	**Power supply**
°	400V 3N ~ 50Hz (9)
M	230V ~ 50Hz (10)

(1) Only for ANL 102 ÷ 202 sizes
(2) Only for ANL 050 ÷ 202 sizes
(3) If the unit is also fitted with one of the low temperature valves in addition to the desuperheater, it is necessary to always guarantee a water temperature of 35°C at the inlet of the heat exchanger. The desuperheater is only available in sizes from 050 to 090 in the version with storage tank "A", and from size 102 to 202 in all versions.
(4) Sizes from 102 to 202 have a micro-channel coil
(5) Water produced up to +4 °C
(6) Water produced from -10 °C to 18 °C; Option available only for sizes starting from 050 to 090 in the °-A-Q versions and from 102 to 202 in all versions
(7) Water produced from 0 °C up to -10 °C
(8) Water produced from +4 °C up to +0 °C
(9) For all sizes
(10) Only for ANL 021 ÷ 041 sizes

PERFORMANCE SPECIFICATIONS

ANL - ° (400V 3N ~ 50Hz / 230V ~ 50Hz)

Size		021	026	031	041	050	070	080	090	102	152	202
Power supply: °												
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	5,7	6,2	7,5	9,6	13,4	16,4	20,4	22,2	26,5	32,9	42,8
Input power	kW	1,9	2,0	2,5	3,3	4,1	4,9	6,4	6,8	8,0	10,2	13,5
Cooling total input current	A	4,0	4,0	5,0	6,0	9,0	10,0	12,0	13,0	16,0	19,0	25,0
EER	W/W	3,03	3,04	2,99	2,90	3,26	3,33	3,18	3,28	3,32	3,21	3,18
Water flow rate system side	l/h	979	1065	1288	1649	2302	2834	3522	3831	4570	5669	7387
Pressure drop system side	kPa	21	21	22	24	30	30	36	50	58	61	68
Power supply: M												
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	5,7	6,2	7,5	9,6	-	-	-	-	-	-	-
Input power	kW	1,9	2,0	2,5	3,3	-	-	-	-	-	-	-
Cooling total input current	A	6,0	7,0	8,0	11,0	-	-	-	-	-	-	-
EER	W/W	3,03	3,04	2,99	2,90	-	-	-	-	-	-	-
Water flow rate system side	l/h	979	1065	1288	1649	-	-	-	-	-	-	-
Pressure drop system side	kPa	21	21	22	24	-	-	-	-	-	-	-

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

ANL - P (400V 3N ~ 50Hz / 230V ~ 50Hz)

Size		021	026	031	041	050	070	080	090	102	152	202
Power supply: °												
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	5,7	6,2	7,6	9,7	13,5	16,6	20,6	22,4	26,8	33,2	43,2
Input power	kW	1,8	2,0	2,5	3,2	4,1	4,9	6,4	6,7	8,1	10,5	13,8
Cooling total input current	A	4,0	5,0	5,0	7,0	10,0	11,0	13,0	14,0	17,0	21,0	27,0
EER	W/W	3,11	3,12	3,07	2,97	3,31	3,38	3,23	3,35	3,32	3,15	3,13
Water flow rate system side	l/h	979	1065	1288	1649	2302	2834	3522	3831	4570	5669	7387
Useful head system side	kPa	73,0	73,0	71,0	65,0	76,0	72,0	57,0	52,0	84,0	115,0	91,0
Power supply: M												
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	5,7	6,2	7,6	9,7	-	-	-	-	-	-	-
Input power	kW	1,8	2,0	2,5	3,2	-	-	-	-	-	-	-
Cooling total input current	A	7,0	8,0	9,0	12,0	-	-	-	-	-	-	-
EER	W/W	3,11	3,12	3,07	2,97	-	-	-	-	-	-	-
Water flow rate system side	l/h	979	1065	1288	1649	-	-	-	-	-	-	-
Useful head system side	kPa	73,0	73,0	71,0	65,0	-	-	-	-	-	-	-

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

ANL - N (400V 3N ~ 50Hz)

Size		021	026	031	041	050	070	080	090	102	152	202
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	-	-	-	-	-	-	-	-	26,8	33,3	43,3
Input power	kW	-	-	-	-	-	-	-	-	8,5	10,6	13,8
Cooling total input current	A	-	-	-	-	-	-	-	-	18,0	21,0	27,0
EER	W/W	-	-	-	-	-	-	-	-	3,17	3,15	3,13
Water flow rate system side	l/h	-	-	-	-	-	-	-	-	4570	5669	7387
Useful head system side	kPa	-	-	-	-	-	-	-	-	140,0	185,0	159,0

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

ANL - A (400V 3N ~ 50Hz / 230V ~ 50Hz)

Size		021	026	031	041	050	070	080	090	102	152	202
Power supply: °												
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	5,7	6,2	7,6	9,7	13,5	16,6	20,6	22,4	26,8	33,2	43,2
Input power	kW	1,8	2,0	2,5	3,2	4,1	4,9	6,4	6,7	8,1	10,5	13,8
Cooling total input current	A	4,0	5,0	5,0	7,0	10,0	11,0	13,0	14,0	17,0	21,0	27,0
EER	W/W	3,11	3,12	3,07	2,97	3,31	3,38	3,23	3,35	3,32	3,15	3,13
Water flow rate system side	l/h	979	1065	1288	1649	2302	2834	3522	3831	4570	5669	7387
Useful head system side	kPa	73,0	73,0	71,0	65,0	76,0	72,0	57,0	52,0	84,0	115,0	91,0
Power supply: M												
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	5,7	6,2	7,6	9,7	-	-	-	-	-	-	-
Input power	kW	1,8	2,0	2,5	3,2	-	-	-	-	-	-	-
Cooling total input current	A	7,0	8,0	9,0	12,0	-	-	-	-	-	-	-
EER	W/W	3,11	3,12	3,07	2,97	-	-	-	-	-	-	-
Water flow rate system side	l/h	979	1065	1288	1649	-	-	-	-	-	-	-
Useful head system side	kPa	73,0	73,0	71,0	65,0	-	-	-	-	-	-	-

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

ANL - Q (400V 3N ~ 50Hz)

Size		021	026	031	041	050	070	080	090	102	152	202
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	-	-	-	-	13,6	16,7	20,7	22,5	26,8	33,3	43,3
Input power	kW	-	-	-	-	4,2	5,0	6,5	6,8	8,5	10,6	13,8
Cooling total input current	A	-	-	-	-	10,0	11,0	13,0	14,0	18,0	21,0	27,0
EER	W/W	-	-	-	-	3,24	3,33	3,19	3,31	3,17	3,15	3,13
Water flow rate system side	l/h	-	-	-	-	2302	2834	3522	3831	4570	5669	7387
Useful head system side	kPa	-	-	-	-	160,0	159,0	144,0	140,0	140,0	185,0	159,0

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

ENERGY INDICES (REG. 2016/2281 EU)

Size			021	026	031	041	050	070	080	090	102	152	202
SEER - 12/7 (EN14825:2018) with standard fans (1)													
SEER	°	W/W	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	A,P	W/W	4,18	4,20	4,17	4,10	4,16	4,34	4,19	4,31	4,11	4,11	4,10
	N	W/W	-	-	-	-	-	-	-	-	- (2)	- (2)	- (2)
	Q	W/W	-	-	-	-	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
Seasonal efficiency	°	%	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	A,P	%	164,0%	164,8%	163,6%	161,0%	163,4%	170,7%	164,6%	169,4%	161,3%	161,2%	161,1%
	N	%	-	-	-	-	-	-	-	-	- (2)	- (2)	- (2)
	Q	%	-	-	-	-	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
SEER - 23/18 (EN14825: 2018) with standard fans (3)													
SEER	°	W/W	4,34	4,35	4,31	4,21	4,55	4,68	4,49	4,61	4,83	4,73	4,69
	A,P	W/W	4,49	4,51	4,48	4,47	4,55	4,64	4,57	4,66	4,49	4,25	4,28
	N	W/W	-	-	-	-	-	-	-	-	4,15	4,18	4,23
	Q	W/W	-	-	-	-	4,18	4,44	4,35	4,49	4,15	4,18	4,23
Seasonal efficiency	°	%	170,4%	170,9%	169,2%	165,2%	179,1%	184,3%	176,6%	181,5%	190,3%	186,0%	184,7%
	A,P	%	176,7%	177,5%	176,0%	175,6%	179,0%	182,4%	179,8%	183,5%	176,6%	167,0%	168,0%
	N	%	-	-	-	-	-	-	-	-	163,1%	164,2%	166,0%
	Q	%	-	-	-	-	164,3%	174,5%	171,1%	176,7%	163,1%	164,2%	166,0%
SEPR - (EN14825: 2018) High temperature with standard fans (3)													
SEPR	°	W/W	5,92	5,92	5,85	5,69	6,36	6,50	6,21	6,43	6,79	6,58	6,49
	A,P	W/W	6,56	6,57	6,45	6,21	6,74	6,90	6,55	6,78	6,68	6,18	6,17
	N	W/W	-	-	-	-	-	-	-	-	5,91	6,09	6,10
	Q	W/W	-	-	-	-	6,03	6,28	6,08	6,30	5,91	6,09	6,10

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C
(3) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

Size			021	026	031	041	050	070	080	090	102	152	202
Power supply: °													
Electric data													
Maximum current (FLA)	°	A	5,0	6,0	6,0	9,0	11,0	14,0	16,0	17,0	22,0	26,0	32,0
	A,P	A	6,0	7,0	7,0	10,0	13,0	15,0	18,0	19,0	23,0	28,0	34,0
	N	A	-	-	-	-	-	-	-	-	24,0	28,0	34,0
	Q	A	-	-	-	-	12,0	14,0	17,0	18,0	24,0	28,0	34,0
Peak current (LRA)	°	A	28,0	38,0	39,0	44,0	65,0	75,0	102,0	96,0	76,0	87,0	117,0
	A,P	A	29,0	39,0	40,0	45,0	67,0	77,0	104,0	98,0	77,0	89,0	119,0
	N	A	-	-	-	-	-	-	-	-	78,0	89,0	119,0
	Q	A	-	-	-	-	66,0	76,0	103,0	97,0	78,0	89,0	119,0
Power supply: M													
Electric data													
Maximum current (FLA)	°	A	13,0	16,0	18,0	22,0	-	-	-	-	-	-	-
	A,P	A	14,0	17,0	19,0	23,0	-	-	-	-	-	-	-
	N,Q	A	-	-	-	-	-	-	-	-	-	-	-
Peak current (LRA)	°	A	64,0	68,0	69,0	100,0	-	-	-	-	-	-	-
	A,P	A	62,0	69,0	70,0	101,0	-	-	-	-	-	-	-
	N,Q	A	-	-	-	-	-	-	-	-	-	-	-

GENERAL TECHNICAL DATA

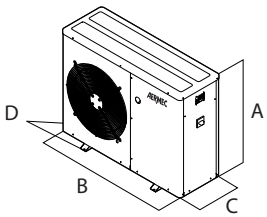
		ANL021	ANL026	ANL031	ANL041	ANL050	ANL070	ANL080	ANL090	ANL102	ANL152	ANL202
Compressor												
Type	type						Scroll					
Compressor regulation	Type						On-Off					
Number	no.	1	1	1	1	1	1	1	1	2	2	2
Circuits	no.	1	1	1	1	1	1	1	1	1	1	1
Refrigerant	type						R410A					
Refrigerant charge (1)	kg	1,2	1,2	1,2	1,3	2,8	2,8	3,0	3,9	5,9	5,9	5,9
System side heat exchanger												
Type	type						Brazed plate					
Number	no.	1	1	1	1	1	1	1	1	1	1	1
System side hydraulic connections												
Sizes (in/out)	Ø						1"1/4					
Fan												
Type	type						Axial					
Fan motor	type						Asynchronous with phase cut					
Number	no.	1	1	1	1	1	1	1	1	2	2	2
Air flow rate	m^3/h	2500	2500	3500	3500	7200	7200	7300	7200	14000	13500	13500
Sound data calculated in cooling mode (2)												
Sound power level	dB(A)	61,0	61,0	68,0	68,0	69,0	69,0	69,0	68,0	76,0	77,0	78,0

		ANL021	ANL026	ANL031	ANL041	ANL050	ANL070	ANL080	ANL090	ANL102	ANL152	ANL202
Sound pressure level (1 m)	dB(A)	29,8	29,8	36,8	36,8	37,6	37,6	37,6	36,6	44,5	45,5	46,5

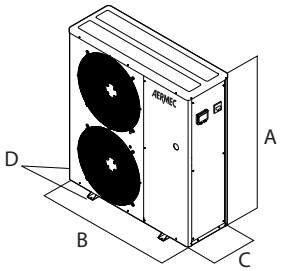
(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS

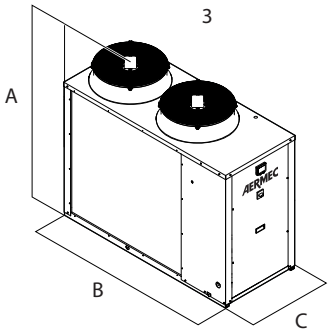
1



2



3



1 ANL 021-041
2 ANL 050-070
3 ANL 102-202

Size			021	026	031	041	050	070	080	090	102	152	202
Dimensions and weights													
A	°,P	mm	1000	1000	1000	1000	1252	1252	1252	1252	1450	1450	1450
	A	mm	1015	1015	1015	1015	1281	1281	1281	1281	1450	1450	1450
	N	mm	-	-	-	-	-	-	-	-	1450	1450	1450
	Q	mm	-	-	-	-	1281	1281	1281	1281	1450	1450	1450
B	°,P	mm	900	900	900	900	1124	1124	1124	1124	1750	1750	1750
	A	mm	1124	1124	1124	1124	1165	1165	1165	1165	1750	1750	1750
	N	mm	-	-	-	-	-	-	-	-	1750	1750	1750
	Q	mm	-	-	-	-	1165	1165	1165	1165	1750	1750	1750
C	°,P	mm	310	310	310	310	384	384	384	384	750	750	750
	A	mm	384	384	384	384	550	550	550	550	750	750	750
	N	mm	-	-	-	-	-	-	-	-	750	750	750
	Q	mm	-	-	-	-	550	550	550	550	750	750	750
D	°,P	mm	354	354	354	354	428	428	428	428	-	-	-
	A	mm	428	428	428	428	-	-	-	-	-	-	-
	N	mm	-	-	-	-	-	-	-	-	-	-	-
	Q	mm	-	-	-	-	-	-	-	-	-	-	-
Empty weight	°	kg	86	86	86	86	120	120	120	156	270	293	329
	A	kg	103	103	103	103	147	147	147	183	338	364	400
	N	kg	-	-	-	-	-	-	-	-	338	364	400
	P	kg	91	91	91	91	127	127	163	163	288	314	350
	Q	kg	-	-	-	-	151	151	151	187	338	364	400

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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ANL 021H -203H

Reversible air/water heat pump

Cooling capacity 5,7 ÷ 49,1 kW
Heating capacity 6,2 ÷ 43,3 kW

- **It is possible to produce hot domestic water**
- **Compact dimensions**
- **Quick & easy installation**



DESCRIPTION

Reversible air/water heat pump for air conditioning systems with cold water production for cooling rooms and hot water for heating and/or domestic hot water services, suitable for connection with small or medium users.
Equipped with scroll compressors, axial fans, external coil with aluminium louvers, plate heat exchanger on the side.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

° Standard
A With storage tank and pump
N With increased pump
P With pump
Q With storage tank and increased pump

FEATURES

Operating field

Full load up to 46 ° C ambient air temperature withthe possibility to produce chilled water down to -10° C in cooling mode (for more details refer to the technical documentation).

Version with Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations to obtain a solution that allows you to facilitate installation.

Inverter fans

Inverter fans from size 031 to 091 for all sizes.

■ *The DCPX accessory is not required for these sizes.*

Double mechanical thermostat

On the configurator it is also possible to select the option **"W"** double mechanical thermostatic valve for low temperatures.

Using two electronic valves in parallel guarantees a precise and efficient control in a wide operating range. This allows them to produce chilled water from -10 °C to +18 °C.

■ *The option is available only for sizes starting from 051 to 091 in the °-A-Q versions and from size 103 to 203 in all versions.*

MODUCONTROL CONTROL

The command panel of the unit allows the rapid setting of the working parameters of the machine, and their visualisation. The display consists of 4 figures and various LEDs for indicating the type of operational mode, the visualisation of the parameters set and of any alarms triggered. The card stores all the default settings and any modifications.

ACCESSORIES

MODU-485BL: RS-485 interface for supervision systems with MODBUS protocol.
MULTICONTROL: Allows the simultaneous control of several units (up to 4), installed in the same hydraulic system.
PR3: Simplified remote panel. This makes it possible to carry out the unit's basic controls with the signalling of alarms. Can be made remote with shielded cable up to 150 m.
SDHW: Domestic hot water sensor. To be used with a storage tank for the control of water temperature produced.
SPLW: System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring
VMF-CRP: Accessory module for controlling boilers, heat recover units and pumps (if associated with VMF-E5 / RCC panels); if associated with the VMF-E6 panel, the VMF-CRP modules will be able to manage heat recovery units, RAS, boiler, sanitary management, I/O control, pumps.
DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.
VT: Anti-vibration supports.

BDX: Condensate drip.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.
RA: Anti-freeze electric heater for the buffer tank.
KR: Anti-freeze electric heater for the plate heat exchanger.

KRB: Electric anti-freeze resistance kit for base.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

Model	Ver	021	026	031	041	051	071	081	091	103	153	203
MODU-485BL	°,A,P	•	•	•	•	•	•	•	•	•	•	•
	N									•	•	•
	Q					•	•	•	•	•	•	•
MULTICONTROL	°,A,P	•	•	•	•	•	•	•	•	•	•	•
	N									•	•	•
	Q					•	•	•	•	•	•	•
PR3	°,A,P	•	•	•	•	•	•	•	•	•	•	•
	N									•	•	•
	Q					•	•	•	•	•	•	•
SDHW (1)	°,A,P	•	•	•	•	•	•	•	•	•	•	•
	N									•	•	•
	Q					•	•	•	•	•	•	•
SPLW (2)	°,A,P	•	•	•	•	•	•	•	•	•	•	•
	N									•	•	•
	Q					•	•	•	•	•	•	•
VMF-CRP	°,A,P	•	•	•	•	•	•	•	•	•	•	•
	N									•	•	•
	Q					•	•	•	•	•	•	•

(1) Probe required for MULTICONTROL for managing the domestic hot water system.
(2) Probe required for MULTICONTROL to manage the secondary circuit system.

DCPX: Condensation control temperature

Ver	021	026	031	041	051	071	081	091	103	153	203
°,A,P	DCPX51	DCPX51	-	-	-	-	-	-	DCPX53	DCPX53	DCPX53
Q	-	-	-	-	-	-	-	-	DCPX53	DCPX53	DCPX53

The accessory cannot be fitted on the configurations indicated with -

Antivibration

Ver	021	026	031	041	051	071	081	091	103	153	203
°,P	VT9	VT9	VT9	VT9	VT9	VT9	VT9	VT9	VT15	VT15	VT15
A	VT9	VT9	VT9	VT9	VT15	VT15	VT15	VT15	VT15	VT15	VT15
N	-	-	-	-	-	-	-	-	VT15	VT15	VT15
Q	-	-	-	-	VT15	VT15	VT15	VT15	VT15	VT15	VT15

Condensate drip

Ver	021	026	031	041	051	071	081	091	103	153	203
°,P	BDX5	BDX5	BDX5	BDX5	BDX5	BDX5	BDX5	BDX5	-	-	-
A	BDX5	BDX5	BDX5	BDX5	BDX6	BDX6	BDX6	BDX6	-	-	-
Q	-	-	-	-	BDX6	BDX6	BDX6	BDX6	-	-	-

The accessory cannot be fitted on the configurations indicated with -

DRE: Device for peak current reduction

Ver	021	026	031	041	051	071	081	091	103	153	203
°,A,P,Q	-	-	-	-	DRE5 (1)	DRE5 (1)	DRE5 (1)	DRE5 (1)	DRE5 x 2 (1)	DRE5 x 2 (1)	DRE5 x 2 (1)
N	-	-	-	-	-	-	-	-	DRE5 x 2 (1)	DRE5 x 2 (1)	DRE5 x 2 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
A grey background indicates the accessory must be assembled in the factory

KR: electric heater for the heat exchanger

Ver	021	026	031	041	051	071	081	091	103	153	203
°,P	KR2	KR2	KR2	KR2	KR2	KR2	KR2	KR2	KR100	KR100	KR100
A	-	-	-	-	KR2	KR2	KR2	KR2	KR100	KR100	KR100
N,Q	-	-	-	-	-	-	-	-	KR100	KR100	KR100

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

RA: Anti-freeze electric heater for the buffer tank

Ver	021	026	031	041	051	071	081	091	103	153	203
A	RA	RA	RA	RA	RA	RA	RA	RA	RA100	RA100	RA100
Q	-	-	-	-	RA	RA	RA	RA	RA100	RA100	RA100

A grey background indicates the accessory must be assembled in the factory

KRB: Electric heater for the base

Ver	021	026	031	041	051	071	081	091	103	153	203
°,A,N,P,Q	-	-	-	-	-	-	-	-	KRB3 (1)	KRB3 (1)	KRB3 (1)

(1) Incompatible with the condensate collection basin accessory with integrated resistance.
The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field		Description
1,2,3		**ANL**
4,5,6		**Size** 021, 026, 031, 041, 051, 071, 081, 091, 103, 153, 203
7		**Model**
	H	Heat pump
8		**Version**
	°	Standard
	A	With storage tank and pump
	N	With increased pump (1)
	P	With pump
	Q	With storage tank and increased pump (2)
9		**Heat recovery**
	°	Without heat recovery
	D	With desuperheater (3)
10		**Coils**
	°	Copper-aluminium
	R	Copper pipes-copper fins
	S	Copper pipes-Tinned copper fins
	V	Copper pieps-Coated aluminium fins
11		**Operating field**
	°	Standard mechanic thermostatic valve
	W	Double mechanical thermostat for low temperature (4)
12		**Evaporator**
	°	Standard
13		**Power supply**
	°	400V 3N ~ 50Hz (5)
	M	230V ~ 50Hz (6)

(1) Only for ANL 103 ÷ 203 sizes
(2) Only for ANL 051 ÷ 203 sizes
(3) The desuperheater must be intercepted during heating mode. If the unit is also fitted with one of the low temperature valves in addition to the desuperheater, during cold operation, it is necessary to always guarantee a water temperature of 35°C at the inlet of the heat exchanger. It is only available in sizes from 051 to 091 in the version with storage tank "A", and from size 103 to 203 in all versions.
(4) Water produced from -10 °C to 18 °C; Option available only for sizes starting from 051 to 091 in the °-A-Q versions and from 103 to 203 in all versions
(5) Only for ANL 021 ÷ 203 sizes
(6) Only for ANL 021 ÷ 041 sizes

PERFORMANCE SPECIFICATIONS 12 °C/ 7 °C - 40 °C/ 45 °C

ANL - (H°) - (400V 3N ~ 50Hz / 230V ~ 50Hz)

Size		021	026	031	041	051	071	081	091	103	153	203
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	5,7	6,2	7,5	9,6	13,3	16,3	20,0	21,5	25,5	31,7	40,2
Input power	kW	1,9	2,0	2,5	3,3	4,4	5,9	6,7	6,7	9,2	11,0	14,1
Cooling total input current - 400V	A	3,7	4,2	4,7	6,2	8,7	9,7	12,0	13,0	16,0	19,0	25,0
Cooling total input current - 230V	A	6,4	7,3	8,1	11,0	-	-	-	-	-	-	-
EER	W/W	3,02	3,02	2,98	2,90	3,06	2,77	3,01	3,21	2,79	2,87	2,85
Water flow rate system side	l/h	979	1065	1289	1649	2294	2807	3452	3713	4398	5467	6929
Pressure drop system side	kPa	30	31	32	30	34	35	44	60	55	57	62
Heating performance 40 °C / 45 °C (2)												
Heating capacity	kW	6,2	7,0	8,4	9,8	13,3	17,4	21,0	22,1	26,2	35,5	42,0
Input power	kW	1,9	2,2	2,7	3,1	4,1	5,2	6,0	6,4	8,8	11,1	12,7
Heating total input current - 400V	A	3,8	4,4	5,4	6,8	9,5	10,0	13,0	14,0	17,0	19,0	25,0
Heating total input current - 230V	A	6,6	7,6	9,3	12,0	-	-	-	-	-	-	-
COP	W/W	3,21	3,27	3,17	3,22	3,21	3,32	3,49	3,47	2,99	3,21	3,32
Water flow rate system side	l/h	1078	1217	1460	1700	2294	3007	3638	3827	4529	6137	7265
Pressure drop system side	kPa	36	40	41	37	38	39	53	72	70	70	78

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ANL - (HA/HP) - (400V 3N ~ 50Hz / 230V ~ 50Hz)

Size		021	026	031	041	051	071	081	091	103	153	203
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	5,7	6,2	7,6	9,7	13,4	16,4	20,2	21,7	25,8	32,1	40,6
Input power	kW	1,8	2,0	2,5	3,2	4,3	5,8	6,6	6,6	9,2	11,1	14,2
Cooling total input current - 400V	A	4,0	4,5	5,0	6,6	9,3	10,0	13,0	13,0	17,0	21,0	27,0
Cooling total input current - 230V	A	6,9	7,9	8,7	11,0	-	-	-	-	-	-	-
EER	W/W	3,11	3,12	3,07	2,97	3,11	2,82	3,06	3,29	2,79	2,89	2,87
Water flow rate system side	l/h	979	1065	1289	1649	2294	2807	3452	3713	4398	5467	6929
Useful head system side	kPa	73,0	73,0	71,0	65,0	76,0	72,0	57,0	52,0	88,0	125,0	111,0
Heating performance 40 °C / 45 °C (2)												
Heating capacity	kW	6,2	7,0	8,3	9,7	13,1	17,2	20,9	21,9	25,9	35,0	41,5
Input power	kW	1,9	2,1	2,6	3,0	4,1	5,2	5,9	6,3	8,9	11,2	12,7
Heating total input current - 400V	A	4,1	4,7	5,8	7,2	10,0	11,0	14,0	14,0	18,0	21,0	27,0
Heating total input current - 230V	A	7,2	8,2	9,9	12,0	-	-	-	-	-	-	-
COP	W/W	3,23	3,30	3,21	3,25	3,20	3,33	3,51	3,51	2,92	3,14	3,26
Water flow rate system side	l/h	1078	1217	1460	1700	2294	3007	3638	3827	4529	6137	7265
Useful head system side	kPa	68,0	67,0	65,0	58,0	72,0	65,0	46,0	40,0	64,0	94,0	68,0

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ANL - (HN/HQ) - (400V 3N ~ 50Hz)

Size		021	026	031	041	051	071	081	091	103	153	203
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	-	-	-	-	13,5	16,5	20,3	21,8	25,8	32,1	40,6
Input power	kW	-	-	-	-	4,4	5,9	6,7	6,7	9,6	11,4	14,5
Cooling total input current - 400V	A	-	-	-	-	9,7	11,0	13,0	14,0	18,0	21,0	27,0
EER	W/W	-	-	-	-	3,05	2,78	3,03	3,25	2,68	2,82	2,81
Water flow rate system side	l/h	-	-	-	-	2294	2807	3452	3713	4398	5467	6929
Useful head system side - ver. "Q"	kPa	-	-	-	-	160	159	144	140	147	192	170
Useful head system side - ver. "N"	kPa	-	-	-	-	-	-	-	-	147	192	170
Heating performance 40 °C / 45 °C (2)												
Heating capacity	kW	-	-	-	-	13,0	17,1	20,8	21,8	25,9	35,0	41,5
Input power	kW	-	-	-	-	4,2	5,3	6,1	6,4	9,3	11,4	13,0
Heating total input current - 400V	A	-	-	-	-	10,0	11,0	14,0	15,0	19,0	21,0	28,0
COP	W/W	-	-	-	-	3,10	3,24	3,42	3,43	2,78	3,07	3,19
Water flow rate system side	l/h	-	-	-	-	2294	3007	3638	3827	4529	6137	7265
Useful head system side - ver. "Q"	kPa	-	-	-	-	154	151	131	126	107	169	141
Useful head system side - ver. "N"	kPa	-	-	-	-	-	-	-	-	107	169	141

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

PERFORMANCE SPECIFICATIONS 23 °C/ 18 °C - 30 °C/ 35 °C

ANL - (H°) - (400V 3N ~ 50Hz / 230V ~ 50Hz)

Size		021	026	031	041	051	071	081	091	103	153	203
Cooling performance 23 °C / 18 °C (1)												
Cooling capacity	kW	6,9	7,5	9,0	11,6	16,1	19,7	24,2	26,0	30,8	38,3	48,5
Input power	kW	2,0	2,1	2,6	3,4	4,5	6,1	7,0	7,1	9,6	11,6	14,8
Cooling total input current - 400V	A	3,8	4,3	4,9	6,4	9,0	10,0	13,0	13,0	16,0	19,0	26,0
Cooling total input current - 230V	A	6,6	7,6	8,4	11,0	-	-	-	-	-	-	-
EER	W/W	3,50	3,50	3,45	3,36	3,54	3,21	3,47	3,68	3,21	3,31	3,27
Water flow rate system side	l/h	1189	1293	1564	2002	2784	3407	4189	4506	5338	6636	8410
Pressure drop system side	kPa	44	46	47	44	50	52	65	88	81	84	92
Heating performance 30 °C / 35 °C (2)												
Heating capacity	kW	6,5	7,3	8,8	10,3	13,8	18,1	21,9	23,1	27,3	37,0	43,9
Input power	kW	1,7	1,9	2,3	2,7	3,5	4,7	5,4	5,7	7,8	9,9	11,3
Heating total input current - 400V	A	3,3	3,8	4,6	6,0	8,1	9,1	11,0	12,0	15,0	17,0	22,0
Heating total input current - 230V	A	5,6	6,5	8,0	10,0	-	-	-	-	-	-	-
COP	W/W	3,88	3,96	3,85	3,77	3,90	3,89	4,08	4,05	3,49	3,74	3,87
Water flow rate system side	l/h	1120	1265	1518	1767	2385	3126	3782	3979	4709	6381	7553
Pressure drop system side	kPa	39	43	44	40	41	42	57	78	76	76	84

(1) Data EN 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2018; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

ANL - (HA/HP) - (400V 3N ~ 50Hz / 230V ~ 50Hz)

Size		021	026	031	041	051	071	081	091	103	153	203
Cooling performance 23 °C / 18 °C (1)												
Cooling capacity	kW	6,9	7,5	9,1	11,7	16,2	19,8	24,4	26,2	31,1	38,8	49,1
Input power	kW	1,9	2,1	2,6	3,4	4,5	6,0	6,9	6,9	9,7	11,6	14,8
Cooling total input current - 400V	A	4,2	4,7	5,2	6,8	9,7	11,0	13,0	14,0	17,0	21,0	28,0
Cooling total input current - 230V	A	7,2	8,2	9,0	12,0	-	-	-	-	-	-	-
EER	W/W	3,63	3,63	3,58	3,46	3,62	3,28	3,55	3,81	3,21	3,36	3,32
Water flow rate system side	l/h	1189	1293	1564	2002	2784	3407	4189	4506	5338	6636	8410
Useful head system side	kPa	63,0	63,0	60,0	51,0	60,0	53,0	31,0	24,0	47,0	63,0	41,0
Heating performance 30 °C / 35 °C (2)												
Heating capacity	kW	6,4	7,3	8,7	10,2	13,7	18,0	21,8	22,9	27,1	36,6	43,3
Input power	kW	1,6	1,8	2,2	2,7	3,5	4,6	5,3	5,6	8,0	10,0	11,4
Heating total input current - 400V	A	3,6	4,1	5,0	6,4	8,8	9,8	12,0	13,0	16,0	19,0	24,0
Heating total input current - 230V	A	6,2	7,1	8,6	11,0	-	-	-	-	-	-	-
COP	W/W	3,93	4,02	3,91	3,81	3,90	3,91	4,11	4,11	3,40	3,67	3,81
Water flow rate system side	l/h	1120	1265	1518	1767	2385	3126	3782	3979	4709	6381	7553
Useful head system side	kPa	67,0	64,0	62,0	55,0	69,0	61,0	41,0	34,0	55,0	81,0	53,0

(1) Data EN 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2018; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

ANL - (HN/HQ) - (400V 3N ~ 50Hz)

Size		021	026	031	041	051	071	081	091	103	153	203
Cooling performance 23 °C / 18 °C (1)												
Cooling capacity	kW	-	-	-	-	16,3	19,9	24,5	26,3	31,1	38,7	49,0
Input power	kW	-	-	-	-	4,6	6,2	7,0	7,0	10,2	11,9	15,2
Cooling total input current - 400V	A	-	-	-	-	10,0	11,0	14,0	14,0	18,0	22,0	28,0
EER	W/W	-	-	-	-	3,54	3,23	3,51	3,76	3,07	3,25	3,23
Water flow rate system side	l/h	-	-	-	-	2784	3407	4189	4506	5338	6636	8410
Useful head system side - ver. "Q"	kPa	-	-	-	-	136	135	114	108	79	146	114
Useful head system side - ver. "N"	kPa	-	-	-	-	-	-	-	-	79	146	114
Heating performance 30 °C / 35 °C (2)												
Heating capacity	kW	-	-	-	-	13,6	17,9	21,7	22,8	27,0	36,6	43,4
Input power	kW	-	-	-	-	3,6	4,7	5,4	5,7	8,4	10,2	11,7
Heating total input current - 400V	A	-	-	-	-	9,1	10,0	13,0	13,0	17,0	19,0	25,0
COP	W/W	-	-	-	-	3,75	3,79	4,00	4,01	3,22	3,57	3,71
Water flow rate system side	l/h	-	-	-	-	2385	3126	3782	3979	4709	6381	7553
Useful head system side - ver. "Q"	kPa	-	-	-	-	149	146	125	119	92	159	129
Useful head system side - ver. "N"	kPa	-	-	-	-	-	-	-	-	92	159	129

(1) Data EN 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2018; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

ENERGY DATA

Size			021	026	031	041	051	071	081	091	103	153	203
Power supply: °													
Cooling capacity with low leaving water temp (UE n° 2016/2281)													
SEER	°	W/W	3,13	3,19	3,28	3,34	3,76	3,49	3,80	3,91	3,58	3,74	3,73
	A,P	W/W	3,29	3,36	3,45	3,50	3,89	3,69	3,99	4,16	3,55	3,53	3,55
	N	W/W	-	-	-	-	-	-	-	-	3,14	3,48	3,53
	Q	W/W	-	-	-	-	3,30	3,24	3,53	3,75	3,14	3,48	3,53
ηsc	°	%	122,00	125,00	128,00	131,00	147,00	137,00	149,00	153,00	140,00	146,00	146,00
	A,P	%	129,00	131,00	135,00	137,00	153,00	145,00	157,00	163,00	139,00	138,00	139,00
	N	%	-	-	-	-	-	-	-	-	123,00	136,00	138,00
	Q	%	-	-	-	-	129,00	127,00	138,00	147,00	123,00	136,00	138,00
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)													
Pdesignh	°	kW	6,00	6,00	8,00	9,00	13,00	16,00	20,00	21,00	25,00	33,00	40,00
	A,P	kW	6,00	6,00	8,00	9,00	12,00	16,00	20,00	21,00	24,00	33,00	39,00
	N	kW	-	-	-	-	-	-	-	-	24,00	33,00	39,00
	Q	kW	-	-	-	-	12,00	16,00	19,00	21,00	24,00	33,00	39,00
SCOP	°		3,30	3,30	3,33	3,28	3,43	3,43	3,58	3,50	3,53	3,58	3,70
	A,P		3,40	3,40	3,40	3,35	3,48	3,48	3,60	3,53	3,45	3,45	3,60
	N		-	-	-	-	-	-	-	-	3,23	3,35	3,53
	Q		-	-	-	-	3,23	3,28	3,43	3,40	3,23	3,35	3,53
ηsh	°	%	129,00	129,00	130,00	128,00	134,00	134,00	140,00	137,00	138,00	140,00	145,00
	A,P	%	133,00	133,00	133,00	131,00	136,00	136,00	141,00	138,00	135,00	135,00	141,00
	N	%	-	-	-	-	-	-	-	-	126,00	131,00	138,00
	Q	%	-	-	-	-	126,00	128,00	134,00	133,00	126,00	131,00	138,00
Efficiency energy class	°		A+	A+	A+	A+	A+	A+	A+	A+	A+	A++	A++
	A,P		A+	A+	A+	A+	A+	A+	A+	A+	A+	A+	A+
	N		-	-	-	-	-	-	-	-	A+	A+	A+
	Q		-	-	-	-	A+	A+	A+	A+	A+	A+	A+

(1) Efficiencies for low temperature applications (35 °C)

ELECTRIC DATA

Size			021	026	031	041	051	071	081	091	103	153	203
Power supply: °													
Electric data													
Maximum current (FLA)	°	A	7,0	7,0	7,7	9,7	11,3	13,5	16,3	17,3	22,0	26,0	32,0
	A,P	A	7,7	7,7	8,4	10,4	13,3	15,5	18,3	19,3	23,9	29,1	35,1
	N	A	-	-	-	-	-	-	-	-	26,2	30,2	36,2
	Q	A	-	-	-	-	14,0	13,5	19,0	20,0	26,2	30,2	36,2
Peak current (LRA)	°	A	27,5	33,5	36,7	49,7	65,3	75,3	102,3	96,3	76,0	87,0	117,0
	A,P	A	28,2	34,2	37,4	50,4	67,3	75,3	104,3	98,3	77,9	90,1	120,1
	N	A	-	-	-	-	-	-	-	-	80,2	91,2	121,2
	Q	A	-	-	-	-	68,0	75,3	105,0	99,0	80,2	91,2	121,2
Power supply: M													
Electric data													
Maximum current (FLA)	°	A	17,5	17,5	20,7	24,7	-	-	-	-	-	-	-
	A,P	A	18,5	18,5	20,5	25,6	-	-	-	-	-	-	-
	N,Q	A	-	-	-	-	-	-	-	-	-	-	-
Peak current (LRA)	°	A	59,5	62,5	83,7	98,7	-	-	-	-	-	-	-
	A,P	A	60,5	63,5	84,5	99,6	-	-	-	-	-	-	-
	N,Q	A	-	-	-	-	-	-	-	-	-	-	-

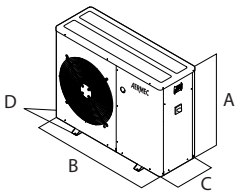
GENERAL TECHNICAL DATA

Size		021	026	031	041	051	071	081	091	103	153	203
Compressor												
Type	type						Scroll					
Compressor regulation	Type						On-Off					
Number	no.	1	1	1	1	1	1	1	1	2	2	2
Circuits	no.	1	1	1	1	1	1	1	1	1	1	1
Refrigerant	type						R410A					
Refrigerant charge (1)	kg	1,8	1,8	2,0	2,0	2,9	2,9	3,1	3,9	4,6	5,4	5,7
System side heat exchanger												
Type	type						Brazed plate					
Number	no.	1	1	1	1	1	1	1	1	1	1	1
Hydraulic connections												
Connections (in/out)	Type						Gas - F					
Sizes (in/out)	Ø						1"1/4					
Fan												
Type	type						Axial					
Fan motor	type	Asynchronous	Asynchronous	Asynchronous	Inverter	Inverter	Inverter	Inverter	Inverter	Asynchronous	Asynchronous	Asynchronous
Number	no.	1	1	1	1	1	2	2	2	2	2	2
Air flow rate	m^3/h	2500	2500	3500	3500	7200	7200	7300	7200	14000	13500	13500
Sound data calculated in cooling mode (2)												
Sound power level	dB(A)	61,0	61,0	68,0	68,0	69,0	69,0	69,0	68,0	76,0	77,0	78,0
Sound pressure level (10 m)	dB(A)	29,8	29,8	36,8	36,8	37,6	37,6	37,6	36,6	44,5	45,5	46,5

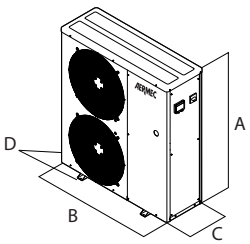
(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS

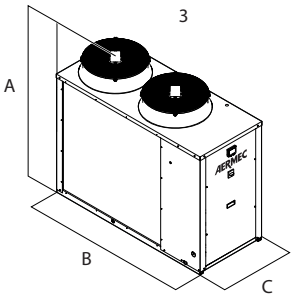
1



2



3



1 ANL 021 - 041
2 ANL 051 - 091
3 ANL 103 - 203

Size			021	026	031	041	051	071	081	091	103	153	203
Dimensions and weights													
A	°,P	mm	1000	1000	1000	1000	1252	1252	1252	1252	1450	1450	1450
	A	mm	1015	1015	1015	1015	1281	1281	1281	1281	1450	1450	1450
	N	mm	-	-	-	-	-	-	-	-	1450	1450	1450
	Q	mm	-	-	-	-	1281	1281	1281	1281	1450	1450	1450
B	°,P	mm	900	900	900	900	1124	1124	1124	1124	1750	1750	1750
	A	mm	1124	1124	1124	1124	1165	1165	1165	1165	1750	1750	1750
	N	mm	-	-	-	-	-	-	-	-	1750	1750	1750
	Q	mm	-	-	-	-	1165	1165	1165	1165	1750	1750	1750
C	°,P	mm	310	310	310	310	384	384	384	384	750	750	750
	A	mm	384	384	384	384	550	550	550	550	750	750	750
	N	mm	-	-	-	-	-	-	-	-	750	750	750
	Q	mm	-	-	-	-	550	550	550	550	750	750	750
D	°,P	mm	354	354	354	354	428	428	428	428	-	-	-
	A	mm	428	428	428	428	-	-	-	-	-	-	-
	N	mm	-	-	-	-	-	-	-	-	-	-	-
	Q	mm	-	-	-	-	-	-	-	-	-	-	-
Empty weight	°	kg	86	86	86	86	120	120	120	156	270	293	329
	A	kg	103	103	103	103	147	147	183	183	338	364	400
	N	kg	-	-	-	-	-	-	-	-	338	364	400
	P	kg	91	91	91	91	127	127	163	163	288	314	350
	Q	kg	-	-	-	-	147	147	183	183	338	364	400

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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ANL 290-650

Air-water chiller

Cooling capacity 54,7 ÷ 133,5 kW

- **Standard version**
- **Low noise version**
- **Option integrated hydronic kit user side**



DESCRIPTION
Air-cooled outdoor chiller designed to meet air conditioning needs in commercial complexes or industrial applications.

VERSIONS
° Standard
L Silenced

FEATURES

Operating field
Operation at full load up to 46°C external air temperature. Unit can produce chilled water up to -10°C.

Integrated hydronic kit
Integrated hydronic kit containing the main hydraulic components; available with various configurations with one pumps or storage tank to obtain a solution that allows you to save money and to facilitate installation.

Components
Water filter,flow switch, low and high pressure transducers as standard supply on all units.

Hot water production
In the configuration with desuperheater, it is also possible to produce free-hot water.

Case
The base the structure and the panels are made of galvanized steel treated with polyester paintRAL 9002.

CONTROL
MODUCONTROL control type.
The command panel of the unit allows the rapid setting of the working parameters of the machine, and their visualisation. The display consists of 4 figures and various LEDs for indicating the type of operational mode, the visualisation of the parameters set and of any alarms triggered. The card stores all the default settings and any modifications.

ACCESSORIES
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
AERSET: It makes it possible to automatically compensate for the operation setting of the unit to which it is connected, based on a 0-10V MODBUS input signal. Mandatory accessory MODU-485BL.
MODU-485BL: RS-485 interface for supervision systems with MODBUS protocol.
MULTICONTROL: Allows the simultaneous control of several units (up to 4), installed in the same hydraulic system.
PR3: Simplified remote panel. This makes it possible to carry out the unit's basic controls with the signalling of alarms. Can be made remote with shielded cable up to 150 m.
SPLW: System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring
DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.
GP: Anti-intrusion grid.
VT: Anti-vibration supports.

FACTORY FITTED ACCESSORIES
RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
T6: Double safety valve with exchange cock, both on the high and low pressure branches.

COMPATIBILITY WITH VMF SYSTEM
For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

Accessories

Model	Ver	290	300	340	400	580	620	650
AERNET	°					•	•	•
	L	•	•	•	•	•	•	•
AERSET	°					•	•	•
	L	•	•	•	•	•	•	•
MODU-485BL	°					•	•	•
	L	•	•	•	•	•	•	•
MULTICONTROL	°					•	•	•
	L	•	•	•	•	•	•	•
PR3	°					•	•	•
	L	•	•	•	•	•	•	•
SPLW (1)	°					•	•	•
	L	•	•	•	•	•	•	•

(1) Probe required for MULTICONTROL to manage the secondary circuit system.

DCPX: Condensation control temperature

Ver	290	300	340	400	580	620	650
Fans: °							
°	-	-	-	-	DCPX83	DCPX83	DCPX83
L	-	-	-	-	As standard	As standard	As standard
Fans: M							
°	-	-	-	-	DCPX83	DCPX83	DCPX83
L	DCPX62	DCPX62	DCPX62	DCPX63	DCPX83	DCPX83	DCPX83

In versions with desuperheater, the DCPX is included as standard.

GP: Anti-intrusion grid

Ver	290	300	340	400	580	620	650
°	-	-	-	-	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)
L	GP3	GP3	GP3	GP3	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)

(1) x _ indicates the quantity to buy

VT: Antivibration

Ver	290	300	340	400	580	620	650
Integrated hydronic kit: 00							
°	-	-	-	-	VT11	VT11	VT11
L	VT17	VT17	VT17	VT17	VT11	VT11	VT11
Integrated hydronic kit: 01, 02, 03, 04							
°	-	-	-	-	VT11	VT11	VT11
L	VT13	VT13	VT13	VT13	VT11	VT11	VT11
Integrated hydronic kit: P1, P2, P3, P4							
°	-	-	-	-	VT11	VT11	VT11
L	VT13	VT13	VT13	VT17	VT11	VT11	VT11

RIF: Power factor correction

Ver	290	300	340	400	580	620	650
°	-	-	-	-	RIF50	RIF72	RIF51
L	RIF32	RIF32	RIF42	RIF42	RIF50	RIF72	RIF51

A grey background indicates the accessory must be assembled in the factory

Double safety valves

Ver	290	300	340	400	580	620	650
°	-	-	-	-	T6ANL1	T6ANL1	T6ANL1
L	T6ANL1	T6ANL1	T6ANL1	T6ANL1	T6ANL1	T6ANL1	T6ANL1

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3	**ANL**
4,5,6	**Size** 290, 300, 340, 400, 580, 620, 650
7	**Operating field**
°	Standard mechanic thermostatic valve (1)
X	Electronic thermostatic expansion valve (2)
Y	Low temperature mechanic thermostatic valve (3)
8	**Model**
°	Cooling only
C	Motocondensing unit
9	**Heat recovery**
°	Without heat recovery
D	With desuperheater (4)
10	**Version**
°	Standard (5)
L	Silenced
11	**Coils**
°	Alluminium
R	Copper pipes-copper fins
S	Tinned copper
V	Copper pieps-Coated aluminium fins
12	**Fans**
°	Standard (6)
J	Inverter (7)
M	Oversized (8)
13	**Power supply**
°	400V 3N ~ 50Hz
14	**Soft-start**
°	Without Soft-Start
S	With Soft-Start
15,16	**Integrated hydronic kit**
00	Without hydronic kit
01	Storage tank with low head pump
02	Storage tank with low head pump + stand-by pump
03	Storage tank with high head pump
04	Storage tank with high head pump + stand-by pump
P1	Single pump low head
P2	Pump low head + stand-by pump
P3	Single pump high head
P4	Pump high head + stand-by pump

(1) Water produced up to +4 °C.
(2) Water produced up to +4 °C. For different temperature please contact the factory.
(3) Water produced up to -6 °C
(4) With this option the "X" and "Y" valvs are not compatible.
(5) The size up 290÷400 are only available in the silenced versions "L".
(6) As standard in sizes fom 580÷650.
(7) Standard for size 290÷400, without useful static pressure. Option for size 580÷650 with useful static pressure.
(8) Option available for all size.

PERFORMANCE SPECIFICATIONS

ANL - °

Size		290	300	340	400	580	620	650
Cooling performance 12 °C / 7 °C (1)								
Cooling capacity	kW	-	-	-	-	111,4	124,5	133,5
Input power	kW	-	-	-	-	40,4	47,2	54,5
Cooling total input current	A	-	-	-	-	70,0	82,0	94,0
EER	W/W	-	-	-	-	2,76	2,64	2,45
Water flow rate system side	l/h	-	-	-	-	19191	21442	22988
Pressure drop system side	kPa	-	-	-	-	81	61	70

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

ANL - L

Size		290	300	340	400	580	620	650
Cooling performance 12 °C / 7 °C (1)								
Cooling capacity	kW	54,7	60,0	66,0	76,3	104,5	114,6	121,4
Input power	kW	20,9	22,9	25,1	29,9	43,7	51,3	59,4
Cooling total input current	A	38,0	41,0	46,0	55,0	74,0	87,0	101,0
EER	W/W	2,62	2,61	2,63	2,56	2,39	2,24	2,04
Water flow rate system side	l/h	9415	10326	11374	13144	18006	19758	20909
Pressure drop system side	kPa	28	33	40	41	71	52	58

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

ENERGY INDICES (REG. 2016/2281 EU)

Size			290	300	340	400	580	620	650
SEER - 12/7 (EN14825:2018) with standard fans (1)									
SEER	°,L	W/W	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
Seasonal efficiency	°,L	%	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
SEER - 23/18 (EN14825: 2018) with standard fans (3)									
SEER	°	W/W	-	-	-	-	4,80	4,70	4,38
	L	W/W	4,55	4,53	4,53	4,70	4,65	4,45	4,13
Seasonal efficiency	°	%	-	-	-	-	189,0%	185,0%	172,0%
	L	%	179,0%	178,0%	178,0%	185,0%	183,0%	175,0%	162,0%
SEPR - (EN14825: 2018) High temperature with standard fans (3)									
SEPR	°	W/W	-	-	-	-	5,98	5,77	5,47
	L	W/W	5,37	5,36	5,37	5,55	5,73	5,41	5,09

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C
(3) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

Size			290	300	340	400	580	620	650
Power supply: °									
Electric data									
Maximum current (FLA)	°	A	-	-	-	-	85,0	99,0	112,0
	L	A	49,0	53,0	58,0	69,0	85,0	99,0	112,0
Peak current (LRA)	°	A	-	-	-	-	262,0	308,0	320,0
	L	A	130,0	131,0	162,0	183,0	262,0	308,0	320,0

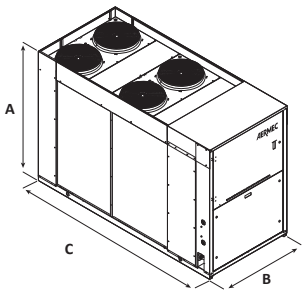
GENERAL TECHNICAL DATA

Size			290	300	340	400	580	620	650
Compressor									
Type	°	type	-	-	-	-	Scroll	Scroll	Scroll
	L	type	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Number	°	no.	-	-	-	-	2	2	2
	L	no.	2	2	2	2	2	2	2
Circuits	°	no.	-	-	-	-	1	1	1
	L	no.	1	1	1	1	1	1	1
Refrigerant	°	type	-	-	-	-	R410A	R410A	R410A
	L	type	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Potential global heating	°,L	GWP	2088kgCO_2eq	2088kgCO_2eq	2088kgCO_2eq	2088kgCO_2eq	2088kgCO_2eq	2088kgCO_2eq	2088kgCO_2eq
Refrigerant charge (1)	°	kg	-	-	-	-	19,1	18,5	19,0
	L	kg	9,0	10,7	10,7	10,4	19,1	18,5	19,0
System side heat exchanger									
Type	°	type	-	-	-	-	Brazed plate	Brazed plate	Brazed plate
	L	type	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate
Number	°	no.	-	-	-	-	1	1	1
	L	no.	1	1	1	1	1	1	1
Hydraulic connections									
Connections (in/out)	°	Type	-	-	-	-	Grooved joints	Grooved joints	Grooved joints
	L	Type	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints
Sizes (in/out)	°	Ø	-	-	-	-	2 ½"	2 ½"	2 ½"
	L	Ø	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"
Fan									
Type	°	type	-	-	-	-	axials	axials	axials
	L	type	axials	axials	axials	axials	axials	axials	axials
Fan motor	°	type	-	-	-	-	On-Off	On-Off	On-Off
	L	type	Inverter	Inverter	Inverter	Inverter	On-Off	On-Off	On-Off
Number	°	no.	-	-	-	-	2	2	2
	L	no.	4	4	4	6	2	2	2
Air flow rate	°	m^3/h	-	-	-	-	35900	35900	35900
	L	m^3/h	15600	15600	15600	20700	35900	35900	35900
Sound data calculated in cooling mode (2)									
Sound power level	°	dB(A)	-	-	-	-	82,4	82,8	83,2
	L	dB(A)	73,4	73,5	74,2	75,1	77,2	77,6	78,0
Sound pressure level (10 m)	°	dB(A)	-	-	-	-	50,6	50,9	51,3
	L	dB(A)	41,7	41,8	42,5	43,3	45,3	45,7	46,1

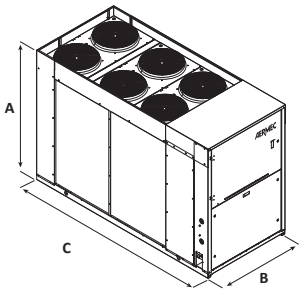
(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS

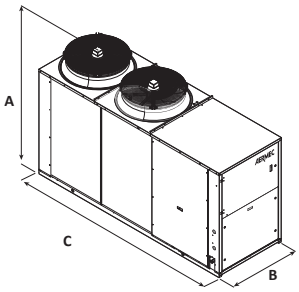
ANL°/L 290-300-340



ANL°/L 400



ANL°/L 580-620-650



Size			290	300	340	400	580	620	650
Dimensions and weights									
A	°	mm	-	-	-	-	1875	1875	1875
	L	mm	1605	1605	1605	1605	1875	1875	1875
B	°	mm	-	-	-	-	1100	1100	1100
	L	mm	1100	1100	1100	1100	1100	1100	1100
C	°	mm	-	-	-	-	3200	3200	3200
	L	mm	2450	2450	2450	2450	3200	3200	3200
Empty weight	°	kg	-	-	-	-	854	925	970
	L	kg	628	636	648	666	854	925	970

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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ANL 292H - 652H

Reversible air/water heat pump

Cooling capacity 52,9 ÷ 128,8 kW
Heating capacity 60,8 ÷ 141,4 kW

- **Standard version**
- **Low noise version**
- **Option integrated hydronic kit user side**



DESCRIPTION

Reversible outdoor heat pumps for the production of chilled/heated water designed to satisfy the needs of residential and commercial buildings, or for industrial applications.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

° Standard
L Silenced

FEATURES

Operating field

Operation at full load up to 43 °C external air temperature. Unit can produce chilled water (up to -10°C).

Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations with one pumps or storage tank to obtain a solution that allows you to save money and to facilitate installation.
An optional, integrated hydronic kit containing the main hydraulic components, to obtain a solution that allows you to save money and to facilitate installation.
It's available in various configurations, with storage tank or pumps.

Inverter fans

Inverter fans from size 292 to size 432 versions L.

■ *The DCPX accessory is not required for these sizes.*

MODUCONTROL CONTROL

The command panel of the unit allows the rapid setting of the working parameters of the machine, and their visualisation. The display consists of 4 figures and various LEDs for indicating the type of operational mode, the visualisation of the parameters set and of any alarms triggered. The card stores all the default settings and any modifications.

ACCESSORIES

AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
AERSET: It makes it possible to automatically compensate for the operation setting of the unit to which it is connected, based on a 0-10V MODBUS input signal. Mandatory accessory MODU-485BL.
MODU-485BL: RS-485 interface for supervision systems with MODBUS protocol.
MULTICONTROL: Allows the simultaneous control of several units (up to 4), installed in the same hydraulic system.
PR3: Simplified remote panel. This makes it possible to carry out the unit's basic controls with the signalling of alarms. Can be made remote with shielded cable up to 150 m.
SPLW: System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring
DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.
GP: Anti-intrusion grid.
VT: Anti-vibration supports.

FACTORY FITTED ACCESSORIES

RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

Model	Ver	292	302	342	402	582	622	652
AERNET	°				•	•	•	•
	L	•	•	•	•	•	•	•
AERSET	°				•	•	•	•
	L	•	•	•	•	•	•	•
MODU-485BL	°				•	•	•	•
	L	•	•	•	•	•	•	•
MULTICONTROL	°				•	•	•	•
	L	•	•	•	•	•	•	•
PR3	°				•	•	•	•
	L	•	•	•	•	•	•	•
SPLW (1)	°				•	•	•	•
	L	•	•	•	•	•	•	•

(1) Probe required for MULTICONTROL to manage the secondary circuit system.

DCPX: Condensation control temperature

Ver	292	302	342	402	582	622	652
Fans: °							
°	-	-	-	DCPX83	DCPX83	DCPX83	DCPX83
L	-	-	-	As standard	As standard	As standard	As standard
Fans: M							
L	DCPX62	DCPX62	DCPX63	-	-	-	-

In versions with desuperheater, the DCPX is included as standard.

GP: Anti-intrusion grid

Ver	292	302	342	402	582	622	652
°	-	-	-	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)
L	GP3	GP3	GP3	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)

(1) x _ indicates the quantity to buy

VT: Antivibration

Ver	292	302	342	402	582	622	652
Integrated hydronic kit: 00							
°	-	-	-	VT11	VT11	VT11	VT11
L	VT17	VT17	VT17	VT11	VT11	VT11	VT11
Integrated hydronic kit: 01, 02, 03, 04, P1, P2, P3, P4							
°	-	-	-	VT11	VT11	VT11	VT11
L	VT13	VT13	VT13	VT11	VT11	VT11	VT11

RIF: Power factor correction

Ver	292	302	342	402	582	622	652
°	-	-	-	RIF42	RIF50	RIF72	RIF51
L	RIF32	RIF32	RIF42	RIF42	RIF50	RIF72	RIF51

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3	**ANL**
4,5,6	**Size** 292, 302, 342, 402, 582, 622, 652
7	**Operating field**
°	Standard mechanic thermostatic valve (1)
X	Electronic thermostatic expansion valve (2)
8	**Model**
H	Heat pump
9	**Heat recovery**
°	Without heat recovery
D	With desuperheater (3)
10	**Version**
°	Standard
L	Silenced
11	**Coils**
°	Alluminium
R	Copper pipes-copper fins
S	Tinned copper
V	Copper pieps-Coated aluminium fins
12	**Fans**
°	Standard (4)
J	Inverter (5)
M	Oversized (6)
13	**Power supply**
°	400V 3N ~ 50Hz
14	**Soft-start**
°	Without Soft-Start
S	With Soft-Start
15,16	**Integrated hydronic kit**
00	Without hydronic kit
01	Storage tank with low head pump
02	Storage tank with low head pump + stand-by pump
03	Storage tank with high head pump
04	Storage tank with high head pump + stand-by pump
P1	Single pump low head
P2	Pump low head + stand-by pump
P3	Single pump high head
P4	Pump high head + stand-by pump

(1) Water produced up to +4 °C.
(2) Water produced up to +4 °C. For different temperature please contact the factory.
(3) The desuperheater must be intercepted in heating mode. In cooling mode, a water temperature no lower than 35°C must always be guaranteed on the heat exchanger inlet.
(4) As standard in sizes from 402÷652.
(5) Standard for size 292÷342, without useful static pressure. Option for size 402÷652 with useful static pressure.
(6) Option available only for size 292÷342.

PERFORMANCE SPECIFICATIONS 12 °C/ 7 °C - 40 °C/ 45 °C

ANL - (H°)

Size		292	302	342	402	582	622	652
Cooling performance 12 °C / 7 °C (1)								
Cooling capacity	kW	-	-	-	81,0	102,7	119,8	126,6
Input power	kW	-	-	-	29,2	42,2	44,4	49,7
Cooling total input current	A	-	-	-	52,0	68,0	70,0	77,0
EER	W/W	-	-	-	2,78	2,43	2,70	2,55
Water flow rate system side	l/h	-	-	-	13951	17714	20635	21803
Pressure drop system side	kPa	-	-	-	29	55	53	61
Heating performance 40 °C / 45 °C (2)								
Heating capacity	kW	-	-	-	88,3	118,8	131,0	138,6
Input power	kW	-	-	-	28,7	39,4	43,3	47,4
Heating total input current	A	-	-	-	51,0	63,0	68,0	74,0
COP	W/W	-	-	-	3,07	3,02	3,03	2,92
Water flow rate system side	l/h	-	-	-	15312	20595	22716	24036
Pressure drop system side	kPa	-	-	-	33	55	61	70

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ANL - (HL)

Size		292	302	342	402	582	622	652
Cooling performance 12 °C / 7 °C (1)								
Cooling capacity	kW	52,0	55,7	64,5	76,6	98,0	114,0	119,0
Input power	kW	21,0	24,0	24,6	30,7	45,5	47,6	53,1
Cooling total input current	A	37,0	41,0	45,0	54,0	72,0	75,0	83,0
EER	W/W	2,48	2,32	2,62	2,49	2,15	2,39	2,24
Water flow rate system side	l/h	8951	9587	11099	13178	16889	19638	20497
Pressure drop system side	kPa	26	24	31	26	40	48	55
Heating performance 40 °C / 45 °C (2)								
Heating capacity	kW	59,6	64,6	71,3	88,3	118,8	131,0	137,3
Input power	kW	19,0	20,7	22,6	28,7	39,8	43,3	47,4
Heating total input current	A	34,0	36,0	42,0	51,0	63,0	68,0	74,0
COP	W/W	3,13	3,12	3,15	3,07	2,98	3,03	2,90
Water flow rate system side	l/h	10341	11210	12357	15312	20595	22716	23810
Pressure drop system side	kPa	32	29	35	33	55	61	70

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

PERFORMANCE SPECIFICATIONS 23 °C/ 18 °C - 30 °C/ 35 °C

ANL - (H°)

Size		292	302	342	402	582	622	652
Cooling performance 23 °C / 18 °C (1)								
Cooling capacity	kW	-	-	-	109,8	139,5	162,5	171,7
Input power	kW	-	-	-	32,5	47,0	49,4	55,4
Cooling total input current	A	-	-	-	57,0	75,0	77,0	85,0
EER	W/W	-	-	-	3,38	2,97	3,29	3,10
Water flow rate system side	l/h	-	-	-	18998	24121	28099	29690
Pressure drop system side	kPa	-	-	-	54	102	98	113
Heating performance 30 °C / 35 °C (2)								
Heating capacity	kW	-	-	-	91,7	123,4	136,1	144,0
Input power	kW	-	-	-	23,9	32,8	36,1	39,5
Heating total input current	A	-	-	-	42,0	52,0	56,0	61,0
COP	W/W	-	-	-	3,84	3,76	3,77	3,65
Water flow rate system side	l/h	-	-	-	15847	21315	23510	24877
Pressure drop system side	kPa	-	-	-	35	59	65	75

(1) Data EN 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2018; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

ANL - (HL)

Size		292	302	342	402	582	622	652
Cooling performance 23 °C / 18 °C (1)								
Cooling capacity	kW	70,5	75,5	87,3	103,7	133,0	154,7	161,4
Input power	kW	23,3	26,6	27,4	34,1	50,6	52,9	59,0
Cooling total input current	A	41,0	45,0	50,0	59,0	79,0	83,0	91,0
EER	W/W	3,03	2,84	3,19	3,04	2,63	2,92	2,73
Water flow rate system side	l/h	12189	13055	15114	17945	22998	26742	27911
Pressure drop system side	kPa	48	45	57	48	74	89	102
Heating performance 30 °C / 35 °C (2)								
Heating capacity	kW	62,0	67,1	74,0	91,7	123,4	136,1	142,6
Input power	kW	15,8	17,2	18,8	23,9	33,1	36,1	39,5
Heating total input current	A	28,0	30,0	35,0	42,0	52,0	56,0	61,0
COP	W/W	3,92	3,90	3,94	3,84	3,72	3,77	3,61
Water flow rate system side	l/h	10703	11602	12789	15847	21315	23510	24643
Pressure drop system side	kPa	34	31	37	35	59	65	75

(1) Data EN 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2018; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

ENERGY DATA

Size			292	302	342	402	582	622	652
Cooling capacity with low leaving water temp (UE n° 2016/2281)									
SEER	°	W/W	-	-	-	4,02	3,71	4,08	3,90
	L	W/W	3,65	3,50	3,88	3,82	3,64	4,01	3,79
ηsc	°	%	-	-	-	157,90	145,50	160,10	152,90
	L	%	142,80	137,00	152,30	149,60	142,60	157,30	148,50
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)									
Pdesignh	°	kW	-	-	-	76	103	113	119
	L	kW	51	56	61	76	103	113	119
SCOP	°		-	-	-	3,53	3,53	3,55	3,48
	L		3,58	3,60	3,60	3,53	3,53	3,55	3,48
ηsh	°	%	-	-	-	138,00	138,00	139,00	136,00
	L	%	140,00	141,00	141,00	138,00	138,00	139,00	136,00
Efficiency energy class	°		-	-	-	-	-	-	-
	L		A+	A+	A+	-	-	-	-

(1) Efficiencies for low temperature applications (35 °C)

ELECTRIC DATA

Size			292	302	342	402	582	622	652
Electric data									
Maximum current (FLA)	°	A	-	-	-	65,0	98,0	107,0	116,0
	L	A	44,0	47,0	54,0	65,0	98,0	107,0	116,0
Peak current (LRA)	°	A	-	-	-	181,0	264,0	264,0	273,0
	L	A	126,0	128,0	160,0	181,0	264,0	264,0	273,0

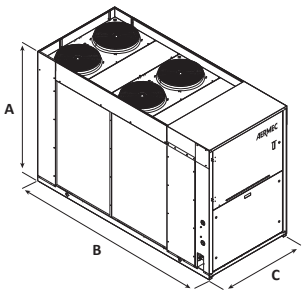
GENERAL TECHNICAL DATA

Size			292	302	342	402	582	622	652
Compressor									
Type	°	type	-	-	-	Scroll	Scroll	Scroll	Scroll
	L	type	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Number	°	no.	-	-	-	2	2	2	2
	L	no.	2	2	2	2	2	2	2
Circuits	°	no.	-	-	-	1	1	1	1
	L	no.	1	1	1	1	1	1	1
Refrigerant	°	type	-	-	-	R410A	R410A	R410A	R410A
	L	type	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Potential global heating	°	GWP	-	-	-	2088kgCO_2eq	2088kgCO_2eq	2088kgCO_2eq	2088kgCO_2eq
	L	GWP	2088kgCO_2eq	2088kgCO_2eq	2088kgCO_2eq	2088kgCO_2eq	2088kgCO_2eq	2088kgCO_2eq	2088kgCO_2eq
System side heat exchanger									
Type	°	type	-	-	-	Brazed plate	Brazed plate	Brazed plate	Brazed plate
	L	type	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate
Number	°	no.	-	-	-	1	1	1	1
	L	no.	1	1	1	1	1	1	1
Hydraulic connections									
Connections (in/out)	°	Type	-	-	-	Grooved joints	Grooved joints	Grooved joints	Grooved joints
	L	Type	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints
Sizes (in/out)	°	Ø	-	-	-	2 ½"	2 ½"	2 ½"	2 ½"
	L	Ø	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"
Fan									
Type	°	type	-	-	-	axials	axials	axials	axials
	L	type	axials	axials	axials	axials	axials	axials	axials
Fan motor	°	type	-	-	-	On-Off	On-Off	On-Off	On-Off
	L	type	Inverter	Inverter	Inverter	On-Off	On-Off	On-Off	On-Off
Number	°	no.	-	-	-	2	2	2	2
	L	no.	4	4	6	2	2	2	2
Air flow rate	°	m^3/h	-	-	-	45800	45800	44600	44600
	L	m^3/h	17600	17600	17200	32060	32060	31220	31220
Sound data calculated in cooling mode (1)									
Sound power level	°	dB(A)	-	-	-	89,0	89,0	89,0	89,0
	L	dB(A)	73,0	74,0	74,0	83,0	84,0	85,0	85,0
Sound pressure level (10 m)	°	dB(A)	-	-	-	57,6	67,6	57,6	57,6
	L	dB(A)	41,7	42,4	42,6	51,5	52,1	52,7	53,4

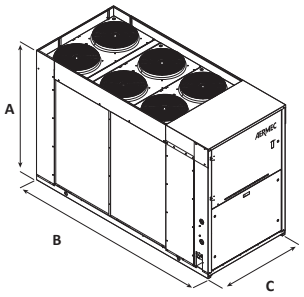
(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS

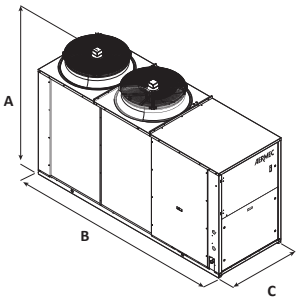
ANL - H 292-302



ANL - H 342



ANL - H 402 - 582 - 622 - 652



Size			292	302	342	402	582	622	652
Dimensions and weights									
A	°	mm	-	-	-	1875	1875	1875	1875
	L	mm	1605	1605	1605	1875	1875	1875	1875
B	°	mm	-	-	-	2950	3200	3200	3200
	L	mm	2450	2450	2450	2950	3200	3200	3200
C	°	mm	-	-	-	1100	1100	1100	1100
	L	mm	1100	1100	1100	1100	1100	1100	1100
Empty weight	°	kg	-	-	-	808	902	1008	1053
	L	kg	655	660	684	808	902	1008	1053

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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NRK 0090-0150

Reversible air/water heat pump

Cooling capacity 18,4 ÷ 31,0 kW
Heating capacity 20,8 ÷ 34,4 kW

- **Cooling / heating / high-temperature water production even for DHW production.**
- **Water produced up to +65 °C**
- **Heating operations with external temperatures down to -20 °C**
- **Optimised for heating mode**



DESCRIPTION
Air-cooled outdoor chiller designed to meet air conditioning needs in residential, commercial complexes or industrial applications.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS
° High efficiency

FEATURES

Operating field
Working at full load up to -20 °C outside air temperature in winter, and up to 48 °C in summer. Hot water production up to 65 °C.

Integrated hydronic kit
Integrated hydronic kit containing the main hydraulic components; available with various configurations with one pumps or storage tank to obtain a solution that allows you to save money and to facilitate installation.

Components
Water filter,flow switch, low and high pressure transducers as standard supply on all units.

Hot water production
In the configuration with desuperheater, it is also possible to produce free-hot water.

DCPX as standard
Phase-cut device that regulates the fan speed to ensure optimum unit operation in all conditions.

CONTROL
MODUCONTROL control type.
The command panel of the unit allows the rapid setting of the working parameters of the machine, and their visualisation. The display consists of 4 figures and various LEDs for indicating the type of operational mode, the visualisation of the parameters set and of any alarms triggered. The card stores all the default settings and any modifications.

ACCESSORIES
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
MODU-485BL: RS-485 interface for supervision systems with MODBUS protocol.
MULTICONTROL: Allows the simultaneous control of several units (up to 4), installed in the same hydraulic system.
PR3: Simplified remote panel. This makes it possible to carry out the unit's basic controls with the signalling of alarms. Can be made remote with shielded cable up to 150 m.
SAF: Thermal buffer tank kit with instantaneous Domestic Hot Water production.
SDHW: Domestic hot water sensor. To be used with a storage tank for the control of water temperature produced.
SPLW: System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring
VMF-CRP: Accessory module for controlling boilers, heat recover units and pumps (if associated with VMF-E5 / RCC panels); if associated with the VMF-E6 panel, the VMF-CRP modules will be able to manage heat recovery units, RAS, boiler, sanitary management, I/O control, pumps.
VT: Anti-vibration supports.
BSKW: Electric heaters kit with IP44 panel for remote mounting in a sheltered area.

Refer to the specific "SAF" datasheet for more information about correct system operation, and about the required or recommended accessories. Please consult the VMF system for the production of DHW with a thermal storage tank not supplied by Aermec.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

Model	Ver	0090	0100	0150
AERNET	°	•	•	•
MODU-485BL	°	•	•	•
MULTICONTROL	°	•	•	•
PR3	°	•	•	•
SAF (1)	°	•	•	•
SDHW (2)	°	•	•	•
SPLW (3)	°	•	•	•
VMF-CRP	°	•	•	•

(1) For more information about SAF refer to the dedicated documentation.
(2) Probe required for MULTICONTROL for managing the domestic hot water system.
(3) Probe required for MULTICONTROL to manage the secondary circuit system.

BSKW: Electric heater kit

Model	Ver	0090	0100	0150
BS6KW400T	°	•	•	•
BS9KW400T	°	•	•	•

BS6KW400T (6kW, 400V 3); BS9KW400T (9kW, 400V 3)

VT: Antivibration

Ver	0090	0100	0150
Integrated hydronic kit: 00, 01, 03, P1, P3			
°	VT15	VT15	VT15

DRE: Device for peak current reduction

Ver	0090	0100	0150
°	DRE10 (1)	DRE10 (1)	DRE15 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3	**NRK**
4,5,6,7	**Size** 0090, 0100, 0150
8	**Operating field (1)**
°	Standard mechanic thermostatic valve
9	**Model**
H	Heat pump
10	**Heat recovery**
°	Without heat recovery
D	With desuperheater (2)
11	**Version**
°	High efficiency
12	**Coils**
°	Alluminium
R	Copper pipes-copper fins
S	Tinned copper
V	Copper pieps-Coated aluminium fins
13	**Fans**
°	Standard
14	**Power supply**
°	400V ~ 3N 50Hz
15,16	**Integrated hydronic kit**
00	Without hydronic kit
01	Storage tank with low head pump
03	Storage tank with high head pump
P1	Single pump low head
P3	Single pump high head

(1) Water produced up to +4 °C.
(2) The desuperheater can only be used with cold running.

PERFORMANCE SPECIFICATIONS

NRK - (°) / 12/7 °C - 40/45 °C

Size		0090	0100	0150
Cooling performance 12 °C / 7 °C (1)				
Cooling capacity	kW	18,4	26,4	31,0
Input power	kW	5,8	8,4	9,8
Cooling total input current	A	13,0	18,0	20,0
EER	W/W	3,19	3,15	3,15
Water flow rate system side	l/h	3172	4546	5338
Pressure drop system side	kPa	19	39	54
Heating performance 40 °C / 45 °C (2)				
Heating capacity	kW	20,8	28,7	34,4
Input power	kW	6,1	8,3	10,3
Heating total input current	A	14,0	17,0	21,0
COP	W/W	3,40	3,45	3,34
Water flow rate system side	l/h	3601	4965	5953
Pressure drop system side	kPa	24	45	65

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRK - (°) / 23/18 °C - 30/35 °C

Size		0090	0100	0150
Cooling performance 23 °C / 18 °C (1)				
Cooling capacity	kW	24,5	34,9	40,9
Input power	kW	6,1	9,0	10,6
Cooling total input current	A	14,0	18,0	22,0
EER	W/W	4,03	3,88	3,86
Water flow rate system side	l/h	4236	6040	7093
Pressure drop system side	kPa	34	69	95
Heating performance 30 °C / 35 °C (2)				
Heating capacity	kW	20,4	28,2	33,8
Input power	kW	5,0	6,7	8,3
Heating total input current	A	11,0	14,0	17,0
COP	W/W	4,11	4,22	4,09
Water flow rate system side	l/h	3521	4866	5833
Pressure drop system side	kPa	23	43	-

(1) Data EN 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2018; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

ENERGY DATA

Size			0090	0100	0150
Cooling capacity with low leaving water temp (UE n° 2016/2281)					
SEER	°	W/W	3,35	3,39	3,42
ηsc	°	%	131,10	132,60	133,80
UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 70 kW (1)					
Pdesignh	°	kW	22	28	34
SCOP	°		3,03	2,98	2,90
ηsh	°	%	118,00	116,00	113,00
Efficiency energy class	°		A+	A+	A+

(1) Efficiencies for average temperature applications (55 °C)

ELECTRIC DATA

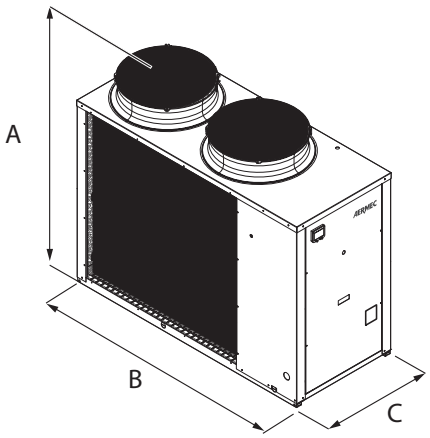
Size			0090	0100	0150
Electric data					
Maximum current (FLA)	°	A	19,1	24,6	29,5
Peak current (LRA)	°	A	104,2	121,2	143,2

GENERAL TECHNICAL DATA

Size			0090	0100	0150
Compressor					
Type	°	type		Scroll	
Compressor regulation	°	Type		On-Off	
Number	°	no.	1	1	1
Circuits	°	no.	1	1	1
Refrigerant	°	type		R410A	
Refrigerant charge (1)	°	kg	13,0	14,0	16,0
System side heat exchanger					
Type	°	type		Brazed plate	
Number	°	no.	1	1	1
Hydraulic connections					
Connections (in/out)	°	Type		Gas-F	
Size (in)	°	Ø		1½"	
Size (out)	°	Ø		1½"	
Fan					
Type	°	type		axials	
Fan motor	°	type		Asynchronous	
Number	°	no.	2	2	2
Air flow rate	°	m^3/h	14200	14200	13700
Sound data calculated in cooling mode (2)					
Sound power level	°	dB(A)	78,0	78,0	78,0
Sound pressure level (10 m)	°	dB(A)	46,5	46,5	46,5

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



NRK 0200-0700

Reversible air/water heat pump

Cooling capacity 35,5 ÷ 148 kW
Heating capacity 42,31 ÷ 175 kW

- **Water produced up to +65 °C**
- **Heating operations with external temperatures down to -20 °C**
- **Optimized for operation in heating mode**
- **Night mode**



DESCRIPTION

Reversible air/water heat pump for air conditioning systems with cold water production for cooling rooms and hot water for heating and/or domestic hot water services, suitable for connection with small or medium users.
It's optimised for use in heating mode, and can be combined not only with low-temperature emission systems such as floor heating or fan coils, but also conventional radiators.
Equipped with scroll compressors, axial fans, external coil with aluminium louvers, plate heat exchanger on the side.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

A High efficiency
E Silenced high efficiency

FEATURES

Operating field

Working at full load up to -20 °C outside air temperature in winter, and up to 48 °C in summer. Hot water production up to 65 °C.

Version with Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations to obtain a solution that allows you to facilitate installation.

Components

Water filter,flow switch, low and high pressure transducers as standard supply on all units.

Condensation control temperature

Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures, adapting the air flow rate to the actual system request in order to reduce consumption.

CONTROL

pCO^5 control type
Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.
Adjustment includes complete management of the alarms and their log.
Possibility to control two units in a Master-Slave configuration
The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
The temperature control takes place with the integral proportional logic, based on the water output temperature.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PGD1: Allows you to control the unit at a distance.
GP: Anti-intrusion grid.
VT: Anti-vibration supports.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.
RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
PRM1: It is a manual pressure switch electrically wired in series with the existing automatic high pressure switch on the compressor discharge pipe.
C-TOUCH: 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating

parameters and graphically view the progress of some variables in real time.

AERCALM: The aim of the accessory installed in the electric box of the unit is to provide a clean contact for commanding - on the basis of the outside air temperature - a boiler to supplement or replace the heat pump. Aercalm must be requested at the time of ordering, as it is installed in the factory.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

Model	Ver	0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
AER485P1	A					•	•	•	•	•	•
	E	•	•	•	•	•	•	•	•	•	•
AERBACP	A					•	•	•	•	•	•
	E	•	•	•	•	•	•	•	•	•	•
AERNET	A					•	•	•	•	•	•
	E	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	A					•	•	•	•	•	•
	E	•	•	•	•	•	•	•	•	•	•
PGD1	A					•	•	•	•	•	•
	E	•	•	•	•	•	•	•	•	•	•

GP: anti-intrusion grid

Ver	0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
A	-	-	-	-	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)
E	GP3	GP3	GP4	GP4	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)

(1) x _ indicates the quantity to buy

VT: Antivibration

Ver	0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
Integrated hydronic kit: 00, P1, P2, P3, P4										
A	-	-	-	-	VT11	VT11	VT11	VT11	VT22	VT22
E	VT17	VT17	VT17	VT17	VT11	VT11	VT11	VT11	VT22	VT22
Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08										
A	-	-	-	-	VT11	VT11	VT11	VT11	VT22	VT22
E	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT22	VT22

DRE: Device for peak current reduction

Ver	0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
A	-	-	-	-	DRE351 (1)	DRE501 (1)	DRE551 (1)	DRE601 (1)	DRE651 (1)	DRE701 (1)
E	DRE201 (1)	DRE281 (1)	DRE301 (1)	DRE331 (1)	DRE351 (1)	DRE501 (1)	DRE551 (1)	DRE601 (1)	DRE651 (1)	DRE701 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
A grey background indicates the accessory must be assembled in the factory

RIF: Power factor correction

Ver	0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
A	-	-	-	-	RIF65	RIF58	RIF59	RIF60	RIF61	RIF61
E	RIF55	RIF56	RIF54	RIF57	RIF65	RIF58	RIF59	RIF60	RIF61	RIF61

A grey background indicates the accessory must be assembled in the factory

PRM1: Manually reset pressure switch

Ver	0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
A	-	-	-	-	PRM1	PRM1	PRM1	PRM1	PRM1	PRM1
E	PRM1	PRM1	PRM1	PRM1	PRM1	PRM1	PRM1	PRM1	PRM1	PRM1

A grey background indicates the accessory must be assembled in the factory

7", touch screen keyboard

Model	Ver	0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
C-TOUCH	A					•	•	•	•	•	•
	E	•	•	•	•	•	•	•	•	•	•

Clean contact for controlling a boiler.

Model	Ver	0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
AERCALM	A					•	•	•	•	•	•
	E	•	•	•	•	•	•	•	•	•	•

CONFIGURATOR

Field	Description
1,2,3	**NRK**
4,5,6,7	**Size** 0200, 0280, 0300, 0330, 0350, 0500, 0550, 0600, 0650, 0700
8	**Operating field (1)**
°	Standard mechanic thermostatic valve
9	**Model**
H	Heat pump
10	**Heat recovery**
°	Without heat recovery
D	With desuperheater (2)
11	**Version**
A	High efficiency
E	Silenced high efficiency
12	**Coils**
°	Copper-aluminium
R	Copper pipes-copper fins
S	Copper pipes-Tinned copper fins
V	Copper pieps-Coated aluminium fins
13	**Fans**
°	Standard (3)
J	Inverter (4)
M	Oversized (5)
14	**Power supply**
°	400V 3N ~ 50Hz
15,16	**Integrated hydronic kit**
00	Without hydronic kit
01	Storage tank with low head pump
02	Storage tank with low head pump + stand-by pump
03	Storage tank with high head pump
04	Storage tank with high head pump + stand-by pump
05	Storage tank with holes for heaters and single low head pump (6)
06	Storage tank with holes for heaters and pump low head + stand-by pump (6)
07	Storage tank with holes for heaters and single high head pump (6)
08	Storage tank with holes for heaters and pump high head + stand-by pump (6)
P1	Single pump low head
P2	Pump low head + stand-by pump
P3	Single pump high head
P4	Pump high head + stand-by pump

(1) Water produced up to +4 °C
(2) The desuperheater must be isolated in heating mode. In cooling mode, a water temperature no lower than 35°C must always be guaranteed on the heat exchanger inlet.
(3) As standard in sizes fom 0350÷0700.
(4) Standard for size 0200÷0330, without useful static pressure. Option for size 0350÷0700 with useful static pressure.
(5) Option available only for size 0200÷0330.
(6) Storage tanks with holes for supplementary heaters (not provided) are sent from the factory with plastic protection caps. Before loading the system, if the installation of one or all resistances is not expected, all plastic caps must be replaced with the special caps, commonly commercially available.

PERFORMANCE SPECIFICATIONS 12 °C/ 7 °C - 40 °C/ 45 °C

NRK - A / 12/7 °C - 40/45 °C

Size		0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
Cooling performance 12 °C / 7 °C (1)											
Cooling capacity	kW	-	-	-	-	75,4	88,8	101,6	117,4	133,4	148,1
Input power	kW	-	-	-	-	25,4	29,5	34,4	41,0	45,0	52,6
Cooling total input current	A	-	-	-	-	55,0	61,0	66,0	72,0	87,0	107,0
EER	W/W	-	-	-	-	2,97	3,01	2,95	2,86	2,97	2,82
Water flow rate system side	l/h	-	-	-	-	12983	15278	17488	20211	22975	25516
Pressure drop system side	kPa	-	-	-	-	23	26	32	28	34	42
Heating performance 40 °C / 45 °C (2)											
Heating capacity	kW	-	-	-	-	87,9	103,9	118,9	136,6	155,6	174,4
Input power	kW	-	-	-	-	25,5	30,2	34,7	39,9	45,6	51,7
Heating total input current	A	-	-	-	-	54,0	59,0	64,0	70,0	85,0	106,0
COP	W/W	-	-	-	-	3,45	3,44	3,42	3,42	3,41	3,37
Water flow rate system side	l/h	-	-	-	-	15236	18010	20602	23680	26988	30254
Pressure drop system side	kPa	-	-	-	-	32	36	44	37	45	57

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRK - E / 12/7 °C - 40/45 °C

Size		0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
Cooling performance 12 °C / 7 °C (1)											
Cooling capacity	kW	35,6	50,4	59,5	66,1	74,4	87,4	99,8	114,5	130,8	145,3
Input power	kW	11,7	17,4	19,5	22,3	27,6	32,4	38,1	45,8	49,5	58,1
Cooling total input current	A	28,0	38,0	42,0	49,0	60,0	67,0	73,0	72,0	95,0	119,0
EER	W/W	3,05	2,90	3,05	2,96	2,69	2,70	2,62	2,50	2,64	2,50
Water flow rate system side	l/h	6131	8670	10235	11379	12801	15035	17175	19713	22512	25033
Pressure drop system side	kPa	18	17	23	19	22	25	30	27	32	41
Heating performance 40 °C / 45 °C (2)											
Heating capacity	kW	42,2	59,7	69,4	78,2	87,9	103,9	118,9	136,6	155,6	174,4
Input power	kW	12,0	17,0	19,9	22,4	25,5	30,2	34,7	39,9	45,6	51,7
COP	W/W	3,50	3,50	3,49	3,49	3,45	3,44	3,42	3,42	3,41	3,37
Heating total input current	A	24,0	34,0	38,0	44,0	54,0	59,0	64,0	70,0	85,0	106,0
Water flow rate system side	l/h	7318	10355	12032	13569	15236	18010	20602	23680	26988	30254
Pressure drop system side	kPa	24	22	30	25	32	36	44	37	45	57

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

PERFORMANCE SPECIFICATIONS 23 °C/ 18 °C - 30 °C/ 35 °C

NRK - A / 23/18 °C - 30/35 °C

Size		0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
Cooling performance 23 °C / 18 °C (1)											
Cooling capacity	kW	-	-	-	-	93,2	108,2	122,7	143,0	165,0	181,0
Input power	kW	-	-	-	-	26,4	30,7	35,9	43,3	47,0	55,1
Cooling total input current	A	-	-	-	-	57,0	63,0	69,0	75,0	90,0	112,0
EER	W/W	-	-	-	-	3,54	3,53	3,42	3,30	3,51	3,28
Water flow rate system side	l/h	-	-	-	-	16111	18705	21231	24719	28513	31266
Pressure drop system side	kPa	-	-	-	-	35	39	47	42	52	63
Heating performance 30 °C / 35 °C (2)											
Heating capacity	kW	-	-	-	-	86,4	101,5	114,6	132,6	150,2	170,5
Input power	kW	-	-	-	-	20,6	24,5	27,8	31,7	37,0	41,9
Heating total input current	A	-	-	-	-	44,0	48,0	51,0	55,0	68,0	85,0
COP	W/W	-	-	-	-	4,19	4,15	4,13	4,19	4,06	4,06
Water flow rate system side	l/h	-	-	-	-	14931	17533	19787	22919	25938	29467
Pressure drop system side	kPa	-	-	-	-	31	34	41	35	42	54

(1) Data EN 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2018; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

NRK - E / 23/18 °C - 30/35 °C

Size		0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
Cooling performance 23 °C / 18 °C (1)											
Cooling capacity	kW	44,2	61,5	72,1	80,9	91,9	106,5	120,6	139,5	161,7	177,5
Input power	kW	12,2	18,2	20,4	23,5	28,7	33,6	39,7	48,3	51,7	60,8
Cooling total input current	A	29,0	40,0	44,0	51,0	62,0	69,0	76,0	75,0	99,0	124,0
EER	W/W	3,64	3,37	3,53	3,44	3,20	3,16	3,04	2,89	3,13	2,92
Water flow rate system side	l/h	7643	10631	12470	13977	15886	18408	20850	24110	27939	30673
Pressure drop system side	kPa	28	26	34	29	34	37	44	40	49	62
Heating performance 30 °C / 35 °C (2)											
Heating capacity	kW	41,4	57,2	67,2	75,7	86,4	101,5	114,6	132,6	150,2	170,5
Input power	kW	9,4	13,3	15,8	18,1	20,6	24,5	27,8	31,7	37,0	41,9
Heating total input current	A	19,0	26,0	30,0	35,0	44,0	48,0	51,0	55,0	68,0	85,0
COP	W/W	4,41	4,31	4,26	4,18	4,19	4,15	4,13	4,19	4,06	4,06
Water flow rate system side	l/h	7156	9895	11628	13083	14931	17533	19787	22919	25938	29467
Pressure drop system side	kPa	23	20	28	23	31	34	41	35	42	54

(1) Data EN 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2018; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

ENERGY DATA

Size			0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
Cooling capacity with low leaving water temp (UE n° 2016/2281)												
SEER	A	W/W	-	-	-	-	3,45	3,52	3,46	3,42	3,44	3,33
	E	W/W	3,40	3,30	3,48	3,39	3,35	3,42	3,34	3,29	3,35	3,27
ηsc	A	%	-	-	-	-	134,80	137,60	135,20	133,70	134,60	130,00
	E	%	133,00	128,80	136,10	132,50	130,90	133,70	130,60	128,70	130,90	127,90
UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (1)												
Pdesignh	A	kW	-	-	-	-	89	106	121	137	157	178
	E	kW	44	62	70	80	89	106	121	137	157	178
SCOP	A		-	-	-	-	2,88	2,90	3,03	3,03	2,93	2,90
	E		3,08	3,03	3,00	3,03	2,88	2,90	3,03	3,03	2,93	2,90
ηsh	A	%	-	-	-	-	112,00	113,00	118,00	118,00	114,00	113,00
	E	%	120,00	118,00	117,00	118,00	112,00	113,00	118,00	118,00	114,00	113,00

(1) Efficiencies for average temperature applications (55 °C)

ELECTRIC DATA

Size			0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
Electric data												
Maximum current (FLA)	A	A	-	-	-	-	75,0	85,0	94,0	114,0	144,0	147,0
	E	A	40,0	49,0	61,0	74,0	75,0	85,0	94,0	114,0	144,0	147,0
Peak current (LRA)	A	A	-	-	-	-	216,0	226,0	191,0	228,0	285,0	288,0
	E	A	124,0	146,0	175,0	215,0	216,0	226,0	191,0	228,0	285,0	288,0

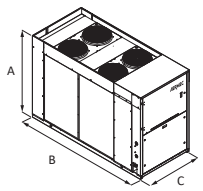
GENERAL TECHNICAL DATA

Size			0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
Compressor												
Type	A,E	type						Scroll				
Compressor regulation	A,E	Type						On-Off				
Number	A,E	no.	2	2	2	2	2	3	4	4	4	4
Circuits	A,E	no.	2	2	2	2	2	2	2	2	2	2
Refrigerant	A,E	type						R410A				
Refrigerant charge (1)	A	kg	-	-	-	-	23,0	28,0	29,0	29,0	39,0	40,0
	E	kg	14,0	16,0	16,0	16,0	23,0	28,0	29,0	29,0	39,0	40,0
System side heat exchanger												
Type	A,E	type						Brazed plate				
Number	A,E	no.	1	1	1	1	1	1	1	1	1	1
Hydraulic connections												
Connections (in/out)	A,E	Type						Grooved joints				
Sizes (in/out)	A,E	Ø	2½"	2½"	2½"	2½"	2½"	2½"	2½"	2½"	2½"	3"
Fan												
Type	A,E	type						axials				
Number	A	no.	-	-	-	-	2	2	2	2	3	3
	E	no.	4	6	8	8	2	2	2	2	3	3
Air flow rate	A	m^3/h	-	-	-	-	37000	36500	36500	36500	58000	58000
	E	m^3/h	14000	20000	26000	26000	21100	21400	22400	22400	31900	31900
Sound data calculated in cooling mode (2)												
Sound power level	A	dB(A)	-	-	-	-	82,0	82,0	82,0	83,0	85,0	85,0
	E	dB(A)	74,0	74,0	75,0	75,0	74,0	74,0	74,0	75,0	77,0	77,0
Sound pressure level (10 m)	A	dB(A)	-	-	-	-	50,1	50,1	50,1	51,1	53,0	53,0
	E	dB(A)	42,3	42,3	43,2	43,2	42,1	42,1	42,1	43,1	45,0	45,0

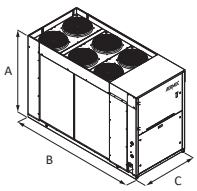
(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS

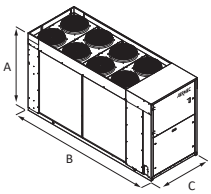
NRK 0200



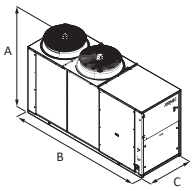
NRK 0280



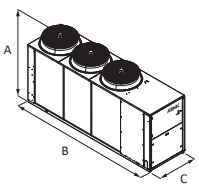
NRK 0300-0330



NRK 0350-0500-0550-0600



NRK 0650-0700



Size			0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
Dimensions and weights												
A	A	mm	-	-	-	-	1875	1875	1875	1875	1875	1875
	E	mm	1606	1606	1606	1606	1875	1875	1875	1875	1875	1875
B	A	mm	-	-	-	-	3330	3330	3330	3330	4330	4330
	E	mm	2700	2700	3250	3250	3330	3330	3330	3330	4330	4330
C	A	mm	-	-	-	-	1100	1100	1100	1100	1100	1100
	E	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
Empty weight	A	kg	-	-	-	-	1118	1264	1325	1367	1562	1597
	E	kg	804	876	960	967	1118	1264	1325	1367	1562	1597

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NRV 0550

Air-water chiller

Cooling capacity 108,3 kW

- **Easy and quick to install compact**
- **Reliability and modularity**
- **Microchannel coils**



DESCRIPTION

NRV is made up of independent 108kW modules that can be connected to each other up to a power of 970kW. Every single module is an outdoor chiller to produce chilled water.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

A High efficiency
E Silenced high efficiency

FEATURES

Operating field

Operation at full load up to 46°C external air temperature. Unit can produce chilled water up to 4 °C.
Maximum yield at full load but even partial load, thanks to the partialisation steps that increase as the number of connected modules increases this ensures continuous adaptation to the actual system requirements.

Modularity

It is possible to couple up to 9 chillers designed to reduce the overall unit dimensions to a minimum.
The combination of the various chillers allows all the strengths of the individual module to be maintained.
Modularity allows you to adapt installation to the actual development needs of the system. This way the cooling capacity can be increased over time simply and affordably.
Modularity is essential when component redundancy is required, as it allows for a safer system design and increased reliability.

Hot water production

In the configuration with desuperheater, it is also possible to produce free-hot water.

Microchannel coils

Microchannel heat exchanger that guarantees higher thermal exchange yield. Circuit that optimises the liquid distribution in the coil, which is arranged with V beam geometry with open angle.

Components

Unit is already equipped with a water filter, differential pressure switch and butterfly check valves, useful to cut off the hydraulic circuit for maintenance; for instance, to clean the filter.
In the event of variable flow rate, the motorised hydronic valves can intercept one or more modules to reduce the flow rate in low heat load conditions.

CONTROL PCO_5

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.
Adjustment includes complete management of the alarms and their log.
The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
The temperature control takes place with the integral proportional logic, based on the water output temperature.
Night Mode: it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.
Night Mode is standard in the unit with J inverter fan and in the E silenced version.Either a DCPX or inverter fan is necessary for the high efficiency version.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.
GPNY_BACK: kit with 1 anti-intrusion grid for the short side of the unit.

GPNYB_SIDE: kit with 2 anti-intrusion grids for the long side of the unit.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PGD1: Allows you to control the unit at a distance.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.

KNYB: Pair of caps with grooved joints assembled on the unit manifold.
KREC: Accessory kit to remote the electric power supply input to the back
RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

Accessories

Model	Ver	0550
AER485P1	A,E	•
AERBACP	A,E	•
DCPX	A	•
GPNYB_SIDE	A,E	•
GPNY_BACK	A,E	•
MULTICHILLER_EVO	A,E	•
PGD1	A,E	•

DRE: electronic device for peak current reduction

Ver	0550
A,E	DRE (1)

(1) Contact the factory
A grey background indicates the accessory must be assembled in the factory

KNYB: Pair of caps with grooved joints assembled on the unit manifold

Ver	0550
A,E	KNYB

A grey background indicates the accessory must be assembled in the factory

KREC: kit to remote the electric power supply input to the back

Ver	0550
A,E	KREC

A grey background indicates the accessory must be assembled in the factory

RIF: Power factor correction

Ver	0550
A,E	RIF (1)

(1) Contact the factory
A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3	**NRV**
4,5,6,7	**Size** 0550
8	**Operating field**
°	Standard mechanic thermostatic valve (1)
X	Electronic thermostatic expansion valve
9	**Model**
°	Cooling only
10	**Heat recovery**
°	Without heat recovery
D	With desuperheater
11	**Version**
A	High efficiency
E	Silenced high efficiency
12	**Coils**
°	Aluminium microchannel
O	Coated aluminium microchannel
R	Copper pipes-copper fins
S	Copper pipes-Tinned copper fins
13	**Fans**
°	Standard
J	Inverter (2)
14	**Power supply (3)**
°	400V 3 ~ 50Hz
15,16	**Integrated hydronic kit**
00	Without hydronic kit

(1) Water produced up to +4 °C
(2) With "J" fan is unnecessary DCPX accessory
(3) With magnet circuit breakers

PERFORMANCE SPECIFICATIONS

Size			0550
Cooling performance 12 °C / 7 °C (1)			
Cooling capacity	A	kW	108,3
	E	kW	103,8
Input power	A	kW	34,8
	E	kW	36,2
Cooling total input current	A,E	A	62,0
EER	A	W/W	3,11
	E	W/W	2,86
Water flow rate system side	A	l/h	18646
	E	l/h	17862
Pressure drop system side	A	kPa	32
	E	kPa	30

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

ENERGY INDICES (REG. 2016/2281 EU)

Size			0550
SEER - 12/7 (EN14825:2018) with standard fans (1)			
SEER	A	W/W	4,39
	E	W/W	4,33
Seasonal efficiency	A	%	172,6%
	E	%	170,3%
SEER - (EN14825:2018) 12/7 with inverter fans (1)			
SEER	A	W/W	4,51
	E	W/W	4,45
Seasonal efficiency	A	%	177,2%
	E	%	174,8%
SEPR - (EN14825: 2018) High temperature with standard fans (2)			
SEPR	A,E	W/W	5,62
SEPR - (EN14825: 2018) High temperature with inverter fans (2)			
SEPR	A,E	W/W	5,62

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

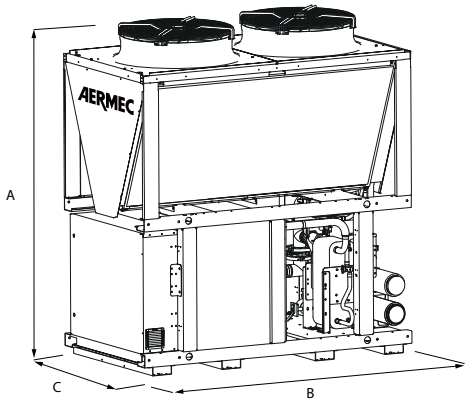
Size			0550
Electric data			
Maximum current (FLA)	A,E	A	95,6
Peak current (LRA)	A,E	A	280,6

GENERAL TECHNICAL DATA

Size			0550
Compressor			
Type	A,E	type	Scroll
Number	A,E	no.	2
Circuits	A,E	no.	1
Refrigerant	A,E	type	R410A
System side heat exchanger			
Type	A,E	type	Brazed plate
Number	A,E	no.	1
System side hydraulic connections			
Connections (in/out)	A,E	Type	Grooved joints
Sizes (in/out)	A,E	Ø	6"
Fan			
Type	A,E	type	Axial
Fan motor	A,E	type	On-Off
Number	A,E	no.	2
Air flow rate	A	m^3/h	32000
	E	m^3/h	24000
Sound data calculated in cooling mode (1)			
Sound power level	A	dB(A)	85,0
	E	dB(A)	82,0
Sound pressure level (10 m)	A	dB(A)	53,0
	E	dB(A)	50,0

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size			0550
Dimensions and weights			
A	A,E	mm	2480
B	A,E	mm	2200
C	A,E	mm	1190
Empty weight	A,E	kg	1105

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NRB 0282-0754

Air-water chiller

Cooling capacity 56 ÷ 202 kW

- **High seasonal efficiency**
- **Night mode**
- **Reduced amount of refrigerant**
- **Compact dimensions**



DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

° Standard
A High efficiency
E Silenced high efficiency
L Standard silenced
N Silenced very high efficiency
U Very high efficiency

FEATURES

Operating field

Operation at full load up to 50°C external air temperature. Unit can produce chilled water (up to -10°C of water produced in some versions).

Dual-circuit unit

The units according to the size are mono or dual-circuit, to ensure maximum efficiency both at full load and at partial load.

New condensing Coils

The whole range uses copper - aluminium condensation coils with reduced diameter rows, allowing a lower quantity of gas to be used compared to traditional coils.

Electronic expansion valve

The possibility to use electronic expansion valve, available to configurator, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations with one or two pumps, with high or low head and storage tank, to obtain a solution that allows you to save money and to facilitate installation.

CONTROL

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.

— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
— The temperature control takes place with the integral proportional logic, based on the water output temperature.
— **Floating HP control:** available for all models with inverter fans or with DCPX. Allows, with continuous fan modulation, to optimize the operation of the unit in any operating point, ensuring an increase in the energy efficiency at partial load.
— **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load. **Night Mode for standard versions is mandatory DCPX accessory (standard on all low noise versions) or "J" inverter fan**

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PGD1: Allows you to control the unit at a distance.
DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.
GP: Anti-intrusion grid.
VT: Anti-vibration supports.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.
RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
T6: Double safety valve with exchange cock, both on the high and low pressure branches.

C-TOUCH: 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

Model	Ver	0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
AER485P1	°,A					•	•	•	•	•	•	•	•	•	•	•
	E,L,N	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U				•	•	•	•	•	•	•	•	•	•	•	•
AERBACP	°,A					•	•	•	•	•	•	•	•	•	•	•
	E,L,N	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U				•	•	•	•	•	•	•	•	•	•	•	•
AERNET	°,A					•	•	•	•	•	•	•	•	•	•	•
	E,L,N	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U				•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	°,A					•	•	•	•	•	•	•	•	•	•	•
	E,L,N	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U				•	•	•	•	•	•	•	•	•	•	•	•
PGD1	°,A					•	•	•	•	•	•	•	•	•	•	•
	E,L,N	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	U				•	•	•	•	•	•	•	•	•	•	•	•

Condensation control temperature

Ver	0282	0302	0332	0352	0502	0552	0602	0604
Fans: °								
°,A	-	-	-	-	DCPX142	DCPX142	DCPX142	DCPX142
E,L	DCPX140	DCPX140	DCPX140	DCPX140	As standard	As standard	As standard	As standard
N	DCPX140	DCPX140	DCPX140	As standard	As standard	As standard	As standard	As standard
U	-	-	-	DCPX142	DCPX142	DCPX142	DCPX143	DCPX143
Fans: M								
°,A	-	-	-	-	DCPX142	DCPX142	DCPX142	DCPX142
E,L	DCPX141	DCPX141	DCPX141	DCPX141	As standard	As standard	As standard	As standard
N	DCPX141	DCPX141	DCPX141	As standard	As standard	As standard	As standard	As standard
U	-	-	-	DCPX142	DCPX142	DCPX142	DCPX143	DCPX143

Ver	0652	0654	0682	0702	0704	0752	0754
Fans: °, M							
°	DCPX142	DCPX142	DCPX143	DCPX143	DCPX143	DCPX143	DCPX143
A	DCPX142	DCPX143	DCPX143	DCPX143	DCPX143	DCPX143	DCPX143
E,L,N	As standard	As standard	As standard	As standard	As standard	As standard	As standard
U	DCPX143	DCPX143	DCPX143	DCPX143	DCPX143	DCPX143	DCPX143

Antivibration

Ver	0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Integrated hydronic kit: 00, I1, I2, I3, I4, P1, P2, P3, P4															
°	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22
A	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22
E	VT17	VT17	VT17	VT17	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22
L	VT17	VT17	VT17	VT17	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22
N	VT17	VT17	VT17	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT23	VT23	VT23	VT23
U	-	-	-	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT23	VT23	VT23	VT23
Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08, 09, K1, K2, K3, K4															
°	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22
A	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22
E	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22
L	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22
N	VT13	VT13	VT13	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT23	VT23	VT23	VT23
U	-	-	-	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT23	VT23	VT23	VT23

Anti-intrusion grid

Ver	0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
°	-	-	-	-	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)
A	-	-	-	-	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)
E	GP3	GP4	GP4	GP4	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)
L	GP3	GP3	GP4	GP4	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)
N	GP4	GP4	GP4	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP14 x 4 (1)	GP14 x 4 (1)	GP14 x 4 (1)	GP14 x 4 (1)

Ver	0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
U	-	-	-	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP14 x 4 (1)	GP14 x 4 (1)	GP14 x 4 (1)	GP14 x 4 (1)

(1) x _ indicates the quantity to buy
The accessory cannot be fitted on the configurations indicated with -

Power factor correction

Ver	0282	0302	0332	0352	0502	0552	0602	0604
°,A	-	-	-	-	RIF0502	RIF0552	RIF0602	RIF0604
E,L,N	RIF0282	RIF0302	RIF0332	RIF0352	RIF0502	RIF0552	RIF0602	RIF0604
U	-	-	-	RIF0352	RIF0502	RIF0552	RIF0602	RIF0604

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

Ver	0652	0654	0682	0702	0704	0752	0754
°,A,E,L,N,U	RIF0652	RIF0652	RIF0682	RIF0702	RIF0704	RIF0752	RIF0754

A grey background indicates the accessory must be assembled in the factory

Device for peak current reduction

Ver	0282	0302	0332	0352	0502	0552	0602	0604
°,A	-	-	-	-	DRENRB502 (1)	DRENRB552 (1)	DRENRB602 (1)	DRENRB604 (1)
E,L,N	DRENRB282 (1)	DRENRB302 (1)	DRENRB332 (1)	DRENRB352 (1)	DRENRB502 (1)	DRENRB552 (1)	DRENRB602 (1)	DRENRB604 (1)
U	-	-	-	DRENRB352 (1)	DRENRB502 (1)	DRENRB552 (1)	DRENRB602 (1)	DRENRB604 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

Ver	0652	0654	0682	0702	0704	0752	0754
°,A,E,L,N,U	DRENRB652 (1)	DRENRB654 (1)	DRENRB682 (1)	DRENRB702 (1)	DRENRB704 (1)	DRENRB752 (1)	DRENRB754 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
A grey background indicates the accessory must be assembled in the factory

Double safety valves

Ver	0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
°,A	-	-	-	-	T6NRB8	T6NRB8	T6NRB8	T6NRB11	T6NRB8	T6NRB11	T6NRB9	T6NRB10	T6NRB12	T6NRB10	T6NRB12
E,L	T6NRB6	T6NRB6	T6NRB6	T6NRB6	T6NRB8	T6NRB8	T6NRB8	T6NRB11	T6NRB8	T6NRB11	T6NRB9	T6NRB10	T6NRB12	T6NRB10	T6NRB12
N	T6NRB6	T6NRB6	T6NRB6	T6NRB8	T6NRB8	T6NRB8	T6NRB8	T6NRB11	T6NRB8	T6NRB11	T6NRB9	T6NRB10	T6NRB12	T6NRB10	T6NRB12
U	-	-	-	T6NRB8	T6NRB8	T6NRB8	T6NRB8	T6NRB11	T6NRB8	T6NRB11	T6NRB9	T6NRB10	T6NRB12	T6NRB10	T6NRB12

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

Touch screen keyboard

Ver	0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
°,A,E,L,N,U	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field		Description
1,2,3		**NRB**
4,5,6,7		**Size** 0282, 0302, 0332, 0352, 0502, 0552, 0602, 0604, 0652, 0654, 0682, 0702, 0704, 0752, 0754
8		**Operating field**
	°	Standard mechanic thermostatic valve (1)
	X	Electronic thermostatic expansion valve (1)
	Y	Double mechanical thermostat for low temperature (2)
	Z	Low temperature electronic thermostatic valve (3)
9		**Model**
	°	Cooling only
	C	Motocondensing unit
10		**Heat recovery**
	°	Without heat recovery
	D	With desuperheater (4)
	T	With total recovery (4)
11		**Version**
	°	Standard
	A	High efficiency
	E	Silenced high efficiency
	L	Standard silenced
	N	Silenced very high efficiency
	U	Very high efficiency
12		**Coils**
	°	Copper-aluminium
	R	Copper pipes-copper fins
	S	Copper pipes-Tinned copper fins
	V	Copper pieps-Coated aluminium fins
13		**Fans**
	°	Standard
	J	Inverter
	M	Oversized
14		**Power supply**
	°	400V ~ 3N 50Hz with magnet circuit breakers
	1	220V ~ 3 50Hz with magnet circuit breakers
15,16		**Integrated hydronic kit**
		Without hydronic kit
	00	Without hydronic kit
		Kit with storage tank and pump/s

Field		Description
	01	Storage tank with low head pump
	02	Storage tank with low head pump + stand-by pump
	03	Storage tank with high head pump
	04	Storage tank with high head pump + stand-by pump
		Kit with pump/s and storage tank with holes for heaters
	05	Storage tank with holes for heaters and single low head pump (5)
	06	Storage tank with holes for heaters and pump low head + stand-by pump (5)
	07	Storage tank with holes for heaters and single high head pump (5)
	08	Storage tank with holes for heaters and pump high head + stand-by pump (5)
		Double loop
	09	Double loop
		Kit with pump/s
	P1	Single pump low head
	P2	Pump low head + stand-by pump
	P3	Single pump high head
	P4	Pump high head + stand-by pump
		Kit with inverter pump/s to fixed speed
	I1	Single low head pump + fixed speed inverter
	I2	Single low head pump with fixed speed inverter + stand-by pump
	I3	Single high head pump + fixed speed inverter
	I4	Single high head pump with fixed speed inverter + stand-by pump
		Kit with storage tank and inverter pump/s to fixed speed
	K1	Single low head pump + storage tank + fixed speed inverter
	K2	Storage tank and low head pump with fixed speed inverter + stand-by pump
	K3	Single high head pump + storage tank + fixed speed inverter
	K4	Storage tank and low head pump with fixed speed inverter + stand-by pump
		Kit with storage tank and variable speed inverter pump/s
	W1	Single low head pump + Storage tank + variable speed inverter (6)
	W2	Double low head pump + Storage tank + variable speed inverter (6)
	W3	Single high head pump + Storage tank + variable speed inverter (6)
	W4	Double high head pump + Storage tank + variable speed inverter (6)

(1) Water produced from 4 °C ÷ 18 °C
(2) Water produced from -10 °C ÷ 18 °C
(3) Water produced from 4 °C ÷ 18 °C for ° version; -10 °C for the others versions
(4) For "YT" - "ZT" - "YD" and "ZD" recovery versions, contact the headquarters; Warning: on the recovery side, a minimum input temperature of 35°C must always be guaranteed on the heat exchanger. For more information about the unit operating range, refer to the Magellano selection program
(5) Storage tanks with holes for supplementary heaters (not provided) are sent from the factory with plastic protection caps. Before loading the system, if the installation of one or all resistances is not expected, all plastic caps must be replaced with the special caps, commonly commercially available.
(6) L'opzione Y e Z non è compatibile con W1/W2/W3/W4

PERFORMANCE SPECIFICATIONS

NRB - °

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Cooling performance 12 °C / 7 °C (1)																
Cooling capacity	kW	-	-	-	-	98,4	107,0	125,9	125,5	135,1	141,0	159,7	178,9	170,7	195,7	193,5
Input power	kW	-	-	-	-	33,2	37,5	41,6	45,6	47,4	52,2	54,8	60,8	58,3	71,8	67,2
Cooling total input current	A	-	-	-	-	59,0	65,0	71,0	80,0	81,0	92,0	93,0	102,0	104,0	117,0	117,0
EER	W/W	-	-	-	-	2,96	2,85	3,03	2,75	2,85	2,70	2,92	2,95	2,93	2,73	2,88
Water flow rate system side	l/h	-	-	-	-	16941	18444	21694	21620	23270	24282	27502	30805	29385	33700	33309
Pressure drop system side	kPa	-	-	-	-	39	46	42	50	49	48	52	66	71	78	65

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

NRB - L

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Cooling performance 12 °C / 7 °C (1)																
Cooling capacity	kW	56,5	64,3	73,9	85,5	96,3	104,5	122,6	121,5	131,1	134,8	156,1	174,3	166,4	189,9	187,4
Input power	kW	19,8	22,2	24,8	29,6	34,0	38,6	42,9	47,6	49,2	55,0	56,0	62,5	60,0	74,7	69,5
Cooling total input current	A	35,0	41,0	46,0	54,0	59,0	65,0	72,0	82,0	82,0	95,0	93,0	102,0	105,0	119,0	119,0
EER	W/W	2,85	2,90	2,98	2,89	2,83	2,71	2,86	2,55	2,67	2,45	2,79	2,79	2,78	2,54	2,70
Water flow rate system side	l/h	9734	11090	12722	14734	16583	18007	21114	20937	22592	23230	26870	30010	28645	32685	32255
Pressure drop system side	kPa	37	48	39	52	37	43	40	46	45	44	50	62	66	73	61

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

NRB - A

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Cooling performance 12 °C / 7 °C (1)																
Cooling capacity	kW	-	-	-	-	103,9	114,8	130,1	129,7	140,0	150,2	167,9	186,9	176,8	207,6	198,8
Input power	kW	-	-	-	-	31,4	35,4	40,3	43,5	45,0	47,6	51,9	59,2	56,6	69,6	63,8
Cooling total input current	A	-	-	-	-	55,0	59,0	68,0	73,0	74,0	77,0	86,0	94,0	98,0	103,0	107,0
EER	W/W	-	-	-	-	3,31	3,24	3,23	2,98	3,11	3,16	3,24	3,16	3,12	2,98	3,11
Water flow rate system side	l/h	-	-	-	-	17889	19764	22404	22344	24116	25867	28897	32172	30430	35736	34210
Pressure drop system side	kPa	-	-	-	-	30	36	35	42	40	57	46	56	55	60	58

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

NRB - E

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Cooling performance 12 °C / 7 °C (1)																
Cooling capacity	kW	60,6	68,4	77,0	89,2	100,4	110,5	123,9	122,2	132,4	144,8	161,4	178,0	168,2	195,9	187,7
Input power	kW	18,6	21,1	23,8	28,3	32,5	36,9	42,7	46,6	48,2	49,4	54,0	62,6	59,7	74,7	68,0
Cooling total input current	A	32,0	36,0	41,0	46,0	54,0	59,0	69,0	75,0	77,0	77,0	86,0	95,0	100,0	107,0	110,0
EER	W/W	3,26	3,24	3,23	3,16	3,09	3,00	2,90	2,62	2,75	2,93	2,99	2,84	2,82	2,62	2,76
Water flow rate system side	l/h	10429	11774	13258	15372	17275	19020	21329	21052	22807	24939	27779	30648	28950	33719	32307
Pressure drop system side	kPa	26	33	30	40	27	33	32	36	36	52	42	51	49	53	52

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

NRB - U

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Cooling performance 12 °C / 7 °C (1)																
Cooling capacity	kW	-	-	-	92,7	104,5	117,2	132,1	137,9	146,8	152,9	171,6	191,4	180,5	209,6	202,9
Input power	kW	-	-	-	27,1	30,8	34,5	38,8	41,3	44,2	45,5	50,7	59,3	56,2	67,2	63,1
Cooling total input current	A	-	-	-	51,0	56,0	61,0	68,0	76,0	76,0	86,0	88,0	101,0	104,0	116,0	115,0
EER	W/W	-	-	-	3,42	3,39	3,40	3,40	3,34	3,32	3,36	3,39	3,23	3,21	3,12	3,21
Water flow rate system side	l/h	-	-	-	15945	17984	20172	22745	23741	25275	26327	29532	32945	31067	36076	34915
Pressure drop system side	kPa	-	-	-	24	30	29	38	34	36	42	41	51	48	61	56

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

NRB - N

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Cooling performance 12 °C / 7 °C (1)																
Cooling capacity	kW	60,8	69,0	76,9	89,7	100,8	112,4	128,6	133,5	142,2	147,1	164,5	185,1	174,5	201,1	195,1
Input power	kW	17,8	20,5	22,9	27,8	31,9	36,1	39,4	42,4	45,3	47,2	52,9	60,9	57,5	70,2	65,3
Cooling total input current	A	33,0	39,0	44,0	50,0	55,0	62,0	66,0	74,0	75,0	85,0	88,0	100,0	102,0	116,0	114,0
EER	W/W	3,42	3,37	3,36	3,23	3,16	3,12	3,26	3,15	3,14	3,11	3,11	3,04	3,03	2,87	2,99
Water flow rate system side	l/h	10460	11884	13249	15444	17352	19347	22150	22978	24481	25334	28325	31856	30031	34611	33586
Pressure drop system side	kPa	27	25	31	22	28	27	36	32	34	39	38	48	45	56	52

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

ENERGY INDICES (REG. 2016/2281 EU)

NRB °

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
SEER - 12/7 (EN14825:2018) with standard fans (1)																
SEER	W/W	-	-	-	-	4,23	4,13	4,29	- (2)	4,16	- (2)	4,18	4,16	- (2)	4,14	- (2)
Seasonal efficiency	%	-	-	-	-	166,2%	162,2%	168,4%	- (2)	163,4%	- (2)	164,1%	163,4%	- (2)	162,5%	- (2)
SEER - (EN14825:2018) 12/7 with inverter fans (1)																
SEER	W/W	-	-	-	-	4,34	4,23	4,39	4,12	4,26	4,11	4,28	4,26	4,13	4,24	4,12
Seasonal efficiency	%	-	-	-	-	170,6%	166,2%	172,6%	161,8%	167,3%	161,4%	168,2%	167,4%	162,2%	166,6%	161,8%
SEER - 23/18 (EN14825: 2018) with standard fans (3)																
SEER	W/W	-	-	-	-	5,17	4,95	5,16	4,77	4,95	4,80	5,01	4,99	4,86	4,82	4,90
Seasonal efficiency	%	-	-	-	-	203,9%	194,8%	203,3%	187,7%	195,1%	189,0%	197,3%	196,7%	191,5%	189,9%	193,0%
SEER - 23/18 (EN14825: 2018) with inverter fans																
SEER	W/W	-	-	-	-	5,31	5,07	5,29	4,89	5,04	4,93	5,13	5,12	5,01	4,99	4,95
Seasonal efficiency	%	-	-	-	-	209,3%	199,6%	208,4%	192,7%	198,5%	194,2%	202,2%	201,6%	197,5%	196,5%	194,8%
SEPR - (EN14825: 2018) High temperature with standard fans (3)																
SEPR	W/W	-	-	-	-	5,79	5,61	5,74	5,62	5,66	5,57	5,59	5,84	5,94	5,45	5,76
SEPR - (EN14825: 2018) High temperature with inverter fans (3)																
SEPR	W/W	-	-	-	-	5,79	5,61	5,74	5,62	5,66	5,57	5,59	5,84	5,94	5,45	5,76

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C
(3) Calculation performed with FIXED water flow rate.

NRB L

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
SEER - 12/7 (EN14825:2018) with standard fans (1)																
SEER	W/W	4,28	4,27	4,35	4,25	4,25	4,14	4,27	- (2)	4,11	- (2)	4,22	4,13	- (2)	4,11	- (2)
Seasonal efficiency	%	168,1%	167,8%	171,1%	167,0%	167,0%	162,5%	167,8%	- (2)	161,2%	- (2)	165,7%	162,1%	- (2)	161,3%	- (2)
SEER - (EN14825:2018) 12/7 with inverter fans (1)																
SEER	W/W	4,38	4,37	4,46	4,35	4,36	4,24	4,38	4,11	4,18	4,12	4,32	4,23	4,13	4,19	4,11
Seasonal efficiency	%	172,2%	171,8%	175,4%	171,0%	171,4%	166,6%	172,2%	161,4%	164,2%	161,8%	169,8%	166,2%	162,2%	164,6%	161,4%
SEER - 23/18 (EN14825: 2018) with standard fans (3)																
SEER	W/W	5,05	5,10	5,21	5,09	5,13	4,88	4,99	4,65	4,77	4,52	5,00	4,79	4,78	4,67	4,74
Seasonal efficiency	%	199,0%	201,1%	205,3%	200,7%	202,3%	192,3%	196,6%	183,1%	187,9%	177,6%	197,1%	188,7%	188,1%	183,8%	186,4%
SEER - 23/18 (EN14825: 2018) with inverter fans																
SEER	W/W	5,17	5,22	5,34	5,22	5,27	5,00	5,12	4,81	4,89	4,82	5,13	4,92	4,91	4,83	4,84
Seasonal efficiency	%	203,8%	205,9%	210,6%	205,6%	207,7%	197,1%	201,7%	189,4%	192,7%	189,7%	202,0%	193,6%	193,2%	190,0%	190,4%
SEPR - (EN14825: 2018) High temperature with standard fans (3)																
SEPR	W/W	6,15	6,00	5,97	6,07	5,79	5,65	5,61	5,31	5,55	5,28	5,58	5,60	5,77	5,37	5,53
SEPR - (EN14825: 2018) High temperature with inverter fans (3)																
SEPR	W/W	6,15	6,00	5,97	6,07	5,79	5,65	5,61	5,31	5,55	5,28	5,58	5,60	5,77	5,37	5,53

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C
(3) Calculation performed with FIXED water flow rate.

NRB A

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
SEER - 12/7 (EN14825:2018) with standard fans (1)																
SEER	W/W	-	-	-	-	4,37	4,37	4,48	- (2)	4,37	- (2)	4,38	4,29	- (2)	4,33	- (2)
Seasonal efficiency	%	-	-	-	-	171,9%	171,6%	176,1%	- (2)	171,7%	- (2)	172,2%	168,7%	- (2)	170,2%	- (2)
SEER - (EN14825:2018) 12/7 with inverter fans (1)																
SEER	W/W	-	-	-	-	4,48	4,48	4,59	4,48	4,49	4,40	4,44	4,20	4,13	4,34	4,16
Seasonal efficiency	%	-	-	-	-	176,2%	176,2%	180,6%	165,0%	176,2%	162,2%	176,6%	173,0%	170,6%	174,6%	163,4%
SEER - 23/18 (EN14825: 2018) with standard fans (3)																
SEER	W/W	-	-	-	-	5,42	5,28	5,40	4,91	5,22	4,94	5,29	5,10	4,95	5,11	4,99
Seasonal efficiency	%	-	-	-	-	213,6%	208,3%	213,1%	193,5%	205,8%	194,6%	208,7%	201,1%	194,9%	201,3%	196,7%
SEER - 23/18 (EN14825: 2018) with inverter fans																
SEER	W/W	-	-	-	-	5,55	5,42	5,54	5,06	5,36	5,11	5,43	5,23	5,30	5,24	5,03
Seasonal efficiency	%	-	-	-	-	219,0%	213,9%	218,6%	199,5%	211,3%	201,3%	214,1%	206,3%	208,8%	206,6%	198,2%
SEPR - (EN14825: 2018) High temperature with standard fans (3)																
SEPR	W/W	-	-	-	-	6,10	5,97	6,00	5,73	5,97	5,74	5,92	5,79	5,89	5,75	5,78
SEPR - (EN14825: 2018) High temperature with inverter fans (3)																
SEPR	W/W	-	-	-	-	6,10	5,97	6,00	5,73	5,97	5,74	5,92	5,79	5,89	5,75	5,78

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C
(3) Calculation performed with FIXED water flow rate.

NRB E

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
SEER - 12/7 (EN14825:2018) with standard fans (1)																
SEER	W/W	4,48	4,58	4,49	4,42	4,37	4,35	4,42	- (2)	4,24	- (2)	4,40	4,21	- (2)	4,23	- (2)
Seasonal efficiency	%	176,2%	180,2%	176,4%	173,6%	171,7%	171,0%	173,8%	- (2)	166,5%	- (2)	172,8%	165,5%	- (2)	166,0%	- (2)
SEER - (EN14825:2018) 12/7 with inverter fans (1)																
SEER	W/W	4,59	4,69	4,60	4,52	4,48	4,46	4,53	4,16	4,34	4,18	4,51	4,32	4,13	4,33	4,11
Seasonal efficiency	%	180,6%	184,6%	181,0%	177,8%	176,2%	175,4%	178,2%	163,4%	170,6%	164,2%	177,4%	169,8%	162,2%	170,2%	161,4%
SEER - 23/18 (EN14825: 2018) with standard fans (3)																
SEER	W/W	5,36	5,48	5,40	5,44	5,33	5,27	5,24	4,68	4,97	4,93	5,23	4,93	4,81	4,90	4,74
Seasonal efficiency	%	211,4%	216,3%	213,1%	214,7%	210,2%	207,9%	206,5%	184,0%	195,9%	194,0%	206,1%	194,2%	189,2%	193,0%	186,5%
SEER - 23/18 (EN14825: 2018) with inverter fans																
SEER	W/W	5,50	5,62	5,55	5,58	5,47	5,41	5,37	4,88	5,10	5,05	5,37	5,06	4,93	5,02	4,88
Seasonal efficiency	%	216,8%	221,6%	218,8%	220,0%	215,7%	213,3%	211,8%	192,0%	200,8%	199,1%	211,6%	199,3%	194,0%	197,9%	192,2%
SEPR - (EN14825: 2018) High temperature with standard fans (3)																
SEPR	W/W	6,46	6,42	6,13	6,36	5,98	5,95	5,79	5,41	5,72	5,68	5,83	5,67	5,69	5,51	5,47
SEPR - (EN14825: 2018) High temperature with inverter fans (3)																
SEPR	W/W	6,46	6,42	6,13	6,36	5,98	5,95	5,79	5,41	5,72	5,68	5,83	5,67	5,69	5,51	5,47

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C
(3) Calculation performed with FIXED water flow rate.

NRB U

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
SEER - 12/7 (EN14825:2018) with standard fans (1)																
SEER	W/W	-	-	-	4,62	4,59	4,71	4,54	4,22	4,54	4,20	4,64	4,42	4,11	4,41	4,18
Seasonal efficiency	%	-	-	-	181,7%	180,6%	185,2%	178,5%	165,6%	178,7%	165,1%	182,5%	173,8%	161,4%	173,3%	164,3%
SEER - (EN14825:2018) 12/7 with inverter fans (1)																
SEER	W/W	-	-	-	4,74	4,71	4,82	4,65	4,33	4,66	4,31	4,76	4,53	4,22	4,52	4,29
Seasonal efficiency	%	-	-	-	186,6%	185,4%	189,8%	183,0%	170,2%	183,4%	169,4%	187,4%	178,2%	165,8%	177,8%	168,6%
SEER - 23/18 (EN14825: 2018) with standard fans (2)																
SEER	W/W	-	-	-	5,77	5,71	5,71	5,58	5,18	5,53	5,17	5,64	5,32	5,08	5,27	5,07
Seasonal efficiency	%	-	-	-	227,6%	225,5%	225,4%	220,3%	204,0%	218,3%	203,6%	222,7%	209,6%	200,0%	207,9%	199,9%
SEER - 23/18 (EN14825: 2018) with inverter fans																
SEER	W/W	-	-	-	5,92	5,86	5,85	5,72	5,32	5,68	5,30	5,79	5,45	5,22	5,41	5,21
Seasonal efficiency	%	-	-	-	233,8%	231,4%	231,1%	225,8%	209,6%	224,0%	209,0%	228,7%	214,9%	205,7%	213,4%	205,4%
SEPR - (EN14825: 2018) High temperature with standard fans (2)																
SEPR	W/W	-	-	-	6,43	6,30	6,31	6,01	6,15	6,09	5,88	6,19	5,88	6,05	5,85	6,07
SEPR - (EN14825: 2018) High temperature with inverter fans (2)																
SEPR	W/W	-	-	-	6,43	6,30	6,31	6,01	6,15	6,09	5,88	6,19	5,88	6,05	5,85	6,07

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Calculation performed with FIXED water flow rate.

NRB N

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
SEER - 12/7 (EN14825:2018) with standard fans (1)																
SEER	W/W	4,68	4,72	4,62	4,69	4,56	4,65	4,72	4,42	4,61	4,28	4,65	4,49	4,24	4,45	4,20
Seasonal efficiency	%	184,0%	185,7%	181,7%	184,7%	179,5%	182,9%	185,9%	173,7%	181,2%	168,2%	182,9%	176,4%	166,7%	174,9%	165,1%
SEER - (EN14825:2018) 12/7 with inverter fans (1)																
SEER	W/W	4,79	4,84	4,73	4,81	4,68	4,76	4,84	4,53	4,72	4,39	4,77	4,60	4,35	4,56	4,31
Seasonal efficiency	%	188,6%	190,6%	186,2%	189,4%	184,2%	187,4%	190,6%	178,2%	185,8%	172,6%	187,8%	181,0%	171,0%	179,4%	169,4%
SEER - 23/18 (EN14825: 2018) with standard fans (2)																
SEER	W/W	5,61	5,67	5,59	5,76	5,58	5,54	5,74	5,35	5,53	5,15	5,56	5,32	5,13	5,24	5,07
Seasonal efficiency	%	221,4%	223,8%	220,6%	227,5%	220,0%	218,7%	226,6%	210,9%	218,2%	203,0%	219,5%	209,7%	202,2%	206,7%	199,9%
SEER - 23/18 (EN14825: 2018) with inverter fans																
SEER	W/W	5,75	5,82	5,73	5,91	5,72	5,68	5,88	5,49	5,67	5,29	5,71	5,46	5,27	5,38	5,21
Seasonal efficiency	%	227,0%	229,8%	226,3%	233,3%	225,8%	224,1%	232,3%	216,4%	223,7%	208,5%	225,3%	215,3%	207,6%	212,1%	205,2%
SEPR - (EN14825: 2018) High temperature with standard fans (2)																
SEPR	W/W	6,71	6,53	6,23	6,54	6,22	6,21	6,16	6,12	6,14	5,93	6,09	5,97	6,08	5,83	5,90
SEPR - (EN14825: 2018) High temperature with inverter fans (2)																
SEPR	W/W	6,71	6,53	6,23	6,54	6,22	6,21	6,16	6,12	6,14	5,93	6,09	5,97	6,08	5,83	5,90

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

Size			0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Electric data																	
Maximum current (FLA)	°	A	-	-	-	-	72,2	77,1	86,0	98,2	94,9	111,3	112,7	127,3	131,4	144,0	141,2
	A	A	-	-	-	-	72,2	77,1	86,0	98,2	94,9	114,5	112,7	127,3	131,4	144,0	141,2
	E	A	42,6	49,2	56,9	65,3	72,2	77,1	86,0	98,2	94,9	114,5	112,7	127,3	131,4	144,0	141,2
	L	A	41,5	49,2	55,8	65,3	72,2	77,1	86,0	98,2	94,9	111,3	112,7	127,3	131,4	144,0	141,2
	N	A	42,6	50,3	56,9	67,3	72,2	77,1	89,2	101,3	98,1	114,5	112,7	130,5	134,6	147,2	144,4
	U	A	-	-	-	67,3	72,2	77,1	89,2	101,3	98,1	114,5	112,7	130,5	134,6	147,2	144,4
Peak current (LRA)	°	A	-	-	-	-	277,6	282,5	329,2	211,9	338,1	225,1	363,8	378,4	274,9	476,4	346,6
	A	A	-	-	-	-	277,6	282,5	329,2	211,9	338,1	228,3	363,8	378,4	274,9	476,4	346,6
	E	A	148,0	163,0	170,6	208,9	277,6	282,5	329,2	211,9	338,1	228,3	363,8	378,4	274,9	476,4	346,6
	L	A	146,9	163,0	169,5	208,9	277,6	282,5	329,2	211,9	338,1	225,1	363,8	378,4	274,9	476,4	346,6
	N	A	148,0	164,1	170,6	210,8	277,6	282,5	332,4	215,1	341,3	228,3	363,8	381,6	278,1	479,6	349,8
	U	A	-	-	-	210,8	277,6	282,5	332,4	215,1	341,3	228,3	363,8	381,6	278,1	479,6	349,8

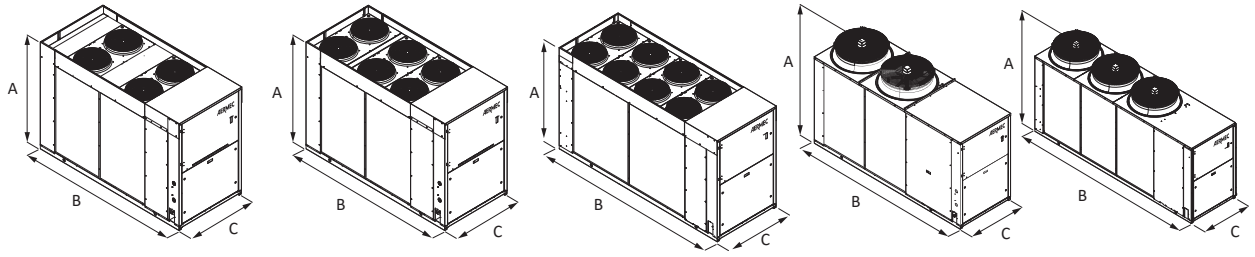
GENERAL TECHNICAL DATA

Size			0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Compressor																	
Type	°,A,E,L,N,U	type								Scroll							
Number	°,A	no.	-	-	-	-	2	2	2	4	2	4	2	2	4	2	4
	E,L,N	no.	2	2	2	2	2	2	2	4	2	4	2	2	4	2	4
	U	no.	-	-	-	2	2	2	2	4	2	4	2	2	4	2	4
Circuits	°,A	no.	-	-	-	-	1	1	1	2	1	2	1	1	2	1	2
	E,L,N	no.	1	1	1	1	1	1	1	2	1	2	1	1	2	1	2
	U	no.	-	-	-	1	1	1	1	2	1	2	1	1	2	1	2
Refrigerant	°,A,E,L,N,U	type								R410A							
System side heat exchanger																	
Type	°,A,E,L,N,U	type								Brazed plate							
Number	°,A	no.	-	-	-	-	1	1	1	1	1	1	1	1	1	1	1
	E,L,N	no.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	U	no.	-	-	-	1	1	1	1	1	1	1	1	1	1	1	1
Hydraulic connections																	
Sizes (in/out)	°,A	Ø	-	-	-	-	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2
	E,L,N	Ø								2" 1/2							
	U	Ø	-	-	-	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2
Fan																	
Type	°,A,E,L,N,U	type								Axial							
Number	°	no.	-	-	-	-	2	2	2	2	3	3	3	2	2	3	3
	A	no.	-	-	-	-	2	2	2	2	3	3	3	2	3	3	3
	E	no.	6	6	8	8	2	2	2	2	3	3	3	2	3	3	3
	L	no.	4	6	6	8	2	2	2	2	3	3	3	2	2	3	3
	N	no.	6	8	8	2	2	2	3	3	3	4	4	3	3	4	4
	U	no.	-	-	-	2	2	2	3	3	3	4	4	3	3	4	4
Air flow rate	°	m^3/h	-	-	-	-	36600	36600	35100	35100	55200	53100	53100	35100	33700	53100	53100
	A	m^3/h	-	-	-	-	35100	35100	33800	33700	53100	51100	51100	33800	53100	51100	51100
	E	m^3/h	20700	22200	27500	24800	26800	26800	25600	25600	40500	38800	38800	25600	40500	38800	38800
	L	m^3/h	15200	20700	22200	27500	30900	30900	29500	29500	46500	44600	44600	29500	28300	44600	44600
	N	m^3/h	22200	27500	24800	26800	25600	25600	40500	40500	38800	54600	54600	40500	38800	54600	54600
	U	m^3/h	-	-	-	35100	33700	33700	53100	53100	51100	71200	71200	53100	51100	71200	71200
Sound data calculated in cooling mode (1)																	
Sound power level	°	dB(A)	-	-	-	-	84,5	85,0	85,3	84,2	85,5	84,3	86,9	87,0	85,9	87,8	87,5
	A	dB(A)	-	-	-		84,5	85,0	85,3	84,2	85,5	85,9	86,9	87,0	85,9	87,8	87,5
	E	dB(A)	72,4	72,9	73,7	73,9	80,7	81,5	82,1	76,1	82,5	77,2	83,6	83,8	77,4	85,0	83,0
	L	dB(A)	71,8	72,9	73,3	73,9	80,7	81,5	82,1	76,1	82,5	76,5	83,6	83,8	77,4	85,0	83,5
	N	dB(A)	72,4	73,3	73,7	79,7	80,7	81,5	83,0	76,9	83,4	77,2	83,6	84,5	77,9	85,5	83,3
	U	dB(A)	-	-	-	84,0	84,5	85,0	86,6	85,8	86,8	85,9	86,9	87,9	87,0	88,5	88,5

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

G.s. = Grooved joints

DIMENSIONS



Size			0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Dimensions and weights																	
A	°,A	mm	-	-	-	-	1898	1898	1898	1898	1898	1898	1898	1898	1898	1898	1898
	E,L	mm	1680	1680	1680	1680	1898	1898	1898	1898	1898	1898	1898	1898	1898	1898	1898
	N	mm	1680	1680	1680	1898	1898	1898	1898	1898	1898	1898	1898	1898	1898	1898	1898
	U	mm	-	-	-	1898	1898	1898	1898	1898	1898	1898	1898	1898	1898	1898	1898
B	°	mm	-	-	-	-	3200	3200	3200	3200	3200	3200	4010	4010	4010	4010	4010
	A	mm	-	-	-	-	3200	3200	3200	3200	3200	4010	4010	4010	4010	4010	4010
	E	mm	2450	2950	2950	2950	3200	3200	3200	3200	3200	4010	4010	4010	4010	4010	4010
	L	mm	2450	2450	2950	2950	3200	3200	3200	3200	3200	3200	4010	4010	4010	4010	4010
	N	mm	2950	2950	2950	3200	3200	3200	4010	4010	4010	4010	4010	5200	5200	5200	5200
	U	mm	-	-	-	3200	3200	3200	4010	4010	4010	4010	4010	5200	5200	5200	5200
C	°,A	mm	-	-	-	-	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
	E,L,N	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
	U	mm	-	-	-	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
Weights																	
Without hydronic kit	°	kg	-	-	-	-	993	1018	1075	1160	1075	1210	1267	1427	1331	1440	1392
	A	kg	-	-	-	-	1046	1072	1116	1200	1116	1325	1347	1507	1410	1531	1471
	E	kg	828	889	912	962	1046	1072	1116	1116	1347	1507	1531	1200	1325	1410	1471
	L	kg	810	828	894	907	993	1018	1075	1160	1075	1210	1267	1427	1331	1440	1392
	N	kg	884	907	957	1020	1076	1109	1232	1243	1426	1647	1660	1327	1415	1549	1607
	U	kg	-	-	-	1020	1076	1109	1232	1243	1426	1647	1660	1327	1415	1549	1607

Aermec reserves the right to make any modifications deemed necessary.
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NRB 0282H-0754H

Reversible air/water heat pump

Cooling capacity 52 ÷ 261 kW
Heating capacity 57 ÷ 193 kW

- **High efficiency also at partial loads**
- **Components redundancy for greater safety**
- **Reduced amount of refrigerant**
- **Compact dimensions**



DESCRIPTION

Reversible outdoor heat pumps for the production of chilled/heated water designed to satisfy the needs of residential and commercial buildings, or for industrial applications.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

° Standard
A High efficiency
E Silenced high efficiency
L Standard silenced

FEATURES

Operating field

Working at full load up to -15°C outside air temperature in winter, and up to 48°C in summer. Hot water production up to 55°C (for more information see the technical documentation).

Units mono or dual-circuit

The units are mono or dual-circuit, to ensure maximum efficiency both at full load and at partial load.

New condensing Coils

The whole range uses copper - aluminium condensation coils with reduced diameter rows, allowing a lower quantity of gas to be used compared to traditional coils.

Electronic expansion valve

The possibility to use electronic expansion valve, available to configurator, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

Option integrated hydronic kit

An optional, integrated hydronic kit containing the main hydraulic components, to obtain a solution that allows you to save money and to facilitate installation.
It is available in different configurations with storage tank or with fixed or variable pumps also inverter.

VARIABLE FLOW RATE: Correctly adjust the speed of the inverter-controlled pumps according to the load demand of the system, in order to reduce power consumption.

CONTROL

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.
— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
— The temperature control takes place with the integral proportional logic, based on the water output temperature.
— **Floating HP control:** the function can be activated with inverter fans or with DCPX which allows unit operation to be optimised at any operating point through continuous modulation of the fan speed. In addition, the use of inverter fans ensures an increase in energy efficiency at partial loads.
— **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load. **Night Mode for standard versions is mandatory DCPX accessory (standard on all low noise versions) or "J" inverter fan**

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.

PGD1: Allows you to control the unit at a distance.
DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.
GP: Anti-intrusion grid.
VT: Anti-vibration supports.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.
RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
C-TOUCH: 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time.
AERCALM: The aim of the accessory installed in the electric box of the unit is to provide a clean contact for commanding - on the basis of the outside air temperature - a boiler to supplement or replace the heat pump. Aercalm must be requested at the time of ordering, as it is installed in the factory.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

Model	Ver	0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
AER485P1	°,A					•	•	•	•	•	•	•	•	•	•	•
	E,L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERBACP	°,A					•	•	•	•	•	•	•	•	•	•	•
	E,L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERNET	°,A					•	•	•	•	•	•	•	•	•	•	•
	E,L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	°,A					•	•	•	•	•	•	•	•	•	•	•
	E,L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PGD1	°,A					•	•	•	•	•	•	•	•	•	•	•
	E,L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Condensation control temperature

Ver	0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Fans: °															
°	-	-	-	-	DCPX142	DCPX142	DCPX142	DCPX142	DCPX142	DCPX142	DCPX143	DCPX143	DCPX143	DCPX143	DCPX143
A	-	-	-	-	DCPX142	DCPX142	DCPX142	DCPX142	DCPX142	DCPX143	DCPX143	DCPX143	DCPX143	DCPX143	DCPX143
E,L	DCPX140	DCPX140	DCPX140	DCPX140	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard
Fans: M															
E,L	DCPX141	DCPX141	DCPX141	DCPX141	-	-	-	-	-	-	-	-	-	-	-

Antivibration

Ver	0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Integrated hydronic kit: 00, I1, I2, I3, I4, P1, P2, P3, P4															
°	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22
A	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22
E	VT17	VT17	VT17	VT17	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22
L	VT17	VT17	VT17	VT17	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22
Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08, K1, K2, K3, K4, W1, W2, W3, W4															
°	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22
A	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22
E	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22
L	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22

Anti-intrusion grid

Ver	0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
°	-	-	-	-	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)
A	-	-	-	-	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)
E	GP3	GP4	GP4	GP4	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)
L	GP3	GP3	GP4	GP4	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)

(1) x _ indicates the quantity to buy
The accessory cannot be fitted on the configurations indicated with -

Device for peak current reduction

Ver	0282	0302	0332	0352	0502	0552	0602	0604
°,A	-	-	-	-	DRENRB502 (1)	DRENRB552 (1)	DRENRB602 (1)	DRENRB604 (1)
E,L	DRENRB282 (1)	DRENRB302 (1)	DRENRB332 (1)	DRENRB352 (1)	DRENRB502 (1)	DRENRB552 (1)	DRENRB602 (1)	DRENRB604 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

Ver	0652	0654	0682	0702	0704	0752	0754
°,A,E,L	DRENRB652 (1)	DRENRB654 (1)	DRENRB682 (1)	DRENRB702 (1)	DRENRB704 (1)	DRENRB752 (1)	DRENRB754 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
A grey background indicates the accessory must be assembled in the factory

Power factor correction

Ver	0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
°,A	-	-	-	-	RIF0502	RIF0552	RIF0602	RIF0604	RIF0652	RIF0654	RIF0682	RIF0702	RIF0704	RIF0752	RIF0754
E,L	RIF0282	RIF0302	RIF0332	RIF0352	RIF0502	RIF0552	RIF0602	RIF0604	RIF0652	RIF0654	RIF0682	RIF0702	RIF0704	RIF0752	RIF0754

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

Touch screen keyboard

Ver	0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
°,A,E,L	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH	C-TOUCH

A grey background indicates the accessory must be assembled in the factory

Clean contact for controlling a boiler.

Model	Ver	0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
AERCALM	°,A,E,L								•		•			•		•

CONFIGURATOR

Field		Description
1,2,3		**NRB**
4,5,6,7		**Size** 0282, 0302, 0332, 0352, 0502, 0552, 0602, 0604, 0652, 0654, 0682, 0702, 0704, 0752, 0754
8		**Operating field**
	°	Standard mechanic thermostatic valve (1)
	X	Electronic thermostatic expansion valve (1)
	Y	Double mechanical thermostat for low temperature (2)
	Z	Low temperature electronic thermostatic valve (3)
9		**Model**
	H	Heat pump
10		**Heat recovery**
	°	Without heat recovery
	D	With desuperheater (4)
11		**Version**
	°	Standard
	A	High efficiency
	E	Silenced high efficiency (5)
	L	Standard silenced (5)
12		**Coils**
	°	Copper-aluminium
	R	Copper pipes-copper fins
	S	Copper pipes-Tinned copper fins
	V	Copper pieps-Coated aluminium fins
13		**Fans**
	°	Standard
	J	Inverter
	M	Oversized (6)
14		**Power supply**
	°	400V ~ 3 50Hz with magnet circuit breakers
	1	220V~ 3 50Hz with magnet circuit breakers (7)
15,16		**Integrated hydronic kit**
		Without hydronic kit
	00	Without hydronic kit
		Kit with storage tank and pump/s
	01	Storage tank with low head pump
	02	Storage tank with low head pump + stand-by pump
	03	Storage tank with high head pump
	04	Storage tank with high head pump + stand-by pump
		Kit with pump/s and storage tank with holes for heaters
	05	Storage tank with holes for heaters and single low head pump (8)
	06	Storage tank with holes for heaters and pump low head + stand-by pump (8)
	07	Storage tank with holes for heaters and single high head pump (8)
	08	Storage tank with holes for heaters and pump high head + stand-by pump (8)
		Double loop
	09	Double loop
		Kit with pump/s
	P1	Single pump low head
	P2	Pump low head + stand-by pump
	P3	Single pump high head
	P4	Pump high head + stand-by pump
		Kit with inverter pump/s to fixed speed
	I1	Single low head pump + fixed speed inverter
	I2	Single low head pump with fixed speed inverter + stand-by pump
	I3	Single high head pump + fixed speed inverter
	I4	Single high head pump with fixed speed inverter + stand-by pump
		Kit with storage tank and inverter pump/s to fixed speed
	K1	Single low head pump + storage tank + fixed speed inverter
	K2	Storage tank and low head pump with fixed speed inverter + stand-by pump
	K3	Single high head pump + storage tank + fixed speed inverter
	K4	Storage tank and low head pump with fixed speed inverter + stand-by pump
		Kit with storage tank and variable speed inverter pump/s
	W1	Single low head pump + Storage tank + variable speed inverter
	W2	Double low head pump + Storage tank + variable speed inverter
	W3	Single high head pump + Storage tank + variable speed inverter
	W4	Double high head pump + Storage tank + variable speed inverter

(1) Water produced from 4 °C ÷ 18 °C
(2) Water produced from -10 °C ÷ 18 °C
(3) Water produced from 4 °C ÷ 18 °C for ° version; -10 °C for the others versions
(4) The desuperheater must be intercepted in heating mode. In cooling mode, a water temperature no lower than 35°C must always be guaranteed on the heat exchanger inlet.
(5) The size 0282-0302-0332-0352 are only available in the silenced versions "HL/HE"
(6) Only for 0282 ÷ 0352 sizes
(7) Only for sizes up 0282 from 0352 and from 0604 to 0704
(8) Storage tanks with holes for supplementary heaters (not provided) are sent from the factory with plastic protection caps. Before loading the system, if the installation of one or all resistances is not expected, all plastic caps must be replaced with the special caps, commonly commercially available.

PERFORMANCE SPECIFICATIONS 12 °C/ 7 °C - 40 °C/ 45 °C

NRB H°

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Cooling performance 12 °C / 7 °C (1)																
Cooling capacity	kW	-	-	-	-	91,2	99,7	116,0	115,4	124,7	133,4	151,0	169,9	159,9	187,2	180,8
Input power	kW	-	-	-	-	33,5	37,5	42,6	46,2	47,8	51,2	51,7	60,0	58,0	69,8	65,7
Cooling total input current	A	-	-	-	-	61,0	67,0	74,0	83,0	83,0	92,0	90,0	102,0	105,0	116,0	116,0
EER	W/W	-	-	-	-	2,72	2,66	2,72	2,50	2,61	2,60	2,92	2,83	2,76	2,68	2,75
Water flow rate system side	l/h	-	-	-	-	15705	17177	19972	19876	21484	22988	25997	29247	27534	32236	31116
Pressure drop system side	kPa	-	-	-	-	35	42	37	44	43	44	50	61	65	74	59
Heating performance 40 °C / 45 °C (2)																
Heating capacity	kW	-	-	-	-	96,8	105,8	123,7	129,0	136,1	143,4	158,7	178,4	171,8	198,7	188,6
Input power	kW	-	-	-	-	31,0	33,8	38,7	42,7	43,3	47,7	51,2	58,2	57,3	66,0	61,8
Heating total input current	A	-	-	-	-	56,0	60,0	68,0	77,0	76,0	87,0	89,0	99,0	104,0	110,0	111,0
COP	W/W	-	-	-	-	3,12	3,13	3,20	3,03	3,15	3,01	3,10	3,07	3,00	3,01	3,05
Water flow rate system side	l/h	-	-	-	-	16773	18334	21443	22371	23594	24863	27527	30948	29797	34460	32710
Pressure drop system side	kPa	-	-	-	-	40	48	43	56	52	52	56	69	76	84	65

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRB HL

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Cooling performance 12 °C / 7 °C (1)																
Cooling capacity	kW	52,1	59,2	67,3	78,1	88,5	96,5	111,5	110,4	119,3	126,4	147,0	164,5	154,9	180,5	174,0
Input power	kW	19,5	22,0	24,8	29,5	34,1	38,3	44,1	48,4	49,9	54,2	52,3	61,5	59,2	72,5	67,8
Cooling total input current	A	35,0	41,0	47,0	55,0	59,0	66,0	74,0	84,0	84,0	94,0	87,0	100,0	103,0	116,0	116,0
EER	W/W	2,67	2,69	2,71	2,65	2,60	2,52	2,53	2,28	2,39	2,33	2,81	2,68	2,62	2,49	2,57
Water flow rate system side	l/h	8974	10197	11584	13455	15234	16630	19200	19020	20540	21776	25312	28324	26677	31068	29958
Pressure drop system side	kPa	33	42	33	45	33	39	34	40	39	40	48	58	60	69	55
Heating performance 40 °C / 45 °C (2)																
Heating capacity	kW	57,5	65,7	75,3	84,9	96,8	105,8	123,7	129,0	136,1	143,4	158,7	178,4	171,8	198,7	188,6
Input power	kW	17,6	20,7	23,1	26,9	31,0	33,8	38,7	42,6	43,3	47,7	51,2	58,2	57,3	66,0	61,8
Heating total input current	A	32,0	38,0	43,0	51,0	56,0	60,0	68,0	77,0	76,0	87,0	89,0	99,0	104,0	110,0	111,0
COP	W/W	3,27	3,17	3,26	3,16	3,12	3,13	3,20	3,03	3,15	3,01	3,10	3,07	3,00	3,01	3,05
Water flow rate system side	l/h	9973	11376	13056	14711	16773	18334	21443	22371	23594	24863	27527	30948	29797	34460	32710
Pressure drop system side	kPa	41	53	42	54	40	47	43	55	52	52	56	69	75	84	65

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRB HA

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Cooling performance 12 °C / 7 °C (1)																
Cooling capacity	kW	-	-	-	-	96,9	106,5	123,6	123,1	133,6	142,1	163,9	178,5	168,0	199,9	190,0
Input power	kW	-	-	-	-	32,3	36,1	39,5	43,3	45,0	47,2	50,7	57,0	55,4	66,5	62,8
Cooling total input current	A	-	-	-	-	57,0	61,0	68,0	73,0	74,0	79,0	85,0	94,0	99,0	102,0	106,0
EER	W/W	-	-	-	-	3,00	2,95	3,13	2,84	2,97	3,01	3,23	3,13	3,03	3,01	3,03
Water flow rate system side	l/h	-	-	-	-	16684	18331	21277	21205	23007	24462	28216	30726	28924	34406	32698
Pressure drop system side	kPa	-	-	-	-	26	31	32	38	38	50	44	52	50	56	54
Heating performance 40 °C / 45 °C (2)																
Heating capacity	kW	-	-	-	-	100,3	110,9	124,3	129,7	138,2	149,4	164,1	179,7	172,3	200,6	190,0
Input power	kW	-	-	-	-	30,7	33,5	37,6	40,5	42,0	46,7	50,2	56,3	54,3	62,9	59,5
Heating total input current	A	-	-	-	-	56,0	60,0	67,0	73,0	74,0	86,0	87,0	96,0	99,0	106,0	107,0
COP	W/W	-	-	-	-	3,27	3,31	3,31	3,20	3,29	3,20	3,27	3,19	3,17	3,19	3,19
Water flow rate system side	l/h	-	-	-	-	17406	19230	21553	22489	23953	25914	28469	31171	29889	34800	32956
Pressure drop system side	kPa	-	-	-	-	28	34	33	42	41	56	45	54	54	57	55

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRB HE

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Cooling performance 12 °C / 7 °C (1)																
Cooling capacity	kW	55,4	62,1	70,0	81,2	94,0	103,0	119,1	117,6	128,0	138,3	159,4	172,5	162,3	191,7	182,6
Input power	kW	18,5	21,0	23,7	28,3	32,8	36,9	40,7	44,7	46,9	47,7	51,4	58,5	56,7	69,3	64,9
Cooling total input current	A	32,0	37,0	42,0	47,0	56,0	61,0	68,0	74,0	75,0	76,0	83,0	93,0	98,0	102,0	106,0
EER	W/W	3,00	2,96	2,95	2,86	2,86	2,79	2,92	2,63	2,73	2,90	3,10	2,95	2,87	2,77	2,81
Water flow rate system side	l/h	9530	10696	12052	13983	16181	17722	20498	20255	22037	23819	27431	29692	27947	33000	31425
Pressure drop system side	kPa	23	29	26	35	24	29	30	34	34	48	41	49	47	51	50
Heating performance 40 °C / 45 °C (2)																
Heating capacity	kW	59,0	68,2	76,6	87,1	100,3	110,9	124,3	129,7	138,2	149,4	164,1	179,7	172,3	200,6	190,0
Input power	kW	17,5	20,3	22,9	26,4	30,7	33,5	37,6	40,5	42,0	46,7	50,2	56,3	54,3	62,9	59,5
Heating total input current	A	33,0	38,0	44,0	50,0	56,0	60,0	67,0	73,0	74,0	86,0	87,0	96,0	99,0	106,0	107,0
COP	W/W	3,37	3,36	3,35	3,30	3,27	3,31	3,31	3,20	3,29	3,20	3,27	3,19	3,17	3,19	3,19
Water flow rate system side	l/h	10227	11816	13289	15100	17406	19230	21553	22489	23953	25914	28469	31171	29889	34800	32956
Pressure drop system side	kPa	26	35	31	41	28	34	33	42	41	56	45	54	54	57	55

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

PERFORMANCE SPECIFICATIONS 23 °C/ 18 °C - 30 °C/ 35 °C

NRB H°

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Cooling performance 23 °C / 18 °C (1)																
Cooling capacity	kW	-	-	-	-	122,6	133,3	155,1	154,9	165,6	183,4	203,5	227,9	218,9	248,3	247,3
Input power	kW	-	-	-	-	36,3	41,0	46,5	50,2	52,2	55,9	55,8	65,6	62,6	77,0	72,2
Cooling total input current	A	-	-	-	-	65,0	72,0	80,0	89,0	90,0	99,0	96,0	110,0	112,0	126,0	126,0
EER	W/W	-	-	-	-	3,38	3,25	3,33	3,08	3,17	3,28	3,65	3,48	3,50	3,23	3,42
Water flow rate system side	l/h	-	-	-	-	21190	23054	26805	26775	28622	31700	35175	39395	37837	42931	42743
Pressure drop system side	kPa	-	-	-	-	63	75	67	81	76	84	92	111	123	131	112
Heating performance 30 °C / 35 °C (2)																
Heating capacity	kW	-	-	-	-	98,8	107,2	127,4	132,8	139,6	146,7	163,5	182,9	176,8	201,7	192,4
Input power	kW	-	-	-	-	25,4	27,7	31,8	34,3	35,5	38,4	42,0	47,3	46,5	53,2	50,4
Heating total input current	A	-	-	-	-	46,0	49,0	56,0	61,0	62,0	70,0	72,0	80,0	84,0	88,0	90,0
COP	W/W	-	-	-	-	3,89	3,87	4,01	3,87	3,93	3,82	3,90	3,87	3,80	3,79	3,82
Water flow rate system side	l/h	-	-	-	-	17058	18508	21998	22936	24118	25357	28248	31616	30551	34851	33261
Pressure drop system side	kPa	-	-	-	-	41	49	45	59	54	54	59	72	80	86	68

(1) Data EN 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2018; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

NRB HL

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Cooling performance 23 °C / 18 °C (1)																
Cooling capacity	kW	69,6	79,3	92,2	105,6	118,1	128,2	147,6	146,8	156,6	170,9	196,8	218,8	210,1	237,3	235,3
Input power	kW	21,9	24,2	27,3	32,5	37,3	42,4	48,9	53,8	55,5	60,7	57,2	68,1	64,8	81,0	75,7
Cooling total input current	A	39,0	44,0	51,0	60,0	64,0	72,0	81,0	92,0	93,0	104,0	94,0	110,0	111,0	128,0	128,0
EER	W/W	3,18	3,27	3,37	3,25	3,17	3,02	3,02	2,73	2,82	2,82	3,44	3,22	3,24	2,93	3,11
Water flow rate system side	l/h	12041	13740	15960	18270	20427	22163	25508	25376	27064	29542	34006	37824	36327	41017	40668
Pressure drop system side	kPa	59	77	63	83	59	69	61	70	68	73	86	103	112	120	101
Heating performance 30 °C / 35 °C (2)																
Heating capacity	kW	58,9	66,7	77,1	86,8	98,8	107,2	127,4	132,8	139,6	146,7	163,5	182,9	176,8	201,7	192,4
Input power	kW	13,9	16,5	18,4	21,5	25,4	27,7	31,8	34,3	35,5	38,4	42,0	47,3	46,5	53,2	50,4
Heating total input current	A	25,0	30,0	34,0	40,0	46,0	49,0	56,0	61,0	62,0	70,0	72,0	80,0	84,0	88,0	90,0
COP	W/W	4,25	4,06	4,19	4,03	3,89	3,87	4,01	3,87	3,93	3,82	3,90	3,87	3,80	3,79	3,82
Water flow rate system side	l/h	10168	11516	13317	14972	17058	18508	21998	22936	24118	25357	28248	31616	30551	34851	33261
Pressure drop system side	kPa	42	54	44	56	41	48	45	57	54	54	59	72	79	86	68

(1) Data EN 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2018; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

NRB HA

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Cooling performance 23 °C / 18 °C (1)																
Cooling capacity	kW	-	-	-	-	131,3	143,6	166,5	170,4	178,7	198,2	222,3	241,2	231,6	268,1	261,3
Input power	kW	-	-	-	-	34,9	39,4	42,9	47,2	49,0	50,3	54,8	62,4	59,6	73,6	68,8
Cooling total input current	A	-	-	-	-	61,0	66,0	74,0	79,0	80,0	82,0	91,0	101,0	105,0	112,0	115,0
EER	W/W	-	-	-	-	3,77	3,65	3,88	3,61	3,65	3,94	4,06	3,86	3,88	3,65	3,80
Water flow rate system side	l/h	-	-	-	-	22699	24821	28771	29452	30874	34255	38412	41683	40019	46336	45163
Pressure drop system side	kPa	-	-	-	-	48	57	59	73	68	98	81	97	96	102	103
Heating performance 30 °C / 35 °C (2)																
Heating capacity	kW	-	-	-	-	104,2	114,6	128,1	133,6	141,8	154,4	169,0	184,0	177,3	203,5	193,6
Input power	kW	-	-	-	-	25,2	27,6	30,9	32,6	34,4	38,0	41,2	45,8	44,1	50,7	48,5
Heating total input current	A	-	-	-	-	46,0	49,0	54,0	59,0	60,0	69,0	71,0	78,0	80,0	85,0	87,0
COP	W/W	-	-	-	-	4,14	4,16	4,15	4,10	4,12	4,07	4,10	4,02	4,02	4,01	3,99
Water flow rate system side	l/h	-	-	-	-	18004	19795	22128	23077	24492	26674	29206	31801	30649	35173	33469
Pressure drop system side	kPa	-	-	-	-	30	36	35	45	43	60	47	56	56	58	57

(1) Data EN 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2018; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

NRB HE

Size		0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Cooling performance 23 °C / 18 °C (1)																
Cooling capacity	kW	76,4	85,7	96,8	111,4	126,2	137,5	158,5	160,4	168,9	191,5	214,3	230,5	221,2	253,2	247,4
Input power	kW	20,4	23,1	25,7	31,2	35,9	41,0	45,2	49,8	52,2	51,4	56,4	65,1	62,1	78,2	72,6
Cooling total input current	A	35,0	40,0	45,0	51,0	61,0	67,0	75,0	81,0	82,0	81,0	90,0	102,0	106,0	114,0	117,0
EER	W/W	3,74	3,72	3,77	3,57	3,51	3,36	3,51	3,22	3,24	3,72	3,80	3,54	3,56	3,24	3,41
Water flow rate system side	l/h	13219	14836	16740	19268	21829	23767	27392	27721	29185	33098	37025	39827	38232	43759	42750
Pressure drop system side	kPa	43	55	50	66	44	52	53	64	60	92	75	88	88	91	92
Heating performance 30 °C / 35 °C (2)																
Heating capacity	kW	60,5	70,2	78,9	90,4	104,2	114,6	128,1	133,6	141,8	154,4	169,0	184,0	177,3	203,5	193,6
Input power	kW	13,8	16,1	18,2	21,1	25,2	27,6	30,9	32,6	34,4	38,0	41,2	45,8	44,1	50,7	48,5
Heating total input current	A	26,0	30,0	35,0	40,0	46,0	49,0	54,0	59,0	60,0	69,0	71,0	78,0	80,0	85,0	87,0
COP	W/W	4,38	4,36	4,34	4,28	4,14	4,16	4,15	4,10	4,12	4,07	4,10	4,02	4,02	4,01	3,99
Water flow rate system side	l/h	10456	12125	13636	15617	18004	19795	22128	23077	24492	26674	29206	31801	30649	35173	33469
Pressure drop system side	kPa	27	37	33	43	30	36	35	45	43	60	47	56	56	58	57

(1) Data EN 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2018; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

ENERGY DATA

Size			0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Cooling capacity with low leaving water temp (UE n° 2016/2281)																	
SEER	°	W/W	-	-	-	-	3,92	3,83	3,99	3,70	3,91	3,67	4,14	3,97	3,73	3,88	3,76
	A	W/W	-	-	-	-	4,21	4,14	4,39	3,93	4,20	3,92	4,38	4,27	3,99	4,24	4,06
	E	W/W	4,28	4,32	4,22	4,24	4,17	4,10	4,33	3,86	4,12	3,93	4,35	4,21	3,98	4,16	3,92
	L	W/W	4,10	4,11	4,11	4,00	3,88	3,83	3,93	3,68	3,89	3,64	4,08	3,89	3,70	3,81	3,71
ηsc	°	%	-	-	-	-	154,00	150,00	157,00	145,00	153,00	144,00	163,00	156,00	146,00	152,00	147,00
	A	%	-	-	-	-	165,00	163,00	173,00	154,00	165,00	154,00	172,00	168,00	157,00	167,00	160,00
	E	%	168,00	170,00	166,00	167,00	164,00	161,00	170,00	151,00	162,00	154,00	171,00	165,00	156,00	163,00	154,00
	L	%	161,00	161,00	161,00	157,00	152,00	150,00	154,00	144,00	153,00	143,00	160,00	153,00	145,00	149,00	145,00
UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (1)																	
Pdesignh	°	kW	-	-	-	-	88,80	97,30	112,20	116,80	124,50	129,90	144,90	162,80	157,50	182,70	172,10
	A	kW	-	-	-	-	90,20	99,60	112,20	116,80	125,80	135,00	149,00	164,10	157,00	183,30	173,60
	E	kW	53,46	53,46	53,46	78,80	90,20	99,60	112,20	116,80	125,80	135,00	149,00	164,10	157,00	183,30	173,60
	L	kW	52,20	60,22	68,44	78,20	88,80	97,30	112,20	116,80	124,50	129,90	144,90	162,80	157,50	182,70	172,10
ηsh	°	%	-	-	-	-	135,90	139,50	140,40	130,40	140,30	129,50	134,00	137,30	126,30	138,40	128,50
	A	%	-	-	-	-	138,00	142,80	143,20	133,00	143,10	132,10	139,80	141,30	128,00	142,00	133,00
	E	%	158,26	158,26	158,26	152,70	138,50	142,80	143,20	133,00	143,10	132,10	139,80	141,30	128,40	142,00	133,00
	L	%	156,16	152,79	152,22	150,00	135,90	139,50	140,40	130,50	140,30	129,50	134,00	137,30	126,30	138,40	128,50
SCOP	°		-	-	-	-	3,47	3,56	3,58	3,34	3,58	3,31	3,43	3,51	3,23	3,54	3,29
	A		-	-	-	-	3,53	3,65	3,66	3,40	3,65	3,38	3,57	3,61	3,29	3,63	3,40
	E		4,03	4,04	4,03	3,89	3,54	3,65	3,65	3,40	3,66	3,38	3,57	3,61	3,29	3,62	3,40
	L		3,98	3,89	3,88	3,83	3,47	3,56	3,59	3,34	3,58	3,31	3,43	3,51	3,23	3,54	3,29

(1) Efficiencies for low temperature applications (35 °C)

ELECTRIC DATA

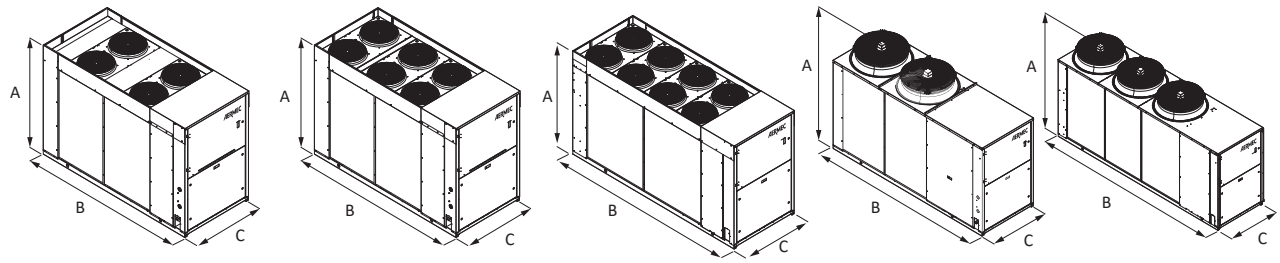
Size			0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Electric data																	
Maximum current (FLA)	°	A	-	-	-	-	74,3	79,2	88,1	100,3	97,0	113,5	115,9	130,5	134,6	147,2	144,4
	A	A	-	-	-	-	74,3	79,2	88,1	100,3	97,0	117,7	115,9	130,5	134,6	147,2	144,4
	E	A	42,6	49,2	56,9	65,3	74,3	79,2	88,1	100,3	97,0	117,7	115,9	130,5	134,6	147,2	144,4
	L	A	41,5	49,2	55,8	65,3	74,3	79,2	88,1	100,3	97,0	113,5	115,9	130,5	134,6	147,2	144,4
Peak current (LRA)	°	A	-	-	-	-	279,8	284,7	331,4	214,1	340,3	227,2	367,0	381,6	278,1	479,6	349,8
	A	A	-	-	-	-	279,8	284,7	331,4	214,1	340,3	231,5	367,0	381,6	278,1	479,6	349,8
	E	A	148,0	163,0	170,6	208,9	279,8	284,7	331,4	214,1	340,3	231,5	367,0	381,6	278,1	479,6	349,8
	L	A	146,9	163,0	169,5	208,9	279,8	284,7	331,4	214,1	340,3	227,2	367,0	381,6	278,1	479,6	349,8

GENERAL TECHNICAL DATA

Size			0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Compressor																	
Type	°,A,E,L	type								Scroll							
Compressor regulation	°,A,E,L	Type								On-Off							
Number	°,A	no.	-	-	-	-	2	2	2	4	2	4	2	2	4	2	4
	E,L	no.	2	2	2	2	2	2	2	4	2	4	2	2	4	2	4
Circuits	°,A	no.	-	-	-	-	1	1	1	2	1	2	1	1	2	1	2
	E,L	no.	1	1	1	1	1	1	1	2	1	2	1	1	2	1	2
Refrigerant	°,A,E,L	type								R410A							
Refrigerant charge (1)	°	kg	-	-	-	-	12,2	12,2	16,8	17,6	16,8	20,0	24,5	24,5	23,0	24,5	23,0
	A	kg	-	-	-	-	15,9	15,8	17,8	19,8	18,4	21,6	28,6	28,6	27,0	28,6	27,0
	E	kg	9,1	10,7	11,1	12,5	15,9	15,8	17,8	19,8	18,4	21,6	28,6	28,6	27,0	28,6	27,0
	L	kg	8,8	9,4	10,3	11,0	12,2	12,2	16,8	17,6	16,8	20,0	24,5	24,5	23,0	24,5	23,0
System side heat exchanger																	
Type	°,A,E,L	type								Brazed plate							
Number	°,A	no.	-	-	-	-	1	1	1	1	1	1	1	1	1	1	1
	E,L	no.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Hydraulic connections																	
Connections (in/out)	°,A,E,L	Type								Grooved joints							
Sizes (in/out)	°,A,E,L	Ø								2" 1/2							
Fan																	
Type	°,A,E,L	type								Axial							
Number	°	no.	-	-	-	-	2	2	2	2	2	2	3	3	3	3	3
	A	no.	-	-	-	-	2	2	2	2	3	3	3	2	3	3	3
	E	no.	6	6	8	8	2	2	2	2	2	3	3	3	3	3	3
	L	no.	4	6	6	8	2	2	2	2	2	2	3	3	3	3	3
Air flow rate	°	m^3/h	-	-	-	-	42785	42785	41094	41065	41094	39542	62015	61936	61936	61936	61936
	A	m^3/h	-	-	-	-	41080	41080	39461	39461	59701	59684	59684	39461	61963	59684	59684
	E	m^3/h	21230	22746	28176	25787	31149	31149	29855	29855	29855	47085	45202	45187	45187	45187	45187
	L	m^3/h	15574	21226	22732	28156	32650	32650	31613	31169	31161	29823	47087	47125	47125	47125	47125
Sound data calculated in cooling mode (2)																	
Sound power level	°	dB(A)	-	-	-	-	86,6	86,9	87,1	86,5	87,3	86,5	88,8	88,9	88,2	89,4	89,5
	A	dB(A)	-	-	-	-	86,6	86,9	87,1	86,5	87,3	88,2	88,8	88,9	88,2	89,4	89,5
	E	dB(A)	73,0	73,5	74,3	74,5	82,2	82,9	83,3	76,7	83,7	77,8	84,9	85,0	78,0	86,1	84,0
	L	dB(A)	72,4	73,5	73,9	74,5	82,2	82,9	83,3	76,7	83,7	77,1	84,9	85,0	78,0	86,1	84,0
Sound pressure level (10 m)	°	dB(A)	-	-	-	-	54,8	55,0	55,2	54,6	55,4	54,6	56,8	56,9	56,2	57,4	57,5
	A	dB(A)	-	-	-	-	54,8	55,0	55,2	54,6	55,4	56,2	56,8	56,9	56,2	57,4	57,5
	E	dB(A)	41,3	41,7	42,5	42,7	50,3	51,0	51,4	44,8	51,8	45,8	52,9	53,1	46,0	54,1	52,0
	L	dB(A)	40,7	41,7	42,1	42,7	50,3	51,0	51,4	44,8	51,8	45,3	52,9	53,1	46,0	54,1	52,0

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size			0282	0302	0332	0352	0502	0552	0602	0604	0652	0654	0682	0702	0704	0752	0754
Dimensions and weights																	
A	°,A	mm	-	-	-	-	1898	1898	1898	1898	1898	1898	1898	1898	1898	1898	1898
	E,L	mm	1680	1680	1680	1680	1898	1898	1898	1898	1898	1898	1898	1898	1898	1898	1898
B	°	mm	-	-	-	-	3200	3200	3200	3200	3200	3200	4010	4010	4010	4010	4010
	A	mm	-	-	-	-	3200	3200	3200	3200	3200	4010	4010	4010	4010	4010	4010
	E	mm	2450	2950	2950	2950	3200	3200	3200	3200	3200	4010	4010	4010	4010	4010	4010
	L	mm	2450	2450	2950	2950	3200	3200	3200	3200	3200	3200	4010	4010	4010	4010	4010
C	°,A	mm	-	-	-	-	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
	E,L	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume
responsibility or liability for errors or omissions.

Aermec S.p.A.
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NRG 0282-0804

Air-water chiller

Cooling capacity 55,8 ÷ 224,6 kW

- **High efficiency also at partial loads**
- **Reduced amount of refrigerant**
- **Compact dimensions**



DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications.
These are outdoor units with streamlined scroll compressors used with R32 gas.
Condensing coil with copper pipes and aluminium louvers, plate heat exchanger.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

° Standard
A High efficiency
E Silenced high efficiency
L Standard silenced
N Silenced very high efficiency
U Very high efficiency

FEATURES

Operating field

Operation at full load up to 50°C external air temperature. Unit can produce chilled water up to -10 °C.
For more information refer to the selection program and to to the dedicated documentation.

Units mono or dual-circuit

The units are mono or dual-circuit, to ensure maximum efficiency both at full load and at partial load.

Refrigerant HFC R32

The environmental impact of the units is reduced considerably owing to the last generation R32 refrigerant.
Combining a reduced refrigerant load with a low global warming potential (GWP), these units boast low equivalent CO_2 values.

■ *The leak detector is supplied as per standard.*

New condensing Coils

The whole range uses copper - aluminium condensation coils with reduced diameter rows, allowing a lower quantity of gas to be used compared to traditional coils.

Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy seasonal efficiency of the unit.

Option integrated hydronic kit

An optional, integrated hydronic kit containing the main hydraulic components, to obtain a solution that allows you to save money and to facilitate installation.
It is available in different configurations with storage tank or with fixed or variable pumps also inverter.

■ *VARIABLE FLOW RATE: Correctly adjust the speed of the inverter-controlled pumps according to the load demand of the system, in order to reduce power consumption and to guarantee operation of the unit even in critical conditions.*

CONTROL

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.
— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
— The temperature control takes place with the integral proportional logic, based on the water output temperature.
— **Floating HP control:** the function can be activated with inverter fans or with DCPX which allows unit operation to be optimised at any operating point through continuous modulation of the fan speed. In addition, the use of inverter fans ensures an increase in energy efficiency at partial loads.
— **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PGD1: Allows you to control the unit at a distance.
DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.
GP: Anti-intrusion grid.
VT: Anti-vibration supports.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.
RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
T6: Double safety valve with exchange cock, both on the high and low pressure branches.

ACCESSORIES COMPATIBILITY

Accessories

Model	Ver	0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
AER485P1	°,A					•	•	•	•	•	•	•	•	•	•	•	•	•	•
	E,N	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
	U				•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERBACP	°,A					•	•	•	•	•	•	•	•	•	•	•	•	•	•
	E,N	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
	U				•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERNET	°,A					•	•	•	•	•	•	•	•	•	•	•	•	•	•
	E,N	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
	U				•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	°,A					•	•	•	•	•	•	•	•	•	•	•	•	•	•
	E,N	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
	U				•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PGD1	°,A					•	•	•	•	•	•	•	•	•	•	•	•	•	•
	E,N	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
	U				•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Condensation control temperature

Ver	0282	0302	0332	0352	0502	0552	0554	0602	0604
°,A	-	-	-	-	DCPX146	DCPX146	DCPX146	DCPX146	DCPX146
E,L	DCPX145	DCPX145	DCPX145	DCPX145	As standard	As standard	As standard	As standard	As standard
N	DCPX145	DCPX145	DCPX145	As standard	As standard	As standard	As standard	As standard	As standard
U	-	-	-	DCPX146	DCPX146	DCPX146	DCPX146	DCPX146	DCPX146

The accessory cannot be fitted on the configurations indicated with -

Ver	0652	0654	0682	0702	0704	0752	0754	0802	0804
°,A	DCPX146	DCPX146	DCPX146	DCPX146	DCPX146	DCPX146	DCPX146	DCPX146	DCPX146
E	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard
L	As standard	As standard	As standard	As standard	As standard	As standard	As standard	-	-
N	As standard	As standard	As standard	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter
U	DCPX146	DCPX146	DCPX146	Inverter	Inverter	Inverter	Inverter	Inverter	Inverter

Antivibration

Ver	0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
Integrated hydronic kit: 00, I1, I2, I3, I4, P1, P2, P3, P4																		
°	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22
A	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22
E	VT17	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22
L	VT17	VT17	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	-	-
N	VT13	VT13	VT13	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22
U	-	-	-	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22
Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08, K1, K2, K3, K4, W1, W2, W3, W4																		
°	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22
A	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22
E	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22
L	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	-	-
N	VT13	VT13	VT13	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22
U	-	-	-	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22

Anti-intrusion grid

Ver	0282	0302	0332	0352	0502	0552	0554	0602	0604
°,A	-	-	-	-	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)
E,L	GP3	GP3	GP4	GP4	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)
N	GP4	GP4	GP4	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)
U	-	-	-	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)

(1) x _ indicates the quantity to buy
The accessory cannot be fitted on the configurations indicated with -

Ver	0652	0654	0682	0702	0704	0752	0754	0802	0804
°	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)
A,E	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)
L	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	-	-
N,U	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)

(1) x _ indicates the quantity to buy

Device for peak current reduction

Ver	0282	0302	0332	0352	0502	0552	0554	0602	0604	0652
°,A	-	-	-	-	DRENRG502	DRENRG552	DRENRG554	DRENRG602	DRENRG604	DRENRG652
E,L,N	DRENRG282	DRENRG302	DRENRG332	DRENRG352	DRENRG502	DRENRG552	DRENRG554	DRENRG602	DRENRG604	DRENRG652
U	-	-	-	DRENRG352	DRENRG502	DRENRG552	DRENRG554	DRENRG602	DRENRG604	DRENRG652

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

Ver	0654	0682	0702	0704	0752	0754	0802	0804
°,A,E,N,U	DRENRG654	DRENRG682	DRENRG702	DRENRG704	DRENRG752	DRENRG754	DRENRG802	DRENRG804
L	DRENRG654	DRENRG682	DRENRG702	DRENRG704	DRENRG752	DRENRG754	-	-

A grey background indicates the accessory must be assembled in the factory

Power factor correction

Ver	0282	0302	0332	0352	0502	0552	0554	0602	0604	0652
°,A	-	-	-	-	RIFNRG502	RIFNRG552	RIFNRG554	RIFNRG602	RIFNRG604	RIFNRG652
E,L,N	RIFNRG282	RIFNRG302	RIFNRG332	RIFNRG352	RIFNRG502	RIFNRG552	RIFNRG554	RIFNRG602	RIFNRG604	RIFNRG652
U	-	-	-	RIFNRG352	RIFNRG502	RIFNRG552	RIFNRG554	RIFNRG602	RIFNRG604	RIFNRG652

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

Ver	0654	0682	0702	0704	0752	0754	0802	0804
°,A,E,N,U	RIFNRG654	RIFNRG682	RIFNRG702	RIFNRG704	RIFNRG752	RIFNRG754	RIFNRG802	RIFNRG804
L	RIFNRG654	RIFNRG682	RIFNRG702	RIFNRG704	RIFNRG752	RIFNRG754	-	-

A grey background indicates the accessory must be assembled in the factory

Double safety valves

Ver	0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
°,A,E,N,U	T6NRG1	T6NRG1	T6NRG1	T6NRG1	T6NRG1	T6NRG1	T6NRG2	T6NRG1	T6NRG2	T6NRG1	T6NRG2	T6NRG1	T6NRG1	T6NRG2	T6NRG1	T6NRG2	T6NRG1	T6NRG2
L	T6NRG1	T6NRG1	T6NRG1	T6NRG1	T6NRG1	T6NRG1	T6NRG2	T6NRG1	T6NRG2	T6NRG1	T6NRG2	T6NRG1	T6NRG1	T6NRG2	T6NRG1	T6NRG2	-	-

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field		Description
1,2,3		**NRG**
4,5,6,7		**Size** 0282, 0302, 0332, 0352, 0502, 0552, 0554, 0602, 0604, 0652, 0654, 0682, 0702, 0704, 0752, 0754, 0802, 0804
8		**Operating field**
	X	Electronic thermostatic expansion valve (1)
	Z	Low temperature electronic thermostatic valve (2)
9		**Model**
	°	Cooling only
10		**Heat recovery**
	°	Without heat recovery
	D	With desuperheater (3)
	T	With total recovery
11		**Version**
	°	Standard
	A	High efficiency
	E	Silenced high efficiency (4)
	L	Standard silenced (4)
	N	Silenced very high efficiency (4)
	U	Very high efficiency
12		**Coils**
	°	Copper-aluminium
	R	Copper pipes-copper fins
	S	Copper pipes-Tinned copper fins
	V	Copper pieps-Coated aluminium fins
13		**Fans**
	°	Standard
	J	Inverter (5)
14		**Power supply**
	°	400V ~ 3N 50Hz with magnet circuit breakers
15,16		**Integrated hydronic kit**
	00	Without hydronic kit
		Kit with storage tank and pump/s
	01	Storage tank with low head pump
	02	Storage tank with low head pump + stand-by pump
	03	Storage tank with high head pump
	04	Storage tank with high head pump + stand-by pump
		Kit with pump/s and storage tank with holes for heaters
	05	Storage tank with holes for heaters and single low head pump (6)
	06	Storage tank with holes for heaters and pump low head + stand-by pump (6)
	07	Storage tank with holes for heaters and single high head pump (6)
	08	Storage tank with holes for heaters and pump high head + stand-by pump (6)
		Double loop
	09	Double loop
		Kit with pump/s
	P1	Single pump low head
	P2	Pump low head + stand-by pump
	P3	Single pump high head
	P4	Pump high head + stand-by pump
		Kit with inverter pump/s to fixed speed
	I1	Single low head pump + fixed speed inverter
	I2	Single low head pump with fixed speed inverter + stand-by pump
	I3	Single high head pump + fixed speed inverter
	I4	Single high head pump with fixed speed inverter + stand-by pump
		Kit with storage tank and inverter pump/s to fixed speed
	K1	Single low head pump + storage tank + fixed speed inverter
	K2	Storage tank and low head pump with fixed speed inverter + stand-by pump
	K3	Single high head pump + storage tank + fixed speed inverter
	K4	Storage tank and low head pump with fixed speed inverter + stand-by pump
		Kit with storage tank and variable speed inverter pump/s
	W1	Single low head pump + Storage tank + variable speed inverter
	W2	Double low head pump + Storage tank + variable speed inverter
	W3	Single high head pump + Storage tank + variable speed inverter
	W4	Double high head pump + Storage tank + variable speed inverter

(1) Water produced from 4 °C ÷ 20 °C
(2) Water produced from 8 °C to -10 °C. The option is not compatible with hydronic kits W1-W2-W3-W4.
(3) Warning: on the recovery side, a minimum input temperature of 35°C must always be guaranteed on the heat exchanger. For more information about the unit operating range, refer to the Magellano selection program
(4) The size 0282-0302-0332-0352 only available in low noise versions.
(5) As standard in size 0702-0704-0752-0754-0802-0804 in the version U and N.
(6) Storage tanks with holes for supplementary heaters (not provided) are sent from the factory with plastic protection caps. Before loading the system, if the installation of one or all resistances is not expected, all plastic caps must be replaced with the special caps, commonly commercially available.

PERFORMANCE SPECIFICATIONS

NRG - °

Size		0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
Cooling performance 12 °C / 7 °C (1)																			
Cooling capacity	kW	-	-	-	-	100,8	110,6	117,6	127,1	130,0	138,5	143,5	161,9	182,0	171,7	203,9	194,0	222,4	212,3
Input power	kW	-	-	-	-	33,4	37,8	37,8	39,7	44,2	45,1	50,7	52,5	59,4	57,4	69,6	66,5	80,4	74,8
Cooling total input current	A	-	-	-	-	59,0	64,0	59,0	68,0	79,0	77,0	91,0	88,0	95,0	108,0	111,0	117,0	127,0	126,0
EER	W/W	-	-	-	-	3,02	2,92	3,11	3,20	2,94	3,07	2,83	3,08	3,06	2,99	2,93	2,92	2,77	2,84
Water flow rate system side	l/h	-	-	-	-	17363	19059	20268	21893	22383	23841	24712	27874	31338	29554	35100	33389	38287	36547
Pressure drop system side	kPa	-	-	-	-	40	49	46	44	56	53	50	54	69	71	68	67	81	80

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

NRG - L

Size		0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754
Cooling performance 12 °C / 7 °C (1)																	
Cooling capacity	kW	55,8	63,8	73,3	84,5	98,9	108,2	113,4	123,5	123,9	132,9	139,3	159,0	178,5	168,5	198,8	189,6
Input power	kW	19,7	22,1	24,4	28,6	33,9	38,6	38,5	40,9	45,2	46,7	53,6	53,5	60,3	59,0	71,8	68,2
Cooling total input current	A	32,0	41,0	45,0	55,0	58,0	63,0	59,0	68,0	79,0	77,0	92,0	88,0	96,0	107,0	112,0	117,0
EER	W/W	2,83	2,88	3,01	2,95	2,92	2,80	2,95	3,02	2,74	2,85	2,60	2,97	2,96	2,85	2,77	2,78
Water flow rate system side	l/h	9604	10989	12618	14572	17043	18647	19537	21269	21332	22880	23984	27367	30726	29004	34224	32640
Pressure drop system side	kPa	35	46	37	50	39	46	45	43	54	50	47	52	66	69	65	64

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

NRG - A

Size		0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
Cooling performance 12 °C / 7 °C (1)																			
Cooling capacity	kW	-	-	-	-	105,3	116,3	118,7	129,7	132,2	141,2	151,3	167,9	186,4	177,0	208,8	199,2	228,6	218,5
Input power	kW	-	-	-	-	31,0	34,9	37,7	40,1	43,8	45,6	47,8	51,1	57,3	56,2	67,0	64,9	77,2	73,6
Cooling total input current	A	-	-	-	-	56,0	60,0	60,0	69,0	80,0	78,0	88,0	85,0	93,0	106,0	108,0	115,0	124,0	123,0
EER	W/W	-	-	-	-	3,39	3,33	3,14	3,23	3,02	3,09	3,16	3,29	3,25	3,15	3,12	3,07	2,96	2,97
Water flow rate system side	l/h	-	-	-	-	18133	20029	20437	22332	22778	24316	26053	28900	32076	30475	35940	34279	39342	37605
Pressure drop system side	kPa	-	-	-	-	30	36	34	34	42	41	56	45	57	56	62	59	74	72

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

NRG - E

Size		0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
Cooling performance 12 °C / 7 °C (1)																			
Cooling capacity	kW	58,7	64,8	74,8	88,1	101,0	112,1	115,3	124,8	126,8	134,9	147,6	161,6	180,1	171,4	201,8	191,5	216,6	208,9
Input power	kW	18,7	21,5	23,3	27,6	31,6	35,8	38,6	40,7	45,6	46,8	49,3	52,1	59,4	58,0	70,9	67,4	81,8	77,1
Cooling total input current	A	31,0	41,0	45,0	54,0	55,0	60,0	61,0	70,0	81,0	79,0	87,0	85,0	95,0	106,0	111,0	116,0	129,0	126,0
EER	W/W	3,14	3,02	3,21	3,19	3,20	3,13	2,98	3,07	2,78	2,88	2,99	3,10	3,03	2,96	2,85	2,84	2,65	2,71
Water flow rate system side	l/h	10097	11156	12874	15166	17382	19311	19858	21482	21840	23238	25406	27822	31004	29499	34739	32965	37282	35953
Pressure drop system side	kPa	24	29	28	37	28	34	32	32	38	37	53	43	53	52	57	55	67	65

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

NRG - U

Size		0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
Cooling performance 12 °C / 7 °C (1)																			
Cooling capacity	kW	-	-	-	94,0	105,1	116,7	122,4	134,4	135,9	148,2	154,1	170,1	192,0	179,4	215,0	203,9	236,8	224,6
Input power	kW	-	-	-	26,8	30,6	34,4	36,1	38,2	41,9	42,9	46,5	49,5	57,5	56,2	66,4	63,6	75,7	72,1
Cooling total input current	A	-	-	-	53,0	57,0	61,0	58,0	68,0	78,0	76,0	87,0	83,0	92,0	106,0	106,0	114,0	120,0	121,0
EER	W/W	-	-	-	3,51	3,43	3,39	3,39	3,52	3,24	3,45	3,32	3,44	3,34	3,19	3,24	3,20	3,13	3,11
Water flow rate system side	l/h	-	-	-	16172	18095	20096	21081	23146	23408	25528	26524	29288	33054	30884	37012	35090	40762	38655
Pressure drop system side	kPa	-	-	-	24	30	28	37	38	46	36	43	47	53	58	66	59	80	72

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

NRG - N

Size		0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
Cooling performance 12 °C / 7 °C (1)																			
Cooling capacity	kW	59,7	66,0	76,0	92,0	103,0	114,9	120,1	131,5	132,9	144,6	148,5	163,6	188,0	175,9	209,5	199,0	227,4	218,5
Input power	kW	18,1	20,8	23,3	27,9	31,8	36,1	37,0	39,2	43,2	44,5	48,5	52,1	57,9	56,8	67,6	65,1	78,0	74,5
Cooling total input current	A	30,0	41,0	45,0	52,0	57,0	62,0	57,0	67,0	78,0	75,0	88,0	85,0	92,0	106,0	107,0	114,0	123,0	123,0
EER	W/W	3,29	3,17	3,26	3,30	3,24	3,18	3,25	3,35	3,07	3,25	3,06	3,14	3,25	3,10	3,10	3,06	2,92	2,93
Water flow rate system side	l/h	10270	11372	13087	15837	17726	19768	20680	22650	22893	24895	25579	28156	32351	30273	36062	34256	39138	37603
Pressure drop system side	kPa	25	31	29	23	28	26	36	36	44	34	41	44	50	56	63	57	75	68

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

ENERGY INDICES (REG. 2016/2281 EU)

Size			0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
SEER - 12/7 (EN14825:2018) with standard fans (1)																				
SEER	°	W/W	-	-	-	-	4,18	4,18	4,23	4,31	4,20	4,20	4,18	4,24	4,26	4,16	4,19	4,16	4,11	4,14
	A	W/W	-	-	-	-	4,36	4,42	4,30	4,47	4,26	4,42	4,22	4,47	4,43	4,30	4,40	4,25	4,22	4,15
	E	W/W	4,52	4,35	4,51	4,43	4,41	4,34	4,31	4,40	4,27	4,20	4,25	4,42	4,26	4,27	4,24	4,26	4,12	4,15
	L	W/W	4,25	4,17	4,39	4,28	4,19	4,12	4,22	4,17	4,20	4,11	4,18	4,16	4,12	4,18	4,11	4,18	-	-
	N	W/W	4,69	4,62	4,65	4,64	4,57	4,45	4,40	4,63	4,33	4,55	4,36	4,61	-	-	-	-	-	-
	U	W/W	-	-	-	4,63	4,60	4,64	4,38	4,54	4,31	4,58	4,38	4,68	-	-	-	-	-	-
Seasonal efficiency	°	%	-	-	-	-	164,19	164,24	166,29	169,41	164,99	165,02	164,13	166,59	167,36	163,42	164,59	163,49	161,43	162,48
	A	%	-	-	-	-	171,56	173,79	169,11	175,81	167,34	173,76	166,00	175,82	174,24	168,98	173,01	166,92	165,82	162,95
	E	%	177,70	171,11	177,59	174,38	173,34	170,47	169,31	173,05	167,98	165,00	166,82	173,83	167,44	167,75	166,62	167,42	161,90	163,00
	L	%	166,98	163,66	172,63	168,23	164,75	161,78	165,90	163,73	165,02	161,37	164,21	163,40	161,82	164,05	161,39	134,10	-	-
	N	%	184,57	181,62	183,16	182,41	179,82	175,17	173,00	182,25	170,09	178,97	171,51	181,37	-	-	-	-	-	-
	U	%	-	-	-	182,34	180,84	182,53	172,00	178,62	169,50	180,31	172,13	184,18	-	-	-	-	-	-
SEER - (EN14825:2018) 12/7 with inverter fans (1)																				
SEER	°	W/W	-	-	-	-	4,30	4,30	4,36	4,44	4,33	4,32	4,31	4,37	4,38	4,28	4,32	4,29	4,23	4,26
	A	W/W	-	-	-	-	4,50	4,55	4,43	4,61	4,38	4,55	4,35	4,60	4,56	4,42	4,53	4,37	4,34	4,27
	E	W/W	4,56	4,40	4,56	4,48	4,54	4,46	4,44	4,53	4,40	4,33	4,37	4,55	4,38	4,40	4,37	4,39	4,25	4,27
	L	W/W	4,29	4,21	4,43	4,32	4,32	4,24	4,35	4,30	4,33	4,23	4,31	4,28	4,24	4,30	4,23	4,30	-	-
	N	W/W	4,74	4,66	4,70	4,78	4,71	4,59	4,54	4,77	4,46	4,69	4,49	4,75	4,63	4,48	4,59	4,48	4,37	4,33
	U	W/W	-	-	-	4,77	4,73	4,77	4,51	4,68	4,44	4,72	4,51	4,82	4,66	4,44	4,64	4,42	4,50	4,30
Seasonal efficiency	°	%	-	-	-	-	169,07	169,11	171,47	174,48	170,14	169,96	169,32	171,68	172,37	168,37	169,62	168,51	166,33	167,34
	A	%	-	-	-	-	176,81	179,08	174,25	181,27	172,29	179,03	170,93	181,13	179,44	173,98	178,17	171,94	170,64	167,83
	E	%	179,42	172,83	179,43	176,18	178,57	175,52	174,63	178,28	173,17	170,02	171,96	179,14	172,39	172,91	171,65	172,46	166,80	167,89
	L	%	168,77	165,30	174,27	169,95	169,78	166,72	171,12	168,86	170,11	166,28	169,22	168,35	166,67	169,00	166,22	169,06	-	-
	N	%	186,54	183,37	185,00	188,02	185,24	180,46	178,48	187,81	175,31	184,43	176,70	186,89	182,33	176,32	180,67	176,26	171,95	170,07
	U	%	-	-	-	187,91	186,30	188,00	177,39	184,10	174,64	185,66	177,42	189,79	183,53	174,64	182,68	173,97	177,05	169,03
SEER - 23/18 (EN14825: 2018) with standard fans (2)																				
SEER	°	W/W	-	-	-	-	4,86	4,73	4,94	4,89	4,86	4,71	4,87	4,77	4,84	4,77	4,74	4,75	4,64	4,58
	A	W/W	-	-	-	-	5,13	5,04	5,13	5,12	5,09	4,79	4,96	5,08	5,06	5,01	4,98	4,88	4,78	4,61
	E	W/W	5,30	5,05	5,28	5,14	5,06	4,79	5,09	4,85	5,07	4,56	4,95	4,93	4,70	4,94	4,62	4,85	4,48	4,55
	L	W/W	4,85	4,73	4,39	4,94	4,72	4,46	4,94	4,60	4,89	4,44	4,91	4,68	4,48	4,75	4,45	4,73	-	-
	N	W/W	5,50	5,36	5,44	5,37	5,25	4,93	5,19	5,24	5,08	5,12	5,14	5,14	-	-	-	-	-	-
	U	W/W	-	-	-	5,49	5,41	5,29	5,23	5,19	5,14	4,98	5,21	5,31	-	-	-	-	-	-
Seasonal efficiency	°	%	-	-	-	-	191,30	186,20	194,50	192,40	191,20	185,50	191,70	187,60	190,40	187,70	186,60	186,80	182,70	180,00
	A	%	-	-	-	-	202,10	198,50	202,20	201,70	200,40	188,50	195,30	200,00	199,40	197,20	196,30	192,20	188,00	181,20
	E	%	208,80	199,00	208,00	202,60	199,30	188,40	200,50	191,00	199,60	179,50	195,10	194,00	184,80	194,60	181,60	190,90	176,30	178,80
	L	%	190,90	186,10	172,63	194,70	185,80	175,40	194,70	181,00	192,50	174,40	193,30	184,00	176,20	187,00	175,10	186,10	-	-
	N	%	217,10	211,30	214,40	211,70	207,10	194,20	204,40	206,50	200,30	201,60	202,70	202,40	-	-	-	-	-	-
	U	%	-	-	-	216,60	213,50	208,70	206,30	204,40	202,40	196,20	205,50	209,50	-	-	-	-	-	-
SEER - 23/18 (EN14825: 2018) with inverter fans																				
SEER	°	W/W	-	-	-	-	4,99	4,86	5,09	5,02	5,00	4,85	5,02	4,90	4,97	4,91	4,88	4,88	4,78	4,71
	A	W/W	-	-	-	-	5,27	5,18	5,28	5,27	5,23	4,92	5,10	5,22	5,20	5,15	5,12	5,02	4,90	4,74
	E	W/W	5,34	5,10	5,33	5,19	5,20	4,92	5,24	4,99	5,22	4,69	5,10	5,07	4,82	5,09	4,61	4,99	4,74	4,68
	L	W/W	4,90	4,77	5,09	4,99	4,85	4,59	5,09	4,73	5,03	4,56	5,05	4,81	4,61	4,89	4,58	4,86	-	-
	N	W/W	5,56	5,41	5,49	5,52	5,40	5,07	5,34	5,39	5,23	5,26	5,29	5,28	5,23	5,17	5,10	5,11	4,84	4,94
	U	W/W	-	-	-	5,64	5,56	5,44	5,39	5,33	5,29	5,12	5,37	5,47	5,35	5,16	5,24	5,08	5,07	4,80
Seasonal efficiency	°	%	-	-	-	-	196,60	191,50	200,50	197,80	197,10	190,80	197,70	193,00	195,90	193,20	192,10	192,30	188,00	185,20
	A	%	-	-	-	-	207,80	204,10	208,30	207,60	206,20	193,90	200,90	205,60	205,00	202,90	201,80	197,80	193,10	186,50
	E	%	210,70	200,80	210,00	204,60	204,90	193,60	206,70	196,40	205,70	184,70	201,00	199,60	189,90	200,40	181,20	196,50	186,70	184,10
	L	%	192,90	187,90	200,70	196,60	191,10	180,50	200,70	186,30	198,30	179,40	199,10	189,20	181,20	192,50	180,20	191,50	-	-
	N	%	219,30	213,20	216,50	217,80	212,90	199,70	210,60	212,40	206,20	207,30	208,70	208,10	206,00	203,70	201,10	201,30	190,40	194,50
	U	%	-	-	-	222,70	219,50	214,60	212,60	210,30	208,40	201,80	211,60	215,60	210,80	203,50	206,70	200,30	199,60	189,00
SEPR - (EN14825: 2018) High temperature with standard fans (2)																				
SEPR	°	W/W	-	-	-	-	5,78	5,60	6,35	5,79	6,38	5,73	6,34	5,66	6,07	6,34	5,81	6,03	5,78	5,94
	A	W/W	-	-	-	-	6,23	5,98	6,61	5,93	6,60	6,14	6,51	5,98	6,27	6,54	6,05	6,08	5,90	5,90
	E	W/W	6,66	6,39	6,59	6,52	6,30	6,03	6,47	5,93	6,55	5,79	6,41	6,01	6,13	6,44	5,85	6,06	5,21	5,87
	L	W/W	6,34	6,26	6,43	6,30	5,86	5,68	6,35	5,73	6,47	5,69	6,47	5,64	5,95	6,28	5,72	5,92	-	-
	N	W/W	6,87	6,70	6,81	6,88	6,47	6,14	6,58	6,20	6,54	6,21	6,57	6,17	-	-	-	-	-	-
	U	W/W	-	-	-	6,73	6,43	6,14	6,73	6,18	6,68	6,51	6,73	6,26	-	-	-	-	-	-

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

Size			0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
Electric data																				
Maximum current (FLA)	°	A	-	-	-	-	73,5	79,1	80,5	88,3	97,2	97,4	108,5	111,5	122,6	132,7	139,4	144,0	156,1	155,3
	A	A	-	-	-	-	73,5	79,1	80,5	88,3	97,2	97,4	111,4	111,5	122,6	132,7	139,4	144,0	156,1	155,3
	E	A	41,6	49,9	56,9	67,6	73,5	79,1	80,5	88,3	97,2	97,4	111,4	111,5	122,6	132,7	139,4	144,0	156,1	155,3
	L	A	40,2	49,9	55,5	67,6	73,5	79,1	80,5	88,3	97,2	97,4	108,5	111,5	122,6	132,7	139,4	144,0	-	-
	N	A	41,6	49,9	56,9	67,8	73,5	79,1	83,4	91,2	100,1	100,3	111,4	111,5	125,6	135,7	142,4	147,0	159,1	158,3
	U	A	-	-	-	67,8	73,5	79,1	83,4	91,2	100,1	100,3	111,4	111,5	125,6	135,7	142,4	147,0	159,1	158,3
Peak current (LRA)	°	A	-	-	-	-	277,6	283,3	200,8	330,0	192,3	339,1	222,8	364,5	375,7	275,7	473,7	348,2	490,4	359,5
	A	A	-	-	-	-	277,6	283,3	200,8	330,0	192,3	339,1	225,7	364,5	375,7	275,7	473,7	348,2	490,4	359,5
	E	A	161,9	145,0	171,3	210,6	277,6	283,3	200,8	330,0	192,3	339,1	225,7	364,5	375,7	275,7	473,7	348,2	490,4	359,5
	L	A	160,5	145,0	169,9	210,6	277,6	283,3	200,8	330,0	192,3	339,1	222,8	364,5	375,7	275,7	473,7	348,2	-	-
	N	A	161,9	145,0	171,3	210,8	277,6	283,3	203,7	332,9	195,2	342,0	225,7	364,5	378,7	278,7	476,7	351,2	493,4	362,5
	U	A	-	-	-	210,8	277,6	283,3	203,7	332,9	195,2	342,0	225,7	364,5	378,7	278,7	476,7	351,2	493,4	362,5

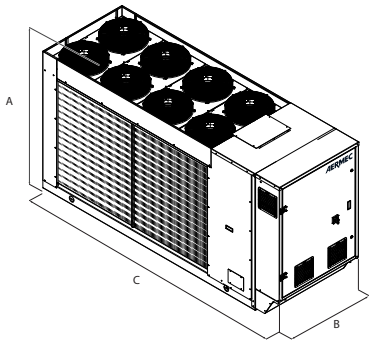
■ *Data calculated without hydronic kit and accessories.*

GENERAL TECHNICAL DATA

Size			0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
Compressor																				
Type	°,A,E,N,U	type	Scroll																	
	L	type	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	-	-
Compressor regulation	°,A,E,N,U	Type	On-Off																	
	L	Type	On-Off	On-Off	On-Off	On-Off	On-Off	On-Off	On-Off	On-Off	On-Off	On-Off	On-Off	On-Off	On-Off	On-Off	On-Off	On-Off	-	-
Number	°,A,E,N,U	no.	2	2	2	2	2	2	4	2	4	2	4	2	2	4	2	4	2	4
	L	no.	2	2	2	2	2	2	4	2	4	2	4	2	2	4	2	4	-	-
Circuits	°,A,E,N,U	no.	1	1	1	1	1	1	2	1	2	1	2	1	1	2	1	2	1	2
	L	no.	1	1	1	1	1	1	2	1	2	1	2	1	1	2	1	2	-	-
Refrigerant	°,A,E,N,U	type	R32																	
	L	type	R32	R32	R32	R32	R32	R32	R32	R32	R32	R32	R32	R32	R32	R32	R32	R32	-	-
System side heat exchanger																				
Type	°,A,E,N,U	type	Brazed plate																	
	L	type	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	-	-
Number	°,A,E,N,U	no.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	L	no.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-	-
System side hydraulic connections																				
Sizes (in/out)	°,A,E,N,U	Ø	2" 1/2																	
	L	Ø	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	-	-
Fan																				
Type	°,A,E,N,U	type	Axial																	
	L	type	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	-	-
Number	°	no.	-	-	-	-	2	2	2	2	3	3	3	3	2	2	2	3	3	3
	A	no.	-	-	-	-	2	2	2	2	3	3	3	3	2	2	3	3	3	3
	E	no.	6	6	8	8	2	2	2	2	3	3	3	3	2	2	3	3	3	3
	L	no.	4	6	6	8	2	2	2	2	3	3	3	3	2	2	2	3	-	-
	N	no.	6	6	8	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3
	U	no.	-	-	-	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3
Air flow rate	°	m^3/h	-	-	-	-	36446	36446	34911	34911	54908	52714	52714	52714	34921	34921	33461	52703	52703	52703
	A	m^3/h	-	-	-	-	34908	34908	33464	33464	52724	50633	50633	50633	33452	33452	52701	50636	50636	50636
	E	m^3/h	20468	20468	27112	24667	26624	26624	25496	25496	40266	38637	38637	38637	25488	25488	40269	38639	38639	38639
	L	m^3/h	15291	20474	22212	27150	30672	30672	29318	29318	46243	44312	44312	44312	29318	29318	28069	44307	-	-
	N	m^3/h	22189	22189	24655	26623	25495	25495	40274	40274	38634	52317	52317	52317	40269	40269	38640	52324	52324	52324
	U	m^3/h	-	-	-	34904	33469	33469	52712	52712	50637	66361	66361	66361	52718	52718	50633	66361	66361	66361
Sound data calculated in cooling mode (1)																				
Sound power level	°	dB(A)	-	-	-	-	85,1	85,6	84,2	85,9	84,8	86,1	84,9	87,5	87,6	86,5	88,3	88,1	90,1	89,4
	A	dB(A)	-	-	-	-	85,1	85,6	84,2	85,9	84,8	86,1	86,5	87,5	87,6	86,5	88,3	88,1	90,1	89,4
	E	dB(A)	73,0	73,5	74,3	74,5	81,3	82,1	76,1	82,7	76,7	83,1	77,8	84,2	84,4	78,0	85,6	83,6	87,3	86,7
	L	dB(A)	72,4	73,5	73,9	74,5	81,3	82,1	76,1	82,7	76,7	83,1	77,1	84,2	84,4	78,0	85,6	84,1	-	-
	N	dB(A)	73,0	73,9	74,3	80,3	81,3	82,1	76,9	83,6	77,5	84,0	77,8	84,2	89,3	87,4	89,7	88,5	90,1	89,8
	U	dB(A)	-	-	-	84,6	85,1	85,6	85,8	87,2	86,4	87,4	86,5	87,5	92,3	91,1	92,5	91,7	92,7	92,3

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size			0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
Dimensions and weights																				
A	°	mm	-	-	-	-	1907	1907	1907	1907	1907	1907	1907	1900	1900	1900	1900	1900	1900	1900
	A	mm	-	-	-	-	1907	1907	1907	1907	1907	1907	1900	1900	1900	1900	1900	1900	1900	1900
	E	mm	1652	1658	1658	1658	1907	1907	1907	1907	1907	1907	1900	1900	1900	1900	1900	1900	1900	1900
	L	mm	1652	1652	1658	1658	1907	1907	1907	1907	1907	1907	1907	1900	1900	1900	1900	1900	-	-
	N	mm	1658	1658	1658	1907	1907	1907	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
	U	mm	-	-	-	1907	1907	1907	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
B	°,A	mm	-	-	-	-	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
	E,N	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
	L	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	-	-
	U	mm	-	-	-	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
C	°	mm	-	-	-	-	3567	3567	3567	3567	3567	3567	3567	4368	4368	4368	4368	4368	4368	4368
	A	mm	-	-	-	-	3567	3567	3567	3567	3567	3567	4368	4368	4368	4368	4368	4368	4368	4368
	E	mm	2818	3317	3317	3317	3567	3567	3567	3567	3567	3567	4368	4368	4368	4368	4368	4368	4368	4368
	L	mm	2818	2818	3317	3317	3567	3567	3567	3567	3567	3567	3567	4368	4368	4368	4368	4368	-	-
	N	mm	3317	3317	3317	3567	3567	3567	4368	4368	4368	4368	4368	4368	4368	4368	4368	4368	4368	4368
	U	mm	-	-	-	3567	3567	3567	4368	4368	4368	4368	4368	4368	4368	4368	4368	4368	4368	4368

Aermec reserves the right to make any modifications deemed necessary.
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NRG 0282H-0804H

Reversible air/water heat pump

Cooling capacity 52,5 ÷ 212,0 kW
Heating capacity 56,6 ÷ 214,4 kW

- **High efficiency also at partial loads**
- **Reduced amount of refrigerant**
- **Compact dimensions**



DESCRIPTION

Reversible outdoor heat pumps for the production of chilled/heated water designed to satisfy the needs of residential and commercial buildings, or for industrial applications.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

° Standard
A High efficiency
E Silenced high efficiency
L Standard silenced

FEATURES

Operating field

Working at full load up to -15°C outside air temperature in winter, and up to 48 °C in summer. Hot water production up to 60°C (for more details refer to the technical documentation).

Units mono or dual-circuit

The units are mono or dual-circuit, to ensure maximum efficiency both at full load and at partial load.

Refrigerant HFC R32

The environmental impact of the units is reduced considerably owing to the last generation R32 refrigerant.
Combining a reduced refrigerant load with a low global warming potential (GWP), these units boast low equivalent CO_2 values.

■ *The leak detector is supplied as per standard.*

New condensing Coils

The whole range uses copper - aluminium condensation coils with reduced diameter rows, allowing a lower quantity of gas to be used compared to traditional coils.

Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy seasonal efficiency of the unit.

Option integrated hydronic kit

An optional, integrated hydronic kit containing the main hydraulic components, to obtain a solution that allows you to save money and to facilitate installation.
It is available in different configurations with storage tank or with fixed or variable pumps also inverter.

■ *VARIABLE FLOW RATE: Correctly adjust the speed of the inverter-controlled pumps according to the load demand of the system, in order to reduce power consumption.*

CONTROL PCO[5]

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.
— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
— The temperature control takes place with the integral proportional logic, based on the water output temperature.
— **Swing HP and LP controls:** available for all models with inverter fan or with DCPX. By continuously modulating the fans, they streamline operation of the unit at any work point both in cooling and heating mode. This results in enhanced energy efficiency of the unit at partial loads.
— **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

INTEGRATED SOLUTION

The **"integrated solution" concept has been implemented in the system architecture**, consisting in an integrated and streamlined control of compressors and electronic valve.

This solution allowed a variety of new features to be introduced, such as:

— **Low Superheat Control**: Progressive superheating reduction in conditions of stability. This allows to increase energy performance: both in modulation and in full load conditions;

— **DLT control**: Control of electronic valve at discharge temperature in certain operating conditions. This is demonstrated in an enhanced reliability of the control and a considerable expansion of the machine's operating range, especially in heating mode.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.

AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP

AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.

PGD1: Allows you to control the unit at a distance.

DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

GP: Anti-intrusion grid.

VT: Anti-vibration supports.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.

RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

T6: Double safety valve with exchange cock, both on the high and low pressure branches.

ACCESSORIES COMPATIBILITY

Model	Ver	0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
AER485P1	°,A					•	•	•	•	•	•	•	•	•	•	•	•	•	•
	E,L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERBACP	°,A					•	•	•	•	•	•	•	•	•	•	•	•	•	•
	E,L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERNET	°,A					•	•	•	•	•	•	•	•	•	•	•	•	•	•
	E,L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	°,A					•	•	•	•	•	•	•	•	•	•	•	•	•	•
	E,L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PGD1	°,A					•	•	•	•	•	•	•	•	•	•	•	•	•	•
	E,L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Antivibration

Ver	0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
Integrated hydronic kit: 00, I1, I2, I3, I4, P1, P2, P3, P4																		
°	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22
A	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22
E	VT17	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22
L	VT17	VT17	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22
Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08, K1, K2, K3, K4, W1, W2, W3, W4																		
°	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22
A	-	-	-	-	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22
E	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22	VT22
L	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT11	VT11	VT11	VT22	VT22	VT22	VT22	VT22	VT22	VT22

Condensation control temperature

Ver	0282	0302	0332	0352	0502	0552	0554	0602	0604
°,A	-	-	-	-	DCPX146	DCPX146	DCPX146	DCPX146	DCPX146
E,L	DCPX145	DCPX145	DCPX145	DCPX145	As standard	As standard	As standard	As standard	As standard

The accessory cannot be fitted on the configurations indicated with -

Ver	0652	0654	0682	0702	0704	0752	0754	0802	0804
°	DCPX146	DCPX146	DCPX147	DCPX147	DCPX147	DCPX147	DCPX147	DCPX147	DCPX147
A	DCPX146	DCPX147	DCPX147	DCPX147	DCPX147	DCPX147	DCPX147	DCPX147	DCPX147
E,L	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard

Anti-intrusion grid

Ver	0282	0302	0332	0352	0502	0552	0554	0602	0604
°,A	-	-	-	-	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)
E,L	GP3	GP3	GP4	GP4	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)

(1) x _ indicates the quantity to buy
The accessory cannot be fitted on the configurations indicated with -

Ver	0652	0654	0682	0702	0704	0752	0754	0802	0804
°,L	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)
A,E	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)

(1) x _ indicates the quantity to buy

Device for peak current reduction

Ver	0282	0302	0332	0352	0502	0552	0554	0602	0604
°,A	-	-	-	-	DRENRG502	DRENRG552	DRENRG554	DRENRG602	DRENRG604
E,L	DRENRG282	DRENRG302	DRENRG332	DRENRG352	DRENRG502	DRENRG552	DRENRG554	DRENRG602	DRENRG604

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

Ver	0652	0654	0682	0702	0704	0752	0754	0802	0804
°,A,E,L	DRENRG652	DRENRG654	DRENRG682	DRENRG702	DRENRG704	DRENRG752	DRENRG754	DRENRG802	DRENRG804

A grey background indicates the accessory must be assembled in the factory

Power factor correction

Ver	0282	0302	0332	0352	0502	0552	0554	0602	0604
°,A	-	-	-	-	RIFNRG502	RIFNRG552	RIFNRG554	RIFNRG602	RIFNRG604
E,L	RIFNRG282	RIFNRG302	RIFNRG332	RIFNRG352	RIFNRG502	RIFNRG552	RIFNRG554	RIFNRG602	RIFNRG604

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

Ver	0652	0654	0682	0702	0704	0752	0754	0802	0804
°,A,E,L	RIFNRG652	RIFNRG654	RIFNRG682	RIFNRG702	RIFNRG704	RIFNRG752	RIFNRG754	RIFNRG802	RIFNRG804

A grey background indicates the accessory must be assembled in the factory

Double safety valves

Ver	0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
°,A,E,L	T6NRG1	T6NRG1	T6NRG1	T6NRG1	T6NRG1	T6NRG1	T6NRG2	T6NRG1	T6NRG2	T6NRG1	T6NRG2	T6NRG1	T6NRG1	T6NRG2	T6NRG1	T6NRG2	T6NRG1	T6NRG2

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field		Description
1,2,3		**NRG**
4,5,6,7		**Size** 0282, 0302, 0332, 0352, 0502, 0552, 0554, 0602, 0604, 0652, 0654, 0682, 0702, 0704, 0752, 0754, 0802, 0804
8		**Operating field**
	X	Electronic thermostatic expansion valve (1)
	Z	Low temperature electronic thermostatic valve (2)
9		**Model**
	H	Heat pump
10		**Heat recovery**
	°	Without heat recovery
	D	With desuperheater (3)
11		**Version**
	°	Standard
	A	High efficiency
	E	Silenced high efficiency (4)
	L	Standard silenced (4)
12		**Coils**
	°	Copper-aluminium
	R	Copper pipes-copper fins
	S	Copper pipes-Tinned copper fins
	V	Copper pieps-Coated aluminium fins
13		**Fans**
	°	Standard
	J	Inverter
14		**Power supply**
	°	400V ~ 3N 50Hz with magnet circuit breakers
15,16		**Integrated hydronic kit**
	00	Without hydronic kit
		Kit with storage tank and pump/s
	01	Storage tank with low head pump
	02	Storage tank with low head pump + stand-by pump
	03	Storage tank with high head pump
	04	Storage tank with high head pump + stand-by pump
		Kit with storage tank and pump/s with holes for heaters
	05	Storage tank with holes for heaters and single low head pump (5)
	06	Storage tank with holes for heaters and pump low head + stand-by pump (5)
	07	Storage tank with holes for heaters and single high head pump (5)
	08	Storage tank with holes for heaters and pump high head + stand-by pump (5)
		Double loop
	09	Double loop
		Kit with pump/s
	P1	Single pump low head
	P2	Pump low head + stand-by pump
	P3	Single pump high head
	P4	Pump high head + stand-by pump
		Kit with inverter pump/s to fixed speed
	I1	Single low head pump + fixed speed inverter
	I2	Single low head pump with fixed speed inverter + stand-by pump
	I3	Single high head pump + fixed speed inverter
	I4	Single high head pump with fixed speed inverter + stand-by pump
		Kit with storage tank and inverter pump/s to fixed speed
	K1	Single low head pump + storage tank + fixed speed inverter
	K2	Storage tank and low head pump with fixed speed inverter + stand-by pump
	K3	Single high head pump + storage tank + fixed speed inverter
	K4	Storage tank and low head pump with fixed speed inverter + stand-by pump
		Kit with storage tank and variable speed inverter pump/s
	W1	Single low head pump + Storage tank + variable speed inverter (6)
	W2	Double low head pump + Storage tank + variable speed inverter (6)
	W3	Single high head pump + Storage tank + variable speed inverter (6)
	W4	Double high head pump + Storage tank + variable speed inverter (6)

(1) Water produced from 4 °C ÷ 20 °C
(2) Water produced from 18 °C to -10 °C. The option is not compatible with hydronic kits W1-W2-W3-W4.
(3) The desuperheater must be intercepted in heating mode. In cooling mode, a water temperature no lower than 35°C must always be guaranteed on the heat exchanger inlet.
(4) The size 0282-0302-0332-0352 are only available in the silenced versions "HL/HE"
(5) Storage tanks with holes for supplementary heaters (not provided) are sent from the factory with plastic protection caps. Before loading the system, if the installation of one or all resistances is not expected, all plastic caps must be replaced with the special caps, commonly commercially available.
(6) Not available with Low temperature electronic thermostatic valve "Z"

PERFORMANCE SPECIFICATIONS

NRG H°

Size		0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
Cooling performance 12 °C / 7 °C (1)																			
Cooling capacity	kW	-	-	-	-	93,7	103,4	114,4	117,5	127,3	127,8	141,4	156,4	175,2	169,8	196,0	190,4	215,2	209,1
Input power	kW	-	-	-	-	34,7	39,1	37,8	43,0	43,9	48,9	50,8	51,6	59,6	58,0	69,0	66,0	79,1	74,5
Cooling total input current	A	-	-	-	-	62,0	66,0	60,0	73,0	80,0	82,0	91,0	87,0	97,0	109,0	111,0	117,0	126,0	126,0
EER	W/W	-	-	-	-	2,70	2,65	3,03	2,73	2,90	2,61	2,78	3,03	2,94	2,93	2,84	2,89	2,72	2,81
Water flow rate system side	l/h	-	-	-	-	16141	17808	19683	20225	21912	22017	24335	26922	30168	29239	33727	32773	37044	35991
Pressure drop system side	kPa	-	-	-	-	31	38	20	34	24	40	25	48	60	36	60	40	72	49
Heating performance 40 °C / 45 °C (2)																			
Heating capacity	kW	-	-	-	-	99,6	108,8	118,2	125,6	132,1	137,6	146,9	162,6	183,1	176,7	203,0	195,8	222,4	214,4
Input power	kW	-	-	-	-	31,5	34,4	35,9	38,0	40,7	42,2	45,2	50,3	57,4	54,5	62,7	59,0	69,8	64,1
Heating total input current	A	-	-	-	-	59,0	62,0	59,0	68,0	79,0	75,0	88,0	87,0	96,0	109,0	105,0	112,0	117,0	116,0
COP	W/W	-	-	-	-	3,16	3,17	3,30	3,31	3,24	3,26	3,25	3,23	3,19	3,24	3,24	3,32	3,19	3,35
Water flow rate system side	l/h	-	-	-	-	17265	18855	20522	21779	22925	23855	25482	28203	31767	30659	35221	33974	38576	37206
Pressure drop system side	kPa	-	-	-	-	36	43	22	40	27	48	28	54	67	41	67	45	80	53

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRG HL

Size		0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
Cooling performance 12 °C / 7 °C (1)																			
Cooling capacity	kW	52,5	60,5	69,3	80,7	91,0	100,0	110,8	113,2	122,9	122,4	135,2	152,6	170,4	165,0	189,1	184,2	205,8	202,2
Input power	kW	20,2	23,0	25,4	30,1	35,2	39,6	38,4	44,3	45,0	50,9	53,2	52,2	61,2	59,1	71,5	67,9	82,7	77,3
Cooling total input current	A	33,0	42,0	47,0	57,0	60,0	65,0	59,0	72,0	79,0	82,0	92,0	84,0	95,0	107,0	111,0	116,0	128,0	126,0
EER	W/W	2,60	2,63	2,73	2,68	2,59	2,53	2,88	2,55	2,73	2,40	2,54	2,92	2,79	2,79	2,64	2,71	2,49	2,62
Water flow rate system side	l/h	9048	10428	11932	13896	15671	17215	19059	19485	21152	21086	23262	26277	29331	28417	32540	31692	35428	34793
Pressure drop system side	kPa	30	41	31	43	30	36	19	32	23	37	23	46	56	34	56	37	66	45
Heating performance 40 °C / 45 °C (2)																			
Heating capacity	kW	56,6	65,4	74,6	87,5	99,6	108,8	118,2	125,6	132,1	137,6	146,9	162,6	183,1	176,7	203,0	195,8	222,4	214,4
Input power	kW	17,4	20,2	22,3	26,5	31,5	34,4	35,9	38,0	40,7	42,2	45,2	50,3	57,4	54,5	62,7	59,0	69,8	64,1
Heating total input current	A	29,0	40,0	44,0	54,0	59,0	62,0	59,0	68,0	79,0	75,0	88,0	87,0	96,0	109,0	105,0	112,0	117,0	116,0
COP	W/W	3,26	3,24	3,35	3,30	3,16	3,17	3,30	3,31	3,24	3,26	3,25	3,23	3,19	3,24	3,24	3,32	3,19	3,35
Water flow rate system side	l/h	9816	11328	12928	15158	17265	18855	20522	21779	22925	23855	25482	28203	31767	30659	35221	33974	38576	37206
Pressure drop system side	kPa	37	48	38	51	36	43	22	40	27	48	28	54	67	41	67	45	80	53

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRG HA

Size		0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
Cooling performance 12 °C / 7 °C (1)																			
Cooling capacity	kW	-	-	-	-	96,4	106,6	115,8	122,0	128,8	133,3	146,8	160,1	178,0	170,7	199,5	191,8	219,8	212,0
Input power	kW	-	-	-	-	32,6	36,6	37,2	39,7	43,3	45,5	48,6	49,8	57,4	56,7	66,3	64,4	75,9	72,5
Cooling total input current	A	-	-	-	-	60,0	64,0	60,0	70,0	80,0	78,0	90,0	85,0	94,0	108,0	108,0	116,0	123,0	124,0
EER	W/W	-	-	-	-	2,95	2,91	3,11	3,07	2,97	2,93	3,02	3,21	3,10	3,01	3,01	2,98	2,90	2,93
Water flow rate system side	l/h	-	-	-	-	16583	18342	19918	21002	22155	22958	25273	27557	30631	29392	34336	33010	37829	36487
Pressure drop system side	kPa	-	-	-	-	23	28	17	29	21	35	28	40	49	33	54	39	66	48
Heating performance 40 °C / 45 °C (2)																			
Heating capacity	kW	-	-	-	-	103,0	113,7	119,7	126,6	133,9	138,9	155,5	162,3	181,1	175,3	200,6	195,0	219,9	213,7
Input power	kW	-	-	-	-	31,0	33,8	35,6	37,4	40,4	41,5	47,0	49,1	55,3	53,3	60,9	57,8	67,5	62,7
Heating total input current	A	-	-	-	-	59,0	61,0	58,0	68,0	79,0	75,0	91,0	86,0	93,0	107,0	103,0	110,0	114,0	114,0
COP	W/W	-	-	-	-	3,32	3,36	3,36	3,39	3,31	3,35	3,31	3,30	3,27	3,29	3,29	3,37	3,26	3,41
Water flow rate system side	l/h	-	-	-	-	17866	19723	20784	21964	23234	24088	26976	28153	31410	30409	34811	33832	38148	37079
Pressure drop system side	kPa	-	-	-	-	27	32	19	32	23	39	31	42	52	35	57	41	68	49

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRG HE

Size		0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
Cooling performance 12 °C / 7 °C (1)																			
Cooling capacity	kW	55,1	61,1	71,0	82,7	93,8	103,3	111,9	118,0	124,0	128,3	144,2	154,7	173,0	166,6	192,6	186,2	210,5	202,8
Input power	kW	19,3	22,3	24,4	28,6	33,0	37,4	38,2	40,8	44,9	46,7	48,9	50,9	58,9	57,3	68,8	65,7	79,3	75,4
Cooling total input current	A	32,0	42,0	47,0	56,0	58,0	62,0	60,0	69,0	80,0	78,0	87,0	82,0	93,0	106,0	109,0	114,0	125,0	123,0
EER	W/W	2,85	2,75	2,91	2,89	2,84	2,76	2,93	2,89	2,76	2,75	2,95	3,04	2,94	2,91	2,80	2,83	2,65	2,69
Water flow rate system side	l/h	9484	10522	12223	14246	16136	17773	19250	20314	21332	22097	24814	26647	29783	28680	33149	32040	36227	34901
Pressure drop system side	kPa	20	24	24	33	22	26	16	27	19	32	26	38	47	31	51	36	60	44
Heating performance 40 °C / 45 °C (2)																			
Heating capacity	kW	58,8	65,4	76,6	88,8	103,0	113,7	119,7	126,6	133,9	138,9	155,5	162,3	181,1	175,3	200,6	195,0	219,9	213,7
Input power	kW	17,2	19,7	22,5	26,5	31,0	33,8	35,6	37,4	40,4	41,5	47,0	49,1	55,3	53,3	60,9	57,8	67,5	62,7
Heating total input current	A	30,0	39,0	45,0	54,0	59,0	61,0	58,0	68,0	79,0	75,0	91,0	86,0	93,0	107,0	103,0	110,0	114,0	114,0
COP	W/W	3,42	3,32	3,40	3,35	3,32	3,36	3,36	3,39	3,31	3,35	3,31	3,30	3,27	3,29	3,29	3,37	3,26	3,41
Water flow rate system side	l/h	10207	11335	13280	15399	17866	19723	20784	21964	23234	24088	26976	28153	31410	30409	34811	33832	38148	37079
Pressure drop system side	kPa	23	28	29	39	27	32	19	32	23	39	31	42	52	35	57	41	68	49

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ENERGY DATA - STANDARD/INVERTER FANS

Size			0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
Fans: °																				
Cooling capacity with low leaving water temp (UE n° 2016/2281)																				
SEER	°	W/W	-	-	-	-	3,92	3,84	3,97	4,00	3,83	3,94	3,88	4,17	4,06	3,87	3,95	3,92	3,82	3,80
	A	W/W	-	-	-	-	4,21	4,14	4,07	4,34	4,01	4,24	4,10	4,40	4,32	4,14	4,31	4,17	4,12	4,04
	E	W/W	4,40	4,32	4,37	4,33	4,26	4,13	4,03	4,29	3,97	4,10	4,06	4,36	4,21	4,10	4,20	4,13	4,07	4,00
	L	W/W	4,14	4,03	4,22	4,07	3,98	3,89	3,94	4,01	3,80	3,89	3,84	4,12	4,00	3,84	3,91	3,88	3,77	3,77
ηsc	°	%	-	-	-	-	154%	151%	156%	157%	150%	155%	152%	164%	160%	152%	155%	154%	150%	149%
	A	%	-	-	-	-	165%	163%	160%	171%	157%	167%	161%	173%	170%	162%	169%	164%	162%	159%
	E	%	173%	170%	172%	170%	167%	162%	158%	169%	156%	161%	160%	172%	166%	161%	165%	162%	160%	157%
	L	%	163%	158%	166%	160%	156%	153%	155%	157%	149%	153%	151%	162%	157%	150%	153%	152%	148%	148%

Size			0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
Fans: J																				
Cooling capacity with low leaving water temp (UE n° 2016/2281)																				
SEER	°	W/W	-	-	-	-	4,04	3,96	4,10	4,12	3,96	4,06	4,00	4,30	4,19	3,99	4,07	4,04	3,94	3,91
	A	W/W	-	-	-	-	4,33	4,26	4,20	4,47	4,13	4,37	4,23	4,54	4,45	4,26	4,43	4,29	4,25	4,17
	E	W/W	4,45	4,36	4,41	4,37	4,38	4,25	4,16	4,42	4,09	4,22	4,19	4,49	4,34	4,22	4,33	4,25	4,20	4,13
	L	W/W	4,18	4,07	4,26	4,10	4,10	4,01	4,06	4,12	3,92	4,01	3,96	4,25	4,13	3,95	4,03	4,00	3,89	3,88
ηsc	°	%	-	-	-	-	159%	155%	161%	162%	155%	159%	157%	169%	164%	157%	160%	158%	155%	154%
	A	%	-	-	-	-	170%	168%	165%	176%	162%	172%	166%	178%	175%	167%	174%	169%	167%	164%
	E	%	175%	171%	174%	172%	172%	167%	163%	174%	161%	166%	164%	177%	171%	166%	170%	167%	165%	162%
	L	%	164%	160%	167%	161%	161%	157%	159%	162%	154%	157%	155%	167%	162%	155%	158%	157%	153%	152%

ENERGY DATA - STANDARD/INVERTER FANS (35°C)

Size			0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
Fans: °																				
Performance in average ambient conditions (average) - 35 °C (1)																				
SCOP	°		-	-	-	-	3,50	3,55	3,36	3,55	3,33	3,61	3,32	3,47	3,57	3,23	3,54	3,32	3,41	3,36
	A		-	-	-	-	3,59	3,69	3,43	3,69	3,42	3,70	3,38	3,59	3,65	3,33	3,66	3,42	3,56	3,44
	E		4,06	4,00	4,02	3,91	3,59	3,69	3,43	3,69	3,42	3,70	3,38	3,59	3,65	3,33	3,66	3,42	3,56	3,44
	L		3,91	3,86	3,87	3,83	3,50	3,55	3,36	3,55	3,33	3,61	3,32	3,47	3,57	3,23	3,54	3,32	3,41	3,36
ηsh	°	%	-	-	-	-	135%	139%	131%	139%	130%	141%	130%	135%	139%	126%	139%	130%	134%	131%
	A	%	-	-	-	-	141%	145%	134%	145%	134%	145%	132%	141%	143%	130%	143%	134%	140%	134%
	E	%	159%	157%	158%	154%	141%	145%	134%	145%	134%	145%	132%	141%	143%	130%	143%	134%	140%	134%
	L	%	153%	151%	152%	150%	135%	139%	131%	139%	130%	141%	130%	135%	139%	126%	139%	130%	134%	131%
Efficiency energy class	°,A		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	E,L		A+	A+	A+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fans: J																				
Performance in average ambient conditions (average) - 35 °C (1)																				
SCOP	°		-	-	-	-	3,61	3,66	3,53	3,66	3,49	3,71	3,49	3,57	3,68	3,42	3,65	3,52	3,52	3,56
	A		-	-	-	-	3,70	3,80	3,60	3,80	3,59	3,81	3,59	3,70	3,76	3,53	3,77	3,63	3,67	3,64
	E		4,10	4,04	4,06	3,99	3,70	3,80	3,60	3,80	3,59	3,81	3,59	3,70	3,76	3,53	3,77	3,63	3,67	3,64
	L		3,95	3,90	3,91	3,91	3,61	3,66	3,53	3,66	3,49	3,71	3,49	3,57	3,68	3,42	3,65	3,52	3,52	3,56
ηsh	°	%	-	-	-	-	141%	143%	138%	143%	137%	146%	136%	140%	144%	134%	143%	138%	138%	139%
	A	%	-	-	-	-	145%	149%	141%	149%	141%	149%	141%	145%	147%	138%	148%	142%	144%	143%
	E	%	161%	159%	159%	157%	145%	149%	141%	149%	141%	149%	141%	145%	147%	138%	148%	142%	144%	143%
	L	%	155%	153%	153%	153%	141%	143%	138%	143%	137%	146%	136%	140%	144%	134%	143%	138%	138%	139%
Efficiency energy class	°,A		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	E,L		A+	A+	A+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

(1) Efficiencies for low temperature applications (35 °C)

ENERGY DATA - STANDARD/INVERTER FANS (55°C)

Size			0282	0302	0332	0352	0502	0552	0602	0652	0682	0702	0752	0802
Fans: °														
Performance in average ambient conditions (average) - 55 °C (1)														
SCOP	°		-	-	-	-	2,84	2,94	2,93	3,00	2,84	2,84	2,84	-
	A		-	-	-	-	2,91	3,05	3,03	3,04	2,93	2,89	2,92	2,84
	E		3,13	3,10	3,11	3,06	2,91	3,05	3,03	3,04	2,93	2,89	2,92	2,84
	L		3,05	3,03	3,03	3,01	2,84	2,94	2,93	3,00	2,84	2,84	2,84	-
ηsh	°	%	-	-	-	-	111%	115%	114%	117%	111%	111%	111%	-
	A	%	-	-	-	-	113%	119%	118%	119%	114%	113%	114%	110%
	E	%	122%	121%	122%	119%	113%	119%	118%	119%	114%	113%	114%	110%
	L	%	119%	118%	118%	117%	111%	115%	114%	117%	111%	111%	111%	-
Efficiency energy class	°,A		-	-	-	-	-	-	-	-	-	-	-	-
	E,L		A++	A++	A++	-	-	-	-	-	-	-	-	-
Fans: J														
Performance in average ambient conditions (average) - 55 °C (1)														
SCOP	°		-	-	-	-	2,92	3,02	3,02	3,09	2,93	2,93	2,93	-
	A		-	-	-	-	2,99	3,13	3,12	3,13	3,02	2,98	3,01	2,92
	E		3,16	3,12	3,14	3,12	2,99	3,13	3,12	3,13	3,02	2,98	3,01	2,92
	L		3,08	3,06	3,06	3,07	2,92	3,02	3,02	3,09	2,93	2,93	2,93	-
ηsh	°	%	-	-	-	-	114%	118%	118%	120%	114%	114%	114%	-
	A	%	-	-	-	-	117%	122%	122%	122%	118%	116%	117%	114%
	E	%	123%	122%	123%	122%	117%	122%	122%	122%	118%	116%	117%	114%
	L	%	120%	119%	119%	120%	114%	118%	118%	120%	114%	114%	114%	-
Efficiency energy class	°,A		-	-	-	-	-	-	-	-	-	-	-	-
	E,L		A++	A++	A++	-	-	-	-	-	-	-	-	-

(1) Efficiencies for average temperature applications (55 °C)

ELECTRIC DATA

Size			0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
Electric data																				
Maximum current (FLA)	°	A	-	-	-	-	73,5	79,1	80,5	88,3	97,2	97,4	108,5	111,5	122,6	132,7	139,4	144,0	156,1	155,3
	A	A	-	-	-	-	73,5	79,1	80,5	88,3	97,2	97,4	111,4	111,5	122,6	132,7	139,4	144,0	156,1	155,3
	E	A	41,6	49,9	56,9	67,6	73,5	79,1	80,5	88,3	97,2	97,4	111,4	111,5	122,6	132,7	139,4	144,0	156,1	155,3
	L	A	40,2	49,9	55,5	67,6	73,5	79,1	80,5	88,3	97,2	97,4	108,5	111,5	122,6	132,7	139,4	144,0	156,1	155,3
Peak current (LRA)	°	A	-	-	-	-	277,6	283,3	200,8	330,0	192,3	339,1	222,8	364,5	375,7	275,7	473,7	348,2	490,4	359,5
	A	A	-	-	-	-	277,6	283,3	200,8	330,0	192,3	339,1	225,7	364,5	375,7	275,7	473,7	348,2	490,4	359,5
	E	A	161,9	145,0	171,3	210,6	277,6	283,3	200,8	330,0	192,3	339,1	225,7	364,5	375,7	275,7	473,7	348,2	490,4	359,5
	L	A	160,5	145,0	169,9	210,6	277,6	283,3	200,8	330,0	192,3	339,1	222,8	364,5	375,7	275,7	473,7	348,2	490,4	359,5

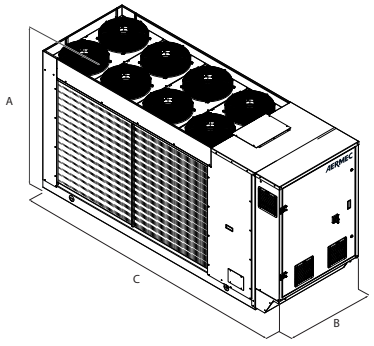
Data calculated without hydronic kit and accessories.

GENERAL TECHNICAL DATA

Size			0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
Compressor																				
Type	°,A,E,L	type										Scroll								
Compressor regulation	°,A,E,L	Type										On-Off								
Number	°,A,E,L	no.	2	2	2	2	2	2	4	2	4	2	4	2	2	4	2	4	2	4
Circuits	°,A,E,L	no.	1	1	1	1	1	1	2	1	2	1	2	1	1	2	1	2	1	2
Refrigerant	°,A,E,L	type										R32								
System side heat exchanger																				
Type	°,A,E,L	type										Brazed plate								
Number	°,A,E,L	no.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Fan																				
Type	°,A,E,L	type										Axial								
Number	°	no.	-	-	-	-	2	2	2	2	2	2	2	3	3	3	3	3	3	3
	A	no.	-	-	-	-	2	2	2	2	2	2	3	3	3	3	3	3	3	3
	E	no.	6	6	8	8	2	2	2	2	2	2	3	3	3	3	3	3	3	3
	L	no.	4	6	6	8	2	2	2	2	2	2	2	3	3	3	3	3	3	3
Air flow rate	°	m^3/h	-	-	-	-	42831	42819	40170	41067	40170	41067	38299	62024	62022	60681	62022	60681	62022	60681
	A	m^3/h	-	-	-	-	41097	41097	38299	39483	38299	39483	60681	59734	59721	57995	59721	57995	59721	57995
	E	m^3/h	21224	21224	28177	25805	31035	31035	28870	29848	28870	29848	45978	45211	45211	43804	45211	43804	45211	43804
	L	m^3/h	15552	21229	22716	28186	32592	32592	30388	31000	30388	31000	28869	47029	47029	45980	47029	45980	47029	45980
Sound data calculated in cooling mode (1)																				
Sound power level	°	dB(A)	-	-	-	-	87,2	87,5	86,5	87,7	87,1	87,9	87,1	89,4	89,5	88,8	90,0	90,1	90,1	90,0
	A	dB(A)	-	-	-	-	87,2	87,5	86,5	87,7	87,1	87,9	88,8	89,4	89,5	88,8	90,0	90,1	90,1	90,0
	E	dB(A)	73,6	74,1	74,9	75,1	82,8	83,5	76,6	83,9	77,3	84,3	78,4	85,5	85,6	78,6	86,7	84,6	87,3	86,2
	L	dB(A)	73,0	74,1	74,5	75,1	82,8	83,5	76,6	83,9	77,3	84,3	77,7	85,5	85,6	78,6	86,7	84,6	87,3	86,2
Sound data calculated in heating mode (1)																				
Sound power level	°	dB(A)	-	-	-	-	87,2	87,5	86,5	87,7	87,1	87,9	87,1	89,4	89,5	88,8	90,0	90,1	90,1	90,0
	A	dB(A)	-	-	-	-	87,2	87,5	86,5	87,7	87,1	87,9	88,8	89,4	89,5	88,8	90,0	90,1	90,1	90,0
	E	dB(A)	73,6	74,1	74,9	75,1	87,2	87,5	86,5	87,7	87,1	87,9	88,8	89,4	89,5	88,8	90,0	90,1	90,1	90,0
	L	dB(A)	73,0	74,1	74,5	75,1	87,2	87,5	86,5	87,7	87,1	87,9	87,1	89,4	89,5	88,8	90,0	90,1	90,1	90,0

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size			0282	0302	0332	0352	0502	0552	0554	0602	0604	0652	0654	0682	0702	0704	0752	0754	0802	0804
Dimensions and weights																				
A	°	mm	-	-	-	-	1907	1907	1907	1907	1907	1907	1907	1900	1900	1900	1900	1900	1900	1900
	A	mm	-	-	-	-	1907	1907	1907	1907	1907	1907	1900	1900	1900	1900	1900	1900	1900	1900
	E	mm	1652	1658	1658	1658	1907	1907	1907	1907	1907	1907	1900	1900	1900	1900	1900	1900	1900	1900
	L	mm	1652	1652	1658	1658	1907	1907	1907	1907	1907	1907	1907	1900	1900	1900	1900	1900	1900	1900
B	°,A	mm	-	-	-	-	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
	E,L	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
C	°	mm	-	-	-	-	3567	3567	3567	3567	3567	3567	3567	4368	4368	4368	4368	4368	4368	4368
	A	mm	-	-	-	-	3567	3567	3567	3567	3567	3567	4368	4368	4368	4368	4368	4368	4368	4368
	E	mm	2818	3317	3317	3317	3567	3567	3567	3567	3567	3567	4368	4368	4368	4368	4368	4368	4368	4368
	L	mm	2818	2818	3317	3317	3567	3567	3567	3567	3567	3567	3567	4368	4368	4368	4368	4368	4368	4368

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NRGI 151-602

Air-water chiller

Cooling capacity 31.0 ÷ 132.2 kW

- **High efficiency also at partial loads**
- **High modulation capacity**
- **Continuous modulation of the cooling capacity**
- **Compressors and fans with Inverter**
- **Reduced amount of refrigerant**
- **Stable temperature control of the outlet water**



DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications.
These are outdoor units with streamlined scroll compressors used with R32 gas.
Condensing coil with copper pipes and aluminium louvers, plate heat exchanger and **standard electronic expansion valve.**
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

A High efficiency
E Silenced high efficiency

FEATURES

Operating field

Operation at full load up to 50°C external air temperature. Unit can produce chilled water up to -10 °C.
For more information refer to the selection program and to to the dedicated documentation.

High efficiency

These are flexible and reliable units which adapt to the most diverse load conditions thanks to the precise design and **the use of steady speed compressors together with inverter-controlled variable speed compressors** guaranteeing a high energy efficiency level both at full and partial load.

Inverter compressor + On-Off

They can be configured with a single variable speed compressor or two in tandem configuration, one steady and one variable speed. This pair guarantees high efficiency both with partial and full loads.
Sizes 151-281 have a single variable speed compressor. Sizes 302-602 have two compressors in tandem configuration.
This solution gets the best value out of the particularities and advantages of each compressor, enhancing the efficiency of each load condition and allowing for
— High seasonal efficiency
— steady and precise modulation of the chilling demand
— The stability of the outlet water temperature.

Refrigerant HFC R32

The environmental impact of the units is reduced considerably owing to the last generation R32 refrigerant.
Combining a reduced refrigerant load with a low global warming potential (GWP), these units boast low equivalent CO_2 values.

The leak detector is supplied as per standard.

New condensing Coils

The whole range uses copper - aluminium condensation coils with reduced diameter rows, allowing a lower quantity of gas to be used compared to traditional coils.

Electronic expansion valve

Single-compressor units have a standard electronic expansion valve, while units with tandem compressors have two.
The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy seasonal efficiency of the unit.

Inverter fans

All of the units are equipped as per standard with high-efficiency inverter-controlled axial fans which provide:
— Steady air flow rate adjustment
— Low consumption and reduced sound level at partial loads
— Operation with low outdoor air temperatures
— Precise condensation control for an extended operating range.

Option integrated hydronic kit

An optional, integrated hydronic kit containing the main hydraulic components, to obtain a solution that allows you to save money and to facilitate installation.
It is available in different configurations with storage tank or with fixed or variable pumps also inverter.

■ *VARIABLE FLOW RATE: Correctly adjust the speed of the inverter-controlled pumps according to the load demand of the system, in order to reduce power consumption.*

CONTROL PCO[5]

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.

— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
— The temperature control takes place with the integral proportional logic, based on the water output temperature.
— **Floating HP control:** this function can be activated in all the units, to optimise unit operation at any point by continuously modulating the fan speed. In addition, the use of inverter fans allows increased energy efficiency with partial loads.
— **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

INTEGRATED SOLUTION

The **"integrated solution" concept has been implemented in the system architecture**, consisting in an integrated and streamlined control of compressors and electronic valves.
This solution allowed a variety of new features to be introduced, such as:

— **Low Superheat Control**: Progressive superheating reduction in conditions of stability. This allows to increase energy performance: both in modulation and in full load conditions;
— **DLT control**: Control of electronic valves at discharge temperature in certain operating conditions. This is demonstrated in an enhanced reliability of the control and a considerable expansion of the machine's operating range.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PGD1: Allows you to control the unit at a distance.
GP: Anti-intrusion grid.
VT: Anti-vibration supports.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.
T6: Double safety valve with exchange cock, both on the high and low pressure branches.

ACCESSORIES COMPATIBILITY

Model	Ver	151	201	281	302	332	352	382	502	552	602
AER485P1	A,E	•	•	•	•	•	•	•	•	•	•
AERBACP	A,E	•	•	•	•	•	•	•	•	•	•
AERNET	A,E	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	A,E	•	•	•	•	•	•	•	•	•	•
PGD1	A,E	•	•	•	•	•	•	•	•	•	•

Antivibration

Ver	151	201	281	302	332	352	382	502	552	602
Integrated hydronic kit: 00, I1, I2, I3, I4, P1, P2, P3, P4										
A,E	VT17	VT13	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT22
Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08, 09, K1, K2, K3, K4, W1, W2, W3, W4										
A,E	VT13	VT13	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT22

Anti-intrusion grid

Ver	151	201	281	302	332	352	382	502	552	602
A,E	GP3	GP4	GP4	GP4	GP4	GP4	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)

(1) x _ indicates the quantity to buy

Device for peak current reduction

Ver	151	201	281	302	332	352	382	502	552	602
A,E	-	-	-	DRENRGI302	DRENRGI332	DRENRGI352	DRENRGI382	DRENRGI502	DRENRGI552	DRENRGI602

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

Double safety valves

Ver	151	201	281	302	332	352	382	502	552	602
A,E	T6NRG1	T6NRG1	T6NRG1	T6NRG1	T6NRG1	T6NRG1	T6NRG1	T6NRG1	T6NRG1	T6NRG1

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field		Description
1,2,3,4		**NRGI**
5,6,7		**Size** 151, 201, 281, 302, 332, 352, 382, 502, 552, 602
8		**Operating field (1)**
	X	Electronic thermostatic expansion valve
9		**Model**
	°	Cooling only
10		**Heat recovery**
	°	Without heat recovery
	D	With desuperheater (2)
11		**Version**
	A	High efficiency
	E	Silenced high efficiency
12		**Coils**
	°	Copper-aluminium
	R	Copper pipes-copper fins
	S	Copper pipes-Tinned copper fins
	V	Copper pieps-Coated aluminium fins
13		**Fans**
	J	Inverter
14		**Power supply**
	°	400V ~ 3N 50Hz with magnet circuit breakers
15,16		**Integrated hydronic kit**
		Without hydronic kit
	00	Without hydronic kit
		Kit with storage tank and pump/s
	01	Storage tank with low head pump
	02	Storage tank with low head pump + stand-by pump
	03	Storage tank with high head pump
	04	Storage tank with high head pump + stand-by pump
		Kit with pump/s and storage tank with holes for heaters
	05	Storage tank with holes for heaters and single low head pump (3)
	06	Storage tank with holes for heaters and pump low head + stand-by pump (3)
	07	Storage tank with holes for heaters and single high head pump (3)
	08	Storage tank with holes for heaters and pump high head + stand-by pump (3)
		Double loop
	09	Double loop
		Kit with pump/s
	P1	Single pump low head
	P2	Pump low head + stand-by pump
	P3	Single pump high head
	P4	Pump high head + stand-by pump
		Kit with inverter pump/s to fixed speed
	I1	Single low head pump + fixed speed inverter
	I2	Single low head pump with fixed speed inverter + stand-by pump
	I3	Single high head pump + fixed speed inverter
	I4	Single high head pump with fixed speed inverter + stand-by pump
		Kit with storage tank and inverter pump/s to fixed speed
	K1	Single low head pump + storage tank + fixed speed inverter
	K2	Storage tank and low head pump with fixed speed inverter + stand-by pump
	K3	Single high head pump + storage tank + fixed speed inverter
	K4	Storage tank and low head pump with fixed speed inverter + stand-by pump
		Kit with storage tank and variable speed inverter pump/s
	W1	Single low head pump + Storage tank + variable speed inverter
	W2	Double low head pump + Storage tank + variable speed inverter
	W3	Single high head pump + Storage tank + variable speed inverter
	W4	Double high head pump + Storage tank + variable speed inverter

(1) Water produced from -10 °C ÷ 20 °C. Double electronic thermostatic valve from size 302 to 602.
(2) Warning: on the recovery side, a minimum input temperature of 35°C must always be guaranteed on the heat exchanger. For more information about the unit operating range, refer to the Magellano selection program
(3) Storage tanks with holes for supplementary heaters (not provided) are sent from the factory with plastic protection caps. Before loading the system, if the installation of one or all resistances is not expected, all plastic caps must be replaced with the special caps, commonly commercially available.

PERFORMANCE SPECIFICATIONS

NRGI - A

Size		151	201	281	302	332	352	382	502	552	602
Cooling performance 12 °C / 7 °C (1)											
Cooling capacity	kW	39,2	52,6	58,2	69,4	77,7	83,2	93,2	103,3	114,0	132,2
Input power	kW	11,8	15,2	17,5	20,8	23,3	25,6	27,6	31,4	35,1	39,1
Cooling total input current	A	18,0	23,0	26,0	37,0	41,0	46,0	43,0	49,0	53,0	60,0
EER	W/W	3,31	3,47	3,32	3,33	3,34	3,25	3,37	3,29	3,24	3,38
Water flow rate system side	l/h	6746	9067	10028	11960	13388	14335	16031	17775	19616	22750
Pressure drop system side	kPa	18	33	40	35	44	50	24	23	28	29

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

NRGI - E

Size		151	201	281	302	332	352	382	502	552	602
Cooling performance 12 °C / 7 °C (1)											
Cooling capacity	kW	31,0	40,1	46,4	61,7	70,1	75,6	84,9	91,3	101,8	119,6
Input power	kW	8,9	11,0	13,1	17,9	20,2	22,5	24,6	26,9	30,8	34,2
Cooling total input current	A	13,0	17,0	19,0	32,0	36,0	41,0	39,0	43,0	47,0	53,0
EER	W/W	3,49	3,63	3,55	3,45	3,46	3,36	3,45	3,39	3,31	3,50
Water flow rate system side	l/h	5326	6900	7994	10624	12066	13021	14607	15705	17509	20576
Pressure drop system side	kPa	11	19	25	27	35	41	20	18	22	24

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

ENERGY DATA

Size			151	201	281	302	332	352	382	502	552	602
SEER - (EN14825:2018) 12/7 with inverter fans (1)												
SEER	A	W/W	5,19	5,32	5,37	5,04	5,07	5,22	5,33	5,36	5,18	5,33
	E	W/W	5,23	5,36	5,42	5,08	5,11	5,26	5,37	5,40	5,23	5,37
Seasonal efficiency	A	%	204,4%	209,8%	211,9%	198,4%	199,7%	205,7%	210,0%	211,4%	204,3%	210,0%
	E	%	206,0%	211,5%	213,6%	200,0%	201,3%	207,3%	211,8%	213,1%	206,0%	211,7%
SEER - 23/18 (EN14825: 2018) with inverter fans												
SEER	A	W/W	6,35	6,45	6,33	5,81	5,79	5,89	6,21	6,21	5,94	6,11
	E	W/W	6,52	6,75	6,58	5,93	5,84	5,91	6,31	6,32	6,00	6,21
Seasonal efficiency	A	%	250,9%	254,9%	250,2%	299,5%	228,4%	232,4%	245,2%	245,3%	234,6%	241,5%
	E	%	257,9%	266,8%	260,3%	234,2%	230,4%	233,4%	249,4%	249,8%	237,1%	245,4%
SEPR - (EN14825: 2018) High temperature with inverter fans (2)												
SEPR	A	W/W	7,10	7,60	7,50	7,10	7,30	7,40	7,10	7,10	6,50	6,50
	E	W/W	7,10	7,50	7,40	7,20	7,40	7,40	7,10	7,20	6,60	6,60

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

Size			151	201	281	302	332	352	382	502	552	602
Electric data												
Maximum current (FLA)	A,E	A	23,8	31,6	34,9	47,6	52,8	58,1	60,1	68,8	74,4	87,5
Peak current (LRA)	A,E	A	30,3	43,0	43,0	142,8	167,1	201,1	174,4	211,8	278,6	329,2

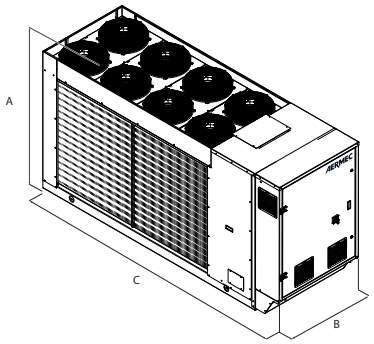
■ *Data calculated without hydronic kit and accessories.*

GENERAL TECHNICAL DATA

Size			151	201	281	302	332	352	382	502	552	602
Compressor												
Type	A,E	type	Scroll									
Compressor regulation	A,E	Type	Inverter	Inverter	Inverter	Inverter+On/Off	Inverter+On/Off	Inverter+On/Off	Inverter+On/Off	Inverter+On/Off	Inverter+On/Off	Inverter+On/Off
Number	A,E	no.	1	1	1	2	2	2	2	2	2	2
Circuits	A,E	no.	1	1	1	1	1	1	1	1	1	1
Refrigerant	A,E	type	R32									
System side heat exchanger												
Type	A,E	type	Brazed plate									
Number	A,E	no.	1	1	1	1	1	1	1	1	1	1
Inverter fan												
Type	A,E	type	Axial									
Number	A,E	no.	4	6	6	8	8	8	2	2	2	3
Air flow rate	A	m^3/h	16669	24469	24476	30793	28649	28662	36174	36174	36149	54601
	E	m^3/h	14488	21255	21255	26704	24966	24966	26850	26850	26781	40488
Sound data calculated in cooling mode (1)												
Sound power level	A	dB(A)	81,8	84,6	85,9	82,2	85,0	85,1	85,4	86,5	87,7	88,1
	E	dB(A)	79,3	82,8	83,3	80,9	81,3	81,7	82,8	83,0	85,4	85,5
Sound pressure level	A	dB(A)	50,0	52,7	54,1	50,3	53,2	53,3	53,5	54,6	55,8	56,1
(10 m)	E	dB(A)	47,6	51,0	51,4	49,0	49,5	49,8	50,9	51,1	53,5	53,5

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size			151	201	281	302	332	352	382	502	552	602
Dimensions and weights												
A	A,E	mm	1652	1652	1652	1652	1652	1652	1907	1907	1907	1900
B	A,E	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
C	A,E	mm	2873	3372	3372	3372	3372	3372	3623	3623	3623	4373

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NRGI 151H-602H

Reversible air/water heat pump

Cooling capacity 28.9 ÷ 123.7 kW
Heating capacity 31.6 ÷ 133.9 kW

- **High efficiency also at partial loads**
- **High modulation capacity**
- **Continuous modulation of the cooling capacity**
- **Compressors and fans with Inverter**
- **Reduced amount of refrigerant**
- **Stable temperature control of the outlet water**



DESCRIPTION

Reversible outdoor heat pumps for the production of chilled/heated water designed to satisfy the needs of residential and commercial buildings, or for industrial applications.
These are outdoor units with streamlined scroll compressors used with R32 gas.
Condensing coil with copper pipes and aluminium louvers, plate heat exchanger and **standard electronic expansion valve.**
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

A High efficiency
E Silenced high efficiency

FEATURES

Operating field

Working at full load up to -15 °C outside air temperature in winter, and up to 49 °C in summer. Hot water production up to 60 °C
For more information refer to the selection program and to to the dedicated documentation.

High efficiency

These are flexible and reliable units which adapt to the most diverse load conditions thanks to the precise design and **the use of steady speed compressors together with inverter-controlled variable speed compressors** guaranteeing a high energy efficiency level both at full and partial load.

Inverter compressor + On-Off

They can be configured with a single variable speed compressor or two in tandem configuration, one steady and one variable speed. This pair guarantees high efficiency both with partial and full loads.
Sizes 151-281 have a single variable speed compressor. Sizes 302-602 have two compressors in tandem configuration.
This solution gets the best value out of the particularities and advantages of each compressor, enhancing the efficiency of each load condition and allowing for

— High seasonal efficiency
— steady and precise modulation of the chilling demand
— The stability of the outlet water temperature.

Refrigerant HFC R32

The environmental impact of the units is reduced considerably owing to the last generation R32 refrigerant.
Combining a reduced refrigerant load with a low global warming potential (GWP), these units boast low equivalent CO_2 values.

■ *The leak detector is supplied as per standard.*

New condensing Coils

The whole range uses copper - aluminium condensation coils with reduced diameter rows, allowing a lower quantity of gas to be used compared to traditional coils.

Electronic expansion valve

Single-compressor units have a standard electronic expansion valve, while units with tandem compressors have two.
The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy seasonal efficiency of the unit.

Inverter fans

All of the units are equipped as per standard with high-efficiency inverter-controlled axial fans which provide:
— Steady air flow rate adjustment
— Low consumption and reduced sound level at partial loads
— Operation with low outdoor air temperatures
— Precise condensation control for an extended operating range.

Option integrated hydronic kit

An optional, integrated hydronic kit containing the main hydraulic components, to obtain a solution that allows you to save money and to facilitate installation.
It is available in different configurations with storage tank or with fixed or variable pumps also inverter.

■ *VARIABLE FLOW RATE: Correctly adjust the speed of the inverter-controlled pumps according to the load demand of the system, in order to reduce power consumption.*

CONTROL PCO[5]

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.

— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
— The temperature control takes place with the integral proportional logic, based on the water output temperature.
— **Swing HP and LP controls:** available for all models. By continuously modulating the fans, they streamline operation of the unit at any work point both in cooling and heating mode. This results in enhanced energy efficiency of the unit at partial loads.
— **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

INTEGRATED SOLUTION

The **"integrated solution" concept has been implemented in the system architecture**, consisting in an integrated and streamlined control of compressors and electronic valves.
This solution allowed a variety of new features to be introduced, such as:

— **Low Superheat Control**: Progressive superheating reduction in conditions of stability. This allows to increase energy performance: both in modulation and in full load conditions;
— **DLT control**: Control of electronic valves at discharge temperature in certain operating conditions. This is demonstrated in an enhanced reliability of the control and a considerable expansion of the machine's operating range, especially in heating mode.

ACCESSORIES

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AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PGD1: Allows you to control the unit at a distance.
GP: Anti-intrusion grid.
VT: Anti-vibration supports.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.
T6: Double safety valve with exchange cock, both on the high and low pressure branches.

ACCESSORIES COMPATIBILITY

Model	Ver	151	201	281	302	332	352	382	502	552	602
AER485P1	A,E	•	•	•	•	•	•	•	•	•	•
AERBACP	A,E	•	•	•	•	•	•	•	•	•	•
AERNET	A,E	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	A,E	•	•	•	•	•	•	•	•	•	•
PGD1	A,E	•	•	•	•	•	•	•	•	•	•

Antivibration

Ver	151	201	281	302	332	352	382	502	552	602
Integrated hydronic kit: 00, I1, I2, I3, I4, P1, P2, P3, P4										
A,E	VT17	VT13	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT22
Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08, 09, K1, K2, K3, K4, W1, W2, W3, W4										
A,E	VT13	VT13	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT22

Anti-intrusion grid

Ver	151	201	281	302	332	352	382	502	552	602
A,E	GP3	GP4	GP4	GP4	GP4	GP4	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)

(1) x _ indicates the quantity to buy

Device for peak current reduction

Ver	151	201	281	302	332	352	382	502	552	602
A,E	-	-	-	DRENRGI302	DRENRGI332	DRENRGI352	DRENRGI382	DRENRGI502	DRENRGI552	DRENRGI602

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

Double safety valves

Ver	151	201	281	302	332	352	382	502	552	602
A,E	T6NRG1	T6NRG1	T6NRG1	T6NRG1	T6NRG1	T6NRG1	T6NRG1	T6NRG1	T6NRG1	T6NRG1

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field		Description
1,2,3,4		**NRGI**
5,6,7		**Size** 151, 201, 281, 302, 332, 352, 382, 502, 552, 602
8		**Operating field (1)**
	X	Electronic thermostatic expansion valve
9		**Model**
	H	Heat pump
10		**Heat recovery**
	°	Without heat recovery
	D	With desuperheater (2)
11		**Version**
	A	High efficiency
	E	Silenced high efficiency
12		**Coils**
	°	Copper-aluminium
	R	Copper pipes-copper fins
	S	Copper pipes-Tinned copper fins
	V	Copper pieps-Coated aluminium fins
13		**Fans**
	J	Inverter
14		**Power supply**
	°	400V ~ 3N 50Hz with magnet circuit breakers
15,16		**Integrated hydronic kit**
		Without hydronic kit
	00	Without hydronic kit
		Kit with storage tank and pump/s
	01	Storage tank with low head pump
	02	Storage tank with low head pump + stand-by pump
	03	Storage tank with high head pump
	04	Storage tank with high head pump + stand-by pump
		Kit with pump/s and storage tank with holes for heaters
	05	Storage tank with holes for heaters and single low head pump (3)
	06	Storage tank with holes for heaters and pump low head + stand-by pump (3)
	07	Storage tank with holes for heaters and single high head pump (3)
	08	Storage tank with holes for heaters and pump high head + stand-by pump (3)
		Double loop
	09	Double loop
		Kit with pump/s
	P1	Single pump low head
	P2	Pump low head + stand-by pump
	P3	Single pump high head
	P4	Pump high head + stand-by pump
		Kit with inverter pump/s to fixed speed
	I1	Single low head pump + fixed speed inverter
	I2	Single low head pump with fixed speed inverter + stand-by pump
	I3	Single high head pump + fixed speed inverter
	I4	Single high head pump with fixed speed inverter + stand-by pump
		Kit with storage tank and inverter pump/s to fixed speed
	K1	Single low head pump + storage tank + fixed speed inverter
	K2	Storage tank and low head pump with fixed speed inverter + stand-by pump
	K3	Single high head pump + storage tank + fixed speed inverter
	K4	Storage tank and low head pump with fixed speed inverter + stand-by pump
		Kit with storage tank and variable speed inverter pump/s
	W1	Single low head pump + Storage tank + variable speed inverter
	W2	Double low head pump + Storage tank + variable speed inverter
	W3	Single high head pump + Storage tank + variable speed inverter
	W4	Double high head pump + Storage tank + variable speed inverter

(1) Water produced from -10 °C ÷ 20 °C. Double electronic thermostatic valve from size 302 to 602.
(2) The desuperheater must be intercepted in heating mode. In cooling mode, a water temperature no lower than 35°C must always be guaranteed on the heat exchanger inlet.
(3) Storage tanks with holes for supplementary heaters (not provided) are sent from the factory with plastic protection caps. Before loading the system, if the installation of one or all resistances is not expected, all plastic caps must be replaced with the special caps, commonly commercially available.

PERFORMANCE SPECIFICATIONS

NRGI - HA

Size		151	201	281	302	332	352	382	502	552	602
Cooling performance 12 °C / 7 °C											
Cooling capacity	kW	36,5	48,9	54,2	64,1	72,1	77,3	87,0	95,7	106,0	123,7
Input power	kW	12,1	15,6	18,1	21,5	23,9	26,3	28,4	32,3	36,1	39,1
Cooling total input current	A	18,0	24,0	27,0	38,0	42,0	47,0	44,0	51,0	55,0	60,0
EER	W/W	3,00	3,13	3,00	2,98	3,02	2,94	3,06	2,96	2,93	3,16
Water flow rate system side	l/h	6280	8416	9328	11028	12414	13315	14969	16471	18246	21290
Pressure drop system side	kPa	15	28	34	28	35	41	19	18	23	25
Heating performance 40 °C / 45 °C											
Heating capacity	kW	39,6	53,4	59,0	69,9	78,1	84,1	94,7	104,8	115,7	133,9
Input power	kW	11,6	15,4	17,3	20,3	23,0	24,9	29,4	32,2	34,6	40,6
Heating total input current	A	18,0	24,0	27,0	38,0	42,0	46,0	46,0	52,0	54,0	64,0
COP	W/W	3,42	3,46	3,42	3,45	3,40	3,37	3,22	3,25	3,34	3,30
Water flow rate system side	l/h	6869	9260	10228	12113	13544	14563	16431	18188	20074	23220
Pressure drop system side	kPa	18	33	40	34	42	49	23	22	27	29

NRGI - HE

Size		151	201	281	302	332	352	382	502	552	602
Cooling performance 12 °C / 7 °C (1)											
Cooling capacity	kW	28,9	37,0	42,6	56,7	64,9	70,1	78,8	84,0	94,0	111,3
Input power	kW	9,1	11,4	13,5	18,4	20,8	23,2	25,3	27,6	31,6	34,1
Cooling total input current	A	13,0	17,0	20,0	33,0	36,0	41,0	39,0	44,0	49,0	53,0
EER	W/W	3,17	3,25	3,15	3,07	3,12	3,03	3,12	3,04	2,97	3,26
Water flow rate system side	l/h	4974	6363	7326	9764	11165	12069	13554	14451	16179	19152
Pressure drop system side	kPa	10	16	21	22	29	33	16	14	18	20
Heating performance 40 °C / 45 °C (2)											
Heating capacity	kW	31,6	41,2	47,5	62,3	70,4	76,5	87,0	93,3	104,4	122,0
Input power	kW	9,1	11,8	13,6	18,0	20,3	22,2	27,0	28,5	31,2	36,8
Heating total input current	A	15,0	20,0	22,0	35,0	38,0	43,0	43,0	47,0	50,0	59,0
COP	W/W	3,49	3,49	3,49	3,47	3,47	3,44	3,23	3,27	3,35	3,32
Water flow rate system side	l/h	5484	7151	8247	10814	12215	13253	15103	16186	18126	21177
Pressure drop system side	kPa	12	20	26	27	34	40	20	18	22	24

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ENERGY DATA

Size			151	201	281	302	332	352	382	502	552	602
Cooling capacity with low leaving water temp (UE n° 2016/2281)												
ηsc	A	%	184%	195%	192%	182%	187%	184%	189%	191%	193%	201%
	E	%	185%	197%	194%	183%	188%	186%	190%	192%	194%	202%
SEER	A	W/W	4,67	4,96	4,89	4,62	4,74	4,68	4,79	4,84	4,90	5,09
	E	W/W	4,71	5,00	4,93	4,66	4,78	4,72	4,83	4,88	4,94	5,13
Performance in average ambient conditions (average) - 35 °C (1)												
Efficiency energy class	A,E		A++	A++	A++	A++	A++	-	-	-	-	-
Pdesignh	A	kW	34	46	51	61	67	72	81	90	100	115
	E	kW	27	35	41	54	61	66	75	80	90	105
SCOP	A		4,24	4,32	4,25	4,40	4,28	4,35	4,27	4,25	4,13	4,02
	E		4,27	4,35	4,29	4,44	4,31	4,38	4,30	4,29	4,17	4,05
ηsh	A	%	167%	170%	167%	173%	168%	171%	168%	167%	162%	158%
	E	%	168%	171%	168%	174%	170%	172%	169%	169%	164%	159%
Performance in average ambient conditions (average) - 55 °C (2)												
Efficiency energy class	A,E		A++	A++	A++	A++	A++	-	-	-	-	-
Pdesignh	A	kW	35	48	53	62	69	73	83	92	102	117
	E	kW	28	37	43	55	62	67	76	82	92	106
SCOP	A		3,31	3,40	3,38	3,37	3,41	3,49	3,28	3,35	3,35	3,27
	E		3,32	3,39	3,37	3,38	3,41	3,48	3,39	3,37	3,36	3,28
ηsh	A	%	129%	133%	132%	132%	134%	137%	128%	131%	131%	128%
	E	%	130%	133%	132%	132%	133%	136%	132%	132%	131%	128%

(1) Efficiencies for low temperature applications (35 °C)
(2) Efficiencies for average temperature applications (55 °C)

ELECTRIC DATA

Size			151	201	281	302	332	352	382	502	552	602
Electric data												
Maximum current (FLA)	A,E	A	23,8	31,6	34,9	47,6	52,8	58,1	60,1	68,8	74,4	87,5
Peak current (LRA)	A	A	30,3	43,0	43,0	142,8	167,1	201,1	174,4	211,8	278,6	329,2
	E	A	30,3	43,0	43,0	136,2	160,5	194,5	166,6	204,0	270,8	317,5

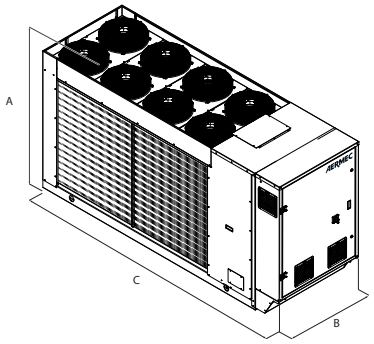
Data calculated without hydronic kit and accessories.

GENERAL TECHNICAL DATA

Size			151	201	281	302	332	352	382	502	552	602
Compressor												
Type	A,E	type	Scroll									
Compressor regulation	A,E	Type	Inverter	Inverter	Inverter	Inverter+On/Off	Inverter+On/Off	Inverter+On/Off	Inverter+On/Off	Inverter+On/Off	Inverter+On/Off	Inverter+On/Off
Number	A,E	no.	1	1	1	2	2	2	2	2	2	2
Circuits	A,E	no.	1	1	1	1	1	1	1	1	1	1
Refrigerant	A,E	type	R32									
System side heat exchanger												
Type	A,E	type	Brazed plate									
Number	A,E	no.	1	1	1	1	1	1	1	1	1	1
Inverter fan												
Type	A,E	type	Axial									
Number	A,E	no.	4	6	6	8	8	8	2	2	2	3
Air flow rate	A	m^3/h	16896	24887	24891	31613	29660	29659	36859	36859	36859	55733
	E	m^3/h	14667	21591	21591	27379	25774	25774	27308	27308	27307	41430
Sound data calculated in cooling mode (1)												
Sound power level	A	dB(A)	81,8	84,6	86,0	82,2	85,0	85,1	85,4	86,5	87,8	88,1
	E	dB(A)	79,3	82,8	83,3	80,9	81,3	81,7	82,8	83,0	85,4	85,6

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size				151	201	281	302	332	352	382	502	552	602
Dimensions and weights													
A	A,E	mm		1652	1652	1652	1652	1652	1652	1907	1907	1907	1900
B	A,E	mm		1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
C	A,E	mm		2873	3372	3372	3372	3372	3372	3623	3623	3623	4373

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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NRL 0280-0700

Air-water chiller

Cooling capacity 56 ÷ 194 kW

- **Low noise levels in silenced versions**
- **High efficiency also at partial loads**
- **Night mode**
- **Compact dimensions**



EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

A High efficiency
E Silenced high efficiency

FEATURES

Operating field

Operation at full load up to 46 °C external air temperature. Unit can produce chilled water (up to -10°C of water produced in some versions).

Dual-circuit unit

The units according to the size are mono or dual-circuit, to ensure maximum efficiency both at full load and at partial load.

Electronic expansion valve

The possibility to use electronic expansion valve, available to configurator, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations with one or two pumps, with high or low head and storage tank, to obtain a solution that allows you to save money and to facilitate installation.

CONTROL

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.

— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
— The temperature control takes place with the integral proportional logic, based on the water output temperature.
— **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load. **Night Mode for standard versions is mandatory DCPX accessory (standard on all low noise versions) or "J" inverter fan**

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PGD1: Allows you to control the unit at a distance.
DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.
GP: Anti-intrusion grid.
VT: Anti-vibration supports.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.
RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
PRM1: It is a manual pressure switch electrically wired in series with the existing automatic high pressure switch on the compressor discharge pipe.
C-TOUCH: 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

Model	Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700
AER485P1	A					•	•	•	•	•
	E	•	•	•	•	•	•	•	•	•
AERBACP	A					•	•	•	•	•
	E	•	•	•	•	•	•	•	•	•
AERNET	A					•	•	•	•	•
	E	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	A					•	•	•	•	•
	E	•	•	•	•	•	•	•	•	•
PGD1	A					•	•	•	•	•
	E	•	•	•	•	•	•	•	•	•

Model	Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700
C-TOUCH	A					•	•	•	•	•
	E	•	•	•	•	•	•	•	•	•

Condensation control temperature

Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700
Fans: °									
A	-	-	-	-	DCPX64	DCPX64	DCPX64	DCPX64	DCPX64
E	Inverter	Inverter	Inverter	Inverter	As standard	As standard	As standard	As standard	As standard
Fans: M									
A	-	-	-	-	DCPX64	DCPX64	DCPX64	DCPX64	DCPX65
E	DCPX63	DCPX63	DCPX63	DCPX63	As standard	As standard	As standard	As standard	As standard

Antivibration

Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700
Integrated hydronic kit: 00, P1, P2, P3, P4									
A	-	-	-	-	VT11	VT11	VT11	VT11	VT22
E	VT17	VT17	VT17	VT17	VT11	VT11	VT11	VT11	VT22
Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08, 09									
A	-	-	-	-	VT11	VT11	VT11	VT11	VT22
E	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT22

Anti-intrusion grid

Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700
A	-	-	-	-	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)
E	GP3	GP4	GP4	GP4	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)

(1) x _ indicates the quantity to buy

Device for peak current reduction

Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700
Power supply: °									
A	-	-	-	-	DRE501 (1)	DRE551 (1)	DRE601 (1)	DRE651 (1)	DRE701 (1)
E	DRE281 (1)	DRE301 (1)	DRE331 (1)	DRE351 (1)	DRE501 (1)	DRE551 (1)	DRE601 (1)	DRE651 (1)	DRE701 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
A grey background indicates the accessory must be assembled in the factory

Power factor correction

Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700
A	-	-	-	-	RIF52	RIF52	RIF53	RIF53	RIF53
E	RIF50	RIF50	RIF50	RIF51	RIF52	RIF52	RIF53	RIF53	RIF53

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field		Description
1,2,3		NRL
4,5,6,7		Size 0280, 0300, 0330, 0350, 0500, 0550, 0600, 0650, 0700
8		Operating field
	°	Standard mechanic thermostatic valve (1)
	X	Electronic thermostatic expansion valve (1)
	Y	Low temperature mechanic thermostatic valve (2)
9		Model
	°	Cooling only
	C	Motocondensing unit
10		Heat recovery
	°	Without heat recovery
	D	With desuperheater (3)
	T	With total recovery
11		Version
	A	High efficiency
	E	Silenced high efficiency (4)
12		Coils
	°	Copper-aluminium
	R	Copper pipes-copper fins
	S	Copper pipes-Tinned copper fins
	V	Copper pieps-Coated aluminium fins
13		Fans
	°	Standard (5)
	J	Inverter (6)
	M	Oversized (7)
14		Power supply
	°	400V ~ 3 50Hz with magnet circuit breakers
	1	220V~ 3 50Hz with magnet circuit breakers

Field		Description
15,16		Integrated hydronic kit
		Without hydronic kit
	00	Without hydronic kit
		Kit with storage tank and pump/s
	01	Storage tank with low head pump
	02	Storage tank with low head pump + stand-by pump
	03	Storage tank with high head pump
	04	Storage tank with high head pump + stand-by pump
		Kit with pump/s and storage tank with holes for heaters
	05	Storage tank with holes for heaters and single low head pump (8)
	06	Storage tank with holes for heaters and pump low head + stand-by pump (8)
	07	Storage tank with holes for heaters and single high head pump (8)
	08	Storage tank with holes for heaters and pump high head + stand-by pump (8)
		Double loop
	09	Double loop
		Kit with pump/s
	P1	Single pump low head
	P2	Pump low head + stand-by pump
	P3	Single pump high head
	P4	Pump high head + stand-by pump

(1) Water produced from 4 °C ÷ 18 °C
(2)) Water produced from 4 °C ÷ 18 °C for version"E", -10 °C for the others versions
(3) For "YT" - "ZT" - "YD" and "ZD" recovery versions, contact the headquarters; Warning: on the recovery side, a minimum input temperature of 35°C must always be guaranteed on the heat exchanger. For more information about the unit operating range, refer to the Magellano selection program
(4) The size up 0280 ÷ 0350 are only available in the silenced versions "E" with inverer fans
(5) As standard in sizes fom 0500 ÷ 0750
(6) Standard for size 0280 ÷ 0350, without useful static pressure, option for other size with useful static pressure.
(7) Available only for size from 0280 to 0350
(8) Storage tanks with holes for supplementary heaters (not provided) are sent from the factory with plastic protection caps. Before loading the system, if the installation of one or all resistances is not expected, all plastic caps must be replaced with the special caps, commonly commercially available.

PERFORMANCE SPECIFICATIONS

NRL - A

Size		0280	0300	0330	0350	0500	0550	0600	0650	0700
Cooling performance 12 °C / 7 °C (1)										
Cooling capacity	kW	-	-	-	-	97,7	103,7	128,7	142,7	162,7
Input power	kW	-	-	-	-	30,7	34,8	40,8	45,4	53,3
Cooling total input current	A	-	-	-	-	55,0	60,0	71,0	77,0	90,0
EER	W/W	-	-	-	-	3,19	2,98	3,15	3,14	3,05
Water flow rate system side	l/h	-	-	-	-	16838	17868	22164	24569	28005
Pressure drop system side	kPa	-	-	-	-	44	49	54	60	68

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

NRL - E

Size		0280	0300	0330	0350	0500	0550	0600	0650	0700
Cooling performance 12 °C / 7 °C (1)										
Cooling capacity	kW	56,8	64,8	73,8	82,8	89,8	94,8	116,7	128,7	149,7
Input power	kW	17,1	19,7	22,1	25,5	33,5	37,1	44,9	52,3	57,4
Cooling total input current	A	30,0	34,0	37,0	45,0	60,0	64,0	78,0	89,0	97,0
EER	W/W	3,33	3,29	3,34	3,24	2,68	2,55	2,60	2,46	2,61
Water flow rate system side	l/h	9793	11168	12714	14260	15463	16322	20102	22164	25772
Pressure drop system side	kPa	43	39	35	44	37	41	44	49	58

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

NRL - C

Size			0280	0300	0330	0350	0500	0550	0600	0650	0700
Model: C											
Cooling performance 12 °C / 7 °C (1)											
Cooling capacity	A	kW	-	-	-	-	101,0	107,0	133,0	147,0	168,0
	E	kW	59,0	67,0	76,0	85,0	93,0	98,0	121,0	133,0	155,0
Input power	A	kW	-	-	-	-	30,5	34,5	40,5	45,0	52,8
	E	kW	17,0	19,6	22,0	25,3	33,4	37,0	44,7	52,1	57,1
Input current	A	A	-	-	-	-	56,0	61,0	72,0	78,0	91,0
	E	A	35,0	39,0	43,0	49,0	71,0	65,0	79,0	90,0	98,0
EER	A	W/W	-	-	-	-	3,31	3,10	3,28	3,27	3,18
	E	W/W	3,47	3,42	3,45	3,36	2,78	2,65	2,71	2,55	2,71

(1) Evaporating temperature 5 °C, External air 35 °C

ENERGY INDICES (REG. 2016/2281 EU)

Size			0280	0300	0330	0350	0500	0550	0600	0650	0700
SEER - 12/7 (EN14825:2018) with standard fans (1)											
SEER	A	W/W	-	-	-	-	- (2)	- (2)	- (2)	- (2)	- (2)
	E	W/W	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
SEER - 23/18 (EN14825: 2018) with standard fans (3)											
SEER	A	W/W	-	-	-	-	4,34	4,19	4,73	4,71	4,59
	E	W/W	4,55	4,70	4,62	4,47	4,32	4,18	4,67	4,61	4,50
Seasonal efficiency	A	%	-	-	-	-	170,7%	164,6%	186,2%	185,2%	180,5%
	E	%	178,9%	184,9%	181,6%	175,9%	169,7%	164,0%	183,8%	181,3%	177,1%
SEPR - (EN14825: 2018) High temperature with standard fans (3)											
SEPR	A	W/W	-	-	-	-	6,05	5,66	5,94	5,91	5,74
	E	W/W	5,81	5,94	5,85	5,66	5,62	5,34	5,76	5,71	5,54

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Not covered by standard (EN14825: 2018 for comfort applications, 12°C / 7°C)
(3) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

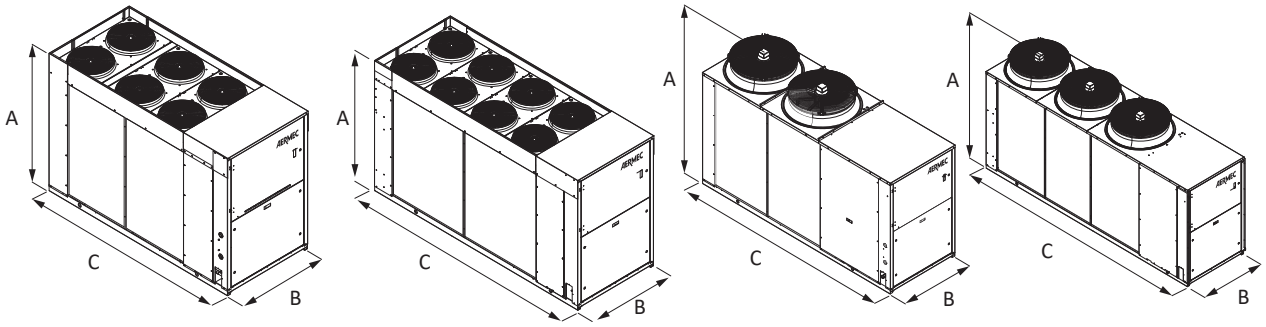
Size			0280	0300	0330	0350	0500	0550	0600	0650	0700
Electric data											
Maximum current (FLA)	A	A	-	-	-	-	76,0	81,0	100,0	112,0	122,0
	E	A	46,0	53,0	58,0	63,0	76,0	76,0	100,0	112,0	122,0
Peak current (LRA)	A	A	-	-	-	-	214,0	220,0	232,0	243,0	261,0
	E	A	155,0	184,0	190,0	200,0	214,0	214,0	232,0	243,0	261,0

GENERAL TECHNICAL DATA

Size			0280	0300	0330	0350	0500	0550	0600	0650	0700
Compressor											
Type	A,E	type					Scroll				
Compressor regulation	A,E	Type					On-Off				
Number	A,E	no.	2	2	2	2	3	3	4	4	4
Circuits	A,E	no.	2	2	2	2	2	2	2	2	2
Refrigerant	A,E	type					R410A				
System side heat exchanger											
Type	A,E	type					Brazed plate				
Number	A,E	no.	1	1	1	1	1	1	1	1	1
System side hydraulic connections											
Connections (in/out)	A,E	Type					Grooved joints				
Sizes (in/out)	A,E	Ø					2" 1/2				
Fan											
Type	A	type	-	-	-	-	Axial	Axial	Axial	Axial	Axial
	E	type					Axial				
Number	A	no.	-	-	-	-	2	2	2	2	3
	E	no.	6	6	8	8	2	2	2	2	3
Air flow rate	A	m^3/h	-	-	-	-	34100	34100	32600	32600	50000
	E	m^3/h	22000	22000	27000	27000	21100	22200	21800	22800	32500
Sound data calculated in cooling mode (1)											
Sound power level	A	dB(A)	-	-	-	-	82,0	82,0	82,0	83,0	85,0
	E	dB(A)	74,0	74,0	75,0	76,0	74,0	74,0	74,0	75,0	77,0
Sound pressure level (10 m)	A	dB(A)	-	-	-	-	50,1	50,1	50,1	51,1	53,0
	E	dB(A)	42,3	42,2	43,2	44,2	42,1	42,1	42,1	43,0	45,0

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size			0280	0300	0330	0350	0500	0550	0600	0650	0700
Dimensions and weights											
A	A	mm	-	-	-	-	1875	1875	1875	1875	1875
	E	mm	1606	1606	1606	1606	1875	1875	1875	1875	1875
B	A	mm	-	-	-	-	1100	1100	1100	1100	1100
	E	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100
C	A	mm	-	-	-	-	3010	3010	3010	3010	4010
	E	mm	2450	2950	2950	2950	3010	3010	3010	3010	4010
Dimensions and weights without hydronic kit											
Empty weight	A	kg	-	-	-	-	955	959	1142	1155	1323
	E	kg	686	751	761	767	955	959	1142	1155	1323

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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NRL 0280H-0700H

Reversible air/water heat pump

Cooling capacity 51 ÷ 180 kW
Heating capacity 58 ÷ 204 kW

- **High efficiency also at partial loads**
- **Compact dimensions**
- **Quick & easy installation**



DESCRIPTION

Reversible outdoor heat pumps for the production of chilled/heated water designed to satisfy the needs of residential and commercial buildings, or for industrial applications.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

° Standard
A High efficiency
E Silenced high efficiency
L Standard silenced

FEATURES

Operating field

Working at full load up to -15°C outside air temperature in winter, and up to 46°C in summer. Hot water production up to 55°C (for more information see the technical documentation).

Dual-circuit unit

The units are dual-circuit, to ensure maximum efficiency both at full load and at partial load.

Electronic expansion valve

The possibility to use electronic expansion valve, available to configurator, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

Option integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations with one or two pumps, with high or low head and storage tank, to obtain a solution that allows you to save money and to facilitate installation.

CONTROL

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.

— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
— The temperature control takes place with the integral proportional logic, based on the water output temperature.
— **Floating HP control:** the function can be activated with inverter fans or with DCPX which allows unit operation to be optimised at any operating point through continuous modulation of the fan speed. In addition, the use of inverter fans ensures an increase in energy efficiency at partial loads.
— **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PGD1: Allows you to control the unit at a distance.
DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.
GP: Anti-intrusion grid.
VT: Anti-vibration supports.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.
RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
C-TOUCH: 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating

parameters and graphically view the progress of some variables in real time.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

Model	Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700
AER485P1	°,A					•	•	•	•	•
	E,L	•	•	•	•	•	•	•	•	•
AERBACP	°,A					•	•	•	•	•
	E,L	•	•	•	•	•	•	•	•	•
AERNET	°,A					•	•	•	•	•
	E,L	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	°,A					•	•	•	•	•
	E,L	•	•	•	•	•	•	•	•	•
PGD1	°,A					•	•	•	•	•
	E,L	•	•	•	•	•	•	•	•	•

Model	Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700
C-TOUCH	°,A					•	•	•	•	•
	E,L	•	•	•	•	•	•	•	•	•

Condensation control temperature

Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700
Fans: °									
°	-	-	-	-	DCPX64	DCPX64	DCPX64	DCPX64	DCPX64
A	-	-	-	-	DCPX64	DCPX64	DCPX64	DCPX64	DCPX65
E,L	Inverter	Inverter	Inverter	Inverter	As standard	As standard	As standard	As standard	As standard
Fans: M									
E,L	DCPX63	DCPX63	DCPX63	DCPX63	-	-	-	-	-

Antivibration

Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700
Integrated hydronic kit: 00, P1, P2, P3, P4									
°	-	-	-	-	VT11	VT11	VT11	VT11	VT11
A	-	-	-	-	VT11	VT11	VT11	VT11	VT22
E,L	VT17	VT17	VT17	VT17	VT11	VT11	VT11	VT11	VT22
Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08, 09									
°	-	-	-	-	VT11	VT11	VT11	VT11	VT11
A	-	-	-	-	VT11	VT11	VT11	VT11	VT22
E,L	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT22

Anti-intrusion grid

Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700
°	-	-	-	-	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)
A	-	-	-	-	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)
E	GP3	GP4	GP4	GP4	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)
L	GP3	GP3	GP3	GP3	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)

(1) x _ indicates the quantity to buy

Model	Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700
C-TOUCH	°,A					•	•	•	•	•
	E,L	•	•	•	•	•	•	•	•	•

Device for peak current reduction

Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700
°,A	-	-	-	-	DRE501 (1)	DRE551 (1)	DRE601 (1)	DRE651 (1)	DRE701 (1)
E,L	DRE281 (1)	DRE301 (1)	DRE331 (1)	DRE351 (1)	DRE501 (1)	DRE551 (1)	DRE601 (1)	DRE651 (1)	DRE701 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
A grey background indicates the accessory must be assembled in the factory

Power factor correction

Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700
°,A	-	-	-	-	RIF52	RIF52	RIF53	RIF53	RIF53
E,L	RIF50	RIF50	RIF50	RIF51	RIF52	RIF52	RIF53	RIF53	RIF53

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field		Description
1,2,3		**NRL**
4,5,6,7		**Size** 0280, 0300, 0330, 0350, 0500, 0550, 0600, 0650, 0700
8		**Operating field**
	°	Standard mechanic thermostatic valve
	X	Electronic thermostatic expansion valve
9		**Model**
	H	Heat pump
10		**Heat recovery**
	°	Without heat recovery
	D	With desuperheater (1)
11		**Version**
	°	Standard
	A	High efficiency
	E	Silenced high efficiency (2)
	L	Standard silenced (2)
12		**Coils**
	°	Copper-aluminium
	R	Copper pipes-copper fins
	S	Copper pipes-Tinned copper fins
	V	Copper pieps-Coated aluminium fins
13		**Fans**
	°	Standard (3)
	J	Inverter (4)
	M	Oversized
14		**Power supply**

Field		Description
	°	400V ~ 3 50Hz with magnet circuit breakers
	1	220V~ 3 50Hz with magnet circuit breakers
15,16		**Integrated hydronic kit**
	00	Without hydronic kit
		Kit with storage tank and pump/s
	01	Storage tank with low head pump
	02	Storage tank with low head pump + stand-by pump
	03	Storage tank with high head pump
	04	Storage tank with high head pump + stand-by pump
		Kit with pump/s and storage tank with holes for heaters
	05	Storage tank with holes for heaters and single low head pump (5)
	06	Storage tank with holes for heaters and pump low head + stand-by pump (5)
	07	Storage tank with holes for heaters and single high head pump (5)
	08	Storage tank with holes for heaters and pump high head + stand-by pump (5)
		Double loop
	09	Double loop
		Kit with pump/s
	P1	Single pump low head
	P2	Pump low head + stand-by pump
	P3	Single pump high head
	P4	Pump high head + stand-by pump

(1) The desuperheater must be intercepted in heating mode. In cooling mode, a water temperature no lower than 35°C must always be guaranteed on the heat exchanger inlet.
(2) The size 0280-0300-0330-0350 are only available in the silenced versions "HL/HE"
(3) As standard in sizes fom 0500 ÷ 0750
(4) Standard for size 0280 ÷ 0350, without useful static pressure, option for other size with useful static pressure.
(5) Storage tanks with holes for supplementary heaters (not provided) are sent from the factory with plastic protection caps. Before loading the system, if the installation of one or all resistances is not expected, all plastic caps must be replaced with the special caps, commonly commercially available.

PERFORMANCE SPECIFICATIONS

NRL H°

Size		0280	0300	0330	0350	0500	0550	0600	0650	0700
Cooling performance 12 °C / 7 °C (1)										
Cooling capacity	kW	-	-	-	-	89,7	94,7	114,6	133,7	144,7
Input power	kW	-	-	-	-	36,9	41,0	49,8	54,1	63,8
Cooling total input current	A	-	-	-	-	63,0	67,0	81,0	88,0	100,0
EER	W/W	-	-	-	-	2,43	2,31	2,30	2,47	2,27
Water flow rate system side	l/h	-	-	-	-	15463	16322	19758	23023	24913
Pressure drop system side	kPa	-	-	-	-	46	50	53	58	64
Heating performance 40 °C / 45 °C (2)										
Heating capacity	kW	-	-	-	-	99,3	106,3	129,3	150,3	165,4
Input power	kW	-	-	-	-	33,8	36,7	43,9	49,0	56,3
Heating total input current	A	-	-	-	-	60,0	63,0	76,0	82,0	95,0
COP	W/W	-	-	-	-	2,94	2,90	2,94	3,07	2,94
Water flow rate system side	l/h	-	-	-	-	17206	18423	22420	26070	28677
Pressure drop system side	kPa	-	-	-	-	55	62	67	73	83

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRL HL

Size		0280	0300	0330	0350	0500	0550	0600	0650	0700
Cooling performance 12 °C / 7 °C (1)										
Cooling capacity	kW	50,8	60,8	65,9	72,8	82,8	89,7	109,7	123,6	139,7
Input power	kW	20,4	22,8	26,4	31,4	40,1	43,4	52,4	59,0	66,4
Cooling total input current	A	36,0	40,0	44,0	51,0	70,0	75,0	90,0	99,0	111,0
EER	W/W	2,49	2,67	2,49	2,32	2,07	2,07	2,09	2,10	2,10
Water flow rate system side	l/h	8762	10480	11340	12542	14260	15463	18899	21305	24054
Pressure drop system side	kPa	47	43	29	45	39	45	49	50	60
Heating performance 40 °C / 45 °C (2)										
Heating capacity	kW	58,2	68,2	75,2	82,3	99,3	106,3	129,3	150,3	165,4
Input power	kW	19,0	21,7	24,6	28,3	33,8	36,7	43,9	49,0	56,3
Heating total input current	A	33,0	38,0	41,0	50,0	60,0	63,0	76,0	82,0	95,0
COP	W/W	3,06	3,14	3,05	2,91	2,94	2,90	2,94	3,07	2,94
Water flow rate system side	l/h	10080	11818	13035	14252	17206	18423	22420	26070	28677
Pressure drop system side	kPa	61	54	36	56	55	62	67	73	83

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRL HA

Size		0280	0300	0330	0350	0500	0550	0600	0650	0700
Cooling performance 12 °C / 7 °C (1)										
Cooling capacity	kW	-	-	-	-	93,8	99,8	121,7	137,6	149,7
Input power	kW	-	-	-	-	30,8	34,0	41,5	48,5	52,1
Cooling total input current	A	-	-	-	-	55,0	60,0	71,0	77,0	90,0
EER	W/W	-	-	-	-	3,05	2,93	2,93	2,84	2,88
Water flow rate system side	l/h	-	-	-	-	16150	17181	20961	23710	25772
Pressure drop system side	kPa	-	-	-	-	33	36	36	43	49
Heating performance 40 °C / 45 °C (2)										
Heating capacity	kW	-	-	-	-	103,3	110,3	135,4	152,3	171,3
Input power	kW	-	-	-	-	31,7	34,3	40,8	45,7	53,1
Heating total input current	A	-	-	-	-	55,0	59,0	72,0	82,0	88,0
COP	W/W	-	-	-	-	3,26	3,21	3,32	3,33	3,23
Water flow rate system side	l/h	-	-	-	-	17901	19118	23463	26417	29720
Pressure drop system side	kPa	-	-	-	-	40	44	44	52	64

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRL HE

Size		0280	0300	0330	0350	0500	0550	0600	0650	0700
Cooling performance 12 °C / 7 °C (1)										
Cooling capacity	kW	52,9	61,9	68,8	76,8	89,8	94,8	113,8	127,7	142,7
Input power	kW	18,1	20,2	23,4	26,9	33,4	36,7	45,4	53,2	58,5
Cooling total input current	A	30,0	34,0	37,0	45,0	60,0	64,0	78,0	89,0	97,0
EER	W/W	2,93	3,06	2,94	2,86	2,69	2,58	2,51	2,40	2,44
Water flow rate system side	l/h	9106	10652	11855	13229	15463	16322	19586	21992	24569
Pressure drop system side	kPa	27	27	51	29	30	32	31	37	45
Heating performance 40 °C / 45 °C (2)										
Heating capacity	kW	59,1	69,2	76,3	86,2	103,3	110,3	135,4	152,3	171,3
Input power	kW	17,5	20,6	23,1	26,1	31,7	34,3	40,8	45,7	53,1
Heating total input current	A	35,0	39,0	43,0	49,0	60,0	64,0	79,0	91,0	99,0
COP	W/W	3,38	3,36	3,31	3,30	3,26	3,21	3,32	3,33	3,23
Water flow rate system side	l/h	10254	11992	13209	14947	17901	19118	23463	26417	29720
Pressure drop system side	kPa	25	34	66	34	40	44	44	52	64

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ELECTRIC DATA

Size			0280	0300	0330	0350	0500	0550	0600	0650	0700
Electric data											
Maximum current (FLA)	°,A	A	-	-	-	-	76,0	81,0	100,0	112,0	122,0
	E	A	46,0	53,0	58,0	63,0	76,0	81,0	100,0	112,0	122,0
	L	A	46,0	53,0	53,0	63,0	76,0	220,0	100,0	112,0	122,0
Peak current (LRA)	°,A	A	-	-	-	-	214,0	220,0	232,0	243,0	261,0
	E	A	155,0	184,0	190,0	200,0	214,0	220,0	232,0	243,0	261,0
	L	A	155,0	184,0	184,0	200,0	214,0	81,0	232,0	143,0	261,0

ENERGY DATA

Size			0280	0300	0330	0350	0500	0550	0600	0650	0700
Cooling capacity with low leaving water temp (UE n° 2016/2281)											
SEER	°	W/W	-	-	-	-	3,17	3,07	3,49	3,30	3,37
	A	W/W	-	-	-	-	3,59	3,94	3,94	3,92	3,85
	E	W/W	3,74	3,71	3,80	3,71	3,55	3,36	3,77	3,74	3,69
	L	W/W	2,96	3,19	3,01	3,28	3,15	3,07	3,48	3,31	3,36
ηsc	°	%	-	-	-	-	123,60	119,70	136,60	128,90	131,70
	A	%	-	-	-	-	140,60	154,50	154,50	153,70	150,80
	E	%	146,50	145,20	148,90	145,30	138,90	131,40	147,80	146,70	144,50
	L	%	115,30	124,40	117,30	128,30	122,80	119,60	136,20	129,40	131,50
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)											
Efficiency energy class	°,A		-	-	-	-	-	-	-	-	-
	E,L		A+	A+	A+	-	-	-	-	-	-
Pdesignh	°	kW	-	-	-	-	85	91	110	127	141
	A	kW	-	-	-	-	87	93	114	129	145
	E	kW	50	58	64	73	87	93	114	129	145
	L	kW	49	58	64	71	85	91	110	127	141
ηsh	°	%	-	-	-	-	125,00	125,00	125,00	128,00	125,00
	A	%	-	-	-	-	136,00	136,00	140,00	140,00	135,00
	E	%	138,00	137,00	137,00	135,00	136,00	136,00	140,00	140,00	135,00
	L	%	125,00	128,00	125,00	125,00	125,00	125,00	125,00	128,00	125,00
SCOP	°		-	-	-	-	3,20	3,20	3,20	3,28	3,20
	A		-	-	-	-	3,48	3,48	3,58	3,58	3,45
	E		3,53	3,50	3,50	3,45	3,48	3,48	3,58	3,58	3,45
	L		3,20	3,28	3,20	3,20	3,20	3,20	3,20	3,28	3,20

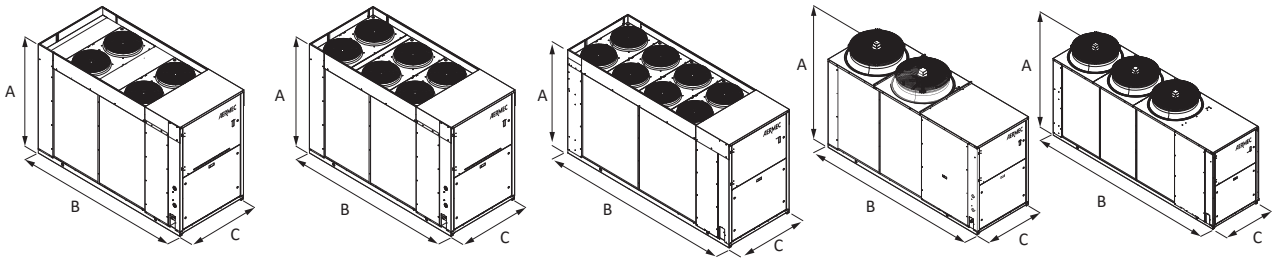
(1) Efficiencies for low temperature applications (35 °C)

GENERAL TECHNICAL DATA

Size			0280	0300	0330	0350	0500	0550	0600	0650	0700
Compressor											
Type	°,A,E,L	type					Scroll				
Compressor regulation	°,A,E,L	Type					On-Off				
Number	°,A,E,L	no.	2	2	2	2	3	3	4	4	4
Circuits	°,A,E,L	no.	2	2	2	2	2	2	2	2	2
Refrigerant	°,A,E,L	type					R410A				
System side heat exchanger											
Type	°,A,E,L	type					Brazed plate				
Number	°,A,E,L	no.	1	1	1	1	1	1	1	1	1
System side hydraulic connections											
Connections (in/out)	°,A,E,L	Type					Grooved joints				
Sizes (in/out)	°,A,E,L	Ø					2" 1/2				
Fan											
Type	°,A,E,L	type					axials				
Number	°	no.	-	-	-	-	2	2	2	2	2
	A	no.	-	-	-	-	2	2	2	2	3
	E	no.	6	8	8	8	2	2	2	2	3
	L	no.	4	6	6	6	2	2	2	2	2
Air flow rate	°	m^3/h	-	-	-	-	39400	39400	39400	37500	37500
	A	m^3/h	-	-	-	-	37000	37000	36500	36500	58000
	E	m^3/h	20000	26000	26000	26000	20200	21100	21400	22400	31900
	L	m^3/h	14000	20000	20000	20000	28400	28700	28700	27400	28100
Sound data calculated in cooling mode (1)											
Sound power level	°,A	dB(A)	-	-	-	-	82,0	82,0	82,0	83,0	83,0
	E	dB(A)	74,0	75,0	75,0	76,0	74,0	74,0	74,0	75,0	77,0
	L	dB(A)	73,0	74,0	74,0	75,0	77,0	77,0	77,0	78,0	78,0
Sound pressure level (10 m)	°,A	dB(A)	-	-	-	-	50,1	50,1	50,1	51,1	51,1
	E	dB(A)	42,3	43,2	43,2	44,2	42,1	42,1	42,1	43,1	45,0
	L	dB(A)	41,3	42,3	42,3	43,3	45,1	45,1	45,1	46,1	46,1

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size			0280	0300	0330	0350	0500	0550	0600	0650	0700
Dimensions and weights											
A	°,A	mm	-	-	-	-	1875	1875	1875	1875	1875
	E,L	mm	1606	1606	1606	1606	1875	1875	1875	1875	1875
B	°,A	mm	-	-	-	-	1100	1100	1100	1100	1100
	E,L	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100
C	°	mm	-	-	-	-	3010	3010	3010	3010	3010
	A	mm	-	-	-	-	3010	3010	3010	3010	4010
	E	mm	-	2950	2950	2950	3010	3010	3010	3010	4010
	L	mm	2450	2450	2450	2450	3010	3010	3010	3010	3010
Weights											
Without hydronic kit	°	kg	-	-	-	-	913	917	1016	1130	1142
	A	kg	-	-	-	-	1099	1103	1204	1212	1390
	E	kg	730	795	805	811	1099	1103	1204	1212	1390
	L	kg	713	724	731	740	913	917	1016	1130	1142

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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NRG 0800-2400

Air-water chiller

Cooling capacity 225,7 ÷ 725,0 kW

- **High efficiency also at partial loads**
- **Reduced amount of refrigerant**
- **Night mode**



DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications.
These are outdoor units with streamlined scroll compressors used with R32 gas axial fan, microchannel batteries and plate exchangers.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

° Standard
A High efficiency
E Silenced high efficiency
L Standard silenced
N Silenced very high efficiency
U Very high efficiency

FEATURES

Operating field

Operation at full load up to 49°C external air temperature. Unit can produce chilled water up to -10 °C.
For more information refer to the selection program and to to the dedicated documentation.

Dual-circuit unit

The units are dual-circuit, to ensure maximum efficiency both at full load and at partial load.

Refrigerant HFC R32

The environmental impact of the units is reduced considerably owing to the last generation R32 refrigerant.
Combining a reduced refrigerant load with a low global warming potential (GWP), these units boast low equivalent CO_2 values.

■ *The leak detector is supplied as per standard.*

Aluminium microchannel coils

The microchannel condensing aluminum coils ensure high levels of efficiency, reduced quantities of refrigerant and lower unit weight. The treatment "O" available as configurator it ensures high resistance to corrosion even in the most aggressive environments.

Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy seasonal efficiency of the unit.

Option integrated hydronic kit

An optional, integrated hydronic kit containing the main hydraulic components, to obtain a solution that allows you to save money and to facilitate installation.
It's available in various configurations, with storage tank or pumps.

CONTROL

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.
— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
— The temperature control takes place with the integral proportional logic, based on the water output temperature.
— **Floating HP control:** the function can be activated with inverter fans or with DCPX which allows unit operation to be optimised at any operating point through continuous modulation of the fan speed. In addition, the use of inverter fans ensures an increase in energy efficiency at partial loads.
— **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

CONFIGURATOR

Field		Description
1,2,3		**NRG**
4,5,6,7		**Size** 0800, 0900, 1000, 1100, 1200, 1400, 1600, 1800, 2000, 2200, 2400
8		**Operating field**
	X	Electronic thermostatic expansion valve (1)
	Z	Low temperature electronic thermostatic valve (2)
9		**Model**
	°	Cooling only
10		**Heat recovery**
	°	Without heat recovery
	D	With desuperheater (3)
	T	With total recovery (4)
11		**Version**
	°	Standard
	A	High efficiency
	E	Silenced high efficiency
	L	Standard silenced
	N	Silenced very high efficiency
	U	Very high efficiency
12		**Coils**
	°	Aluminium microchannel
	I	Copper-aluminium
	O	Coated aluminium microchannel
	R	Copper-copper
	S	Tinned copper
	V	Copper-painted alumimium
13		**Fans**
	°	Standard
	J	Inverter
14		**Power supply**
	°	400V ~ 3 50Hz with magnet circuit breakers
15,16		**Integrated hydronic kit**
	00	Without hydronic kit
		Kit with n° 1 pump
	PA	Pump A
	PB	Pump B
	PC	Pump C
	PD	Pump D
	PE	Pump E
	PF	Pump F
	PG	Pump G
	PH	Pump H
	PI	Pump I
	PJ	Pump J (5)
		Pump n° 1 pump + stand-by pump
	DA	Pump A + stand-by pump
	DB	Pump B + stand-by pump
	DC	Pump C + stand-by pump
	DD	Pump D + stand-by pump
	DE	Pump E + stand-by pump
	DF	Pump F + stand-by pump
	DG	Pump G + stand-by pump
	DH	Pump H + stand-by pump
	DI	Pump I + stand-by pump
	DJ	Pump J + stand-by pump (5)
		Kit with storage tank and n° 1 pump
	AA	Storage tank and pump A
	AB	Storage tank and pump B
	AC	Storage tank and pump C
	AD	Storage tank and pump D
	AE	Storage tank and pump E
	AF	Storage tank and pump F
	AG	Storage tank and pump G
	AH	Storage tank and pump H
	AI	Storage tank and pump I
	AJ	Storage tank and pump J (5)
		Kit with storage tank and n° 1 pump + stand-by pump
	BA	Storage tank with pump A + stand-by pump
	BB	Storage tank with pump B + stand-by pump
	BC	Storage tank with pump C + stand-by pump
	BD	Storage tank with pump D + stand-by pump
	BE	Storage tank with pump E + stand-by pump
	BF	Storage tank with pump F + stand-by pump
	BG	Storage tank with pump G + stand-by pump
	BH	Storage tank with pump H + stand-by pump
	BI	Storage tank with pump I + stand-by pump
	BJ	Storage tank with pump J + stand-by pump (5)
		Kit with n° 1 inverter pump to fixed speed
	IA	Pump A equipped with inverter device to work at fixed speed
	IB	Pump B equipped with inverter device to work at fixed speed
	IC	Pump C equipped with inverter device to work at fixed speedr
	ID	Pump D equipped with inverter device to work at fixed speed
	IE	Pump E equipped with inverter device to work at fixed speed
	IF	Pump F equipped with inverter device to work at fixed speed (6)
	IG	Pump G equipped with inverter device to work at fixed speed (6)
	IH	Pump H equipped with inverter device to work at fixed speed (6)
	II	Pump I equipped with inverter device to work at fixed speed (6)
	IJ	Pump J equipped with inverter device to work at fixed speed (7)
		Kit with n° 1 inverter pump + stand-by pump to fixed speed
	JA	Pump A+stand-by pump, both equipped with inverter to work at fixed speed
	JB	Pump B+stand-by pump, both equipped with inverter to work at fixed speed
	JC	Pump C+stand-by pump, both equipped with inverter to work at fixed speed
	JD	Pump D+stand-by pump, both equipped with inverter to work at fixed speed
	JE	Pump E+stand-by pump, both equipped with inverter to work at fixed speed
	JF	Pump F+stand-by pump, both equipped with inverter to work at fixed speed (6)
	JG	Pump G+stand-by pump, both equipped with inverter to work at fixed speed (6)
	JH	Pump H+stand-by pump, both equipped with inverter to work at fixed speed (6)
	JI	Pump I+stand-by pump, both equipped with inverter to work at fixed speed (6)
	JJ	Pump J+stand-by pump, both equipped with inverter to work at fixed speed (7)
		Kit with storage tank and n° 1 inverter pump to fixed speed
	CA	Buffer tank + pump A, equipped with inverter to work at fixed speed
	CB	Buffer tank + pump B, equipped with inverter to work at fixed speed
	CC	Buffer tank + pump C, equipped with inverter to work at fixed speed
	CD	Buffer tank + pump D, equipped with inverter to work at fixed speed
	EC	Buffer tank + pump E, equipped with inverter to work at fixed speed
	CF	Buffer tank + pump F, equipped with inverter to work at fixed speed (6)
	CG	Buffer tank + pump G, equipped with inverter to work at fixed speed (6)
	CH	Buffer tank + pump H, equipped with inverter to work at fixed speed (6)
	CI	Buffer tank + pump I, equipped with inverter to work at fixed speed (6)
	CJ	Buffer tank + pump J, equipped with inverter to work at fixed speed (6)
		Kit with storage tank and n° 1 pump + stand-by pump to fixed speed
	KA	Buffer tank+pump A+stand-by pump, both with inverter to work at fixed speed
	KB	Buffer tank+pump B+stand-by pump, both with inverter to work at fixed speed
	KC	Buffer tank+pump C+stand-by pump, both with inverter to work at fixed speed
	KD	Buffer tank+pump D+stand-by pump, both with inverter to work at fixed speed
	KE	Buffer tank+pump E+stand-by pump, both with inverter to work at fixed speed
	KF	Buffer tank+pump F+stand-by pump, both with inverter to work at fixed speed (6)
	KG	Buffer tank+pump G+stand-by pump, both with inverter to work at fixed speed (6)
	KH	Buffer tank+pump H+stand-by pump, both with inverter to work at fixed speed (6)
	KI	Buffer tank+pump I+stand-by pump, both with inverter to work at fixed speed (6)
	KJ	Buffer tank+pump J+stand-by pump, both with inverter to work at fixed speed (7)

(1) Water produced from 4 °C ÷ 20 °C
(2) Water produced from 8 °C ÷ -10 °C
(3) Warning: on the recovery side, a minimum input temperature of 35°C must always be guaranteed on the heat exchanger. For more information about the unit operating range, refer to the Magellano selection program
(4) None of the hydronic kits (from PA to KJ) are compatible with the following sizes and with versions with heat recovery T: 0800 - 0900 - 1000 - 1100 version °; 0800 - 0900 version A; 0800 - 0900 version L. None of the hydronic kits with pump(s) and storage tank (AA - AJ, BA-BJ, CA-CJ, KA-KJ) are compatible with all the sizes and with versions with heat recovery T
(5) For all configurations including pump J please contact the factory.
(6) Hydronic kit not available with sizes 0800 version °/L/A, 0900 version °/L/A, 1000 version °, 1100 version °.
(7) For all possible configurations which include the "J" pump please be in touch with Aermec. Hydronic kit is not available with sizes 0800 version °/L/A, 0900 version °/L/A, 1000 version °, 1100 version °.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
FL: Flow switch.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PGD1: Allows you to control the unit at a distance.
AVX: Spring anti-vibration supports.
DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

FACTORY FITTED ACCESSORIES

GP_: Anti-intrusion grid kit
RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
T6: Double safety valve with exchange cock, both on the high and low pressure branches.
DRE: Electronic device for peak current reduction.

ACCESSORIES COMPATIBILITY

Model	Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
AER485P1	°,A,E,L,N,U	•	•	•	•	•	•	•	•	•	•	•
AERBACP	°,A,E,L,N,U	•	•	•	•	•	•	•	•	•	•	•
AERNET	°,A,E,L,N,U	•	•	•	•	•	•	•	•	•	•	•
FL	°,A,E,L,N,U	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	°,A,E,L,N,U	•	•	•	•	•	•	•	•	•	•	•
PGD1	°,A,E,L,N,U	•	•	•	•	•	•	•	•	•	•	•

Antivibration

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
Integrated hydronic kit: 00											
°	AVX1125	AVX1125	AVX1125	AVX1125	AVX1127	AVX1127	AVX1127	AVX1129	AVX1130	AVX1130	AVX1138
A,L	AVX1125	AVX1125	AVX1127	AVX1127	AVX1127	AVX1129	AVX1129	AVX1138	AVX1138	AVX1143	AVX1143
E,U	AVX1127	AVX1127	AVX1127	AVX1129	AVX1129	AVX1133	AVX1133	AVX1136	AVX1139	AVX1139	AVX1141
N	AVX1129	AVX1129	AVX1129	AVX1133	AVX1133	AVX1133	AVX1136	AVX1139	AVX1141	AVX1141	AVX1145
Integrated hydronic kit: AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, BA, BB, BC, BD, BE, BF, BG, BH, BI, BJ, CA, CB, CC, CD, CE, CF, CG, CH, CI, CJ, KA, KB, KC, KD, KE, KF, KG, KH, KI, KJ											
°	AVX1126	AVX1126	AVX1126	AVX1126	AVX1128	AVX1128	AVX1128	AVX1131	AVX1131	AVX1131	AVX1135
A,L	AVX1126	AVX1126	AVX1128	AVX1128	AVX1128	AVX1131	AVX1131	AVX1135	AVX1135	AVX1137	AVX1137
E,U	AVX1128	AVX1128	AVX1128	AVX1131	AVX1131	AVX1135	AVX1135	AVX1137	AVX1140	AVX1140	AVX1142
N	AVX1131	AVX1131	AVX1131	AVX1135	AVX1135	AVX1135	AVX1137	AVX1140	AVX1142	AVX1142	AVX1146
Integrated hydronic kit: DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, IA, IB, IC, ID, IE, IF, IG, IH, II, IJ, JA, JB, JC, JD, JE, JF, JG, JH, JI, JJ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ											
°	AVX1125	AVX1125	AVX1125	AVX1125	AVX1126	AVX1126	AVX1126	AVX1132	AVX1132	AVX1132	AVX1133
A,L	AVX1125	AVX1125	AVX1126	AVX1126	AVX1126	AVX1132	AVX1132	AVX1134	AVX1133	AVX1143	AVX1144
E,U	AVX1126	AVX1126	AVX1126	AVX1130	AVX1132	AVX1134	AVX1134	AVX1136	AVX1139	AVX1139	AVX1141
N	AVX1130	AVX1132	AVX1130	AVX1134	AVX1134	AVX1134	AVX1136	AVX1139	AVX1141	AVX1141	AVX1145

Condensation control temperature

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
°	DCPX160	DCPX160	DCPX161	DCPX161	DCPX163	DCPX163	DCPX163	DCPX165	DCPX165	DCPX165	DCPX167
A	DCPX161	DCPX161	DCPX162	DCPX162	DCPX162	DCPX164	DCPX164	DCPX166	DCPX166	DCPX168	DCPX168
E,L,N	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard
U	DCPX162	DCPX162	DCPX162	DCPX164	DCPX164	DCPX166	DCPX166	DCPX168	DCPX170	DCPX170	DCPX172

Device for peak current reduction

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
°,A,E,L,N,U	DRENRG0800	DRENRG0900	DRENRG1000	DRENRG1100	DRENRG1200	DRENRG1400	DRENRG1600	DRENRG1800	DRENRG2000	DRENRG2200	DRENRG2400

A grey background indicates the accessory must be assembled in the factory

Power factor correction

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
°,A,E,L,N,U	RIFNRG0800	RIFNRG0900	RIFNRG1000	RIFNRG1100	RIFNRG1200	RIFNRG1400	RIFNRG1600	RIFNRG1800	RIFNRG2000	RIFNRG2200	RIFNRG2400

A grey background indicates the accessory must be assembled in the factory

Anti-intrusion grid

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
°	GP2VN	GP2VN	GP2VN	GP2VN	GP3G	GP3G	GP3G	GP4G	GP4G	GP4G	GP5G
A,L	GP2VN	GP2VN	GP3G	GP3G	GP3G	GP4GM	GP4GM	GP5G	GP5G	GP6G	GP6G
E,U	GP3G	GP3G	GP3G	GP4GM	GP4GM	GP5GM	GP5GM	GP6G	GP7G	GP7G	GP8G
N	GP4GM	GP4GM	GP4GM	GP5GM	GP5GM	GP5GM	GP6G	GP7G	GP8G	GP8G	GP9G

A grey background indicates the accessory must be assembled in the factory

■ *GP2VN becomes GP2VNA if configured with a type A or B hydronic kit*

Double safety valves

Ver	0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
°,A,E,L,N,U	T6NRGLS1	T6NRGLS1	T6NRGLS1	T6NRGLS1	T6NRGLS1	T6NRGLS1	T6NRGLS1	T6NRGLS2	T6NRGLS3	T6NRGLS3	T6NRGLS3

A grey background indicates the accessory must be assembled in the factory

PERFORMANCE SPECIFICATIONS

NRG - °

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	229,0	251,4	278,2	314,5	372,4	399,7	459,4	532,8	593,5	635,8	698,1
Input power	kW	70,6	80,3	90,1	107,8	118,6	129,5	152,5	170,8	197,3	212,9	226,5
Cooling total input current	A	122,0	138,0	156,0	182,0	198,0	222,0	248,0	282,0	325,0	353,0	366,0
EER	W/W	3,24	3,13	3,09	2,92	3,14	3,09	3,01	3,12	3,01	2,99	3,08
Water flow rate system side	l/h	39392	43247	47863	54104	64061	68767	79015	91640	102081	109354	120062
Pressure drop system side	kPa	36	44	54	51	60	62	42	57	62	62	64

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

NRG - L

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	225,7	247,6	279,0	317,6	360,5	410,2	451,3	526,9	590,3	640,5	679,3
Input power	kW	70,6	80,3	88,3	106,0	121,5	133,0	151,3	171,3	200,0	209,3	224,5
Cooling total input current	A	121,0	138,0	148,0	174,0	201,0	216,0	243,0	277,0	323,0	337,0	364,0
EER	W/W	3,20	3,09	3,16	3,00	2,97	3,08	2,98	3,08	2,95	3,06	3,03
Water flow rate system side	l/h	38832	42603	47996	54644	62004	70568	77616	90617	101513	110161	116806
Pressure drop system side	kPa	36	43	42	48	47	53	41	49	53	62	39

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

NRG - A

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	230,4	253,6	287,0	328,9	374,1	424,3	468,8	542,9	608,8	663,3	702,9
Input power	kW	69,3	78,3	86,3	100,7	116,2	127,9	144,7	163,4	187,9	202,4	217,9
Cooling total input current	A	123,0	139,0	151,0	174,0	197,0	215,0	238,0	275,0	317,0	334,0	358,0
EER	W/W	3,33	3,24	3,33	3,27	3,22	3,32	3,24	3,32	3,24	3,28	3,23
Water flow rate system side	l/h	39642	43624	49381	56584	64350	72980	80631	93379	104697	114081	120866
Pressure drop system side	kPa	37	45	44	52	52	56	44	53	58	67	42

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

NRG - E

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	229,7	256,5	280,7	330,9	378,2	424,6	466,3	542,7	617,8	652,1	705,8
Input power	kW	68,3	77,4	86,8	100,0	116,7	128,4	144,7	165,0	186,7	203,2	214,1
Cooling total input current	A	116,0	132,0	149,0	167,0	191,0	208,0	231,0	268,0	302,0	327,0	343,0
EER	W/W	3,37	3,32	3,24	3,31	3,24	3,31	3,22	3,29	3,31	3,21	3,30
Water flow rate system side	l/h	39530	44119	48278	56919	65043	73027	80200	93338	106248	112132	121358
Pressure drop system side	kPa	38	35	38	48	39	38	44	47	59	45	37

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

NRG - U

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	234,8	263,0	288,8	339,2	389,3	435,6	479,7	558,1	634,0	671,3	725,0
Input power	kW	68,2	76,5	85,2	99,1	114,3	126,8	142,5	163,7	185,1	200,1	212,0
Cooling total input current	A	121,0	135,0	151,0	171,0	193,0	212,0	233,0	272,0	308,0	330,0	349,0
EER	W/W	3,44	3,44	3,39	3,42	3,41	3,44	3,37	3,41	3,43	3,35	3,42
Water flow rate system side	l/h	40397	45241	49677	58351	66957	74921	82502	95984	109036	115443	124657
Pressure drop system side	kPa	40	36	41	50	40	39	47	49	62	48	39

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

NRG - N

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	235,0	262,1	290,7	339,2	389,2	430,7	481,8	556,2	627,9	670,3	719,8
Input power	kW	67,2	76,1	85,1	98,7	113,4	126,5	141,8	163,9	184,6	198,3	212,1
Cooling total input current	A	115,0	129,0	145,0	164,0	185,0	208,0	225,0	262,0	297,0	320,0	338,0
EER	W/W	3,50	3,44	3,42	3,44	3,43	3,40	3,40	3,39	3,40	3,38	3,39
Water flow rate system side	l/h	40430	45090	50006	58350	66941	74070	82857	95663	107988	115265	123768
Pressure drop system side	kPa	41	38	41	50	41	38	42	49	61	47	39

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

ENERGY INDICES (REG. 2016/2281 EU)

Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
SEER - 12/7 (EN14825:2018) with standard fans (1)													
SEER	°	W/W	4,35	4,33	4,25	4,29	4,15	4,22	- (2)	- (2)	- (2)	- (2)	- (2)
	A	W/W	4,43	4,45	4,45	4,45	4,47	4,60	4,63	4,63	4,63	4,57	4,58
	E	W/W	4,51	4,58	4,56	4,57	4,59	4,66	4,67	4,70	4,68	4,65	4,66
	L	W/W	4,39	4,39	4,47	4,44	4,43	4,61	4,60	4,62	4,62	4,57	4,59
	N	W/W	4,57	4,62	4,69	4,67	4,68	4,76	4,78	4,75	4,72	4,70	4,72
	U	W/W	4,48	4,52	4,54	4,56	4,58	4,69	4,70	4,71	4,68	4,64	4,64
Seasonal efficiency	°	%	171.1%	170.0%	167.1%	168.5%	163.1%	165.8%	- (2)	- (2)	- (2)	- (2)	- (2)
	A	%	174.0%	174.8%	174.8%	175.1%	175.9%	180.8%	182.2%	182.3%	182.1%	179.6%	180.2%
	E	%	177.5%	180.1%	179.4%	179.6%	180.6%	183.4%	183.9%	184.8%	184.0%	182.8%	183.4%
	L	%	172.6%	172.4%	175.7%	174.6%	174.2%	181.3%	181.0%	181.8%	181.8%	179.9%	180.7%
	N	%	179.9%	181.7%	184.4%	183.7%	184.0%	187.5%	188.0%	187.0%	185.9%	184.8%	185.6%
	U	%	176.3%	177.7%	178.5%	179.2%	180.1%	184.7%	184.8%	185.5%	184.2%	182.4%	182.4%
SEER - (EN14825:2018) 12/7 with inverter fans (1)													
SEER	°	W/W	4,46	4,43	4,34	4,36	4,47	4,40	4,62	4,62	4,56	4,58	4,59
	A	W/W	4,66	4,67	4,66	4,64	4,66	4,64	4,72	4,77	4,77	4,76	4,77
	E	W/W	4,76	4,82	4,75	4,76	4,79	4,89	4,87	4,98	4,95	4,89	4,88
	L	W/W	4,60	4,58	4,65	4,62	4,61	4,77	4,69	4,81	4,83	4,78	4,81
	N	W/W	4,83	4,86	4,88	4,87	4,88	5,00	4,97	5,05	5,01	4,95	4,93
	U	W/W	4,72	4,74	4,75	4,75	4,76	4,73	4,78	4,85	4,82	4,83	4,82
Seasonal efficiency	°	%	175.5%	174.3%	170.5%	171.3%	175.9%	173.0%	161.6%	181.8%	179.5%	180.0%	180.6%
	A	%	183.4%	183.8%	183.2%	182.7%	183.2%	182.4%	185.7%	187.8%	187.7%	187.5%	187.6%
	E	%	187.5%	189.6%	187.0%	187.4%	188.5%	192.6%	191.6%	196.3%	195.0%	192.7%	192.0%
	L	%	180.8%	180.1%	183.0%	181.6%	181.2%	187.9%	184.6%	189.2%	190.3%	188.0%	189.5%
	N	%	190.1%	191.2%	192.2%	191.8%	192.1%	196.9%	195.9%	198.8%	197.3%	194.8%	194.3%
	U	%	185.8%	186.7%	187.1%	186.8%	187.4%	186.2%	188.3%	191.0%	189.7%	190.1%	189.6%
SEER - 23/18 (EN14825: 2018) with standard fans (3)													
SEER	°	W/W	4,97	4,87	4,77	4,81	4,65	4,71	4,85	4,98	4,90	4,89	4,86
	A	W/W	5,08	5,04	5,07	5,02	4,98	5,13	5,18	5,20	5,17	5,06	5,12
	E	W/W	5,18	5,22	5,17	5,15	5,14	5,29	5,23	5,26	5,15	5,20	5,26
	L	W/W	5,06	4,98	5,05	4,97	4,92	5,12	5,15	5,13	5,10	5,03	5,15
	N	W/W	5,25	5,30	5,33	5,28	5,28	5,38	5,37	5,33	5,24	5,29	5,36
	U	W/W	5,19	5,23	5,19	5,17	5,20	5,33	5,28	5,32	5,24	5,26	5,32
Seasonal efficiency	°	%	195,9%	191,9%	187,8%	189,3%	183,1%	185,6%	191,2%	196,2%	192,8%	192,7%	191,3%
	A	%	200,4%	198,5%	199,9%	197,9%	196,0%	202,0%	204,3%	204,9%	203,7%	199,5%	201,8%
	E	%	204,2%	206,0%	203,6%	202,9%	202,7%	208,5%	206,1%	207,5%	203,0%	205,0%	207,4%
	L	%	199,3%	196,3%	199,1%	196,0%	193,8%	201,6%	203,0%	202,3%	200,9%	198,2%	203,0%
	N	%	207,1%	209,1%	210,4%	208,2%	208,4%	212,1%	211,8%	210,3%	206,5%	208,7%	211,4%
	U	%	204,7%	206,1%	204,6%	204,0%	205,0%	210,2%	208,4%	209,8%	206,4%	207,4%	209,8%
SEER - 23/18 (EN14825: 2018) with inverter fans													
SEER	°	W/W	5,09	4,99	4,86	4,89	5,02	4,91	5,16	5,17	5,09	5,06	5,08
	A	W/W	5,35	5,28	5,31	5,23	5,19	5,17	5,28	5,34	5,32	5,25	5,39
	E	W/W	5,43	5,48	5,38	5,36	5,38	5,54	5,44	5,56	5,44	5,45	5,48
	L	W/W	5,29	5,19	5,26	5,17	5,11	5,29	5,25	5,32	5,32	5,24	5,37
	N	W/W	5,54	5,57	5,55	5,50	5,52	5,63	5,59	5,63	5,52	5,55	5,59
	U	W/W	5,46	5,48	5,43	5,39	5,41	5,37	5,38	5,46	5,38	5,45	5,51
Seasonal efficiency	°	%	200,7%	196,5%	191,5%	192,4%	197,6%	193,2%	203,5%	203,7%	200,4%	199,2%	200,4%
	A	%	211,0%	208,4%	209,3%	206,1%	204,6%	203,7%	208,1%	210,5%	209,8%	207,1%	212,7%
	E	%	214,2%	216,2%	212,0%	211,4%	212,1%	218,6%	214,4%	219,3%	214,5%	215,2%	216,4%
	L	%	208,6%	204,8%	207,2%	203,8%	201,5%	208,6%	206,9%	209,8%	209,9%	206,5%	211,9%
	N	%	218,4%	219,8%	219,1%	217,2%	217,7%	222,3%	220,4%	222,3%	217,9%	218,9%	220,5%
	U	%	215,4%	216,2%	214,2%	212,5%	213,5%	211,9%	212,2%	215,5%	212,2%	214,9%	217,4%

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C
(3) Calculation performed with FIXED water flow rate.

Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
SEPR - (EN14825: 2018) High temperature with standard fans (1)													
SEPR	°	W/W	5,68	5,58	5,70	5,58	5,60	5,96	5,95	6,10	5,92	5,97	6,07
	A	W/W	5,79	5,78	5,93	5,95	5,87	6,34	6,27	6,33	6,32	6,30	6,31
	E	W/W	5,94	5,94	6,04	6,00	5,89	6,41	6,41	6,47	6,44	6,36	6,42
	L	W/W	5,85	5,77	5,93	5,84	5,63	6,29	6,29	6,35	6,28	6,26	6,21
	N	W/W	6,03	6,02	6,12	6,13	6,17	6,49	6,50	6,60	6,52	6,50	6,49
	U	W/W	6,04	6,05	6,04	6,02	6,07	6,49	6,50	6,41	6,37	6,42	6,46
SEPR - (EN14825: 2018) High temperature with inverter fans (1)													
SEPR	°	W/W	5,84	5,73	5,82	5,67	5,95	6,14	6,27	6,31	6,09	6,12	6,30
	A	W/W	6,12	6,09	6,21	6,13	6,12	6,35	6,41	6,46	6,38	6,45	6,48
	E	W/W	6,24	6,26	6,28	6,23	6,14	6,72	6,72	6,78	6,73	6,64	6,62
	L	W/W	6,10	6,05	6,16	6,08	5,87	6,54	6,44	6,56	6,54	6,50	6,43
	N	W/W	6,36	6,35	6,37	6,38	6,43	6,82	6,80	6,93	6,85	6,78	6,71
	U	W/W	6,38	6,36	6,36	6,25	6,30	6,55	6,63	6,55	6,50	6,59	6,64

(1) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
Electric data													
Maximum current (FLA)	°	A	158,2	176,5	198,8	226,7	262,4	290,3	318,1	371,7	417,5	445,4	481,1
	A,L	A	162,2	180,5	200,6	228,5	256,4	290,1	317,9	369,5	415,3	449,0	476,9
	E,U	A	164,0	182,3	200,6	234,3	262,2	295,9	323,7	375,3	426,9	454,8	488,5
	N	A	169,8	188,1	206,4	240,1	268,0	295,9	329,5	381,1	432,7	460,6	494,3
Peak current (LRA)	°,A,E,L,N,U	A	351,0	407,0	425,0	545,0	573,0	601,0	629,0	675,0	721,0	749,0	776,0

■ *Data calculated without hydronic kit and accessories.*

GENERAL TECHNICAL DATA

Compressors

Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
Compressor													
Type	°,A,E,L,N,U	type						Scroll					
Compressor regulation	°,A,E,L,N,U	Type						On/Off					
Number	°,A,E,L,N,U	no.	4	4	4	4	4	4	4	5	6	6	6
Circuits	°,A,E,L,N,U	no.	2	2	2	2	2	2	2	2	2	2	2
Refrigerant	°,A,E,L,N,U	type						R32					
Refrigerant charge (1)	°	kg	21,0	22,0	23,0	24,0	31,0	32,0	32,0	41,0	41,0	41,0	49,0
	A,L	kg	23,0	24,0	30,0	33,0	32,0	34,0	37,0	41,0	48,0	49,0	53,0
	E,U	kg	31,0	30,0	32,0	40,0	40,0	40,0	47,0	52,0	56,0	68,0	62,0
	N	kg	39,0	39,0	41,0	44,0	53,0	53,0	62,0	60,0	75,0	68,0	68,0

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

System side heat exchanger

Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
System side heat exchanger													
Type	°,A,E,L,N,U	type	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate
Number	°,A,E,L,N,U	no.	1	1	1	1	1	1	1	1	1	1	1

Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
Integrated hydronic kit: 00													
Hydraulic connections													
Connections (in/out)	°,A,E,L,N,U	Type	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints
Sizes (in/out)	°	Ø	3"	3"	3"	3"	3"	4"	4"	4"	4"	4"	5"
	A,L	Ø	3"	3"	3"	3"	3"	4"	4"	4"	4"	5"	5"
	E,N,U	Ø	3"	3"	3"	3"	4"	4"	4"	4"	4"	5"	5"

In the versions without a hydronic kit, the water filter is supplied with a connection point for making the connection. In the versions with a hydronic kit, it is supplied ready-mounted.

Fans

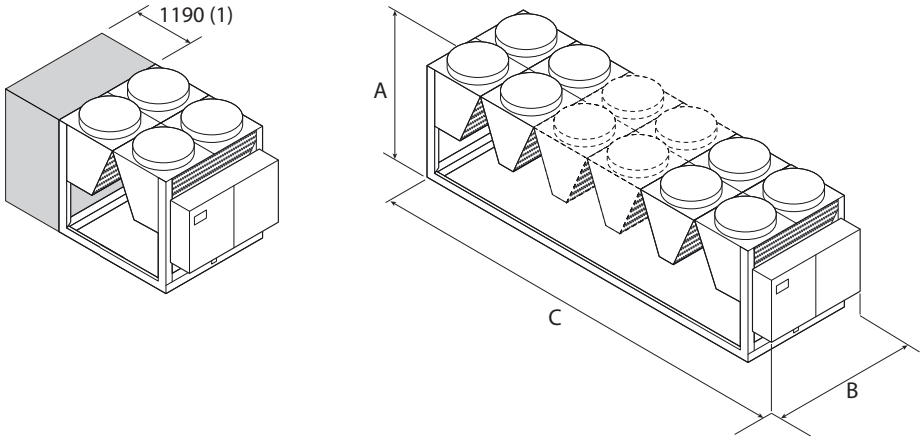
Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
Fan													
Type	°,A,E,L,N,U	type	Axial										
Fan motor	°,A,U	type	Asynchronous										
	E,L,N	type	Asynchronous with phase cut										
Number	°	no.	4	4	4	4	6	6	6	8	8	8	10
	A,L	no.	4	4	6	6	6	8	8	10	10	12	12
	E,U	no.	6	6	6	8	8	10	10	12	14	14	16
	N	no.	8	8	8	10	10	10	12	14	16	16	18
Air flow rate	°	m^3/h	65555	65555	76744	76744	115121	115121	115121	153480	153480	153480	191819
	A	m^3/h	76743	76743	98321	98321	98321	131111	131087	163789	163789	196572	196572
	E	m^3/h	74973	74973	74973	99978	99978	124970	124970	149950	174934	174934	199932
	L	m^3/h	62605	62605	74978	74978	74978	99996	99996	124953	124953	149882	149882
	N	m^3/h	99973	99973	99973	124966	124966	124966	149960	174953	199946	199946	224939
	U	m^3/h	98320	98320	98320	131139	131139	163815	163815	196680	229462	229462	262164

Sound data

Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
Sound data calculated in cooling mode (1)													
Sound power level	°	dB(A)	87,1	87,1	91,7	91,8	93,6	93,7	93,8	94,9	94,9	95,0	95,9
	A	dB(A)	91,7	91,7	88,1	88,7	89,2	89,9	90,2	90,9	91,5	92,3	92,5
	E	dB(A)	84,4	84,5	84,5	85,8	86,5	87,6	88,1	88,6	89,0	89,7	90,2
	L	dB(A)	85,1	85,1	84,5	85,1	85,4	86,6	87,2	87,7	88,4	89,1	89,5
	N	dB(A)	85,3	85,4	85,4	86,9	87,5	88,1	89,0	89,4	89,8	90,5	91,0
	U	dB(A)	88,6	88,6	88,6	90,1	90,5	91,6	91,8	92,5	93,0	93,2	93,8
Sound pressure level (10 m)	°	dB(A)	55,0	55,0	59,6	59,7	61,3	61,4	61,5	62,5	62,5	62,6	63,4
	A	dB(A)	59,6	59,6	55,9	56,4	56,9	57,5	57,8	58,4	59,0	59,6	59,8
	E	dB(A)	52,2	52,2	52,3	53,4	54,1	55,1	55,6	55,9	56,2	56,9	57,3
	L	dB(A)	53,0	53,0	52,3	52,8	53,2	54,2	54,8	55,2	55,8	56,4	56,8
	N	dB(A)	52,9	53,0	53,0	54,4	55,0	55,6	56,3	56,6	56,9	57,6	58,0
	U	dB(A)	56,3	56,3	56,4	57,7	58,1	59,0	59,3	59,8	60,2	60,4	60,9

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



(1) Additional module needed to contain the hydronic kit with "accumulation" option in sizes:
NRG 0800°, 0900°, 1000°, 1100°
NRG 0800L, 0900L
NRG 0800A, 0900A

Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
Integrated hydronic kit: 00													
Dimensions and weights													
A	°,A,E,L,N,U	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	°,A,E,L,N,U	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	°	mm	2780	2780	2780	2780	3970	3970	3970	5160	5160	5160	6350
	A,L	mm	2780	2780	3970	3970	3970	5160	5160	6350	6350	7540	7540
	E,U	mm	3970	3970	3970	5160	5160	6350	6350	7540	8730	8730	9920
	N	mm	5160	5160	5160	6350	6350	6350	7540	8730	9920	9920	11110

The units 0800°, 0900°, 1000°, 1100°; 0800L, 0900L; and 0800A, 0900A with the "storage tank" option, are 3970mm long.

Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
Integrated hydronic kit: 00													
Weights													
Empty weight	°	kg	2140	2140	2150	2150	2850	2960	3180	3830	4030	4210	4740
	A,L	kg	2160	2160	2580	2730	2870	3440	3650	4250	4460	4960	5070
	E,U	kg	2580	2590	2600	3220	3430	3930	4070	4660	4960	5400	5990
	N	kg	3050	3070	3080	3630	3850	3990	4470	5110	5750	5880	6370

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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NRG 0800H-2400H

Reversible air/water heat pump

Cooling capacity 195,2 ÷ 639,6 kW
Heating capacity 209,3 ÷ 674,2 kW

- **High efficiency also at partial loads**
- **Reduced amount of refrigerant**
- **Night mode**



DESCRIPTION

Reversible outdoor heat pumps for the production of chilled/heated water designed to satisfy the needs of residential and commercial buildings, or for industrial applications.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

° Standard
A High efficiency
E Silenced high efficiency
L Standard silenced

FEATURES

Operating field

Working at full load up to -15 °C outside air temperature in winter, and up to 49 °C in summer. Hot water production up to 60 °C (for more details refer to the technical documentation).

Dual-circuit unit

The units are dual-circuit, to ensure maximum efficiency both at full load and at partial load.

Refrigerant HFC R32

The environmental impact of the units is reduced considerably owing to the last generation R32 refrigerant.
Combining a reduced refrigerant load with a low global warming potential (GWP), these units boast low equivalent CO_2 values.

■ *The leak detector is supplied as per standard.*

New condensing Coils

The whole range uses copper - aluminium condensation coils with reduced diameter rows, allowing a lower quantity of gas to be used compared to traditional coils.

Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy seasonal efficiency of the unit.

Option integrated hydronic kit

An optional, integrated hydronic kit containing the main hydraulic components, to obtain a solution that allows you to save money and to facilitate installation.
It is available in different configurations with storage tank or with fixed pumps also inverter.

CONTROL PCO[5]

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.

— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
— The temperature control takes place with the integral proportional logic, based on the water output temperature.
— **Floating HP control:** available for all models with an inverter fan or DCPX. Thanks to continuous fan modulation, unit operation is optimised in every working position in cooling mode. The result is enhanced machine energy efficiency with partial loads.
— **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

INTEGRATED SOLUTION

The **"integrated solution" concept has been implemented in the system architecture**, consisting in an integrated and streamlined control of compressors and electronic valve.
This solution allowed a variety of new features to be introduced, such as:

— **Low Superheat Control**: Progressive superheating reduction in conditions of stability. This allows to increase energy performance: both in modulation and in full load conditions;

— **DLT control**: Control of electronic valve at discharge temperature in certain operating conditions. This is demonstrated in an enhanced reliability of the control and a considerable expansion of the machine's operating range, especially in heating mode.

CONFIGURATOR

Field		Description
1,2,3		**NRG**
4,5,6,7		**Size** 0800, 0900, 1000, 1100, 1200, 1400, 1600, 1800, 2000, 2200, 2400
8		**Operating field**
	X	Electronic thermostatic expansion valve (1)
	Z	Low temperature electronic thermostatic valve (2)
9		**Model**
	H	Heat pump
10		**Heat recovery**
	°	Without heat recovery
	D	With desuperheater (3)
11		**Version**
	°	Standard
	A	High efficiency
	E	Silenced high efficiency
	L	Standard silenced
12		**Coils**
	°	Copper-aluminium
	R	Copper pipes-copper fins
	S	Copper pipes-Tinned copper fins
	V	Copper pieps-Coated aluminium fins
13		**Fans**
	°	Standard
	J	Inverter
14		**Power supply**
	°	400V ~ 3 50Hz with magnet circuit breakers
15,16		**Integrated hydronic kit**
	00	Without hydronic kit
		Kit with n° 1 pump
	PA	Pump A
	PB	Pump B
	PC	Pump C
	PD	Pump D
	PE	Pump E
	PF	Pump F
	PG	Pump G
	PH	Pump H
	PI	Pump I
	PJ	Pump J (4)
		Pump n° 1 pump + stand-by pump
	DA	Pump A + stand-by pump
	DB	Pump B + stand-by pump
	DC	Pump C + stand-by pump
	DD	Pump D + stand-by pump
	DE	Pump E + stand-by pump
	DF	Pump F + stand-by pump
	DG	Pump G + stand-by pump
	DH	Pump H + stand-by pump
	DI	Pump I + stand-by pump
	DJ	Pump J + stand-by pump (4)
		Kit with storage tank and n° 1 pump
	AA	Storage tank and pump A
	AB	Storage tank and pump B
	AC	Storage tank and pump C
	AD	Storage tank and pump D
	AE	Storage tank and pump E
	AF	Storage tank and pump F
	AG	Storage tank and pump G
	AH	Storage tank and pump H
	AI	Storage tank and pump I
	AJ	Storage tank and pump J (4)
		Kit with storage tank and n° 1 pump + stand-by pump
	BA	Storage tank with pump A + stand-by pump
	BB	Storage tank with pump B + stand-by pump
	BC	Storage tank with pump C + stand-by pump
	BD	Storage tank with pump D + stand-by pump
	BE	Storage tank with pump E + stand-by pump
	BF	Storage tank with pump F + stand-by pump
	BG	Storage tank with pump G + stand-by pump
	BH	Storage tank with pump H + stand-by pump
	BI	Storage tank with pump I + stand-by pump
	BJ	Storage tank with pump J + stand-by pump (4)
		Kit with n° 1 inverter pump to fixed speed
	IA	Pump A equipped with inverter device to work at fixed speed
	IB	Pump B equipped with inverter device to work at fixed speed
	IC	Pump C equipped with inverter device to work at fixed speedr
	ID	Pump D equipped with inverter device to work at fixed speed
	IE	Pump E equipped with inverter device to work at fixed speed
	IF	Pump F equipped with inverter device to work at fixed speed (5)
	IG	Pump G equipped with inverter device to work at fixed speed (5)
	IH	Pump H equipped with inverter device to work at fixed speed (5)
	II	Pump I equipped with inverter device to work at fixed speed (5)
	IJ	Pump J equipped with inverter device to work at fixed speed (6)
		Kit with n° 1 inverter pump + stand-by pump to fixed speed
	JA	Pump A+stand-by pump, both equipped with inverter to work at fixed speed
	JB	Pump B+stand-by pump, both equipped with inverter to work at fixed speed
	JC	Pump C+stand-by pump, both equipped with inverter to work at fixed speed
	JD	Pump D+stand-by pump, both equipped with inverter to work at fixed speed
	JF	Pump F+stand-by pump, both equipped with inverter to work at fixed speed (5)
	JG	Pump G+stand-by pump, both equipped with inverter to work at fixed speed (5)
	JH	Pump H+stand-by pump, both equipped with inverter to work at fixed speed (5)
	JI	Pump I+stand-by pump, both equipped with inverter to work at fixed speed (5)
	JJ	Pump J+stand-by pump, both equipped with inverter to work at fixed speed (6)
		Kit with storage tank and n° 1 inverter pump to fixed speed
	CA	Buffer tank + pump A, equipped with inverter to work at fixed speed
	CB	Buffer tank + pump B, equipped with inverter to work at fixed speed
	CC	Buffer tank + pump C, equipped with inverter to work at fixed speed
	CD	Buffer tank + pump D, equipped with inverter to work at fixed speed
	EC	Buffer tank + pump E, equipped with inverter to work at fixed speed
	CF	Buffer tank + pump F, equipped with inverter to work at fixed speed (5)
	CG	Buffer tank + pump G, equipped with inverter to work at fixed speed (5)
	CH	Buffer tank + pump H, equipped with inverter to work at fixed speed (5)
	CI	Buffer tank + pump I, equipped with inverter to work at fixed speed (5)
	CJ	Buffer tank + pump J, equipped with inverter to work at fixed speed (6)
		Kit with storage tank and n° 1 pump + stand-by pump to fixed speed
	KA	Buffer tank+pump A+stand-by pump, both with inverter to work at fixed speed
	KB	Buffer tank+pump B+stand-by pump, both with inverter to work at fixed speed
	KC	Buffer tank+pump C+stand-by pump, both with inverter to work at fixed speed
	KD	Buffer tank+pump D+stand-by pump, both with inverter to work at fixed speed
	KE	Buffer tank+pump E+stand-by pump, both with inverter to work at fixed speed
	KF	Buffer tank+pump F+stand-by pump, both with inverter to work at fixed speed (5)
	KG	Buffer tank+pump G+stand-by pump, both with inverter to work at fixed speed (5)
	KH	Buffer tank+pump H+stand-by pump, both with inverter to work at fixed speed (5)
	KI	Buffer tank+pump I+stand-by pump, both with inverter to work at fixed speed (5)
	KJ	Buffer tank+pump J+stand-by pump, both with inverter to work at fixed speed (6)

(1) Water produced from 4 °C ÷ 20 °C
(2) Water produced from 8 °C ÷ -10 °C
(3) This option is not available with the Z operating field. The desuperheater must be intercepted in heating mode. In cooling mode, a water temperature no lower than 35°C must always be guaranteed on the heat exchanger inlet.
(4) For all configurations including pump J please contact the factory.
(5) Hydronic kit not available with sizes 0800 version °/L/A, 0900 version °, 1000 version °, 1800 version °.
(6) For all possible configurations which include the "J" pump please be in touch with Aermec. Hydronic kit is not available with sizes 0800 version °/L/A, 0900 version °, 1000 version °, 1800 version °.

PERFORMANCE SPECIFICATIONS

NRG H°

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	200,8	220,5	238,8	292,6	326,1	354,0	381,9	457,2	532,5	562,1	591,6
Input power	kW	72,3	83,0	94,8	106,4	122,3	143,1	159,8	177,9	197,4	217,2	236,9
Cooling total input current	A	127,0	144,0	163,0	182,0	207,0	238,0	268,0	300,0	333,0	362,0	391,0
EER	W/W	2,78	2,66	2,52	2,75	2,67	2,47	2,39	2,57	2,70	2,59	2,50
Water flow rate system side	l/h	34503	37880	41031	50268	56029	60821	65615	78560	91483	96570	101650
Pressure drop system side	kPa	25	30	35	45	45	47	29	42	50	49	47
Heating performance 40 °C / 45 °C (2)												
Heating capacity	kW	211,9	234,9	255,9	309,8	347,6	383,5	415,8	491,6	567,7	602,9	637,8
Input power	kW	65,4	72,7	79,9	96,7	107,9	121,8	128,4	151,3	172,9	183,6	195,4
Heating total input current	A	120,0	133,0	145,0	173,0	190,0	210,0	221,0	263,0	303,0	319,0	337,0
COP	W/W	3,24	3,23	3,20	3,20	3,22	3,15	3,24	3,25	3,28	3,28	3,26
Water flow rate system side	l/h	36823	40823	44470	53838	60421	66654	72264	85444	98663	104778	110847
Pressure drop system side	kPa	29	36	42	53	54	58	37	52	60	60	58

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRG HL

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	195,2	231,8	253,0	284,3	336,3	368,1	399,9	467,6	515,5	568,8	599,8
Input power	kW	73,2	77,8	88,0	106,7	116,8	135,2	153,6	173,9	202,2	211,6	230,4
Cooling total input current	A	125,0	136,0	153,0	179,0	196,0	222,0	249,0	285,0	331,0	346,0	374,0
EER	W/W	2,67	2,98	2,88	2,66	2,88	2,72	2,60	2,69	2,55	2,69	2,60
Water flow rate system side	l/h	33540	39819	43473	48838	57788	63245	68702	80332	88566	97728	103054
Pressure drop system side	kPa	23	33	34	39	45	47	33	39	41	49	35
Heating performance 40 °C / 45 °C (2)												
Heating capacity	kW	209,3	244,6	268,5	304,9	356,9	393,7	431,3	501,8	557,4	610,7	646,6
Input power	kW	64,0	75,3	82,3	94,3	109,5	122,1	130,0	150,9	167,8	184,1	197,4
Heating total input current	A	115,0	134,0	147,0	165,0	188,0	207,0	219,0	257,0	288,0	313,0	333,0
COP	W/W	3,27	3,25	3,26	3,23	3,26	3,22	3,32	3,33	3,32	3,32	3,28
Water flow rate system side	l/h	36369	42513	46657	52988	62021	68420	74962	87217	96884	106143	112386
Pressure drop system side	kPa	28	39	40	47	53	56	40	47	51	60	42

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRG HA

Size		0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	kW	200,8	236,7	259,0	292,6	344,4	378,5	412,5	481,2	532,5	585,4	618,8
Input power	kW	70,8	77,7	87,3	104,8	115,9	133,1	150,3	170,9	194,5	207,8	225,4
Cooling total input current	A	127,0	141,0	157,0	182,0	201,0	226,0	251,0	289,0	333,0	351,0	377,0
EER	W/W	2,84	3,05	2,97	2,79	2,97	2,84	2,75	2,82	2,74	2,82	2,75
Water flow rate system side	l/h	34505	40669	44506	50268	59178	65028	70879	82668	91485	100578	106317
Pressure drop system side	kPa	24	33	34	39	45	47	33	39	42	50	35
Heating performance 40 °C / 45 °C (2)												
Heating capacity	kW	213,9	248,9	273,5	311,4	363,6	403,7	439,1	510,0	567,7	623,5	661,0
Input power	kW	64,8	75,8	83,1	95,0	110,0	123,6	131,4	152,0	169,6	186,3	199,5
Heating total input current	A	119,0	139,0	152,0	170,0	195,0	215,0	227,0	265,0	298,0	325,0	344,0
COP	W/W	3,30	3,28	3,29	3,28	3,30	3,26	3,34	3,36	3,35	3,35	3,31
Water flow rate system side	l/h	37179	43255	47538	54127	63192	70158	76308	88642	98663	108366	114875
Pressure drop system side	kPa	29	40	41	49	55	58	41	49	53	62	44

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRG HE

Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
Cooling performance 12 °C / 7 °C (1)													
Cooling capacity		kW	210,5	241,7	265,3	301,6	350,0	385,8	434,3	499,5	555,8	603,4	639,6
Input power		kW	68,3	75,9	84,9	100,8	113,7	129,4	141,6	163,4	187,2	199,9	215,9
Cooling total input current		A	120,0	135,0	150,0	173,0	192,0	215,0	234,0	272,0	312,0	332,0	355,0
EER		W/W	3,08	3,18	3,13	2,99	3,08	2,98	3,07	3,06	2,97	3,02	2,96
Water flow rate system side		l/h	36167	41535	45585	51820	60126	66279	74616	85811	95491	103665	109890
Pressure drop system side		kPa	24	33	34	40	45	47	33	40	42	50	35
Heating performance 40 °C / 45 °C (2)													
Heating capacity		kW	220,3	251,5	277,0	319,9	367,2	406,7	455,6	524,6	586,3	634,0	674,2
Input power		kW	66,5	76,6	83,8	97,0	109,3	121,1	135,8	156,1	174,2	189,6	201,9
Heating total input current		A	119,0	137,0	150,0	170,0	189,0	207,0	229,0	266,0	299,0	321,0	340,0
COP		W/W	3,31	3,28	3,30	3,30	3,36	3,36	3,35	3,36	3,37	3,34	3,34
Water flow rate system side		l/h	38284	43702	48137	55596	63813	70679	79187	91172	101894	110186	117170
Pressure drop system side		kPa	31	35	39	45	36	35	44	45	55	47	39

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ENERGY INDEX

Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
SEER - 12/7 (EN14825:2018) with standard fans (1)													
SEER	°	W/W	3,82	3,93	3,69	3,95	3,76	3,66	3,63	3,77	3,94	- (2)	- (2)
	A	W/W	3,92	4,26	4,03	4,04	4,31	4,05	4,14	4,16	4,14	- (2)	- (2)
	E	W/W	4,24	4,47	4,46	4,30	4,49	4,23	4,54	4,48	4,30	- (2)	- (2)
	L	W/W	3,89	4,20	4,14	4,07	4,32	4,14	4,09	4,16	4,05	- (2)	- (2)
Seasonal efficiency	°	%	149,69	154,31	144,66	154,85	147,58	143,34	142,18	147,82	154,74	- (2)	- (2)
	A	%	153,94	167,22	158,24	158,70	169,32	159,16	162,42	163,51	162,60	- (2)	- (2)
	E	%	166,62	175,64	175,43	169,12	176,71	166,29	178,62	176,33	169,05	- (2)	- (2)
	L	%	152,78	164,88	162,52	159,98	169,62	162,45	160,44	163,31	158,98	- (2)	- (2)
SEER - (EN14825:2018) 12/7 with inverter fans (1)													
SEER	°	W/W	3,91	4,03	3,76	4,01	3,91	3,74	3,72	3,92	4,10	- (2)	- (2)
	A	W/W	4,13	4,47	4,22	4,21	4,48	4,13	4,21	4,29	4,27	4,57	4,58
	E	W/W	4,48	4,70	4,65	4,49	4,69	4,49	4,73	4,76	4,56	4,68	4,65
	L	W/W	4,08	4,38	4,31	4,23	4,49	4,33	4,17	4,32	4,24	4,57	4,57
Seasonal efficiency	°	%	153,54	158,21	147,58	157,44	153,60	146,56	145,75	153,87	160,99	- (2)	- (2)
	A	%	162,28	175,77	165,92	165,53	176,30	162,21	165,55	168,43	167,63	179,04	180,02
	E	%	176,01	184,84	182,87	176,49	184,43	176,41	186,08	187,33	179,21	184,21	182,92
	L	%	160,02	172,22	169,30	166,37	176,46	170,12	163,61	169,99	166,45	179,96	179,97
SEER - 23/18 (EN14825: 2018) with standard fans (3)													
SEER	°	W/W	4,42	4,52	4,23	4,46	4,31	4,17	4,16	4,25	4,43	4,56	4,55
	A	W/W	4,58	4,90	4,67	4,63	4,86	4,60	4,69	4,68	4,62	4,60	4,68
	E	W/W	4,95	5,13	5,09	4,90	5,03	4,78	5,13	5,04	4,80	4,95	5,00
	L	W/W	4,65	4,84	4,73	4,62	4,81	4,64	4,62	4,66	4,56	4,65	4,68
Seasonal efficiency	°	%	173,96	177,67	166,01	175,31	169,38	163,98	163,39	167,16	174,39	179,50	179,00
	A	%	180,39	193,01	183,69	182,32	191,25	180,93	184,52	184,13	181,81	181,00	184,00
	E	%	194,99	202,37	200,52	193,16	198,13	188,06	202,21	198,68	189,12	195,00	197,00
	L	%	182,92	190,46	186,38	181,81	189,53	182,80	181,68	183,23	179,38	183,00	184,00
SEER - 23/18 (EN14825: 2018) with inverter fans													
SEER	°	W/W	4,53	4,62	4,30	4,53	4,48	4,26	4,26	4,36	4,53	4,56	4,55
	A	W/W	4,82	5,14	4,88	4,83	5,05	4,68	4,77	4,78	4,70	4,74	4,81
	E	W/W	5,22	5,39	5,29	5,11	5,24	5,05	5,33	5,29	5,01	5,07	5,11
	L	W/W	4,86	5,04	4,92	4,80	5,00	4,85	4,70	4,80	4,72	4,81	4,84
Seasonal efficiency	°	%	178,23	181,99	169,18	178,03	176,17	167,49	167,32	171,54	178,15	179,50	179,00
	A	%	189,87	202,58	192,31	190,02	199,05	184,16	187,89	188,04	185,13	186,42	189,27
	E	%	205,69	212,67	208,75	201,59	206,78	199,04	210,37	208,55	197,30	199,90	201,24
	L	%	191,27	198,67	193,92	188,82	196,81	191,05	185,11	189,15	185,81	189,25	190,57
SEPR - (EN14825: 2018) High temperature with standard fans (3)													
SEPR	°	W/W	4,93	5,03	4,88	5,11	5,01	5,11	5,00	5,11	5,29	5,27	5,11
	A	W/W	5,07	5,49	5,34	5,31	5,63	5,58	5,57	5,62	5,49	5,55	5,58
	E	W/W	5,60	5,85	5,91	5,58	5,78	5,87	6,19	6,11	5,89	6,09	6,03
	L	W/W	5,14	5,48	5,47	5,31	5,48	5,61	5,55	5,63	5,44	5,65	5,56
SEPR - (EN14825: 2018) High temperature with inverter fans (3)													
SEPR	°	W/W	5,05	5,15	4,98	5,20	5,21	5,23	5,12	5,31	5,49	5,45	5,37
	A	W/W	5,34	5,76	5,59	5,54	5,85	5,69	5,67	5,79	5,66	5,85	5,87
	E	W/W	5,91	6,15	6,16	5,82	6,03	6,22	6,44	6,48	6,24	6,31	6,25
	L	W/W	5,38	5,72	5,70	5,51	5,69	5,87	5,66	5,85	5,69	5,96	5,88

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C
(3) Calculation performed with FIXED water flow rate.

Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
Fans: °													
UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (1)													
Pdesignh	°	kW	185	206	225	271	306	341	372	346	394	533	567
	A	kW	186	215	237	273	317	354	387	352	394	547	584
	E	kW	190	216	239	278	318	355	397	355	398	554	591
	L	kW	182	212	233	267	312	347	381	349	391	538	573
SCOP	°		3,70	3,68	3,70	3,63	3,63	3,65	3,78	3,78	3,85	3,84	3,87
	A		3,85	3,75	3,80	3,83	3,80	3,85	3,95	3,93	4,00	3,97	4,03
	E		3,83	3,75	3,80	3,80	3,78	3,85	3,95	3,93	4,00	3,96	4,02
	L		3,75	3,70	3,78	3,73	3,73	3,80	3,90	3,88	3,95	3,88	3,95
ηsh	°	%	144,95	143,51	145,03	141,70	142,39	142,72	148,37	148,22	150,74	150,57	151,99
	A	%	151,26	147,10	148,95	150,09	148,92	150,73	155,39	153,74	157,11	156,00	158,37
	E	%	149,60	146,63	148,74	148,95	148,14	151,30	155,26	154,27	156,73	155,51	157,88
	L	%	146,96	145,41	147,82	146,29	145,93	149,25	152,96	152,42	155,05	152,28	154,95
UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (2)													
Pdesignh	°	kW	185	207	228	272	308	344	375	346	394	535	570
	A	kW	187	214	237	273	316	354	386	352	394	545	582
	E	kW	189	215	238	277	316	352	393	355	398	549	586
	L	kW	183	212	234	269	311	347	382	349	391	538	573
SCOP	°		3,08	3,05	3,08	3,05	3,03	3,00	3,03	3,06	3,21	3,18	3,18
	A		3,18	3,15	3,18	3,20	3,15	3,18	3,18	3,17	3,29	3,27	3,25
	E		3,18	3,15	3,18	3,18	3,13	3,15	3,20	3,20	3,32	3,26	3,26
	L		3,08	3,10	3,15	3,10	3,08	3,13	3,10	3,13	3,24	3,18	3,17
ηsh	°	%	120,10	119,16	120,24	118,86	118,20	117,16	118,26	119,46	125,22	124,15	124,36
	A	%	124,31	122,92	123,79	124,48	123,37	123,50	123,70	123,68	128,55	127,96	127,17
	E	%	124,44	122,64	123,96	123,61	122,14	122,87	125,09	124,78	129,60	127,34	127,57
	L	%	120,43	121,14	122,52	120,80	120,36	121,82	121,38	122,19	126,39	124,30	123,94
Fans: J													
UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (1)													
Pdesignh	°	kW	185	206	225	271	306	341	372	346	394	533	567
	A	kW	186	215	237	273	317	354	387	352	394	547	584
	E	kW	190	216	239	278	318	355	397	355	398	554	591
	L	kW	182	212	233	267	312	347	381	349	391	538	573
SCOP	°		3,75	3,72	3,74	3,65	3,72	3,69	3,84	3,87	3,90	3,92	3,98
	A		3,98	3,87	3,91	3,92	3,89	3,93	4,04	4,03	4,08	4,08	4,13
	E		3,94	3,86	3,89	3,90	3,88	4,00	4,05	4,08	4,09	4,09	4,13
	L		3,85	3,81	3,86	3,82	3,85	3,87	3,94	3,98	4,02	3,99	4,06
ηsh	°	%	147,19	145,69	146,78	143,12	145,88	144,64	150,61	151,86	152,83	153,82	156,25
	A	%	156,18	151,63	153,29	153,96	152,61	154,02	158,78	158,12	160,03	160,11	162,27
	E	%	154,67	151,25	152,53	152,86	152,04	156,84	159,16	160,06	160,74	160,54	162,33
	L	%	151,15	149,30	151,53	149,80	151,00	151,92	154,77	156,17	157,80	156,44	159,42
UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (2)													
Pdesignh	°	kW	185	207	228	272	308	344	375	346	394	535	570
	A	kW	187	214	237	273	316	354	386	352	394	545	582
	E	kW	189	215	238	277	316	352	393	355	398	549	586
	L	kW	183	212	234	269	311	347	382	349	391	538	573
SCOP	°		3,13	3,11	3,12	3,08	3,11	3,05	3,08	3,15	3,26	3,26	3,29
	A		3,30	3,26	3,28	3,28	3,25	3,24	3,24	3,26	3,36	3,37	3,35
	E		3,31	3,25	3,27	3,26	3,22	3,28	3,29	3,33	3,42	3,38	3,37
	L		3,19	3,20	3,23	3,18	3,20	3,19	3,15	3,22	3,31	3,28	3,28
ηsh	°	%	122,27	121,29	121,95	120,26	121,59	119,01	120,35	122,90	127,46	127,29	128,67
	A	%	129,05	127,35	128,02	128,24	126,95	126,45	126,66	127,60	131,34	131,91	130,84
	E	%	129,38	127,17	127,67	127,41	125,90	128,13	128,78	130,27	133,70	132,16	131,79
	L	%	124,44	124,94	126,12	124,20	125,05	124,58	123,06	125,71	129,24	128,27	128,14

(1) Efficiencies for low temperature applications (35 °C)
(2) Efficiencies for average temperature applications (55 °C)

ELECTRIC DATA

Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
Electric data													
Maximum current (FLA)	°	A	162,2	180,5	198,8	234,5	262,4	290,3	318,1	371,7	425,3	453,2	481,1
	A,L	A	162,2	188,3	206,6	234,5	270,2	298,1	325,9	379,5	425,3	461,0	488,9
	E	A	170,0	196,1	214,4	242,3	278,0	305,9	341,5	395,1	440,9	476,6	504,5
Peak current (LRA)	°,A,E,L	A	350,8	406,6	424,9	545,4	573,3	601,2	629,0	674,9	720,7	748,5	776,4

Data calculated without hydronic kit and accessories.

GENERAL TECHNICAL DATA

Compressors

Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
Compressor													
Type	°,A,E,L	type						Scroll					
Compressor regulation	°,A,E,L	Type						On-Off					
Number	°,A,E,L	no.	4	4	4	4	4	4	4	5	6	6	6
Circuits	°,A,E,L	no.	2	2	2	2	2	2	2	2	2	2	2
Refrigerant	°,A,E,L	type						R32					
Refrigerant charge (1)	°	kg	33,0	33,0	45,0	46,5	46,5	45,0	45,0	60,8	61,5	72,0	72,0
	A,L	kg	33,0	45,0	48,0	46,5	49,5	60,8	58,5	74,3	87,8	87,8	89,3
	E	kg	43,5	57,0	58,5	57,0	58,5	69,8	84,0	102,0	107,3	112,5	115,5

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

System side heat exchanger

Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
System side heat exchanger													
Type	°,A,E,L	type						Brazed plate					
Number	°,A,E,L	no.	1	1	1	1	1	1	1	1	1	1	1

Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
Integrated hydronic kit: 00													
Hydraulic connections													
Connections (in/out)	°,A,E,L	Type						Grooved joints					
Sizes (in/out)	°	Ø	3″	3″	3″	3″	3″	4″	4″	4″	4″	4″	5″
	A,L	Ø	3″	3″	3″	3″	3″	4″	4″	4″	4″	5″	5″
	E	Ø	3″	3″	3″	3″	4″	4″	4″	4″	4″	5″	5″

Fans

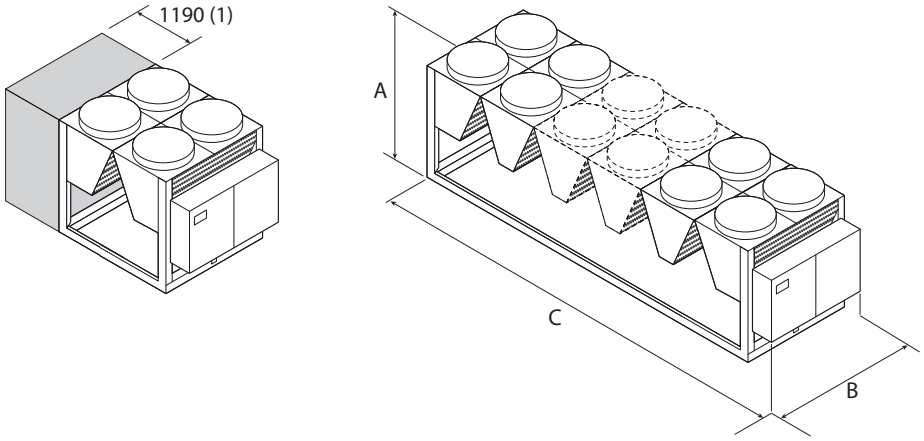
Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
Fans: °													
Fan													
Type	°,A,E,L	type						Axial					
Number	°	no.	4	4	4	6	6	6	6	8	10	10	10
	A,L	no.	4	6	6	6	8	8	8	10	10	12	12
	E	no.	6	8	8	8	10	10	12	14	14	16	16
Fan motor	°,A	type						Asynchronous					
	E,L	type						Asynchronous with phase cut					
Air flow rate	°	m^3/h	82398	82398	82424	123596	123596	123561	123561	164866	205969	205969	205969
	A	m^3/h	82403	123609	123609	123605	164779	164779	164779	205996	205998	247152	247152
	E	m^3/h	102378	136491	136491	136491	170613	170613	204757	238871	238871	272982	272982
	L	m^3/h	68237	102348	102348	102356	136528	136528	136528	170617	170614	204825	204825

Sound data

Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
Sound data calculated in cooling mode (1)													
Sound power level	°	dB(A)	90,5	90,5	90,5	92,3	92,4	92,5	92,6	93,7	94,6	94,7	94,8
	A	dB(A)	90,5	92,2	92,2	92,3	93,6	93,6	93,7	94,6	94,6	95,4	95,5
	E	dB(A)	85,2	86,2	86,2	87,0	88,3	88,8	89,7	90,1	90,2	90,9	91,2
	L	dB(A)	83,5	84,7	84,8	85,8	87,2	87,8	88,3	88,9	89,0	89,8	90,1
Sound pressure level (10 m)	°	dB(A)	58,4	58,4	58,4	60,0	60,1	60,2	60,4	61,3	62,1	62,2	62,2
	A	dB(A)	58,4	59,9	59,9	60,0	61,2	61,2	61,3	62,1	62,1	62,8	62,8
	E	dB(A)	52,9	53,8	53,8	54,6	55,7	56,3	57,0	57,3	57,4	57,9	58,2
	L	dB(A)	51,4	52,5	52,5	53,5	54,8	55,4	55,9	56,4	56,5	57,1	57,4

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



(1) Additional module needed to contain the hydronic kit with "accumulation" option in sizes:
NRG 0800H°, 0900H°, 1000H°
NRG 0800HL
NRG 0800HA

Size			0800	0900	1000	1100	1200	1400	1600	1800	2000	2200	2400
Integrated hydronic kit: 00													
Dimensions and weights													
A	°,A,E,L	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	°,A,E,L	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	°	mm	2780	2780	2780	3970	3970	3970	3970	5160	6350	6350	6350
	A,L	mm	2780	3970	3970	3970	5160	5160	5160	6350	6350	7540	7540
	E	mm	3970	5160	5160	5160	6350	6350	7540	8730	8730	9920	9920

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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www.aermec.com

NRB 0800-3600

Air-water chiller

Cooling capacity 217 ÷ 1049 kW

- **Microchannel coil**
- **Night mode**
- **Operation up to 50 °C outdoor air**
- **HP floating: ESEER +7% with inverter fans**



EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications.
They are outdoor units with axial fan scroll compressors, microchannel batteries and plate exchangers.
In the unit with desuperheater, it is also possible to produce free-hot water.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

° Standard
A High efficiency
E Silenced high efficiency
L Standard silenced
N Silenced very high efficiency
U Very high efficiency

FEATURES

Operating field

Operation at full load up to 50°C external air temperature. Unit can produce chilled water (up to -10°C of water produced in some versions).

Dual-circuit unit

Unit with 2 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.

Aluminium microchannel coils

The microchannel condensing aluminum coils ensure high levels of efficiency, reduced quantities of refrigerant and lower unit weight. The treatment "O" available as configurator it ensures high resistance to corrosion even in the most aggressive environments.

Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

It is standard in all sizes from 1805 to 3600.

Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations with one or two pumps, with high or low head and storage tank, to obtain a solution that allows you to save money and to facilitate installation.

CONTROL PCO[5]

Microprocessor adjustment, with 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time and the ad adjustment includes complete management of the alarms and their log.

— Possibility to control two units in a Master-Slave configuration
— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
— The temperature control takes place with the integral proportional logic, based on the water output temperature.
— **Floating HP control:** available for all models with inverter fans or with DCPX. Together with continuous fan modulation, it optimises unit operation in any working point, enhancing energy efficiency with partial loads. **ESEER up to +7% with inverter fans.**
— **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load. **Night Mode for standard versions is mandatory DCPX accessory (standard on all low noise versions) or "J" inverter fan**

CONFIGURATOR

Field		Description
1,2,3		**NRB**
4,5,6,7		**Size** 0800, 0900, 1000, 1100, 1200, 1400, 1600, 1805, 2006, 2206, 2406, 2600, 2800, 3000, 3200, 3400, 3600
8		**Operating field**
	°	Standard mechanic thermostatic valve (1)
	X	Electronic thermostatic expansion valve (1)
	Y	Low temperature mechanic thermostatic valve (2)
	Z	Low temperature electronic thermostatic valve (2)
9		**Model**
	°	Cooling only
	C	Motocondensing unit (3)
10		**Heat recovery**
	°	Without heat recovery
	D	With desuperheater (4)
	T	With total recovery (5)
11		**Version**
	°	Standard
	A	High efficiency
	E	Silenced high efficiency
	L	Standard silenced
	N	Silenced very high efficiency
	U	Very high efficiency
12		**Coils**
	°	Aluminium microchannel
	I	Copper-aluminium
	O	Coated aluminium microchannel
	R	Copper-copper
	S	Tinned copper
	V	Copper-painted alumimium
13		**Fans**
	°	Standard
	J	Inverter
	M	Oversized
14		**Power supply**
	°	400V ~ 3 50Hz with magnet circuit breakers
15,16		**Integrated hydronic kit**
		Without hydronic kit
	00	Without hydronic kit
		Kit with n° 1 pump
	PA	Pump A
	PB	Pump B
	PC	Pump C
	PD	Pump D
	PE	Pump E
	PF	Pump F
	PG	Pump G
	PH	Pump H
	PI	Pump I
	PJ	Pump J (6)
		Pump n° 1 pump + stand-by pump
	DA	Pump A + stand-by pump (7)
	DB	Pump B + stand-by pump (7)
	DC	Pump C + stand-by pump (7)
	DD	Pump D + stand-by pump (7)
	DE	Pump E + stand-by pump (7)
	DF	Pump F + stand-by pump (7)
	DG	Pump G + stand-by pump (7)
	DH	Pump H + stand-by pump (7)
	DI	Pump I + stand-by pump (7)
	DJ	Pump J + stand-by pump (8)
		Kit with storage tank and n° 1 pump
	AA	Storage tank and pump A
	AB	Storage tank and pump B
	AC	Storage tank and pump C
	AD	Storage tank and pump D
	AE	Storage tank and pump E
	AF	Storage tank and pump F
	AG	Storage tank and pump G
	AH	Storage tank and pump H
	AI	Storage tank and pump I
	AJ	Storage tank and pump J (6)
		Kit with storage tank and n° 1 pump + stand-by pump
	BA	Storage tank with pump A + stand-by pump (7)
	BB	Storage tank with pump B + stand-by pump (7)
	BC	Storage tank with pump C + stand-by pump (7)
	BD	Storage tank with pump D + stand-by pump (7)
	BE	Storage tank with pump E + stand-by pump (7)
	BF	Storage tank with pump F + stand-by pump (7)
	BG	Storage tank with pump G + stand-by pump (7)
	BH	Storage tank with pump H + stand-by pump (7)
	BI	Storage tank with pump I + stand-by pump (7)
	BJ	Storage tank with pump J + stand-by pump (8)

(1) Water produced from 4 °C ÷ 18 °C
(2) Processed water from 4°C to -8°C for the ° - L versions, and from 4°C to -10°C for A - E - U - N versions
(3) Condensing units "C" are not compatible with the Y/X/Z/T/D option
(4) The temperature of the water in the heat exchanger inlet must never drop below 35°C.
(5) None of the hydronic kits (from PA to BJ) are compatible with the following sizes and with versions with heat recovery T: 0800 - 0900 - 1000 - 1100 version °; 0800 - 0900 version A; 0800 - 0900 version L. None of the hydronic kits with pump(s) and storage tank (from AA to BJ) are compatible with all the sizes and with versions with heat recovery T
(6) For all configurations including pump J please contact the factory.
(7) None of the hydronic kits with twin pump (from DA to DJ and from BA to BJ) are compatible for the following sizes and versions with desuperheater D: 1805 versions °- L-A, 2006-2206 version °.
(8) For all combinations with pump J, please contact our head office. None of the hydronic kits with twin pump (from DA to DJ and from BA to BJ) are compatible for the following sizes and versions with desuperheater D: 1805 versions °-L-A, 2006-2206 version °.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
FL: Flow switch.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PGD1: Allows you to control the unit at a distance.
AVX: Spring anti-vibration supports.
DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.
RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
GP_: Anti-intrusion grid kit
XLA: The Kit, which consists of resistances for the electric power board and "J" inverter fans, allows the outdoor air temperature operating range to be extended from –10°C to –20°C outdoor air.

ACCESSORIES COMPATIBILITY

Model	Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
AER485P1	°,A,E,L,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERBACP	°,A,E,L,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERNET	°,A,E,L,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FL	°,A,E,L,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	°,A,E,L,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PGD1	°,A,E,L,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Antivibration

Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Integrated hydronic kit: 00																	
°	AVX805	AVX805	AVX805	AVX805	AVX808	AVX808	AVX808	AVX810	AVX810	AVX810	AVX809	AVX815	AVX819	AVX819	AVX819	AVX818	AVX818
A,L	AVX805	AVX805	AVX806	AVX808	AVX808	AVX808	AVX810	AVX810	AVX809	AVX809	AVX863	AVX813	AVX818	AVX818	AVX816	AVX816	AVX816
E,U	AVX806	AVX806	AVX808	AVX807	AVX807	AVX810	AVX809	AVX863	AVX863	AVX813	AVX813	AVX816	AVX816	AVX817	AVX820	AVX820	AVX820
N	AVX807	AVX807	AVX807	AVX809	AVX809	AVX809	AVX863	AVX812	AVX812	AVX814	AVX814	AVX817	AVX817	AVX820	AVX821	AVX821	AVX821
Integrated hydronic kit: AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, BA, BB, BC, BD, BE, BF, BG, BH																	
°	AVX844	AVX844	AVX844	AVX844	AVX844	AVX848	AVX848	AVX845	AVX845	AVX845	AVX847	AVX853	AVX857	AVX859	AVX859	AVX858	AVX858
A,L	AVX844	AVX844	AVX844	AVX844	AVX844	AVX848	AVX845	AVX845	AVX847	AVX847	AVX849	AVX854	AVX858	AVX858	AVX861	AVX861	AVX861
E,U	AVX844	AVX844	AVX844	AVX845	AVX845	AVX845	AVX847	AVX849	AVX849	AVX851	AVX851	AVX855	AVX855	AVX856	AVX860	AVX860	AVX860
N	AVX845	AVX845	AVX845	AVX847	AVX847	AVX847	AVX849	AVX850	AVX851	AVX852	AVX852	AVX856	AVX856	AVX860	AVX862	AVX862	AVX862
Integrated hydronic kit: BI																	
°	AVX844	AVX844	AVX844	AVX844	AVX846	AVX848	AVX848	AVX845	AVX845	AVX845	AVX847	AVX853	AVX857	AVX859	AVX859	AVX858	AVX858
A,L	AVX844	AVX844	AVX846	AVX846	AVX846	AVX848	AVX845	AVX845	AVX847	AVX847	AVX849	AVX854	AVX858	AVX858	AVX861	AVX861	AVX861
E,U	AVX844	AVX844	AVX846	AVX845	AVX845	AVX845	AVX847	AVX849	AVX849	AVX851	AVX851	AVX855	AVX855	AVX856	AVX860	AVX860	AVX860
N	AVX845	AVX845	AVX845	AVX847	AVX847	AVX847	AVX849	AVX850	AVX851	AVX852	AVX852	AVX856	AVX856	AVX860	AVX862	AVX862	AVX862
Integrated hydronic kit: BJ																	
°	-	AVX844	AVX844	AVX844	AVX846	AVX848	AVX848	AVX845	AVX845	AVX845	AVX847	AVX853	AVX857	AVX859	AVX859	AVX858	AVX858
A,L	AVX844	AVX844	AVX846	AVX846	AVX846	AVX848	AVX845	AVX845	AVX847	AVX847	AVX849	AVX854	AVX858	AVX858	AVX861	AVX861	AVX861
E,U	AVX844	AVX844	AVX846	AVX845	AVX845	AVX845	AVX847	AVX849	AVX849	AVX851	AVX851	AVX855	AVX855	AVX856	AVX860	AVX860	AVX860
N	AVX845	AVX845	AVX845	AVX847	AVX847	AVX847	AVX849	AVX850	AVX851	AVX852	AVX852	AVX856	AVX856	AVX860	AVX862	AVX862	AVX862
Integrated hydronic kit: DA, DB, DC, PA, PB, PC, PD, PE, PF, PG, PH																	
°	AVX822	AVX822	AVX822	AVX822	AVX825	AVX825	AVX825	AVX826	AVX826	AVX826	AVX828	AVX834	AVX839	AVX839	AVX839	AVX840	AVX840
A,L	AVX822	AVX822	AVX825	AVX825	AVX825	AVX825	AVX826	AVX826	AVX828	AVX828	AVX830	AVX835	AVX840	AVX840	AVX842	AVX842	AVX842
E,U	AVX825	AVX825	AVX825	AVX826	AVX826	AVX826	AVX828	AVX830	AVX830	AVX832	AVX832	AVX836	AVX836	AVX837	AVX841	AVX841	AVX841
N	AVX826	AVX826	AVX826	AVX828	AVX828	AVX828	AVX830	AVX831	AVX831	AVX833	AVX833	AVX837	AVX837	AVX841	AVX843	AVX843	AVX843
Integrated hydronic kit: DD, DE, DF, DG, DH, PI, PJ																	
°	AVX823	AVX823	AVX823	AVX823	AVX825	AVX825	AVX825	AVX826	AVX826	AVX826	AVX829	AVX834	AVX839	AVX839	AVX839	AVX840	AVX840
A,L	AVX823	AVX823	AVX825	AVX825	AVX825	AVX825	AVX826	AVX826	AVX829	AVX829	AVX830	AVX835	AVX840	AVX840	AVX842	AVX842	AVX842
E,U	AVX825	AVX825	AVX825	AVX826	AVX826	AVX826	AVX829	AVX830	AVX830	AVX832	AVX832	AVX836	AVX836	AVX838	AVX841	AVX841	AVX841
N	AVX826	AVX826	AVX826	AVX829	AVX829	AVX829	AVX830	AVX831	AVX831	AVX833	AVX833	AVX838	AVX838	AVX841	AVX843	AVX843	AVX843
Integrated hydronic kit: DI, DJ																	
°	AVX864	AVX864	AVX829	AVX864	AVX825	AVX825	AVX827	AVX827	AVX827	AVX827	AVX829	AVX834	AVX839	AVX839	AVX839	AVX840	AVX840
A,L	AVX864	AVX864	AVX825	AVX825	AVX825	AVX825	AVX827	AVX827	AVX829	AVX829	AVX830	AVX835	AVX840	AVX840	AVX842	AVX842	AVX842
E,U	AVX825	AVX825	AVX825	AVX827	AVX827	AVX827	AVX829	AVX830	AVX830	AVX832	AVX832	AVX836	AVX836	AVX838	AVX841	AVX841	AVX841
N	AVX827	AVX827	AVX827	AVX829	AVX829	AVX829	AVX830	AVX831	AVX831	AVX833	AVX833	AVX838	AVX838	AVX841	AVX843	AVX843	AVX843

Condensation control temperature

Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006
Fans: °									
°	DCPX120	DCPX120	DCPX120	DCPX120	DCPX121	DCPX121	DCPX121	DCPX150	DCPX150
A	DCPX120	DCPX120	DCPX121	DCPX121	DCPX121	DCPX121	DCPX122	DCPX150	DCPX151
E,L,N	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard
U	DCPX121	DCPX121	DCPX122	DCPX122	DCPX122	DCPX122	DCPX123	DCPX124	DCPX124
Fans: M									
°	DCPX130	DCPX130	DCPX130	DCPX130	DCPX131	DCPX131	DCPX131	DCPX155	DCPX155
A	DCPX130	DCPX130	DCPX131	DCPX131	DCPX131	DCPX131	DCPX132	DCPX155	DCPX156
E,L,N	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard
U	DCPX131	DCPX131	DCPX131	DCPX132	DCPX132	DCPX132	DCPX133	DCPX134	DCPX134

Ver	2206	2406	2600	2800	3000	3200	3400	3600
Fans: °								
°	DCPX150	DCPX151	DCPX123	DCPX124	DCPX124	DCPX124	DCPX125	DCPX125
A	DCPX151	DCPX124	DCPX125	DCPX125	DCPX125	DCPX126	DCPX126	DCPX126
E,L,N	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard
U	DCPX125	DCPX125	DCPX126	DCPX126	DCPX127	DCPX128	DCPX128	DCPX128
Fans: M								
°	DCPX155	DCPX156	DCPX133	DCPX134	DCPX134	DCPX134	DCPX135	DCPX135
A	DCPX156	DCPX134	DCPX135	DCPX135	DCPX135	DCPX136	DCPX136	DCPX136
E,L,N	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard
U	DCPX135	DCPX135	DCPX136	DCPX136	DCPX137	DCPX138	DCPX138	DCPX138

Device for peak current reduction

Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006
°,A,E,L,N,U	DRENRB0800 (1)	DRENRB0900 (1)	DRENRB1000 (1)	DRENRB1100 (1)	DRENRB1200 (1)	DRENRB1400 (1)	DRENRB1600 (1)	DRENRB1805 (1)	DRENRB2006 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
A grey background indicates the accessory must be assembled in the factory

Ver	2206	2406	2600	2800	3000	3200	3400	3600
°,A,E,L,N,U	DRENRB2206 (1)	DRENRB2406 (1)	-	-	-	-	-	-

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

Power factor correction

Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006
°	RIFNRB0800	RIFNRB0900	RIFNRB1000	RIFNRB1100	RIFNRB1200	RIFNRB1400	RIFNRB1600	RIFNRB1805	RIFNRB2006
A,L	RIFNRB0800	RIFNRB0900	RIFNRB1000	RIFNRB1100	RIFNRB1200	RIFNRB1400	RIFNRB1601	RIFNRB1805	RIFNRB2006
E,U	RIFNRB0800	RIFNRB0900	RIFNRB1000	RIFNRB1101	RIFNRB1201	RIFNRB1401	RIFNRB1601	RIFNRB1815	RIFNRB2016
N	RIFNRB0801	RIFNRB0901	RIFNRB1001	RIFNRB1101	RIFNRB1201	RIFNRB1401	RIFNRB1601	RIFNRB1815	RIFNRB2016

A grey background indicates the accessory must be assembled in the factory

Ver	2206	2406	2600	2800	3000	3200	3400	3600
°	RIFNRB2206	RIFNRB2406	RIFNRB2600	RIFNRB2800	RIFNRB3000	RIFNRB3200	RIFNRB3400	RIFNRB3600
A,L	RIFNRB2206	RIFNRB2416	RIFNRB2600	RIFNRB2800	RIFNRB3000	RIFNRB3200	RIFNRB3400	RIFNRB3600
E,N,U	RIFNRB2216	RIFNRB2416	RIFNRB2600	RIFNRB2800	RIFNRB3000	RIFNRB3200	RIFNRB3400	RIFNRB3600

A grey background indicates the accessory must be assembled in the factory

Anti-intrusion grid

Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
°	GP2VN	GP2VN	GP2VN	GP2VN	GP3VN	GP3VN	GP3VN	GP4VN	GP4VN	GP4VN	GP4VN	GP5VN	GP6V	GP6V	GP6V	GP7V	GP7V
A,L	GP2VN	GP2VN	GP3VN	GP3VN	GP3VN	GP3VN	GP4VN	GP4VN	GP5VN	GP5VN	GP5VN	GP7V	GP7V	GP7V	GP8V	GP8V	GP8V
E,U	GP3VN	GP3VN	GP3VN	GP4VN	GP4VN	GP4VN	GP5VN	GP6V	GP6V	GP7V	GP7V	GP8V	GP8V	GP9VN	GP10V	GP10V	GP10V
N	GP4VN	GP4VN	GP4VN	GP5VN	GP5VN	GP5VN	GP6V	GP7V	GP7V	GP8V	GP4VN	GP9VN	GP9VN	GP10V	GP11V	GP11V	GP11V

A grey background indicates the accessory must be assembled in the factory

■ *GP2VN becomes GP2VNA if configured with a type A or B hydronic kit*

Kit for low temperature

Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
°	-	-	-	-	-	-	-	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)
A,L	-	-	-	-	-	-	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)
E,U	-	-	-	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)
N	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)

(1) With the accessory XLA do not use the DCPX.
The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

PERFORMANCE SPECIFICATIONS

NRB - °

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Cooling performance 12 °C / 7 °C (1)																		
Cooling capacity	kW	221,5	244,5	270,3	299,7	353,1	404,9	439,0	511,2	560,9	598,2	675,8	721,6	786,8	830,6	880,2	945,8	998,2
Input power	kW	73,3	83,1	94,1	110,3	117,5	135,4	155,1	175,7	194,0	216,6	236,5	256,0	270,3	292,6	314,7	329,4	355,2
Cooling total input current	A	128,3	143,1	160,0	185,5	201,6	229,9	260,8	299,7	329,8	366,5	404,6	434,0	459,4	498,2	534,6	562,9	606,0
EER	W/W	3,02	2,94	2,87	2,72	3,00	2,99	2,83	2,91	2,89	2,76	2,86	2,82	2,91	2,84	2,80	2,87	2,81
Water flow rate system side	l/h	38117	42077	46498	51565	60733	69640	75512	87913	96469	102883	116222	124100	135305	142813	151332	162608	171611
Pressure drop system side	kPa	46	55	38	45	44	39	46	40	47	53	52	58	60	36	39	46	43

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

NRB - L

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Cooling performance 12 °C / 7 °C (1)																		
Cooling capacity	kW	216,9	237,7	272,7	307,7	343,9	391,0	438,4	498,2	555,4	608,2	666,2	727,2	770,0	834,2	886,6	952,6	1004,1
Input power	kW	73,0	85,9	92,0	107,4	122,7	139,0	151,9	173,3	191,6	213,6	233,8	246,8	270,1	284,5	307,5	323,1	347,9
Cooling total input current	A	122,8	142,3	154,5	179,0	203,4	231,8	250,8	289,7	318,6	359,2	390,2	412,6	448,8	478,6	512,6	544,6	585,4
EER	W/W	2,97	2,77	2,97	2,87	2,80	2,81	2,89	2,87	2,90	2,85	2,85	2,95	2,85	2,93	2,88	2,95	2,89
Water flow rate system side	l/h	37323	40891	46905	52926	59137	67243	75381	85669	95498	104586	114564	125029	132382	143408	152424	163777	172632
Pressure drop system side	kPa	25	20	27	24	29	23	30	28	37	36	44	28	31	30	34	39	43

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

NRB - A

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Cooling performance 12 °C / 7 °C (1)																		
Cooling capacity	kW	224,1	252,2	283,7	326,1	361,2	411,7	462,2	519,2	576,0	633,3	697,6	757,5	805,8	867,0	928,7	980,8	1026,8
Input power	kW	70,6	80,9	90,2	104,7	115,3	131,8	147,6	166,3	183,5	203,1	223,3	240,5	256,5	277,0	297,0	314,4	330,3
Cooling total input current	A	123,9	139,9	158,8	181,8	198,2	224,1	252,4	283,8	316,2	348,7	386,3	417,6	441,6	475,9	513,3	541,6	567,7
EER	W/W	3,17	3,12	3,15	3,12	3,13	3,12	3,13	3,12	3,14	3,12	3,12	3,15	3,14	3,13	3,13	3,12	3,11
Water flow rate system side	l/h	38561	43394	48802	56076	62118	70789	79487	89271	99048	108894	119965	130236	138537	149048	159671	168622	176531
Pressure drop system side	kPa	27	22	30	27	32	25	34	30	39	39	48	30	34	32	38	41	45

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

NRB - E

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Cooling performance 12 °C / 7 °C (1)																		
Cooling capacity	kW	219,2	248,3	275,0	321,4	358,7	403,2	455,0	514,5	569,0	637,2	688,3	741,1	794,3	857,9	911,7	965,1	1019,4
Input power	kW	69,6	79,4	88,5	102,2	114,9	129,8	144,5	164,7	183,0	203,4	221,4	236,5	255,5	274,7	290,6	310,5	327,8
Cooling total input current	A	119,5	134,7	148,8	172,1	192,6	215,7	240,1	275,1	306,1	342,6	372,8	397,0	425,9	459,5	487,5	520,6	549,0
EER	W/W	3,15	3,13	3,11	3,15	3,12	3,11	3,15	3,12	3,11	3,13	3,11	3,13	3,11	3,12	3,14	3,11	3,11
Water flow rate system side	l/h	37710	42726	47303	55271	61679	69338	78240	88465	97841	109550	118323	127417	136570	147496	156744	165934	175268
Pressure drop system side	kPa	19	23	20	27	21	27	26	33	33	22	25	30	34	33	38	41	46

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

NRB - U

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Cooling performance 12 °C / 7 °C (1)																		
Cooling capacity	kW	227,6	257,6	286,5	329,6	369,8	414,6	466,9	529,2	594,0	655,1	716,9	765,5	815,3	879,0	940,9	999,7	1049,5
Input power	kW	68,8	77,7	86,8	99,5	111,7	126,1	140,9	159,5	179,0	197,8	215,3	229,4	248,9	265,7	282,3	302,5	319,5
Cooling total input current	A	124,3	138,5	152,9	176,0	195,6	218,0	244,0	278,3	311,7	347,7	377,4	401,2	431,5	463,1	493,9	527,9	556,4
EER	W/W	3,30	3,31	3,30	3,31	3,31	3,28	3,31	3,32	3,32	3,31	3,33	3,34	3,28	3,31	3,33	3,30	3,28
Water flow rate system side	l/h	39151	44308	49294	56689	63596	71302	80286	91003	102137	112618	123250	131616	140179	151126	161768	171875	180443
Pressure drop system side	kPa	20	25	21	29	23	28	27	35	36	23	27	32	36	35	40	44	49

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

NRB - N

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Cooling performance 12 °C / 7 °C (1)																		
Cooling capacity	kW	227,7	260,4	284,7	327,7	367,7	412,3	466,1	521,6	579,1	645,7	702,6	749,4	804,7	866,4	926,7	973,5	1029,9
Input power	kW	68,5	78,9	86,4	98,5	111,9	125,4	140,4	157,8	176,0	194,6	212,9	229,0	246,7	263,5	282,7	301,1	319,3
Cooling total input current	A	118,2	135,1	146,9	166,9	188,6	209,4	234,0	264,2	295,4	328,9	360,0	385,3	412,5	442,0	475,2	506,2	536,4
EER	W/W	3,32	3,30	3,30	3,33	3,29	3,29	3,32	3,31	3,29	3,32	3,30	3,27	3,26	3,29	3,28	3,23	3,23
Water flow rate system side	l/h	39166	44792	48972	56365	63234	70905	80151	89691	99569	111009	120789	128849	138355	148961	159328	167377	177077
Pressure drop system side	kPa	20	25	21	28	23	28	27	34	34	23	26	30	35	34	39	42	47

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

ENERGY INDICES (REG. 2016/2281 EU)

Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
SEER - 12/7 (EN14825:2018) with standard fans (1)																			
SEER	°	W/W	4,22	4,13	4,10	4,11	4,19	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	A	W/W	4,41	4,34	4,39	4,45	4,48	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	E	W/W	4,46	4,40	4,40	4,54	4,54	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	L	W/W	4,31	4,16	4,24	4,27	4,31	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	N	W/W	4,61	4,56	4,58	4,72	4,68	4,72	4,78	4,66	4,58	4,61	4,61	4,64	4,59	4,62	4,60	4,59	4,62
	U	W/W	4,51	4,51	4,51	4,63	4,64	4,65	4,69	4,61	4,56	4,57	4,59	4,58	4,56	4,59	4,57	4,56	4,56
Seasonal efficiency	°	%	166,0%	162,3%	161,0%	161,2%	164,7%	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	A	%	173,5%	170,6%	172,4%	174,9%	176.0%	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	E	%	175,6%	173,1%	173,1%	178,7%	178.5%	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	L	%	169,4%	163,6%	166,8%	167,6%	169.2%	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	N	%	181,3%	179,3%	180,0%	185,7%	184,1%	185,9%	188,2%	183,4%	180,3%	181,5%	181,6%	182,7%	180,6%	181,7%	180,9%	180,6%	181,7%
	U	%	177,2%	177,4%	177,2%	182,1%	182,5%	183,1%	184,8%	181,4%	179,2%	179,9%	180,5%	180,3%	179,3%	180,6%	179,7%	179,5%	179,3%
SEER - (EN14825:2018) 12/7 with inverter fans (1)																			
SEER	°	W/W	4,44	4,33	4,26	4,25	4,39	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	A	W/W	4,65	4,55	4,66	4,70	4,69	4,73	4,76	4,64	4,63	4,62	4,61	4,68	4,66	4,66	4,68	4,64	4,63
	E	W/W	4,75	4,67	4,62	4,81	4,81	4,76	4,88	4,73	4,67	4,69	4,74	4,69	4,71	4,74	4,80	4,72	4,73
	L	W/W	4,55	4,42	4,50	4,51	4,58	4,59	4,67	4,56	4,56	4,58	4,56	4,61	4,56	4,57	4,58	4,61	4,56
	N	W/W	4,85	4,79	4,83	4,96	4,93	4,97	5,03	4,93	4,82	4,88	4,82	4,89	4,80	4,84	4,83	4,73	4,73
	U	W/W	4,76	4,75	4,70	4,89	4,85	4,86	4,91	4,84	4,77	4,82	4,78	4,87	4,81	4,85	4,92	4,82	4,81
Seasonal efficiency	°	%	174,6%	170,1%	167,6%	167,1%	172.7%	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	A	%	182,8%	179,1%	183,4%	185,0%	184,7%	186,2%	187,3%	182,7%	182,4%	181,7%	181,5%	184,2%	183,5%	183,3%	184,0%	182,7%	182,0%
	E	%	187,0%	183,7%	182,0%	189,3%	189,6%	187,5%	192,3%	186,2%	183,9%	184,8%	186,4%	184,7%	185,3	186,4%	189,1%	185,8%	186,1%
	L	%	179,2%	173,8%	177,0%	177,5%	180,1%	180,4%	183,9%	179,5%	179,4%	180,1%	179,6%	181,3%	179,4%	179,9%	180,3%	181,6%	179,3%
	N	%	191,1%	188,4%	190,3%	195,4%	194,2%	195,9%	198,1%	194,1%	189,9%	192,4%	190,0%	192,7%	189,1%	190,6%	190,2%	186,3%	186,2%
	U	%	187,4%	187,1%	185,2%	192,5%	191,0%	191,3%	193,3%	190,7%	187,7%	189,6%	188,1%	191,9%	189,4%	191,1%	193,8%	190,0%	189,4%
SEER - 23/18 (EN14825: 2018) with standard fans (3)																			
SEER	°	W/W	5,08	4,98	4,92	4,82	5,20	5,26	5,03	4,91	4,97	4,63	4,91	4,84	4,86	4,77	4,72	4,85	4,80
	A	W/W	5,29	5,15	5,25	5,28	5,35	5,37	5,42	5,15	5,22	5,09	5,22	5,30	5,18	5,15	5,17	5,13	5,13
	E	W/W	5,36	5,24	5,28	5,40	5,43	5,37	5,54	5,21	5,22	5,21	5,30	5,33	5,14	5,17	5,22	5,17	5,21
	L	W/W	5,06	4,87	5,07	5,08	5,05	5,10	5,19	5,02	5,02	4,92	4,99	5,21	4,94	5,03	4,99	5,06	5,07
	N	W/W	5,57	5,47	5,50	5,66	5,61	5,65	5,73	5,48	5,48	5,44	5,54	5,48	5,32	5,37	5,37	5,29	5,32
	U	W/W	5,41	5,44	5,41	5,58	5,56	5,60	5,63	5,46	5,49	5,39	5,50	5,57	5,29	5,35	5,48	5,36	5,38
Seasonal efficiency	°	%	200.1%	196.0%	193.6%	189.9%	205.1%	207,3%	198,3%	193,3%	195,7%	182,0%	193,5%	190,6%	191,5%	187,9%	186,0%	191,0%	189,2%
	A	%	208.4%	203.0%	206.8%	208.0%	211.1%	211,6%	213,6%	203,1%	205,7%	200,6%	205,6%	209,1%	204,0%	203,0%	203,6%	202,1%	202,1%
	E	%	211.4%	206.4%	208.3%	213.0%	214.0%	211,8%	218,5%	205,5%	205,7%	205,3%	208,9%	210,3%	202,4%	203,9%	205,9%	203,7%	205,5%
	L	%	199.4%	191.9%	199.7%	200.1%	199.1%	200,8%	204,4%	197,7%	197,6%	193,9%	196,4%	205,2%	194,5%	198,0%	196,4%	199,5%	199,85
	N	%	219.7%	215.8%	216.8%	223.4%	221.5%	223,0%	226,2%	216,0%	216,3%	214,6%	218,4%	216,3%	209,6%	211,6%	211,8%	208,5%	209,7%
	U	%	213.4%	214.4%	213.3%	220.0%	219.5%	221,0%	222,2%	215,3%	216,4%	212,5%	216,9%	219,7%	208,7%	211,1%	216,1%	211,4%	212,0%
SEER - 23/18 (EN14825: 2018) with inverter fans																			
SEER	°	W/W	5,28	5,16	5,07	4,96	5,40	5,44	5,18	5,07	5,13	4,77	5,07	5,09	5,09	4,98	4,92	5,09	5,01
	A	W/W	5,50	5,35	5,50	5,51	5,55	5,55	5,63	5,34	5,44	5,30	5,42	5,41	5,43	5,38	5,43	5,36	5,40
	E	W/W	5,62	5,53	5,46	5,70	5,69	5,63	5,77	5,50	5,52	5,48	5,59	5,47	5,41	5,47	5,77	5,50	5,51
	L	W/W	5,34	5,14	5,35	5,33	5,37	5,34	5,47	5,26	5,32	5,20	5,26	5,35	5,20	5,25	5,21	5,32	5,23
	N	W/W	5,82	5,71	5,76	5,91	5,88	5,91	5,99	5,75	5,74	5,71	5,75	5,74	5,55	5,62	5,64	5,54	5,54
	U	W/W	5,65	5,67	5,59	5,82	5,76	5,80	5,83	5,67	5,69	5,61	5,68	5,77	5,59	5,66	5,85	5,70	5,69
Seasonal efficiency	°	%	208.1%	203.4%	199.8%	195.4%	212.9%	214,5%	204,1%	199,9%	202,1%	187,8%	199,6%	200,4%	200,4%	196,1%	193,9%	200,4%	197,4%
	A	%	217.0%	210.9%	217.0%	217.5%	219.1%	219,1%	222,1%	210,5%	214,6%	209,1%	213,6%	213,4%	214,2%	212.0%	214,3%	211,5%	213,0%
	E	%	221.9%	218.3%	215.3%	224.9%	224.5%	222,2%	227,7%	216,8%	217,7%	216,0%	220,6%	215,7%	213,4%	215,6%	227,9%	216,8%	217,2%
	L	%	210.4%	202.7%	211.0%	210.2%	211.6%	210,4%	215,8%	207,4%	209,7%	205,1%	207,5%	211,0%	204,8%	206,9%	205,4%	209,9%	206,2%
	N	%	229.9%	225.3%	227.5%	233.5%	232.1%	233,4%	236,4%	226,8%	226,4%	225,5%	227,1%	226,4%	219,1%	221,6%	222,4%	218,4%	218,5%
	U	%	222.8%	233.7%	220.7%	229.9%	227.5%	228,8%	230,2%	223,8%	224,5%	221,5%	224,0%	227,8%	220,6%	223,4%	231,0%	225,0%	224,4%
SEPR - (EN14825: 2018) High temperature with standard fans (3)																			
SEPR	°	W/W	5,39	5,21	5,17	5,03	5,35	5,50	5,52	5,57	5,52	5,51	5,51	5,51	5,53	5,54	5,55	5,50	5,53
	A	W/W	5,64	5,29	5,58	5,29	5,55	5,51	5,55	5,55	5,56	5,54	5,55	5,54	5,59	5,54	5,59	5,56	5,56
	E	W/W	5,56	5,21	5,46	5,25	5,52	5,55	5,58	5,54	5,52	5,55	5,55	5,55	5,52	5,55	5,52	5,50	5,55
	L	W/W	5,31	5,05	5,31	5,04	5,17	5,04	5,52	5,53	5,52	5,52	5,54	5,54	5,54	5,51	5,53	5,51	5,53
	N	W/W	5,69	5,54	5,66	5,59	5,64	5,61	5,66	5,57	5,62	5,59	5,64	5,60	5,50	5,63	5,69	5,51	5,63
	U	W/W	5,67	5,53	5,65	5,53	5,67	5,59	5,68	5,55	5,55	5,57	5,72	5,74	5,59	5,70	5,67	5,71	5,58

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C
(3) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Electric data																			
Maximum current (FLA)	°	A	164,3	180,7	197,0	226,4	262,1	291,1	320,1	371,3	416,0	445,0	480,4	529,4	568,6	609,5	650,4	697,7	738,6
	A,L	A	177,1	193,4	222,5	251,8	281,2	310,2	351,9	396,7	454,2	483,2	530,8	592,5	625,4	666,3	719,9	760,8	801,8
	E,U	A	189,8	206,1	222,5	264,5	293,9	322,9	364,6	428,0	472,8	514,5	543,5	605,2	638,1	691,7	745,4	786,3	827,2
	N	A	202,5	218,8	235,2	277,3	306,6	335,6	383,2	440,7	485,5	527,2	556,2	617,9	650,8	704,4	758,1	799,0	839,9
Peak current (LRA)	°	A	352,9	408,1	424,4	477,1	512,8	625,3	654,3	705,5	750,3	779,3	814,6	798,7	837,9	878,8	919,7	967,0	1007,9
	A,L	A	365,6	420,8	449,9	502,5	531,9	644,4	686,1	730,9	788,4	817,4	865,0	861,8	894,6	935,6	989,2	1030,1	1071,0
	E,U	A	378,3	433,5	449,9	515,3	544,6	657,1	698,8	762,2	807,0	848,7	877,7	874,5	907,4	961,0	1014,6	1055,6	1096,5
	N	A	391,1	446,2	462,6	528,0	557,3	669,8	717,4	774,9	819,7	861,4	890,4	887,2	920,1	973,7	1027,4	1068,3	1109,2

GENERAL TECHNICAL DATA

Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Compressor																			
Type	°,A,E,L,N,U	type	Scroll																
Compressor regulation	°,A,E,L,N,U	Type	Asynchronous																
Number	°,A,E,L,N,U	no.	4	4	4	4	4	4	4	5	6	6	6	5	6	6	6	6	6
Circuits	°,A,E,L,N,U	no.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Refrigerant	°,A,E,L,N,U	type	R410A																
Refrigerant charge (1)	°	kg	28,0	29,0	30,0	32,0	41,0	42,0	42,0	55,0	55,0	55,0	65,0	70,0	89,0	95,0	82,0	103,0	103,0
	A,L	kg	30,0	32,0	40,0	44,0	42,0	45,0	49,0	55,0	64,0	65,0	70,0	96,0	104,0	118,0	130,0	122,0	116,0
	E,U	kg	41,0	40,0	43,0	53,0	53,0	53,0	62,0	69,0	75,0	90,0	112,0	124,0	116,0	140,0	156,0	156,0	156,0
	N	kg	50,0	53,0	53,0	59,0	59,0	70,0	84,0	80,0	90,0	124,0	91,0	134,0	122,0	152,0	168,0	168,0	168,0
System side heat exchanger																			
Type	°,A,E,L,N,U	type	Brazed plate																
Number	°,A,E,L,N,U	no.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Hydraulic connections																			
Connections (in/out)	°,A,E,L,N,U	Type	Grooved joints																
Hydraulic connections without hydronic kit																			
Sizes (in/out)	°,A,E,L,N,U	Ø	3"	3"	3"	3"	3"	3"	4"	4"	4"	4"	4"	5"	5"	5"	5"	5"	5"
Hydraulic connections with hydronic kit																			
Sizes (in/out)	°,A,E,L,N,U	Ø	3"	3"	3"	3"	3"	3"	4"	4"	4"	4"	4"	5"	5"	5"	5"	5"	5"
Sound data calculated in cooling mode (2)																			
Sound power level	°	dB(A)	87,8	87,8	87,8	87,8	90,0	90,0	90,0	92,0	92,5	93,0	94,7	94,7	95,6	95,6	95,6	96,5	96,5
	A	dB(A)	87,8	87,8	90,0	90,0	90,0	90,0	91,5	92,0	93,7	94,2	95,6	96,5	96,5	96,5	97,2	97,2	97,2
	E	dB(A)	84,8	84,8	84,8	86,3	86,3	86,3	87,5	89,0	89,5	90,8	91,3	92,0	92,0	92,6	93,2	93,2	93,2
	L	dB(A)	82,7	82,7	84,8	84,8	84,8	85,6	86,3	87,7	88,5	89,8	90,5	91,3	91,3	92,1	92,0	92,8	92,8
	N	dB(A)	86,3	86,3	86,3	87,5	87,5	87,5	88,5	89,8	90,3	91,5	92,0	92,6	92,6	93,2	93,7	93,7	93,7
	U	dB(A)	90,0	90,0	90,0	91,5	91,5	91,5	92,7	94,2	94,7	96,0	96,5	97,2	97,2	97,8	98,4	98,4	98,4

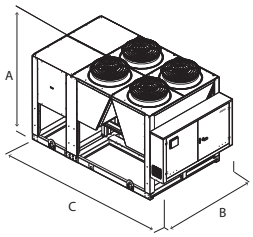
(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

In the versions without a hydronic kit, the water filter is supplied with a connection point for making the connection. In the versions with a hydronic kit, it is supplied ready-mounted.

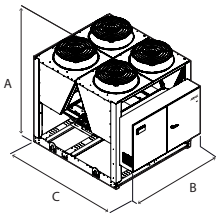
Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Fans: °																			
Fan																			
Type	°,A,E,L,N,U	type	Axial																
Fan motor	°,A,U	type	Asynchronous																
	E,L,N	type	Asynchronous with phase cut																
Number	°	no.	4	4	4	4	6	6	6	8	8	8	10	10	12	12	12	14	14
	A,L	no.	4	4	6	6	6	6	8	8	10	10	12	14	14	14	16	16	16
	E,U	no.	6	6	6	8	8	8	10	12	12	14	14	16	16	18	20	20	20
	N	no.	8	8	8	10	10	10	12	14	14	16	16	18	18	20	22	22	22
Air flow rate	°	m^3/h	64000	64000	64000	64000	96000	96000	96000	128000	128000	128000	160000	160000	192000	192000	192000	224000	224000
	A	m^3/h	64000	64000	96000	96000	96000	96000	128000	128000	160000	160000	192000	224000	224000	224000	256000	256000	288000
	E	m^3/h	69000	69000	69000	92000	92000	92000	115000	138000	138000	161000	161000	184000	184000	207000	230000	230000	230000
	L	m^3/h	46000	46000	69000	69000	69000	69000	92000	92000	115000	115000	138000	161000	161000	161000	184000	184000	208000
	N	m^3/h	92000	92000	92000	115000	115000	115000	138000	161000	161000	184000	184000	207000	207000	230000	253000	253000	253000
	U	m^3/h	96000	96000	96000	128000	128000	128000	160000	192000	192000	224000	224000	256000	256000	288000	320000	320000	320000

DIMENSIONS

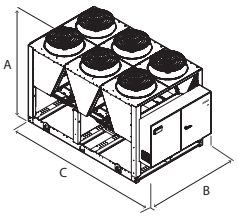
NRB 0800 - 1100 ° (1)
NRB 0800 - 0900 L/A (1)



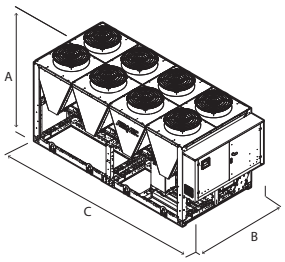
NRB 0800 - 1100 °
NRB 0800 - 0900 L/A



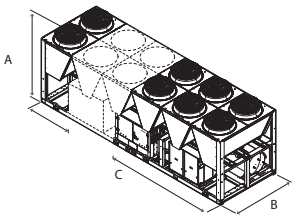
NRB 1200 - 1600 °
NRB 1000 - 1400 L/A
NRB 0800 -1000 E/U



NRB 1805 - 2406 °
NRB 1805 - 2206 L/A



NRB 2600 - 3600 °
NRB 2406- 3600 L/A
NRB 1100 - 3600 E/U
NRB 0800-3600 N



(1) Additional module needed to contain the hydronic kit with "accumulation" option in sizes:
0800°, 0900°, 1000°, 1100°
0800L, 0900L
0800A, 0900A

Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Dimensions and weights																			
A	°,A,E,L,N,U	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	°,A,E,L,N,U	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	°	mm	2780	2780	2780	2780	3970	3970	3970	5160	5160	5160	6350	5950	7140	7140	7140	8330	8330
	A,L	mm	2780	2780	3970	3970	3970	3970	4760	5160	6350	6350	7140	8330	8330	8330	9520	9520	9520
	E,U	mm	3970	3970	3970	4760	4760	4760	5950	7140	7140	8330	8330	9520	9520	10710	11900	11900	11900
	N	mm	4760	4760	4760	5950	5950	5950	7140	8330	8330	9520	9520	10710	10710	11900	13090	13090	13090

The units 0800°, 0900°, 1000°, 1100°; 0800L, 0900L; and 0800A, 0900A with the "storage tank" option, are 3970mm long.

Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Integrated hydronic kit: 00																			
Weights																			
Empty weight	°	kg	2240	2280	2350	2390	2880	2930	2960	3660	3830	3870	4360	4500	5150	5390	5470	6000	6150
	A,L	kg	2260	2320	2800	2870	2910	2970	3490	3710	4280	4360	4780	5510	5760	5910	6390	6520	6600
	E,U	kg	2720	2760	2840	3370	3440	3460	3940	4490	4700	5350	5390	5910	6160	6700	7140	7220	7300
	N	kg	3220	3270	3340	3770	3840	3870	4290	4940	5160	5750	5790	6310	6560	7010	7540	7620	7700

The weights are for standard units with plate heat exchangers and no hydronic kit.

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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NRB 0800-3600

Air-water chiller with shell and tube heat exchanger

Cooling capacity 217 ÷ 1049 kW

- Microchannel coil
- Shell and tube heat exchanger
- Night mode
- Operation up to 50 °C outdoor air
- HP floating: ESEER +7% with inverter fans



DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications.
They are outdoor units with axial fan scroll compressors, microchannel coils and Shell and tube exchangers.
In the unit with desuperheater, it is also possible to produce free-hot water.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

° Standard
A High efficiency
E Silenced high efficiency
L Standard silenced
N Silenced very high efficiency
U Very high efficiency

FEATURES

Operating field

Operation at full load up to 50°C external air temperature. Unit can produce chilled water (up to -10°C of water produced in some versions).

Dual-circuit unit

Unit with 2 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.

Aluminium microchannel coils

The microchannel condensing aluminum coils ensure high levels of efficiency, reduced quantities of refrigerant and lower unit weight. The treatment "O" available as configurator it ensures high resistance to corrosion even in the most aggressive environments.

Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

It is standard in all sizes from 1805 to 3600.

Option integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations with one or two pumps, high or low head, to obtain a solution that allows you to save money and to facilitate installation.

CONTROL PCO[5]

Microprocessor adjustment, with 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time and the ad adjustment includes complete management of the alarms and their log.

— Possibility to control two units in a Master-Slave configuration
— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
— The temperature control takes place with the integral proportional logic, based on the water output temperature.
— **Floating HP control:** available for all models with inverter fans or with DCPX. Together with continuous fan modulation, it optimises unit operation in any working point, enhancing energy efficiency with partial loads. **ESEER up to +7% with inverter fans.**
— **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load. **Night Mode for standard versions is mandatory DCPX accessory (standard on all low noise versions) or "J" inverter fan**

CONFIGURATOR

Field		Description
1,2,3		**NRB**
4,5,6,7		**Size** 0800, 0900, 1000, 1100, 1200, 1400, 1600, 1805, 2006, 2206, 2406, 2600, 2800, 3000, 3200, 3400, 3600
8		**Operating field**
	°	Standard mechanic thermostatic valve (1)
	X	Electronic thermostatic expansion valve (1)
	Y	Low temperature mechanic thermostatic valve (2)
	Z	Low temperature electronic thermostatic valve (2)
9		**Model**
	Q	Cooling only with shell and tube heat exchanger
10		**Heat recovery**
	°	Without heat recovery
	D	With desuperheater (3)
	T	With total recovery (4)
11		**Version**
	°	Standard
	A	High efficiency
	E	Silenced high efficiency
	L	Standard silenced
	N	Silenced very high efficiency
	U	Very high efficiency
12		**Coils**
	°	Aluminium microchannel
	I	Copper-aluminium
	O	Coated aluminium microchannel
	R	Copper pipes-copper fins
	S	Copper pipes-Tinned copper fins
	V	Copper pieps-Coated aluminium fins
13		**Fans**
	°	Standard
	J	Inverter

Field		Description
	M	Oversized
14		**Power supply**
	°	400V ~ 3 50Hz with magnet circuit breakers
15,16		**Integrated hydronic kit**
		Without hydronic kit (5)
	00	Without hydronic kit
		Kit with n° 1 pump
	PA	Pump A
	PB	Pump B
	PC	Pump C
	PD	Pump D
	PE	Pump E
	PF	Pump F
	PG	Pump G
	PH	Pump H
	PI	Pump I
	PJ	Pump J
		Pump n° 1 pump + stand-by pump
	DA	Pump A + stand-by pump
	DB	Pump B + stand-by pump
	DC	Pump C + stand-by pump
	DD	Pump D + stand-by pump
	DE	Pump E + stand-by pump
	DF	Pump F + stand-by pump
	DG	Pump G + stand-by pump
	DH	Pump H + stand-by pump
	DI	Pump I + stand-by pump
	DJ	Pump J + stand-by pump

(1) Water produced from 4 °C ÷ 18 °C
(2) Processed water from 4°C to -8°C for the ° - L versions, and from 4°C to -10°C for A - E - U - N versions
(3) The temperature of the water in the heat exchanger inlet must never drop below 35°C.
(4) For compatibility with total recovery see table below.
(5) For compatibility with the hydronic kit, see the table below.

Compatible with total recovery

Version		800	900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
standard	°	-	-	-	-	-	-	-	-	-	-	•	•	•	•	•	•	•
Standard silenced	L	-	-	-	-	-	-	-	-	•	•	•	•	•	•	•	•	•
High efficiency	A	-	-	-	-	-	-	-	-	•	•	•	•	•	•	•	•	•
Silenced high efficiency	E	-	-	-	-	-	-	•	•	•	•	•	•	•	•	•	•	•
Very high efficiency	U	-	-	-	-	-	-	•	•	•	•	•	•	•	•	•	•	•
Silenced very high efficiency	N	-	-	-	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Compatibility of models with hydronic units available with a configurator

Version		800	900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
standard	°	-	-	-	-	•	-	-	•	•	•	•	•	•	•	•	•	•
Standard silenced	L	-	-	•	-	-	-	•	•	•	•	•	•	•	•	•	•	•
High efficiency	A	-	-	•	-	-	-	•	•	•	•	•	•	•	•	•	•	•
Silenced high efficiency	E	•	•	-	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Very high efficiency	U	•	•	-	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Silenced very high efficiency	N	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
FL: Flow switch.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PGD1: Allows you to control the unit at a distance.
AVX: Spring anti-vibration supports.
DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.
RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
GP_: Anti-intrusion grid kit
KRS: Electric heater for the heat exchanger

ACCESSORIES COMPATIBILITY

Model	Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
AER485P1	°,A,E,L,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERBACP	°,A,E,L,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERNET	°,A,E,L,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FL	°,A,E,L,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	°,A,E,L,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PGD1	°,A,E,L,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Antivibration

Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Integrated hydronic kit: 00																	
°	AVX1107	AVX1107	AVX1107	AVX1107	AVX1108	AVX1108	AVX1108	AVX1109	AVX1109	AVX1109	AVX1110	AVX1112	AVX1114	AVX1114	AVX1114	AVX1106	AVX1106
A,L	AVX1107	AVX1107	AVX1108	AVX1108	AVX1108	AVX1108	AVX1109	AVX1109	AVX1110	AVX1110	AVX1111	AVX1105	AVX1105	AVX1105	AVX1102	AVX1102	AVX1102
E,U	AVX1108	AVX1108	AVX1108	AVX1109	AVX1109	AVX1109	AVX1110	AVX1111	AVX1111	AVX1105	AVX1105	AVX1102	AVX1102	AVX1113	AVX1103	AVX1103	AVX1103
N	AVX1109	AVX1109	AVX1109	AVX1110	AVX1110	AVX1110	AVX1111	AVX1105	AVX1105	AVX1102	AVX1102	AVX1113	AVX1113	AVX1103	AVX1104	AVX1104	AVX1104
Integrated hydronic kit: DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ																	
°	-	-	-	-	AVX1108	-	-	AVX1109	AVX1109	AVX1109	AVX1110	AVX1112	AVX1114	AVX1114	AVX1114	AVX1106	AVX1106
A,L	-	-	AVX1108	-	-	-	AVX1109	AVX1109	AVX1110	AVX1110	AVX1111	AVX1105	AVX1105	AVX1105	AVX1102	AVX1102	AVX1102
E,U	AVX1108	AVX1108	-	AVX1109	AVX1109	AVX1109	AVX1110	AVX1111	AVX1111	AVX1105	AVX1105	AVX1102	AVX1102	AVX1113	AVX1103	AVX1103	AVX1103
N	AVX1109	AVX1109	AVX1109	AVX1110	AVX1110	AVX1110	AVX1111	AVX1105	AVX1105	AVX1102	AVX1102	AVX1113	AVX1113	AVX1103	AVX1104	AVX1104	AVX1104

Condensation control temperature

Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006
Fans: °									
°	DCPX120	DCPX120	DCPX120	DCPX120	DCPX121	DCPX121	DCPX121	DCPX150	DCPX150
A	DCPX120	DCPX120	DCPX121	DCPX121	DCPX121	DCPX121	DCPX122	DCPX150	DCPX151
E,L,N	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard
U	DCPX121	DCPX121	DCPX122	DCPX122	DCPX122	DCPX122	DCPX123	DCPX124	DCPX124
Fans: M									
°	DCPX130	DCPX130	DCPX130	DCPX130	DCPX131	DCPX131	DCPX131	DCPX155	DCPX155
A	DCPX130	DCPX130	DCPX131	DCPX131	DCPX131	DCPX131	DCPX132	DCPX155	DCPX156
E,L,N	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard
U	DCPX131	DCPX131	DCPX131	DCPX132	DCPX132	DCPX132	DCPX133	DCPX134	DCPX134

Ver	2206	2406	2600	2800	3000	3200	3400	3600
Fans: °								
°	DCPX150	DCPX151	DCPX123	DCPX124	DCPX124	DCPX124	DCPX125	DCPX125
A	DCPX151	DCPX124	DCPX125	DCPX125	DCPX125	DCPX126	DCPX126	DCPX126
E,L,N	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard
U	DCPX125	DCPX125	DCPX126	DCPX126	DCPX127	DCPX128	DCPX128	DCPX128
Fans: M								
°	DCPX155	DCPX156	DCPX133	DCPX134	DCPX134	DCPX134	DCPX135	DCPX135
A	DCPX156	DCPX134	DCPX135	DCPX135	DCPX135	DCPX136	DCPX136	DCPX136
E,L,N	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard
U	DCPX135	DCPX135	DCPX136	DCPX136	DCPX137	DCPX138	DCPX138	DCPX138

Device for peak current reduction

Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006
°,A,E,L,N,U	DRENRB0800 (1)	DRENRB0900 (1)	DRENRB1000 (1)	DRENRB1100 (1)	DRENRB1200 (1)	DRENRB1400 (1)	DRENRB1600 (1)	DRENRB1805 (1)	DRENRB2006 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
A grey background indicates the accessory must be assembled in the factory

Ver	2206	2406	2600	2800	3000	3200	3400	3600
°,A,E,L,N,U	DRENRB2206 (1)	DRENRB2406 (1)	-	-	-	-	-	-

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

Power factor correction

Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006
°	RIFNRB0800	RIFNRB0900	RIFNRB1000	RIFNRB1100	RIFNRB1200	RIFNRB1400	RIFNRB1600	RIFNRB1805	RIFNRB2006
A,L	RIFNRB0800	RIFNRB0900	RIFNRB1000	RIFNRB1100	RIFNRB1200	RIFNRB1400	RIFNRB1601	RIFNRB1805	RIFNRB2006
E,U	RIFNRB0800	RIFNRB0900	RIFNRB1000	RIFNRB1101	RIFNRB1201	RIFNRB1401	RIFNRB1601	RIFNRB1815	RIFNRB2016
N	RIFNRB0801	RIFNRB0901	RIFNRB1001	RIFNRB1101	RIFNRB1201	RIFNRB1401	RIFNRB1601	RIFNRB1815	RIFNRB2016

A grey background indicates the accessory must be assembled in the factory

Ver	2206	2406	2600	2800	3000	3200	3400	3600
°	RIFNRB2206	RIFNRB2406	RIFNRB2600	RIFNRB2800	RIFNRB3000	RIFNRB3200	RIFNRB3400	RIFNRB3600
A,L	RIFNRB2206	RIFNRB2416	RIFNRB2600	RIFNRB2800	RIFNRB3000	RIFNRB3200	RIFNRB3400	RIFNRB3600
E,N,U	RIFNRB2216	RIFNRB2416	RIFNRB2600	RIFNRB2800	RIFNRB3000	RIFNRB3200	RIFNRB3400	RIFNRB3600

A grey background indicates the accessory must be assembled in the factory

Electric heater for the heat exchanger

Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006
°,A,E,L,N,U	KRS (1)	KRS (1)	KRS (1)	KRS (1)	KRS (1)	KRS (1)	KRS (1)	KRS (1)	KRS (1)

(1) Contact the factory
A grey background indicates the accessory must be assembled in the factory

Ver	2206	2406	2600	2800	3000	3200	3400	3600
°,A,E,L,N,U	KRS (1)	KRS (1)	KRS (1)	KRS (1)	KRS (1)	KRS (1)	KRS (1)	KRS (1)

(1) Contact the factory
A grey background indicates the accessory must be assembled in the factory

Anti-intrusion grid

Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Integrated hydronic kit: 00																	
°	GP2VN	GP2VN	GP2VN	GP2VN	GP3VN	GP3VN	GP3VN	GP4VN	GP4VN	GP4VN	GP5VN	GP5VN	GP6V	GP6V	GP6V	GP7V	GP7V
A,L	GP2VN	GP2VN	GP3VN	GP3VN	GP3VN	GP3VN	GP4VN	GP4VN	GP5VN	GP5VN	GP5VN	GP7V	GP7V	GP7V	GP8V	GP8V	GP8V
E,U	GP3VN	GP3VN	GP3VN	GP4VN	GP4VN	GP4VN	GP5VN	GP6V	GP6V	GP7V	GP7V	GP8V	GP8V	GP9VN	GP10V	GP10V	GP10V
N	GP4VN	GP4VN	GP4VN	GP5VN	GP5VN	GP5VN	GP6V	GP7V	GP7V	GP8V	GP4VN	GP9VN	GP9VN	GP10V	GP11V	GP11V	GP11V
Integrated hydronic kit: DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ																	
°	-	-	-	-	GP3VN	-	-	GP4VN	GP4VN	GP4VN	GP5VN	GP5VN	GP6V	GP6V	GP6V	GP7V	GP7V
A,L	-	-	GP3VN	-	-	-	GP4VN	GP4VN	GP5VN	GP5VN	GP5VN	GP7V	GP7V	GP7V	GP8V	GP8V	GP8V
E,U	GP3VN	GP3VN	-	GP4VN	GP4VN	GP4VN	GP5VN	GP6V	GP6V	GP7V	GP7V	GP8V	GP8V	GP9VN	GP10V	GP10V	GP10V
N	GP4VN	GP4VN	GP4VN	GP5VN	GP5VN	GP5VN	GP6V	GP7V	GP7V	GP8V	GP4VN	GP9VN	GP9VN	GP10V	GP11V	GP11V	GP11V

A grey background indicates the accessory must be assembled in the factory

Kit for low temperature

Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
°	-	-	-	-	-	-	-	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)
A,L	-	-	-	-	-	-	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)
E,U	-	-	-	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)
N	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)	XLA (1)

(1) With the accessory XLA do not use the DCPX.
The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

PERFORMANCE SPECIFICATIONS

NRB - °

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Cooling performance 12 °C / 7 °C (1)																		
Cooling capacity	kW	221,5	244,5	270,3	299,7	353,1	404,9	439,0	511,2	560,9	598,2	675,8	721,6	786,8	830,6	880,2	945,8	998,2
Input power	kW	73,3	83,1	94,1	110,3	117,5	135,4	155,1	175,7	194,0	216,6	236,5	256,0	270,3	292,6	314,7	329,4	355,2
Cooling total input current	A	128,3	143,1	160,0	185,5	201,6	229,9	260,8	299,7	329,8	366,5	404,6	434,0	459,4	498,2	534,6	562,9	606,0
EER	W/W	3,02	2,94	2,87	2,72	3,00	2,99	2,83	2,91	2,89	2,76	2,86	2,82	2,91	2,84	2,80	2,87	2,81
Water flow rate system side	l/h	38117	42077	46498	51565	60733	69640	75512	87913	96469	102883	116222	124100	135305	142813	151332	162608	171611
Pressure drop system side	kPa	46	55	38	45	44	39	46	40	47	53	52	58	60	36	39	46	43

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

NRB - L

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Cooling performance 12 °C / 7 °C (1)																		
Cooling capacity	kW	216,9	237,7	272,7	307,7	343,9	391,0	438,4	498,2	555,4	608,2	666,2	727,2	770,0	834,2	886,6	952,6	1004,1
Input power	kW	73,0	85,9	92,0	107,4	122,7	139,0	151,9	173,3	191,6	213,6	233,8	246,8	270,1	284,5	307,5	323,1	347,9
Cooling total input current	A	122,8	142,3	154,5	179,0	203,4	231,8	250,8	289,7	318,6	359,2	390,2	412,6	448,8	478,6	512,6	544,6	585,4
EER	W/W	2,97	2,77	2,97	2,87	2,80	2,81	2,89	2,87	2,90	2,85	2,85	2,95	2,85	2,93	2,88	2,95	2,89
Water flow rate system side	l/h	37323	40891	46905	52926	59137	67243	75381	85669	95498	104586	114564	125029	132382	143408	152424	163777	172632
Pressure drop system side	kPa	25	20	27	24	29	23	30	28	37	36	44	28	31	30	34	39	43

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

NRB - A

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Cooling performance 12 °C / 7 °C (1)																		
Cooling capacity	kW	224,1	252,2	283,7	326,1	361,2	411,7	462,2	519,2	576,0	633,3	697,6	757,5	805,8	867,0	928,7	980,8	1026,8
Input power	kW	70,6	80,9	90,2	104,7	115,3	131,8	147,6	166,3	183,5	203,1	223,3	240,5	256,5	277,0	297,0	314,4	330,3
Cooling total input current	A	123,9	139,9	158,8	181,8	198,2	224,1	252,4	283,8	316,2	348,7	386,3	417,6	441,6	475,9	513,3	541,6	567,7
EER	W/W	3,17	3,12	3,15	3,12	3,13	3,12	3,13	3,12	3,14	3,12	3,12	3,15	3,14	3,13	3,13	3,12	3,11
Water flow rate system side	l/h	38561	43394	48802	56076	62118	70789	79487	89271	99048	108894	119965	130236	138537	149048	159671	168622	176531
Pressure drop system side	kPa	27	22	30	27	32	25	34	30	39	39	48	30	34	32	38	41	45

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

NRB - E

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Cooling performance 12 °C / 7 °C (1)																		
Cooling capacity	kW	219,2	248,3	275,0	321,4	358,7	403,2	455,0	514,5	569,0	637,2	688,3	741,1	794,3	857,9	911,7	965,1	1019,4
Input power	kW	69,6	79,4	88,5	102,2	114,9	129,8	144,5	164,7	183,0	203,4	221,4	236,5	255,5	274,7	290,6	310,5	327,8
Cooling total input current	A	119,5	134,7	148,8	172,1	192,6	215,7	240,1	275,1	306,1	342,6	372,8	397,0	425,9	459,5	487,5	520,6	549,0
EER	W/W	3,15	3,13	3,11	3,15	3,12	3,11	3,15	3,12	3,11	3,13	3,11	3,13	3,11	3,12	3,14	3,11	3,11
Water flow rate system side	l/h	37710	42726	47303	55271	61679	69338	78240	88465	97841	109550	118323	127417	136570	147496	156744	165934	175268
Pressure drop system side	kPa	19	23	20	27	21	27	26	33	33	22	25	30	34	33	38	41	46

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

NRB - U

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Cooling performance 12 °C / 7 °C (1)																		
Cooling capacity	kW	227,6	257,6	286,5	329,6	369,8	414,6	466,9	529,2	594,0	655,1	716,9	765,5	815,3	879,0	940,9	999,7	1049,5
Input power	kW	68,8	77,7	86,8	99,5	111,7	126,1	140,9	159,5	179,0	197,8	215,3	229,4	248,9	265,7	282,3	302,5	319,5
Cooling total input current	A	124,3	138,5	152,9	176,0	195,6	218,0	244,0	278,3	311,7	347,7	377,4	401,2	431,5	463,1	493,9	527,9	556,4
EER	W/W	3,30	3,31	3,30	3,31	3,31	3,28	3,31	3,32	3,32	3,31	3,33	3,34	3,28	3,31	3,33	3,30	3,28
Water flow rate system side	l/h	39151	44308	49294	56689	63596	71302	80286	91003	102137	112618	123250	131616	140179	151126	161768	171875	180443
Pressure drop system side	kPa	20	25	21	29	23	28	27	35	36	23	27	32	36	35	40	44	49

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

NRB - N

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Cooling performance 12 °C / 7 °C (1)																		
Cooling capacity	kW	227,7	260,4	284,7	327,7	367,7	412,3	466,1	521,6	579,1	645,7	702,6	749,4	804,7	866,4	926,7	973,5	1029,9
Input power	kW	68,5	78,9	86,4	98,5	111,9	125,4	140,4	157,8	176,0	194,6	212,9	229,0	246,7	263,5	282,7	301,1	319,3
Cooling total input current	A	118,2	135,1	146,9	166,9	188,6	209,4	234,0	264,2	295,4	328,9	360,0	385,3	412,5	442,0	475,2	506,2	536,4
EER	W/W	3,32	3,30	3,30	3,33	3,29	3,29	3,32	3,31	3,29	3,32	3,30	3,27	3,26	3,29	3,28	3,23	3,23
Water flow rate system side	l/h	39166	44792	48972	56365	63234	70905	80151	89691	99569	111009	120789	128849	138355	148961	159328	167377	177077
Pressure drop system side	kPa	20	25	21	28	23	28	27	34	34	23	26	30	35	34	39	42	47

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

ENERGY INDICES (REG. 2016/2281 EU)

Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
SEER - 12/7 (EN14825:2018) with standard fans (1)																			
SEER	°	W/W	4,22	4,13	4,10	4,11	4,19	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	A	W/W	4,41	4,34	4,39	4,45	4,48	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	E	W/W	4,46	4,40	4,40	4,54	4,54	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	L	W/W	4,31	4,16	4,24	4,27	4,31	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	N	W/W	4,61	4,56	4,58	4,72	4,68	4,72	4,78	4,66	4,58	4,61	4,61	4,64	4,59	4,62	4,60	4,59	4,62
	U	W/W	4,51	4,51	4,51	4,63	4,64	4,65	4,69	4,61	4,56	4,57	4,59	4,58	4,56	4,59	4,57	4,56	4,56
Seasonal efficiency	°	%	166,0%	162,3%	161,0%	161,2%	164,7%	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	A	%	173,5%	170,6%	172,4%	174,9%	176.0%	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	E	%	175,6%	173,1%	173,1%	178,7%	178.5%	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	L	%	169,4%	163,6%	166,8%	167,6%	169.2%	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	N	%	181,3%	179,3%	180,0%	185,7%	184,1%	185,9%	188,2%	183,4%	180,3%	181,5%	181,6%	182,7%	180,6%	181,7%	180,9%	180,6%	181,7%
	U	%	177,2%	177,4%	177,2%	182,1%	182,5%	183,1%	184,8%	181,4%	179,2%	179,9%	180,5%	180,3%	179,3%	180,6%	179,7%	179,5%	179,3%
SEER - (EN14825:2018) 12/7 with inverter fans (1)																			
SEER	°	W/W	4,44	4,33	4,26	4,25	4,39	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	A	W/W	4,65	4,55	4,66	4,70	4,69	4,73	4,76	4,64	4,63	4,62	4,61	4,68	4,66	4,66	4,68	4,64	4,63
	E	W/W	4,75	4,67	4,62	4,81	4,81	4,76	4,88	4,73	4,67	4,69	4,74	4,69	4,71	4,74	4,80	4,72	4,73
	L	W/W	4,55	4,42	4,50	4,51	4,58	4,59	4,67	4,56	4,56	4,58	4,56	4,61	4,56	4,57	4,58	4,61	4,56
	N	W/W	4,85	4,79	4,83	4,96	4,93	4,97	5,03	4,93	4,82	4,88	4,82	4,89	4,80	4,84	4,83	4,73	4,73
	U	W/W	4,76	4,75	4,70	4,89	4,85	4,86	4,91	4,84	4,77	4,82	4,78	4,87	4,81	4,85	4,92	4,82	4,81
Seasonal efficiency	°	%	174,6%	170,1%	167,6%	167,1%	172.7%	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	A	%	182,8%	179,1%	183,4%	185,0%	184,7%	186,2%	187,3%	182,7%	182,4%	181,7%	181,5%	184,2%	183,5%	183,3%	184,0%	182,7%	182,0%
	E	%	187,0%	183,7%	182,0%	189,3%	189,6%	187,5%	192,3%	186,2%	183,9%	184,8%	186,4%	184,7%	185,3	186,4%	189,1%	185,8%	186,1%
	L	%	179,2%	173,8%	177,0%	177,5%	180,1%	180,4%	183,9%	179,5%	179,4%	180,1%	179,6%	181,3%	179,4%	179,9%	180,3%	181,6%	179,3%
	N	%	191,1%	188,4%	190,3%	195,4%	194,2%	195,9%	198,1%	194,1%	189,9%	192,4%	190,0%	192,7%	189,1%	190,6%	190,2%	186,3%	186,2%
	U	%	187,4%	187,1%	185,2%	192,5%	191,0%	191,3%	193,3%	190,7%	187,7%	189,6%	188,1%	191,9%	189,4%	191,1%	193,8%	190,0%	189,4%
SEER - 23/18 (EN14825: 2018) with standard fans (3)																			
SEER	°	W/W	5,08	4,98	4,92	4,82	5,20	5,26	5,03	4,91	4,97	4,63	4,91	4,84	4,86	4,77	4,72	4,85	4,80
	A	W/W	5,29	5,15	5,25	5,28	5,35	5,37	5,42	5,15	5,22	5,09	5,22	5,30	5,18	5,15	5,17	5,13	5,13
	E	W/W	5,36	5,24	5,28	5,40	5,43	5,37	5,54	5,21	5,22	5,21	5,30	5,33	5,14	5,17	5,22	5,17	5,21
	L	W/W	5,06	4,87	5,07	5,08	5,05	5,10	5,19	5,02	5,02	4,92	4,99	5,21	4,94	5,03	4,99	5,06	5,07
	N	W/W	5,57	5,47	5,50	5,66	5,61	5,65	5,73	5,48	5,48	5,44	5,54	5,48	5,32	5,37	5,37	5,29	5,32
	U	W/W	5,41	5,44	5,41	5,58	5,56	5,60	5,63	5,46	5,49	5,39	5,50	5,57	5,29	5,35	5,48	5,36	5,38
Seasonal efficiency	°	%	200.1%	196.0%	193.6%	189.9%	205.1%	207,3%	198,3%	193,3%	195,7%	182,0%	193,5%	190,6%	191,5%	187,9%	186,0%	191,0%	189,2%
	A	%	208.4%	203.0%	206.8%	208.0%	211.1%	211,6%	213,6%	203,1%	205,7%	200,6%	205,6%	209,1%	204,0%	203,0%	203,6%	202,1%	202,1%
	E	%	211.4%	206.4%	208.3%	213.0%	214.0%	211,8%	218,5%	205,5%	205,7%	205,3%	208,9%	210,3%	202,4%	203,9%	205,9%	203,7%	205,5%
	L	%	199.4%	191.9%	199.7%	200.1%	199.1%	200,8%	204,4%	197,7%	197,6%	193,9%	196,4%	205,2%	194,5%	198,0%	196,4%	199,5%	199,85
	N	%	219.7%	215.8%	216.8%	223.4%	221.5%	223,0%	226,2%	216,0%	216,3%	214,6%	218,4%	216,3%	209,6%	211,6%	211,8%	208,5%	209,7%
	U	%	213.4%	214.4%	213.3%	220.0%	219.5%	221,0%	222,2%	215,3%	216,4%	212,5%	216,9%	219,7%	208,7%	211,1%	216,1%	211,4%	212,0%
SEER - 23/18 (EN14825: 2018) with inverter fans																			
SEER	°	W/W	5,28	5,16	5,07	4,96	5,40	5,44	5,18	5,07	5,13	4,77	5,07	5,09	5,09	4,98	4,92	5,09	5,01
	A	W/W	5,50	5,35	5,50	5,51	5,55	5,55	5,63	5,34	5,44	5,30	5,42	5,41	5,43	5,38	5,43	5,36	5,40
	E	W/W	5,62	5,53	5,46	5,70	5,69	5,63	5,77	5,50	5,52	5,48	5,59	5,47	5,41	5,47	5,77	5,50	5,51
	L	W/W	5,34	5,14	5,35	5,33	5,37	5,34	5,47	5,26	5,32	5,20	5,26	5,35	5,20	5,25	5,21	5,32	5,23
	N	W/W	5,82	5,71	5,76	5,91	5,88	5,91	5,99	5,75	5,74	5,71	5,75	5,74	5,55	5,62	5,64	5,54	5,54
	U	W/W	5,65	5,67	5,59	5,82	5,76	5,80	5,83	5,67	5,69	5,61	5,68	5,77	5,59	5,66	5,85	5,70	5,69
Seasonal efficiency	°	%	208.1%	203.4%	199.8%	195.4%	212.9%	214,5%	204,1%	199,9%	202,1%	187,8%	199,6%	200,4%	200,4%	196,1%	193,9%	200,4%	197,4%
	A	%	217.0%	210.9%	217.0%	217.5%	219.1%	219,1%	222,1%	210,5%	214,6%	209,1%	213,6%	213,4%	214,2%	212.0%	214,3%	211,5%	213,0%
	E	%	221.9%	218.3%	215.3%	224.9%	224.5%	222,2%	227,7%	216,8%	217,7%	216,0%	220,6%	215,7%	213,4%	215,6%	227,9%	216,8%	217,2%
	L	%	210.4%	202.7%	211.0%	210.2%	211.6%	210,4%	215,8%	207,4%	209,7%	205,1%	207,5%	211,0%	204,8%	206,9%	205,4%	209,9%	206,2%
	N	%	229.9%	225.3%	227.5%	233.5%	232.1%	233,4%	236,4%	226,8%	226,4%	225,5%	227,1%	226,4%	219,1%	221,6%	222,4%	218,4%	218,5%
	U	%	222.8%	233.7%	220.7%	229.9%	227.5%	228,8%	230,2%	223,8%	224,5%	221,5%	224,0%	227,8%	220,6%	223,4%	231,0%	225,0%	224,4%
SEPR - (EN14825: 2018) High temperature with standard fans (3)																			
SEPR	°	W/W	5,39	5,21	5,17	5,03	5,35	5,50	5,52	5,57	5,52	5,51	5,51	5,51	5,53	5,54	5,55	5,50	5,53
	A	W/W	5,64	5,29	5,58	5,29	5,55	5,51	5,55	5,55	5,56	5,54	5,55	5,54	5,59	5,54	5,59	5,56	5,56
	E	W/W	5,56	5,21	5,46	5,25	5,52	5,55	5,58	5,54	5,52	5,55	5,55	5,55	5,52	5,55	5,52	5,50	5,55
	L	W/W	5,31	5,05	5,31	5,04	5,17	5,04	5,52	5,53	5,52	5,52	5,54	5,54	5,54	5,51	5,53	5,51	5,53
	N	W/W	5,69	5,54	5,66	5,59	5,64	5,61	5,66	5,57	5,62	5,59	5,64	5,60	5,50	5,63	5,69	5,51	5,63
	U	W/W	5,67	5,53	5,65	5,53	5,67	5,59	5,68	5,55	5,55	5,57	5,72	5,74	5,59	5,70	5,67	5,71	5,58

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C
(3) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Electric data																			
Maximum current (FLA)	°	A	164,3	180,7	197,0	226,4	262,1	291,1	320,1	371,3	416,0	445,0	480,4	529,4	568,6	609,5	650,4	697,7	738,6
	A,L	A	177,1	193,4	222,5	251,8	281,2	310,2	351,9	396,7	454,2	483,2	530,8	592,5	625,4	666,3	719,9	760,8	801,8
	E,U	A	189,8	206,1	222,5	264,5	293,9	322,9	364,6	428,0	472,8	514,5	543,5	605,2	638,1	691,7	745,4	786,3	827,2
	N	A	202,5	218,8	235,2	277,3	306,6	335,6	383,2	440,7	485,5	527,2	556,2	617,9	650,8	704,4	758,1	799,0	839,9
Peak current (LRA)	°	A	352,9	408,1	424,4	477,1	512,8	625,3	654,3	705,5	750,3	779,3	814,6	798,7	837,9	878,8	919,7	967,0	1007,9
	A,L	A	365,6	420,8	449,9	502,5	531,9	644,4	686,1	730,9	788,4	817,4	865,0	861,8	894,6	935,6	989,2	1030,1	1071,0
	E,U	A	378,3	433,5	449,9	515,3	544,6	657,1	698,8	762,2	807,0	848,7	877,7	874,5	907,4	961,0	1014,6	1055,6	1096,5
	N	A	391,1	446,2	462,6	528,0	557,3	669,8	717,4	774,9	819,7	861,4	890,4	887,2	920,1	973,7	1027,4	1068,3	1109,2

GENERAL TECHNICAL DATA

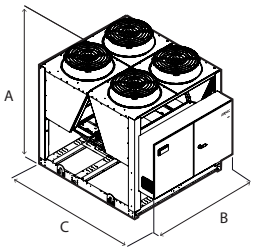
Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Compressor																			
Type	°,A,E,L,N,U	type	Scroll																
Compressor regulation	°,A,E,L,N,U	Type	On/Off																
Number	°,A,E,L,N,U	no.	4	4	4	4	4	4	4	5	6	6	6	5	6	6	6	6	6
Circuits	°,A,E,L,N,U	no.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Refrigerant	°,A,E,L,N,U	type	R410A																
Refrigerant charge (1)	°	kg	28,0	29,0	30,0	32,0	41,0	42,0	42,0	55,0	55,0	55,0	65,0	70,0	89,0	95,0	82,0	103,0	103,0
	A,L	kg	30,0	32,0	40,0	44,0	42,0	45,0	49,0	55,0	64,0	65,0	70,0	96,0	104,0	118,0	130,0	122,0	116,0
	E,U	kg	41,0	40,0	43,0	53,0	53,0	53,0	62,0	69,0	75,0	90,0	112,0	124,0	116,0	140,0	156,0	156,0	156,0
	N	kg	50,0	53,0	53,0	59,0	59,0	70,0	84,0	80,0	90,0	124,0	91,0	134,0	122,0	152,0	168,0	168,0	168,0
System side heat exchanger																			
Type	°,A,E,L,N,U	type	Shell and tube																
Number	°,A,E,L,N,U	no.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Hydraulic connections																			
Connections (in/out)	°,A,E,L,N,U	Type	Grooved joints																
Hydraulic connections without hydronic kit																			
Sizes (in/out)	°	Ø	5″	5″	5″	5″	5″	5″	5″	6″	6″	6″	6″	6″	6″	6″	6″	6″	6″
	A,L	Ø	5″	5″	5″	5″	5″	6″	6″	6″	6″	6″	6″	6″	6″	6″	6″	6″	6″
	E,N,U	Ø	5″	5″	5″	5″	6″	6″	6″	6″	6″	6″	6″	6″	6″	6″	6″	6″	6″
Hydraulic connections with hydronic kit																			
Sizes (in/out)	°	Ø	-	-	-	-	3″	-	-	4″	4″	4″	4″	5″	5″	5″	5″	5″	5″
	A,L	Ø	-	-	3″	-	-	-	4″	4″	4″	4″	4″	5″	5″	5″	5″	5″	5″
	E,U	Ø	3″	3″	-	3″	3″	3″	4″	4″	4″	4″	4″	5″	5″	5″	5″	5″	5″
	N	Ø	3″	3″	3″	3″	3″	3″	4″	4″	4″	4″	4″	5″	5″	5″	5″	5″	5″
Fan																			
Type	°,A,E,L,N,U	type	Axial																
Fan motor	°,A,U	type	Asynchronous																
	E,L,N	type	Asynchronous with phase cut																
Number	°	no.	4	4	4	4	6	6	6	8	8	8	10	10	12	12	12	14	14
	A,L	no.	4	4	6	6	6	6	8	8	10	10	12	14	14	14	16	16	16
	E,U	no.	6	6	6	8	8	8	10	12	12	14	14	16	16	18	20	20	20
	N	no.	8	8	8	10	10	10	12	14	14	16	16	18	18	20	22	22	22
Air flow rate	°	m^3/h	64000	64000	64000	64000	96000	96000	96000	128000	128000	128000	160000	160000	192000	192000	192000	224000	224000
	A	m^3/h	64000	64000	96000	96000	96000	96000	128000	128000	160000	160000	192000	224000	224000	224000	256000	256000	288000
	E	m^3/h	69000	69000	69000	92000	92000	92000	115000	138000	138000	161000	161000	184000	184000	207000	230000	230000	230000
	L	m^3/h	46000	46000	69000	69000	69000	69000	92000	92000	115000	115000	138000	161000	161000	161000	184000	184000	208000
	N	m^3/h	92000	92000	92000	115000	115000	115000	138000	161000	161000	184000	184000	207000	207000	230000	253000	253000	253000
	U	m^3/h	96000	96000	96000	128000	128000	128000	160000	192000	192000	224000	224000	256000	256000	288000	320000	320000	320000
Sound data calculated in cooling mode (2)																			
Sound power level	°	dB(A)	87,8	87,8	87,8	87,8	90,0	90,0	90,0	92,0	92,5	93,0	94,7	94,7	95,6	95,6	95,6	96,5	96,5
	A	dB(A)	87,8	87,8	90,0	90,0	90,0	90,0	91,5	92,0	93,7	94,2	95,6	96,5	96,5	96,5	97,2	97,2	97,2
	E	dB(A)	84,8	84,8	84,8	86,3	86,3	86,3	87,5	89,0	89,5	90,8	91,3	92,0	92,0	92,6	93,2	93,2	93,2
	L	dB(A)	82,7	82,7	84,8	84,8	84,8	85,6	86,3	87,7	88,5	89,8	90,5	91,3	91,3	92,1	92,0	92,8	92,8
	N	dB(A)	86,3	86,3	86,3	87,5	87,5	87,5	88,5	89,8	90,3	91,5	92,0	92,6	92,6	93,2	93,7	93,7	93,7
	U	dB(A)	90,0	90,0	90,0	91,5	91,5	91,5	92,7	94,2	94,7	96,0	96,5	97,2	97,2	97,8	98,4	98,4	98,4

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

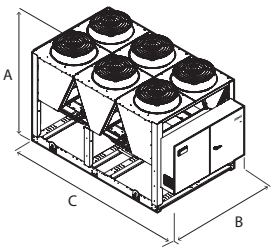
Water filter not supplied. Installation is mandatory or the guarantee will void.

DIMENSIONS

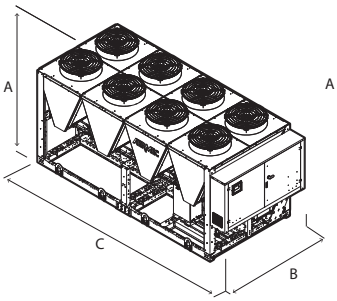
NRB 0800 - 1100 °
NRB 0800 - 0900 L/A



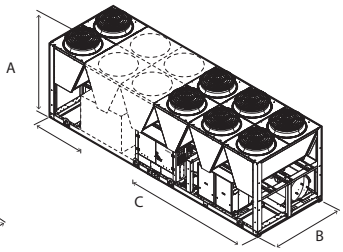
NRB 1200 - 1600 °
NRB 1000 - 1400 L/A
NRB 0800 -1000 E/U



NRB 1805 - 2206 °
NRB 1600 - 1805 L/A
NRB 1200 - 1400 E/U
NRB 0800 - 1000 N



NRB 2406 - 3600 °
NRB 2006- 3600 L/A
NRB 1600 - 3600 E/U
NRB 1100 -3600 N



Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Dimensions and weights without hydronic kit																			
A	°,A,E,L,N,U	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	°,A,E,L,N,U	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	°	mm	2780	2780	2780	2780	3970	3970	3970	5160	5160	5160	6350	5950	7140	7140	7140	8330	8330
	A,L	mm	2780	2780	3970	3970	3970	3970	4760	5160	6350	6350	7140	8330	8330	8330	9520	9520	9520
	E,U	mm	3970	3970	3970	4760	4760	4760	5950	7140	7140	8330	8330	9520	9520	10710	11900	11900	11900
	N	mm	4760	4760	4760	5950	5950	5950	7140	8330	8330	9520	9520	10710	10710	11900	13090	13090	13090
Dimensions and weights with pump/s																			
A	°	mm	-	-	-	-	2450	-	-	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
	A,L	mm	-	-	2450	-	-	-	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
	E,U	mm	2450	2450	-	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
	N	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	°	mm	-	-	-	-	2200	-	-	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
	A,L	mm	-	-	2200	-	-	-	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
	E,U	mm	2200	2200	-	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
	N	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	°	mm	-	-	-	-	3970	-	-	5160	5160	5160	6350	5950	7140	7140	7140	8330	8330
	A,L	mm	-	-	3970	-	-	-	4760	5160	6350	6350	7140	8330	8330	8330	9520	9520	9520
	E,U	mm	3970	3970	-	4760	4760	4760	5950	7140	7140	8330	8330	9520	9520	10710	11900	11900	11900
	N	mm	4760	4760	4760	5950	5950	5950	7140	8330	8330	9520	9520	10710	10710	11900	13090	13090	13090

Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Integrated hydronic kit: 00																			
Weights																			
Empty weight	°	kg	2390	2430	2500	2540	3030	3080	3110	3810	3980	4020	4560	4700	5350	5690	5770	6300	6400
	A,L	kg	2410	2470	2950	3020	3060	3120	3640	3910	4480	4560	4980	5810	6060	6160	6640	6820	6900
	E,U	kg	2870	2910	2990	3520	3590	3610	4140	4690	4900	5650	5690	6210	6460	6950	7440	7520	7600
	N	kg	3370	3420	3490	3920	3990	4020	4490	5140	5360	6050	6090	6610	6860	7260	7840	7920	8000

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume
responsibility or liability for errors or omissions.

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NRB 0800H-3600H

Reversible air/water heat pump

Cooling capacity 196 ÷ 971 kW
Heating capacity 209 ÷ 1006 kW

- **High efficiency also at partial loads**
- **Night mode**
- **HP floating: ESEER +7% with inverter fans**
- **Also available with Shell and tube heat exchanger**



DESCRIPTION

Reversible outdoor heat pumps for the production of chilled/heated water designed to satisfy the needs of residential and commercial buildings, or for industrial applications.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

° Standard
A High efficiency
E Silenced high efficiency
L Standard silenced

FEATURES

Operating field

Working at full load up to -15 °C outside air temperature in winter, and up to 50 °C in summer. Hot water production up to 55 °C.
(for more information, refer to the technical documentation).

Dual-circuit unit

The units are dual-circuit, to ensure maximum efficiency both at full load and at partial load.

Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.
It is standard in all sizes from 1805 to 3600.

Option integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations with one or two pumps, with high or low head and storage tank, to obtain a solution that allows you to save money and to facilitate installation.

CONTROL

Microprocessor adjustment, with 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time and the ad adjustment includes complete management of the alarms and their log.

— Possibility to control two units in a Master-Slave configuration
— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
— The temperature control takes place with the integral proportional logic, based on the water output temperature.
— **Floating HP control:** available for all models with inverter fans or with DCPX. Together with continuous fan modulation, it optimises unit operation in any working point, enhancing energy efficiency with partial loads. **ESEER up to +7% with inverter fans.**
— **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load. **Night Mode for standard versions is mandatory DCPX accessory (standard on all low noise versions) or "J" inverter fan**

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
FL: Flow switch.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PGD1: Allows you to control the unit at a distance.
AVX: Spring anti-vibration supports.
DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.
RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
GP_: Anti-intrusion grid kit

BRC1: Condensate drip tray. Consider 1 for each V-block.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

Model	Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
AER485P1	°,A,E,L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERBACP	°,A,E,L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERNET	°,A,E,L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FL	°,A,E,L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	°,A,E,L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PGD1	°,A,E,L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Antivibration

Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Integrated hydronic kit: 00																	
°	AVX1000	AVX1000	AVX1004	AVX1004	AVX1004	AVX1004	AVX1004	AVX1006	AVX1006	AVX1010	AVX1010	AVX1018	AVX1021	AVX1029	AVX1049	AVX1049	AVX1049
A,L	AVX1000	AVX1004	AVX1004	AVX1004	AVX1004	AVX1006	AVX1006	AVX1010	AVX1010	AVX1016	AVX1016	AVX1026	AVX1029	AVX1036	AVX1036	AVX1042	AVX1042
E	AVX1004	AVX1006	AVX1006	AVX1006	AVX1006	AVX1010	AVX1013	AVX1024	AVX1024	AVX1033	AVX1033	AVX1039	AVX1039	AVX1045	AVX1045	AVX1047	AVX1047
Integrated hydronic kit: AA, AB, AC, AD, AE, AF, AG, AH, BA, BB, BC																	
°	AVX1003	AVX1003	AVX1005	AVX1005	AVX1005	AVX1005	AVX1005	AVX1005	AVX1008	AVX1012	AVX1012	AVX1020	AVX1023	AVX1031	AVX1031	AVX1031	AVX1031
A,L	AVX1003	AVX1005	AVX1005	AVX1005	AVX1005	AVX1008	AVX1008	AVX1008	AVX1012	AVX1017	AVX1017	AVX1028	AVX1031	AVX1038	AVX1038	AVX1044	AVX1044
E	AVX1005	AVX1008	AVX1008	AVX1008	AVX1008	AVX1012	AVX1015	AVX1025	AVX1025	AVX1035	AVX1035	AVX1041	AVX1041	AVX1046	AVX1046	AVX1048	AVX1048
Integrated hydronic kit: AI, AJ, BD, BE, BF, BG, BH, BI, BJ																	
°	AVX1003	AVX1003	AVX1005	AVX1005	AVX1005	AVX1005	AVX1005	AVX1008	AVX1008	AVX1012	AVX1012	AVX1020	AVX1023	AVX1031	AVX1031	AVX1031	AVX1031
A,L	AVX1003	AVX1005	AVX1005	AVX1005	AVX1005	AVX1008	AVX1008	AVX1012	AVX1012	AVX1017	AVX1017	AVX1028	AVX1031	AVX1038	AVX1038	AVX1044	AVX1044
E	AVX1005	AVX1008	AVX1008	AVX1008	AVX1008	AVX1012	AVX1015	AVX1025	AVX1025	AVX1035	AVX1035	AVX1041	AVX1041	AVX1046	AVX1046	AVX1048	AVX1048
Integrated hydronic kit: DA, DB, DC, PA, PB, PC, PD, PE, PF, PG, PH																	
°	AVX1001	AVX1001	AVX1004	AVX1004	AVX1004	AVX1004	AVX1004	AVX1009	AVX1009	AVX1010	AVX1010	AVX1019	AVX1021	AVX1030	AVX1030	AVX1030	AVX1032
A,L	AVX1001	AVX1004	AVX1004	AVX1004	AVX1004	AVX1009	AVX1009	AVX1010	AVX1010	AVX1016	AVX1016	AVX1027	AVX1030	AVX1037	AVX1037	AVX1043	AVX1043
E	AVX1004	AVX1006	AVX1006	AVX1006	AVX1009	AVX1010	AVX1013	AVX1024	AVX1024	AVX1034	AVX1034	AVX1040	AVX1040	AVX1045	AVX1045	AVX1047	AVX1047
Integrated hydronic kit: DD, DE, DF, DG, DH, PI, PJ																	
°	AVX1001	AVX1001	AVX1004	AVX1004	AVX1004	AVX1004	AVX1004	AVX1009	AVX1009	AVX1011	AVX1011	AVX1019	AVX1022	AVX1030	AVX1030	AVX1030	AVX1032
A,L	AVX1001	AVX1004	AVX1004	AVX1004	AVX1004	AVX1009	AVX1009	AVX1011	AVX1011	AVX1016	AVX1016	AVX1027	AVX1030	AVX1037	AVX1037	AVX1043	AVX1043
E	AVX1004	AVX1007	AVX1007	AVX1007	AVX1009	AVX1011	AVX1014	AVX1024	AVX1024	AVX1034	AVX1034	AVX1040	AVX1040	AVX1045	AVX1045	AVX1047	AVX1047
Integrated hydronic kit: DI, DJ																	
°	AVX1002	AVX1002	AVX1004	AVX1004	AVX1004	AVX1004	AVX1004	AVX1007	AVX1007	AVX1011	AVX1011	AVX1019	AVX1022	AVX1030	AVX1030	AVX1030	AVX1032
A,L	AVX1002	AVX1004	AVX1004	AVX1004	AVX1004	AVX1007	AVX1007	AVX1011	AVX1011	AVX1016	AVX1016	AVX1027	AVX1030	AVX1037	AVX1037	AVX1043	AVX1043
E	AVX1004	AVX1007	AVX1007	AVX1007	AVX1007	AVX1011	AVX1014	AVX1024	AVX1024	AVX1034	AVX1034	AVX1040	AVX1040	AVX1045	AVX1045	AVX1047	AVX1047

Condensation control temperature

Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006
Fans: °									
°	DCPX130	DCPX130	DCPX131	DCPX131	DCPX131	DCPX131	DCPX131	DCPX155	DCPX155
A	DCPX130	DCPX131	DCPX131	DCPX131	DCPX131	DCPX132	DCPX132	DCPX156	DCPX156
E,L	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard

Ver	2206	2406	2600	2800	3000	3200	3400	3600
Fans: °								
°	DCPX156	DCPX156	DCPX134	DCPX134	DCPX135	DCPX135	DCPX135	DCPX135
A	DCPX134	DCPX134	DCPX135	DCPX135	DCPX136	DCPX136	DCPX137	DCPX137
E,L	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard

Device for peak current reduction

Ver	0800	0900	1000	1100	1200	1400	1600	1805
°,A,E,L	DRENRB0800 (1)	DRENRB0900 (1)	DRENRB1000 (1)	DRENRB1100 (1)	DRENRB1200 (1)	DRENRB1400 (1)	DRENRB1600 (1)	DRENRB1805 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
A grey background indicates the accessory must be assembled in the factory

Ver	2006	2206	2406	2600	2800	3000	3200	3400
°,A,E,L	DRENRB2006 (1)	DRENRB2206 (1)	DRENRB2406 (1)	-	-	-	-	-

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

Power factor correction

Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006
°	RIFNRB0800	RIFNRB0900	RIFNRB1000	RIFNRB1100	RIFNRB1200	RIFNRB1400	RIFNRB1600	RIFNRB1805	RIFNRB2006
A,L	RIFNRB0800	RIFNRB0900	RIFNRB1000	RIFNRB1100	RIFNRB1200	RIFNRB1401	RIFNRB1601	RIFNRB1805	RIFNRB2006
E	RIFNRB0800	RIFNRB0900	RIFNRB1000	RIFNRB1001	RIFNRB1201	RIFNRB1401	RIFNRB1601	RIFNRB1815	RIFNRB2016

A grey background indicates the accessory must be assembled in the factory

Ver	2206	2406	2600	2800	3000	3200	3400	3600
°	RIFNRB2206	RIFNRB2406	RIFNRB2600	RIFNRB2800	RIFNRB3000	RIFNRB3200	RIFNRB3400	RIFNRB3600
A,E,L	RIFNRB2216	RIFNRB2416	RIFNRB2600	RIFNRB2800	RIFNRB3000	RIFNRB3200	RIFNRB3400	RIFNRB3600

A grey background indicates the accessory must be assembled in the factory

Anti-intrusion grid

Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
°	GP2VN	GP2VN	GP3VN	GP3VN	GP3VN	GP3VN	GP3VN	GP4VN	GP4VN	GP5VN	GP5VN	GP6V	GP6V	GP7V	GP7V	GP7V	GP7V
A	GP2VN	GP3VN	GP3VN	GP3VN	GP3VN	GP4VN	GP4VN	GP5VN	GP5VN	GP6V	GP6V	GP7V	GP7V	GP8V	GP8V	GP9VN	GP9VN
E	GP3VN	GP4VN	GP4VN	GP4VN	GP4VN	GP4VN	GP6V	GP7V	GP7V	GP8V	GP8V	GP9VN	GP9VN	GP10V	GP10V	GP11V	GP11V
L	GP2VN	GP3VN	GP3VN	GP3VN	GP3VN	GP5VN	GP4VN	GP5VN	GP5VN	GP6V	GP6V	GP7V	GP7V	GP8V	GP8V	GP9VN	GP9VN

A grey background indicates the accessory must be assembled in the factory

The units 0800-0900 H°, 0800 HL/HA with the optional "storage tank" are 3970 mm long, and they must mount the GP2VNA grids.

Condensate drip

Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006	2206
°	BRC1x2 (1)	BRC1x2 (1)	BRC1x3 (1)	BRC1x3 (1)	BRC1x3 (1)	BRC1x3 (1)	BRC1x3 (1)	BRC1x4 (1)	BRC1x4 (1)	BRC1x5 (1)
A,L	BRC1x2 (1)	BRC1x3 (1)	BRC1x3 (1)	BRC1x3 (1)	BRC1x3 (1)	BRC1x4 (1)	BRC1x4 (1)	BRC1x5 (1)	BRC1x5 (1)	BRC1x6 (1)
E	BRC1x3 (1)	BRC1x4 (1)	BRC1x4 (1)	BRC1x4 (1)	BRC1x4 (1)	BRC1x5 (1)	BRC1x6 (1)	BRC1x7 (1)	BRC1x7 (1)	BRC1x8 (1)

(1) Condensate drip tray. Consider 1 for each V-block.
A grey background indicates the accessory must be assembled in the factory

Ver	2406	2600	2800	3000	3200	3400	3600
°	BRC1x5 (1)	BRC1x6 (1)	BRC1x6 (1)	BRC1x7 (1)	BRC1x7 (1)	BRC1x7 (1)	BRC1x7 (1)
A	BRC1x6 (1)	BRC1x7 (1)	BRC1x7 (1)	BRC1x8 (1)	BRC1x8 (1)	BRC1x9 (1)	BRC1x9 (1)
E	BRC1x8 (1)	BRC1x9 (1)	BRC1x9 (1)	BRC1x10 (1)	BRC1x10 (1)	BRC1x11 (1)	BRC1x11 (1)
L	BRC1x6 (1)	BRC1x7 (1)	BRC1x7 (1)	BRC1x8 (1)	BRC1x8 (1)	BRC1x10 (1)	BRC1x10 (1)

(1) Condensate drip tray. Consider 1 for each V-block.
A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field		Description
1,2,3		**NRB**
4,5,6,7		**Size** 0800, 0900, 1000, 1100, 1200, 1400, 1600, 1805, 2006, 2206, 2406, 2600, 2800, 3000, 3200, 3400, 3600
8		**Operating field**
	°	Standard mechanic thermostatic valve
	X	Electronic thermostatic expansion valve (1)
9		**Model**
	H	Heat pump
10		**Heat recovery**
	°	Without heat recovery
	D	With desuperheater (2)
11		**Version**
	°	Standard
	A	High efficiency
	E	Silenced high efficiency
	L	Standard silenced
12		**Coils**
	°	Copper-aluminium
	R	Copper pipes-copper fins
	S	Copper pipes-Tinned copper fins
	V	Copper pieps-Coated aluminium fins
13		**Fans**
	°	Standard
	J	Inverter
14		**Power supply**
	°	400V ~ 3 50Hz with magnet circuit breakers
15,16		**Integrated hydronic kit**
	00	Without hydronic kit
		Kit with n° 1 pump
	PA	Pump A
	PB	Pump B
	PC	Pump C
	PD	Pump D
	PE	Pump E
	PF	Pump F
	PG	Pump G
	PH	Pump H
	PI	Pump I
	PJ	Pump J (3)

Field		Description
		Pump n° 1 pump + stand-by pump
	DA	Pump A + stand-by pump (4)
	DB	Pump B + stand-by pump (4)
	DC	Pump C + stand-by pump (4)
	DD	Pump D + stand-by pump (4)
	DE	Pump E + stand-by pump (4)
	DF	Pump F + stand-by pump (4)
	DG	Pump G + stand-by pump (4)
	DH	Pump H + stand-by pump (4)
	DI	Pump I + stand-by pump (4)
	DJ	Pump J + stand-by pump (5)
		Kit with storage tank and n° 1 pump
	AA	Storage tank and pump A
	AB	Storage tank and pump B
	AC	Storage tank and pump C
	AD	Storage tank and pump D
	AE	Storage tank and pump E
	AF	Storage tank and pump F
	AG	Storage tank and pump G
	AH	Storage tank and pump H
	AI	Storage tank and pump I
	AJ	Storage tank and pump J (3)
		Kit with storage tank and n° 1 pump + stand-by pump
	BA	Storage tank with pump A + stand-by pump (4)
	BB	Storage tank with pump B + stand-by pump (4)
	BC	Storage tank with pump C + stand-by pump (4)
	BD	Storage tank with pump D + stand-by pump (4)
	BE	Storage tank with pump E + stand-by pump (4)
	BF	Storage tank with pump F + stand-by pump (4)
	BG	Storage tank with pump G + stand-by pump (4)
	BH	Storage tank with pump H + stand-by pump (4)
	BI	Storage tank with pump I + stand-by pump (4)
	BJ	Storage tank with pump J + stand-by pump (5)

(1) Electronic thermostatic as standard from size 1805÷3600.
(2) The desuperheater must be intercepted in heating mode. In cooling mode, a water temperature no lower than 35°C must always be guaranteed on the heat exchanger inlet.
(3) For all configurations including pump J please contact the factory.
(4) None of the hydronic kits with twin pump (from DA to DJ and from BA to BJ) are compatible for the following sizes and versions with desuperheater D: 1805-2006 version °.
(5) For all combinations with pump J, please contact our head office. None of the hydronic kits with twin pump (from DA to DJ and from BA to BJ) are compatible for the following sizes and versions with desuperheater D: 1805-2006 version °.

PERFORMANCE SPECIFICATIONS

NRB H°

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Cooling performance 12 °C / 7 °C (1)																		
Cooling capacity	kW	196,4	218,0	251,8	279,2	314,2	353,8	389,0	456,7	501,9	568,7	616,1	654,4	718,3	767,3	805,3	869,8	914,8
Input power	kW	74,1	86,1	91,7	107,9	119,5	141,6	155,6	172,6	193,2	211,2	231,1	253,0	266,2	291,4	315,7	327,9	353,4
Cooling total input current	A	131,0	150,0	163,0	189,0	207,0	242,0	263,0	296,0	331,0	365,0	398,0	437,0	456,0	504,0	545,0	564,0	606,0
EER	W/W	2,65	2,53	2,74	2,59	2,63	2,50	2,50	2,65	2,60	2,69	2,67	2,59	2,70	2,63	2,55	2,65	2,59
Water flow rate system side	l/h	33794	37515	43314	48020	54046	60853	66910	78531	86311	97783	105939	112529	123524	131922	138449	149552	157281
Pressure drop system side	kPa	34	24	32	26	33	31	37	32	38	37	42	50	48	31	34	37	34
Heating performance 40 °C / 45 °C (2)																		
Heating capacity	kW	215,0	237,4	275,0	306,0	343,9	366,2	412,6	478,4	527,7	592,0	643,2	688,4	749,9	796,0	836,5	906,8	948,0
Input power	kW	70,2	77,7	89,6	99,8	112,3	121,7	137,0	157,3	174,3	193,9	210,7	227,9	245,2	260,8	275,8	295,9	311,8
Heating total input current	A	125,0	138,0	158,0	175,0	195,0	212,0	236,0	274,0	304,0	340,0	369,0	397,0	427,0	458,0	484,0	519,0	549,0
COP	W/W	3,06	3,06	3,07	3,07	3,06	3,01	3,01	3,04	3,03	3,05	3,05	3,02	3,06	3,05	3,03	3,06	3,04
Water flow rate system side	l/h	37311	41207	47745	53116	59705	63585	71640	83071	91620	102803	111681	119537	130226	138243	145280	157484	164648
Pressure drop system side	kPa	42	28	38	32	40	34	42	36	42	40	46	56	53	33	37	40	37

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRB HL

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Cooling performance 12 °C / 7 °C (1)																		
Cooling capacity	kW	197,9	227,9	247,7	275,2	301,1	359,1	392,2	453,8	495,0	552,5	592,9	651,2	681,3	748,5	784,2	848,0	882,7
Input power	kW	75,3	78,6	89,8	106,2	123,2	133,0	153,4	169,0	193,9	208,9	234,1	246,2	269,6	284,8	310,0	326,5	352,4
Cooling total input current	A	126,0	133,0	150,0	176,0	203,0	220,0	252,0	280,0	321,0	347,0	390,0	409,0	446,0	473,0	515,0	543,0	585,0
EER	W/W	2,63	2,90	2,76	2,59	2,44	2,70	2,56	2,69	2,55	2,64	2,53	2,65	2,53	2,63	2,53	2,60	2,50
Water flow rate system side	l/h	34040	39194	42596	47339	51779	61758	67431	78030	85114	95003	101921	111950	117122	128680	134820	145791	151753
Pressure drop system side	kPa	14	18	15	19	14	20	18	23	23	29	17	21	23	23	25	29	32
Heating performance 40 °C / 45 °C (2)																		
Heating capacity	kW	209,8	250,3	274,3	304,8	334,3	394,3	431,0	497,4	543,0	609,3	654,3	717,5	757,3	825,0	869,1	937,0	980,9
Input power	kW	67,1	79,5	87,1	98,9	108,2	126,2	136,7	158,3	173,1	194,8	208,8	228,3	244,3	265,2	280,3	299,5	317,4
Heating total input current	A	119,0	139,0	152,0	171,0	187,0	216,0	234,0	272,0	299,0	336,0	363,0	394,0	420,0	457,0	484,0	518,0	549,0
COP	W/W	3,13	3,15	3,15	3,08	3,09	3,12	3,15	3,14	3,14	3,13	3,13	3,14	3,10	3,11	3,10	3,13	3,09
Water flow rate system side	l/h	36429	43447	47619	52924	58032	68469	74854	86379	94306	105817	113644	124618	131534	143298	150956	162747	170364
Pressure drop system side	kPa	15	22	19	23	17	24	21	28	28	35	21	26	29	28	31	36	39

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRB HA

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Cooling performance 12 °C / 7 °C (1)																		
Cooling capacity	kW	206,2	243,8	266,9	297,0	329,2	385,5	425,3	488,4	538,3	601,4	651,3	708,6	745,3	815,1	859,0	928,0	971,4
Input power	kW	71,8	78,2	88,1	102,2	117,2	129,2	147,2	163,7	184,8	201,3	222,3	237,4	257,9	274,4	295,7	312,0	333,6
Cooling total input current	A	127,0	141,0	157,0	179,0	203,0	225,0	254,0	285,0	321,0	352,0	389,0	416,0	448,0	479,0	515,0	546,0	582,0
EER	W/W	2,87	3,12	3,03	2,91	2,81	2,98	2,89	2,98	2,91	2,99	2,93	2,99	2,89	2,97	2,91	2,97	2,91
Water flow rate system side	l/h	35459	41942	45909	51076	56619	66291	73125	83982	92547	103407	111966	121819	128141	140122	147682	159542	167008
Pressure drop system side	kPa	15	21	18	22	17	23	21	27	27	34	21	25	28	28	31	35	38
Heating performance 40 °C / 45 °C (2)																		
Heating capacity	kW	214,3	254,4	279,0	310,5	341,2	400,9	438,9	506,0	553,2	620,0	666,5	730,0	771,1	840,0	885,5	954,2	999,6
Input power	kW	66,6	79,3	86,7	97,1	106,2	124,8	137,1	157,5	171,8	193,5	207,0	226,8	240,1	260,9	275,3	297,4	311,6
Heating total input current	A	120,0	142,0	155,0	172,0	187,0	219,0	240,0	277,0	303,0	342,0	368,0	401,0	421,0	460,0	485,0	526,0	550,0
COP	W/W	3,22	3,21	3,22	3,20	3,21	3,21	3,20	3,21	3,22	3,20	3,22	3,22	3,21	3,22	3,22	3,21	3,21
Water flow rate system side	l/h	37204	44148	48436	53909	59226	69618	76226	87877	96076	107669	115772	126793	133932	145898	153804	165737	173613
Pressure drop system side	kPa	16	23	20	24	18	25	22	29	29	36	22	26	30	30	33	37	41

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRB HE

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Cooling performance 12 °C / 7 °C (1)																		
Cooling capacity	kW	209,6	241,7	264,7	294,5	326,7	377,8	432,4	489,4	540,5	597,8	647,7	699,1	734,9	798,7	841,0	904,0	944,9
Input power	kW	67,3	77,4	85,0	98,1	112,4	125,3	139,1	157,0	177,4	192,3	215,2	231,2	250,7	269,1	289,6	308,2	327,5
Cooling total input current	A	115,0	132,0	144,0	164,0	187,0	208,0	230,0	261,0	296,0	322,0	362,0	387,0	417,0	449,0	483,0	515,0	547,0
EER	W/W	3,12	3,12	3,11	3,00	2,91	3,02	3,11	3,12	3,05	3,11	3,01	3,02	2,93	2,97	2,90	2,93	2,89
Water flow rate system side	l/h	36053	41586	45538	50642	56185	64960	74341	84155	92932	102793	111352	120183	126344	137316	144576	155409	162455
Pressure drop system side	kPa	15	20	18	22	16	22	21	27	27	33	21	24	27	27	29	33	36
Heating performance 40 °C / 45 °C (2)																		
Heating capacity	kW	223,4	258,1	283,7	316,7	349,3	403,2	458,7	520,7	571,9	634,1	683,9	741,3	784,2	848,2	895,3	960,1	1006,8
Input power	kW	69,3	80,5	87,9	98,5	109,0	126,1	143,1	162,7	177,1	198,2	211,7	230,0	244,9	264,9	279,5	299,5	315,3
Heating total input current	A	122,0	140,0	153,0	170,0	188,0	216,0	244,0	278,0	305,0	341,0	367,0	396,0	420,0	456,0	482,0	517,0	544,0
COP	W/W	3,22	3,21	3,23	3,22	3,20	3,20	3,21	3,20	3,23	3,20	3,23	3,22	3,20	3,20	3,20	3,21	3,19
Water flow rate system side	l/h	38791	44787	49248	54989	60660	70010	79655	90422	99327	110122	118791	128748	136201	147319	155503	166760	174868
Pressure drop system side	kPa	17	23	20	25	19	25	24	31	31	38	23	27	31	30	33	38	41

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ELECTRIC DATA

Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Electric data																			
Maximum current (FLA)	°	A	168,6	185,0	209,8	239,2	268,5	297,5	326,5	379,8	424,6	462,1	491,1	548,6	581,4	630,9	671,8	712,7	753,6
	A,L	A	168,6	193,5	209,8	239,2	268,5	306,0	335,0	388,3	433,1	470,6	499,6	557,1	589,9	639,4	680,3	729,7	770,6
	E	A	177,1	202,0	218,3	247,7	277,0	314,5	352,0	405,3	450,1	487,6	516,6	574,1	606,9	656,4	697,3	752,6	793,5
Peak current (LRA)	°	A	357,2	412,4	437,2	489,9	519,2	631,7	660,7	714,0	758,8	796,3	825,3	817,9	850,7	900,2	941,1	982,0	1022,9
	A,L	A	357,2	420,9	437,2	489,9	519,2	640,2	669,2	722,5	767,3	804,8	833,8	826,4	859,2	908,7	949,6	999,0	1039,9
	E	A	365,7	429,4	445,7	498,4	527,7	648,7	686,2	739,5	784,3	821,8	850,8	843,4	876,2	925,7	966,6	1021,9	1062,8

ENERGY INDICES (REG. 2016/2281 EU)

NRB H°

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (1)																		
Pdesignh	kW	203	224	260	289	325	346	296	343	379	425	462	495	539	571	600	651	680
SCOP		3,65	3,65	3,65	3,68	3,65	3,60	3,73	3,73	3,80	3,73	3,80	3,68	3,80	3,68	3,75	3,88	3,90
ηsh	%	143,00	143,00	143,00	144,00	143,00	141,00	146,00	143,00	149,00	146,00	149,00	144,00	149,00	144,00	147,00	152,00	153,00
SEER - 12/7 (EN14825:2018) with standard fans (2)																		
SEER	W/W	3,79	3,66	3,88	3,81	3,91	3,80	3,89	3,92	3,80	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)
Seasonal efficiency	%	148,40	143,50	152,20	149,50	153,20	149,10	152,70	153,80	149,00	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)
SEER - (EN14825:2018) 12/7 with inverter fans (2)																		
SEER	W/W	-	-	-	-	-	-	-	-	-	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)
SEER - 23/18 (EN14825: 2018) with standard fans (4)																		
SEER	W/W	-	-	-	-	-	-	-	-	-	4,67	4,76	4,64	4,70	4,66	4,56	4,66	4,65
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	183,90	187,30	182,40	184,90	183,40	179,30	183,40	182,80
SEER - 23/18 (EN14825: 2018) with inverter fans																		
SEER	W/W	-	-	-	-	-	-	-	-	-	4,88	5,02	5,07	4,92	4,96	4,96	4,92	4,96
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	192,30	197,70	199,70	193,60	195,30	195,40	193,70	195,30
SEPR - (EN14825: 2018) High temperature with inverter fans (4)																		
SEPR	W/W	-	-	-	-	-	-	-	-	-	5,53	5,54	5,52	5,52	5,51	5,51	5,51	5,51
SEPR - (EN14825: 2018) High temperature with standard fans (4)																		
SEPR	W/W	-	-	-	-	-	-	-	-	-	5,53	5,54	5,52	5,52	5,51	5,51	5,51	5,51

(1) Efficiencies for low temperature applications (35 °C)
(2) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(3) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C
(4) Calculation performed with FIXED water flow rate.

NRB HL

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (1)																		
Pdesignh	kW	197	235	258	286	314	370	306	353	385	433	464	509	538	586	617	666	697
SCOP		3,73	3,75	3,75	3,68	3,68	3,73	3,93	3,83	3,95	3,83	3,93	3,88	3,88	3,75	3,85	3,95	3,98
ηsh	%	146,00	147,00	147,00	144,00	144,00	146,00	154,00	150,00	155,00	150,00	154,00	152,00	152,00	147,00	151,00	155,00	156,00
SEER - 12/7 (EN14825:2018) with standard fans (2)																		
SEER	W/W	3,83	4,01	3,92	3,90	3,82	4,05	3,99	4,04	3,87	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)
Seasonal efficiency	%	150,30	157,20	153,90	149,60	159,00	156,40	156,60	158,60	151,80	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)
SEER - (EN14825:2018) 12/7 with inverter fans (2)																		
SEER	W/W	-	-	-	-	-	-	-	-	-	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)
SEER - 23/18 (EN14825: 2018) with standard fans (4)																		
SEER	W/W	-	-	-	-	-	-	-	-	-	4,72	4,67	4,79	4,63	4,73	4,67	4,75	4,70
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	185,70	183,60	188,70	182,30	186,30	183,60	187,00	185,00
SEER - 23/18 (EN14825: 2018) with inverter fans																		
SEER	W/W	-	-	-	-	-	-	-	-	-	5,08	5,11	5,10	4,95	5,04	4,96	5,09	5,02
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	200,30	201,20	201,10	195,00	198,40	195,20	200,40	197,70
SEPR - (EN14825: 2018) High temperature with standard fans (4)																		
SEPR	W/W	-	-	-	-	-	-	-	-	-	5,51	5,51	5,53	5,51	5,52	5,52	5,51	5,51
SEPR - (EN14825: 2018) High temperature with inverter fans (4)																		
SEPR	W/W	-	-	-	-	-	-	-	-	-	5,51	5,51	5,53	5,51	5,52	5,52	5,51	5,51

(1) Efficiencies for low temperature applications (35 °C)
(2) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(3) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C
(4) Calculation performed with FIXED water flow rate.

NRB HA

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (1)																		
Pdesignh	kW	196	233	255	284	312	367	304	351	384	430	462	506	535	582	614	662	693
SCOP		3,03	3,08	3,03	3,08	3,03	3,10	3,13	3,08	3,30	3,08	3,15	3,08	3,13	3,03	3,20	3,20	3,15
ηsh	%	118,00	120,00	118,00	120,00	118,00	121,00	122,00	120,00	129,00	120,00	123,00	120,00	122,00	118,00	125,00	125,00	123,00
SEER - 12/7 (EN14825:2018) with standard fans (2)																		
SEER	W/W	3,96	4,13	4,09	4,09	4,07	4,23	4,22	4,22	4,10	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)
Seasonal efficiency	%	155,40	162,10	160,40	160,60	159,70	166,10	165,60	165,80	161,0	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)
SEER - (EN14825:2018) 12/7 with inverter fans (2)																		
SEER	W/W	-	-	-	-	-	-	-	-	-	4,58	4,57	4,60	4,55	4,60	4,56	4,60	4,56
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	180,3%	179,6%	180,8%	179,1%	180,8%	179,2%	181,0%	179,2%
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SEER - 23/18 (EN14825: 2018) with standard fans (4)																		
SEER	W/W	-	-	-	-	-	-	-	-	-	4,96	5,01	5,02	4,84	4,92	4,87	4,95	4,94
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	195,30	197,40	197,80	190,50	193,90	191,80	195,00	194,60
SEER - 23/18 (EN14825: 2018) with inverter fans																		
SEER	W/W	-	-	-	-	-	-	-	-	-	4,58	4,57	4,60	4,55	4,60	4,54	4,60	4,56
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	180,30	179,60	180,80	179,10	180,80	178,40	181,00	179,20
SEPR - (EN14825: 2018) High temperature with standard fans (4)																		
SEPR	W/W	-	-	-	-	-	-	-	-	-	5,52	5,52	5,51	5,55	5,52	5,51	5,51	5,52
SEPR - (EN14825: 2018) High temperature with inverter fans (4)																		
SEPR	W/W	-	-	-	-	-	-	-	-	-	5,52	5,52	5,51	5,55	5,52	5,51	5,51	5,52

(1) Efficiencies for average temperature applications (55 °C)
(2) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(3) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C
(4) Calculation performed with FIXED water flow rate.

NRB HE

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (1)																		
Pdesignh	kW	204	236	259	290	320	369	318	361	397	440	474	514	544	588	621	666	698
SCOP		3,05	3,08	3,05	3,10	3,03	3,08	3,13	3,05	3,30	3,08	3,15	3,08	3,13	3,03	3,20	3,20	3,13
ηsh	%	119,00	120,00	119,00	121,00	118,00	120,00	122,00	119,00	129,00	120,00	123,00	120,00	122,00	118,00	125,00	125,00	122,00
SEER - 12/7 (EN14825:2018) with standard fans (2)																		
SEER	W/W	4,16	4,15	4,18	4,19	4,16	4,27	4,39	4,36	4,22	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)
Seasonal efficiency	%	163,40	163,00	164,10	164,70	163,40	167,90	172,70	171,40	165,80	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)
SEER - (EN14825:2018) 12/7 with inverter fans (2)																		
SEER	W/W	-	-	-	-	-	-	-	-	-	4,71	4,67	4,74	4,66	4,69	4,62	4,71	4,66
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	185,4%	183,7%	186,6%	183,4%	184,6%	181,9%	185,4%	183,4%
SEER - 23/18 (EN14825: 2018) with standard fans (4)																		
SEER	W/W	-	-	-	-	-	-	-	-	-	5,17	5,20	5,16	5,01	5,04	4,99	5,03	5,03
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	203,60	204,90	203,20	197,20	198,60	196,50	198,10	198,10
SEER - 23/18 (EN14825: 2018) with inverter fans																		
SEER	W/W	-	-	-	-	-	-	-	-	-	4,71	4,67	4,74	4,66	4,69	4,62	4,71	4,66
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SEPR - (EN14825: 2018) High temperature with standard fans (4)																		
SEPR	W/W	-	-	-	-	-	-	-	-	-	5,52	5,54	5,57	5,52	5,54	5,58	5,56	5,55
SEPR - (EN14825: 2018) High temperature with inverter fans (4)																		
SEPR	W/W	-	-	-	-	-	-	-	-	-	5,52	5,54	5,57	5,52	5,54	5,58	5,56	5,55

(1) Efficiencies for average temperature applications (55 °C)
(2) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(3) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C
(4) Calculation performed with FIXED water flow rate.

FANS

Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Fans: °																			
Fan																			
Type	°,A,E,L	type	Axial																
Fan motor	°,A	type	Asynchronous																
	E,L	type	Asynchronous with phase cut																
Number	°	no.	4	4	6	6	6	6	6	8	8	10	10	12	12	14	14	14	14
	A,L	no.	4	6	6	6	6	8	8	10	10	12	12	14	14	16	16	18	18
	E	no.	6	8	8	8	8	10	12	14	14	16	16	18	18	20	20	22	22
Air flow rate	°	m^3/h	80000	80000	120000	120000	120000	120000	120000	160000	160000	200000	200000	240000	240000	280000	280000	280000	280000
	A	m^3/h	80000	120000	120000	120000	120000	160000	160000	200000	200000	240000	240000	280000	280000	320000	320000	360000	360000
	E	m^3/h	90000	120000	120000	120000	120000	150000	180000	210000	210000	240000	240000	270000	270000	300000	300000	330000	330000
	L	m^3/h	60000	90000	90000	90000	90000	120000	120000	150000	150000	180000	180000	210000	210000	240000	240000	270000	270000

GENERAL TECHNICAL DATA

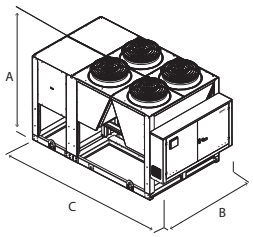
Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Compressor																			
Type	°,A,E,L	type	Scroll																
Compressor regulation	°,A,E,L	Type	On-Off																
Number	°,A,E,L	no.	4	4	4	4	4	4	4	5	6	6	6	5	6	6	6	6	6
Circuits	°,A,E,L	no.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Refrigerant	°,A,E,L	type	R410A																
Refrigerant charge (1)	°	kg	44,0	44,0	54,0	62,0	62,0	60,0	60,0	81,0	82,0	100,0	95,0	187,0	116,0	130,0	130,0	138,0	138,0
	A	kg	44,0	60,0	64,0	62,0	66,0	81,0	78,0	99,0	102,0	117,0	119,0	149,0	148,0	168,0	170,0	186,0	196,0
	E	kg	58,0	76,5	78,0	76,0	78,0	93,0	112,0	136,0	143,0	152,0	152,0	187,0	176,0	200,0	200,0	218,0	218,0
	L	kg	44,0	60,0	64,0	62,0	66,0	78,0	78,0	104,0	102,0	117,0	117,0	148,0	148,0	160,0	170,0	186,0	196,0
System side heat exchanger																			
Type	°,A,E,L	type	Brazed plate																
Hydraulic connections																			
Connections (in/out)	°,A,E,L	Type	Grooved joints																
Hydraulic connections without hydronic kit																			
Sizes (in/out)	°,A,E,L	Ø	3″	3″	3″	3″	3″	3″	4″	4″	4″	4″	4″	5″	5″	5″	5″	5″	5″
Hydraulic connections with hydronic kit																			
Sizes (in/out)	°,A,E,L	Ø	3″	3″	3″	3″	3″	3″	4″	4″	4″	4″	4″	5″	5″	5″	5″	5″	5″
Sound data calculated in cooling mode (2)																			
Sound power level	°	dB(A)	89,5	89,5	91,6	91,6	91,6	91,6	91,6	93,1	93,1	94,2	94,2	95,1	95,1	95,9	95,9	95,9	95,9
	A	dB(A)	89,5	91,6	91,6	91,6	91,6	93,1	93,1	94,2	94,2	95,1	95,1	95,9	95,9	96,6	96,6	97,2	97,2
	E	dB(A)	84,6	86,1	86,1	86,1	86,1	87,2	88,2	89,4	89,9	91,1	91,6	92,2	92,2	92,7	92,7	93,2	93,2
	L	dB(A)	82,6	84,6	84,6	84,6	84,6	86,1	86,1	87,7	88,2	89,6	90,1	90,9	90,9	91,6	91,6	92,1	92,1
Sound pressure level (10 m)	°	dB(A)	57,4	57,4	59,3	59,3	59,3	59,3	59,3	60,7	60,7	61,7	61,7	62,5	62,5	63,2	63,2	63,2	63,2
	A	dB(A)	57,4	59,3	59,3	59,3	59,3	60,7	60,7	61,6	61,6	62,5	62,5	63,2	63,2	63,7	63,7	64,2	64,2
	E	dB(A)	52,4	53,7	53,7	53,7	53,7	54,7	55,5	56,7	57,2	58,2	58,7	59,2	59,2	59,6	59,6	60,0	60,0
	L	dB(A)	50,5	52,4	52,4	52,4	52,4	53,8	53,8	55,2	55,7	57,0	57,5	58,2	58,2	58,7	58,7	59,1	59,1

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

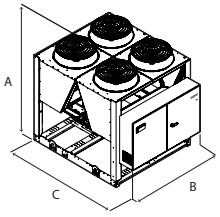
In the versions without a hydronic kit, the water filter is supplied with a connection point for making the connection. In the versions with a hydronic kit, it is supplied ready-mounted.

DIMENSIONS

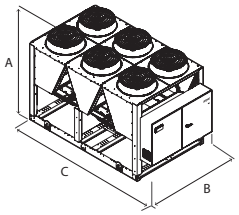
NRB 0800 H°/HL/HA (1)
NRB 0900 H° (1)



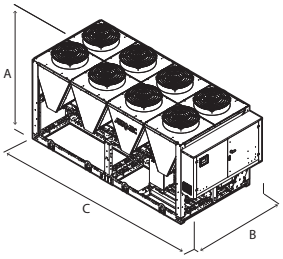
NRB 0800 H°/HL/HA
NRB 0900 H°



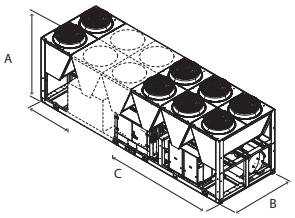
NRB 0800 HE
NRB 0900-1200 HL/HA
NRB 1000-1600 H°



NRB 1805-2406 H°
NRB 1805-2006 HL/HA



NRB 2600-3600 H°
NRB 1400-1600 HL/HA
NRB 2206-3600 HL-HA
NRB 0900-3600 HE



(1) Additional module needed to contain the hydronic kit with "accumulation" option in sizes:
NRB 0800H°, 0900H°
NRB 0800 HL/HA

Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Dimensions and weights without hydronic kit																			
A	°,A,E,L	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	°,A,E,L	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	°	mm	2780	2780	3970	3970	3970	3970	3970	5160	5160	6350	6350	7140	7140	8330	8330	8330	8330
	A,L	mm	2780	3970	3970	3970	3970	4760	4760	6350	6350	7140	7140	8330	8330	9520	9520	10710	10710
	E	mm	3970	4760	4760	4760	4760	5950	7140	8330	8330	9520	9520	10710	10710	11900	11900	13090	13090

■ *The units 0800-0900 H°, 0800 HL/HA with the optional "storage tank" are 3970 mm long.*

Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Integrated hydronic kit: 00																			
Weights																			
Empty weight	°	kg	2520	2580	3160	3210	3250	3310	3340	4200	4370	4990	5030	5640	5930	6740	6820	6920	7070
	A,L	kg	2550	3130	3200	3240	3320	3970	4040	4780	4990	5490	5730	6410	6660	7340	7420	8040	8120
	E	kg	3080	3770	3840	3870	3950	4510	5020	5860	6080	6610	6800	7420	7670	8300	8380	9010	9090

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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NRB 0800H-3600H

Reversible air/water heat pump with shell and tube heat exchanger

Cooling capacity 196 ÷ 971 kW
Heating capacity 209 ÷ 1006 kW

- **Shell and tube heat exchanger**
- **High efficiency also at partial loads**
- **Night mode**
- **HP floating: ESEER +7% with inverter fans**



DESCRIPTION

Reversible outdoor heat pumps for the production of chilled/heated water designed to satisfy the needs of residential and commercial buildings, or for industrial applications.
They are outdoor units with axial fan scroll compressors and Shell and tube exchangers.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

° Standard
A High efficiency
E Silenced high efficiency
L Standard silenced

FEATURES

Operating field

Working at full load up to -10 °C outside air temperature in winter, and up to 50 °C in summer. Hot water production up to 55 °C.
(for more information, refer to the technical documentation).

Dual-circuit unit

The units are dual-circuit, to ensure maximum efficiency both at full load and at partial load.

Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.
It is standard in all sizes from 1805 to 3600.

Option integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations with one or two pumps, high or low head, to obtain a solution that allows you to save money and to facilitate installation.

CONTROL

Microprocessor adjustment, with 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time and the ad adjustment includes complete management of the alarms and their log.

— Possibility to control two units in a Master-Slave configuration
— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
— The temperature control takes place with the integral proportional logic, based on the water output temperature.
— **Floating HP control:** available for all models with inverter fans or with DCPX. Together with continuous fan modulation, it optimises unit operation in any working point, enhancing energy efficiency with partial loads. **ESEER up to +7% with inverter fans.**
— **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load. **Night Mode for standard versions is mandatory DCPX accessory (standard on all low noise versions) or "J" inverter fan**

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
FL: Flow switch.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.

PGD1: Allows you to control the unit at a distance.
AVX: Spring anti-vibration supports.
DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.

RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
GP_: Anti-intrusion grid kit
BRC1: Condensate drip tray. Consider 1 for each V-block.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

Model	Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
AER485P1	°,A,E,L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERBACP	°,A,E,L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERNET	°,A,E,L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FL	°,A,E,L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	°,A,E,L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PGD1	°,A,E,L	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Antivibration

Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Integrated hydronic kit: 00																	
°	AVX1001	AVX1001	AVX1004	AVX1004	AVX1004	AVX1004	AVX1004	AVX1123	AVX1123	AVX1124	AVX1124	AVX1115	AVX1119	AVX1117	AVX1121	AVX1121	AVX1121
A,L	AVX1001	AVX1004	AVX1004	AVX1004	AVX1004	AVX1123	AVX1123	AVX1124	AVX1124	AVX1115	AVX1115	AVX1117	AVX1117	AVX1116	AVX1116	AVX1118	AVX1118
E	AVX1004	AVX1123	AVX1123	AVX1123	AVX1123	AVX1124	AVX1119	AVX1117	AVX1117	AVX1116	AVX1116	AVX1118	AVX1118	AVX1120	AVX1120	AVX1118	AVX1122
Integrated hydronic kit: DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ																	
°	-	-	AVX1004	AVX1004	AVX1004	-	-	AVX1123	AVX1123	AVX1124	AVX1124	AVX1115	AVX1119	AVX1117	AVX1121	AVX1121	AVX1121
A,L	-	AVX1004	-	-	-	AVX1123	AVX1123	AVX1124	AVX1124	AVX1115	AVX1115	AVX1117	AVX1117	AVX1116	AVX1116	AVX1118	AVX1118
E	AVX1004	AVX1123	AVX1123	AVX1123	AVX1123	AVX1124	AVX1119	AVX1117	AVX1117	AVX1116	AVX1116	AVX1118	AVX1118	AVX1120	AVX1120	AVX1118	AVX1122

Condensation control temperature

Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006
°	DCPX130	DCPX130	DCPX131	DCPX131	DCPX131	DCPX131	DCPX131	DCPX155	DCPX155
A	DCPX130	DCPX131	DCPX131	DCPX131	DCPX131	DCPX132	DCPX132	DCPX156	DCPX156
E,L	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard

Ver	2206	2406	2600	2800	3000	3200	3400	3600
°	DCPX156	DCPX156	DCPX134	DCPX134	DCPX135	DCPX135	DCPX135	DCPX135
A	DCPX134	DCPX134	DCPX135	DCPX135	DCPX136	DCPX136	DCPX137	DCPX137
E,L	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard

Device for peak current reduction

Ver	0800	0900	1000	1100	1200	1400	1600	1805
°,A,E,L	DRENRB0800 (1)	DRENRB0900 (1)	DRENRB1000 (1)	DRENRB1100 (1)	DRENRB1200 (1)	DRENRB1400 (1)	DRENRB1600 (1)	DRENRB1805 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
A grey background indicates the accessory must be assembled in the factory

Ver	2006	2206	2406	2600	2800	3000	3200	3400
°,A,E,L	DRENRB2006 (1)	DRENRB2206 (1)	DRENRB2406 (1)	-	-	-	-	-

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

Power factor correction

Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006
°	RIFNRB0800	RIFNRB0900	RIFNRB1000	RIFNRB1100	RIFNRB1200	RIFNRB1400	RIFNRB1600	RIFNRB1805	RIFNRB2006
A,L	RIFNRB0800	RIFNRB0900	RIFNRB1000	RIFNRB1100	RIFNRB1200	RIFNRB1401	RIFNRB1600	RIFNRB1805	RIFNRB2006
E	RIFNRB0800	RIFNRB0900	RIFNRB1000	RIFNRB1100	RIFNRB1200	RIFNRB1401	RIFNRB1600	RIFNRB1815	RIFNRB2016

A grey background indicates the accessory must be assembled in the factory

Ver	2206	2406	2600	2800	3000	3200	3400	3600
°	RIFNRB2206	RIFNRB2406	RIFNRB2600	RIFNRB2800	RIFNRB3000	RIFNRB3200	RIFNRB3400	RIFNRB3600
A,E,L	RIFNRB2216	RIFNRB2416	RIFNRB2600	RIFNRB2800	RIFNRB3000	RIFNRB3200	RIFNRB3400	RIFNRB3600

A grey background indicates the accessory must be assembled in the factory

Anti-intrusion grid

Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Integrated hydronic kit: 00																	
°	GP2VN	GP2VN	GP3VN	GP3VN	GP3VN	GP3VN	GP3VN	GP4VN	GP4VN	GP5VN	GP5VN	GP6V	GP6V	GP7V	GP7V	GP7V	GP7V
A	GP2VN	GP3VN	GP3VN	GP3VN	GP3VN	GP4VN	GP4VN	GP5VN	GP4VN	GP6V	GP6V	GP7V	GP7V	GP8V	GP8V	GP9VN	GP9VN
E	GP3VN	GP4VN	GP4VN	GP4VN	GP4VN	GP4VN	GP6V	GP7V	GP7V	GP8V	GP8V	GP9VN	GP9VN	GP10V	GP10V	GP11V	GP11V
L	GP2VN	GP3VN	GP3VN	GP3VN	GP3VN	GP5VN	GP4VN	GP5VN	GP5VN	GP6V	GP6V	GP7V	GP7V	GP8V	GP8V	GP9VN	GP9VN
Integrated hydronic kit: DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ																	
°	-	-	GP3VN	GP3VN	GP3VN	-	-	GP4VN	GP4VN	GP5VN	GP5VN	GP6V	GP6V	GP7V	GP7V	GP7V	GP7V
A	-	GP3VN	-	-	-	GP4VN	GP4VN	GP5VN	GP4VN	GP6V	GP6V	GP7V	GP7V	GP8V	GP8V	GP9VN	GP9VN
E	GP3VN	GP4VN	GP4VN	GP4VN	GP4VN	GP4VN	GP6V	GP7V	GP7V	GP8V	GP8V	GP9VN	GP9VN	GP10V	GP10V	GP11V	GP11V
L	-	GP3VN	-	-	-	GP5VN	GP4VN	GP5VN	GP5VN	GP6V	GP6V	GP7V	GP7V	GP8V	GP8V	GP9VN	GP9VN

A grey background indicates the accessory must be assembled in the factory

Condensate drip

Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006	2206
°	BRC1x2 (1)	BRC1x2 (1)	BRC1x3 (1)	BRC1x3 (1)	BRC1x3 (1)	BRC1x3 (1)	BRC1x3 (1)	BRC1x4 (1)	BRC1x4 (1)	BRC1x5 (1)
A,L	BRC1x2 (1)	BRC1x3 (1)	BRC1x3 (1)	BRC1x3 (1)	BRC1x3 (1)	BRC1x4 (1)	BRC1x4 (1)	BRC1x5 (1)	BRC1x5 (1)	BRC1x6 (1)
E	BRC1x3 (1)	BRC1x4 (1)	BRC1x4 (1)	BRC1x4 (1)	BRC1x4 (1)	BRC1x5 (1)	BRC1x6 (1)	BRC1x7 (1)	BRC1x7 (1)	BRC1x8 (1)

(1) Condensate drip tray. Consider 1 for each V-block.
A grey background indicates the accessory must be assembled in the factory

Ver	2406	2600	2800	3000	3200	3400	3600
°	BRC1x5 (1)	BRC1x6 (1)	BRC1x6 (1)	BRC1x7 (1)	BRC1x7 (1)	BRC1x7 (1)	BRC1x7 (1)
A	BRC1x6 (1)	BRC1x7 (1)	BRC1x7 (1)	BRC1x8 (1)	BRC1x8 (1)	BRC1x9 (1)	BRC1x9 (1)
E	BRC1x8 (1)	BRC1x9 (1)	BRC1x9 (1)	BRC1x10 (1)	BRC1x10 (1)	BRC1x11 (1)	BRC1x11 (1)
L	BRC1x6 (1)	BRC1x7 (1)	BRC1x7 (1)	BRC1x8 (1)	BRC1x8 (1)	BRC1x10 (1)	BRC1x10 (1)

(1) Condensate drip tray. Consider 1 for each V-block.
A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field		Description
1,2,3		**NRB**
4,5,6,7		**Size** 0800, 0900, 1000, 1100, 1200, 1400, 1600, 1805, 2006, 2206, 2406, 2600, 2800, 3000, 3200, 3400, 3600
8		**Operating field**
	°	Standard mechanic thermostatic valve
	X	Electronic thermostatic expansion valve
9		**Model**
	W	Heat pump with shell and tube heat exchanger
10		**Heat recovery**
	°	Without heat recovery
	D	With desuperheater (1)
11		**Version**
	°	Standard
	A	High efficiency
	E	Silenced high efficiency
	L	Standard silenced
12		**Coils**
	°	Copper-aluminium
	R	Copper pipes-copper fins
	S	Copper pipes-Tinned copper fins
	V	Copper pieps-Coated aluminium fins
13		**Fans**
	°	Standard
	J	Inverter

Field		Description
14		**Power supply**
	°	400V ~ 3 50Hz with magnet circuit breakers
15,16		**Integrated hydronic kit**
	00	Without hydronic kit
	PA	Pump A
	PB	Pump B
	PC	Pump C
	PD	Pump D
	PE	Pump E
	PF	Pump F
	PG	Pump G
	PH	Pump H
	PI	Pump I
	PJ	Pump J
	DA	Pump A + stand-by pump
	DB	Pump B + stand-by pump
	DC	Pump C + stand-by pump
	DD	Pump D + stand-by pump
	DE	Pump E + stand-by pump
	DF	Pump F + stand-by pump
	DG	Pump G + stand-by pump
	DH	Pump H + stand-by pump
	DI	Pump I + stand-by pump
	DJ	Pump J + stand-by pump

(1) The desuperheater can only be used with cold running.

Compatibility of models with hydronic units available with a configurator

Version		800	900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
standard	H°	-	-	•	•	•	-	-	•	•	•	•	•	•	•	•	•	•
Standard silenced	HL	-	•	-	-	-	•	•	•	•	•	•	•	•	•	•	•	•
High efficiency	HA	-	•	-	-	-	•	•	•	•	•	•	•	•	•	•	•	•
Silenced high efficiency	HE	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

PERFORMANCE SPECIFICATIONS

NRB H°

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Cooling performance 12 °C / 7 °C (1)																		
Cooling capacity	kW	196,4	218,0	251,8	279,2	314,2	353,8	389,0	456,7	501,9	568,7	616,1	654,4	718,3	767,3	805,3	869,8	914,8
Input power	kW	74,1	86,1	91,7	107,9	119,5	141,6	155,6	172,6	193,2	211,2	231,1	253,0	266,2	291,4	315,7	327,9	353,4
Cooling total input current	A	131,0	150,0	163,0	189,0	207,0	242,0	263,0	296,0	331,0	365,0	398,0	437,0	456,0	504,0	545,0	564,0	606,0
EER	W/W	2,65	2,53	2,74	2,59	2,63	2,50	2,50	2,65	2,60	2,69	2,67	2,59	2,70	2,63	2,55	2,65	2,59
Water flow rate system side	l/h	33794	37515	43314	48020	54046	60853	66910	78531	86311	97783	105939	112529	123524	131922	138449	149552	157281
Pressure drop system side	kPa	34	24	32	26	33	31	37	32	38	37	42	50	48	31	34	37	34
Heating performance 40 °C / 45 °C (2)																		
Heating capacity	kW	215,0	237,4	275,0	306,0	343,9	366,2	412,6	478,4	527,7	592,0	643,2	688,4	749,9	796,0	836,5	906,8	948,0
Input power	kW	70,2	77,7	89,6	99,8	112,3	121,7	137,0	157,3	174,3	193,9	210,7	227,9	245,2	260,8	275,8	295,9	311,8
Heating total input current	A	125,0	138,0	158,0	175,0	195,0	212,0	236,0	274,0	304,0	340,0	369,0	397,0	427,0	458,0	484,0	519,0	549,0
COP	W/W	3,06	3,06	3,07	3,07	3,06	3,01	3,01	3,04	3,03	3,05	3,05	3,02	3,06	3,05	3,03	3,06	3,04
Water flow rate system side	l/h	37311	41207	47745	53116	59705	63585	71640	83071	91620	102803	111681	119537	130226	138243	145280	157484	164648
Pressure drop system side	kPa	42	28	38	32	40	34	42	36	42	40	46	56	53	33	37	40	37

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRB HL

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Cooling performance 12 °C / 7 °C (1)																		
Cooling capacity	kW	197,9	227,9	247,7	275,2	301,1	359,1	392,2	453,8	495,0	552,5	592,9	651,2	681,3	748,5	784,2	848,0	882,7
Input power	kW	75,3	78,6	89,8	106,2	123,2	133,0	153,4	169,0	193,9	208,9	234,1	246,2	269,6	284,8	310,0	326,5	352,4
Cooling total input current	A	126,0	133,0	150,0	176,0	203,0	220,0	252,0	280,0	321,0	347,0	390,0	409,0	446,0	473,0	515,0	543,0	585,0
EER	W/W	2,63	2,90	2,76	2,59	2,44	2,70	2,56	2,69	2,55	2,64	2,53	2,65	2,53	2,63	2,53	2,60	2,50
Water flow rate system side	l/h	34040	39194	42596	47339	51779	61758	67431	78030	85114	95003	101921	111950	117122	128680	134820	145791	151753
Pressure drop system side	kPa	14	18	15	19	14	20	18	23	23	29	17	21	23	23	25	29	32
Heating performance 40 °C / 45 °C (2)																		
Heating capacity	kW	209,8	250,3	274,3	304,8	334,3	394,3	431,0	497,4	543,0	609,3	654,3	717,5	757,3	825,0	869,1	937,0	980,9
Input power	kW	67,1	79,5	87,1	98,9	108,2	126,2	136,7	158,3	173,1	194,8	208,8	228,3	244,3	265,2	280,3	299,5	317,4
Heating total input current	A	119,0	139,0	152,0	171,0	187,0	216,0	234,0	272,0	299,0	336,0	363,0	394,0	420,0	457,0	484,0	518,0	549,0
COP	W/W	3,13	3,15	3,15	3,08	3,09	3,12	3,15	3,14	3,14	3,13	3,13	3,14	3,10	3,11	3,10	3,13	3,09
Water flow rate system side	l/h	36429	43447	47619	52924	58032	68469	74854	86379	94306	105817	113644	124618	131534	143298	150956	162747	170364
Pressure drop system side	kPa	15	22	19	23	17	24	21	28	28	35	21	26	29	28	31	36	39

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRB HA

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Cooling performance 12 °C / 7 °C (1)																		
Cooling capacity	kW	206,2	243,8	266,9	297,0	329,2	385,5	425,3	488,4	538,3	601,4	651,3	708,6	745,3	815,1	859,0	928,0	971,4
Input power	kW	71,8	78,2	88,1	102,2	117,2	129,2	147,2	163,7	184,8	201,3	222,3	237,4	257,9	274,4	295,7	312,0	333,6
Cooling total input current	A	127,0	141,0	157,0	179,0	203,0	225,0	254,0	285,0	321,0	352,0	389,0	416,0	448,0	479,0	515,0	546,0	582,0
EER	W/W	2,87	3,12	3,03	2,91	2,81	2,98	2,89	2,98	2,91	2,99	2,93	2,99	2,89	2,97	2,91	2,97	2,91
Water flow rate system side	l/h	35459	41942	45909	51076	56619	66291	73125	83982	92547	103407	111966	121819	128141	140122	147682	159542	167008
Pressure drop system side	kPa	15	21	18	22	17	23	21	27	27	34	21	25	28	28	31	35	38
Heating performance 40 °C / 45 °C (2)																		
Heating capacity	kW	214,3	254,4	279,0	310,5	341,2	400,9	438,9	506,0	553,2	620,0	666,5	730,0	771,1	840,0	885,5	954,2	999,6
Input power	kW	66,6	79,3	86,7	97,1	106,2	124,8	137,1	157,5	171,8	193,5	207,0	226,8	240,1	260,9	275,3	297,4	311,6
Heating total input current	A	120,0	142,0	155,0	172,0	187,0	219,0	240,0	277,0	303,0	342,0	368,0	401,0	421,0	460,0	485,0	526,0	550,0
COP	W/W	3,22	3,21	3,22	3,20	3,21	3,21	3,20	3,21	3,22	3,20	3,22	3,22	3,21	3,22	3,22	3,21	3,21
Water flow rate system side	l/h	37204	44148	48436	53909	59226	69618	76226	87877	96076	107669	115772	126793	133932	145898	153804	165737	173613
Pressure drop system side	kPa	16	23	20	24	18	25	22	29	29	36	22	26	30	30	33	37	41

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NRB HE

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Cooling performance 12 °C / 7 °C (1)																		
Cooling capacity	kW	209,6	241,7	264,7	294,5	326,7	377,8	432,4	489,4	540,5	597,8	647,7	699,1	734,9	798,7	841,0	904,0	944,9
Input power	kW	67,3	77,4	85,0	98,1	112,4	125,3	139,1	157,0	177,4	192,3	215,2	231,2	250,7	269,1	289,6	308,2	327,5
Cooling total input current	A	115,0	132,0	144,0	164,0	187,0	208,0	230,0	261,0	296,0	322,0	362,0	387,0	417,0	449,0	483,0	515,0	547,0
EER	W/W	3,12	3,12	3,11	3,00	2,91	3,02	3,11	3,12	3,05	3,11	3,01	3,02	2,93	2,97	2,90	2,93	2,89
Water flow rate system side	l/h	36053	41586	45538	50642	56185	64960	74341	84155	92932	102793	111352	120183	126344	137316	144576	155409	162455
Pressure drop system side	kPa	15	20	18	22	16	22	21	27	27	33	21	24	27	27	29	33	36
Heating performance 40 °C / 45 °C (2)																		
Heating capacity	kW	223,4	258,1	283,7	316,7	349,3	403,2	458,7	520,7	571,9	634,1	683,9	741,3	784,2	848,2	895,3	960,1	1006,8
Input power	kW	69,3	80,5	87,9	98,5	109,0	126,1	143,1	162,7	177,1	198,2	211,7	230,0	244,9	264,9	279,5	299,5	315,3
Heating total input current	A	122,0	140,0	153,0	170,0	188,0	216,0	244,0	278,0	305,0	341,0	367,0	396,0	420,0	456,0	482,0	517,0	544,0
COP	W/W	3,22	3,21	3,23	3,22	3,20	3,20	3,21	3,20	3,23	3,20	3,23	3,22	3,20	3,20	3,20	3,21	3,19
Water flow rate system side	l/h	38791	44787	49248	54989	60660	70010	79655	90422	99327	110122	118791	128748	136201	147319	155503	166760	174868
Pressure drop system side	kPa	17	23	20	25	19	25	24	31	31	38	23	27	31	30	33	38	41

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ELECTRIC DATA

Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Electric data																			
	°	A	168,6	185,0	209,8	239,2	268,5	297,5	326,5	423,4	487,6	516,6	570,9	548,6	581,4	630,9	671,8	712,7	753,6
Maximum current (FLA)	A,L	A	168,6	193,5	209,8	239,2	268,5	306,0	335,0	468,1	512,9	561,3	590,3	557,1	589,9	639,4	680,3	729,7	770,6
	E	A	177,1	202,0	218,3	247,7	277,0	314,5	352,0	487,5	532,3	580,7	609,7	574,1	606,9	656,4	697,3	752,6	793,5
	°	A	357,2	412,4	437,2	489,9	519,2	631,7	660,7	757,6	821,8	850,8	905,1	817,9	850,7	900,2	941,1	982,0	1022,9
Peak current (LRA)	A,L	A	357,2	420,9	437,2	489,9	519,2	640,2	669,2	802,3	847,1	895,5	924,5	826,4	859,2	908,7	949,6	999,0	1039,9
	E	A	365,7	429,4	445,7	498,4	527,7	648,7	686,2	821,7	866,5	914,9	943,9	843,4	876,2	925,7	966,6	1021,9	1062,8

ENERGY INDICES (REG. 2016/2281 EU)

NRB H°

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (1)																		
Pdesignh	kW	203	224	260	289	325	346	296	343	379	425	462	495	539	571	600	651	680
SCOP		3,65	3,65	3,65	3,68	3,65	3,60	3,73	3,73	3,80	3,73	3,80	3,68	3,80	3,68	3,75	3,88	3,90
ηsh	%	143,00	143,00	143,00	144,00	143,00	141,00	146,00	143,00	149,00	146,00	149,00	144,00	149,00	144,00	147,00	152,00	153,00
SEER - 12/7 (EN14825:2018) with standard fans (2)																		
SEER	W/W	3,79	3,66	3,88	3,81	3,91	3,80	3,89	3,92	3,80	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)
Seasonal efficiency	%	148,40	143,50	152,20	149,50	153,20	149,10	152,70	153,80	149,00	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)
SEER - (EN14825:2018) 12/7 with inverter fans (2)																		
SEER	W/W	-	-	-	-	-	-	-	-	-	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)
SEER - 23/18 (EN14825: 2018) with standard fans (4)																		
SEER	W/W	-	-	-	-	-	-	-	-	-	4,67	4,76	4,64	4,70	4,66	4,56	4,66	4,65
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	183,90	187,30	182,40	184,90	183,40	179,30	183,40	182,80
SEER - 23/18 (EN14825: 2018) with inverter fans																		
SEER	W/W	-	-	-	-	-	-	-	-	-	4,88	5,02	5,07	4,92	4,96	4,96	4,92	4,96
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SEPR - (EN14825: 2018) High temperature with standard fans (4)																		
SEPR	W/W	-	-	-	-	-	-	-	-	-	5,53	5,54	5,52	5,52	5,51	5,51	5,51	5,51
SEPR - (EN14825: 2018) High temperature with inverter fans (4)																		
SEPR	W/W	-	-	-	-	-	-	-	-	-	5,53	5,54	5,52	5,52	5,51	5,51	5,51	5,51

(1) Efficiencies for low temperature applications (35 °C)
(2) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(3) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C
(4) Calculation performed with FIXED water flow rate.

NRB HL

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (1)																		
Pdesignh	kW	197	235	258	286	314	370	306	353	385	433	464	509	538	586	617	666	697
SCOP		3,73	3,75	3,75	3,68	3,68	3,73	3,93	3,83	3,95	3,83	3,93	3,88	3,88	3,75	3,85	3,95	3,98
ηsh	%	146,00	147,00	147,00	144,00	144,00	146,00	154,00	150,00	155,00	150,00	154,00	152,00	152,00	147,00	151,00	155,00	156,00
SEER - 12/7 (EN14825:2018) with standard fans (2)																		
SEER	W/W	3,83	4,01	3,92	3,90	3,82	4,05	3,99	4,04	3,87	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)
Seasonal efficiency	%	150,30	157,20	153,90	149,60	159,00	156,40	156,60	158,60	151,80	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)
SEER - (EN14825:2018) 12/7 with inverter fans (2)																		
SEER	W/W	-	-	-	-	-	-	-	-	-	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)
SEER - 23/18 (EN14825: 2018) with standard fans (4)																		
SEER	W/W	-	-	-	-	-	-	-	-	-	4,72	4,67	4,79	4,63	4,73	4,67	4,75	4,70
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	185,70	183,60	188,70	182,30	186,30	183,60	187,00	185,00
SEER - 23/18 (EN14825: 2018) with inverter fans																		
SEER	W/W	-	-	-	-	-	-	-	-	-	5,08	5,11	5,10	4,95	5,04	4,96	5,09	5,02
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SEPR - (EN14825: 2018) High temperature with standard fans (4)																		
SEPR	W/W	-	-	-	-	-	-	-	-	-	5,51	5,51	5,53	5,51	5,52	5,52	5,51	5,51
SEPR - (EN14825: 2018) High temperature with inverter fans (4)																		
SEPR	W/W	-	-	-	-	-	-	-	-	-	5,51	5,51	5,53	5,51	5,52	5,52	5,51	5,51

(1) Efficiencies for low temperature applications (35 °C)
(2) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(3) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C
(4) Calculation performed with FIXED water flow rate.

NRB HA

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (1)																		
Pdesignh	kW	196	233	255	284	312	367	304	351	384	430	462	506	535	582	614	662	693
SCOP		3,03	3,08	3,03	3,08	3,03	3,10	3,13	3,08	3,30	3,08	3,15	3,08	3,13	3,03	3,20	3,20	3,15
ηsh	%	118,00	120,00	118,00	120,00	118,00	121,00	122,00	120,00	129,00	120,00	123,00	120,00	122,00	118,00	125,00	125,00	123,00
SEER - 12/7 (EN14825:2018) with standard fans (2)																		
SEER	W/W	3,96	4,13	4,09	4,09	4,07	4,23	4,22	4,22	4,10	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)
Seasonal efficiency	%	155,40	162,10	160,40	160,60	159,70	166,10	165,60	165,80	161,0	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)
SEER - (EN14825:2018) 12/7 with inverter fans (2)																		
SEER	W/W	-	-	-	-	-	-	-	-	-	4,58	4,57	4,60	4,55	4,60	4,56	4,60	4,56
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	180,3%	179,6%	180,8%	179,1%	180,8%	179,2%	181,0%	179,2%
SEER - 23/18 (EN14825: 2018) with standard fans (4)																		
SEER	W/W	-	-	-	-	-	-	-	-	-	4,96	5,01	5,02	4,84	4,92	4,87	4,95	4,94
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	195,30	197,40	197,80	190,50	193,90	191,80	195,00	194,60
SEER - 23/18 (EN14825: 2018) with inverter fans																		
SEER	W/W	-	-	-	-	-	-	-	-	-	4,58	4,57	4,60	4,55	4,60	4,54	4,60	4,56
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SEPR - (EN14825: 2018) High temperature with standard fans (4)																		
SEPR	W/W	-	-	-	-	-	-	-	-	-	5,52	5,52	5,51	5,55	5,52	5,51	5,51	5,52
SEPR - (EN14825: 2018) High temperature with inverter fans (4)																		
SEPR	W/W	-	-	-	-	-	-	-	-	-	5,52	5,52	5,51	5,55	5,52	5,51	5,51	5,52

(1) Efficiencies for average temperature applications (55 °C)
(2) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(3) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C
(4) Calculation performed with FIXED water flow rate.

NRB HE

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (1)																		
Pdesignh	kW	204	236	259	290	320	369	318	361	397	440	474	514	544	588	621	666	698
SCOP		3,05	3,08	3,05	3,10	3,03	3,08	3,13	3,05	3,30	3,08	3,15	3,08	3,13	3,03	3,20	3,20	3,13
ηsh	%	119,00	120,00	119,00	121,00	118,00	120,00	122,00	119,00	129,00	120,00	123,00	120,00	122,00	118,00	125,00	125,00	122,00
SEER - 12/7 (EN14825:2018) with standard fans (2)																		
SEER	W/W	4,16	4,15	4,18	4,19	4,16	4,27	4,39	4,36	4,22	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)
Seasonal efficiency	%	163,40	163,00	164,10	164,70	163,40	167,90	172,70	171,40	165,80	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)
SEER - (EN14825:2018) 12/7 with inverter fans (2)																		
SEER	W/W	-	-	-	-	-	-	-	-	-	4,71	4,67	4,74	4,66	4,69	4,62	4,71	4,66
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	185,4%	183,7%	186,6%	183,4%	184,6%	181,9%	185,4%	183,4%
SEER - 23/18 (EN14825: 2018) with standard fans (4)																		
SEER	W/W	-	-	-	-	-	-	-	-	-	5,17	5,20	5,16	5,01	5,04	4,99	5,03	5,03
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	203,60	204,90	203,20	197,20	198,60	196,50	198,10	198,10
SEER - 23/18 (EN14825: 2018) with inverter fans																		
SEER	W/W	-	-	-	-	-	-	-	-	-	4,71	4,67	4,74	4,66	4,69	4,62	4,71	4,66
Seasonal efficiency	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SEPR - (EN14825: 2018) High temperature with standard fans (4)																		
SEPR	W/W	-	-	-	-	-	-	-	-	-	5,52	5,54	5,57	5,52	5,54	5,58	5,56	5,55
SEPR - (EN14825: 2018) High temperature with inverter fans (4)																		
SEPR	W/W	-	-	-	-	-	-	-	-	-	5,52	5,54	5,57	5,52	5,54	5,58	5,56	5,55

(1) Efficiencies for average temperature applications (55 °C)
(2) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(3) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C
(4) Calculation performed with FIXED water flow rate.

GENERAL TECHNICAL DATA

Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Compressor																			
Type	°,A,E,L	type									Scroll								
Compressor regulation	°,A,E,L	Type									On-Off								
Number	°,A,E,L	no.	4	4	4	4	4	4	4	5	6	6	6	5	6	6	6	6	6
Circuits	°,A,E,L	no.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Refrigerant	°,A,L	type									R410A								
	E	type																	
Refrigerant charge (1)	°	kg	41,0	42,0	55,0	56,0	56,0	58,0	58,0	84,0	84,0	100,0	100,0	113,0	116,0	138,0	138,0	138,0	143,0
	A,L	kg	43,0	56,0	58,0	58,0	60,0	84,0	87,0	100,0	103,0	116,0	125,0	138,0	138,0	166,0	166,0	183,0	183,0
	E	kg	56,0	80,0	82,0	82,0	84,0	97,0	113,0	137,0	140,0	153,0	162,0	175,0	175,0	203,0	203,0	220,0	220,0
System side heat exchanger																			
Type	°,A,E,L	type									Shell and tube								
Hydraulic connections																			
Connections (in/out)	°,A,E,L	Type									Grooved joints								
Hydraulic connections without hydronic kit																			
Sizes (in/out)	°	Ø	5"	5"	5"	5"	5"	5"	5"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"
	A,E,L	Ø	5"	5"	5"	5"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"
Hydraulic connections with hydronic kit																			
Sizes (in/out)	°	Ø	-	-	3"	3"	3"	-	-	4"	4"	4"	4"	5"	5"	5"	5"	5"	5"
	A,L	Ø	-	3"	-	-	-	3"	4"	4"	4"	4"	4"	5"	5"	5"	5"	5"	5"
	E	Ø	3"	3"	3"	3"	3"	3"	4"	4"	4"	4"	4"	5"	5"	5"	5"	5"	5"

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

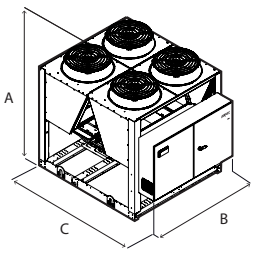
Water filter not supplied. Installation is mandatory or the guarantee will void.

Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Fan																			
Type	°,A,E,L	type	Axial																
Fan motor	°,A	type	Asynchronous																
	E,L	type	Asynchronous with phase cut																
Number	°	no.	4	4	6	6	6	6	6	8	8	10	10	12	12	14	14	14	14
	A,L	no.	4	6	6	6	6	8	8	10	10	12	12	14	14	16	16	18	18
	E	no.	6	8	8	8	8	10	12	14	14	16	16	18	18	20	20	22	22
Air flow rate	°	m^3/h	80000	80000	120000	120000	120000	120000	120000	160000	160000	200000	200000	240000	240000	280000	280000	280000	280000
	A	m^3/h	80000	120000	120000	120000	120000	160000	160000	200000	200000	240000	240000	280000	280000	320000	320000	360000	360000
	E	m^3/h	90000	120000	120000	120000	120000	150000	180000	210000	210000	240000	240000	270000	270000	300000	300000	330000	330000
	L	m^3/h	60000	90000	90000	90000	90000	120000	120000	150000	150000	180000	180000	210000	210000	240000	240000	270000	270000
Sound data calculated in cooling mode (1)																			
Sound power level	°	dB(A)	89,5	89,5	91,6	91,6	91,6	91,6	91,6	93,1	93,1	94,2	94,2	95,1	95,1	95,9	95,9	95,9	95,9
	A	dB(A)	89,5	91,6	91,6	91,6	91,6	93,1	93,1	94,2	94,2	95,1	95,1	95,9	95,9	96,6	96,6	97,2	97,2
	E	dB(A)	84,6	86,1	86,1	86,1	86,1	87,2	88,2	89,4	89,9	91,1	91,6	92,2	92,2	92,7	92,7	93,2	93,2
	L	dB(A)	82,6	84,6	84,6	84,6	84,6	86,1	86,1	87,7	88,2	89,6	90,1	90,9	90,9	91,6	91,6	92,1	92,1
Sound pressure level (10 m)	°	dB(A)	57,4	57,4	59,3	59,3	59,3	59,3	59,3	60,7	60,7	61,7	61,7	62,5	62,5	63,2	63,2	63,2	63,2
	A	dB(A)	57,4	59,3	59,3	59,3	59,3	60,7	60,7	61,6	61,6	62,5	62,5	63,2	63,2	63,7	63,7	64,2	64,2
	E	dB(A)	52,4	53,7	53,7	53,7	53,7	54,7	55,5	56,7	57,2	58,2	58,7	59,2	59,2	59,6	59,6	60,0	60,0
	L	dB(A)	50,5	52,4	52,4	52,4	52,4	53,8	53,8	55,2	55,7	57,0	57,5	58,2	58,2	58,7	58,7	59,1	59,1

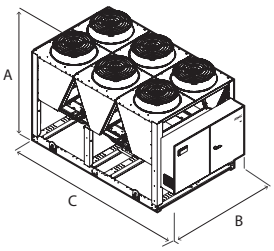
(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS

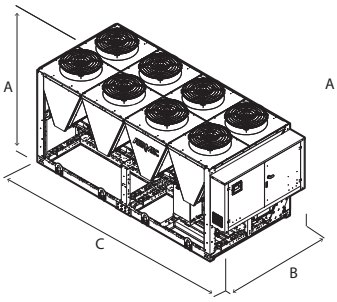
NRB 0800 - 0900 °
NRB 0800 L/A



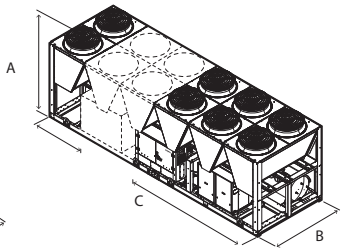
NRB 1000 - 1600 °
NRB 0900 - 1200 L/A
NRB 0800 E



NRB 1805 - 2006 °
NRB 1400 - 1600 L/A
NRB 0900 - 1200 E



NRB 2206 - 3600 °
NRB 1805 - 3600 L/A
NRB 1400 - 3600 E



Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Dimensions and weights without hydronic kit																			
A	°,A,E,L	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	°,A,E,L	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	°	mm	2780	2780	3970	3970	3970	3970	3970	5160	5160	6350	6350	7140	7140	8330	8330	8330	8330
	A,L	mm	2780	3970	3970	3970	3970	4760	4760	6350	6350	7140	7140	8330	8330	9520	9520	10710	10710
	E	mm	3970	4760	4760	4760	4760	5950	7140	8330	8330	9520	9520	10710	10710	11900	11900	13090	13090
Dimensions and weights with pump/s																			
A	°	mm	-	-	2450	2450	2450	-	-	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
	A,L	mm	-	2450	-	-	-	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
	E	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	°	mm	-	-	2200	2200	2200	-	-	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
	A,L	mm	-	2200	-	-	-	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
	E	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	°	mm	-	-	3970	3970	3970	-	-	5160	5160	6350	6350	7140	7140	8330	8330	8330	8330
	A,L	mm	-	3970	-	-	-	4760	4760	6350	6350	7140	7140	8330	8330	9520	9520	10710	10710
	E	mm	3970	4760	4760	4760	4760	5950	7140	8330	8330	9520	9520	10710	10710	11900	11900	13090	13090

Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Integrated hydronic kit: 00																			
Weights																			
Empty weight	°	kg	2670	2730	3310	3360	3400	3460	3490	4350	4520	5190	5230	5840	6130	7040	7120	7220	7320
	A,L	kg	2700	3280	3350	3390	3470	4120	4240	4980	5190	5690	6030	6710	6960	7590	7670	8340	8420
	E	kg	3230	3920	3990	4020	4100	4660	5220	6060	6280	6810	7100	7720	7970	8550	8630	9310	9390

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CL 025-200

Air-water chiller

Cooling capacity 5,8 ÷ 41 kW

- **Standard version**
- **Version with Integrated hydronic kit system side**
- **Fan Plug-fan**



DESCRIPTION

Chillers for indoor installation for chilled water production with scroll compressors, plugfan fans, external copper coils with aluminum louvers.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

° Standard
A With storage tank and pump
P With pump

FEATURES

Operating field

Operation at full load up to 46°C external air temperature. Unit can produce chilled water up to -10°C.

EC fan plug-fan

The units are equipped with plug-fans and inverter motors coupled directly with the fan, with the electronic condensation control as standard, which adjusts the air flow according to the actual system requirements, with benefits in terms of consumption and noise reduction.
In addition, compared to conventional centrifugal fans, they do not feature belt and pulley transmission, resulting in easy flow adjustment, compactness, versatility, easy maintenance and no vibrations.

Air supply

Horizontal or vertical, adjustable during installation for all sizes.
Directional air discharge hood:
— plastic for sizes 050 to 090
— galvanised steel for the other sizes

Version with Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations to obtain a solution that allows you to save money and to facilitate installation.

Hot water production

In the configuration with desuperheater, it is also possible to produce free-hot water.

MODUCONTROL CONTROL

The command panel of the unit allows the rapid setting of the working parameters of the machine, and their visualisation. The display consists of 4 figures and various LEDs for indicating the type of operational mode, the visualisation of the parameters set and of any alarms triggered. The card stores all the default settings and any modifications.
The regulation using an outside air temperature sensor allows a dynamic control of the water temperature produced by increasing the energy efficiency of the system.

ACCESSORIES

AERSET: It makes it possible to automatically compensate for the operation setting of the unit to which it is connected, based on a 0-10V MODBUS input signal. Mandatory accessory MODU-485BL.
MODU-485BL: RS-485 interface for supervision systems with MODBUS protocol.
MULTICONTROL: Allows the simultaneous control of several units (up to 4), installed in the same hydraulic system.
PR3: Simplified remote panel. This makes it possible to carry out the unit's basic controls with the signalling of alarms. Can be made remote with shielded cable up to 150 m.
SPLW: System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring
VT: Anti-vibration supports.
CLPA: Galvanised steel plenum to be installed on the condenser coil, facilitates duct installations.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.
KR: Anti-freeze electric heater for the plate heat exchanger.

GPCL: Protection grille for the source side exchange coil.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

Accessories

Model	Ver	025	030	050	070	090	100	150	200
AERSET	°,A,P	•	•	•	•	•	•	•	•
MODU-485BL	°,A,P	•	•	•	•	•	•	•	•
MULTICONTROL	°,A,P	•	•	•	•	•	•	•	•
PR3	°,A,P	•	•	•	•	•	•	•	•
SPLW (1)	°,A,P	•	•	•	•	•	•	•	•

(1) Probe required for MULTICONTROL to manage the secondary circuit system.

Antivibration

Ver	025	030	050	070	090	100	150	200
°,P	VT9	VT9	VT9	VT9	VT9	VT15	VT15	VT15
A	VT15A	VT15A	VT15A	VT15A	VT15A	VT15	VT15	VT15

Galvanised steel plenum

Ver	025	030	050	070	090	100	150	200
°,A,P	CLPA1 (1)	CLPA1 (1)	CLPA2 (2)	CLPA2 (2)	CLPA2 (2)	CLPA3	CLPA3	CLPA3

(1) Not compatible with the GPCL1 accessory
(2) Not compatible with the GPCL2 accessory

Device for peak current reduction

Ver	025	030	050	070	090	100	150	200
°,A,P	DRE5 (1)	DRE5 (1)	DRE5 (1)	DRE5 (1)	DRE5 (1)	DRE5 x 2 (1)	DRE5 x 2 (1)	DRE5 x 2 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
A grey background indicates the accessory must be assembled in the factory

Antifreeze electric heater

Ver	025	030	050	070	090	100	150	200
°,A,P	KR2	KR2	KR2	KR2	KR2	KR100	KR100	KR100

A grey background indicates the accessory must be assembled in the factory

Anti-intrusion grid

Ver	025	030	050	070	090	100	150	200
°,A,P	GPCL1	GPCL1	GPCL2	GPCL2	GPCL2	GPCL3	GPCL3	GPCL3

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2	**CL**
3,4,5	**Size** 025, 030, 050, 070, 090, 100, 150, 200
6	**Model**
°	Cooling only
7	**Execution**
°	Standard
8	**Version**
°	Standard
A	With storage tank and pump
P	With pump
9	**Heat recovery**
°	Without heat recovery
D	With desuperheater (1)
10	**Coils**
°	Copper-aluminium
R	Copper pipes-copper fins
S	Copper pipes-Tinned copper fins
V	Copper pieps-Coated aluminium fins
11	**Operating field**
°	Standard mechanic thermostatic valve (2)
Y	Low temperature mechanic thermostatic valve (3)
Z	Low temperature electronic thermostatic valve (4)
12	**Evaporator**
°	Standard
C	Motocondensing unit
13	**Power supply**
°	400V ~ 3N 50Hz with magnet circuit breakers (5)
M	230V ~ 3 50Hz (6)

(1) It is only available in size CL 050 ÷ 200; If the unit is also fitted with one of the low temperature valves in addition to the desuperheater, it is necessary to always guarantee a water temperature of 35°C at the inlet of the desuperheater.
(2) Water produced from 4 °C ÷ 18 °C
(3) Water produced from 0 °C ÷ - 10 °C
(4) Water produced from 0 °C ÷ 4 °C
(5) Only for CL 025 ÷ 200 sizes
(6) Only for CL 025 ÷ 030 sizes

PERFORMANCE SPECIFICATIONS

CL ° - (version °) - (400V 3N ~ 50Hz / 230V ~ 50Hz)

Size		025	030	050	070	090	100	150	200
Cooling performance 12 °C / 7 °C (1)									
Cooling capacity	kW	5,8	7,1	12,7	16,3	20,2	26,3	33,0	40,6
Input power	kW	2,2	2,6	4,3	5,5	6,8	8,8	11,3	14,4
Cooling total input current - 400V	A	4,8	5,1	8,4	10,0	13,0	17,0	19,0	25,0
Cooling total input current - 230V	A	10,0	13,0	-	-	-	-	-	-
EER	W/W	2,70	2,72	2,98	3,00	2,98	2,99	2,91	2,82
Water flow rate system side	l/h	1008	1233	2189	2817	3484	4533	5695	7001
Pressure drop system side	kPa	19	26	27	29	29	45	53	72

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

CL ° - (versions A/P) - (400V 3N ~ 50Hz / 230V ~ 50Hz)

Size		025	030	050	070	090	100	150	200
Cooling performance 12 °C / 7 °C (1)									
Cooling capacity	kW	5,9	7,2	12,8	16,5	20,4	26,5	33,4	41,0
Input power	kW	2,1	2,6	4,2	5,4	6,8	8,9	11,6	14,6
Cooling total input current - 400V	A	5,1	5,4	9,0	11,0	13,0	18,0	21,0	27,0
Cooling total input current - 230V	A	11,0	14,0	-	-	-	-	-	-
EER	W/W	2,76	2,78	3,02	3,04	3,02	2,97	2,87	2,81
Water flow rate system side	l/h	1008	1233	2189	2817	3484	4533	5695	7001
Useful head system side	kPa	71,0	62,0	73,0	66,0	58,0	83,0	131,0	122,0

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

ENERGY DATA

Size			025	030	050	070	090	100	150	200
SEER - 12/7 (EN14825:2018) with standard fans (1)										
SEER	°	W/W	4,11	4,11	4,10	4,11	4,12	4,38	4,32	4,10
	A,P	W/W	4,22	4,22	4,17	4,21	4,22	4,21	4,13	4,12
Seasonal efficiency	°	%	161,3%	161,4%	161,1%	161,3%	161,8%	172,0%	169,7%	161,0%
	A,P	%	165,7%	165,7%	163,8%	165,2%	165,6%	165,5%	162,3%	161,8%
SEER - 23/18 (EN14825: 2018) with standard fans (2)										
SEER	°	W/W	4,72	4,47	4,50	4,44	4,52	5,13	4,99	4,51
	A,P	W/W	4,86	4,62	4,64	4,58	4,72	4,90	4,65	4,36
Seasonal efficiency	°	%	185,9%	175,9%	176,8%	174,7%	177,7%	202,2%	196,6%	177,2%
	A,P	%	191,2%	181,7%	182,6%	180,0%	185,7%	193,1%	183,0%	171,5%
SEPR - (EN14825: 2018) High temperature with standard fans (2)										
SEPR	°	W/W	5,38	5,10	5,10	5,03	5,04	5,67	5,59	5,30
	A,P	W/W	5,49	5,21	5,18	5,13	5,16	5,56	5,37	5,20

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

Size			025	030	050	070	090	100	150	200
Power supply: °										
Electric data										
Maximum current (FLA)	°	A	11,0	11,6	13,6	15,4	20,4	27,4	30,8	40,8
	A,P	A	11,4	12,0	14,4	16,1	21,1	29,3	33,8	43,8
Peak current (LRA)	°	A	44,6	40,6	77,2	77,2	105,2	90,9	92,6	125,6
	A,P	A	45,0	41,0	77,9	77,9	105,9	92,8	95,6	128,6

Size			025	030	050	070	090	100	150	200
Power supply: M										
Electric data										
Maximum current (FLA)	°	A	22,0	25,0	-	-	-	-	-	-
	A,P	A	22,6	25,6	-	-	-	-	-	-
Peak current (LRA)	°	A	67,0	88,0	-	-	-	-	-	-
	A,P	A	67,6	88,6	-	-	-	-	-	-

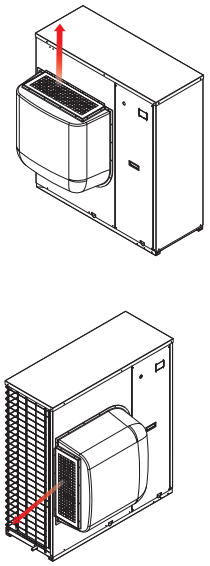
GENERAL TECHNICAL DATA

Size			025	030	050	070	090	100	150	200
Compressor										
Type	°,A,P	type	Scroll							
Compressor regulation	°,A,P	Type	On-off							
Number	°,A,P	no.	1	1	1	1	1	2	2	2
Circuits	°,A,P	no.	1	1	1	1	1	1	1	1
Refrigerant	°,A,P	type	R410A							
Refrigerant charge (1)	°,A,P	kg	1,5	2,7	4,0	4,0	4,0	5,5	7,5	7,5
System side heat exchanger										
Type	°,A,P	type	Brazed plate							
Number	°,A,P	no.	1	1	1	1	1	1	1	1
Hydraulic connections										
Connections (in/out)	°,A,P	Type	Gas - F							
Size (in)	°,A,P	Ø	1¼							
Size (out)	°,A,P	Ø	1¼							
Fan										
Type	°,A,P	type	Plug-fan							
Fan motor	°,A,P	type	Inverter							
Number	°,A,P	no.	1	1	1	1	1	2	2	2
Air flow rate	°,A,P	m^3/h	4000	4000	6500	6500	7500	10000	12000	12000
High static pressure	°,A,P	Pa	50	50	50	50	50	50	50	50
Machine body										
Sound power level	°,A,P	dB(A)	78,0	78,0	73,0	73,0	76,0	74,0	79,0	79,0
Sound pressure level in cooling mode (10 m)	°,A,P	dB(A)	46,0	46,0	41,0	41,0	44,0	42,0	47,0	47,0
Delivery unit										
Sound power level	°,A,P	dB(A)	78,0	78,0	78,0	78,0	81,0	78,0	83,0	83,0
Sound pressure level in cooling mode (10 m)	°,A,P	dB(A)	46,0	46,0	46,0	46,0	49,0	47,0	52,0	52,0

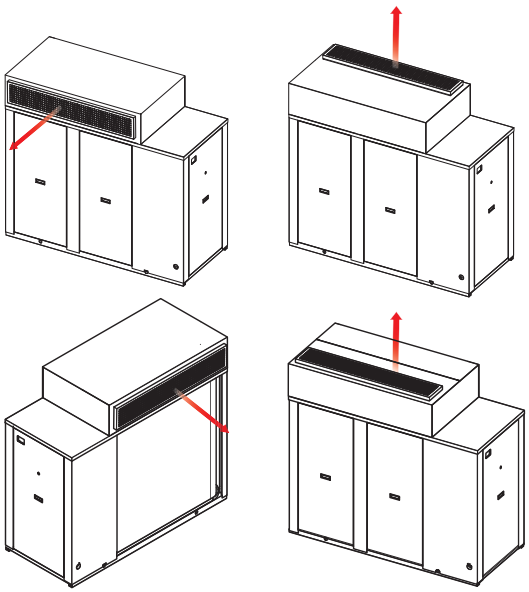
(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

DISCHARGE HOOD POSSIBLE CONFIGURATIONS

CL 025 ÷ 090



CL 100 ÷ 200

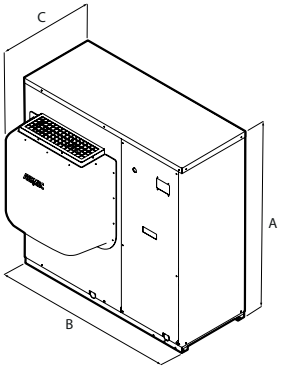


Air supply
Horizontal or vertical, adjustable during installation for all sizes.
Directional air discharge hood:

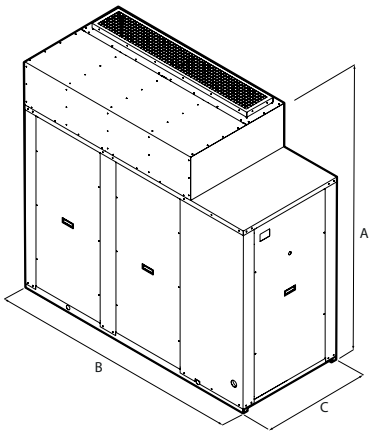
— plastic for sizes 050 to 090
— galvanised steel for the other sizes

DIMENSIONS

CL 025 ÷ 090



CL 100 ÷ 200



Size			025	030	050	070	090	100	150	200
Dimensions and weights										
A	°,A,P	mm	1028	1281	1281	1281	1281	1674	1674	1674
B	°,P	mm	1005	1006	1160	1160	1160	1897	1897	1897
	A	mm	1366	1458	1610	1610	1610	1897	1897	1897
C	°,A,P	mm	702	754	798	798	798	801	801	801
Empty weight	°	kg	127	160	208	210	212	469	471	475
	A	kg	157	201	252	260	256	532	537	542
	P	kg	133	166	217	225	221	482	487	492

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CL 025H-200H

Reversible air/water heat pump

Cooling capacity 6,5 ÷ 50,9 kW
Heating capacity 7,7 ÷ 44,8 kW

- **Cooling / heating / high-temperature water production even for DHW production.**
- **Water produced up to 60 °C**
- **Heating operations with external temperatures down to -15 °C**
- **Fan Plug-fan**



DESCRIPTION

Reversible air/water heat pump for air conditioning systems with cold water production for cooling rooms and hot water for heating and/or domestic hot water services, suitable for connection with small or medium users.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

° Standard
A With storage tank and pump
P With pump

FEATURES

Operating field

Working at full load up to -15 °C outside air temperature in winter, and up to 46 °C in summer. Hot water production up to 60 °C.

EC fan plug-fan

The units are equipped with plug-fans and inverter motors coupled directly with the fan, with the electronic condensation control as standard, which adjusts the air flow according to the actual system requirements, with benefits in terms of consumption and noise reduction.
In addition, compared to conventional centrifugal fans, they do not feature belt and pulley transmission, resulting in easy flow adjustment, compactness, versatility, easy maintenance and no vibrations.

Air supply

Horizontal or vertical, adjustable during installation for all sizes.
Directional air discharge hood:
— plastic for sizes 050 to 090
— galvanised steel for the other sizes

Version with Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations to obtain a solution that allows you to save money and to facilitate installation.

Hot water production

Special attention has been paid to winter operation: compared with traditional heat pumps, the operating limits have been extended thanks to particular technological expedients.

MODUCONTROL CONTROL

The command panel of the unit allows the rapid setting of the working parameters of the machine, and their visualisation. The display consists of 4 figures and various LEDs for indicating the type of operational mode, the visualisation of the parameters set and of any alarms triggered. The card stores all the default settings and any modifications.
The regulation using an outside air temperature sensor allows a dynamic control of the water temperature produced by increasing the energy efficiency of the system.

ACCESSORIES

AERSET: It makes it possible to automatically compensate for the operation setting of the unit to which it is connected, based on a 0-10V MODBUS input signal. Mandatory accessory MODU-485BL.
MODU-485BL: RS-485 interface for supervision systems with MODBUS protocol.
MULTICONTROL: Allows the simultaneous control of several units (up to 4), installed in the same hydraulic system.
PR3: Simplified remote panel. This makes it possible to carry out the unit's basic controls with the signalling of alarms. Can be made remote with shielded cable up to 150 m.
SDHW: Domestic hot water sensor. To be used with a storage tank for the control of water temperature produced.
SPLW: System water temperature sensor. In most cases the loose supplied sensors for each chiller/heat pump are sufficient. In cases of a common flow/return header this sensor can be used to control the common system supply water temperature for the chillers connected to the header, or it can be used for temperature monitoring
VT: Anti-vibration supports.
BSKW: Electric heaters kit with IP44 panel for remote mounting in a sheltered area.

CLPA: Galvanised steel plenum to be installed on the condenser coil, facilitates duct installations.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.
KRB: Electric anti-freeze resistance kit for base.

GPCL: Protection grille for the source side exchange coil.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

Accessories

Model	Ver	025	030	040	050	070	080	090	100	150	200
AERSET	°,A,P	•	•	•	•	•	•	•	•	•	•
MODU-485BL	°,A,P	•	•	•	•	•	•	•	•	•	•
MULTICONTROL	°,A,P	•	•	•	•	•	•	•	•	•	•
PR3	°,A,P	•	•	•	•	•	•	•	•	•	•
SDHW (1)	°,A,P	•	•	•	•	•	•	•	•	•	•
SPLW (2)	°,A,P	•	•	•	•	•	•	•	•	•	•

(1) Probe required for MULTICONTROL for managing the domestic hot water system.
(2) Probe required for MULTICONTROL to manage the secondary circuit system.

■ *MODU-485BL = Accessory mandatory for the production of domestic hot water*

Antivibration

Ver	025	030	040	050	070	080	090	100	150	200
°,P	VT9	VT9	VT9	VT9	VT9	VT9	VT9	VT15	VT15	VT15
A	VT15A	VT15A	VT15A	VT15A	VT15A	VT15A	VT15A	VT15	VT15	VT15

BSKW: Electric heater kit

Ver	025	030	040	050	070	080	090	100	150	200
Power supply: °										
°,A,P	BS6KW400T, BS9KW400T	BS6KW400T, BS9KW400T	BS6KW400T, BS9KW400T	BS6KW400T, BS9KW400T	BS6KW400T, BS9KW400T	BS6KW400T, BS9KW400T	BS6KW400T, BS9KW400T	BS6KW400T, BS9KW400T	BS6KW400T, BS9KW400T	BS6KW400T, BS9KW400T
Power supply: M										
°,A,P	BS4KW230M, BS6KW230M	BS4KW230M, BS6KW230M	BS4KW230M, BS6KW230M	-	-	-	-	-	-	-

Galvanised steel plenum

Ver	025	030	040	050	070	080	090	100	150	200
°,A,P	CLPA1 (1)	CLPA1 (1)	CLPA2 (2)	CLPA2 (2)	CLPA2 (2)	CLPA2 (2)	CLPA2 (2)	CLPA3	CLPA3	CLPA3

(1) Not compatible with the GPCL1 accessory
(2) Not compatible with the GPCL2 accessory

Device for peak current reduction

Ver	025	030	040	050	070	080	090	100	150	200
Power supply: °										
°,A,P	DRE5 (1)	DRE5 (1)	DRE5 (1)	DRE5 (1)	DRE5 (1)	DRE5 (1)	DRE5 (1)	DRE5 x 2 (1)	DRE5 x 2 (1)	DRE5 x 2 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
A grey background indicates the accessory must be assembled in the factory

Electric Heater for the Base

Ver	025	030	040	050	070	080	090	100	150	200
°,A,P	KRB4 (1)	KRB4 (1)	KRB5 (1)	KRB5 (1)	KRB5 (1)	KRB5 (1)	KRB5 (1)	KRB6 (1)	KRB6 (1)	KRB6 (1)

(1) Incompatible with the condensate collection basin accessory with integrated resistance.
A grey background indicates the accessory must be assembled in the factory

Anti-intrusion grid

Ver	025	030	040	050	070	080	090	100	150	200
°,A,P	GPCL1	GPCL1	GPCL2	GPCL2	GPCL2	GPCL2	GPCL2	GPCL3	GPCL3	GPCL3

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field		Description
1,2		**CL**
3,4,5		**Size** 025, 030, 040, 050, 070, 080, 090, 100, 150, 200
6		**Model**
	H	Heat pump
7		**Execution**
	°	Standard
8		**Version**
	°	Standard
	A	With storage tank and pump (1)
	P	With pump
9		**Heat recovery**
	°	Without heat recovery
10		**Coils**
	°	Copper-aluminium
	R	Copper pipes-copper fins
	S	Copper pipes-Tinned copper fins
	V	Copper pieps-Coated aluminium fins
11		**Operating field**
	°	Standard mechanic thermostatic valve (2)
	Y	Low temperature mechanic thermostatic valve (3)
	Z	Low temperature electronic thermostatic valve (4)
12		**Evaporator**
	°	Standard
13		**Power supply**
	°	400V 3N ~ 50Hz (5)
	M	230V ~ 50Hz (6)

(1) The version with integrated storage tank is not suitable for the production of domestic hot water (DHW).
(2) Water produced from 4 °C ÷ 18 °C
(3) Water produced from 0 °C ÷ - 10 °C
(4) Water produced from 0 °C ÷ 4 °C
(5) Only for CL 025 ÷ 200 sizes
(6) Only for CL 025 ÷ 040 sizes

PERFORMANCE SPECIFICATIONS 12 °C/ 7 °C - 40 °C/ 45 °C

CL - (H°) - (400V 3N ~ 50Hz / 230V ~ 50Hz)

Size		025	030	040	050	070	080	090	100	150	200
Cooling performance 12 °C / 7 °C (1)											
Cooling capacity	kW	6,4	8,4	10,4	11,9	14,0	15,5	19,0	23,9	31,3	37,6
Input power	kW	2,6	3,1	3,8	4,2	4,8	5,6	6,8	8,2	10,9	14,4
Cooling total input current - 400V	A	5,5	6,3	6,6	7,5	8,3	9,6	13,0	14,0	21,0	26,0
Cooling total input current - 230V	A	13,0	15,0	16,0	-	-	-	-	-	-	-
EER	W/W	2,44	2,73	2,74	2,87	2,90	2,77	2,81	2,93	2,86	2,61
Water flow rate system side	l/h	1104	1441	1785	2054	2411	2676	3272	4122	5388	6477
Pressure drop system side	kPa	13	12	13	11	15	26	26	34	22	43
Heating performance 40 °C / 45 °C (2)											
Heating capacity	kW	7,9	9,8	12,5	14,4	15,9	18,6	21,0	27,8	34,8	43,8
Input power	kW	2,3	2,9	3,7	4,1	4,7	5,5	6,5	8,1	10,6	14,4
Heating total input current - 400V	A	5,5	6,2	6,4	7,5	8,1	9,2	13,0	14,0	19,0	26,0
Heating total input current - 230V	A	12,0	14,0	15,0	-	-	-	-	-	-	-
COP	W/W	3,41	3,32	3,40	3,52	3,36	3,40	3,20	3,44	3,27	3,03
Water flow rate system side	l/h	1368	1693	2164	2502	2756	3214	3634	4822	6034	7581
Pressure drop system side	kPa	19	16	18	17	21	32	34	49	30	42

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

CL - (HP/HA) - (400V 3N ~ 50Hz / 230V ~ 50Hz)

Size		025	030	040	050	070	080	090	100	150	200
Cooling performance 12 °C / 7 °C (1)											
Cooling capacity	kW	6,5	8,4	10,5	12,0	14,1	15,7	19,1	24,2	31,6	38,0
Input power	kW	2,6	3,0	3,7	4,2	4,8	5,6	6,7	8,3	11,3	14,7
Cooling total input current - 400V	A	5,8	6,7	7,0	8,1	8,9	10,0	14,0	15,0	23,0	28,0
Cooling total input current - 230V	A	13,0	16,0	16,0	-	-	-	-	-	-	-
EER	W/W	2,49	2,79	2,79	2,90	2,94	2,82	2,85	2,91	2,81	2,58
Water flow rate system side	l/h	1104	1441	1785	2054	2411	2676	3272	4122	5388	6477
Useful head system side	kPa	76,0	75,0	69,0	92,0	86,0	80,0	64,0	99,0	158,0	145,0
Heating performance 40 °C / 45 °C (2)											
Heating capacity	kW	7,8	9,7	12,4	14,3	15,8	18,4	20,8	27,6	34,5	43,4
Input power	kW	2,3	2,9	3,6	4,1	4,7	5,4	6,5	8,2	11,0	14,8
Heating total input current - 400V	A	5,9	6,6	6,8	8,1	8,7	9,9	13,0	15,0	21,0	28,0
Heating total input current - 230V	A	12,0	15,0	16,0	-	-	-	-	-	-	-
COP	W/W	3,42	3,34	3,42	3,50	3,35	3,40	3,21	3,35	3,14	2,92
Water flow rate system side	l/h	1368	1693	2164	2502	2756	3214	3634	4822	6034	7581
Useful head system side	kPa	68,0	67,0	56,0	84,0	78,0	66,0	53,0	72,0	133,0	103,0

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

PERFORMANCE SPECIFICATIONS 23 °C/ 18 °C - 30 °C/ 35 °C

CL - (H°) - (400V 3N ~ 50Hz / 230V ~ 50Hz)

Size		025	030	040	050	070	080	090	100	150	200
Cooling performance 23 °C / 18 °C (1)											
Cooling capacity	kW	8,5	11,1	13,8	15,8	18,6	20,6	25,2	31,7	41,6	49,9
Input power	kW	2,8	3,3	4,0	4,4	5,1	6,0	7,2	8,7	11,6	15,4
Cooling total input current - 400V	A	5,8	6,6	6,9	8,0	8,7	10,0	14,0	15,0	22,0	27,0
Cooling total input current - 230V	A	13,0	16,0	17,0	-	-	-	-	-	-	-
EER	W/W	3,05	3,42	3,43	3,59	3,63	3,45	3,50	3,63	3,57	3,24
Water flow rate system side	l/h	1472	1922	2381	2740	3216	3570	4364	5498	7187	8639
Pressure drop system side	kPa	23	21	23	20	27	46	46	60	39	77
Heating performance 30 °C / 35 °C (2)											
Heating capacity	kW	8,2	10,1	12,9	15,0	16,5	19,2	21,7	28,9	36,1	45,4
Input power	kW	2,0	2,5	3,1	3,5	4,0	4,6	5,5	6,8	9,0	12,4
Heating total input current - 400V	A	4,7	5,3	5,4	6,4	6,8	7,8	11,0	12,0	16,0	22,0
Heating total input current - 230V	A	10,0	12,0	13,0	-	-	-	-	-	-	-
COP	W/W	4,16	4,08	4,15	4,30	4,12	4,17	3,93	4,22	3,99	3,67
Water flow rate system side	l/h	1413	1749	2235	2585	2846	3320	3754	4981	6233	7832
Pressure drop system side	kPa	20	17	19	18	22	34	36	52	32	45

(1) Data EN 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2018; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

CL - (HP/HA) - (400V 3N ~ 50Hz / 230V ~ 50Hz)

Size		025	030	040	050	070	080	090	100	150	200
Cooling performance 23 °C / 18 °C (1)											
Cooling capacity	kW	8,6	11,2	13,9	16,0	18,7	20,8	25,4	32,0	41,9	50,3
Input power	kW	2,7	3,2	4,0	4,4	5,1	5,9	7,2	8,9	12,1	15,8
Cooling total input current - 400V	A	6,2	7,0	7,3	8,6	9,4	11,0	15,0	16,0	24,0	30,0
Cooling total input current - 230V	A	14,0	17,0	17,0	-	-	-	-	-	-	-
EER	W/W	3,13	3,50	3,50	3,64	3,69	3,52	3,55	3,58	3,45	3,18
Water flow rate system side	l/h	1472	1922	2381	2740	3216	3570	4364	5498	7187	8639
Useful head system side	kPa	63,0	59,0	48,0	79,0	66,0	55,0	27,0	41,0	81,0	57,0
Heating performance 30 °C / 35 °C (2)											
Heating capacity	kW	8,1	10,0	12,8	14,8	16,3	19,1	21,6	28,6	35,8	45,0
Input power	kW	1,9	2,4	3,1	3,4	4,0	4,6	5,5	7,0	9,4	12,8
Heating total input current - 400V	A	5,0	5,6	5,8	7,0	7,5	8,5	11,0	13,0	18,0	24,0
Heating total input current - 230V	A	11,0	13,0	14,0	-	-	-	-	-	-	-
COP	W/W	4,18	4,11	4,19	4,30	4,13	4,19	3,94	4,09	3,80	3,52
Water flow rate system side	l/h	1413	1749	2235	2585	2846	3320	3754	4981	6233	7832
Useful head system side	kPa	66,0	65,0	54,0	82,0	76,0	63,0	49,0	65,0	124,0	93,0

(1) Data EN 14511:2018; System side water heat exchanger 23 °C/ 18 °C; External air 35 °C
(2) Data EN 14511:2018; System side water heat exchanger 30 °C / 35 °C; External air 7 °C d.b. / 6 °C w.b.

ENERGY DATA

Size			025	030	040	050	070	080	090	100	150	200
Cooling capacity with low leaving water temp (UE n° 2016/2281)												
SEER	°	W/W	2,93	3,27	3,32	3,45	3,43	3,27	3,39	4,06	4,06	3,66
	A,P	W/W	3,11	3,47	3,53	3,62	3,62	3,46	3,60	4,06	3,85	3,60
ηsc	°	%	114,20	127,60	129,60	134,80	134,00	127,80	132,40	159,20	159,20	143,40
	A,P	%	121,40	135,90	138,00	142,00	141,70	135,30	141,00	159,50	150,80	141,10
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)												
Pdesignh	°	kW	7	9	11	13	14	16	18	25	31	39
	A,P	kW	7	8	11	12	14	16	18	24	29	37
SCOP	°		3,35	3,35	3,45	3,58	3,45	3,53	3,30	3,53	3,35	3,23
	A,P		3,43	3,43	3,53	3,63	3,50	3,58	3,35	3,45	3,23	3,20
ηsh	°	%	131,00	131,00	135,00	140,00	135,00	138,00	129,00	138,00	131,00	126,00
	A,P	%	134,00	134,00	138,00	142,00	137,00	140,00	131,00	135,00	126,00	125,00
Efficiency energy class	°,A,P		A+	A+	A+	A+	A+	A+	A+	A+	A+	A+

(1) Efficiencies for low temperature applications (35 °C)

ELECTRIC DATA

Size			025	030	040	050	070	080	090	100	150	200
Power supply: °												
Electric data												
Maximum current (FLA)	°	A	11,0	11,9	11,9	13,5	14,7	15,2	20,4	27,0	30,3	40,8
	A,P	A	11,4	12,4	12,3	14,3	15,4	15,9	21,1	29,0	33,4	43,8
Peak current (LRA)	°	A	44,6	44,6	57,1	64,2	74,2	94,2	105,2	77,7	109,3	125,6
	A,P	A	45,0	45,0	57,6	64,9	74,9	94,9	105,9	79,6	112,4	128,6

Size			025	030	040	050	070	080	090	100	150	200
Power supply: M												
Electric data												
Maximum current (FLA)	°	A	19,0	24,0	24,0	-	-	-	-	-	-	-
	A,P	A	19,8	24,7	25,0	-	-	-	-	-	-	-
Peak current (LRA)	°	A	86,0	96,0	96,0	-	-	-	-	-	-	-
	A,P	A	87,1	96,5	97,1	-	-	-	-	-	-	-

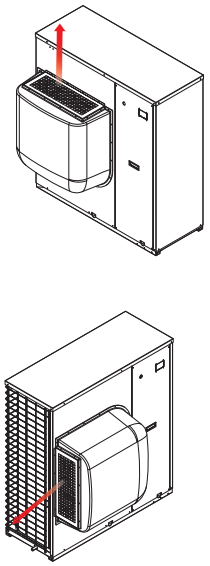
GENERAL TECHNICAL DATA

Size			025	030	040	050	070	080	090	100	150	200
Compressor												
Type	°,A,P	type	Scroll									
Compressor regulation	°,A,P	Type	On-off									
Number	°,A,P	no.	1	1	1	1	1	1	1	2	2	2
Circuits	°,A,P	no.	1	1	1	1	1	1	1	1	1	1
Refrigerant	°,A,P	type	R410A									
Refrigerant charge (1)	°,A,P	kg	2,7	2,7	4,3	5,6	5,6	5,6	5,7	8,3	8,0	7,5
System side heat exchanger												
Type	°,A,P	type	Brazed plate									
Number	°,A,P	no.	1	1	1	1	1	1	1	1	1	1
Hydraulic connections												
Connections (in/out)	°,A,P	Type	Gas - F									
Size (in)	°,A,P	Ø	1¼									
Size (out)	°,A,P	Ø	1¼									
Fan												
Type	°,A,P	type	Plug-fan									
Fan motor	°,A,P	type	Inverter									
Number	°,A,P	no.	1	1	1	1	1	1	1	2	2	2
Air flow rate	°,A,P	m^3/h	4000	4000	6500	6500	6500	6500	7500	10000	12000	16000
High static pressure	°,A,P	Pa	50	50	50	80	80	80	80	80	100	100
Machine body												
Sound power level	°,A,P	dB(A)	78,0	78,0	73,0	73,0	73,0	73,0	76,0	74,0	79,0	80,0
Sound pressure level in cooling mode (10 m)	°,A,P	dB(A)	46,0	46,0	41,0	41,0	41,0	41,0	44,0	42,0	47,0	48,0
Delivery unit												
Sound power level	°,A,P	dB(A)	78,0	78,0	78,0	78,0	78,0	78,0	81,0	78,0	83,0	85,0
Sound pressure level in cooling mode (10 m)	°,A,P	dB(A)	46,0	46,0	46,0	46,0	46,0	46,0	49,0	47,0	52,0	54,0

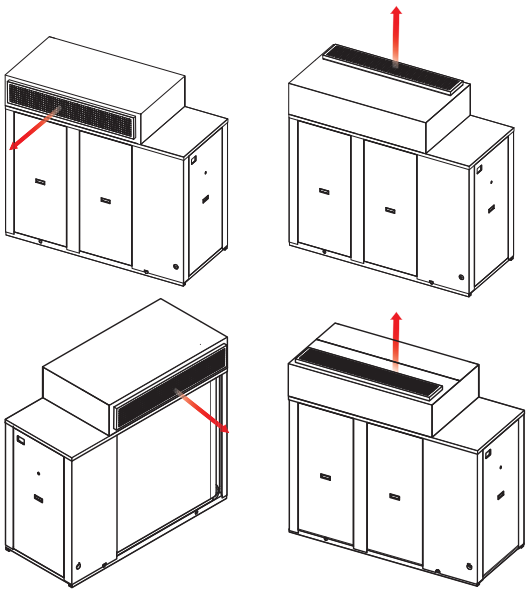
(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

DISCHARGE HOOD POSSIBLE CONFIGURATIONS

CL 025 ÷ 090



CL 100 ÷ 200

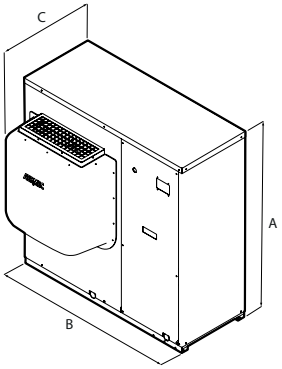


Air supply
Horizontal or vertical, adjustable during installation for all sizes.
Directional air discharge hood:

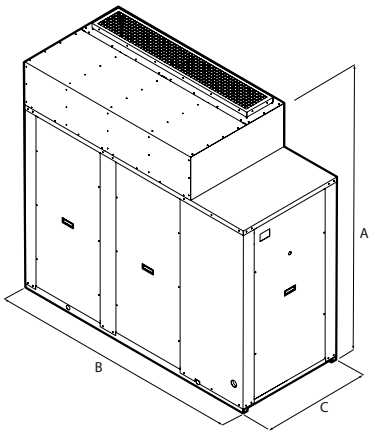
— plastic for sizes 050 to 090
— galvanised steel for the other sizes

DIMENSIONS

CL 025 ÷ 090



CL 100 ÷ 200



Size			025	030	040	050	070	080	090	100	150	200
Dimensions and weights												
A	°,A,P	mm	1028	1028	1281	1281	1281	1281	1281	1674	1674	1674
B	°,P	mm	1005	1005	1160	1160	1160	1160	1160	1897	1897	1897
	A	mm	1366	1366	1610	1610	1610	1610	1610	1897	1897	1897
C	°,A,P	mm	702	702	798	798	798	798	798	801	801	801
Empty weight	°	kg	142	142	229	229	240	240	234	504	527	515
	A	kg	172	172	274	274	284	284	279	567	593	581
	P	kg	148	148	239	239	250	250	243	517	543	531

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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NLC 0280 - 1250

Air-water chiller

Cooling capacity 53 ÷ 322 kW

- **High efficiency also at partial loads**
- **Complete air flow versatility**
- **EC fan Plug-fan with high performance**
- **Night mode**



DESCRIPTION

Chiller offering chilled/hot water, designed to mit air conditioning needs in residential / commercial complexes or industrial applications.
Indoor units with Scroll compressors, centrifugal fans and plate heat exchangers.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

° Standard
A High efficiency
E Silenced high efficiency

FEATURES

Operating field

Operation at full load up to 46°C external air temperature. Unit can produce chilled water up to -10°C.

Units mono or dual-circuit

The range includes units with 2 compressors in single circuit and units with 4 compressors divided into two independent circuits.

Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

EC fan plug-fan

The units are equipped with plug-fans and inverter motors coupled directly with the fan, with the electronic condensation control as standard, which adjusts the air flow according to the actual system requirements, with benefits in terms of consumption and noise reduction.
In addition, compared to conventional centrifugal fans, they do not feature belt and pulley transmission, resulting in easy flow adjustment, compactness, versatility, easy maintenance and no vibrations.

Version with Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations to obtain a solution that allows you to save money and to facilitate installation.

Hot water production

In the configuration with desuperheater or total recovery, it is also possible to produce free-hot water.

CONTROL PCO_5

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.

— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
— The temperature control takes place with the integral proportional logic, based on the water output temperature.
— **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
FL: Flow switch.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PGD1: Allows you to control the unit at a distance.
AVX: Spring anti-vibration supports.

VT: Anti-vibration supports.
FLG: Flange for ducts.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.
RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
KRQ: Electric heater for the control and electric power board.
KRA: Anti-freeze electric heater for the buffer tank.

C-TOUCH: 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

Model	Ver	0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
AER485P1	°,A,E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERBACP	°,A,E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERNET	°,A,E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FL	°,A,E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	°,A,E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PGD1	°,A,E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Model	Ver	0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
C-TOUCH	°,A,E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

FILTROW

Ver	0280	0300	0330	0350	0550	0600	0650	0675
°,A,E	FILTRO W DN50 (1)	FILTRO W DN50 (1)	FILTRO W DN50 (1)	FILTRO W DN50 (1)	FILTRO W DN65 (1)	FILTRO W DN65 (1)	FILTRO W DN65 (1)	FILTRO W DN65 (1)

(1) Installation is mandatory, contrarily garantee becomes void.

Ver	0700	0750	0800	0900	1000	1100	1250
°,A,E	FILTRO W DN65 (1)	FILTRO W DN65 (1)	FILTRO W DN80 (1)	FILTRO W DN80 (1)	FILTRO W DN80 (1)	FILTRO W DN80 (1)	FILTRO W DN80 (1)

(1) Installation is mandatory, contrarily garantee becomes void.

Flange for ducts

Ver	0280	0300	0330	0350	0550	0600	0650	0675
°	FLG1	FLG1	FLG1	FLG1	FLG1	FLG2 x 2 (1)	FLG2 x 2 (1)	FLG2 x 2 (1)
A,E	FLG1	FLG1	FLG1	FLG1	FLG2 x 2 (1)	FLG2 x 2 (1)	FLG2 x 2 (1)	FLG2 x 2 (1)

(1) x... indicates the quantity to buy.

Ver	0700	0750	0800	0900	1000	1100	1250
°	FLG1 x 2 (1)	FLG1 + FLG2 x 2 (1)	FLG2 x 4 (1)	FLG1 + FLG2 x 2 (1)	FLG2 x 4 (1)	FLG2 x 4 (1)	FLG2 x 4 (1)
A,E	FLG1 x 2 (1)	FLG1 + FLG2 x 2 (1)	FLG2 x 4 (1)	FLG2 x 4 (1)	FLG2 x 4 (1)	FLG2 x 4 (1)	FLG2 x 4 (1)

(1) x... indicates the quantity to buy.

Antivibration

Ver	0280	0300	0330	0350	0550	0600	0650	0675
Integrated hydronic kit: 00								
°,A,E	VT17	VT17	VT17	VT17	-	-	-	-
Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08								
°,A,E	VT11	VT11	VT11	VT11	-	-	-	-
Integrated hydronic kit: P1, P2, P3, P4, P5, P6, P7, P8								
°,A,E	VT13	VT13	VT13	VT13	-	-	-	-

The accessory cannot be fitted on the configurations indicated with -

Antivibration

Ver	0280	0300	0330	0350	0550	0600	0650	0675
Integrated hydronic kit: 00								
°	-	-	-	-	AVX437	AVX421	AVX421	AVX421
A,E	-	-	-	-	AVX421	AVX421	AVX421	AVX421
Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08								
°	-	-	-	-	AVX439	AVX423	AVX423	AVX423
A,E	-	-	-	-	AVX423	AVX423	AVX423	AVX423
Integrated hydronic kit: P1, P3, P5, P7								
°	-	-	-	-	AVX438	AVX421	AVX421	AVX421
A,E	-	-	-	-	AVX421	AVX421	AVX421	AVX421
Integrated hydronic kit: P2, P4, P6, P8								
°	-	-	-	-	AVX438	AVX422	AVX422	AVX422
A,E	-	-	-	-	AVX422	AVX422	AVX422	AVX422

The accessory cannot be fitted on the configurations indicated with -

Ver	0700	0750	0800	0900	1000	1100	1250
Integrated hydronic kit: 00							
°	AVX424	AVX440	AVX440	AVX444	AVX431	AVX431	AVX431
A,E	AVX424	AVX428	AVX431	AVX431	AVX431	AVX431	AVX431

Ver	0700	0750	0800	0900	1000	1100	1250
Integrated hydronic kit: 01, 03, 05, 07							
°	AVX427	AVX441	AVX441	AVX446	AVX435	AVX434	AVX434
A,E	AVX427	AVX430	AVX434	AVX434	AVX434	AVX434	AVX434
Integrated hydronic kit: 02, 04, 06, 08							
°	AVX427	AVX441	AVX441	AVX446	AVX435	AVX436	AVX436
A,E	AVX427	AVX430	AVX435	AVX435	AVX435	AVX436	AVX436
Integrated hydronic kit: P1, P3, P5, P7							
°	AVX425	AVX425	AVX442	AVX445	AVX432	AVX432	AVX432
A,E	AVX425	AVX429	AVX432	AVX432	AVX432	AVX432	AVX432
Integrated hydronic kit: P2, P4, P6, P8							
°	AVX426	AVX426	AVX443	AVX445	AVX433	AVX433	AVX433
A,E	AVX426	AVX429	AVX433	AVX433	AVX433	AVX433	AVX433

DRE: Device for peak current reduction

Ver	0280	0300	0330	0350	0550	0600	0650	0675
°,A,E	DRE275 (1)	DRE275 (1)	DRE300 (1)	DRE350 (1)	DRE552 (1)	DRE602 (1)	DRE652 (1)	DRE675 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
A grey background indicates the accessory must be assembled in the factory

Ver	0700	0750	0800	0900	1000	1100	1250
°,A,E	DRE350 x 2	DRE552 x 2	DRE552 x 2	DRE602 x 2	DRE652 x 2	DRE675 x 2	DRE1250 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
A grey background indicates the accessory must be assembled in the factory

Power factor correction

Ver	0280	0300	0330	0350	0550	0600	0650	0675
°,A,E	RIFNLC1	RIFNLC1	RIFNLC2	RIFNLC3	RIFNLC1	RIFNLC1	RIFNLC1	RIFNLC4

A grey background indicates the accessory must be assembled in the factory

Ver	0700	0750	0800	0900	1000	1100	1250
°,A,E	RIFNLC3 x 2 (1)	RIFNLC3 + RIFNLC2 (1)	RIFNLC1 x 2 (1)	RIFNLC1 x 2 (1)	RIFNLC1 x 2 (1)	RIFNLC4 x 2 (1)	RIFNLC3 x 2 (1)

(1) x... indicates the quantity to buy.
A grey background indicates the accessory must be assembled in the factory

Anti-condensate electric board resistance

Ver	0280	0300	0330	0350	0550	0600	0650	0675
°,A,E	KRQ	KRQ	KRQ	KRQ	KRQ	KRQ	KRQ	KRQ

A grey background indicates the accessory must be assembled in the factory

Ver	0700	0750	0800	0900	1000	1100	1250
°,A,E	KRQ	KRQ	KRQ	KRQ	KRQ	KRQ	KRQ

A grey background indicates the accessory must be assembled in the factory

Anti-freeze electric heater for the storage tank

Ver	0280	0300	0330	0350	0550	0600	0650	0675
Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08								
°,A,E	KRA1	KRA1	KRA1	KRA1	KRA2	KRA2	KRA2	KRA2
Integrated hydronic kit: P1, P2, P3, P4, P5, P6, P7, P8								
A,E	KRA1	KRA1	KRA1	KRA1	KRA2	KRA2	KRA2	KRA2

A grey background indicates the accessory must be assembled in the factory

Ver	0700	0750	0800	0900	1000	1100	1250
Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08							
°,A,E	KRA2	KRA2	KRA2	KRA2	KRA2	KRA2	KRA2
Integrated hydronic kit: P1, P2, P3, P4, P5, P6, P7, P8							
A,E	KRA2	KRA2	KRA2	KRA2	KRA2	KRA2	KRA2

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field		Description
1,2,3		**NLC**
4,5,6,7		**Size** 0280, 0300, 0330, 0350, 0550, 0600, 0650, 0675, 0700, 0750, 0800, 0900, 1000, 1100, 1250
8		**Operating field**
	°	Standard mechanic thermostatic valve (1)
	X	Electronic thermostatic expansion valve (1)
	Y	Low temperature mechanic thermostatic valve (2)
	Z	Low temperature electronic thermostatic valve (2)
9		**Model**
	°	Cooling only
	C	Motocondensing unit
10		**Heat recovery**
	°	Without heat recovery
	D	With desuperheater (3)
	T	With total recovery (4)
11		**Version**
	°	Standard
	A	High efficiency
	E	Silenced high efficiency
12		**Coils**
	°	Copper-aluminium
	R	Copper pipes-copper fins
	S	Copper pipes-Tinned copper fins
	V	Copper pieps-Coated aluminium fins
13		**Fans**
	J	Inverter
14		**Power supply (5)**
	°	400V ~ 3N 50Hz with magnet circuit breakers
15,16		**Integrated hydronic kit**
	00	Without hydronic kit
		Kit with storage tank and pump/s
	01	Storage tank with low head pump
	02	Storage tank with low head pump + stand-by pump
	03	Storage tank with high head pump
	04	Storage tank with high head pump + stand-by pump
		Kit with storage tank and inverter pump/s
	05	Storage tank with low-head inverter pump
	06	Storage tank with low head inverter pump + stand-by pump
	07	Storage tank with high head inverter pump
	08	Storage tank with high head inverter pump + stand-by pump
		Kit with pump/s
	P1	Single pump low head
	P2	Pump low head + stand-by pump
	P3	Single pump high head
	P4	Pump high head + stand-by pump
		Kit with pump/s, with inverter speed
	P5	Single low head pump + fixed speed inverter (6)
	P6	Single low head pump with fixed speed inverter + stand-by pump (6)
	P7	Single high head pump + fixed speed inverter (6)
	P8	Single high head pump with fixed speed inverter + stand-by pump (6)

(1) Water produced from 4 °C ÷ 18 °C
(2) Water produced from 4 °C ÷ -10 °C
(3) The temperature of the water in the heat exchanger inlet must never drop below 35°C.
(4) Options not available for standard unit "°", condensing unit and with alls hydronic kit.
(5) Witout neuter from size 0800 to 1250
(6) The speed of the inverter pump must be set upon commissioning, according to the useful static pressure required; once it has been set, the pump will work at a constant flow rate.

PERFORMANCE SPECIFICATIONS

NLC - °

Size		0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
Cooling performance 12 °C / 7 °C (1)																
Cooling capacity	kW	52,1	57,1	62,8	75,4	94,2	112,0	123,0	137,4	151,4	170,2	189,7	220,2	242,6	277,4	306,7
Input power	kW	20,4	23,4	24,3	28,9	39,3	44,3	50,1	53,7	58,6	66,6	79,0	86,4	99,8	107,6	121,3
Cooling total input current	A	38,0	42,0	46,0	57,0	68,0	77,0	85,0	92,0	113,0	121,0	136,0	148,0	169,0	181,0	208,0
EER	W/W	2,56	2,44	2,59	2,61	2,40	2,53	2,45	2,56	2,58	2,56	2,40	2,55	2,43	2,58	2,53
Water flow rate system side	l/h	8969	9828	10807	12972	16236	19277	21167	23676	26081	29294	32644	37884	41733	47712	52763
Pressure drop system side	kPa	19	22	28	27	43	27	31	43	37	30	38	35	35	41	48

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

NLC - A

Size		0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
Cooling performance 12 °C / 7 °C (1)																
Cooling capacity	kW	54,0	59,4	66,9	78,6	106,3	119,5	129,2	146,3	157,4	177,9	209,7	233,2	257,6	290,6	319,2
Input power	kW	19,5	21,5	23,4	27,7	37,7	42,9	45,0	52,4	55,3	60,3	75,4	84,8	89,6	105,7	115,9
Cooling total input current	A	36,0	40,0	43,0	54,0	63,0	71,0	73,0	87,0	107,0	113,0	126,0	139,0	146,0	173,0	198,0
EER	W/W	2,77	2,76	2,85	2,84	2,82	2,78	2,87	2,79	2,85	2,95	2,78	2,75	2,88	2,75	2,75
Water flow rate system side	l/h	9295	10223	11511	13539	18298	20566	22250	25188	27095	30617	36080	40118	44310	49980	54911
Pressure drop system side	kPa	20	24	22	30	25	30	36	36	25	25	33	33	35	37	43

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

NLC - E

Size		0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
Cooling performance 12 °C / 7 °C (1)																
Cooling capacity	kW	52,2	58,0	64,2	73,4	102,9	115,6	124,5	142,6	151,1	171,3	201,2	224,8	248,0	282,8	310,6
Input power	kW	19,3	21,5	23,7	27,4	37,6	42,7	45,9	52,5	55,4	60,1	74,9	85,2	90,6	105,8	116,0
Cooling total input current	A	36,0	39,0	43,0	53,0	62,0	69,0	73,0	85,0	106,0	112,0	123,0	138,0	146,0	170,0	197,0
EER	W/W	2,70	2,70	2,71	2,67	2,74	2,71	2,71	2,72	2,73	2,85	2,69	2,64	2,74	2,67	2,68
Water flow rate system side	l/h	8986	9982	11047	12628	17714	19896	21442	24552	25995	29483	34637	38675	42661	48640	53433
Pressure drop system side	kPa	19	23	20	26	23	29	34	34	23	24	31	30	33	35	41

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

ENERGY INDICES (REG. 2016/2281 EU)

Size			0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
SEER - 12/7 (EN14825:2018) with standard fans (1)																	
	°	W/W	5,33	5,02	4,92	4,97	4,25	4,87	4,57	4,73	4,28	4,15	4,10	4,12	4,10	4,15	4,10
SEER	A	W/W	5,79	5,77	5,33	5,34	5,24	5,33	5,15	5,03	4,75	4,93	4,55	4,46	4,63	4,42	4,35
	E	W/W	4,83	4,98	4,74	4,80	4,58	4,70	4,53	4,55	4,48	4,63	4,19	4,14	4,31	4,19	4,12
	°	%	210,3%	197,8%	193,9%	195,8%	167,1%	191,6%	179,6%	186,0%	168,2%	162,8%	161,0%	161,9%	161,1%	163,1%	161,0%
Seasonal efficiency	A	%	228,6%	227,6%	210,2%	210,4%	206,7%	210,1%	202,9%	198,3%	186,9%	194,0%	178,8%	175,5%	182,3%	173,9%	171,1%
	E	%	190,3%	196,0%	186,7%	189,0%	180,1%	185,0%	178,3%	179,1%	176,2%	182,1%	164,6%	162,7%	169,2%	164,4%	161,9%
SEER - 23/18 (EN14825: 2018) with standard fans (2)																	
	°	W/W	6,25	5,89	5,79	5,84	5,02	5,72	5,37	5,58	5,08	4,91	4,86	4,90	4,86	4,93	4,87
SEER	A	W/W	6,84	6,82	6,27	6,27	6,17	6,27	6,07	5,93	5,62	5,84	5,39	5,29	5,49	5,25	5,16
	E	W/W	5,68	5,85	5,58	5,64	5,39	5,54	5,35	5,37	5,29	5,46	4,96	4,90	5,10	4,95	4,88
	°	%	246,8%	232,5%	228,5%	230,5%	197,7%	225,8%	211,9%	220,1%	200,0%	193,4%	191,4%	192,8%	191,5%	194,1%	191,6%
Seasonal efficiency	A	%	270,6%	269,7%	247,6%	247,7%	243,6%	247,8%	239,8%	234,3%	221,8%	230,4%	212,4%	208,5%	216,6%	206,9%	203,5%
	E	%	224,2%	230,8%	220,3%	222,7%	212,7%	218,4%	211,0%	211,8%	208,6%	215,5%	195,3%	193,0%	200,9%	195,0%	192,0%
SEPR - (EN14825: 2018) High temperature with standard fans (2)																	
	°	W/W	6,54	6,22	6,12	6,02	5,18	5,73	5,32	5,70	5,45	5,08	5,04	5,25	5,04	5,07	5,03
SEPR	A	W/W	6,87	6,88	6,44	6,47	6,21	6,35	5,98	5,90	5,94	6,32	5,65	5,40	5,72	5,41	5,39
	E	W/W	5,91	5,92	5,65	5,55	5,14	5,36	5,03	5,15	5,12	5,48	5,09	5,01	5,09	5,05	5,03

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

Size			0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
Electric data																	
Maximum current (FLA)	°	A	52,0	56,0	62,0	73,0	103,0	111,0	119,0	132,0	146,0	169,0	206,0	222,0	238,0	263,0	289,0
	A,E	A	52,0	56,0	62,0	73,0	92,0	111,0	119,0	132,0	146,0	158,0	183,0	210,0	238,0	263,0	289,0
Peak current (LRA)	°	A	128,0	130,0	133,0	216,0	261,0	273,0	281,0	358,0	290,0	346,0	353,0	372,0	400,0	489,0	515,0
	A,E	A	128,0	130,0	133,0	216,0	273,0	273,0	281,0	358,0	290,0	357,0	376,0	384,0	400,0	489,0	515,0

GENERAL TECHNICAL DATA

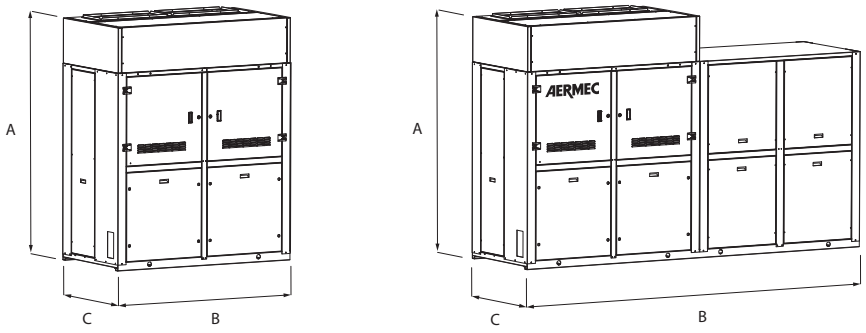
Size			0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
Compressor																	
Type	°,A,E	type								Scroll							
Compressor regulation	°,A,E	Type								On-Off							
Number	°,A,E	no.	2	2	2	2	2	2	2	2	4	4	4	4	4	4	4
Circuits	°,A,E	no.	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2
Refrigerant	°,A,E	type								R410A							
Refrigerant load circuit 1 (1)	°	kg	7,0	7,0	8,5	9,0	13,7	15,0	18,0	19,0	9,5	8,3	13,8	13,5	15,0	19,1	19,1
	A	kg	8,7	8,5	9,5	10,0	18,0	18,7	22,0	22,0	10,7	9,5	18,7	19,5	22,0	22,0	22,0
	E	kg	8,7	8,5	9,5	10,0	18,0	18,7	21,0	21,5	10,7	9,5	18,7	19,0	21,1	22,0	22,0
Refrigerant load circuit 2 (1)	°	kg	-	-	-	-	-	-	-	-	9,5	12,3	13,8	13,5	15,0	19,1	19,1
	A	kg	-	-	-	-	-	-	-	-	10,7	17,0	18,7	19,5	22,0	22,0	22,0
	E	kg	-	-	-	-	-	-	-	-	10,7	17,0	18,7	19,0	20,6	22,0	22,0
System side heat exchanger																	
Type	°,A,E	type								Brazed plate							
Number	°,A,E	no.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

Size			0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
Integrated hydronic kit: 00																	
System side hydraulic connections																	
Connections (in/out)	°,A,E	Type								Grooved joints							
Sizes (in/out)	°	Ø	2″	2″	2″	2″	2″	2″1/2	2″1/2	2″1/2	2″1/2	2″1/2	3″	3″	3″	3″	3″
	A,E	Ø	2″	2″	2″	2″	2″1/2	2″1/2	2″1/2	2″1/2	2″1/2	2″1/2	3″	3″	3″	3″	3″
Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08, P1, P2, P3, P4, P5, P6, P7, P8																	
System side hydraulic connections																	
Connections (in/out)	°,A,E	Type								Grooved joints							
Sizes (in/out)	°,A,E	Ø	2″	2″	2″	2″	2″1/2	2″1/2	2″1/2	2″1/2	2″1/2	2″1/2	3″	3″	3″	3″	3″

Size			0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
Fan																	
Type	°,A,E	type								Plug-fun							
Fan motor	°,A,E	type								EC Inverter motors							
Number	°	no.	2	2	2	2	2	4	4	4	4	4	4	6	8	8	8
	A,E	no.	2	2	2	2	4	4	4	4	4	6	8	8	8	8	8
Air flow rate	°	m^3/h	21600	24000	21150	23600	23200	34050	34050	38200	47150	46750	46350	62150	68100	66650	71750
	A	m^3/h	21150	23600	19400	22050	27700	33350	27150	32750	44050	57900	55350	55350	54300	65450	65450
	E	m^3/h	15000	18400	14650	16450	14900	22200	14600	21750	32900	41900	29850	29850	29200	43500	43500
Sound power level (expulsion)																	
Sound power level	°	dB(A)	83,3	85,6	82,9	85,4	87,5	83,9	83,9	86,1	88,4	89,6	90,5	86,9	86,9	89,1	89,1
	A	dB(A)	83,6	86,1	81,9	84,5	82,9	85,2	82,9	85,1	87,5	85,8	85,9	88,2	85,9	88,1	88,1
	E	dB(A)	76,7	80,1	76,5	78,3	75,2	78,5	75,2	78,4	81,3	80,0	78,2	81,5	78,2	81,4	81,4
Sound power level (intake + machine body)																	
Sound power level	°	dB(A)	80,1	79,2	81,0	83,8	86,4	84,8	85,6	83,9	85,1	86,7	87,7	87,2	89,3	89,3	-
	A	dB(A)	78,7	80,1	80,0	81,2	86,1	87,4	86,1	87,1	84,0	86,5	89,1	92,5	89,1	90,1	90,4
	E	dB(A)	76,8	76,7	78,6	79,2	84,2	85,1	84,1	84,7	81,0	82,4	86,2	89,7	86,2	86,6	86,8

DIMENSIONS



Size			0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
Dimensions and weights																	
A	°,A,E	mm	2154	2154	2154	2154	2196	2196	2196	2196	2196	2196	2196	2196	2196	2196	2196
B	°	mm	1750	1750	1750	1750	1750	3150	3150	3150	3500	3500	3500	4900	6300	6300	6300
	A,E	mm	1750	1750	1750	1750	3150	3150	3150	3150	3500	4900	6300	6300	6300	6300	6300
C	°,A,E	mm	950	950	950	950	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
Empty weight	°	kg	759	759	787	798	994	1409	1415	1450	1510	1682	1858	2294	2692	2775	2789
	A,E	kg	775	775	809	813	1432	1436	1470	1485	1553	2156	2728	2744	2818	2844	2858
Dimensions and weights with pump/s																	
A	°,A,E	mm	2154	2154	2154	2154	2196	2196	2196	2196	2196	2196	2196	2196	2196	2196	2196
B	°	mm	2500	2500	2500	2500	2500	3150	3150	3150	4250	4250	4250	4900	6300	6300	6300
	A,E	mm	2500	2500	2500	2500	3150	3150	3150	3150	4250	4900	6300	6300	6300	6300	6300
C	°,A,E	mm	950	950	950	950	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
Dimensions and weights with storage tank and pump/s																	
A	°,A,E	mm	2154	2154	2154	2154	2196	2196	2196	2196	2196	2196	2196	2196	2196	2196	2196
B	°	mm	3400	3400	3400	3400	3500	4150	4150	4150	5250	5250	5250	5900	7300	7300	7300
	A,E	mm	3400	3400	3400	3400	4150	4150	4150	4150	5250	5900	7300	7300	7300	7300	7300
C	°,A,E	mm	950	950	950	950	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100

Aermec reserves the right to make any modifications deemed necessary.
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responsibility or liability for errors or omissions.

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NLC 0280H - 1250H

Reversible air/water heat pump

Cooling capacity 53 ÷ 322 kW
Heating capacity 55 ÷ 342 kW

- **High efficiency also at partial loads**
- **Complete air flow versatility**
- **EC fan Plug-fan with high performance**
- **Night mode**



DESCRIPTION

Reversible heat pumps for the production of chilled/heated water designed to satisfy the needs of residential and commercial buildings, or for industrial applications.
Indoor units with Scroll compressors, centrifugal fans and plate heat exchangers.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

A High efficiency
E Silenced high efficiency

FEATURES

Operating field

Work up to 44°C of outdoor air temperature at full load, depending on size and version. For further details refer to the selection software / technical documentation.

Units mono or dual-circuit

The range includes units with 2 compressors in single circuit and units with 4 compressors divided into two independent circuits.

Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

EC fan plug-fan

The units are equipped with plug-fans and inverter motors coupled directly with the fan, with the electronic condensation control as standard, which adjusts the air flow according to the actual system requirements, with benefits in terms of consumption and noise reduction.
In addition, compared to conventional centrifugal fans, they do not feature belt and pulley transmission, resulting in easy flow adjustment, compactness, versatility, easy maintenance and no vibrations.

Version with Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations to obtain a solution that allows you to save money and to facilitate installation.

CONTROL PCO_5

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
FL: Flow switch.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PGD1: Allows you to control the unit at a distance.
AVX: Spring anti-vibration supports.
VT: Anti-vibration supports.
FLG: Flange for ducts.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.
RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
KRB: Electric anti-freeze resistance kit for base.
KRQ: Electric heater for the control and electric power board.
KRA: Anti-freeze electric heater for the buffer tank.

C-TOUCH: 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

Model	Ver	0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
AER485P1	A,E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERBACP	A,E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERNET	A,E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FL	A,E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	A,E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PGD1	A,E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Water filter

Ver	0280	0300	0330	0350	0550	0600	0650	0675
A,E	FILTRO W DN50 (1)	FILTRO W DN50 (1)	FILTRO W DN50 (1)	FILTRO W DN50 (1)	FILTRO W DN65 (1)	FILTRO W DN65 (1)	FILTRO W DN65 (1)	FILTRO W DN65 (1)

(1) Installation is mandatory, contrarily garantee becomes void.

Ver	0700	0750	0800	0900	1000	1100	1250
A,E	FILTRO W DN80 (1)	FILTRO W DN80 (1)	FILTRO W DN80 (1)	FILTRO W DN80 (1)	FILTRO W DN80 (1)	FILTRO W DN80 (1)	FILTRO W DN80 (1)

(1) Installation is mandatory, contrarily garantee becomes void.

Flange for ducts

Ver	0280	0300	0330	0350	0550	0600	0650	0675
A,E	FLG1	FLG1	FLG1	FLG1	FLG2	FLG2	FLG2	FLG2

Ver	0700	0750	0800	0900	1000	1100	1250
A,E	FLG1 x 2 (1)	FLG1 + FLG2 (1)	FLG2 x 2 (1)	FLG2 x 2 (1)	FLG2 x 2 (1)	FLG2 x 2 (1)	FLG2 x 2 (1)

(1) x... indicates the quantity to buy.

Antivibration

Ver	0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
Integrated hydronic kit: 00															
A,E	VT17	VT17	VT17	VT17	-	-	-	-	-	-	-	-	-	-	-
Integrated hydronic kit: 01, 02, 03, 04, 05, 06, 07, 08															
A,E	VT11	VT11	VT11	VT11	-	-	-	-	-	-	-	-	-	-	-
Integrated hydronic kit: P1, P2, P3, P4, P5, P6, P7, P8															
A,E	VT13	VT13	VT13	VT13	-	-	-	-	-	-	-	-	-	-	-

The accessory cannot be fitted on the configurations indicated with -

Antivibration

Ver	0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
Integrated hydronic kit: 00															
A,E	-	-	-	-	AVX410	AVX410	AVX410	AVX410	AVX410	AVX416	AVX418	AVX418	AVX420	AVX420	AVX420
Integrated hydronic kit: 01, 02, 03, 04															
A,E	-	-	-	-	AVX412	AVX412	AVX412	AVX412	AVX415	AVX417	AVX419	AVX419	AVX419	AVX419	AVX419
Integrated hydronic kit: 05, 06, 07, 08															
A	-	-	-	-	AVX423	AVX412	AVX412	AVX412	AVX415	AVX417	AVX419	AVX419	AVX419	AVX419	AVX419
E	-	-	-	-	AVX412	AVX412	AVX412	AVX412	AVX415	AVX417	AVX419	AVX419	AVX419	AVX419	AVX419
Integrated hydronic kit: P1, P3, P5, P7															
A,E	-	-	-	-	AVX410	AVX410	AVX410	AVX410	AVX413	AVX416	AVX418	AVX418	AVX420	AVX420	AVX420
Integrated hydronic kit: P2, P4, P6, P8															
A,E	-	-	-	-	AVX411	AVX411	AVX411	AVX411	AVX414	AVX416	AVX418	AVX418	AVX420	AVX420	AVX420

The accessory cannot be fitted on the configurations indicated with -

DRE: Device for peak current reduction

Ver	0280	0300	0330	0350	0550	0600	0650	0675
A,E	DRE275 (1)	DRE275 (1)	DRE300 (1)	DRE350 (1)	DRE552 (1)	DRE602 (1)	DRE652 (1)	DRE675 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
A grey background indicates the accessory must be assembled in the factory

Ver	0700	0750	0800	0900	1000	1100	1250
A,E	DRE350 x 2	DRE552 x 2	DRE552 x 2	DRE602 x 2	DRE652 x 2	DRE675 x 2	DRE1250 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
A grey background indicates the accessory must be assembled in the factory

Power factor correction

Ver	0280	0300	0330	0350	0550	0600	0650	0675
A,E	RIFNLC1	RIFNLC1	RIFNLC2	RIFNLC3	RIFNLC1	RIFNLC1	RIFNLC1	RIFNLC4

A grey background indicates the accessory must be assembled in the factory

Ver	0700	0750	0800	0900	1000	1100	1250
A,E	RIFNLC3 x 2 (1)	RIFNLC3 + RIFNLC2 (1)	RIFNLC1 x 2 (1)	RIFNLC1 x 2 (1)	RIFNLC1 x 2 (1)	RIFNLC4 x 2 (1)	RIFNLC3 x 2 (1)

(1) x... indicates the quantity to buy.
A grey background indicates the accessory must be assembled in the factory

Anti-condensate electric board resistance

Ver	0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
A,E	KRQ	KRQ	KRQ	KRQ	KRQ	KRQ	KRQ	KRQ	KRQ	KRQ	KRQ	KRQ	KRQ	KRQ	KRQ

A grey background indicates the accessory must be assembled in the factory

Anti-freeze electric heater for the storage tank

Ver	0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
A,E	KRA1	KRA1	KRA1	KRA1	KRA2	KRA2	KRA2	KRA2	KRA2	KRA2	KRA2	KRA2	KRA2	KRA2	KRA2

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3	**NLC**
4,5,6,7	**Size** 0280, 0300, 0330, 0350, 0550, 0600, 0650, 0675, 0700, 0750, 0800, 0900, 1000, 1100, 1250
8	**Operating field (1)**
°	Standard mechanic thermostatic valve
X	Electronic thermostatic expansion valve
9	**Model**
H	Heat pump
10	**Heat recovery**
°	Without heat recovery
D	With desuperheater (2)
11	**Version**
A	High efficiency
E	Silenced high efficiency
12	**Coils**
°	Copper-aluminium
R	Copper pipes-copper fins
S	Copper pipes-Tinned copper fins
V	Copper pieps-Coated aluminium fins
13	**Fans**
J	Inverter
14	**Power supply**
°	400V ~ 3N 50Hz with magnet circuit breakers
15,16	**Integrated hydronic kit**

Field	Description
00	Without hydronic kit
	Kit with storage tank and pump/s
01	Storage tank with low head pump
02	Storage tank with low head pump + stand-by pump
03	Storage tank with high head pump
04	Storage tank with high head pump + stand-by pump
	Kit with storage tank and inverter pump/s
05	Storage tank with low-head inverter pump
06	Storage tank with low head inverter pump + stand-by pump
07	Storage tank with high head inverter pump
08	Storage tank with high head inverter pump + stand-by pump
	Kit with pump/s
P1	Single pump low head
P2	Pump low head + stand-by pump
P3	Single pump high head
P4	Pump high head + stand-by pump
	Kit with pump/s, with inverter speed
P5	Single low head pump + fixed speed inverter (3)
P6	Single low head pump with fixed speed inverter + stand-by pump (3)
P7	Single high head pump + fixed speed inverter (3)
P8	Single high head pump with fixed speed inverter + stand-by pump (3)

(1) Water produced from 4 °C ÷ 18 °C
(2) The desuperheater must be intercepted in heating mode. In cooling mode, a water temperature no lower than 35°C must always be guaranteed on the heat exchanger inlet.
(3) The speed of the inverter pump must be set upon commissioning, according to the useful static pressure required; once it has been set, the pump will work at a constant flow rate.

PERFORMANCE SPECIFICATIONS

NLC - HA / HE

Size				0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
Cooling performance 12 °C / 7 °C (1)																		
Cooling capacity	A	kW		54,4	60,4	66,7	78,6	102,5	115,3	126,0	143,4	158,1	181,1	202,0	232,5	252,7	287,1	316,5
	E	kW		52,1	58,2	63,5	75,0	97,8	110,6	118,5	136,8	150,2	172,1	192,7	223,8	242,2	273,7	305,0
Input power	A	kW		20,0	22,5	24,4	28,6	37,7	43,4	46,9	54,6	57,4	66,3	74,7	87,1	93,6	108,9	127,4
	E	kW		20,4	23,0	25,5	29,4	40,1	46,0	49,1	56,5	58,8	67,2	79,8	90,2	97,1	112,6	128,0
Cooling total input current	A	A		36,0	41,0	45,0	56,0	68,0	77,0	81,0	96,0	112,0	121,0	136,0	155,0	162,0	192,0	219,0
	E	A		36,0	40,0	45,0	55,0	69,0	77,0	83,0	95,0	111,0	121,0	139,0	153,0	166,0	191,0	218,0
EER	A	W/W		2,72	2,69	2,73	2,75	2,72	2,66	2,69	2,63	2,75	2,73	2,70	2,67	2,70	2,64	2,48
	E	W/W		2,55	2,53	2,49	2,55	2,44	2,40	2,41	2,42	2,55	2,56	2,42	2,48	2,49	2,43	2,38
Water flow rate system side	A	l/h		9368	10396	11480	13535	17638	19855	21700	24691	27213	31158	34751	40001	43480	49382	54436
	E	l/h		8967	10021	10934	12905	16829	19040	20401	23542	25847	29620	33162	38500	41662	47091	52474
Pressure drop system side	A	kPa		21	25	23	30	24	29	35	35	26	25	34	34	36	38	44
	E	kPa		20	24	20	27	20	25	29	30	24	25	33	35	38	42	53
Heating performance 40 °C / 45 °C (2)																		
Heating capacity	A,E	kW		56,4	63,5	70,7	82,6	109,8	122,4	137,1	156,5	168,5	193,6	218,3	244,7	273,4	312,4	348,1
Input power	A,E	kW		19,1	21,9	24,0	27,8	37,0	41,5	46,4	53,7	55,9	65,1	73,6	82,9	91,5	105,2	118,1
Heating total input current	A,E	A		36,0	40,0	44,0	54,0	65,0	74,0	78,0	91,0	105,0	114,0	129,0	145,0	153,0	179,0	199,0
COP	A,E	W/W		2,95	2,90	2,95	2,97	2,97	2,95	2,95	2,91	3,01	2,97	2,97	2,95	2,99	2,97	2,95
Water flow rate system side	A,E	l/h		9781	11023	12266	14321	19050	21235	23760	27154	29225	33591	37889	42470	47456	54236	60425
Pressure drop system side	A,E	kPa		22	27	25	32	27	32	40	41	29	28	38	37	41	43	52

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ENERGY DATA

Size			0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
Cooling capacity with low leaving water temp (UE n° 2016/2281)																	
SEER	A	W/W	4,48	4,50	4,52	4,71	4,89	4,74	4,65	4,52	4,38	4,33	4,51	4,47	4,36	4,29	4,08
	E	W/W	4,16	4,16	4,08	4,50	4,29	4,23	4,29	4,22	4,20	4,14	3,98	4,21	4,13	3,99	3,86
ηsc	A	%	176,10	177,10	177,80	185,20	192,50	186,40	183,10	177,70	172,20	170,30	177,50	175,80	171,40	168,70	160,00
	E	%	163,20	163,50	160,30	177,10	168,50	166,00	168,40	165,90	165,00	162,60	156,20	165,30	162,20	156,40	151,40
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (1)																	
Pdesignh	A,E	kW	52	59	66	-	-	-	-	-	-	-	-	-	-	-	-
SCOP	A,E		3,28	3,20	3,28	-	-	-	-	-	-	-	-	-	-	-	-
ηsh	A,E	%	128,00	125,00	128,00	-	-	-	-	-	-	-	-	-	-	-	-
Efficiency energy class	A,E		A+	A+	A+	-	-	-	-	-	-	-	-	-	-	-	-

(1) Efficiencies for low temperature applications (35 °C)

ELECTRICAL DATA

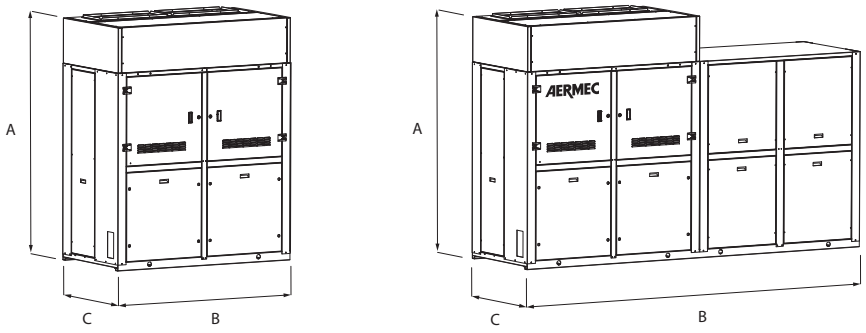
Size			0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
Electric data																	
Maximum current (FLA)	A,E	A	52,2	55,6	62,0	71,4	103,0	110,9	118,8	131,8	142,8	167,1	206,0	221,8	237,6	263,6	289,6
Peak current (LRA)	A,E	A	127,9	129,6	132,8	215,4	272,9	272,9	280,8	357,8	286,8	355,6	375,9	383,8	399,6	489,6	515,6

GENERAL TECHNICAL DATA

Size			0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
Compressor																	
Type	A,E	type	Scroll														
Compressor regulation	A,E	Type	On-Off														
Number	A,E	no.	2	2	2	2	2	2	2	2	4	4	4	4	4	4	4
Circuits	A,E	no.	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2
Refrigerant	A,E	type	R410A														
Refrigerant charge (1)	A,E	kg	9,2	9,5	11,0	11,0	18,5	20,0	25,0	25,0	23,0	32,0	42,0	42,0	50,0	50,0	50,0
System side heat exchanger																	
Type	A,E	type	Brazed plate														
Number	A,E	no.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Hydraulic connections																	
Connections (in/out)	A,E	Type	Grooved joints														
Sizes (in/out)	A,E	Ø	2"	2"	2"	2"	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	3"	3"	3"	3"	3"
Fan																	
Type	A,E	type	Plug-fun														
Fan motor	A,E	type	EC Inverter motors														
Number	A,E	no.	2	2	2	2	4	4	4	4	4	6	8	8	8	8	8
Air flow rate	A	m^3/h	23000	26500	25000	27500	42000	47000	44000	50000	53000	64500	84000	94000	88400	102000	102000
	E	m^3/h	17000	19800	17200	20600	30000	35000	31400	38200	41000	48900	60000	70800	64000	77600	88000
High static pressure	A,E	Pa	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
Sound data calculated in cooling mode (2)																	
Sound power level	A	dB(A)	84,1	87,9	86,3	88,9	85,2	87,9	86,4	89,5	91,9	86,7	88,2	90,9	89,4	92,5	92,5
	E	dB(A)	77,3	80,5	77,6	81,5	78,5	81,3	79,4	83,2	84,5	79,4	81,5	84,3	82,4	86,2	86,2
Sound pressure level (10 m)	A	dB(A)	52,4	56,1	54,6	57,1	53,3	56,0	54,5	57,5	59,9	54,5	55,9	58,6	57,1	60,2	60,2
	E	dB(A)	45,5	48,7	45,8	49,7	46,6	49,4	47,5	51,3	52,5	47,3	49,2	52,0	50,1	53,9	53,9

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size			0280	0300	0330	0350	0550	0600	0650	0675	0700	0750	0800	0900	1000	1100	1250
Dimensions and weights																	
A	A,E	mm	2154	2154	2154	2154	2196	2196	2196	2196	2196	2196	2196	2196	2196	2196	2196
B	A,E	mm	1750	1750	1750	1750	3150	3150	3150	3150	3500	4900	6300	6300	6300	6300	6300
C	A,E	mm	950	950	950	950	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
Empty weight	A,E	kg	790	790	828	832	1452	1456	1492	1507	1586	2194	2768	2783	2863	2889	2903
Dimensions and weights with pump/s																	
A	A,E	mm	2154	2154	2154	2154	2196	2196	2196	2196	2196	2196	2196	2196	2196	2196	2196
B	A,E	mm	2500	2500	2500	2500	3150	3150	3150	3150	4250	4900	6300	6300	6300	6300	6300
C	A,E	mm	950	950	950	950	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
Dimensions and weights with storage tank and pump/s																	
A	A,E	mm	2154	2154	2154	2154	2196	2196	2196	2196	2196	2196	2196	2196	2196	2196	2196
B	A,E	mm	3400	3400	3400	3400	4150	4150	4150	4150	5250	5900	7300	7300	7300	7300	7300
C	A,E	mm	950	950	950	950	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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NSM 1402-9603

Air-water chiller

Cooling capacity 302 ÷ 2100 kW

- **Microchannel coil**
- **Night mode**
- **Operation up to 50 °C outdoor air**
- **HP floating: ESEER +5% with inverter fans**



EUROVENT LCP

DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications.
Outdoor units with high-efficiency screw compressors axial fans, microchannel external coils and plant side shell and tube heat exchanger. In the unit with desuperheater, it is also possible to produce free-hot water.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

° Standard
A High efficiency
E Silenced high efficiency
L Standard silenced
N Silenced very high efficiency
U Very high efficiency

FEATURES

Operating field

Operation at full load up to 50 °C external air temperature depending on the size and vesion. For more information refer to the dedicated documentations or the selection program Magellano.

Unit with 2/3 cooling circuits

Unit with 2/3 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.

Aluminium microchannel coils

The microchannel condensing aluminum coils ensure high levels of efficiency, reduced quantities of refrigerant and lower unit weight. The treatment "O" available as configurator it ensures high resistance to corrosion even in the most aggressive environments.

Inverter fans

Standard inverter fans for sizes and versions (°) from 2002 to 9603, optional for other sizes and versions. Option for all configurations.

Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

As standard from size 5202÷6402 and 8403÷9603, optional for all other sizes.

Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations with one or two pumps, high or low head, to obtain a solution that allows you to save money and to facilitate installation.

CONTROL

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.

— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
— The temperature control takes place with the integral proportional logic, based on the water output temperature.
— **Floating HP control:** available for all models with inverter fans or with DCPX. Allows, with continuous fan modulation, to optimize the operation of the unit in any operating point, ensuring an increase in the energy efficiency at partial load. **ESEER up to +5% with inverter fans**
— **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load. **Night Mode for standard versions is mandatory DCPX accessory (standard on all low noise versions) or "J" inverter fan**

ACCESSORIES

AER485P1 x n° 2: RS-485 interface for supervision systems with MODBUS protocol.
AER485P1 x n° 3: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PRV3: Allows you to control the chiller at a distance.
DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.
AVX: Spring anti-vibration supports.

FACTORY FITTED ACCESSORIES

RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
GP_: Anti-intrusion grid kit
KRS: Electric heater for the heat exchanger

ACCESSORIES COMPATIBILITY

Model	Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
AER485P1 x n° 2 (1)	°,A,E,L,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERBACP	°,A,E,L,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERNET	°,A,E,L,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	°,A,E,L,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PRV3	°,A,E,L,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Model	Ver	4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
AER485P1 x n° 2 (1)	°,A,E,L,N,U	•	•	•	•	•	•	•						
AER485P1 x n° 3 (1)	°,A,L								•	•	•	•	•	•
	E,U								•	•	•	•		
	N								•					
AERBACP	°,A,L	•	•	•	•	•	•	•	•	•	•	•	•	•
	E,U	•	•	•	•	•	•	•	•	•	•	•		
	N	•	•	•	•	•	•	•	•					
AERNET	°,A,L	•	•	•	•	•	•	•	•	•	•	•	•	•
	E,U	•	•	•	•	•	•	•	•	•	•	•		
	N	•	•	•	•	•	•	•	•					
MULTICHILLER_EVO	°,A,L	•	•	•	•	•	•	•	•	•	•	•	•	•
	E,U	•	•	•	•	•	•	•	•	•	•	•		
	N	•	•	•	•	•	•	•	•					
PRV3	°,A,L	•	•	•	•	•	•	•	•	•	•	•	•	•
	E,U	•	•	•	•	•	•	•	•	•	•	•		
	N	•	•	•	•	•	•	•	•					

(1) x Indicates the quantity of accessories to match.

Condensation control temperature

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002
Fans: °										
°	DCPX100	DCPX100	DCPX100	DCPX101	DCPX101	DCPX101	DCPX101	DCPX111	DCPX111	DCPX112
A	DCPX101	DCPX101	DCPX101	DCPX101	DCPX102	DCPX102	DCPX102	DCPX103	DCPX103	DCPX103
E,L,N	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard
U	DCPX101	DCPX101	DCPX102	DCPX102	DCPX102	DCPX103	DCPX103	DCPX104	DCPX104	DCPX104
Fans: M										
°	DCPX110	DCPX110	DCPX110	DCPX110	DCPX110	DCPX110	DCPX110	-	-	-
A	DCPX111	DCPX111	DCPX111	DCPX111	DCPX112	DCPX112	DCPX112	DCPX113	DCPX113	DCPX113
E,L,N	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard
U	DCPX111	DCPX111	DCPX112	DCPX112	DCPX113	DCPX113	DCPX114	DCPX114	DCPX114	DCPX114

Ver	3202	3402	3602	3902	4202	4502	4802	5202	5602	6002
Fans: °										
°	DCPX112	DCPX112	DCPX112	DCPX113	DCPX113	DCPX114	DCPX114	DCPX115	DCPX115	DCPX115
A	DCPX103	DCPX104	DCPX104	DCPX105	DCPX105	DCPX106	DCPX106	DCPX116	DCPX117	DCPX118
E,L,N	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard
U	DCPX104	DCPX105	DCPX105	DCPX106	DCPX107	DCPX107	DCPX108	DCPX109	DCPX120	DCPX121
Fans: M										
A	DCPX113	DCPX114	DCPX114	DCPX115	DCPX115	DCPX116	DCPX116	-	-	-
E,N	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard
L	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	-	-
U	DCPX114	DCPX115	DCPX115	DCPX116	DCPX117	DCPX117	DCPX118	DCPX119	DCPX130	DCPX131

Ver	6402	6503	6703	6903	7203	8403	9603
Fans: °							
°	DCPX116	DCPX135+DCPX113	DCPX135+DCPX113	DCPX125+DCPX114	DCPX114+DCPX136	DCPX114+DCPX136	DCPX114+DCPX136
A	DCPX118	DCPX105+DCPX126	DCPX105+DCPX126	DCPX106+DCPX126	DCPX106+DCPX126	DCPX107+DCPX126	DCPX118+DCPX137
E	As standard	As standard	As standard	As standard	As standard	-	-
L	As standard	As standard	As standard	As standard	As standard	As standard	As standard
N	As standard	As standard	-	-	-	-	-
U	DCPX122	DCPX106+DCPX127	DCPX107+DCPX127	DCPX107+DCPX127	DCPX108+DCPX127	-	-
Fans: M							
A	-	DCPX115+DCPX136	DCPX115+DCPX136	DCPX111	DCPX116+DCPX136	DCPX117+DCPX136	-
E	As standard	As standard	As standard	As standard	As standard	-	-
L	-	As standard	As standard	As standard	As standard	As standard	-
N	As standard	As standard	-	-	-	-	-
U	DCPX132	DCPX116+DCPX137	DCPX117+DCPX137	DCPX117+DCPX137	DCPX118+DCPX137	-	-

Antivibration

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Integrated hydronic kit: 00, DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ, TF, TG, TH, TI, TJ														
°	AVX900	AVX900	AVX900	AVX904	AVX904	AVX904	AVX904	AVX904	AVX904	AVX959	AVX959	AVX960	AVX960	AVX911
A,L	AVX901	AVX901	AVX901	AVX904	AVX959	AVX959	AVX959	AVX903	AVX903	AVX903	AVX903	AVX909	AVX909	AVX907
E,U	AVX901	AVX901	AVX959	AVX959	AVX959	AVX903	AVX903	AVX906	AVX906	AVX906	AVX906	AVX907	AVX907	AVX912
N	AVX959	AVX959	AVX903	AVX903	AVX903	AVX906	AVX906	AVX907	AVX907	AVX907	AVX907	AVX912	AVX910	AVX913

Ver	4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Integrated hydronic kit: 00, TF, TG, TH, TI, TJ													
°	AVX911	AVX909	AVX909	AVX907	AVX907	AVX907	AVX912	AVX914	AVX914	AVX915	AVX916	AVX916	AVX916
A,L	AVX907	AVX912	AVX912	AVX912	AVX910	AVX913	AVX913	AVX924	AVX924	AVX925	AVX925	AVX927	AVX926
E,U	AVX910	AVX910	AVX913	AVX913	AVX920	AVX917	AVX918	AVX925	AVX927	AVX927	AVX928	-	-
N	AVX913	AVX917	AVX918	AVX919	AVX921	AVX921	AVX921	AVX926	-	-	-	-	-
Integrated hydronic kit: DA, DB, DC, DD, DE, PA, PB, PC, PD, PE													
°	AVX911	-	-	-	-	-	-	-	-	-	-	-	-
A,L	AVX907	-	-	-	-	-	-	-	-	-	-	-	-
E,U	AVX910	-	-	-	-	-	-	-	-	-	-	-	-
N	AVX913	-	-	-	-	-	-	-	-	-	-	-	-
Integrated hydronic kit: DF, DG, DH, DI, DJ, PF, PG, PH, PI, PJ													
°	AVX911	AVX909	AVX909	AVX907	AVX907	AVX907	AVX912	-	-	-	-	-	-
A,L	AVX907	AVX912	AVX912	AVX912	AVX910	AVX913	AVX913	-	-	-	-	-	-
E,U	AVX910	AVX910	AVX913	AVX913	AVX920	AVX917	AVX918	-	-	-	-	-	-
N	AVX913	AVX917	AVX918	AVX919	AVX921	AVX921	AVX921	-	-	-	-	-	-

Power factor correction

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802
°	RIFNSM1402Q	RIFNSM1602Q	RIFNSM1802Q	RIFNSM2002Q	RIFNSM2202Q	RIFNSM2352Q	RIFNSM2502Q	RIFNSM2652Q	RIFNSM2802Q
A,L	RIFNSM1402Q	RIFNSM1602Q	RIFNSM1802Q	RIFNSM2002Q	RIFNSM2202Q	RIFNSM2352Q	RIFNSM2502Q	RIFNSM2652Q	RIFNSM2802C
E	RIFNSM1402Q	RIFNSM1602Q	RIFNSM1802Q	RIFNSM2002Q	RIFNSM2202Q	RIFNSM2352C	RIFNSM2502C	RIFNSM2652Q	RIFNSM2802C
N	RIFNSM1402Q	RIFNSM1602Q	RIFNSM1802C	RIFNSM2002Q	RIFNSM2202C	RIFNSM2352C	RIFNSM2502C	RIFNSM2652Q	RIFNSM2802C
U	RIFNSM1402Q	RIFNSM1602Q	RIFNSM1802Q	RIFNSM2002C	RIFNSM2202Q	RIFNSM2352C	RIFNSM2502C	RIFNSM2652Q	RIFNSM2802C

A grey background indicates the accessory must be assembled in the factory

Ver	3002	3202	3402	3602	3902	4202	4502	4802	5202
°	RIFNSM3002Q	RIFNSM3202Q	RIFNSM3402Q	RIFNSM3602Q	RIFNSM3902C	RIFNSM4202C	RIFNSM4502C	RIFNSM4802C	RIFNSM5202C
A,E,L,U	RIFNSM3002C	RIFNSM3202C	RIFNSM3402C	RIFNSM3602C	RIFNSM3902C	RIFNSM4202C	RIFNSM4502C	RIFNSM4802C	RIFNSM5202C
N	RIFNSM3002C	RIFNSM3202C	RIFNSM3402C	RIFNSM3602C	RIFNSM3902C	RIFNSM4202C	-	-	-

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

Ver	5602	6002	6402	6503	6703	6903	7203	8403	9603
°,A,L	RIFNSM5602C	RIFNSM6002C	RIFNSM6402C	-	-	-	-	-	-

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

Grids

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802
°	GP3V	GP3V	GP3V	GP4V	GP4V	GP4V	GP4V	GP4V	GP4V
A,L	GP4V	GP4V	GP4VN	GP4V	GP5V	GP5V	GP5V	GP6V	GP6V
E,U	GP4V	GP4V	GP5V	GP5V	GP5V	GP6V	GP6V	GP7V	GP7V
N	GP5V	GP5V	GP6V	GP6V	GP6V	GP7V	GP7V	GP8V	GP8V

A grey background indicates the accessory must be assembled in the factory

Ver	3002	3202	3402	3602	3902	4202	4502	4802	5202
°	GP5V	GP5V	GP5V	GP5V	GP6V	GP6V	GP7V	GP7V	GP8V
A,L	GP6V	GP6V	GP7V	GP7V	GP8V	GP8V	GP9V	GP9V	GP9V
E,U	GP7V	GP7V	GP8V	GP8V	GP9V	GP10V	GP10V	GP11V	GP11V
N	GP8V	GP8V	GP9V	GP10V	GP11V	GP11V	GP6V+GP7V	GP7V+GP7V	GP7V+GP8V

A grey background indicates the accessory must be assembled in the factory

Ver	5602	6002	6402	6503	6703	6903	7203	8403	9603
°	GP8V	GP8V	GP9V	GP9V	GP9V	GP10V	GP11V	GP11V	GP11V
A,L	GP11V	GP11V	GP11V	GP4V+GP8V	GP4V+GP8V	GP5V+GP9V	GP5V+GP9V	GP5V+GP10V	GP6V+GP11V
E,U	GP6V+GP6V	GP6V+GP7V	GP7V+GP7V	GP5V+GP9V	GP5V+GP10V	GP5V+GP10V	GP6V+GP11V	-	-
N	GP8V+GP8V	GP8V+GP8V	GP8V+GP8V	GP6V+GP11V	-	-	-	-	-

A grey background indicates the accessory must be assembled in the factory

Heater exchangers

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802
°,A,L	KRS22	KRS22	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23
E,N,U	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23

A grey background indicates the accessory must be assembled in the factory

Ver	3002	3202	3402	3602	3902	4202	4502	4802	5202
°	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS24	KRS24
A,E,L	KRS23	KRS23	KRS24	KRS24	KRS24	KRS24	KRS24	KRS24	KRS24
N	KRS23	KRS23	KRS24	KRS24	KRS24	KRS24	KRS24	KRS23+KRS23	KRS23+KRS23
U	KRS23	KRS23	KRS24	KRS24	KRS24	KRS24	KRS23+KRS23	KRS24	KRS24

A grey background indicates the accessory must be assembled in the factory

Ver	5602	6002	6402	6503	6703	6903	7203	8403	9603
°	KRS24	KRS24	KRS24	KRS24	KRS24	KRS24	KRS24	KRS24	KRS24
A,L	KRS24	KRS24	KRS24	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24
E,U	KRS23+KRS23	KRS23+KRS23	KRS23+KRS23	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24	-	-
N	KRS23+KRS23	KRS23+KRS23	KRS23+KRS23	KRS23+KRS24	-	-	-	-	-

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field		Description
1,2,3		**NSM**
4,5,6,7		**Size (1)** 1402, 1602, 1802, 2002, 2202, 2352, 2502, 2652, 2802, 3002, 3202, 3402, 3602, 3902, 4202, 4502, 4802, 5202, 5602, 6002, 6402, 6503, 6703, 6903, 7203, 8403, 9603
8		**Operating field**
	°	Standard mechanic thermostatic valve (2)
	X	Electronic thermostatic expansion valve (3)
	Y	Low temperature mechanic thermostatic valve (4)
	Z	Low temperature electronic thermostatic valve (4)
9		**Model**
	°	Cooling only
	C	Motocondensing unit (5)
10		**Heat recovery**
	°	Without heat recovery
	D	With desuperheater (6)
	T	With total recovery (7)
11		**Version**
	°	Standard (8)
	A	High efficiency
	E	Silenced high efficiency
	L	Standard silenced
	N	Silenced very high efficiency
	U	Very high efficiency
12		**Coils**
	°	Aluminium microchannel
	O	Coated aluminium microchannel
	R	Copper pipes-copper fins
	S	Copper pipes-Tinned copper fins
	V	Copper pieps-Coated aluminium fins
13		**Fans**
	°	Standard
	J	Inverter
	M	Oversized (9)
14		**Power supply**
	°	400V~3 50Hz with fuses
	2	230V~3 50Hz with fuses
	4	230V~3 50Hz with magnet circuit breakers
	5	500V~3 50Hz with fuses
	8	400V~3 50Hz with magnet circuit breakers
	9	500V~3 50Hz with magnet circuit breakers

Field		Description
15,16		**Integrated hydronic kit**
	00	Without hydronic kit
		Kit with n° 1 pump
	PA	Pump A
	PB	Pump B
	PC	Pump C
	PD	Pump D
	PE	Pump E
	PF	Pump F
	PG	Pump G
	PH	Pump H
	PI	Pump I
	PJ	Pump J
		Pump n° 1 pump + stand-by pump
	DA	Pump A + stand-by pump
	DB	Pump B + stand-by pump
	DC	Pump C + stand-by pump
	DD	Pump D + stand-by pump
	DE	Pump E + stand-by pump
	DF	Pump F + stand-by pump
	DG	Pump G + stand-by pump
	DH	Pump H + stand-by pump
	DI	Pump I + stand-by pump
	DJ	Pump J + stand-by pump
		Kit with 2 pumps
	TF	Double pump F (10)
	TG	Double pump G (10)
	TH	Double pump H (10)
	TI	Double pump I (10)
	TJ	Double pump J (10)

(1) Electronic thermostatic valve as standard from size 5202 ÷ 6402 and 8403 ÷ 9603.
(2) Water produced from 4 °C ÷ 15 °C
(3) Water produced from 4 °C ÷ 18 °C
(4) Water produced from 4 °C ÷ 18 °C for ° version; -10 °C for the others versions
(5) The motor condensing units are not configurable with option D and T, and with the integrated hydronic kit
(6) The temperature of the water in the heat exchanger inlet must never drop below 35°C.
(7) The models 1402° - 1602° - 1802° cannot have total recovery, which is available for all the other sizes and versions. If it is necessary to have total recovery as well as the hydronic kit, feasibility must be evaluated when ordering.
(8) Standard inverter fans for sizes and versions (°) from 2002 to 9603
(9) The units from 2652 to 9603 in the "°" version, and from 5202 to 6402 and size 9503 in the "L" and "A" version, cannot be configured with the boosted "M" fan.
(10) The unit from 5603 to 9603 can only have hydronic kit "TF - TG - TH- TI - TJ"

PERFORMANCE SPECIFICATIONS

NSM - °

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Cooling performance 12 °C / 7 °C (1)															
Cooling capacity	kW	307,5	348,9	397,0	450,3	489,4	524,7	543,8	577,3	613,8	680,5	725,1	770,1	813,8	906,1
Input power	kW	104,8	121,0	139,0	152,8	166,4	180,6	193,9	210,5	226,5	232,7	247,5	272,1	298,3	316,2
Cooling total input current	A	182,0	207,0	229,0	257,0	281,0	306,0	329,0	356,0	381,0	392,0	414,0	447,0	484,0	520,0
EER	W/W	2,93	2,88	2,86	2,95	2,94	2,91	2,81	2,74	2,71	2,92	2,93	2,83	2,73	2,87
Water flow rate system side	l/h	52881	59999	68270	77459	84185	90223	93509	99261	105543	117009	124685	132413	139916	155801
Pressure drop system side	kPa	27	36	38	49	57	26	28	33	35	39	42	47	38	46

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

NSM °

Size		4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Cooling performance 12 °C / 7 °C (1)														
Cooling capacity	kW	958,5	1051,2	1099,1	1168,1	1195,0	1237,7	1327,6	1393,8	1439,8	1578,6 (2)	1669,7 (2)	1742,2 (2)	1859,9 (2)
Input power	kW	345,9	360,3	388,1	403,4	430,8	453,1	460,3	488,6	517,2	559,8	575,1	659,2	730,6
Cooling total input current	A	573,0	597,0	641,0	668,0	712,0	749,0	766,0	806,0	857,0	927,0	966,0	1103,0	1230,0
EER	W/W	2,77	2,92	2,83	2,90	2,77	2,73	2,88	2,85	2,78	2,82	2,90	2,64	2,55
Water flow rate system side	l/h	164794	180726	188953	200816	205451	212795	228246	239604	247511	271348	287011	299461	319697
Pressure drop system side	kPa	41	48	42	46	48	55	62	44	46	30	33	36	40

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Unit not Eurovent certified because it exceeds 1500 kW

NSM - L

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Cooling performance 12 °C / 7 °C (1)															
Cooling capacity	kW	302,4	344,0	392,7	428,1	490,9	513,8	537,4	583,4	602,8	664,4	709,1	771,0	826,1	908,8
Input power	kW	102,7	117,2	135,7	155,9	167,8	179,4	192,5	202,9	215,3	238,3	261,2	265,4	296,6	316,1
Cooling total input current	A	173,0	196,0	218,0	254,0	277,0	297,0	319,0	336,0	354,0	391,0	426,0	429,0	473,0	509,0
EER	W/W	2,94	2,94	2,89	2,75	2,93	2,86	2,79	2,88	2,80	2,79	2,72	2,91	2,79	2,88
Water flow rate system side	l/h	52016	59162	67531	73600	84402	88342	92402	100313	103652	114244	121903	132545	142018	156242
Pressure drop system side	kPa	27	36	38	18	24	25	28	33	31	36	23	23	25	32

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

NSM - L

Size		4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Cooling performance 12 °C / 7 °C (1)														
Cooling capacity	kW	949,7	1032,5	1076,9	1122,7	1183,7	1254,5	1295,6	1395,1	1436,6	1605,1 (2)	1649,4 (2)	1758,0 (2)	1946,7 (2)
Input power	kW	348,7	365,9	395,0	428,8	442,3	453,2	476,4	491,5	523,6	556,9	586,7	660,2	713,5
Cooling total input current	A	567,0	593,0	638,0	693,0	716,0	736,0	776,0	793,0	849,0	914,0	960,0	1067,0	1163,0
EER	W/W	2,72	2,82	2,73	2,62	2,68	2,77	2,72	2,84	2,74	2,88	2,81	2,66	2,73
Water flow rate system side	l/h	163268	177512	185148	193004	203496	215669	222723	239820	246956	275911	283536	302181	334622
Pressure drop system side	kPa	34	44	46	33	36	42	45	33	34	45	47	34	45

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Unit not Eurovent certified because it exceeds 1500 kW

NSM - A

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Cooling performance 12 °C / 7 °C (1)															
Cooling capacity	kW	315,6	360,2	415,2	461,4	509,5	544,9	576,9	620,9	658,9	699,4	741,7	800,6	884,3	955,2
Input power	kW	99,0	113,7	133,7	148,3	161,8	173,6	183,3	197,5	208,3	223,6	237,4	253,4	281,2	303,8
Cooling total input current	A	175,0	198,0	223,0	250,0	278,0	298,0	314,0	340,0	355,0	378,0	399,0	421,0	459,0	502,0
EER	W/W	3,19	3,17	3,11	3,11	3,15	3,14	3,15	3,14	3,16	3,13	3,12	3,16	3,15	3,14
Water flow rate system side	l/h	54280	61954	71417	79331	87600	93687	99196	106766	113293	120259	127516	137633	152015	164211
Pressure drop system side	kPa	30	39	43	21	26	28	32	37	37	40	25	25	29	36

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

NSM - A

Size		4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Cooling performance 12 °C / 7 °C (1)														
Cooling capacity	kW	1021,7	1084,5	1160,1	1213,2	1275,8	1352,3	1402,7	1462,2	1531,9 (2)	1682,9 (2)	1753,4 (2)	1908,6 (2)	2106,4 (2)
Input power	kW	328,5	347,0	371,7	389,2	410,5	432,6	451,5	466,3	493,4	534,6	560,2	614,3	673,3
Cooling total input current	A	547,0	577,0	614,0	647,0	685,0	725,0	758,0	772,0	821,0	897,0	936,0	1017,0	1132,0
EER	W/W	3,11	3,13	3,12	3,12	3,11	3,13	3,11	3,14	3,10	3,15	3,13	3,11	3,13
Water flow rate system side	l/h	175657	186457	199460	208561	219327	232478	241144	251345	263330	289291	301409	328062	362058
Pressure drop system side	kPa	39	49	53	38	42	49	52	36	39	49	53	41	52

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Unit not Eurovent certified because it exceeds 1500 kW

NSM - E

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Cooling performance 12 °C / 7 °C (1)															
Cooling capacity	kW	319,6	368,5	417,6	472,4	514,2	543,2	579,6	615,2	652,1	695,4	740,6	796,5	881,6	951,8
Input power	kW	101,7	117,4	132,3	150,0	165,4	173,7	186,0	194,8	210,1	224,0	238,6	255,4	283,8	305,7
Cooling total input current	A	171,0	196,0	214,0	245,0	272,0	288,0	309,0	324,0	347,0	367,0	389,0	411,0	450,0	490,0
EER	W/W	3,14	3,14	3,16	3,15	3,11	3,13	3,12	3,16	3,10	3,11	3,10	3,12	3,11	3,11
Water flow rate system side	l/h	54958	63367	71800	81228	88406	93396	99657	105762	112115	119555	127316	136926	151562	163628
Pressure drop system side	kPa	15	14	18	21	24	26	30	24	26	29	26	25	29	36

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

NSM - E

Size		4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Cooling performance 12 °C / 7 °C (1)														
Cooling capacity	kW	1018,9	1082,1	1159,1	1206,7	1265,2	1322,0	1389,6	1464,9	1528,1 (2)	1670,1 (2)	1752,6 (2)	-	-
Input power	kW	325,9	347,4	370,9	387,8	405,6	422,2	443,7	469,4	489,0	534,5	563,0	-	-
Cooling total input current	A	529,0	560,0	598,0	628,0	656,0	686,0	724,0	764,0	792,0	861,0	898,0	-	-
EER	W/W	3,13	3,11	3,13	3,11	3,12	3,13	3,13	3,12	3,13	3,12	3,11	-	-
Water flow rate system side	l/h	175173	186051	199271	207449	217481	227238	238869	251810	262683	287098	301260	-	-
Pressure drop system side	kPa	40	49	36	38	24	24	29	35	40	49	45	-	-

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Unit not Eurovent certified because it exceeds 1500 kW

NSM - U

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Cooling performance 12 °C / 7 °C (1)															
Cooling capacity	kW	331,0	378,1	432,1	481,7	527,6	564,7	590,5	635,0	675,3	708,2	750,8	811,2	902,5	975,6
Input power	kW	98,6	113,5	128,9	145,7	161,0	169,2	178,4	190,3	204,2	214,1	228,0	245,2	273,3	294,9
Cooling total input current	A	173,0	197,0	218,0	248,0	275,0	292,0	309,0	330,0	352,0	366,0	387,0	410,0	448,0	490,0
EER	W/W	3,36	3,33	3,35	3,31	3,28	3,34	3,31	3,34	3,31	3,31	3,29	3,31	3,30	3,31
Water flow rate system side	l/h	56933	65026	74302	82821	90716	97089	101524	109164	116096	121764	129073	139455	155146	167724
Pressure drop system side	kPa	17	15	19	21	25	28	31	25	28	30	26	26	30	37

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

NSM - U

Size		4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Cooling performance 12 °C / 7 °C (1)														
Cooling capacity	kW	1043,4	1104,7	1184,6	1234,0	1301,2	1360,8	1419,5	1505,6 (2)	1579,3 (2)	1693,4 (2)	1772,6 (2)	-	-
Input power	kW	315,2	336,8	357,4	380,5	400,8	418,5	427,8	453,3	472,9	522,1	540,7	-	-
Cooling total input current	A	530,0	562,0	597,0	634,0	671,0	706,0	725,0	762,0	795,0	870,0	896,0	-	-
EER	W/W	3,31	3,28	3,31	3,24	3,25	3,25	3,32	3,32	3,34	3,24	3,28	-	-
Water flow rate system side	l/h	179384	189926	203652	212142	223669	233910	244004	258808	271482	291091	304708	-	-
Pressure drop system side	kPa	42	51	38	40	26	26	31	37	42	51	46	-	-

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Unit not Eurovent certified because it exceeds 1500 kW

NSM - N

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Cooling performance 12 °C / 7 °C (1)															
Cooling capacity	kW	329,8	375,3	431,9	474,4	517,0	550,9	578,6	620,4	659,2	701,2	743,2	803,1	879,6	955,4
Input power	kW	98,1	113,1	127,6	144,8	160,4	168,7	178,2	190,1	204,5	217,3	231,1	247,6	270,2	292,6
Cooling total input current	A	165,0	190,0	207,0	237,0	265,0	281,0	297,0	317,0	339,0	358,0	378,0	399,0	429,0	470,0
EER	W/W	3,36	3,32	3,38	3,28	3,22	3,27	3,25	3,26	3,22	3,23	3,22	3,24	3,26	3,27
Water flow rate system side	l/h	56717	64546	74260	81573	88881	94723	99476	106664	113329	120551	127777	138054	151226	164260
Pressure drop system side	kPa	16	15	19	21	24	28	30	25	27	29	26	25	30	37

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

NSM - N

Size		4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Cooling performance 12 °C / 7 °C (1)														
Cooling capacity	kW	1014,4	1086,1	1169,7	1219,0	1267,1	1317,0	1367,2	1452,6	-	-	-	-	-
Input power	kW	315,6	332,8	352,6	374,6	396,5	410,4	428,2	450,1	-	-	-	-	-
Cooling total input current	A	513,0	540,0	569,0	605,0	643,0	668,0	700,0	731,0	-	-	-	-	-
EER	W/W	3,21	3,26	3,32	3,25	3,20	3,21	3,19	3,23	-	-	-	-	-
Water flow rate system side	l/h	174394	186718	201086	209575	217799	226384	235022	249705	-	-	-	-	-
Pressure drop system side	kPa	40	35	44	44	26	26	30	37	-	-	-	-	-

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

ENERGY INDICES (REG. 2016/2281 EU)

Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
SEER - 12/7 (EN14825:2018) with standard fans (1)																
SEER	°,A,E,L,N,U	W/W	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
Seasonal efficiency	°,A,E,L,N,U	%	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
SEER - (EN14825:2018) 12/7 with inverter fans (1)																
SEER	°	W/W	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	A	W/W	4,44	4,40	4,55	4,56	4,56	4,56	4,57	4,55	4,56	4,56	4,57	4,57	4,56	4,56
	E	W/W	4,48	4,47	4,57	4,57	4,58	4,58	4,58	4,58	4,58	4,59	4,59	4,59	4,59	4,60
	L	W/W	4,43	4,39	4,53	4,55	4,56	4,56	4,56	4,55	4,56	4,56	4,56	4,56	4,56	4,56
	N	W/W	4,54	4,51	4,60	4,60	4,61	4,59	4,60	4,61	4,60	4,61	4,60	4,60	4,60	4,60
	U	W/W	4,49	4,48	4,57	4,59	4,60	4,59	4,59	4,59	4,59	4,59	4,59	4,59	4,59	4,60
Seasonal efficiency	°	%	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)
	A	%	174,5%	172,8%	179,0%	179,2%	179,4%	179,4%	179,7%	179,1%	179,5%	179,5%	179,7%	179,6%	179,5%	179,4%
	E	%	176,3%	175,6%	179,6%	179,8%	180,2%	180,0%	180,1%	180,0%	180,2%	180,6%	180,4%	180,4%	180,5%	180,8%
	L	%	174,0%	172,4%	178,3%	179,0%	179,3%	179,2%	179,2%	179,0%	179,4%	179,2%	179,3%	179,3%	179,3%	179,2%
	N	%	178,7%	177,4%	180,8%	180,9%	181,3%	180,7%	180,9%	181,2%	180,9%	181,3%	181,1%	181,1%	181,0%	181,1%
	U	%	176,6%	176,1%	179,8%	180,4%	180,9%	180,5%	180,7%	180,6%	180,7%	180,6%	180,6%	180,4%	180,5%	180,9%
SEPR - (EN14825: 2018) High temperature with standard fans (4)																
SEPR	°	W/W	5,41	5,44	5,37	5,53	5,54	5,51	5,54	5,51	5,53	5,51	5,51	5,52	5,52	5,53
	A	W/W	5,70	5,67	5,57	5,54	5,61	5,60	5,62	5,62	5,65	5,51	5,52	5,53	5,60	5,61
	E	W/W	5,82	5,76	5,80	5,71	5,66	5,79	5,74	5,77	5,73	5,64	5,60	5,63	5,72	5,74
	L	W/W	5,62	5,59	5,48	5,54	5,53	5,52	5,56	5,54	5,60	5,52	5,52	5,52	5,55	5,54
	N	W/W	5,94	5,85	5,98	5,79	5,70	5,78	5,75	5,77	5,70	5,63	5,57	5,65	5,73	5,74
	U	W/W	5,91	5,85	5,89	5,81	5,77	5,88	5,84	5,87	5,83	5,75	5,68	5,74	5,82	5,84
SEPR - (EN14825: 2018) High temperature with inverter fans (4)																
SEPR	°	W/W	5,41	5,44	5,37	5,53	5,54	5,51	5,54	5,51	5,53	5,51	5,51	5,52	5,52	5,53
	A	W/W	5,70	5,67	5,57	5,54	5,61	5,60	5,62	5,62	5,65	5,51	5,52	5,53	5,60	5,61
	E	W/W	5,82	5,76	5,80	5,71	5,66	5,79	5,74	5,77	5,73	5,64	5,60	5,63	5,72	5,74
	L	W/W	5,62	5,59	5,48	5,54	5,53	5,52	5,56	5,54	5,60	5,52	5,52	5,52	5,55	5,54
	N	W/W	5,94	5,85	5,98	5,79	5,70	5,78	5,75	5,77	5,70	5,63	5,57	5,65	5,73	5,74
	U	W/W	5,91	5,85	5,89	5,81	5,77	5,88	5,84	5,87	5,83	5,75	5,68	5,74	5,82	5,84

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C
(3) Not covered by standard (EN14825: 2018 for comfort applications, 12°C / 7°C)
(4) Calculation performed with FIXED water flow rate.

Size			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
SEER - 12/7 (EN14825:2018) with standard fans (1)															
SEER	°,A,L	W/W	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	E,U	W/W	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	-	-
	N	W/W	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	-	-	-	-	-
Seasonal efficiency	°,A,L	%	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	E,U	%	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	-	-
	N	%	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	-	-	-	-	-
SEER - (EN14825:2018) 12/7 with inverter fans (1)															
SEER	°	W/W	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	A	W/W	4,56	4,56	4,56	4,55	4,57	4,56	4,56	4,56	4,57	4,56	4,56	4,56	4,57
	E	W/W	4,58	4,59	4,59	4,59	4,59	4,59	4,59	4,59	4,60	4,58	4,59	-	-
	L	W/W	4,55	4,56	4,55	4,56	4,56	4,57	4,56	4,57	4,56	4,56	4,56	4,56	4,56
	N	W/W	4,60	4,60	4,60	4,60	4,60	4,61	4,60	4,61	-	-	-	-	-
	U	W/W	4,59	4,59	4,60	4,60	4,60	4,60	4,59	4,60	4,60	4,59	4,59	-	-
Seasonal efficiency	°	%	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)	- (3)
	A	%	179,5%	179,4%	179,4%	179,1%	179,8%	179,4%	179,4%	179,2%	179,6%	179,2%	179,4%	179,5%	179,7%
	E	%	180,3%	180,6%	180,7%	180,6%	180,4%	180,4%	180,6%	180,5%	180,9%	180,2%	180,4%	-	-
	L	%	179,0%	179,2%	179,1%	179,2%	179,4%	179,6%	179,4%	179,6%	179,3%	179,2%	179,5%	179,4%	179,5%
	N	%	180,8%	181,0%	181,1%	181,0%	181,1%	181,2%	180,8%	181,4%	-	-	-	-	-
	U	%	180,4%	180,6%	180,8%	180,9%	180,9%	180,8%	180,6%	180,8%	180,9%	180,6%	180,6%	-	-
SEPR - (EN14825: 2018) High temperature with standard fans (4)															
SEPR	°	W/W	5,51	5,52	5,53	5,52	5,53	5,52	5,52	5,64	5,51	5,54	5,55	5,51	5,54
	A	W/W	5,56	5,60	5,60	5,57	5,60	5,60	5,57	5,66	5,61	5,71	5,69	5,62	5,68
	E	W/W	5,75	5,70	5,75	5,62	5,60	5,60	5,74	5,85	5,90	5,70	5,77	-	-
	L	W/W	5,51	5,53	5,55	5,54	5,56	5,55	5,52	5,64	5,61	5,68	5,66	5,63	5,68
	N	W/W	5,71	5,71	5,73	5,79	5,65	5,67	5,65	5,79	-	-	-	-	-
	U	W/W	5,85	5,81	5,85	5,73	5,71	5,72	5,84	5,93	5,98	5,82	5,87	-	-
SEPR - (EN14825: 2018) High temperature with inverter fans (4)															
SEPR	°	W/W	5,51	5,52	5,53	5,52	5,53	5,52	5,52	5,64	5,51	5,54	5,55	5,51	5,54
	A	W/W	5,56	5,60	5,60	5,57	5,60	5,60	5,57	5,66	5,61	5,71	5,69	5,62	5,68
	E	W/W	5,75	5,70	5,75	5,62	5,60	5,60	5,74	5,85	5,90	5,70	5,77	-	-
	L	W/W	5,51	5,53	5,55	5,54	5,56	5,55	5,52	5,64	5,61	5,68	5,66	5,63	5,68
	N	W/W	5,71	5,71	5,73	5,79	5,65	5,67	5,65	5,79	-	-	-	-	-
	U	W/W	5,85	5,81	5,85	5,73	5,71	5,72	5,84	5,93	5,98	5,82	5,87	-	-

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Non-compliant with 2016/2281 EU regulation for comfort applications 12°C / 7°C
(3) Not covered by standard (EN14825: 2018 for comfort applications, 12°C / 7°C)
(4) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Electric data																
Maximum current (FLA)	°	A	229,0	257,0	284,0	324,0	357,0	379,0	400,0	433,0	458,0	466,0	466,0	514,0	562,0	619,0
	A,L	A	235,0	263,0	291,0	324,0	364,0	385,0	406,0	437,0	462,0	462,0	462,0	516,0	564,0	619,0
	E,U	A	235,0	263,0	297,0	330,0	364,0	391,0	413,0	444,0	468,0	468,0	468,0	523,0	571,0	625,0
	N	A	242,0	270,0	303,0	337,0	370,0	398,0	419,0	450,0	475,0	475,0	475,0	529,0	583,0	644,0
Peak current (LRA)	°	A	251,0	292,0	335,0	380,0	403,0	450,0	467,0	502,0	512,0	521,0	521,0	645,0	685,0	814,0
	A,L	A	257,0	299,0	342,0	380,0	409,0	456,0	473,0	507,0	517,0	517,0	517,0	647,0	687,0	814,0
	E,U	A	257,0	299,0	348,0	386,0	409,0	462,0	480,0	513,0	523,0	523,0	523,0	653,0	693,0	821,0
	N	A	263,0	305,0	354,0	392,0	415,0	469,0	486,0	519,0	529,0	529,0	529,0	660,0	706,0	839,0

Size			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Electric data															
Maximum current (FLA)	°	A	667,0	714,0	753,0	805,0	848,0	882,0	924,0	949,0	997,0	1084,0	1137,0	1266,0	1368,0
	A,L	A	667,0	712,0	751,0	813,0	865,0	913,0	947,0	955,0	1003,0	1094,0	1133,0	1268,0	1406,0
	E,U	A	679,0	718,0	770,0	813,0	862,0	902,0	943,0	968,0	1022,0	1100,0	1145,0	-	-
	N	A	692,0	743,0	789,0	838,0	887,0	921,0	955,0	987,0	-	-	-	-	-
Peak current (LRA)	°	A	841,0	914,0	936,0	1100,0	1147,0	1259,0	1264,0	1038,0	1065,0	1160,0	1197,0	1446,0	1552,0
	A,L	A	841,0	911,0	934,0	1108,0	1164,0	1290,0	1287,0	1044,0	1071,0	1170,0	1193,0	1448,0	1590,0
	E,U	A	854,0	918,0	953,0	1108,0	1161,0	1279,0	1283,0	1056,0	1090,0	1176,0	1205,0	-	-
	N	A	866,0	943,0	972,0	1133,0	1186,0	1298,0	1295,0	1076,0	-	-	-	-	-

GENERAL TECHNICAL DATA

Size			1402	1602	1802	2002	2202	2352	2502	2652	2802
Compressor											
Type	°,A,E,L,N,U	type					Screw				
Number	°,A,E,L,N,U	no.	2	2	2	2	2	2	2	2	2
Circuits	°,A,E,L,N,U	no.	2	2	2	2	2	2	2	2	2
Refrigerant	°,A,E,L,N,U	type					R134a				
Refrigerant load circuit 1 (1)	°	kg	24,0	24,0	24,0	30,0	30,0	35,0	35,0 (2)	35,0	35,0
	A	kg	26,5	34,0 (2)	28,0	28,0	34,0	35,0	38,5	40,5	45,0
	E	kg	28,0	30,0	41,0 (2)	41,0 (2)	46,0 (2)	43,0	41,0	46,0	45,0
	L	kg	24,0	34,0 (2)	37,0 (2)	28,0	34,0	35,0	38,5	40,0	42,0 (2)
	N	kg	36,0 (2)	38,0 (2)	44,0 (2)	44,0 (2)	49,0 (2)	53,0 (2)	56,0 (2)	60,0 (2)	64,0 (2)
	U	kg	32,0 (2)	34,0 (2)	34,0	35,0	46,0 (2)	49,0 (2)	49,0	46,0 (2)	45,0 (2)
Refrigerant load circuit 2 (1)	°	kg	24,0	25,0	25,0	41,0	33,0	38,0	37,0 (2)	37,5	36,5
	A	kg	28,0	34,0 (2)	29,5	36,0	34,0	49,0	40,5	45,0	47,5
	E	kg	30,0	31,5	41,0 (2)	46,0 (2)	46,0 (2)	45,0	46,0	52,0	53,0
	L	kg	27,0	34,0 (2)	37,0 (2)	36,0	34,0	40,0	40,5	43,0	46,0 (2)
	N	kg	36,0 (2)	38,0 (2)	44,0 (2)	49,0 (2)	49,0 (2)	56,0 (2)	56,0 (2)	64,0 (2)	64,0 (2)
	U	kg	32,0 (2)	34,0 (2)	36,0	41,5	46,0 (2)	53,0 (2)	54,0	52,0 (2)	48,5 (2)
Refrigerant load circuit 3 (1)	°,A,E,L,N,U	kg	-	-	-	-	-	-	-	-	-
System side heat exchanger											
Type	°,A,E,L,N,U	type					Shell and tube				
Number	°,A,E,L,N,U	no.	1	1	1	1	1	1	1	1	1
Fan											
Type	°,A,E,L,N,U	type					axials				
Fan motor	°,A,E,L,N,U	type					On-Off				
Number	°	no.	6	6	6	8	8	8	8	8	8
	A,L	no.	8	8	8	8	10	10	10	12	12
	E,U	no.	8	8	10	10	10	12	12	14	14
	N	no.	10	10	12	12	12	14	14	16	16
Air flow rate	°	m^3/h	96000	96000	96000	128000	128000	128000	128000	144000	144000
	A	m^3/h	128000	128000	128000	128000	160000	160000	160000	192000	192000
	E	m^3/h	92000	92000	115000	115000	115000	138000	138000	161000	161000
	L	m^3/h	92000	92000	92000	92000	115000	115000	115000	138000	138000
	N	m^3/h	115000	115000	138000	138000	138000	161000	161000	184000	184000
	U	m^3/h	128000	128000	160000	160000	160000	192000	192000	224000	224000
Sound data calculated in cooling mode (3)											
Sound power level	°	dB(A)	96,8	97,0	97,2	97,6	97,8	98,0	98,2	98,4	98,4
	A	dB(A)	97,3	97,4	97,8	97,9	98,2	98,3	98,4	98,8	98,9
	E	dB(A)	89,3	89,4	90,2	90,3	90,4	90,8	91,2	91,8	92,0
	L	dB(A)	88,9	89,0	89,1	89,2	90,3	90,5	90,6	90,8	90,9
	N	dB(A)	90,0	90,4	90,9	91,0	91,1	91,4	91,4	92,1	92,2
	U	dB(A)	97,0	97,4	98,0	98,2	98,4	98,8	98,8	99,0	99,1
Sound pressure level (10 m)	°	dB(A)	64,5	64,7	64,9	65,2	65,4	65,6	65,8	66,0	66,0
	A	dB(A)	64,9	65,0	65,4	65,5	65,7	65,8	65,9	66,2	66,3
	E	dB(A)	56,9	57,0	57,7	57,8	57,9	58,2	58,6	59,0	59,2
	L	dB(A)	56,5	56,6	56,7	56,8	57,8	58,0	58,1	58,2	58,3
	N	dB(A)	57,5	57,9	58,3	58,4	58,5	58,6	58,6	59,2	59,3
	U	dB(A)	64,6	65,0	65,5	65,7	65,9	66,2	66,2	66,2	66,3

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(2) The refrigerant gas charge is approximate, for more information contact the office.
(3) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

Size			3002	3202	3402	3602	3902	4202	4502	4802	5202
Compressor											
Type	°,A,E,L,N,U	type					Screw				
Number	°,A,E,L,N,U	no.	2	2	2	2	2	2	2	2	2
Circuits	°,A,E,L,N,U	no.	2	2	2	2	2	2	2	2	2
Refrigerant	°,A,E,L,N,U	type					R134a				
Refrigerant load circuit 1 (1)	°	kg	40,0	46,0	42,5	44,5	51,0	52,0	55,0	55,0 (2)	63,0 (2)
	A	kg	44,0 (2)	47,0	52,0 (2)	55,0	74,0 (2)	62,0	67,0	67,0	70,0
	E	kg	45,0 (2)	57,0	54,0 (2)	74,0 (2)	60,0 (2)	70,0	89,0 (2)	80,0 (2)	100,0 (2)
	L	kg	44,0	47,0	52,0 (2)	54,0	56,0 (2)	62,0	67,0 (2)	67,0	70,0
	N	kg	64,0 (2)	55,0 (2)	72,0 (2)	81,0 (2)	85,0 (2)	92,0 (2)	99,0 (2)	110,0 (2)	114,0 (2)
	U	kg	60,0 (2)	54,5	58,0	58,0	60,0 (2)	70,0	89,0 (2)	80,0	85,0 (2)
Refrigerant load circuit 2 (1)	°	kg	50,0	48,0	46,0	46,0	59,0	59,0	64,0	64,0 (2)	70,0 (2)
	A	kg	52,0 (2)	50,0	55,0 (2)	60,0	81,0 (2)	70,0	78,0	78,0	82,0
	E	kg	53,0 (2)	59,0	59,0 (2)	74,0 (2)	77,0 (2)	85,0	96,0 (2)	90,0 (2)	110,0 (2)
	L	kg	52,0	50,0	55,0 (2)	58,0	72,0 (2)	70,0	79,0 (2)	78,0	82,0
	N	kg	69,0 (2)	57,0 (2)	77,0 (2)	81,0 (2)	92,0 (2)	92,0 (2)	107,0 (2)	110,0 (2)	124,0 (2)
	U	kg	65,0 (2)	59,0	62,0	63,0	77,0 (2)	85,0	96,0 (2)	90,0	103,0 (2)
Refrigerant load circuit 3 (1)	°,A,E,L,N,U	kg	-	-	-	-	-	-	-	-	-
System side heat exchanger											
Type	°,A,E,L,N,U	type					Shell and tube				
Number	°,A,E,L,U	no.	1	1	1	1	1	1	1	1	1
	N	no.	1	1	1	1	1	1	2	2	2
Fan											
Type	°,A,E,L,N,U	type					axials				
Fan motor	°,A,E,L,N,U	type					On-Off				
Number	°	no.	10	10	10	10	12	12	14	14	16
	A,L	no.	12	12	14	14	16	16	18	18	18
	E,U	no.	14	14	16	16	18	20	20	22	22
	N	no.	16	16	18	20	22	22	26	28	30
Air flow rate	°	m^3/h	180000	180000	180000	180000	216000	216000	252000	252000	288000
	A	m^3/h	192000	192000	224000	224000	256000	256000	288000	288000	324000
	E	m^3/h	161000	161000	184000	184000	207000	230000	230000	253000	253000
	L	m^3/h	138000	138000	161000	161000	184000	184000	207000	207000	234000
	N	m^3/h	184000	184000	207000	230000	253000	253000	299000	322000	345000
	U	m^3/h	224000	224000	256000	256000	288000	320000	320000	352000	352000
Sound data calculated in cooling mode (3)											
Sound power level	°	dB(A)	99,4	99,5	99,6	99,8	100,7	100,8	101,2	101,3	101,7
	A	dB(A)	99,0	99,1	99,3	99,4	100,1	100,2	100,4	100,8	101,5
	E	dB(A)	92,2	92,3	92,8	93,0	93,2	93,5	93,6	93,7	93,8
	L	dB(A)	91,0	91,1	91,3	91,4	92,4	92,5	93,0	93,1	93,2
	N	dB(A)	92,3	92,4	92,8	93,1	93,3	93,4	94,3	94,4	94,8
	U	dB(A)	99,2	99,3	99,9	100,0	100,4	100,7	101,0	101,3	101,6
Sound pressure level (10 m)	°	dB(A)	66,9	67,0	67,1	67,3	68,1	68,2	68,4	68,5	68,8
	A	dB(A)	66,4	66,5	66,5	66,6	67,2	67,3	67,4	67,8	68,5
	E	dB(A)	59,4	59,5	59,9	60,1	60,2	60,4	60,5	60,5	60,6
	L	dB(A)	58,4	58,5	58,5	58,6	59,5	59,6	60,0	60,1	60,2
	N	dB(A)	59,4	59,5	59,8	60,0	60,1	60,2	60,8	60,8	61,1
	U	dB(A)	66,4	66,5	67,0	67,1	67,4	67,6	67,9	68,1	68,4

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(2) The refrigerant gas charge is approximate, for more information contact the office.
(3) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

Size			5602	6002	6402	6503	6703	6903	7203	8403	9603
Compressor											
Type	°,A,E,L,N,U	type					Screw				
Number	°,A,L	no.	2	2	2	3	3	3	3	3	3
	E,U	no.	2	2	2	3	3	3	3	-	-
	N	no.	2	2	2	3	-	-	-	-	-
Circuits	°,A,L	no.	2	2	2	3	3	3	3	3	3
	E,U	no.	2	2	2	3	3	3	3	-	-
	N	no.	2	2	2	3	-	-	-	-	-
Refrigerant	°,A,E,L,N,U	type					R134a				
Refrigerant load circuit 1 (1)	°	kg	65,0 (2)	62,0	70,0 (2)	67,0 (2)	55,0	78,0 (2)	62,0 (2)	99,0 (2)	112,0 (2)
	A	kg	106,0 (2)	82,0	82,0 (2)	74,0 (2)	81,0 (2)	85,0 (2)	70,0	106,0 (2)	80,0
	E	kg	113,0 (2)	86,0	95,0 (2)	77,0 (2)	89,0 (2)	89,0 (2)	100,0 (2)	-	-
	L	kg	106,0 (2)	82,0	82,0 (2)	74,0 (2)	81,0 (2)	85,0 (2)	70,0 (2)	106,0 (2)	80,0
	N	kg	128,0 (2)	128,0 (2)	138,0 (2)	85,0 (2)	-	-	-	-	-
	U	kg	113,0 (2)	86,0	95,0	77,0 (2)	89,0 (2)	89,0 (2)	100,0 (2)	-	-
Refrigerant load circuit 2 (1)	°	kg	71,0 (2)	73,0	80,0 (2)	74,0 (2)	61,0	85,0 (2)	70,0 (2)	99,0 (2)	112,0 (2)
	A	kg	106,0 (2)	99,0	99,0 (2)	81,0 (2)	81,0 (2)	92,0 (2)	75,0	106,0 (2)	95,0
	E	kg	113,0 (2)	98,0	97,0 (2)	85,0 (2)	89,0 (2)	96,0 (2)	100,0 (2)	-	-
	L	kg	106,0 (2)	99,0	99,0 (2)	81,0 (2)	81,0 (2)	92,0 (2)	75,0 (2)	106,0 (2)	95,0
	N	kg	128,0 (2)	138,0 (2)	138,0 (2)	92,0 (2)	-	-	-	-	-
	U	kg	113,0 (2)	98,0	97,0	85,0 (2)	89,0 (2)	96,0 (2)	100,0 (2)	-	-
Refrigerant load circuit 3 (1)	°	kg	-	-	-	74,0 (2)	65,0	85,0 (2)	80,0 (2)	99,0 (2)	112,0 (2)
	A	kg	-	-	-	81,0 (2)	81,0 (2)	92,0 (2)	75,0	106,0 (2)	85,0
	E,U	kg	-	-	-	85,0 (2)	89,0 (2)	96,0 (2)	100,0 (2)	-	-
	L	kg	-	-	-	81,0 (2)	81,0 (2)	92,0 (2)	75,0 (2)	106,0 (2)	85,0
	N	kg	-	-	-	92,0 (2)	-	-	-	-	-
System side heat exchanger											
Type	°,A,E,L,N,U	type					Shell and tube				
Number	°	no.	1	1	1	1	1	1	1	1	1
	A,L	no.	1	1	1	2	2	2	2	2	2
	E,U	no.	2	2	2	2	2	2	2	-	-
	N	no.	2	2	2	2	-	-	-	-	-
Fan											
Type	°,A,E,L,N,U	type					axials				
Fan motor	°,A,E,L,N,U	type					On-Off				
Number	°	no.	16	16	18	18	18	20	22	22	22
	A,L	no.	20	22	22	24	24	28	28	30	34
	E,U	no.	24	26	28	28	30	30	32	-	-
	N	no.	32	32	32	34	-	-	-	-	-
Air flow rate	°	m^3/h	288000	288000	324000	324000	324000	360000	396000	396000	396000
	A	m^3/h	360000	396000	396000	384000	384000	448000	448000	480000	612000
	E	m^3/h	276000	299000	322000	322000	345000	345000	368000	-	-
	L	m^3/h	260000	286000	286000	276000	276000	322000	322000	345000	442000
	N	m^3/h	368000	368000	368000	391000	-	-	-	-	-
	U	m^3/h	384000	416000	448000	448000	480000	480000	512000	-	-
Sound data calculated in cooling mode (3)											
Sound power level	°	dB(A)	101,7	101,8	102,1	102,3	102,4	103,0	103,1	103,2	103,3
	A	dB(A)	101,7	101,9	102,0	102,0	102,1	102,3	102,4	103,3	104,4
	E	dB(A)	93,9	94,0	94,2	94,3	94,3	94,4	94,8	-	-
	L	dB(A)	93,7	93,9	94,0	94,2	94,2	94,3	94,3	94,4	95,0
	N	dB(A)	95,0	95,2	95,3	95,4	-	-	-	-	-
	U	dB(A)	102,0	102,1	102,2	102,2	102,3	102,4	102,4	-	-
Sound pressure level (10 m)	°	dB(A)	68,8	68,9	69,1	69,3	69,4	69,9	69,9	70,0	70,1
	A	dB(A)	68,6	68,7	68,8	68,6	68,7	68,7	68,8	69,6	70,5
	E	dB(A)	60,5	60,5	60,6	60,7	60,6	60,7	61,0	-	-
	L	dB(A)	60,6	60,7	60,8	60,8	60,8	60,7	60,7	60,7	61,1
	N	dB(A)	61,2	61,4	61,5	61,5	-	-	-	-	-
	U	dB(A)	68,6	68,6	68,6	68,6	68,6	68,7	68,6	-	-

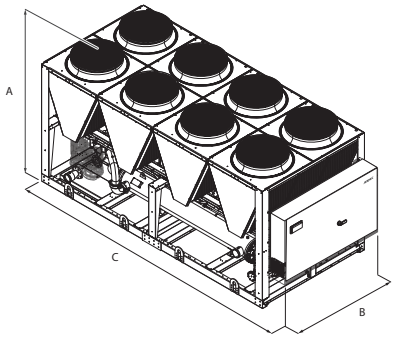
(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(2) The refrigerant gas charge is approximate, for more information contact the office.
(3) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

Size			1402	1602	1802	2002	2202	2352	2502	2652	2802
Integrated hydronic kit: 00											
Hydraulic connections											
Connections (in/out)	°,A,E,L,N,U	Type					Grooved joints				
Size (in)	°,A,L	Ø	5″	5″	6″	6″	6″	6″	6″	6″	6″
	E,N,U	Ø					6″				
Size (out)	°,A,L	Ø	5″	5″	6″	6″	6″	6″	6″	6″	6″
	E,N,U	Ø					6″				

Size			3002	3202	3402	3602	3902	4202	4502	4802	5202
Integrated hydronic kit: 00											
Hydraulic connections											
Connections (in/out)	°,A,E,L,N,U	Type					Grooved joints				
Size (in)	°	Ø	6″	6″	6″	6″	6″	6″	6″	8″	8″
	A,L	Ø	6″	6″	8″	8″	8″	8″	8″	8″	10″
	E,U	Ø	6″	6″	8″	8″	8″	8″	8″	10″	10″
	N	Ø	6″	6″	8″	8″	8″	8″	-	-	-
Size (out)	°	Ø	6″	6″	6″	6″	6″	6″	6″	8″	8″
	A,L	Ø	6″	6″	8″	8″	8″	8″	8″	8″	10″
	E,U	Ø	6″	6″	8″	8″	8″	8″	8″	10″	10″
	N	Ø	6″	6″	8″	8″	8″	8″	-	-	-
Module 1											
Size (in)	°,A,E,L,U	Ø									
	N	Ø	-	-	-	-	-	-	6″	6″	6″
Size (out)	°,A,E,L,U	Ø									
	N	Ø	-	-	-	-	-	-	6″	6″	6″
Module 2											
Size (in)	°,A,E,L,U	Ø									
	N	Ø	-	-	-	-	-	-	6″	6″	6″
Size (out)	°,A,E,L,U	Ø									
	N	Ø	-	-	-	-	-	-	6″	6″	6″

Size			5602	6002	6402	6503	6703	6903	7203	8403	9603
Integrated hydronic kit: 00											
Hydraulic connections											
Connections (in/out)	°,A,E,L,N,U	Type					Grooved joints				
Size (in)	°	Ø	8″	8″	8″	10″	10″	10″	10″	10″	10″
	A,L	Ø	10″	10″	10″	-	-	-	-	-	-
	E,N,U	Ø									
Size (out)	°	Ø	8″	8″	8″	10″	10″	10″	10″	10″	10″
	A,L	Ø	10″	10″	10″	-	-	-	-	-	-
	E,N,U	Ø									
Module 1											
Size (in)	°	Ø									
	A,L	Ø	-	-	-	8″	8″	8″	8″	10″	10″
	E,U	Ø	6″	6″	6″	8″	8″	8″	10″	-	-
	N	Ø	6″	6″	6″	8″	-	-	-	-	-
Size (out)	°	Ø									
	A,L	Ø	-	-	-	8″	8″	8″	8″	10″	10″
	E,U	Ø	6″	6″	6″	8″	8″	8″	10″	-	-
	N	Ø	6″	6″	6″	8″	-	-	-	-	-
Module 2											
Size (in)	°	Ø									
	A,L	Ø	-	-	-	6″	6″	6″	6″	6″	6″
	E,U	Ø	6″	6″	6″	6″	6″	6″	6″	-	-
	N	Ø	6″	6″	6″	6″	-	-	-	-	-
Size (out)	°	Ø									
	A,L	Ø	-	-	-	6″	6″	6″	6″	6″	6″
	E,U	Ø	6″	6″	6″	6″	6″	6″	6″	-	-
	N	Ø	6″	6″	6″	6″	-	-	-	-	-

DIMENSIONS



Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Dimensions and weights																
A	°,A,E,L,N,U	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	°,A,E,L,N,U	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	°	mm	3970	3970	3970	5160	5160	5160	5160	5160	5160	6350	6350	6350	6350	7140
	A,L	mm	5160	5160	5160	5160	6350	6350	6350	7140	7140	7140	7140	8330	8330	9520
	E,U	mm	5160	5160	6350	6350	6350	7140	7140	8330	8330	8330	8330	9520	9520	10710
	N	mm	6350	6350	7140	7140	7140	8330	8330	9520	9520	9520	9520	10710	11900	13090

Size			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Dimensions and weights															
A	°,A,L	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
	E,U	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	-	-
	N	mm	2450	2450	2450	2450	2450	2450	2450	2450	-	-	-	-	-
B	°,A,L	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
	E,U	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	-	-
	N	mm	2200	2200	2200	2200	2200	2200	2200	2200	-	-	-	-	-
C	°	mm	7140	8330	8330	9520	9520	9520	10710	11110	11110	11900	13090	13090	13090
	A,L	mm	9520	10710	10710	10710	11900	13090	13090	14280	14280	16660	16660	17850	20230
	E,U	mm	11900	11900	13090	13090	14280	15470	16660	16660	17850	17850	19040	-	-
	N	mm	13090	15470	16660	17850	19040	19040	19040	20230	-	-	-	-	-

For transport reasons, the units with the depth of more than 13090 mm are shipped separately. For more information, please refer to the technical manual and / or installation.

Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Integrated hydronic kit: 00																
Weights																
Empty weight	°	kg	3660	3702	3831	4670	5040	5053	5077	5273	5396	5922	5977	6410	6901	7477
	A,L	kg	4213	4249	4373	4699	5472	5488	5691	6228	6424	6477	6577	7656	8129	8647
	E,U	kg	4373	4394	4840	5431	5785	6333	6356	6805	6896	6914	6953	8149	8660	9431
	N	kg	4791	4812	5373	5965	6318	6741	6764	7254	7346	7416	7508	8882	9759	10383
Weight functioning	°	kg	3753	3790	3962	4801	5171	5202	5226	5548	5671	6244	6299	6732	7214	7790
	A,L	kg	4306	4337	4505	4848	5621	5637	5966	6503	6747	6799	6871	8173	8645	9152
	E,U	kg	4505	4543	4989	5753	6107	6655	6679	7118	7209	7279	7352	8718	9177	9936
	N	kg	4923	4962	5522	6287	6641	7063	7086	7567	7659	7729	7802	9399	10276	10888

Size			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Integrated hydronic kit: 00															
Weights															
Empty weight	°	kg	7574	7993	8302	8826	8954	9017	9719	11612	11688	12216	12761	13047	13176
	A,L	kg	8710	9428	9481	9902	10433	11018	11060	13354	13417	14572	14625	15743	16934
	E,U	kg	9922	9983	10887	11013	11820	12261	12701	14514	15005	15119	16034	-	-
	N	kg	10456	11646	12355	12989	12721	13666	13709	16119	-	-	-	-	-
Weight functioning	°	kg	7868	8287	8819	9342	9471	9522	10224	12527	12603	13089	13633	13920	14048
	A,L	kg	9215	9922	9974	10795	11327	11898	11940	14121	14184	15328	15381	16950	18126
	E,U	kg	10427	10476	11781	11907	12446	12886	13327	15281	15772	15875	17190	-	-
	N	kg	10961	12171	12880	13564	14249	14292	14726	16937	-	-	-	-	-

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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NSMI 1251-6102

Air-water chiller

Cooling capacity 285,6 ÷ 1342,6 kW

- **Microchannel coil**
- **Night mode**
- **Operation up to 50 °C outdoor air**
- **Low electrical consumption**



DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications.
Outdoor units with high-efficiency screw compressors axial fans, microchannel external coils and plant side shell and tube heat exchanger. In the unit with desuperheater, it is also possible to produce free-hot water.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

A High efficiency
E Silenced high efficiency

FEATURES

Operating field

Operation at full load up to 50 °C external air temperature depending on the size and vesion. For more information refer to the dedicated documentations or the selection program Magellano.

Unit with 1 / 2 cooling circuits

Unit with 1–2 refrigerant circuits.
The single circuit units have the inverter compressor, while the dual-circuit have an asynchronous compressor on/off switch and an inverter, the combination provides both high efficiency at part load and full load.

Aluminium microchannel coils

The microchannel condensing aluminum coils ensure high levels of efficiency, reduced quantities of refrigerant and lower unit weight. The treatment "O" available as configurator it ensures high resistance to corrosion even in the most aggressive environments.

Condensation control temperature

Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures, adapting the air flow rate to the actual system request in order to reduce consumption.

Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations with one or two pumps, high or low head, to obtain a solution that allows you to save money and to facilitate installation.

Low noise version

Silenced versions "E" feature a special compressor jacket which ensures a further noise reduction of approximately 4dB.

CONTROL PCO[5]

Microprocessor adjustment, with 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time and the ad adjustment includes complete management of the alarms and their log.

- Possibility to control two units in a Master-Slave configuration
- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AER485P1 x n° 2: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP

AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PRV3: Allows you to control the chiller at a distance.
AVX: Spring anti-vibration supports.

FACTORY FITTED ACCESSORIES

GP_: Anti-intrusion grid kit
KRS: Electric heater for the heat exchanger

ACCESSORIES COMPATIBILITY

Accessories

Model	Ver	1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	5702	6102
AER485P1	A,E	•	•	•												
AER485P1 x n° 2 (1)	A,E				•	•	•	•	•	•	•	•	•	•	•	•
AERBACP	A,E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERNET	A,E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	A,E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PRV3	A,E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

(1) x Indicates the quantity of accessories to match.

Antivibration

Ver	1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	5702	6102
A	AVX991	AVX992	AVX993	AVX996	AVX970	AVX995	AVX995	AVX995	AVX996	AVX988	AVX997	AVX998	AVX998	AVX998	AVX998
E	AVX991	AVX992	AVX994	AVX996	AVX970	AVX995	AVX995	AVX995	AVX996	AVX988	AVX997	AVX998	AVX998	AVX998	AVX998

Heater exchangers

Ver	1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	5702	6102
A,E	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS24	KRS24	KRS24	KRS24	KRS24	KRS24	KRS24	KRS24

A grey background indicates the accessory must be assembled in the factory

Anti-intrusion grid kit

Ver	1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	5702	6102
A,E	GP4V	GP4V	GP5V	GP5V	GP6V	GP7V	GP7V	GP7V	GP8V	GP9V	GP10V	GP11V	GP11V	GP11V	GP11V

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field		Description
1,2,3,4		**NSMI**
5,6,7,8		**Size** 1251, 1601, 1801, 2352, 2652, 2802, 3202, 3402, 3802, 4102, 4402, 4802, 5202, 5702, 6102
9		**Model**
	°	Cooling only
10		**Heat recovery**
	°	Without heat recovery
	D	With desuperheater (1)
11		**Version**
	A	High efficiency
	E	Silenced high efficiency
12		**Coils**
	°	Aluminium microchannel
	0	Coated aluminium microchannel
	R	Copper pipes-copper fins
	S	Copper pipes-Tinned copper fins
	V	Copper pieps-Coated aluminium fins
13		**Fans**
	°	Standard
	J	Inverter
14		**Power supply**
	°	400V~3 50Hz with fuses
15,16		**Integrated hydronic kit**
		Without hydronic kit
	00	Without hydronic kit
		Kit with n° 1 pump
	PA	Pump A
	PB	Pump B
	PC	Pump C
	PD	Pump D
	PE	Pump E
	PF	Pump F
	PG	Pump G
	PH	Pump H
	PI	Pump I
	PJ	Pump J (2)
		Pump n° 1 pump + stand-by pump
	DA	Pump A + stand-by pump
	DB	Pump B + stand-by pump
	DC	Pump C + stand-by pump
	DD	Pump D + stand-by pump
	DE	Pump E + stand-by pump
	DF	Pump F + stand-by pump
	DG	Pump G + stand-by pump
	DH	Pump H + stand-by pump
	DI	Pump I + stand-by pump
	DJ	Pump J + stand-by pump (2)
		Kit with 2 pumps
	TF	Double pump F
	TG	Double pump G
	TH	Double pump H
	TI	Double pump I
	TJ	Double pump J (2)

(1) Minimum water temperature of 35 °C must always be ensured at heat exchanger inlet if working with low temperatures of water produced in the primary circuit.
(2) For all configurations including pump J please contact the factory.

PERFORMANCE SPECIFICATIONS

NSMI - A/E

Size		1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	5702	6102
Cooling performance 12 °C / 7 °C (1)																
Cooling capacity	kW	285,6	382,0	464,0	519,1	605,4	659,4	725,2	802,4	842,6	948,0	1008,8	1110,4	1204,3	1253,0	1342,6
Input power	kW	91,3	120,2	149,5	167,1	194,3	212,3	232,7	257,5	269,9	304,8	324,7	356,2	397,4	415,9	454,6
Cooling total input current	A	155,0	200,0	245,0	293,0	337,0	360,0	393,0	431,0	443,0	517,0	547,0	619,0	665,0	728,0	761,0
EER	W/W	3,13	3,18	3,10	3,11	3,12	3,11	3,12	3,12	3,12	3,11	3,11	3,12	3,03	3,01	2,95
Water flow rate system side	l/h	49130	65700	79773	89247	104092	113376	124682	137945	144852	162983	173442	190903	207040	215409	230815
Pressure drop system side	kPa	45	15	21	18	25	28	33	27	30	39	45	38	44	49	55

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

ENERGY INDICES (REG. 2016/2281 EU)

Size			1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	5702	6102
SEER - 12/7 (EN14825:2018) with standard fans (1)																	
SEER	A,E	W/W	4,75	4,82	4,78	4,90	4,92	4,90	4,91	4,93	4,93	4,90	4,88	4,90	4,85	4,70	4,69
Seasonal efficiency	A,E	%	186,8%	189,7%	188,0%	193,1%	193,9%	193,0%	193,3%	194,2%	194,3%	192,8%	192,2%	192,9%	191,0%	185,1%	184,7%
SEER - (EN14825:2018) 12/7 with inverter fans (1)																	
SEER	A,E	W/W	4,95	5,04	5,00	5,01	5,03	5,01	5,02	5,04	5,04	5,00	4,99	5,00	4,96	4,81	4,80
Seasonal efficiency	A,E	%	194,9%	198,4%	196,8%	197,3%	198,1%	197,2%	197,6%	198,5%	198,5%	197,1%	196,4%	197,1%	195,3%	189,2%	188,8%
SEPR - (EN14825: 2018) High temperature with standard fans (2)																	
SEPR	A,E	W/W	5,70	5,62	5,59	6,56	6,43	6,42	6,77	6,94	7,21	6,96	7,47	6,88	7,21	6,69	7,01
SEPR - (EN14825: 2018) High temperature with inverter fans (2)																	
SEPR	A,E	W/W	5,70	5,62	5,59	6,56	6,43	6,42	6,77	6,94	7,21	6,96	7,47	6,88	7,21	6,69	7,01

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

Size			1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	5702	6102
Electric data																	
Maximum current (FLA)	A,E	A	251,3	291,3	377,7	442,0	473,0	519,4	519,4	567,4	653,8	708,1	753,5	874,8	917,2	1002,2	1036,2
Peak current (LRA)	A,E	A	51,3	51,3	57,7	571,7	605,0	651,4	651,4	775,4	861,8	989,1	1059,4	1180,2	1335,2	1420,2	1532,2

GENERAL TECHNICAL DATA

Size			1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	5702	6102
Compressor																	
Type	A,E	type	Screw														
Compressor regulation	A,E	Type	I	I	I	1+I	1+I	1+I	1+I	1+I	1+I	1+I	1+I	1+I	1+I	1+I	1+I
Number	A,E	no.	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2
Circuits	A,E	no.	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2
Refrigerant	A,E	type	R134a														
Refrigerant charge (1)	A,E	kg	28,0	28,0	30,0	81,0	92,0	110,0	114,0	107,0	131,0	146,0	163,0	183,0	183,0	195,0	195,0
System side heat exchanger																	
Type	A,E	type	Shell and tube														
Number	A,E	no.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Hydraulic connections																	
Connections (in/out)	A,E	Type	Grooved joints														
Sizes (in/out)	A,E	Ø	5"	6"	6"	6"	6"	6"	6"	8"	8"	8"	8"	10"	10"	10"	10"

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

Fans

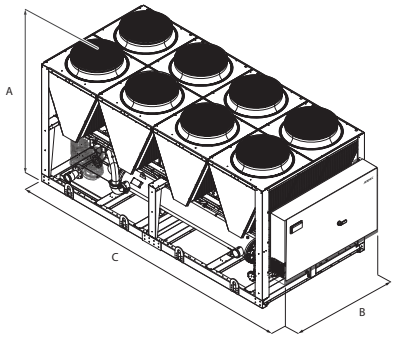
Size			1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	5702	6102
Fans: °																	
Fan																	
Type	A,E	type	Axial														
Fan motor	A,E	type	Asynchronous with phase cut														
Number	A,E	no.	8	8	10	10	12	14	14	14	16	18	20	22	22	22	22
Air flow rate	A,E	m^3/h	128000	128000	160000	160000	192000	224000	224000	224000	256000	288000	320000	396000	396000	396000	396000

Sound data

Size			1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	5702	6102
Sound data calculated in cooling mode (1)																	
Sound power level	A	dB(A)	97,2	98,6	98,6	98,6	98,8	99,9	99,9	100,3	100,3	100,4	101,0	102,9	103,2	102,9	103,2
	E	dB(A)	92,9	95,8	95,9	94,7	95,1	96,1	96,1	97,3	97,4	97,7	98,0	99,9	99,9	99,9	99,9
Sound pressure level (10 m)	A	dB(A)	64,8	66,2	66,1	66,1	66,2	67,1	67,1	67,5	67,5	67,4	67,9	69,7	69,9	69,7	69,9
	E	dB(A)	60,6	63,4	63,4	62,1	62,5	63,3	63,3	64,6	64,5	64,7	64,8	66,7	66,7	66,7	66,7

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size			1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	5702	6102
Dimensions and weights																	
A	A,E	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	A,E	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	A,E	mm	4760	4760	5950	6400	7140	8330	8330	8330	9520	10710	11900	13090	13090	13090	13090

Size			1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	5702	6102
Integrated hydronic kit: 00																	
Dimensions and weights																	
Empty weight	A	kg	3752	4162	4578	6039	6447	6896	6987	7635	8103	8872	9324	10798	10888	10918	10991
	E	kg	4054	4464	4880	6642	7050	7499	7590	8239	8706	9475	9928	11637	11727	11757	11830
Weight functioning	A	kg	3832	4416	4832	6360	6768	7206	7275	8165	8632	9389	9841	11730	11819	11835	11908
	E	kg	4134	4718	5134	6964	7371	7809	7878	8768	9236	9993	10445	12568	12658	12674	12747

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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NSH

Reversible air/water heat pump

Cooling capacity 251 ÷ 731 kW
Heating capacity 281 ÷ 786 kW

- **High efficiency also at partial loads**
- **Electronic expansion valve**



DESCRIPTION

Reversible outdoor heat pumps for the production of chilled/heated water designed to satisfy the needs of residential and commercial buildings, or for industrial applications.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

A High efficiency
E Silenced high efficiency

FEATURES

Operating field

Working at full load up to -10 °C outside air temperature in winter, and up to 48°C in summer. Hot water production up to 55°C (for more details refer to the technical documentation).

Bi-tri circuit unit

The units are mono or dual-circuit, to ensure maximum efficiency both at full load and at partial load.

Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations with one or two pumps, high or low head, to obtain a solution that allows you to save money and to facilitate installation.

CONTROL

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.
— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
— The temperature control takes place with the integral proportional logic, based on the water output temperature.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AER485P1 x n° 2: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PRV3: Allows you to control the chiller at a distance.
DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.
AVX: Spring anti-vibration supports.

FACTORY FITTED ACCESSORIES

RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
KRS: Electric heater for the heat exchanger
AK: Acoustic kit that lowers the noise level even further, thanks to the special coating on the panelling or on those components that produce the most noise in the unit. Available for the low noise version only.

ACCESSORIES COMPATIBILITY

Model	Ver	1251	1401	1402	1601	1602	1801	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
AER485P1	A,E	•	•		•		•											
AER485P1 x n° 2 (1)	A,E			•		•		•	•	•	•	•	•	•	•	•	•	•
AERBACP	A,E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERNET	A,E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	A,E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PRV3	A,E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

(1) x Indicates the quantity of accessories to match.

Condensation control temperature

Ver	1251	1401	1402	1601	1602	1801	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
A,E	DCPX69	DCPX69	DCPX68	DCPX69	DCPX68	DCPX69	DCPX68	DCPX73	DCPX73	DCPX73	DCPX73	DCPX73	DCPX73	DCPX73	DCPX73	DCPX73	DCPX73

Anti-intrusion grid

Ver	1251	1401	1402	1601	1602	1801	1802	2002	2202
A,E	GP300M	GP300M	GP300B	GP300M	GP300B	GP400M	GP400B	GP500B	GP500B

Ver	2352	2502	2652	2802	3002	3202	3402	3602
A,E	GP500B	GP500B	GP500B	GP500B	GP300M+300M	GP300M+300M	GP300M+400M	GP400M+400M

Antivibration

Ver	1251	1401	1402	1601	1602	1801	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Integrated hydronic kit: 00																	
A,E	AVX536	AVX536	AVX537	AVX536	AVX538	AVX540	AVX541	AVX543	AVX543	AVX545	AVX549	AVX551	AVX551	AVX554	AVX556	AVX557	AVX559
Integrated hydronic kit: PA																	
A,E	AVX536	AVX536	AVX537	AVX536	AVX538	AVX540	AVX541	AVX543	AVX543	AVX545	AVX550	AVX551	AVX551	AVX553	AVX553	AVX557	AVX559
Integrated hydronic kit: PC, PE, PG, PJ																	
A,E	AVX536	AVX536	AVX538	AVX536	AVX538	AVX540	AVX541	AVX543	AVX543	AVX545	AVX550	AVX551	AVX551	AVX553	AVX555	AVX557	AVX559

Heater exchangers

Ver	1251	1401	1402	1601	1602	1801	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
A,E	KRS11	KRS11	KRS19	KRS11	KRS19	KRS11	KRS19	KRS19	KRS19	KRS19	KRS19	KRS19	KRS19	KRS14	KRS14	KRS14	KRS14

A grey background indicates the accessory must be assembled in the factory

Power factor correction

Ver	1251	1401	1402	1601	1602	1801	1802	2002	2202
A,E	RIFNSH1251	RIFNSH1401	RIFNSH1402	RIFNSH1601	RIFNSH1602	RIFNSH1801	RIFNSH1802	RIFNSH2002	RIFNSH2202

A grey background indicates the accessory must be assembled in the factory

Ver	2352	2502	2652	2802	3002	3202	3402	3602
A,E	RIFNSH2352	RIFNSH2502	RIFNSH2652	RIFNSH2802	RIFNSH3002	RIFNSH3202	RIFNSH3402	RIFNSH3602

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field		Description
1,2,3		**NSH**
4,5,6,7		**Size** 1251, 1401, 1402, 1601, 1602, 1801, 1802, 2002, 2202, 2352, 2502, 2652, 2802, 3002, 3202, 3402, 3602
8		**Operating field**
	X	Electronic thermostatic expansion valve
9		**Model**
	H	Heat pump
10		**Heat recovery**
	°	Without heat recovery
	D	With desuperheater
11		**Version**
	A	High efficiency
	E	Silenced high efficiency
12		**Coils**
	°	Copper-aluminium
	R	Copper pipes-copper fins
	S	Copper pipes-Tinned copper fins
	V	Copper pieps-Coated aluminium fins
13		**Fans**
	°	Standard
	J	Inverter
14		**Power supply**
	°	400V~3 50Hz with fuses
	2	230V~3 50Hz with fuses (1)
	4	230V~3 50Hz with magnet circuit breakers (1)
	5	500V~3 50Hz with fuses (2)
	8	400V~3 50Hz with magnet circuit breakers
	9	500V~3 50Hz with magnet circuit breakers (2)
15,16		**Integrated hydronic kit**
		Without hydronic kit
	00	Without hydronic kit
		Kit with n° 1 pump
	PA	Pump A
	PC	Pump C
	PE	Pump E
	PG	Pump G
	PJ	Pump J (3)

(1) Not available for size from 1251 to 1801 and from 2352 to 3602
(2) Not available for size 1801-3402-3602
(3) For all configurations including pump J please contact the factory.

PERFORMANCE SPECIFICATIONS

NS - HA

Size		1251	1401	1402	1601	1602	1801	1802	2002	2202
Cooling performance 12 °C / 7 °C (1)										
Cooling capacity	kW	262,7	281,7	257,7	309,7	315,6	365,6	365,6	384,6	414,5
Input power	kW	86,9	95,0	94,9	107,8	108,3	128,3	125,3	132,5	138,8
Cooling total input current	A	149,0	164,0	168,0	185,0	186,0	215,0	216,0	227,0	233,0
EER	W/W	3,02	2,96	2,72	2,87	2,91	2,85	2,92	2,90	2,99
Water flow rate system side	l/h	45186	48451	44327	53262	54292	62883	62883	66147	71302
Pressure drop system side	kPa	38	41	36	27	50	43	43	47	53
Heating performance 40 °C / 45 °C (2)										
Heating capacity	kW	281,4	297,4	281,4	332,3	342,5	393,5	395,5	412,5	450,6
Input power	kW	88,2	94,2	93,2	104,0	106,8	126,7	123,7	133,9	141,3
Heating total input current	A	150,0	163,0	165,0	180,0	182,0	212,0	213,0	229,0	236,0
COP	W/W	3,19	3,16	3,02	3,20	3,21	3,11	3,20	3,08	3,19
Water flow rate system side	l/h	48838	51618	48838	57701	59439	68303	68651	71605	78210
Pressure drop system side	kPa	47	49	47	33	64	54	54	58	67

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

Size		2352	2502	2652	2802	3002	3202	3402	3602
Cooling performance 12 °C / 7 °C (1)									
Cooling capacity	kW	454,6	499,5	524,5	547,5	591,5	619,6	675,5	731,4
Input power	kW	158,4	173,5	186,7	195,9	202,6	215,4	235,9	256,4
Cooling total input current	A	268,0	295,0	318,0	335,0	349,0	370,0	400,0	430,0
EER	W/W	2,87	2,88	2,81	2,80	2,92	2,88	2,86	2,85
Water flow rate system side	l/h	78174	85906	90201	94153	101712	106523	116144	125766
Pressure drop system side	kPa	37	38	40	43	34	27	35	43
Heating performance 40 °C / 45 °C (2)									
Heating capacity	kW	502,5	541,5	563,6	585,6	629,5	664,5	725,6	786,7
Input power	kW	157,9	171,0	177,1	185,4	198,0	207,8	230,4	253,1
Heating total input current	A	267,0	292,0	303,0	318,0	342,0	359,0	391,0	423,0
COP	W/W	3,18	3,17	3,18	3,16	3,18	3,20	3,15	3,11
Water flow rate system side	l/h	87247	94025	97849	101673	109320	115403	126004	136606
Pressure drop system side	kPa	49	47	49	53	41	33	43	54

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

NS - HE

Size		1251	1401	1402	1601	1602	1801	1802	2002	2202
Cooling performance 12 °C / 7 °C (1)										
Cooling capacity	kW	250,7	266,7	242,7	292,7	301,6	343,6	349,6	366,6	394,5
Input power	kW	91,8	101,9	100,8	115,7	116,2	136,1	132,2	140,3	146,5
Cooling total input current	A	161,0	178,0	181,0	202,0	202,0	234,0	233,0	246,0	254,0
EER	W/W	2,73	2,62	2,41	2,53	2,60	2,52	2,65	2,61	2,69
Water flow rate system side	l/h	43125	45874	41750	50341	51887	59103	60134	63055	67865
Pressure drop system side	kPa	32	37	33	24	46	38	39	43	48
Heating performance 40 °C / 45 °C (2)										
Heating capacity	kW	281,4	297,4	281,4	332,3	342,5	393,5	395,5	412,5	450,6
Input power	kW	88,2	94,2	93,2	104,0	106,8	126,7	123,7	133,9	141,3
Heating total input current	A	150,0	163,0	165,0	180,0	182,0	212,0	213,0	229,0	236,0
COP	W/W	3,19	3,16	3,02	3,20	3,21	3,11	3,20	3,08	3,19
Water flow rate system side	l/h	48838	51618	48838	57701	59439	68303	68651	71605	78210
Pressure drop system side	kPa	47	49	47	33	64	54	54	58	67

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

Size		2352	2502	2652	2802	3002	3202	3402	3602
Cooling performance 12 °C / 7 °C (1)									
Cooling capacity	kW	435,6	487,6	506,5	517,5	559,6	585,6	636,5	687,5
Input power	kW	169,3	192,4	202,5	210,6	217,4	231,2	251,6	272,0
Cooling total input current	A	293,0	333,0	349,0	365,0	380,0	403,0	436,0	468,0
EER	W/W	2,57	2,53	2,50	2,46	2,57	2,53	2,53	2,53
Water flow rate system side	l/h	74910	83844	87108	88998	96214	100681	109444	118206
Pressure drop system side	kPa	34	35	37	39	30	24	31	38
Heating performance 40 °C / 45 °C (2)									
Heating capacity	kW	502,5	541,5	563,6	585,6	629,5	664,5	725,6	786,7
Input power	kW	157,9	171,0	177,1	185,4	198,0	207,8	230,4	253,1
Heating total input current	A	267,0	292,0	303,0	318,0	342,0	359,0	391,0	423,0
COP	W/W	3,18	3,17	3,18	3,16	3,18	3,20	3,15	3,11
Water flow rate system side	l/h	87247	94025	97849	101673	109320	115403	126004	136606
Pressure drop system side	kPa	49	47	49	53	41	33	43	54

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Data EN 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.

ENERGY DATA

Size				1251	1401	1402	1601	1602	1801	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (1)																				
Pdesignh	A,E	kW		185	195	185	218	225	259	260	271	297	330	356	370	385	325	342	374	400
SCOP	A,E			3,33	3,28	3,23	3,33	3,33	3,23	3,33	3,20	3,30	3,30	3,30	3,33	3,30	3,35	3,40	3,33	3,28
ηsh	A,E	%		130.0%	128.0%	126.0%	130.0%	130.0%	126.0%	130.0%	125.0%	129.0%	129.0%	129.0%	130.0%	129.0%	131.0%	133.0%	130.0%	128.0%
SEER - 12/7 (EN14825:2018) with standard fans (2)																				
SEER	A	W/W		3,88	3,81	3,46	3,76	3,68	3,71	3,73	3,70	3,80	3,72	3,74	3,66	3,64	3,81	3,76	3,73	3,72
	E	W/W		3,41	3,28	3,00	3,19	3,23	3,19	3,32	3,28	3,37	3,28	3,23	3,18	3,12	3,30	3,25	3,23	3,23
Seasonal efficiency	A	%		152.1%	149.4%	135.2%	147.4%	144.2%	145.2%	146.0%	145.0%	149.0%	145.7%	146.6%	143.5%	142.5%	149.5%	147.5%	146.1%	145.8%
	E	%		133.4%	128.1%	116.8%	124.4%	126.2%	124.7%	129.7%	128.2%	131.8%	128.1%	126.3%	124.3%	121.7%	129.1%	126.9%	126.1%	126.2%

(1) Efficiencies for low temperature applications (35 °C)
(2) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.

ELECTRIC DATA

Size			1251	1401	1402	1601	1602	1801	1802	2002	2202
Electric data											
Maximum current (FLA)	A,E	A	209,0	242,0	276,0	258,0	276,0	316,0	325,0	352,0	370,0
Peak current (LRA)	A,E	A	327,0	387,0	251,0	431,0	251,0	472,0	305,0	313,0	350,0

Size			2352	2502	2652	2802	3002	3202	3402	3602
Electric data										
Maximum current (FLA)	A,E	A	390,0	410,0	443,0	476,0	500,0	516,0	574,0	631,0
Peak current (LRA)	A,E	A	365,0	436,0	461,0	521,0	534,0	578,0	612,0	653,0

GENERAL TECHNICAL DATA

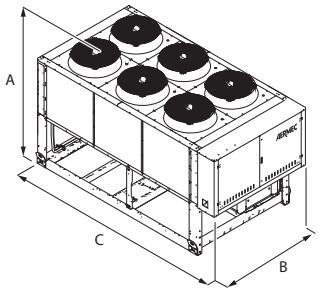
Size			1251	1401	1402	1601	1602	1801	1802	2002	2202
Compressor											
Type	A,E	type					Screw				
Number	A,E	no.	1	1	2	1	2	1	2	2	2
Circuits	A,E	no.	1	1	2	1	2	1	2	2	2
Refrigerant	A,E	type					R134a				
System side heat exchanger											
Type	A,E	type					Shell and tube				
Number	A,E	no.	1	1	2	1	2	1	2	2	1
System side hydraulic connections											
Connections (in/out)	A,E	Type					Grooved joints				
Sizes (in/out)	A,E	Ø					6"				
Fan											
Type	A,E	type					Axial				
Fan motor	A	type					Asynchronous				
	E	type					Asynchronous with phase cut				
Number	A,E	no.	6	6	6	6	6	8	8	10	10
Air flow rate	A	m^3/h	117600	117600	117600	112200	112200	156000	153200	196000	196000
	E	m^3/h	82320	117600	82320	78540	78540	109200	107240	137200	137200
Sound data calculated in cooling mode (1)											
Sound power level	A	dB(A)	94,0	94,0	94,0	95,0	95,0	96,0	96,0	97,0	97,0
	E	dB(A)	89,0	89,0	89,0	90,0	90,0	91,0	91,0	92,0	92,0
Sound pressure level (10 m)	A	dB(A)	62,0	62,0	62,0	63,0	63,0	64,0	64,0	64,0	64,0
	E	dB(A)	57,0	57,0	57,0	58,0	58,0	59,0	59,0	59,0	59,0

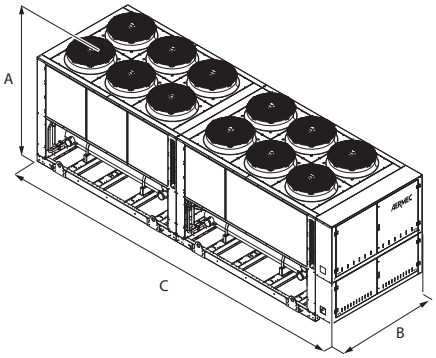
(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

Size			2352	2502	2652	2802	3002	3202	3402	3602
Compressor										
Type	A,E	type					Screw			
Number	A,E	no.	2	2	2	2	2	2	2	2
Circuits	A,E	no.	2	2	2	2	2	2	2	2
Refrigerant	A,E	type					R134a			
System side heat exchanger										
Type	A,E	type					Shell and tube			
Number	A,E	no.	1	1	1	1	2	2	2	2
System side hydraulic connections										
Connections (in/out)	A,E	Type					Grooved joints			
Sizes (in/out)	A,E	Ø					6"			
Fan										
Type	A,E	type					Axial			
Fan motor	A	type					Asynchronous			
	E	type					Asynchronous with phase cut			
Number	A,E	no.	10	10	10	10	12	12	14	16
Air flow rate	A	m^3/h	196000	196000	191500	187000	229800	224400	268200	312000
	E	m^3/h	137200	137200	134050	130900	196140	157080	187740	218400
Sound data calculated in cooling mode (1)										
Sound power level	A	dB(A)	97,0	97,0	97,0	97,0	97,0	98,0	99,0	99,0
	E	dB(A)	92,0	92,0	92,0	92,0	92,0	93,0	94,0	94,0
Sound pressure level (10 m)	A	dB(A)	64,0	65,0	65,0	65,0	64,0	65,0	66,0	66,0
	E	dB(A)	59,0	60,0	60,0	60,0	59,0	60,0	61,0	61,0

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS





Size			1251	1401	1402	1601	1602	1801	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Dimensions and weights																			
A	A,E	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	A,E	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	A,E	mm	3780	3780	3780	3780	3780	4770	4770	5750	5750	5750	5750	5750	5750	7160	7160	8150	8150
Weights																			
Without hydronic kit	A,E	kg	3245	3280	3570	3435	3835	4115	4005	4385	4570	4940	5265	5470	5610	6540	6745	7425	8105

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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NSG

Air-water chiller

Cooling capacity 228 ÷ 1580 kW

- **Microchannel coil**
- **High efficiency also at partial loads**
- **Night mode**



DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications.
Outdoor units with high-efficiency screw compressors axial fans, microchannel external coils and plant side shell and tube heat exchanger. In the unit with desuperheater, it is also possible to produce free-hot water.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

° Standard
A High efficiency
E Silenced high efficiency
L Standard silenced
N Silenced very high efficiency
U Very high efficiency

FEATURES

HFO R1234ze refrigerant gas

HFO R1234ze is a mixture featuring:
da ODP = 0 e GWP (Global Warming Potential) = 7, R134a GWP = 1430;
with thermodynamic properties that guarantee and sometimes improve efficiencies achieved with HFC refrigerants.

Bi-tri circuit unit

Unit with 2/3 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.

Aluminium microchannel coils

The microchannel condensing aluminum coils ensure high levels of efficiency, reduced quantities of refrigerant and lower unit weight. The treatment "O" available as configurator it ensures high resistance to corrosion even in the most aggressive environments.

Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations with one or two pumps, high or low head, to obtain a solution that allows you to save money and to facilitate installation.

CONTROL

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.
— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
— The temperature control takes place with the integral proportional logic, based on the water output temperature.
— **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load. **Night Mode for standard versions is mandatory DCPX accessory (standard on all low noise versions) or "J" inverter fan**

ACCESSORIES

AER485P1 x n° 2: RS-485 interface for supervision systems with MODBUS protocol.
AER485P1 x n° 3: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

AERSET: It makes it possible to automatically compensate for the operation setting of the unit to which it is connected, based on a 0-10V MODBUS input signal. Mandatory accessory MODU-485BL.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PRV3: Allows you to control the chiller at a distance.

DCPX: Device for condensation temperature control, with continuous speed modulation of fans by using a pressure transducer.
AVX: Spring anti-vibration supports.

FACTORY FITTED ACCESSORIES

RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
GP_: Anti-intrusion grid kit
KRS: Electric heater for the heat exchanger

ACCESSORIES COMPATIBILITY

Model	Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
AER485P1 x n° 2 (1)	°,A,E,L,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERBACP	°,A,E,L,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERNET	°,A,E,L,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERSET	°,A,E,L,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	°,A,E,L,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PRV3	°,A,E,L,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Model	Ver	4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
AER485P1 x n° 2 (1)	°,A,E,L,N,U	•	•	•	•	•	•	•						
AER485P1 x n° 3 (1)	°,A,L								•	•	•	•	•	•
	E,U								•	•	•	•		
	N								•					
AERBACP	°,A,L	•	•	•	•	•	•	•	•	•	•	•	•	•
	E,U	•	•	•	•	•	•	•	•	•	•	•		
	N	•	•	•	•	•	•	•	•					
AERNET	°,A,L	•	•	•	•	•	•	•	•	•	•	•	•	•
	E,U	•	•	•	•	•	•	•	•	•	•	•		
	N	•	•	•	•	•	•	•	•					
AERSET	°,A,L	•	•	•	•	•	•	•	•	•	•	•	•	•
	E,U	•	•	•	•	•	•	•	•	•	•	•		
	N	•	•	•	•	•	•	•	•					
MULTICHILLER_EVO	°,A,L	•	•	•	•	•	•	•	•	•	•	•	•	•
	E,U	•	•	•	•	•	•	•	•	•	•	•		
	N	•	•	•	•	•	•	•	•					
PRV3	°,A,L	•	•	•	•	•	•	•	•	•	•	•	•	•
	E,U	•	•	•	•	•	•	•	•	•	•	•		
	N	•	•	•	•	•	•	•	•					

(1) x Indicates the quantity of accessories to match.

Condensation control temperature

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002
Fans: °										
°	DCPX100	DCPX100	DCPX100	DCPX101	DCPX101	DCPX101	DCPX101	DCPX111	DCPX111	DCPX112
A	DCPX101	DCPX101	DCPX101	DCPX101	DCPX102	DCPX102	DCPX102	DCPX103	DCPX103	DCPX103
E,L	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard
U	DCPX101	DCPX101	DCPX102	DCPX102	DCPX102	DCPX103	DCPX103	DCPX104	DCPX104	DCPX104

Ver	3202	3402	3602	3902	4202	4502	4802	5202	5602	6002
Fans: °										
°	DCPX112	DCPX112	DCPX112	DCPX113	DCPX113	DCPX114	DCPX114	DCPX115	DCPX115	DCPX115
A	DCPX103	DCPX104	DCPX104	DCPX105	DCPX105	DCPX106	DCPX106	DCPX116	DCPX117	DCPX118
E,L	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard	As standard
U	DCPX104	DCPX105	DCPX105	DCPX106	DCPX107	DCPX107	DCPX108	DCPX109	DCPX120	DCPX121

Ver	6402	6503	6703	6903	7203	8403	9603
Fans: °							
°	DCPX116	DCPX135+DCPX113	DCPX135+DCPX113	DCPX125+DCPX114	DCPX114+DCPX136	DCPX114+DCPX136	DCPX114+DCPX136
A	DCPX118	DCPX105+DCPX126	DCPX105+DCPX126	DCPX106+DCPX126	DCPX106+DCPX126	DCPX107+DCPX126	DCPX118+DCPX137
E	As standard	As standard	As standard	As standard	As standard	-	-
L	As standard	As standard	As standard	As standard	As standard	As standard	As standard
U	DCPX122	DCPX106+DCPX127	DCPX107+DCPX127	DCPX107+DCPX127	DCPX108+DCPX127	-	-

Antivibration

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Integrated hydronic kit: 00														
°	AVX962	AVX962	AVX962	AVX963	AVX963	AVX963	AVX963	AVX968	AVX968	AVX966	AVX966	AVX966	AVX966	AVX965
A,L	AVX963	AVX963	AVX963	AVX963	AVX964	AVX964	AVX966	AVX965	AVX965	AVX970	AVX965	AVX967	AVX967	AVX969
E,U	AVX963	AVX963	AVX964	AVX966	AVX966	AVX965	AVX965	AVX967	AVX967	AVX967	AVX967	AVX969	AVX969	AVX971
N	AVX964	AVX964	AVX987	AVX965	AVX965	AVX967	AVX967	AVX969	AVX969	AVX969	AVX969	AVX971	AVX961	AVX972

Ver	4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Integrated hydronic kit: 00													
°	AVX965	AVX967	AVX967	AVX969	AVX969	AVX969	AVX971	AVX978	AVX978	AVX983	AVX984	AVX984	AVX984
A,L	AVX969	AVX971	AVX971	AVX971	AVX961	AVX972	AVX972	AVX979	AVX979	AVX980	AVX980	AVX986	AVX981
E,U	AVX961	AVX961	AVX972	AVX972	AVX976	AVX973	AVX974	AVX980	AVX982	AVX982	AVX985	-	-
N	AVX972	AVX973	AVX974	AVX975	AVX977	AVX977	AVX977	AVX981	-	-	-	-	-

Power factor correction

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
°,A,E,L,N,U	RIF (1)	RIF (1)	RIF (1)	RIF (1)	RIF (1)	RIF (1)	RIF (1)	RIF (1)	RIF (1)	RIF (1)	RIF (1)	RIF (1)	RIF (1)	RIF (1)

(1) Contact the factory
A grey background indicates the accessory must be assembled in the factory

Ver	4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
°,A,L	RIF (1)	RIF (1)	RIF (1)	RIF (1)	RIF (1)	RIF (1)	RIF (1)	RIF (1)	RIF (1)	RIF (1)	RIF (1)	RIF (1)	RIF (1)
E,U	RIF (1)	RIF (1)	RIF (1)	RIF (1)	RIF (1)	RIF (1)	RIF (1)	RIF (1)	RIF (1)	RIF (1)	RIF (1)	-	-
N	RIF (1)	RIF (1)	RIF (1)	RIF (1)	RIF (1)	RIF (1)	RIF (1)	RIF (1)	-	-	-	-	-

(1) Contact the factory
A grey background indicates the accessory must be assembled in the factory

Anti-intrusion grid

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
°	GP3V	GP3V	GP3V	GP4V	GP4V	GP4V	GP4V	GP4V	GP4V	GP5V	GP5V	GP5V	GP5V	GP6V
A	GP4V	GP4V	GP4V	GP5V	GP5V	GP5V	GP5V	GP6V	GP6V	GP6V	GP6V	GP7V	GP7V	GP8V
E,U	GP4V	GP4V	GP5V	GP5V	GP5V	GP6V	GP6V	GP7V	GP7V	GP7V	GP7V	GP8V	GP8V	GP9V
L	GP4V	GP4V	GP4V	GP4V	GP5V	GP5V	GP5V	GP6V	GP6V	GP6V	GP6V	GP7V	GP7V	GP8V
N	GP5V	GP5V	GP6V	GP6V	GP6V	GP7V	GP7V	GP8V	GP8V	GP8V	GP8V	GP9V	GP10V	GP11V

A grey background indicates the accessory must be assembled in the factory

Ver	4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
°	GP6V	GP7V	GP7V	GP8V	GP8V	GP8V	GP9V	GP9V	GP9V	GP10V	GP11V	GP11V	GP11V
A,L	GP8V	GP9V	GP9V	GP9V	GP10V	GP11V	GP11V	GP4V+GP8V	GP4V+GP8V	GP5V+GP9V	GP5V+GP9V	GP5V+GP10V	GP6V+GP11V
E,U	GP10V	GP10V	GP11V	GP11V	GP6V+GP6V	GP6V+GP7V	GP7V+GP7V	GP5V+GP9V	GP5V+GP10V	GP5V+GP10V	GP6V+GP11V	-	-
N	GP11V	GP6V+GP7V	GP7V+GP7V	GP7V+GP8V	GP8V+GP8V	GP8V+GP8V	GP8V+GP8V	GP6V+GP11V	-	-	-	-	-

A grey background indicates the accessory must be assembled in the factory

Heater exchangers

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002
°,A,L	KRS22	KRS22	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23
E,N,U	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23

A grey background indicates the accessory must be assembled in the factory

Ver	3202	3402	3602	3902	4202	4502	4802	5202	5602	6002
°	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS24	KRS24	KRS24	KRS24
A,L	KRS23	KRS24	KRS24	KRS24	KRS24	KRS24	KRS24	KRS24	KRS24	KRS24
E,U	KRS23	KRS24	KRS24	KRS24	KRS24	KRS24	KRS24	KRS24	KRS23+KRS23	KRS23+KRS23
N	KRS23	KRS24	KRS24	KRS24	KRS24	KRS24	KRS23+KRS23	KRS23+KRS23	KRS23+KRS23	KRS23+KRS23

A grey background indicates the accessory must be assembled in the factory

Ver	6402	6503	6703	6903	7203	8403	9603
°	KRS24	KRS24	KRS24	KRS24	KRS24	KRS24	KRS24
A,L	KRS24	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24
E,U	KRS23+KRS23	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24	-	-
N	KRS23+KRS23	KRS23+KRS24	-	-	-	-	-

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field		Description
1,2,3		**NSG**
4,5,6,7		**Size** 1402, 1602, 1802, 2002, 2202, 2352, 2502, 2652, 2802, 3002, 3202, 3402, 3602, 3902, 4202, 4502, 4802, 5202, 5602, 6002, 6402, 6503, 6703, 6903, 7203, 8403, 9603
8		**Operating field**
	X	Electronic thermostatic expansion valve (1)
	Z	Low temperature electronic thermostatic valve (2)
9		**Model**
	°	Cooling only
10		**Heat recovery**
	°	Without heat recovery
	D	With desuperheater (3)
	T	With total recovery (4)
11		**Version**
	°	Standard
	A	High efficiency
	E	Silenced high efficiency
	L	Standard silenced
	N	Silenced very high efficiency
	U	Very high efficiency
12		**Coils**
	°	Aluminium microchannel
	O	Coated aluminium microchannel
	R	Copper pipes-copper fins
	S	Copper pipes-Tinned copper fins
	V	Copper pieps-Coated aluminium fins
13		**Fans**
	°	Standard
	J	Inverter
14		**Power supply**
	°	400V~3 50Hz with fuses
	2	230V~3 50Hz with fuses (5)
	4	230V~3 50Hz with magnet circuit breakers (5)
	5	500V~3 50Hz with fuses (6)
	8	400V~3 50Hz with magnet circuit breakers
	9	500V~3 50Hz with magnet circuit breakers (6)

Field		Description
15,16		**Integrated hydronic kit**
	00	Without hydronic kit
		Kit with n° 1 pump
	PA	Pump A
	PB	Pump B
	PC	Pump C
	PD	Pump D
	PE	Pump E
	PF	Pump F
	PG	Pump G
	PH	Pump H
	PI	Pump I
	PJ	Pump J (7)
		Pump n° 1 pump + stand-by pump
	DA	Pump A + stand-by pump
	DB	Pump B + stand-by pump
	DC	Pump C + stand-by pump
	DD	Pump D + stand-by pump
	DE	Pump E + stand-by pump
	DF	Pump F + stand-by pump
	DG	Pump G + stand-by pump
	DH	Pump H + stand-by pump
	DI	Pump I + stand-by pump
	DJ	Pump J + stand-by pump (7)
		Kit with 2 pumps
	TF	Double pump F (8)
	TG	Double pump G (8)
	TH	Double pump H (8)
	TI	Double pump I (8)
	TJ	Double pump J (8)

(1) Water produced from 0 °C ÷ 15 °C
(2) Water produced from 0 °C ÷ -8 °C
(3) The temperature of the water in the heat exchanger inlet must never drop below 35°C.
(4) The units from 1402° - 1602° - 1802° with total recovery are not configurable with the integrated hydronic kit. For all other sizes and versions it is to be evaluated at the order stage.
(5) Only for sizes from 1402 to 2202
(6) Only for sizes from 1402 to 3202
(7) For all configurations including pump J please contact the factory.
(8) The unit from 5603 to 9603 can only have hydronic kit "TF - TG - TH- TI - TJ"

PERFORMANCE SPECIFICATIONS

NSG - °

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Cooling performance 12 °C / 7 °C (1)															
Cooling capacity	kW	228,6	261,3	297,8	334,1	358,6	389,8	402,8	443,7	462,6	506,3	531,6	566,5	623,6	676,0
Input power	kW	74,3	85,8	100,4	108,3	119,9	129,9	138,2	151,6	162,6	167,0	175,7	193,9	214,9	228,2
Cooling total input current	A	138,0	156,0	174,0	192,0	214,0	233,0	248,0	271,0	289,0	297,0	309,0	332,0	359,0	390,0
EER	W/W	3,08	3,05	2,97	3,08	2,99	3,00	2,91	2,93	2,85	3,03	3,02	2,92	2,90	2,96
Water flow rate system side	l/h	39316	44954	51218	57461	61665	67027	69255	76286	79541	87045	91392	97398	107202	116226
Pressure drop system side	kPa	14	18	16	21	24	20	22	18	19	17	19	21	24	29

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

Size		4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Cooling performance 12 °C / 7 °C (1)														
Cooling capacity	kW	739,5	792,4	835,2	874,9	897,0	942,5	989,1	1060,2	1095,1	1215,2	1268,8	1333,1	1410,0
Input power	kW	251,7	263,0	281,6	288,8	302,5	320,8	329,9	355,3	375,5	407,7	419,3	461,7	512,0
Cooling total input current	A	434,0	454,0	482,0	500,0	524,0	558,0	581,0	609,0	649,0	701,0	728,0	805,0	900,0
EER	W/W	2,94	3,01	2,97	3,03	2,97	2,94	3,00	2,98	2,92	2,98	3,03	2,89	2,75
Water flow rate system side	l/h	127152	136250	143578	150403	154212	162036	170045	182263	188254	208871	218093	229141	242359
Pressure drop system side	kPa	33	38	28	31	33	38	42	29	31	20	22	25	28

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

NSG - L

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Cooling performance 12 °C / 7 °C (1)															
Cooling capacity	kW	227,7	261,7	298,7	335,0	373,6	386,8	415,2	446,3	476,8	498,0	546,8	602,0	645,3	707,0
Input power	kW	72,7	84,0	98,1	112,6	120,1	128,4	138,3	144,3	155,8	165,4	179,1	193,2	212,5	231,2
Cooling total input current	A	131,0	148,0	165,0	192,0	208,0	224,0	242,0	252,0	270,0	284,0	303,0	318,0	342,0	375,0
EER	W/W	3,13	3,12	3,04	2,97	3,11	3,01	3,00	3,09	3,06	3,01	3,05	3,12	3,04	3,06
Water flow rate system side	l/h	39167	45014	51371	57614	64237	66506	71390	76738	81966	85616	94000	103492	110929	121547
Pressure drop system side	kPa	15	18	17	15	19	20	16	19	16	17	19	15	18	22

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

Size		4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Cooling performance 12 °C / 7 °C (1)														
Cooling capacity	kW	743,5	806,3	841,6	893,3	933,8	982,7	1023,0	1083,7	1120,2	1222,9	1269,4	1383,5	1517,2 (2)
Input power	kW	252,4	266,7	283,5	297,7	306,0	315,5	334,5	357,8	379,1	402,0	421,5	465,5	504,7
Cooling total input current	A	416,0	437,0	465,0	490,0	507,0	533,0	563,0	583,0	623,0	670,0	699,0	763,0	848,0
EER	W/W	2,95	3,02	2,97	3,00	3,05	3,12	3,06	3,03	2,96	3,04	3,01	2,97	3,01
Water flow rate system side	l/h	127821	138615	144692	153568	160522	168943	175872	186277	192550	210223	218211	237808	260789
Pressure drop system side	kPa	24	31	33	24	26	31	33	22	24	31	33	26	32

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Unit not Eurovent certified because it exceeds 1500 kW

NSG - A

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Cooling performance 12 °C / 7 °C (1)															
Cooling capacity	kW	233,0	267,3	306,8	346,4	383,4	397,6	429,0	458,6	491,7	511,7	561,1	619,9	669,1	731,1
Input power	kW	73,5	83,8	96,7	109,8	118,4	126,0	134,9	142,3	152,7	160,7	171,9	187,9	206,4	224,9
Cooling total input current	A	139,0	155,0	170,0	195,0	214,0	229,0	246,0	260,0	276,0	287,0	303,0	322,0	344,0	380,0
EER	W/W	3,17	3,19	3,17	3,15	3,24	3,16	3,18	3,22	3,22	3,18	3,26	3,30	3,24	3,25
Water flow rate system side	l/h	40072	45975	52777	59582	65922	68370	73757	78851	84535	87974	96463	106561	115027	125681
Pressure drop system side	kPa	15	19	18	16	20	22	17	20	16	18	20	16	19	24

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

Size		4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Cooling performance 12 °C / 7 °C (1)														
Cooling capacity	kW	770,4	833,7	872,2	923,2	961,9	1011,0	1053,8	1121,6	1160,9	1263,4	1313,4	1432,8	1580,6 (2)
Input power	kW	243,7	258,6	273,6	291,5	301,9	312,6	330,2	347,1	365,9	390,3	408,0	451,1	495,6
Cooling total input current	A	417,0	440,0	466,0	502,0	524,0	554,0	583,0	588,0	625,0	676,0	701,0	769,0	866,0
EER	W/W	3,16	3,22	3,19	3,17	3,19	3,23	3,19	3,23	3,17	3,24	3,22	3,18	3,19
Water flow rate system side	l/h	132447	143336	149960	158709	165357	173799	181161	192795	199561	217184	225782	246285	271702
Pressure drop system side	kPa	26	33	36	26	28	33	35	24	26	33	36	27	35

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C
(2) Unit not Eurovent certified because it exceeds 1500 kW

NSG - E

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Cooling performance 12 °C / 7 °C (1)															
Cooling capacity	kW	243,5	281,0	317,4	359,0	387,6	413,2	428,5	471,9	494,2	514,3	550,0	608,1	654,7	714,4
Input power	kW	73,6	86,3	96,5	111,1	122,0	126,7	133,3	144,0	153,3	160,2	172,1	188,9	204,8	222,5
Cooling total input current	A	133,0	152,0	163,0	189,0	211,0	222,0	237,0	251,0	267,0	279,0	293,0	310,0	334,0	368,0
EER	W/W	3,31	3,26	3,29	3,23	3,18	3,26	3,21	3,28	3,22	3,21	3,20	3,22	3,20	3,21
Water flow rate system side	l/h	41877	48309	54578	61723	66638	71045	73675	81134	84968	88414	94560	104538	112548	122817
Pressure drop system side	kPa	12	11	14	9	11	12	13	15	16	18	19	16	18	23

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

Size		4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Cooling performance 12 °C / 7 °C (1)														
Cooling capacity	kW	764,3	813,2	877,0	900,7	944,8	1000,3	1028,9	1101,9	1151,7	1242,8	1300,9	-	-
Input power	kW	236,0	255,6	273,4	283,8	292,9	310,2	318,7	343,0	357,9	392,1	407,8	-	-
Cooling total input current	A	399,0	428,0	450,0	475,0	495,0	519,0	544,0	572,0	599,0	656,0	673,0	-	-
EER	W/W	3,24	3,18	3,21	3,17	3,23	3,22	3,23	3,21	3,22	3,17	3,19	-	-
Water flow rate system side	l/h	131397	139814	150755	154839	162399	171941	176857	189402	197982	213642	223617	-	-
Pressure drop system side	kPa	26	32	24	25	16	16	19	23	26	32	24	-	-

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

NSG - U

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Cooling performance 12 °C / 7 °C (1)															
Cooling capacity	kW	249,3	288,6	324,9	369,0	399,5	423,8	440,0	483,4	507,1	526,0	564,2	623,1	674,9	735,2
Input power	kW	74,1	85,8	96,9	110,1	120,0	126,0	132,1	143,6	152,2	157,5	167,5	185,9	201,2	218,7
Cooling total input current	A	141,0	158,0	172,0	196,0	217,0	231,0	246,0	263,0	277,0	287,0	298,0	319,0	342,0	377,0
EER	W/W	3,36	3,36	3,35	3,35	3,33	3,36	3,33	3,37	3,33	3,34	3,37	3,35	3,35	3,36
Water flow rate system side	l/h	42866	49623	55869	63446	68694	72874	75659	83113	87181	90438	96990	107116	116011	126384
Pressure drop system side	kPa	13	11	14	10	11	13	14	16	17	18	20	17	20	24

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

Size		4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Cooling performance 12 °C / 7 °C (1)														
Cooling capacity	kW	784,5	837,2	901,8	927,6	971,1	1026,7	1054,7	1133,1	1182,5	1280,2	1339,0	-	-
Input power	kW	232,3	250,1	268,3	277,9	288,3	306,2	315,5	337,3	352,2	383,1	399,1	-	-
Cooling total input current	A	411,0	437,0	461,0	486,0	509,0	536,0	564,0	586,0	617,0	668,0	689,0	-	-
EER	W/W	3,38	3,35	3,36	3,34	3,37	3,35	3,34	3,36	3,36	3,34	3,36	-	-
Water flow rate system side	l/h	134866	143931	155027	159459	166915	176480	181297	194780	203262	220062	230162	-	-
Pressure drop system side	kPa	28	34	25	27	17	17	20	24	28	34	25	-	-

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

NSG - N

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Cooling performance 12 °C / 7 °C (1)															
Cooling capacity	kW	245,2	283,6	318,2	364,5	394,3	417,2	432,9	475,2	498,1	517,4	552,6	613,0	669,6	727,4
Input power	kW	73,4	84,4	95,3	107,6	118,7	124,5	130,7	141,2	149,3	156,7	165,7	182,9	200,4	216,0
Cooling total input current	A	132,0	149,0	162,0	185,0	207,0	219,0	234,0	249,0	264,0	274,0	287,0	306,0	324,0	359,0
EER	W/W	3,34	3,36	3,34	3,39	3,32	3,35	3,31	3,37	3,34	3,30	3,34	3,35	3,34	3,37
Water flow rate system side	l/h	42156	48766	54716	62663	67797	71743	74443	81707	85643	88946	95006	105378	115107	125049
Pressure drop system side	kPa	13	11	15	9	11	13	14	15	17	18	20	16	20	24

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

Size		4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Cooling performance 12 °C / 7 °C (1)														
Cooling capacity	kW	766,9	834,2	880,8	925,4	961,2	1003,2	1036,3	1120,4	-	-	-	-	-
Input power	kW	230,1	248,2	261,5	275,0	286,5	296,1	311,6	333,3	-	-	-	-	-
Cooling total input current	A	395,0	413,0	435,0	458,0	480,0	509,0	537,0	557,0	-	-	-	-	-
EER	W/W	3,33	3,36	3,37	3,36	3,35	3,39	3,33	3,36	-	-	-	-	-
Water flow rate system side	l/h	131846	143411	151421	159089	165211	172435	178132	192584	-	-	-	-	-
Pressure drop system side	kPa	27	23	29	29	17	17	20	24	-	-	-	-	-

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

ENERGY INDICES (REG. 2016/2281 EU)

Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
SEER - 12/7 (EN14825:2018) with standard fans (1)																
SEER	°,A,E,L,N,U	W/W	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
Seasonal efficiency	°,A,E,L,N,U	%	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
SEER - (EN14825:2018) 12/7 with inverter fans (1)																
SEER	°	W/W	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	A	W/W	4,43	4,40	4,48	4,54	4,51	4,54	4,56	4,56	4,56	4,56	4,57	4,57	4,56	4,57
	E	W/W	4,46	4,47	4,55	4,55	4,55	4,58	4,57	4,59	4,57	4,58	4,58	4,58	4,59	4,57
	L	W/W	4,41	4,38	4,47	4,51	4,50	4,54	4,56	4,56	4,56	4,56	4,56	4,56	4,56	4,56
	N	W/W	4,51	4,48	4,57	4,55	4,56	4,60	4,60	4,61	4,60	4,60	4,61	4,61	4,60	4,60
	U	W/W	4,48	4,47	4,56	4,57	4,56	4,58	4,57	4,59	4,58	4,59	4,59	4,59	4,60	4,58
Seasonal efficiency	°	%	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	A	%	174,1%	172,9%	176,2%	178,4%	177,4%	178,5%	179,4%	179,3%	179,3%	179,4%	179,6%	179,6%	179,5%	179,6%
	E	%	175,5%	175,8%	178,8%	179,1%	179,1%	180,2%	179,8%	180,4%	179,7%	180,3%	180,2%	180,1%	180,7%	179,8%
	L	%	173,3%	172,2%	175,8%	177,3%	176,9%	178,6%	179,2%	179,2%	179,2%	179,2%	179,5%	179,5%	179,4%	179,5%
	N	%	177,4%	176,2%	179,6%	179,0%	179,5%	180,8%	180,8%	181,4%	180,9%	181,0%	181,2%	181,4%	181,1%	180,9%
	U	%	176,3%	175,9%	179,3%	179,6%	179,3%	180,3%	179,9%	180,6%	180,1%	180,7%	180,5%	180,5%	181,0%	180,0%
SEPR - (EN14825: 2018) High temperature with standard fans (3)																
SEPR	°	W/W	5,32	5,40	5,30	5,46	5,46	5,50	5,52	5,51	5,51	5,51	5,54	5,53	5,51	5,52
	A	W/W	5,53	5,59	5,47	5,51	5,59	5,56	5,55	5,56	5,57	5,51	5,53	5,59	5,57	5,58
	E	W/W	5,69	5,72	5,77	5,64	5,58	5,71	5,65	5,72	5,67	5,65	5,67	5,64	5,66	5,68
	L	W/W	5,46	5,56	5,43	5,53	5,54	5,52	5,52	5,52	5,55	5,55	5,75	5,61	5,52	5,52
	N	W/W	5,75	5,77	5,89	5,69	5,58	5,66	5,62	5,68	5,61	5,59	5,63	5,64	5,64	5,65
	U	W/W	5,73	5,78	5,81	5,70	5,65	5,76	5,71	5,77	5,72	5,70	5,72	5,70	5,72	5,74
SEPR - (EN14825: 2018) High temperature with inverter fans (3)																
SEPR	°	W/W	5,32	5,40	5,30	5,46	5,46	5,50	5,52	5,51	5,51	5,51	5,54	5,53	5,51	5,52
	A	W/W	5,53	5,59	5,47	5,51	5,59	5,56	5,55	5,56	5,57	5,51	5,53	5,59	5,57	5,58
	E	W/W	5,69	5,72	5,77	5,64	5,58	5,71	5,65	5,72	5,67	5,65	5,67	5,64	5,66	5,68
	L	W/W	5,46	5,56	5,43	5,53	5,54	5,52	5,52	5,52	5,55	5,55	5,75	5,61	5,52	5,52
	N	W/W	5,75	5,77	5,89	5,69	5,58	5,66	5,62	5,68	5,61	5,59	5,63	5,64	5,64	5,65
	U	W/W	5,73	5,78	5,81	5,70	5,65	5,76	5,71	5,77	5,72	5,70	5,72	5,70	5,72	5,74

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Not covered by standard (EN14825: 2018 for comfort applications, 12°C / 7°C)
(3) Calculation performed with FIXED water flow rate.

Size			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
SEER - 12/7 (EN14825:2018) with standard fans (1)															
SEER	°,A,E,L,N,U	W/W	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
Seasonal efficiency	°,A,E,L,N,U	%	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
SEER - (EN14825:2018) 12/7 with inverter fans (1)															
SEER	°	W/W	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	A	W/W	4,57	4,57	4,56	4,56	4,56	4,57	4,56	4,57	4,57	4,58	4,57	4,57	4,58
	E	W/W	4,58	4,56	4,59	4,57	4,59	4,57	4,58	4,60	4,61	4,58	4,60	-	-
	L	W/W	4,56	4,56	4,55	4,56	4,56	4,56	4,55	4,57	4,56	4,57	4,57	4,56	4,57
	N	W/W	4,60	4,59	4,61	4,60	4,60	4,59	4,60	4,62	-	-	-	-	-
	U	W/W	4,59	4,57	4,59	4,57	4,59	4,58	4,59	4,61	4,61	4,58	4,60	-	-
Seasonal efficiency	°	%	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)	- (2)
	A	%	179,6%	179,6%	179,3%	179,5%	179,4%	179,6%	179,4%	179,9%	179,6%	180,0%	179,8%	179,8%	180,0%
	E	%	180,3%	179,5%	180,5%	179,7%	180,4%	179,9%	180,3%	181,0%	181,3%	180,0%	180,8%	-	-
	L	%	179,4%	179,3%	179,1%	179,2%	179,4%	179,5%	179,1%	179,7%	179,5%	179,7%	179,6%	179,5	179,7
	N	%	180,8%	180,6%	181,3%	180,9%	180,9%	180,6%	180,8%	181,6%	-	-	-	-	-
	U	%	180,4%	179,6%	180,6%	179,8%	180,6%	180,3%	180,5%	181,3%	181,3%	180,2%	180,9%	-	-
SEPR - (EN14825: 2018) High temperature with standard fans (3)															
SEPR	°	W/W	5,53	5,52	5,52	5,52	5,52	5,51	5,52	5,53	5,52	5,52	5,55	5,52	5,52
	A	W/W	5,51	5,56	5,55	5,52	5,55	5,56	5,52	5,65	5,59	5,69	5,66	5,60	5,65
	E	W/W	5,69	5,64	5,69	5,56	5,56	5,56	5,69	5,81	5,86	5,67	5,72	-	-
	L	W/W	5,53	5,51	5,52	5,51	5,54	5,54	5,54	5,63	5,59	5,66	5,65	5,62	5,66
	N	W/W	5,61	5,62	5,64	5,69	5,57	5,60	5,56	5,71	-	-	-	-	-
	U	W/W	5,76	5,71	5,75	5,64	5,63	5,63	5,74	5,86	5,89	5,73	5,77	-	-
SEPR - (EN14825: 2018) High temperature with inverter fans (3)															
SEPR	°	W/W	5,53	5,52	5,52	5,52	5,52	5,51	5,52	5,53	5,52	5,52	5,55	5,52	5,52
	A	W/W	5,51	5,56	5,55	5,52	5,55	5,56	5,52	5,65	5,59	5,69	5,66	5,60	5,65
	E	W/W	5,69	5,64	5,69	5,56	5,56	5,56	5,69	5,81	5,86	5,67	5,72	-	-
	L	W/W	5,53	5,51	5,52	5,51	5,54	5,54	5,54	5,63	5,59	5,66	5,65	5,62	5,66
	N	W/W	5,61	5,62	5,64	5,69	5,57	5,60	5,56	5,71	-	-	-	-	-
	U	W/W	5,76	5,71	5,75	5,64	5,63	5,63	5,74	5,86	5,89	5,73	5,77	-	-

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Not covered by standard (EN14825: 2018 for comfort applications, 12°C / 7°C)
(3) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Electric data																
Maximum current (FLA)	°	A	223,7	241,3	264,3	300,3	327,4	346,4	365,4	386,4	407,4	431,3	446,3	470,3	494,3	543,1
	A,L	A	232,6	250,2	273,2	300,3	336,3	355,3	374,3	404,1	425,1	440,1	455,1	488,0	512,0	560,9
	E,U	A	232,6	250,2	282,1	309,2	336,3	364,1	383,1	413,0	434,0	449,0	464,0	496,9	520,9	569,8
	N	A	241,5	259,1	290,9	318,0	345,1	373,0	392,0	421,9	442,9	457,9	472,9	505,8	538,7	593,4
Peak current (LRA)	°	A	252,0	287,1	329,4	376,3	395,0	442,0	459,0	486,0	493,7	597,6	636,2	665,2	661,2	791,0
	A,L	A	260,9	296,0	338,3	376,3	403,9	450,9	467,9	503,7	511,4	606,4	645,0	682,9	678,9	808,8
	E,U	A	260,9	296,0	347,2	385,2	403,9	459,7	476,7	512,6	520,3	615,3	653,9	691,8	687,8	817,7
	N	A	269,8	304,9	356,0	394,0	412,7	468,6	485,6	521,5	529,2	624,2	662,8	700,7	705,6	841,3

Size			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Electric data															
Maximum current (FLA)	°	A	583,1	625,0	658,0	697,9	728,9	760,9	801,8	831,8	871,8	946,7	994,4	1087,4	1183,4
	A,L	A	600,9	642,8	675,8	706,8	746,7	793,4	825,4	864,3	904,3	988,1	1021,1	1122,9	1236,7
	E,U	A	618,7	651,7	699,4	730,4	770,3	811,2	852,1	882,1	930,9	996,9	1038,8	-	-
	N	A	633,4	684,2	726,1	765,9	805,8	837,8	869,8	908,7	-	-	-	-	-
Peak current (LRA)	°	A	821,3	894,2	914,2	1078,1	1097,9	1209,9	1249,8	993,9	1024,2	1117,1	1151,8	1346,4	1520,4
	A,L	A	839,1	912,0	932,0	1087,0	1115,7	1242,4	1273,4	1026,4	1056,7	1158,5	1178,5	1381,9	1573,7
	E,U	A	856,9	920,9	955,6	1110,6	1139,3	1260,2	1300,1	1044,2	1083,3	1167,3	1196,2	-	-
	N	A	871,6	953,4	982,3	1146,1	1174,8	1286,8	1317,8	1070,8	-	-	-	-	-

GENERAL TECHNICAL DATA

Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Compressor																
Type	°,A,E,L,N,U	type	Screw													
Number	°,A,E,L,N,U	no.	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Circuits	°,A,E,L,N,U	no.	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Refrigerant	°,A,E,L,N,U	type	R1234ze													
Refrigerant load circuit 1 (1)	°	kg	24,0	24,0	23,0	30,0	30,0	35,0	35,0	35,0	35,0	40,0	46,0	42,5	44,5	51,0
	A	kg	26,5	34,0	28,0	30,5	34,0	35,0	38,5	40,5	45,0	43,0	47,0	52,0	55,0	74,0
	E	kg	29,0	30,0	41,0	34,0	40,0	43,0	43,0	46,0	45,0	45,0	57,0	54,0	74,0	60,0
	L	kg	24,0	26,0	37,0	28,0	34,0	35,0	38,5	40,0	42,0	44,0	47,0	52,0	54,0	56,0
	N	kg	36,0	38,0	34,0	44,0	49,0	53,0	56,0	60,0	64,0	64,0	55,0	72,0	81,0	85,0
	U	kg	32,0	34,0	34,0	35,0	46,0	49,0	49,0	46,0	45,0	60,0	54,5	58,0	58,0	75,0
Refrigerant load circuit 2 (1)	°	kg	24,0	25,0	25,0	41,0	33,0	38,0	37,0	37,5	35,0	50,0	48,0	46,0	46,0	59,0
	A	kg	28,0	34,0	29,5	36,0	34,0	49,0	40,5	45,0	47,5	48,0	50,0	55,0	60,0	81,0
	E	kg	29,0	31,5	41,0	40,0	40,0	45,0	45,0	52,0	53,0	53,0	59,0	59,0	74,0	77,0
	L	kg	27,0	28,0	37,0	36,0	34,0	40,0	40,5	43,0	46,0	52,0	50,0	55,0	58,0	72,0
	N	kg	36,0	38,0	34,0	49,0	49,0	56,0	56,0	64,0	64,0	69,0	57,0	77,0	81,0	92,0
	U	kg	32,0	34,0	36,0	41,5	46,0	53,0	54,0	52,0	48,5	65,0	59,0	62,0	63,0	90,0
Refrigerant load circuit 3 (1)	°,A,E,L,N,U	kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-
System side heat exchanger																
Type	°,A,E,L,N,U	type	Brazed plate													
Number	°,A,E,L,N,U	no.	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Sound data calculated in cooling mode (2)																
Sound power level	°	dB(A)	96,8	97,0	97,2	97,6	97,8	98,0	98,2	98,4	98,4	99,4	99,5	99,6	99,8	100,7
	A	dB(A)	97,3	97,4	97,8	97,9	98,2	98,3	98,4	98,8	98,9	99,0	99,1	99,3	99,4	100,1
	E	dB(A)	89,3	89,4	90,2	90,3	90,4	90,8	91,2	91,8	92,0	92,2	92,3	92,8	93,0	93,2
	L	dB(A)	88,9	89,0	89,1	89,2	90,3	90,5	90,6	90,8	90,9	91,0	91,1	91,3	91,4	92,4
	N	dB(A)	90,0	90,4	90,9	91,0	91,1	91,4	91,4	92,1	92,2	92,3	92,4	92,8	93,1	93,3
	U	dB(A)	97,0	97,4	98,0	98,2	98,4	98,8	98,8	99,0	99,1	99,2	99,3	99,9	100,0	100,4
Sound pressure level (10 m)	°	dB(A)	64,5	64,7	64,9	65,2	65,4	65,6	65,8	66,0	66,0	66,9	67,0	67,1	67,3	68,1
	A	dB(A)	64,9	65,0	65,4	65,5	65,7	65,8	65,9	66,2	66,3	66,4	66,5	66,5	66,6	67,2
	E	dB(A)	56,9	57,0	57,7	57,8	57,9	58,2	58,6	59,0	59,2	59,4	59,5	59,9	60,1	60,2
	L	dB(A)	56,5	56,6	56,7	56,8	57,8	58,0	58,1	58,2	58,3	58,4	58,5	58,5	58,6	59,5
	N	dB(A)	57,5	57,9	58,3	58,4	58,5	58,6	58,6	59,2	59,3	59,4	59,5	59,8	60,0	60,1
	U	dB(A)	64,6	65,0	65,5	65,7	65,9	66,2	66,2	66,2	66,3	66,4	66,5	67,0	67,1	67,4

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

Size			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Compressor															
Type	°,A,E,L,N,U	type							Screw						
Number	°,A,L	no.	2	2	2	2	2	2	2	3	3	3	3	3	3
	E,U	no.	2	2	2	2	2	2	2	3	3	3	3	-	-
	N	no.	2	2	2	2	2	2	2	3	-	-	-	-	-
Circuits	°,A,L	no.	2	2	2	2	2	2	2	3	3	3	3	3	3
	E,U	no.	2	2	2	2	2	2	2	3	3	3	3	-	-
	N	no.	2	2	2	2	2	2	2	3	-	-	-	-	-
Refrigerant	°,A,E,L,N,U	type							R1234ze						
Refrigerant load circuit 1 (1)	°	kg	52,0	55,0	55,0	63,0	65,0	62,0	70,0	67,0	55,0	78,0	62,0	99,0	112,0
	A,L	kg	62,0	67,0	67,0	70,0	106,0	82,0	82,0	74,0	81,0	85,0	70,0	106,0	80,0
	E	kg	70,0	89,0	80,0	100,0	113,0	86,0	95,0	77,0	89,0	89,0	100,0	-	-
	N	kg	92,0	99,0	110,0	114,0	128,0	128,0	138,0	85,0	-	-	-	-	-
	U	kg	70,0	89,0	80,0	85,0	113,0	86,0	95,0	77,0	89,0	89,0	100,0	-	-
Refrigerant load circuit 2 (1)	°	kg	59,0	64,0	64,0	70,0	71,0	73,0	80,0	74,0	61,0	85,0	70,0	99,0	112,0
	A	kg	70,0	78,0	78,0	82,0	106,0	99,0	99,0	81,0	81,0	92,0	75,0	106,0	95,0
	E	kg	85,0	96,0	90,0	110,0	113,0	98,0	97,0	85,0	89,0	96,0	100,0	-	-
	L	kg	70,0	79,0	78,0	82,0	106,0	99,0	99,0	81,0	81,0	92,0	75,0	106,0	95,0
	N	kg	92,0	107,0	110,0	124,0	128,0	138,0	138,0	92,0	-	-	-	-	-
	U	kg	85,0	96,0	90,0	103,0	113,0	98,0	97,0	85,0	89,0	96,0	100,0	-	-
Refrigerant load circuit 3 (1)	°	kg	-	-	-	-	-	-	-	74,0	65,0	85,0	80,0	99,0	112,0
	A,L	kg	-	-	-	-	-	-	-	81,0	81,0	92,0	75,0	106,0	85,0
	E,U	kg	-	-	-	-	-	-	-	85,0	89,0	96,0	100,0	-	-
	N	kg	-	-	-	-	-	-	-	92,0	-	-	-	-	-
System side heat exchanger															
Type	°,A,E,L,N,U	type							Brazed plate						
Number	°	no.	1	1	1	1	1	1	1	1	1	1	1	1	1
	A,L	no.	1	1	1	1	1	1	1	2	2	2	2	2	2
	E,U	no.	1	1	1	1	2	2	2	2	2	2	2	-	-
	N	no.	1	2	2	2	2	2	2	2	-	-	-	-	-
Sound data calculated in cooling mode (2)															
Sound power level	°	dB(A)	100,8	101,2	101,3	101,7	101,7	101,8	102,1	102,3	102,4	103,0	103,1	103,2	103,3
	A	dB(A)	100,2	100,4	100,8	101,5	101,7	101,9	102,0	102,0	102,1	102,3	102,4	103,3	104,4
	E	dB(A)	93,5	93,6	93,7	93,8	93,9	94,0	94,2	94,3	94,3	94,4	94,8	-	-
	L	dB(A)	92,5	93,0	93,1	93,2	93,7	93,9	94,0	94,2	94,2	94,3	94,3	94,4	95,0
	N	dB(A)	93,4	94,3	94,4	94,8	95,0	95,2	95,3	95,4	-	-	-	-	-
	U	dB(A)	100,7	101,0	101,3	101,6	102,0	102,1	102,2	102,2	102,3	102,4	102,4	-	-
Sound pressure level (10 m)	°	dB(A)	68,2	68,4	68,5	68,8	68,8	68,9	69,1	69,3	69,4	69,9	69,9	70,0	70,1
	A	dB(A)	67,3	67,4	67,8	68,5	68,6	68,7	68,8	68,6	68,7	68,7	68,8	69,6	70,5
	E	dB(A)	60,4	60,5	60,5	60,6	60,5	60,5	60,6	60,7	60,6	60,7	61,0	-	-
	L	dB(A)	59,6	60,0	60,1	60,2	60,6	60,7	60,8	60,8	60,8	60,7	60,7	60,7	61,1
	N	dB(A)	60,2	60,8	60,8	61,1	61,2	61,4	61,5	61,5	-	-	-	-	-
	U	dB(A)	67,6	67,9	68,1	68,4	68,6	68,6	68,6	68,6	68,6	68,7	68,6	-	-

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Integrated hydronic kit: 00																
Hydraulic connections																
Connections (in/out)	°,A,E,L,N,U	Type							Grooved joints							
Size (in)	°	Ø	5″	5″	6″	6″	6″	6″	6″	6″	6″	6″	6″	6″	6″	6″
	A,L	Ø	5″	5″	6″	6″	6″	6″	6″	6″	6″	6″	6″	8″	8″	8″
	E,N,U	Ø	6″	6″	6″	6″	6″	6″	6″	6″	6″	6″	6″	8″	8″	8″
Size (out)	°	Ø	5″	5″	6″	6″	6″	6″	6″	6″	6″	6″	6″	6″	6″	6″
	A,L	Ø	5″	5″	6″	6″	6″	6″	6″	6″	6″	6″	6″	8″	8″	8″
	E,N,U	Ø	6″	6″	6″	6″	6″	6″	6″	6″	6″	6″	6″	8″	8″	8″

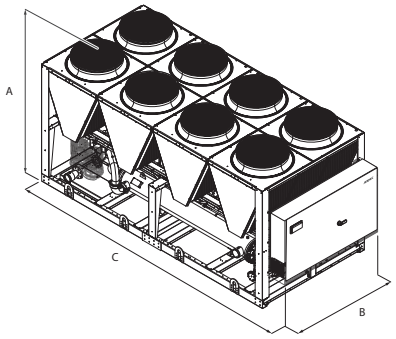
Size			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Integrated hydronic kit: 00															
Hydraulic connections															
Connections (in/out)	°,A,E,L,N,U	Type	Grooved joints												
Size (in)	°	Ø	6″	6″	8″	8″	8″	8″	8″	10″	10″	10″	10″	10″	10″
	A,L	Ø	8″	8″	8″	10″	10″	10″	10″	-	-	-	-	-	-
	E,U	Ø	8″	8″	10″	10″	-	-	-	-	-	-	-	-	-
	N	Ø	8″	-	-	-	-	-	-	-	-	-	-	-	-
Size (out)	°	Ø	6″	6″	8″	8″	8″	8″	8″	10″	10″	10″	10″	10″	10″
	A,L	Ø	8″	8″	8″	10″	10″	10″	10″	-	-	-	-	-	-
	E,U	Ø	8″	8″	10″	10″	-	-	-	-	-	-	-	-	-
	N	Ø	8″	-	-	-	-	-	-	-	-	-	-	-	-
Module 1															
Size (in)	°	Ø													
	A,L	Ø	-	-	-	-	-	-	-	8″	8″	8″	8″	10″	10″
	E,U	Ø	-	-	-	-	6″	6″	6″	8″	8″	8″	10″	-	-
	N	Ø	-	6″	6″	6″	6″	6″	6″	8″	-	-	-	-	-
Size (out)	°	Ø													
	A,L	Ø	-	-	-	-	-	-	-	8″	8″	8″	8″	10″	10″
	E,U	Ø	-	-	-	-	6″	6″	6″	8″	8″	8″	10″	-	-
	N	Ø	-	6″	6″	6″	6″	6″	6″	8″	-	-	-	-	-
Module 2															
Size (in)	°	Ø													
	A,L	Ø	-	-	-	-	-	-	-	6″	6″	6″	6″	6″	6″
	E,U	Ø	-	-	-	-	6″	6″	6″	6″	6″	6″	6″	-	-
	N	Ø	-	6″	6″	6″	6″	6″	6″	6″	-	-	-	-	-
Size (out)	°	Ø													
	A,L	Ø	-	-	-	-	-	-	-	6″	6″	6″	6″	6″	6″
	E,U	Ø	-	-	-	-	6″	6″	6″	6″	6″	6″	6″	-	-
	N	Ø	-	6″	6″	6″	6″	6″	6″	6″	-	-	-	-	-

FANS DATA

Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Fan																
Type	°,A,E,L,N,U	type	Axial													
Fan motor	°,A,E,L,N,U	type	On-Off													
Number	°	no.	6	6	6	8	8	8	8	8	8	10	10	10	10	12
	A,L	no.	8	8	8	8	10	10	10	12	12	12	12	14	14	16
	E,U	no.	8	8	10	10	10	12	12	14	14	14	14	16	16	18
	N	no.	10	10	12	12	12	14	14	16	16	16	16	18	20	22
Air flow rate	°	m^3/h	96000	96000	96000	128000	128000	128000	128000	144000	144000	180000	180000	180000	180000	216000
	A	m^3/h	128000	128000	128000	128000	160000	160000	160000	192000	192000	192000	192000	224000	224000	256000
	E	m^3/h	92000	92000	115000	115000	115000	138000	138000	161000	161000	161000	161000	184000	184000	207000
	L	m^3/h	92000	92000	92000	92000	115000	115000	115000	138000	138000	138000	138000	161000	161000	184000
	N	m^3/h	115000	115000	138000	138000	138000	161000	161000	184000	184000	184000	184000	207000	230000	253000
	U	m^3/h	128000	128000	160000	160000	160000	192000	192000	224000	224000	224000	224000	256000	256000	288000

Size			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Fan															
Type	°,A,E,L,N,U	type	Axial												
Fan motor	°,A,E,L,N,U	type	On-Off												
Number	°	no.	12	14	14	16	16	16	18	18	18	20	22	22	22
	A,L	no.	16	18	18	18	20	22	22	24	24	28	28	30	34
	E,U	no.	20	20	22	22	24	26	28	28	30	30	32	-	-
	N	no.	22	26	28	30	32	32	32	34	-	-	-	-	-
Air flow rate	°	m^3/h	216000	252000	252000	288000	288000	288000	324000	324000	324000	360000	396000	396000	396000
	A	m^3/h	256000	288000	288000	324000	360000	396000	396000	384000	384000	448000	448000	480000	612000
	E	m^3/h	230000	230000	253000	253000	276000	299000	322000	322000	345000	345000	368000	-	-
	L	m^3/h	184000	207000	207000	234000	260000	286000	286000	276000	276000	322000	322000	345000	442000
	N	m^3/h	253000	299000	322000	345000	368000	368000	368000	391000	-	-	-	-	-
	U	m^3/h	320000	320000	352000	352000	384000	416000	448000	448000	480000	480000	512000	-	-

DIMENSIONS



Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Dimensions and weights																
A	°,A,E,L,N,U	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	°,A,E,L,N,U	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	°	mm	3970	3970	3970	5160	5160	5160	5160	5160	5160	6350	6350	6350	6350	7540
	A,L	mm	5160	5160	5160	5160	6350	6350	6350	7540	7540	7540	7540	8730	8730	9920
	E,U	mm	5160	5160	6350	6350	6350	7540	7540	8730	8730	8730	8730	9920	9920	11110
	N	mm	6350	6350	7540	7540	7540	8730	8730	9920	9920	9920	9920	11110	12300	13490

Size			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Dimensions and weights															
A	°,A,L	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
	E,U	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	-	-
	N	mm	2450	2450	2450	2450	2450	2450	2450	2450	-	-	-	-	-
B	°,A,L	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
	E,U	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	-	-
	N	mm	2200	2200	2200	2200	2200	2200	2200	2200	-	-	-	-	-
C	°	mm	7540	8730	8730	9920	9920	9920	11110	11110	11110	12300	13490	13490	13490
	A,L	mm	9920	11110	11110	11110	12300	13490	13490	15080	15080	17460	17460	18650	21030
	E,U	mm	12300	12300	13490	13490	15080	16270	17460	17460	18650	18650	19840	-	-
	N	mm	13490	16270	17460	18650	19840	19840	19840	21030	-	-	-	-	-

For transport reasons, the units with the depth of more than 13090 mm are shipped separately. For more information, please refer to the technical manual and / or installation.

Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Integrated hydronic kit: 00																
Single module unit																
Empty weight	°	kg	4108	4153	4275	5137	5468	5476	5485	5680	5690	6659	7153	7163	7188	7854
	A	kg	4637	4684	4806	5137	5882	5890	6085	6696	6782	7261	7806	8486	8501	9029
	E	kg	4768	4800	5220	5814	6145	6755	6763	7198	7213	7707	7806	8940	8950	9719
	L	kg	4637	4684	4806	5137	5882	5890	6085	6696	6782	7261	8223	8486	8501	9029
	N	kg	5179	5214	5822	6415	6746	7163	7177	7649	7659	8161	8223	9630	10062	10682
	U	kg	4768	4800	5220	5814	6145	6755	6763	7198	7213	7707	8672	8940	8950	9719
Weight functioning	°	kg	4186	4225	4393	5256	5586	5614	5622	5953	5962	6982	7475	7485	7501	8166
	A	kg	4714	4757	4925	5275	6019	6028	6357	6968	7105	7583	8098	9016	9030	9547
	E	kg	4887	4937	5358	6137	6467	7077	7086	7510	7525	8019	8098	9470	9480	10237
	L	kg	4714	4757	4925	5275	6019	6028	6357	6968	7105	7583	8515	9016	9030	9547
	N	kg	5298	5352	5959	6738	7069	7486	7500	7961	7971	8474	8515	10160	10592	11199
	U	kg	4887	4937	5358	6137	6467	7077	7086	7510	7525	8019	8964	9470	9480	10237

Size			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Integrated hydronic kit: 00															
Single module unit															
Empty weight	°	kg	7947	8389	8704	9252	9347	9405	10170	11843	11931	12488	13081	13400	13552
	A,L	kg	9090	9829	9892	10315	10836	11441	11519	-	-	-	-	-	-
	E,U	kg	10203	10282	11194	11284	-	-	-	-	-	-	-	-	-
	N	kg	10748	-	-	-	-	-	-	-	-	-	-	-	-
Weight functioning	°	kg	8239	8681	9234	9781	9877	9922	10687	12797	12885	13398	13990	14309	14462
	A,L	kg	9608	10334	10397	11247	11767	12358	12437	-	-	-	-	-	-
	E,U	kg	10720	10787	12125	12215	-	-	-	-	-	-	-	-	-
	N	kg	11265	-	-	-	-	-	-	-	-	-	-	-	-
Bimodule unit															
Empty weight module 1	°	kg	-	-	-	-	-	-	-	-	-	-	-	-	-
	A,L	kg	-	-	-	-	-	-	-	9029	9090	9829	9892	10836	11519
	E,U	kg	-	-	-	-	6276	6276	6741	9719	10203	10282	11194	-	-
	N	kg	-	6084	6517	6517	7126	7126	7190	10880	-	-	-	-	-
Empty weight module 2	°	kg	-	-	-	-	-	-	-	-	-	-	-	-	-
	A,L	kg	-	-	-	-	-	-	-	5068	5068	5512	5512	5675	6265
	E,U	kg	-	-	-	-	6207	6671	6671	5482	5482	5512	5512	-	-
	N	kg	-	6448	6448	7056	7056	7120	7120	6014	-	-	-	-	-
Total empty weight	°	kg	-	-	-	-	-	-	-	-	-	-	-	-	-
	A,L	kg	-	-	-	-	-	-	-	14098	14159	15342	15405	16511	17784
	E,U	kg	-	-	-	-	12483	12948	13412	15202	15685	15795	16706	-	-
	N	kg	-	12531	12965	13573	14182	14246	14310	16894	-	-	-	-	-
Weight functioning module 1	°	kg	-	-	-	-	-	-	-	-	-	-	-	-	-
	A,L	kg	-	-	-	-	-	-	-	9547	9608	10334	10397	11767	12437
	E,U	kg	-	-	-	-	6589	6589	7053	10237	10720	10787	12125	-	-
	N	kg	-	6342	6776	6776	7438	7438	7502	11398	-	-	-	-	-
Weight functioning module 2	°	kg	-	-	-	-	-	-	-	-	-	-	-	-	-
	A,L	kg	-	-	-	-	-	-	-	5327	5327	5771	5771	5987	6577
	E,U	kg	-	-	-	-	6519	6984	6984	5741	5741	5771	5771	-	-
	N	kg	-	6706	6706	7369	7369	7433	7433	6273	-	-	-	-	-
Total weight functioning	°	kg	-	-	-	-	-	-	-	-	-	-	-	-	-
	A,L	kg	-	-	-	-	-	-	-	14874	14935	16105	16168	17755	19014
	E,U	kg	-	-	-	-	13108	13572	14037	15978	16461	16558	17896	-	-
	N	kg	-	13049	13482	14144	14807	14871	14935	17670	-	-	-	-	-

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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TBA 1300-4325

Air-water chiller

Cooling capacity 328 ÷ 1404 kW

- **High efficiency also at partial loads**
- **Microchannel coil**
- **Low peak current (only 6 Amps!)**
- **Evaporator with low refrigerant charge**
- **Available also R513A (XP10) refrigerant gas**



DESCRIPTION

Air-cooled chiller designed to meet air conditioning needs in residential / commercial complexes or industrial applications.
These are outdoor units with oil free centrifugal compressor, axial fans, micro-channel coils, and shell and tube heat exchangers.
The base, the structure and the panels are made of steel treated with polyester paint RAL 9003.

VERSIONS

A High efficiency
E Silenced high efficiency
N Silenced very high efficiency
U Very high efficiency

FEATURES

Operating field

Operation at full load up to 43°C external air temperature depending on size and version. For further details refer to the selection software/ technical documentation.

Units mono or dual-circuit

The units according to the size are mono or dual-circuit, to ensure maximum efficiency both at full load and at partial load.

Oil free centrifugal compressor

Two-stage oil-free centrifugal compressor with magnetic levitation and inverter.

Compressor features:

— Operates without oil as bearings are magnetic levitation type
— Continuous load modulation by varying rpm (from 30% to 100%)
— Low peak currents (only 6 Amps!)

Aluminium microchannel coils

The whole range uses microchannel condenser coils allowing reduction of refrigerant charge but keeping the same high efficiency.

Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations, to obtain a solution that allows you to save money and to facilitate installation.

CONTROL PCO[5]

Microprocessor adjustment, with 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time and the ad adjustment includes complete management of the alarms and their log.
Further features:

— Possibility to control two units in a Master-Slave configuration
— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
— The temperature control takes place with the integral proportional logic, based on the water output temperature.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AER485P1 x n° 2: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PGD1: Allows you to control the unit at a distance.
AVX: Spring anti-vibration supports.

FACTORY FITTED ACCESSORIES

XLATB: This kit allows to extend the working range of the unit from 0 °C to -10 °C ambient temperature, thanks to an additional electric heater and a special insulating material for the heat exchanger.
GP_T: Anti-intrusion grid kit

ACCESSORIES COMPATIBILITY

Model	1300	1350	2300	2325	2350	3300	3320	3340	3350	4325
AER485P1	•	•	•		•	•		•	•	
AER485P1 x n° 2 (1)				•			•			•
AERBACP	•	•	•	•	•	•	•	•	•	•
AERNET	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	•	•	•	•	•	•	•	•	•	•
PGD1	•	•	•	•	•	•	•	•	•	•

(1) x Indicates the quantity of accessories to match.

Antivibration

Ver	1300	1350	2300	2325	2350	3300	3320	3340	3350	4325
A,E,N,U	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)

(1) Contact us.

Kit low temperature

Ver	1300	1350	2300	2325	2350	3300	3320	3340	3350	4325
A,E	XLATB1	XLATB3	XLATB5	XLATB6	XLATB7	XLATB6	XLATB7	XLATB7	XLATB8	XLATB8
N,U	XLATB2	XLATB5	XLATB5	XLATB5	XLATB7	XLATB6	XLATB6	XLATB7	XLATB8	XLATB8

A grey background indicates the accessory must be assembled in the factory

Anti-intrusion grid

Ver	1300	1350	2300	2325	2350	3300	3320	3340	3350	4325
A,E	GP3T	GP4T	GP5T	GP6T	GP7T	GP8T	GP9T	GP10T	GP10T	GP11T
N,U	GP3T	GP4T	GP6T	GP7T	GP8T	GP9T	GP10T	GP11T	GP11T	GP11T

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field		Description
1,2,3		**TBA**
4,5,6,7		**Size** 1300, 1350, 2300, 2325, 2350, 3300, 3320, 3340, 3350, 4325
8		**Model**
	°	Cooling only
9		**Heat recovery**
	°	Without heat recovery
10		**Version**
	A	High efficiency
	E	Silenced high efficiency
	N	Silenced very high efficiency
	U	Very high efficiency
11		**Coils**
	°	Aluminium microchannel
	O	Coated aluminium microchannel
	R	Copper pipes-copper fins
	S	Copper pipes-Tinned copper fins
	V	Copper pieps-Coated aluminium fins
12		**Fans**
	J	Inverter
13		**Power supply**
	°	400V ~ 3 50Hz with magnet circuit breakers
14,15		**Integrated hydronic kit**
	00	Without hydronic kit
	PA	Pump A
	PB	Pump B
	PC	Pump C
	PD	Pump D
	PE	Pump E
	PF	Pump F
	PG	Pump G
	PH	Pump H
	PI	Pump I
	PJ	Pump J (1)
	DA	Pump A + stand-by pump
	DB	Pump B + stand-by pump
	DC	Pump C + stand-by pump
	DD	Pump D + stand-by pump
	DE	Pump E + stand-by pump
	DF	Pump F + stand-by pump
	DG	Pump G + stand-by pump
	DH	Pump H + stand-by pump
	DI	Pump I + stand-by pump
	DJ	Pump J + stand-by pump (1)
	IA	Pump A equipped with inverter device to work at fixed speed
	IB	Pump B equipped with inverter device to work at fixed speed
	IC	Pump C equipped with inverter device to work at fixed speedr
	ID	Pump D equipped with inverter device to work at fixed speed
	IE	Pump E equipped with inverter device to work at fixed speed
	IF	Pump F equipped with inverter device to work at fixed speed
	IG	Pump G equipped with inverter device to work at fixed speed
	IH	Pump H equipped with inverter device to work at fixed speed
	II	Pump I equipped with inverter device to work at fixed speed
	IJ	Pump J equipped with inverter device to work at fixed speed (1)
	JA	Pump A+stand-by pump, both equipped with inverter to work at fixed speed
	JB	Pump B+stand-by pump, both equipped with inverter to work at fixed speed
	JC	Pump C+stand-by pump, both equipped with inverter to work at fixed speed
	JD	Pump D+stand-by pump, both equipped with inverter to work at fixed speed
	JE	Pump E+stand-by pump, both equipped with inverter to work at fixed speed
	JF	Pump F+stand-by pump, both equipped with inverter to work at fixed speed
	JG	Pump G+stand-by pump, both equipped with inverter to work at fixed speed
	JH	Pump H+stand-by pump, both equipped with inverter to work at fixed speed
	JI	Pump I+stand-by pump, both equipped with inverter to work at fixed speed
	JJ	Pump J+stand-by pump, both equipped with inverter to work at fixed speed (1)
	KF	Doble pump F with inverter device to work at fixed speed
	KG	Doble pump G with inverter device to work at fixed speed
	KH	Doble pump H with inverter device to work at fixed speed
	KI	Doble pump I with inverter device to work at fixed speed
	KJ	Doble pump J with inverter device to work at fixed speed (1)
	TF	Double pump F
	TG	Double pump G
	TH	Double pump H
	TI	Double pump I
	TJ	Double pump J (1)
16		**Refrigerant gas**
	°	R134a
	G	R513A (XP10)

(1) For all configurations including pump J please contact the factory

PERFORMANCE SPECIFICATIONS

TBA - (A)

Size		1300	1350	2300	2325	2350	3300	3320	3340	3350	4325
Cooling performance 12 °C / 7 °C (1)											
Cooling capacity	kW	330,7	437,3	633,9	741,5	871,9	974,8	1087,0	1155,9	1256,9	1404,1
Input power	kW	95,3	125,9	183,0	214,9	254,8	279,5	314,9	334,9	369,1	413,3
Cooling total input current	A	150,7	200,9	286,2	346,4	416,6	446,9	502,1	547,3	592,3	667,6
EER	W/W	3,47	3,47	3,46	3,45	3,42	3,49	3,45	3,45	3,41	3,40
Water flow rate system side	l/h	56903	75228	109011	127504	149890	167604	186876	198728	216075	241381
Pressure drop system side	kPa	60	55	48	42	30	52	45	54	36	42

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

TBA - (E)

Size		1300	1350	2300	2325	2350	3300	3320	3340	3350	4325
Cooling performance 12 °C / 7 °C (1)											
Cooling capacity	kW	330,7	437,3	633,9	741,5	871,9	974,8	1087,0	1155,9	1256,9	1404,1
Input power	kW	95,3	125,9	183,0	214,9	254,8	279,5	314,9	334,9	369,1	413,3
Cooling total input current	A	150,7	200,9	286,2	346,4	416,6	446,9	502,1	547,3	592,3	667,6
EER	W/W	3,47	3,47	3,46	3,45	3,42	3,49	3,45	3,45	3,41	3,40
Water flow rate system side	l/h	56903	75228	109011	127504	149890	167604	186876	198728	216075	241381
Pressure drop system side	kPa	60	55	48	42	30	52	45	54	36	42

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

TBA - (U)

Size		1300	1350	2300	2325	2350	3300	3320	3340	3350	4325
Cooling performance 12 °C / 7 °C (1)											
Cooling capacity	kW	328,1	443,8	633,5	758,5	876,4	985,0	1088,0	1154,9	1256,9	1342,4
Input power	kW	92,3	124,4	178,8	213,2	245,5	275,4	306,8	326,3	358,1	386,6
Cooling total input current	A	145,7	200,9	281,4	341,6	401,9	437,1	487,3	522,6	582,6	627,6
EER	W/W	3,56	3,57	3,54	3,56	3,57	3,58	3,55	3,54	3,51	3,47
Water flow rate system side	l/h	56452	76308	108940	130424	150669	169356	187070	198556	216075	230760
Pressure drop system side	kPa	51	25	49	50	30	53	56	53	36	38

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

TBA - (N)

Size		1300	1350	2300	2325	2350	3300	3320	3340	3350	4325
Cooling performance 12 °C / 7 °C (1)											
Cooling capacity	kW	328,1	443,8	633,5	758,5	876,4	985,0	1088,0	1154,9	1256,9	1342,4
Input power	kW	92,3	124,4	178,8	213,2	245,5	275,4	306,8	326,3	358,1	386,6
Cooling total input current	A	145,7	200,9	281,4	341,6	401,9	437,1	487,3	522,6	582,6	627,6
EER	W/W	3,56	3,57	3,54	3,56	3,57	3,58	3,55	3,54	3,51	3,47
Water flow rate system side	l/h	56452	76308	108940	130424	150669	169356	187070	198556	216075	230760
Pressure drop system side	kPa	51	25	49	50	30	53	56	53	36	38

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

ENERGY INDICES (REG. 2016/2281 EU)

Size			1300	1350	2300	2325	2350	3300	3320	3340	3350	4325
SEER - (EN14825:2018) 12/7 with inverter fans (1)												
SEER	A,E	W/W	5,15	5,23	5,48	5,25	5,54	5,54	5,51	5,49	5,57	5,35
	N,U	W/W	5,35	5,41	5,60	5,48	5,76	5,80	5,62	5,71	5,73	5,62
Seasonal efficiency	A,E	%	203,1%	206,0%	216,0%	206,8%	218,4%	218,4%	217,5%	216,5%	219,8%	211,0%
	N,U	%	211,0%	213,5%	221,0%	216,1%	227,3%	229,1%	221,9%	225,4%	226,3%	221,6%
SEPR - (EN14825: 2018) High temperature with inverter fans (2)												
SEPR	A,E	W/W	6,31	6,65	6,11	6,32	6,41	6,13	6,26	6,33	6,28	6,12
	N,U	W/W	6,47	6,61	6,52	6,80	6,49	6,62	6,57	6,50	6,47	6,40

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

Size			1300	1350	2300	2325	2350	3300	3320	3340	3350	4325
Electric data												
Maximum current (FLA)	A,E	A	165,0	249,0	319,0	404,0	488,0	483,0	568,0	727,0	727,0	797,0
	N,U	A	165,0	249,0	329,0	413,0	498,0	493,0	577,0	737,0	737,0	797,0
Peak current (LRA)	A,E	A	36,0	45,0	200,0	210,0	305,0	374,0	470,0	565,0	565,0	720,0
	N,U	A	36,0	45,0	210,0	305,0	315,0	384,0	479,0	575,0	575,0	720,0

GENERAL TECHNICAL DATA

Size			1300	1350	2300	2325	2350	3300	3320	3340	3350	4325
Compressor												
Type	A,E,N,U	type	Centrifugal									
Compressor regulation	A,E,N,U	Type	Inverter									
Number	A,E,N,U	no.	1	1	2	2	2	3	3	3	3	4
Circuits	A,E,N,U	no.	1	1	1	2	1	1	2	1	1	2
Refrigerant	A,E,N,U	type	R134a									
Refrigerant charge (1)	A,E	kg	81,0	166,0	152,0	243,0	285,0	264,0	306,0	317,0	387,0	398,0
	N,U	kg	81,0	166,0	163,0	254,0	296,0	275,0	317,0	328,0	398,0	398,0
System side heat exchanger												
Type	A,E,N,U	type	Shell and tube									
Number	A,E,N,U	no.	1	1	1	1	1	1	1	1	1	1
Hydraulic connections												
Connections (in/out)	A,E,N,U	Type	Grooved joints									
Sizes (in/out)	A,E	Ø	3″	4″	6″	6″	6″	6″	6″	6″	8″	8″
	N,U	Ø	6″	6″	6″	6″	6″	6″	6″	6″	8″	8″
Fan												
Type	A,E,N,U	type	axials									
Fan motor	A,E,N,U	type	Inverter									
Number	A,E	no.	6	8	10	12	14	16	18	20	20	22
	N,U	no.	6	8	12	14	16	18	20	22	22	22
Air flow rate	A,E	m^3/h	112920	150560	188200	225840	263480	301120	338760	376400	376400	414040
	N,U	m^3/h	112920	150560	225840	263480	301120	338760	376400	414040	414040	414040

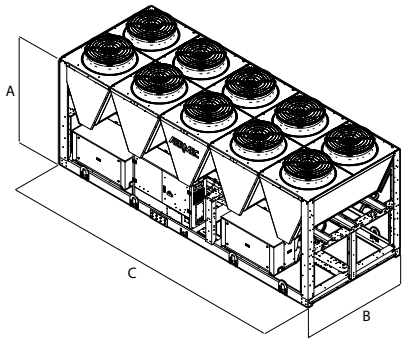
(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

SOUND DATA

Size			1300	1350	2300	2325	2350	3300	3320	3340	3350	4325
Sound data calculated in cooling mode (1)												
Sound power level	A	dB(A)	88,3	89,9	90,8	92,5	93,0	92,8	93,9	95,3	95,3	95,3
	E	dB(A)	82,3	83,9	84,8	86,5	87,0	86,8	87,9	89,3	89,3	89,3
	N	dB(A)	82,3	84,0	85,3	86,8	87,1	87,1	88,1	89,5	89,5	89,3
	U	dB(A)	88,3	90,0	91,3	92,8	93,1	93,1	94,1	95,5	95,5	95,3
Sound pressure level (10 m)	A	dB(A)	56,1	57,5	58,3	59,9	60,2	59,9	60,9	62,2	62,2	62,1
	E	dB(A)	50,1	51,5	52,3	53,9	54,2	53,9	54,9	56,2	56,2	56,1
	N	dB(A)	50,1	51,6	52,7	54,0	54,2	54,1	55,0	56,3	56,3	56,1
	U	dB(A)	56,1	57,6	58,7	60,0	60,2	60,1	61,0	62,3	62,3	62,1

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size			1300	1350	2300	2325	2350	3300	3320	3340	3350	4325
Dimensions and weights												
A	A,E,N,U	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	A,E,N,U	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	A,E	mm	3570	4760	5950	7140	8330	9520	10710	11900	11900	13090
	N,U	mm	3570	4760	7140	8330	9520	10710	11900	13090	13090	13090

Size			1300	1350	2300	2325	2350	3300	3320	3340	3350	4325
Integrated hydronic kit: 00												
Weights												
Empty weight	A	kg	2770	3480	4500	5550	6390	6760	7950	8240	8600	9700
	E	kg	2850	3590	4630	5720	6580	6980	8190	8510	8870	10000
	N	kg	2880	3810	5120	5950	7060	7430	8200	8950	9320	10000
	U	kg	2800	3700	4950	5760	6840	7180	7920	8650	9010	9700
Weight functioning	A	kg	2840	3560	4630	5730	6650	6960	8210	8500	8940	9990
	E	kg	2920	3670	4760	5900	6840	7180	8450	8770	9210	10290
	N	kg	2960	3940	5250	6100	7320	7630	8410	9210	9660	10290
	U	kg	2880	3830	5080	5910	7100	7380	8130	8910	9350	9990

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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TBG 1230-4310

Air-water chiller

Cooling capacity 200 ÷ 1165 kW

- **High efficiency also at partial loads**
- **Microchannel coil**
- **Low peak current (only 6 Amps!)**
- **Evaporator with low refrigerant charge**
- **Night mode**



DESCRIPTION

Air-cooled chiller designed to meet air conditioning needs in residential / commercial complexes or industrial applications.
These are outdoor units with oil free centrifugal compressor, axial fans, micro-channel coils, and shell and tube heat exchangers.
The base, the structure and the panels are made of steel treated with polyester paint RAL 9003.

VERSIONS

A High efficiency
E Silenced high efficiency
N Silenced very high efficiency
U Very high efficiency

FEATURES

Operating field

Operation at full load up to 43°C external air temperature depending on size and version. For further details refer to the selection software/ technical documentation.

Units mono or dual-circuit

The units according to the size are mono or dual-circuit, to ensure maximum efficiency both at full load and at partial load.

Oil free centrifugal compressor

Two-stage oil-free centrifugal compressor with magnetic levitation and inverter.

Compressor features:

— Operates without oil as bearings are magnetic levitation type
— Continuous load modulation by varying rpm (from 30% to 100%)
— Low peak currents (only 6 Amps!)

Aluminium microchannel coils

The whole range uses microchannel condenser coils allowing reduction of refrigerant charge but keeping the same high efficiency.

Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations, to obtain a solution that allows you to save money and to facilitate installation.

HFO R1234ze refrigerant gas

HFO R1234ze is a mixture featuring:
da ODP = 0 e GWP (Global Warming Potential) = 7, R134a GWP = 1430;
with thermodynamic properties that guarantee and sometimes improve efficiencies achieved with HFC refrigerants.

CONTROL PCO[5]

Microprocessor adjustment, with 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time and the ad adjustment includes complete management of the alarms and their log.
Further features:

— Possibility to control two units in a Master-Slave configuration
— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
— The temperature control takes place with the integral proportional logic, based on the water output temperature.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AER485P1 x n° 2: RS-485 interface for supervision systems with MODBUS protocol.
AER485P1 x n° 3: RS-485 interface for supervision systems with MODBUS protocol.
AER485P1 x n° 4: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PGD1: Allows you to control the unit at a distance.
AVX: Spring anti-vibration supports.

FACTORY FITTED ACCESSORIES

XLATB: This kit allows to extend the working range of the unit from 0 °C to -10 °C ambient temperature, thanks to an additional electric heater and a special insulating material for the heat exchanger.
GP_T: Anti-intrusion grid kit

ACCESSORIES COMPATIBILITY

Model	Ver	1230	1310	2230	2270	2310	3270	3280	3310	4270	4310
AER485P1	A,E,N,U	•	•								
AER485P1 x n° 2 (1)	A,E,N,U			•	•	•					
AER485P1 x n° 3 (1)	A,E,N,U						•	•	•	•	
AER485P1 x n° 4 (1)	A,E,N,U										•
AERBACP	A,E,N,U	•	•	•	•	•	•	•	•	•	•
AERNET	A,E,N,U	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	A,E,N,U	•	•	•	•	•	•	•	•	•	•
PGD1	A,E,N,U	•	•	•	•	•	•	•	•	•	•

(1) x Indicates the quantity of accessories to match.

Antivibration

Ver	1230	1310	2230	2270	2310	3270	3280	3310	4270	4310
A,E,N,U	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)

(1) Contact us.

XLATB: Kit for low temperature

Ver	1230	1310	2230	2270	2310	3270	3280	3310	4270	4310
A,E,N,U	XLATB1	XLATB3	XLATB4	XLATB5	XLATB5	XLATB6	XLATB6	XLATB6	XLATB7	XLATB7

A grey background indicates the accessory must be assembled in the factory

Anti-intrusion grid

Ver	1230	1310	2230	2270	2310	3270	3280	3310	4270	4310
A,E	GP2T	GP3T	GP4T	GP5T	GP6T	GP7T	GP8T	GP9T	GP10T	GP11T
N,U	GP3T	GP4T	GP5T	GP6T	GP7T	GP8T	GP9T	GP10T	GP11T	GP11T

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field		Description
1,2,3		**TBG**
4,5,6,7		**Size** 1230, 1310, 2230, 2270, 2310, 3270, 3280, 3310, 4270, 4310
8		**Model**
	°	Cooling only
9		**Heat recovery**
	°	Without heat recovery
10		**Version**
	A	High efficiency
	E	Silenced high efficiency
	N	Silenced very high efficiency
	U	Very high efficiency
11		**Coils**
	°	Aluminium microchannel
	O	Coated aluminium microchannel
	R	Copper pipes-copper fins
	S	Copper pipes-Tinned copper fins
	V	Copper pieps-Coated aluminium fins
12		**Fans**
	J	Inverter
13		**Power supply**
	°	400V ~ 3 50Hz with magnet circuit breakers
14,15		**Integrated hydronic kit**
	00	Without hydronic kit
	PA	Pump A
	PB	Pump B
	PC	Pump C
	PD	Pump D
	PE	Pump E
	PF	Pump F
	PG	Pump G
	PH	Pump H
	PI	Pump I
	PJ	Pump J (1)
	DA	Pump A + stand-by pump
	DB	Pump B + stand-by pump
	DC	Pump C + stand-by pump
	DD	Pump D + stand-by pump
	DE	Pump E + stand-by pump
	DF	Pump F + stand-by pump
	DG	Pump G + stand-by pump
	DH	Pump H + stand-by pump
	DI	Pump I + stand-by pump
	DJ	Pump J + stand-by pump (1)
	IA	Pump A equipped with inverter device to work at fixed speed
	IB	Pump B equipped with inverter device to work at fixed speed
	IC	Pump C equipped with inverter device to work at fixed speedr
	ID	Pump D equipped with inverter device to work at fixed speed
	IE	Pump E equipped with inverter device to work at fixed speed
	IF	Pump F equipped with inverter device to work at fixed speed
	IG	Pump G equipped with inverter device to work at fixed speed
	IH	Pump H equipped with inverter device to work at fixed speed
	II	Pump I equipped with inverter device to work at fixed speed
	IJ	Pump J equipped with inverter device to work at fixed speed (1)
	JA	Pump A+stand-by pump, both equipped with inverter to work at fixed speed
	JB	Pump B+stand-by pump, both equipped with inverter to work at fixed speed
	JC	Pump C+stand-by pump, both equipped with inverter to work at fixed speed
	JD	Pump D+stand-by pump, both equipped with inverter to work at fixed speed
	JE	Pump E+stand-by pump, both equipped with inverter to work at fixed speed
	JF	Pump F+stand-by pump, both equipped with inverter to work at fixed speed
	JG	Pump G+stand-by pump, both equipped with inverter to work at fixed speed
	JH	Pump H+stand-by pump, both equipped with inverter to work at fixed speed
	JI	Pump I+stand-by pump, both equipped with inverter to work at fixed speed
	JJ	Pump J+stand-by pump, both equipped with inverter to work at fixed speed (1)
	KF	Doble pump F with inverter device to work at fixed speed
	KG	Doble pump G with inverter device to work at fixed speed
	KH	Doble pump H with inverter device to work at fixed speed
	KI	Doble pump I with inverter device to work at fixed speed
	KJ	Doble pump J with inverter device to work at fixed speed (1)
	TF	Double pump F
	TG	Double pump G
	TH	Double pump H
	TI	Double pump I
	TJ	Double pump J (1)

(1) For all configurations including pump J please contact the factory.

PERFORMANCE SPECIFICATIONS

TBG - (A)

Size		1230	1310	2230	2270	2310	3270	3280	3310	4270	4310
Cooling performance 12 °C / 7 °C (1)											
Cooling capacity	kW	199,9	296,6	417,6	502,3	600,1	687,0	791,4	900,3	1033,3	1165,3
Input power	kW	57,7	86,1	121,5	146,6	174,8	199,1	231,3	262,2	305,7	345,1
Cooling total input current	A	95,5	140,7	200,9	241,2	291,4	326,6	386,9	437,1	502,3	577,6
EER	W/W	3,46	3,45	3,44	3,43	3,43	3,45	3,42	3,43	3,38	3,38
Water flow rate system side	l/h	34397	51028	71817	86370	103190	118120	136075	154785	177653	200332
Pressure drop system side	kPa	28	43	29	32	37	36	38	40	41	46

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

TBG - (E)

Size		1230	1310	2230	2270	2310	3270	3280	3310	4270	4310
Cooling performance 12 °C / 7 °C (1)											
Cooling capacity	kW	199,9	296,6	417,6	502,3	600,1	687,0	791,4	900,3	1033,3	1165,3
Input power	kW	57,7	86,1	121,5	146,6	174,8	199,1	231,3	262,2	305,7	345,1
Cooling total input current	A	95,5	140,7	200,9	241,2	291,4	326,6	386,9	437,1	502,3	577,6
EER	W/W	3,46	3,45	3,44	3,43	3,43	3,45	3,42	3,43	3,38	3,38
Water flow rate system side	l/h	34397	51028	71817	86370	103190	118120	136075	154785	177653	200332
Pressure drop system side	kPa	28	43	29	32	37	36	38	40	41	46

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

TBG - (U)

Size			1230	1310	2230	2270	2310	3270	3280	3310	4270	4310
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity		kW	230,7	324,2	439,6	511,1	604,5	709,0	807,9	906,9	1011,3	1112,5
Input power		kW	65,3	91,2	124,4	143,9	170,1	201,3	230,6	257,3	290,2	323,2
Cooling total input current		A	105,7	150,9	206,2	236,4	276,6	331,9	392,1	427,3	477,6	537,6
EER		W/W	3,53	3,55	3,53	3,55	3,55	3,52	3,50	3,52	3,49	3,44
Water flow rate system side		l/h	39688	55753	75597	87882	103946	121900	138909	155919	173873	191260
Pressure drop system side		kPa	37	32	32	33	38	39	39	41	39	42

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

TBG - (N)

Size			1230	1310	2230	2270	2310	3270	3280	3310	4270	4310
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity		kW	230,7	324,2	439,6	511,1	604,5	709,0	807,9	906,9	1011,3	1112,5
Input power		kW	65,3	91,2	124,4	143,9	170,1	201,3	230,6	257,3	290,2	323,2
Cooling total input current		A	105,7	150,9	206,2	236,4	276,6	331,9	392,1	427,3	477,6	537,6
EER		W/W	3,53	3,55	3,53	3,55	3,55	3,52	3,50	3,52	3,49	3,44
Water flow rate system side		l/h	39688	55753	75597	87882	103946	121900	138909	155919	173873	191260
Pressure drop system side		kPa	37	32	32	33	38	39	39	41	39	42

(1) Data EN 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C

ENERGY INDICES (REG. 2016/2281 EU)

Size			1230	1310	2230	2270	2310	3270	3280	3310	4270	4310
SEER - (EN14825:2018) 12/7 with inverter fans (1)												
SEER	A,E	W/W	5,44	5,52	5,76	5,44	5,85	5,70	5,77	5,78	5,61	5,60
	N,U	W/W	5,63	6,03	5,97	5,71	6,04	5,80	5,89	5,93	5,81	5,71
Seasonal efficiency	A,E	%	214,6%	217,6%	227,5%	214,6%	231,1%	225,1%	227,6%	228,3%	221,5%	220,8%
	N,U	%	222,3%	238,0%	235,9%	225,2%	238,7%	229,0%	232,5%	234,0%	229,2%	225,5%
SEPR - (EN14825: 2018) High temperature with inverter fans (2)												
SEPR	A,E	W/W	6,34	5,98	5,99	6,54	6,35	6,60	6,05	6,07	5,98	5,97
	N,U	W/W	6,47	6,21	6,18	6,78	6,56	6,73	6,20	6,23	6,17	6,09

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

Size			1230	1310	2230	2270	2310	3270	3280	3310	4270	4310
Electric data												
Maximum current (FLA)	A,E	A	115,0	180,0	229,0	294,0	359,0	408,0	528,0	538,0	587,0	707,0
	N,U	A	125,0	189,0	239,0	304,0	368,0	418,0	538,0	547,0	597,0	707,0
Peak current (LRA)	A,E	A	26,0	36,0	151,0	220,0	230,0	180,0	249,0	424,0	209,0	608,0
	N,U	A	36,0	45,0	161,0	230,0	239,0	190,0	259,0	433,0	219,0	608,0

GENERAL TECHNICAL DATA

Size			1230	1310	2230	2270	2310	3270	3280	3310	4270	4310
Compressor												
Type	A,E,N,U	type	Centrifugal									
Compressor regulation	A,E,N,U	Type	Inverter									
Number	A,E,N,U	no.	1	1	2	2	2	3	3	3	3	4
Circuits	A,E,N,U	no.	1	1	1	2	1	2	1	1	2	2
Refrigerant	A,E,N,U	type	R1234ze									
Refrigerant charge (1)	A,E	kg	71,0	110,0	142,0	177,0	188,0	254,0	265,0	307,0	318,0	328,0
	N,U	kg	82,0	121,0	153,0	188,0	198,0	265,0	276,0	286,0	328,0	328,0
System side heat exchanger												
Type	A,E,N,U	type	Shell and tube									
Number	A,E,N,U	no.	1	1	1	1	1	1	1	1	1	1
Hydraulic connections												
Connections (in/out)	A,E,N,U	Type	Grooved joints									
Sizes (in/out)	A,E,N,U	Ø	3"	4"	5"	6"	6"	6"	6"	6"	6"	6"
Fan												
Type	A,E,N,U	type	axials									
Fan motor	A,E,N,U	type	Inverter									
Number	A,E	no.	4	6	8	10	12	14	16	18	20	22
	N,U	no.	6	8	10	12	14	16	18	20	22	22
Air flow rate	A,E	m^3/h	75280	112920	150560	188200	225840	263480	301120	338760	376400	414040
	N,U	m^3/h	112920	150560	188200	225840	263480	301120	338760	376400	414040	414040

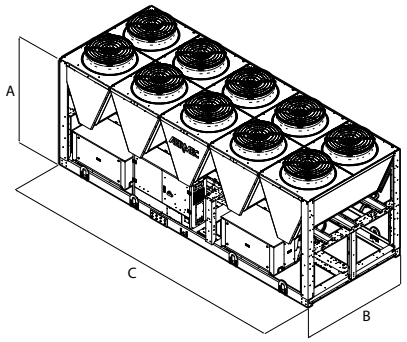
(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

SOUND DATA

Size			1230	1310	2230	2270	2310	3270	3280	3310	4270	4310
Sound data calculated in cooling mode (1)												
Sound power level	A	dB(A)	85,2	88,4	88,2	90,1	91,4	91,3	92,9	93,1	93,1	94,2
	E	dB(A)	82,2	85,4	85,2	87,1	88,4	88,3	89,9	90,1	90,1	91,2
	N	dB(A)	83,3	85,9	85,8	87,5	88,7	88,6	90,1	90,3	90,3	91,2
	U	dB(A)	86,3	88,9	88,8	90,5	91,7	91,6	93,1	93,3	93,3	94,2
Sound pressure level (10 m)	A	dB(A)	53,3	56,5	55,8	57,6	58,8	58,5	60,0	60,1	60,0	61,0
	E	dB(A)	50,3	53,5	52,8	54,6	55,8	55,5	57,0	57,1	57,0	58,0
	N	dB(A)	51,1	53,5	53,3	54,9	55,9	55,7	57,1	57,2	57,1	58,0
	U	dB(A)	54,1	56,5	56,3	57,9	58,9	58,7	60,1	60,2	60,1	61,0

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size			1230	1310	2230	2270	2310	3270	3280	3310	4270	4310
Dimensions and weights												
A	A,E,N,U	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	A,E,N,U	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	A,E	mm	1190	1190	4760	5950	7140	8330	9520	10710	11900	13090
	N,U	mm	3570	4760	5950	7140	8330	9520	10710	11900	13090	13090

Size			1230	1310	2230	2270	2310	3270	3280	3310	4270	4310
Integrated hydronic kit: 00												
Weights												
Empty weight	A	kg	2470	2980	4020	4800	5250	6490	6950	7440	8900	9510
	E	kg	2520	3060	4130	4940	5410	6680	7170	7690	9170	9810
	N	kg	2840	3590	4560	5420	5890	7150	7620	8130	9610	9800
	U	kg	2760	3480	4430	5250	5700	6930	7370	7850	9310	9500
Weight functioning	A	kg	2540	3050	4110	4930	5390	6670	7150	7650	9160	9780
	E	kg	2590	3130	4220	5070	5550	6860	7370	7900	9430	10080
	N	kg	2910	3670	4650	5550	6030	7330	7820	8340	9870	10070
	U	kg	2830	3560	4520	5380	5840	7110	7570	8060	9570	9770

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AIR / WATER CHILLERS WITH FREE COOLING

When the cooling of the room is requested throughout the year, even during the winter season, such as in modern communication centers or in industrial applications, it is a waste to consume energy to produce cooling capacity. To meet these needs, Aermec offers a range of chillers capable of exploiting, free of charge, the external cold air to cool the liquid with a considerable energy saving.

AIR / WATER CHILLERS WITH FREECOOLING

		Air flow rate (m³/h)	Cool. Cap. (kW)	Heat. Cap. (kW)	Page
Units with scroll compressors					
NRG 0282-0754 F	Air-water chiller with free-cooling	-	58-190	-	576
NRL 0280-0750 F	Air-water chiller with free-cooling	-	59-194,8	-	581
NRB 0800-3600 F	Air-water chiller with free-cooling	-	211-1010	-	587
NRB 0800-3600 B	Air-water chiller with free-cooling glycol free		211-1010	-	595
NRV 0550 F	Air-water chiller with free-cooling	-	99,9-105,4	-	602
Units with screw compressors					
NSM 1402-9603 F	Air-water chiller with free-cooling	-	306-2028	-	606
NSM 1402-9603 B	Air-water chiller with free-cooling glycol free	-	305,8-2028,1	-	617
NSM-HWT-1402-9603-F	Air-water chiller with free-cooling	-	306-2001	-	627
NSM-HWT-1402-9603-B	Air-water chiller with free-cooling glycol free	-	306-1991	-	636
NSMI 1251-6102 F	Air-water chiller with free-cooling and Inverter screw compressors	-	286-1280	-	644
TBA 1300-3350 F	Air-water chiller with free-cooling	-	317,2-1223,6	-	649
TBG 1230-4310 F	Air-water chiller with free-cooling	-	238-1110	-	654

NRG 0282-0754 F

Air-water chiller with free-cooling

Cooling capacity 58 ÷ 190 kW

- **High efficiency also at partial loads**
- **Reduced amount of refrigerant**
- **Compact dimensions**



DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications.
These are outdoor units with streamlined scroll compressors used with R32 gas.
Condensing coil with copper pipes and aluminium louvers, plate heat exchanger.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

A High efficiency
E Silenced high efficiency

FEATURES

Operating field

Operation at full load up to 48°C external air temperature. Unit can produce chilled water up to -10 °C.
For more information refer to the selection program and to to the dedicated documentation.

Dual-circuit unit

The units are dual-circuit, to ensure maximum efficiency both at full load and at partial load.

Refrigerant HFC R32

The environmental impact of the units is reduced considerably owing to the last generation R32 refrigerant.
Combining a reduced refrigerant load with a low global warming potential (GWP), these units boast low equivalent CO_2 values.

■ *The leak detector is supplied as per standard.*

New condensing Coils

The whole range uses copper - aluminium condensation coils with reduced diameter rows, allowing a lower quantity of gas to be used compared to traditional coils.

Free-cooling water coils

These units also have a water coil dedicated to free-cooling mode.
Free-cooling offers significant energy saving in applications that require cooling all year round.
As soon as the outside air temperature allows, a valve makes the water flow towards the free-cooling battery which is cooled directly by the air. The compressors are completely shut down, if possible, leading to considerable electrical savings.

Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy seasonal efficiency of the unit.

Option integrated hydronic kit

An optional, integrated hydronic kit containing the main hydraulic components, to obtain a solution that allows you to save money and to facilitate installation.
It is available in different configurations with storage tank or with fixed pumps also inverter.

CONTROL

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.
— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
— The temperature control takes place with the integral proportional logic, based on the water output temperature.
— **Floating HP control:** the function can be activated with inverter fans or with DCPX which allows unit operation to be optimised at any operating point through continuous modulation of the fan speed. In addition, the use of inverter fans ensures an increase in energy efficiency at partial loads.
— **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.

MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PGD1: Allows you to control the unit at a distance.
GP: Anti-intrusion grid.
VT: Anti-vibration supports.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.
RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
T6: Double safety valve with exchange cock, both on the high and low pressure branches.

ACCESSORIES COMPATIBILITY

Model	Ver	0282	0302	0332	0352	0502	0552	0554	0604	0654	0704	0754
AER485P1	A					•	•	•	•	•	•	•
	E	•	•	•	•	•	•	•	•	•	•	•
AERBACP	A					•	•	•	•	•	•	•
	E	•	•	•	•	•	•	•	•	•	•	•
AERNET	A					•	•	•	•	•	•	•
	E	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	A					•	•	•	•	•	•	•
	E	•	•	•	•	•	•	•	•	•	•	•
PGD1	A					•	•	•	•	•	•	•
	E	•	•	•	•	•	•	•	•	•	•	•

Antivibration

Ver	0282	0302	0332	0352	0502	0552	0554	0604	0654	0704	0754
Integrated hydronic kit: 00, I3, I4, P3, P4											
A	-	-	-	-	VT11	VT11	VT11	VT11	VT22	VT22	VT22
E	VT17	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT22	VT22	VT22
Integrated hydronic kit: 03, 04, K3, K4											
A	-	-	-	-	VT11	VT11	VT11	VT11	VT22	VT22	VT22
E	VT13	VT13	VT13	VT13	VT11	VT11	VT11	VT11	VT22	VT22	VT22

Anti-intrusion grid

Ver	0282	0302	0332	0352	0502	0552	0554	0604	0654	0704	0754
A	-	-	-	-	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)
E	GP4	GP4	GP4	GP4	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)

(1) x _ indicates the quantity to buy
The accessory cannot be fitted on the configurations indicated with -

Device for peak current reduction

Ver	0282	0302	0332	0352	0502	0552	0554	0604	0654	0704	0754
A	-	-	-	-	DRENRG502FC	DRENRG552FC	DRENRG554	DRENRG604	DRENRG654	DRENRG704	DRENRG754
E	DRENRG282FC	DRENRG302FC	DRENRG332FC	DRENRG352FC	DRENRG502FC	DRENRG552FC	DRENRG554	DRENRG604	DRENRG654	DRENRG704	DRENRG754

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

Power factor correction

Ver	0282	0302	0332	0352	0502	0552	0554	0604	0654	0704	0754
A	-	-	-	-	RIFNRG502FC	RIFNRG552FC	RIFNRG554	RIFNRG604	RIFNRG654	RIFNRG704	RIFNRG754
E	RIFNRG282FC	RIFNRG302FC	RIFNRG332FC	RIFNRG352FC	RIFNRG502FC	RIFNRG552FC	RIFNRG554	RIFNRG604	RIFNRG654	RIFNRG704	RIFNRG754

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

Double safety valves

Ver	0282	0302	0332	0352	0502	0552	0554	0604	0654	0704	0754
A,E	T6NRG2	T6NRG2	T6NRG2	T6NRG2	T6NRG2	T6NRG2	T6NRG2	T6NRG2	T6NRG2	T6NRG2	T6NRG2

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3	**NRG**
4,5,6,7	**Size** 0282, 0302, 0332, 0352, 0502, 0552, 0554, 0604, 0654, 0704, 0754
8	**Operating field**
X	Electronic thermostatic expansion valve
Z	Low temperature electronic thermostatic valve
9	**Model**
F	Free-cooling
S	Free-cooling with special 3-way valve
10	**Heat recovery**
°	Without heat recovery
D	With desuperheater
11	**Version**
A	High efficiency
E	Silenced high efficiency (1)
12	**Coils / free-cooling coils**
°	Copper-aluminium / Copper-aluminium
R	Copper-copper/Copper-copper
S	Copper-Tinned copper / Copper -Tinned copper
V	Copper-painted alumimium / Copper-painted alumimium
13	**Fans**
°	Standard
J	Inverter (2)
14	**Power supply**
°	400V ~ 3N 50Hz with magnet circuit breakers
15,16	**Integrated hydronic kit**
00	Without hydronic kit
	Kit with storage tank and pump/s
03	Storage tank with high head pump
04	Storage tank with high head pump + stand-by pump
	Kit with pump/s
P3	Single pump high head
P4	Pump high head + stand-by pump
	Kit with inverter pump/s to fixed speed
I3	Single high head pump + fixed speed inverter
I4	Single high head pump with fixed speed inverter + stand-by pump
	Kit with storage tank and inverter pump/s to fixed speed
K3	Single high head pump + storage tank + fixed speed inverter
K4	Storage tank and low head pump with fixed speed inverter + stand-by pump

(1) The size 0282-0302-0332-0352 only available in low noise versions.

(2) As standard in sizes fom 0282 to 0352

PERFORMANCE SPECIFICATIONS

NRG - A

Size		0282	0302	0332	0352	0502	0552	0554	0604	0654	0704	0754
Cooling performance chiller operation (1)												
Cooling capacity	kW	-	-	-	-	100,8	111,4	116,9	134,7	148,5	168,3	190,0
Input power	kW	-	-	-	-	31,5	35,1	38,4	43,2	49,0	58,5	67,0
Cooling total input current	A	-	-	-	-	60,0	63,0	63,0	83,0	94,0	114,0	123,0
EER	W/W	-	-	-	-	3,20	3,18	3,05	3,12	3,03	2,88	2,84
Water flow rate system side	l/h	-	-	-	-	17316	19137	20081	23139	25509	28916	32647
Pressure drop system side	kPa	-	-	-	-	43	52	44	60	72	84	85
Cooling performances with free-cooling (2)												
Cooling capacity	kW	-	-	-	-	73,2	75,6	76,6	89,6	92,2	95,1	97,5
Input power	kW	-	-	-	-	3,7	3,7	3,8	5,6	5,6	5,6	5,6
Free cooling total input current	A	-	-	-	-	7,0	6,6	6,3	11,0	11,0	11,0	10,0
EER	W/W	-	-	-	-	19,94	20,59	20,14	16,15	16,62	17,14	17,56
Water flow rate system side	l/h	-	-	-	-	17316	19137	20081	23139	25509	28916	32647
Pressure drop system side	kPa	-	-	-	-	63	76	71	65	78	90	93

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) System side water heat exchanger 12 °C / * °C; External air 2°C

NRG - E

Size			0282	0302	0332	0352	0502	0552	0554	0604	0654	0704	0754
Cooling performance chiller operation (1)													
Cooling capacity		kW	58,5	64,5	71,8	81,3	98,0	108,0	112,6	131,2	144,0	162,0	181,4
Input power		kW	18,7	22,1	24,7	30,4	32,0	36,0	39,7	44,1	50,1	60,7	70,5
Cooling total input current		A	33,0	44,0	50,0	62,0	58,0	62,0	63,0	80,0	91,0	113,0	123,0
EER		W/W	3,13	2,92	2,91	2,67	3,06	3,00	2,83	2,98	2,87	2,67	2,57
Water flow rate system side		l/h	10057	11082	12338	13965	16843	18547	19341	22540	24736	27830	31164
Pressure drop system side		kPa	20	24	29	28	40	49	41	57	68	78	77
Cooling performances with free-cooling (2)													
Cooling capacity		kW	39,2	44,0	48,8	51,0	73,2	75,6	76,6	89,6	92,2	95,1	97,5
Input power		kW	0,8	0,8	1,1	1,1	3,7	3,7	3,8	5,6	5,6	5,6	5,6
Free cooling total input current		A	1,5	1,7	2,2	2,2	6,6	6,3	6,1	10,0	10,0	10,0	9,7
EER		W/W	46,65	52,31	45,70	47,80	19,94	20,59	20,14	16,15	16,62	17,14	17,56
Water flow rate system side		l/h	10057	11082	12338	13965	16843	18547	19341	22540	24736	27830	31164
Pressure drop system side		kPa	35	31	40	41	59	71	66	61	74	84	85

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) System side water heat exchanger 12 °C / * °C; External air 2°C

ENERGY DATA BY TYPE OF FAN

Size			0282	0302	0332	0352	0502	0552	0554	0604	0654	0704	0754
SEPR - (EN14825: 2018) High temperature with standard fans (1)													
SEPR	A	W/W	-	-	-	-	6,43	6,30	7,50	7,56	7,17	6,57	6,34
	E	W/W	7,11	6,66	6,65	6,21	6,34	6,14	7,16	7,24	7,02	6,39	6,12

(1) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

Size			0282	0302	0332	0352	0502	0552	0554	0604	0654	0704	0754
Electric data													
Maximum current (FLA)	A	A	-	-	-	-	73,0	79,1	80,5	100,1	111,4	132,7	144,0
	E	A	42,3	50,7	58,0	68,7	73,5	79,1	80,5	100,1	111,4	133,0	144,0
Peak current (LRA)	A	A	-	-	-	-	278,0	283,3	200,8	195,2	225,7	275,7	353,8
	E	A	162,7	145,8	172,3	211,7	277,6	283,3	200,8	195,2	225,7	276,0	354,0

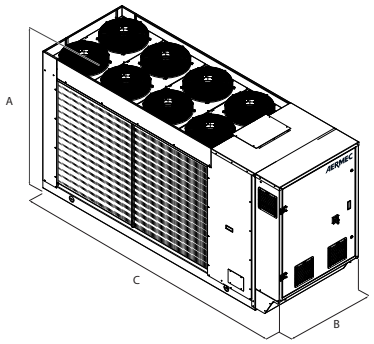
■ *Data calculated without hydronic kit and accessories.*

GENERAL TECHNICAL DATA

Size			0282	0302	0332	0352	0502	0552	0554	0604	0654	0704	0754
Compressor													
Type	A,E	type						Scroll					
Compressor regulation	A,E	Type						On/Off					
Number	A,E	no.	2	2	2	2	2	2	4	4	4	4	4
Circuits	A,E	no.	2	2	2	2	2	2	2	2	2	2	2
Refrigerant	A,E	type						R32					
System side heat exchanger													
Type	A,E	type						Brazed plate					
Number	A,E	no.	1	1	1	1	1	1	1	1	1	1	1
System side hydraulic connections													
Sizes (in/out)	A,E	Ø						2" 1/2					
Fan													
Type	A,E	type						Axial					
Number	A	no.	-	-	-	-	2	2	2	3	3	3	3
	E	no.	6	6	8	8	2	2	2	3	3	3	3
Air flow rate	A	m^3/h	-	-	-	-	36079	36079	36079	54481	54481	54481	54481
	E	m^3/h	23294	22734	26915	26915	27483	27483	27483	41449	41449	41449	41449
Sound data calculated in cooling mode (1)													
Sound power level	A	dB(A)	-	-	-	-	85,1	85,6	84,2	86,4	86,4	86,4	86,4
	E	dB(A)	73,0	73,9	74,3	74,5	81,3	82,1	76,1	77,5	77,5	77,5	77,5

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size			0282	0302	0332	0352	0502	0552	0554	0604	0654	0704	0754
Dimensions and weights													
A	A	mm	-	-	-	-	1907	1907	1907	1900	1900	1900	1900
	E	mm	1658	1658	1658	1658	1907	1907	1907	1900	1900	1900	1900
B	A	mm	-	-	-	-	1100	1100	1100	1100	1100	1100	1100
	E	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
C	A	mm	-	-	-	-	3567	3567	3567	4467	4467	4467	4467
	E	mm	3317	3317	3317	3317	3567	3567	3567	4467	4467	4467	4467

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NRL 0280-0750 F

Air-water chiller with free-cooling

Cooling capacity 59 ÷ 194,8 kW

- **High efficiency also at partial loads**
- **Compact dimensions**
- **Quick & easy installation**



DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications.
Outdoor units with scroll compressors, axial fans and plate heat exchangers.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

A High efficiency
E Silenced high efficiency

FEATURES

Operating field

Operation at full load up to 44°C external air temperature depending on size and version. For further details refer to the selection software/ technical documentation.

Dual-circuit unit

Unit with 2 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.

Condensation control temperature

Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures, adapting the air flow rate to the actual system request in order to reduce consumption.

Free-cooling water coils

These units also have a water coil dedicated to free-cooling mode.
Free-cooling offers significant energy saving in applications that require cooling all year round.
As soon as the outside air temperature allows, a valve makes the water flow towards the free-cooling battery which is cooled directly by the air. The compressors are completely shut down, if possible, leading to considerable electrical savings.

Free-cooling circuit with glycol-water solution for glycol-free units

Intermediate plate heat exchanger that creates two circuits:

1. Glycol hydraulic circuit (glycol is added to protect the coil from freezing).
2. Primary hydraulic circuit for glycol-free systems.

Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

Integrated hydronic kit

To obtain a solution that allows you to save money and to facilitate installation. These units can be configured with an integrated hydronic system.
The kit contains the main hydraulic components, and is available in various configurations with a single pump or a standby pump too, so the customer can choose the right useful head.

CONTROL

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.

- The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
- The temperature control takes place with the integral proportional logic, based on the water output temperature.
- **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP

AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PGD1: Allows you to control the unit at a distance.

GP: Anti-intrusion grid.
VT: Anti-vibration supports.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.
RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
PRM1: It is a manual pressure switch electrically wired in series with the existing automatic high pressure switch on the compressor discharge pipe.

ACCESSORIES COMPATIBILITY

Model	Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
AER485P1	A					•	•	•	•	•	•
	E	•	•	•	•	•	•	•	•	•	•
AERBACP	A					•	•	•	•	•	•
	E	•	•	•	•	•	•	•	•	•	•
AERNET	A					•	•	•	•	•	•
	E	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	A					•	•	•	•	•	•
	E	•	•	•	•	•	•	•	•	•	•
PGD1	A					•	•	•	•	•	•
	E	•	•	•	•	•	•	•	•	•	•

Anti-intrusion grid

Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
A	-	-	-	-	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP10 x 3 (1)
E	GP4	GP4	GP4	GP4	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP2 x 3 (1)	GP10 x 3 (1)

(1) x _ indicates the quantity to buy

Antivibration - model F

Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Integrated hydronic kit: 00, P3, P4										
A	-	-	-	-	VT11	VT11	VT22	VT22	VT22	VT23
E	VT17	VT17	VT17	VT17	VT11	VT11	VT22	VT22	VT22	VT23
Integrated hydronic kit: 03, 04										
A	-	-	-	-	VT11	VT11	VT22	VT22	VT22	VT23
E	VT13	VT13	VT13	VT13	VT11	VT11	VT22	VT22	VT22	VT23

Antivibration - model K

Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Integrated hydronic kit: 00, P3, P4										
A	-	-	-	-	VT11	VT11	VT22	VT22	VT22	VT23
E	VT17	VT17	VT17	VT17	VT11	VT11	VT22	VT22	VT22	VT23
Integrated hydronic kit: 03, 04										
A	-	-	-	-	VT11	VT11	VT22	VT22	VT22	VT23
E	VT13	VT13	VT13	VT13	VT11	VT11	VT22	VT22	VT22	VT23

Antivibration - model B

Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Integrated hydronic kit: 00										
A	-	-	-	-	VT11	VT11	VT22	VT22	VT22	VT23
E	VT17	VT17	VT17	VT17	VT11	VT11	VT22	VT22	VT22	VT23

Heater exchangers

Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
A	-	-	-	-	DRE501 (1)	DRE551 (1)	DRE601 (1)	DRE651 (1)	DRE701 (1)	DRE751 (1)
E	DRE281 (1)	DRE301 (1)	DRE331 (1)	DRE351 (1)	DRE501 (1)	DRE551 (1)	DRE601 (1)	DRE651 (1)	DRE701 (1)	DRE751 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
A grey background indicates the accessory must be assembled in the factory

Power factor correction

Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
A	-	-	-	-	RIF52	RIF52	RIF53	RIF53	RIF53	RIF53
E	RIF50	RIF50	RIF50	RIF51	RIF52	RIF52	RIF53	RIF53	RIF53	RIF53

A grey background indicates the accessory must be assembled in the factory

Manually reset pressure switch

Ver	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
A	-	-	-	-	PRM1	PRM1	PRM1	PRM1	PRM1	PRM1
E	PRM1	PRM1	PRM1	PRM1	PRM1	PRM1	PRM1	PRM1	PRM1	PRM1

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3	**NRL**
4,5,6,7	**Size** 0280, 0300, 0330, 0350, 0500, 0550, 0600, 0650, 0700, 0750
8	**Operating field**
°	Standard mechanic thermostatic valve
X	Electronic thermostatic expansion valve
Y	Low temperature mechanic thermostatic valve
9	**Model**
B	Free-cooling glycol free (1)
F	Free-cooling
K	Free-cooling with low pressure drops
10	**Heat recovery**
°	Without heat recovery
11	**Version**
A	High efficiency
E	Silenced high efficiency
12	**Coils / free-cooling coils**
°	Copper-aluminium / Copper-aluminium
R	Copper-copper/Copper-copper
S	Copper-Tinned copper / Copper -Tinned copper
V	Copper-painted alumimium / Copper-painted alumimium
13	**Fans**
°	Standard (2)
J	Inverter (3)
M	Oversized
14	**Power supply**
°	400V ~ 3N 50Hz with magnet circuit breakers
1	220V~ 3 50Hz with magnet circuit breakers
15,16	**Integrated hydronic kit**
00	Without hydronic kit
03	Storage tank with high head pump
04	Storage tank with high head pump + stand-by pump
P3	Single pump high head
P4	Pump high head + stand-by pump

(1) The system side hydronic kit option is not available for the freecooling glycol free "B" models
(2) As standard in sizes fom 0500 ÷ 0750
(3) Standard for size 0280 ÷ 0350, without useful static pressure, option for other size with useful static pressure.

PERFORMANCE SPECIFICATIONS

NRL - FA/FE

Size			0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Cooling performance chiller operation (1)												
Cooling capacity	A	kW	-	-	-	-	99,0	104,0	132,0	144,0	159,0	191,0
	E	kW	59,0	65,0	74,0	82,0	91,0	95,0	119,0	130,0	147,0	177,0
Input power	A	kW	-	-	-	-	33,7	37,3	44,5	51,7	60,8	69,6
	E	kW	18,1	21,8	24,0	28,3	37,0	40,0	49,2	59,8	65,8	76,4
Cooling total input current	A	A	-	-	-	-	61,0	65,0	79,0	84,0	101,0	123,0
	E	A	32,0	38,0	41,0	51,0	67,0	70,0	87,0	97,0	109,0	135,0
EER	A	W/W	-	-	-	-	2,94	2,79	2,97	2,79	2,62	2,74
	E	W/W	3,26	2,98	3,08	2,90	2,46	2,38	2,42	2,17	2,23	2,32
Water flow rate system side	A	l/h	-	-	-	-	17009	17868	22679	24741	27318	32816
	E	l/h	10137	11168	12714	14089	15635	16322	20446	22335	25256	30411
Pressure drop system side	A	kPa	-	-	-	-	60	69	78	73	87	103
	E	kPa	63	53	66	58	51	58	63	60	74	89
Cooling performances with free-cooling (2)												
Cooling capacity	A	kW	-	-	-	-	78,4	79,2	104,3	121,0	132,5	142,4
	E	kW	44,2	51,8	63,2	64,7	78,4	79,2	104,3	121,1	132,5	142,4
Input power	A	kW	-	-	-	-	2,6	2,6	3,9	3,9	5,4	5,4
	E	kW	1,0	1,0	1,4	1,4	2,6	2,6	3,9	3,9	5,4	5,4
Free cooling total input current	A	A	-	-	-	-	4,8	4,6	6,9	6,3	9,0	9,5
	E	A	1,9	1,8	2,3	2,4	4,8	4,6	6,9	6,3	8,9	9,5
EER	A	W/W	-	-	-	-	29,59	29,88	26,74	31,04	24,53	26,36
	E	W/W	42,06	49,31	46,81	47,94	29,59	29,88	26,75	31,04	24,53	26,37
Water flow rate system side	A	l/h	-	-	-	-	15988	16795	21318	23256	25678	30847
	E	l/h	9528	10497	11951	13243	14696	15342	19219	20994	23740	28586
Pressure drop system side	A	kPa	-	-	-	-	70	79	95	95	110	138
	E	kPa	84	61	76	73	59	66	78	77	94	118

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) System side water heat exchanger 12 °C / * °C; External air 2°C

NRL - KA/KE

Size			0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Cooling performance chiller operation (1)												
Cooling capacity	A	kW	-	-	-	-	101,0	106,1	134,6	146,9	162,2	194,8
	E	kW	60,2	66,3	75,5	83,6	92,8	96,9	121,4	132,6	149,9	180,5
Input power	A	kW	-	-	-	-	33,7	37,3	44,5	51,7	60,8	69,6
	E	kW	18,1	21,8	24,0	28,3	37,0	40,0	49,2	59,8	65,8	76,4
Cooling total input current	A	A	-	-	-	-	61,0	65,0	79,0	84,0	101,0	123,0
	E	A	32,0	38,0	41,0	51,0	67,0	70,0	87,0	97,0	109,0	135,0
EER	A	W/W	-	-	-	-	3,00	2,84	3,02	2,84	2,67	2,80
	E	W/W	3,33	3,04	3,15	2,95	2,51	2,42	2,47	2,22	2,28	2,36
Water flow rate system side	A	l/h	-	-	-	-	17353	18229	23126	25239	27868	33469
	E	l/h	10343	11391	12972	14363	15944	16649	20858	22782	25755	31012
Pressure drop system side	A	kPa	-	-	-	-	44	37	42	40	49	35
	E	kPa	34	41	36	43	38	31	34	33	42	30
Cooling performances with free-cooling (2)												
Cooling capacity	A	kW	-	-	-	-	74,6	75,4	92,2	106,1	116,1	125,8
	E	kW	42,9	50,3	61,3	62,8	74,6	75,4	92,2	106,1	116,1	125,9
Input power	A	kW	-	-	-	-	2,6	2,6	3,9	3,9	5,4	5,4
	E	kW	1,0	1,0	1,4	1,4	2,6	2,6	3,9	3,9	5,4	5,4
Free cooling total input current	A	A	-	-	-	-	4,8	4,6	6,9	6,3	9,0	9,5
	E	A	1,9	1,8	2,3	2,4	4,8	4,6	6,9	6,3	8,9	9,5
EER	A	W/W	-	-	-	-	28,15	28,44	23,64	27,19	21,50	23,30
	E	W/W	40,82	47,86	45,40	46,53	28,16	28,44	23,64	27,20	21,50	23,31
Water flow rate system side	A	l/h	-	-	-	-	16311	17135	21738	23724	26195	31460
	E	l/h	9722	10707	12193	13501	14987	15650	19602	21415	24209	29151
Pressure drop system side	A	kPa	-	-	-	-	50	44	51	51	63	56
	E	kPa	43	45	44	53	42	37	42	42	53	48

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) System side water heat exchanger 12 °C / * °C; External air 2°C

NRL - BA/BE

Size			0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Cooling performance chiller operation (1)												
Cooling capacity	A	kW	-	-	-	-	99,0	104,0	132,0	144,0	159,0	191,0
	E	kW	59,0	65,0	74,0	82,0	91,0	95,0	119,0	130,0	147,0	177,0
Input power	A	kW	-	-	-	-	33,7	37,3	44,5	51,7	60,8	69,6
	E	kW	18,1	21,8	24,0	28,3	37,0	40,0	49,2	59,8	65,8	76,4
Cooling total input current	A	A	-	-	-	-	61,0	65,0	79,0	84,0	101,0	123,0
	E	A	32,0	38,0	41,0	51,0	67,0	70,0	87,0	97,0	109,0	135,0
EER	A	W/W	-	-	-	-	2,94	2,79	2,97	2,79	2,62	2,74
	E	W/W	3,26	2,98	3,08	2,90	2,46	2,38	2,42	2,17	2,23	2,32
Water flow rate system side	A	l/h	-	-	-	-	17009	17868	22679	24741	27318	32816
	E	l/h	10137	11168	12714	14089	15635	16322	20446	22335	25256	30411
Pressure drop system side	A	kPa	-	-	-	-	92	101	101	104	120	156
	E	kPa	94	88	90	82	78	84	82	85	103	134
Cooling performances with free-cooling glycol-free (2)												
Cooling capacity	A	kW	-	-	-	-	60,1	60,9	79,2	92,9	101,3	108,9
	E	kW	34,3	39,6	48,7	50,3	60,2	60,9	79,2	92,9	101,3	108,9
Input power	A	kW	-	-	-	-	3,6	3,6	5,2	5,7	7,7	7,7
	E	kW	1,8	1,8	2,4	2,4	3,6	3,6	5,2	5,7	7,7	7,7
Free cooling total input current	A	A	-	-	-	-	6,6	6,4	9,2	9,3	13,0	14,0
	E	A	3,3	3,2	4,0	4,2	6,6	6,4	9,2	9,2	13,0	14,0
EER	A	W/W	-	-	-	-	16,48	16,69	15,23	16,29	13,15	14,14
	E	W/W	18,52	21,40	20,74	21,38	16,48	16,69	15,23	16,30	13,15	14,14
Water flow rate system side	A	l/h	-	-	-	-	17009	17868	22679	24741	27318	32816
	E	l/h	10137	11168	12714	14089	15635	16322	20446	22335	25256	30411
Pressure drop system side	A	kPa	-	-	-	-	92	101	101	104	120	156
	E	kPa	94	88	90	82	78	84	82	85	103	134

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) System side water heat exchanger 12 °C / 8,7 °C ; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

ENERGY INDICES (REG. 2016/2281 EU)

Model F

Size			0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
SEPR - (EN14825: 2018) High temperature with standard fans (1)												
SEPR	A	W/W	-	-	-	-	6,44	6,18	7,06	6,75	6,29	6,40
	E	W/W	6,44	6,16	6,20	5,82	6,06	5,86	6,50	6,23	5,95	6,06

(1) Calculation performed with FIXED water flow rate.

Model K

Size			0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
SEER - 23/18 (EN14825: 2018) with standard fans (1)												
Seasonal efficiency	A	%	-	-	-	-	161.3%	161.2%	174.8%	168.3%	162.3%	168.3%
	E	%	-	-	-	-	161.6%	161.4%	169.0%	162.8%	153.9%	163.1%
SEER	A	W/W	-	-	-	-	4,11	4,11	4,45	4,28	4,13	4,28
	E	W/W	-	-	-	-	4,12	4,11	4,30	4,15	3,92	4,15
SEER - 23/18 (EN14825: 2018) with inverter fans												
Seasonal efficiency	A	%	-	-	-	-	161.3%	161.2%	174.8%	168.3%	162.3%	168.3%
	E	%	173.4%	167.1%	167.7%	161.3%	161.6%	161.4%	169.0%	162.8%	153.9%	163.1%
SEER	A	W/W	-	-	-	-	4,11	4,11	4,45	4,28	4,13	4,28
	E	W/W	4,41	4,25	4,27	4,11	4,12	4,11	4,30	4,15	3,92	4,15
SEPR - (EN14825: 2018) High temperature with standard fans (1)												
SEPR	A	W/W	-	-	-	-	6,70	6,49	7,35	6,99	6,53	6,77
	E	W/W	-	-	-	-	6,29	6,16	6,77	6,48	6,15	6,38
SEPR - (EN14825: 2018) High temperature with inverter fans (1)												
SEPR	A	W/W	-	-	-	-	6,70	6,49	7,35	6,99	6,53	6,77
	E	W/W	6,73	6,34	6,48	6,00	6,29	6,16	6,77	6,48	6,15	6,38

(1) Calculation performed with FIXED water flow rate.

Model B

Size			0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
SEPR - (EN14825: 2018) High temperature with standard fans (1)												
SEPR	A	W/W	-	-	-	-	6,22	5,88	6,37	6,21	5,64	5,72
	E	W/W	6,02	5,80	5,80	5,49	5,82	5,60	5,90	5,75	5,40	5,49

(1) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

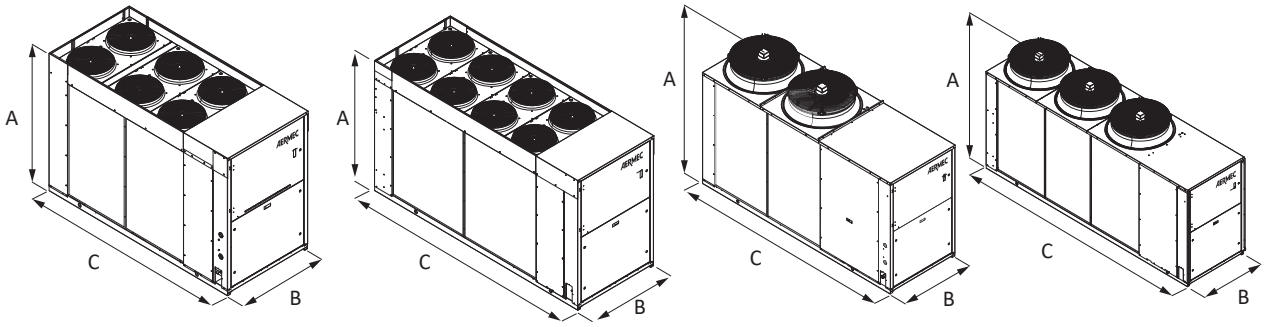
Size			0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Electric data												
Maximum current (FLA)	A	A	-	-	-	-	76,0	81,0	100,0	112,0	122,0	144,0
	E	A	46,0	53,0	58,0	63,0	76,0	81,0	100,0	122,0	122,0	320,0
Peak current (LRA)	A	A	-	-	-	-	214,0	220,0	232,0	243,0	261,0	320,0
	E	A	155,0	184,0	190,0	200,0	214,0	220,0	232,0	243,0	261,0	144,0

GENERAL TECHNICAL DATA

Size			0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Compressor												
Type	A,E	type						Scroll				
Compressor regulation	A,E	Type						On-Off				
Number	A	no.	-	-	-	-	3	3	4	4	4	4
	E	no.	2	2	2	2	3	3	4	4	4	4
Circuits	A	no.	-	-	-	-	2	2	2	2	2	2
	E	no.	2	2	2	2	2	2	2	2	2	2
Refrigerant	A,E	type						R410A				
System side heat exchanger												
Type	A,E	type						Brazed plate				
Number	A	no.	-	-	-	-	1	1	1	1	1	1
	E	no.	1	1	1	1	1	1	1	1	1	1
System side hydraulic connections												
Connections (in/out)	A,E	Type						Grooved joints				
Sizes (in/out)	A,E	Ø	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	2" 1/2	3"
Fan												
Type	A,E	type						Axial				
Fan motor	A	type	-	-	-	-	Asynchronous	Asynchronous	Asynchronous	Asynchronous	Asynchronous	Asynchronous
	E	type	Inverter	Inverter	Inverter	Inverter	Asynchronous	Asynchronous	Asynchronous	Asynchronous	Asynchronous	Asynchronous
Number	A	no.	-	-	-	-	2	2	3	3	3	3
	E	no.	6	6	8	8	2	2	3	3	3	3
Air flow rate	A	m^3/h	-	-	-	-	32500	32500	50000	49000	56000	56000
	E	m^3/h	20000	19000	25000	25000	23400	24100	33500	35300	47600	46500
Sound data calculated in cooling mode (1)												
Sound power level	A	dB(A)	-	-	-	-	82,0	82,0	82,0	83,0	85,0	87,0
	E	dB(A)	74,0	74,0	75,0	76,0	76,0	76,0	76,0	77,0	77,0	82,0
Sound pressure level (10 m)	A	dB(A)	-	-	-	-	50,1	50,1	50,0	51,0	53,0	54,9
	E	dB(A)	42,0	42,2	43,2	44,2	44,0	44,0	44,0	45,0	45,0	50,0

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size			0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Dimensions and weights												
A	A	mm	-	-	-	-	1875	1875	1875	1875	1875	1975
	E	mm	1606	1606	1606	1606	1875	1875	1875	1875	1875	1975
B	A	mm	-	-	-	-	1100	1100	1100	1100	1100	1500
	E	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1500
C	A	mm	-	-	-	-	3260	3260	4010	4010	4010	4350
	E	mm	2950	2950	2950	2950	3260	3260	4010	4010	4010	4350
Empty weight	A	kg	-	-	-	-	1079	1083	1386	1460	1540	1889
	E	kg	838	908	913	922	1079	1083	1386	1460	1540	1889

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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NRB 0800-3600 F

Air-water chiller with free-cooling

Cooling capacity 211 ÷ 1010 kW

- **Microchannel coil**
- **Night mode**
- **Operation up to 50 °C outdoor air**
- **High efficiency also at partial loads**



DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications.
Outdoor units with scroll compressors, axial flow fans, micro-channel coil (source side), plate heat exchanger and thermostatic expansion valve (mechanical or electronic, depending on the model).
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

A High efficiency
E Silenced high efficiency
N Silenced very high efficiency
U Very high efficiency

FEATURES

Operating field

Operation at full load up to 50 °C external air temperature depending on the size and vesion. For more information refer to the dedicated documentations or the selection program Magellano.

Dual-circuit unit

Unit with 2 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.

Condensation control temperature

Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures, adapting the air flow rate to the actual system request in order to reduce consumption.

Aluminium microchannel coils

The whole range uses microchannel condenser coils allowing reduction of refrigerant charge but keeping the same high efficiency.

Free-cooling water coils

These units also have a water coil dedicated to free-cooling mode.
Free-cooling offers significant energy saving in applications that require cooling all year round.
As soon as the outside air temperature allows, a valve makes the water flow towards the free-cooling battery which is cooled directly by the air. The compressors are completely shut down, if possible, leading to considerable electrical savings.

A "P" free-cooling plus model with the oversized water battery can be chosen for applications in which a higher free-cooling performance is required.

Electronic expansion valve

The units from size 1805 to 3600 have an electronic expansion valve as standard.
The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

Integrated hydronic kit

To obtain a solution that allows you to save money and to facilitate installation. These units can be configured with an integrated hydronic system.
The kit contains the main hydraulic components, and is available in various configurations with a single pump or a standby pump too, so the customer can choose the right useful head.

CONTROL

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.
— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
— The temperature control takes place with the integral proportional logic, based on the water output temperature.
— **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
FB1: Air filter to protect the micro-channel coils. Formed of a frame and a composite baffle in micro-expanded aluminium mesh, with particularly low pressure drops.
FL: Flow switch.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PGD1: Allows you to control the unit at a distance.
AVX: Spring anti-vibration supports.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.
RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
GP_: Anti-intrusion grid kit

ACCESSORIES COMPATIBILITY

Model	Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
AER485P1	A,E,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERBACP	A,E,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERNET	A,E,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FB1	A,E,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FL	A,E,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	A,E,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PGD1	A,E,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Antivibration

Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Integrated hydronic kit: 00																	
A	AVX1066	AVX1066	AVX1068	AVX1068	AVX1068	AVX1068	AVX1072	AVX1072	AVX1074	AVX1074	AVX1052	AVX1054	AVX1055	AVX1055	AVX1050	AVX1050	AVX1050
E,U	AVX1070	AVX1070	AVX1070	AVX1072	AVX1072	AVX1072	AVX1074	AVX1052	AVX1052	AVX1054	AVX1054	AVX1050	AVX1050	AVX1058	AVX1061	AVX1061	AVX1061
N	AVX1072	AVX1072	AVX1072	AVX1074	AVX1074	AVX1074	AVX1052	AVX1054	AVX1054	AVX1057	AVX1057	AVX1058	AVX1058	AVX1061	AVX1063	AVX1063	AVX1063
Integrated hydronic kit: AA, AB, AC, AD, AE, AF, AG, BA, BB, BC, BD																	
A	AVX1068	AVX1068	AVX1069	AVX1069	AVX1069	AVX1069	AVX1073	AVX1073	AVX1075	AVX1075	AVX1053	AVX1056	AVX1060	AVX1060	AVX1051	AVX1051	AVX1051
E,U	AVX1071	AVX1069	AVX1069	AVX1073	AVX1073	AVX1073	AVX1075	AVX1053	AVX1053	AVX1056	AVX1056	AVX1051	AVX1051	AVX1059	AVX1062	AVX1062	AVX1062
N	AVX1073	AVX1073	AVX1073	AVX1075	AVX1075	AVX1075	AVX1053	AVX1056	AVX1056	AVX1051	AVX1051	AVX1059	AVX1059	AVX1062	AVX1065	AVX1065	AVX1065
Integrated hydronic kit: AH, AI, BE, BF, BG																	
A	AVX1068	AVX1068	AVX1069	AVX1069	AVX1069	AVX1069	AVX1073	AVX1073	AVX1075	AVX1075	AVX1053	AVX1056	AVX1060	AVX1060	AVX1051	AVX1051	AVX1051
E,U	AVX1069	AVX1069	AVX1069	AVX1073	AVX1073	AVX1073	AVX1075	AVX1053	AVX1053	AVX1056	AVX1056	AVX1051	AVX1051	AVX1059	AVX1062	AVX1062	AVX1062
N	AVX1073	AVX1073	AVX1073	AVX1075	AVX1075	AVX1075	AVX1053	AVX1056	AVX1056	AVX1051	AVX1051	AVX1059	AVX1059	AVX1062	AVX1065	AVX1065	AVX1065
Integrated hydronic kit: BH, BI																	
A	AVX1069	AVX1069	AVX1069	AVX1069	AVX1069	AVX1069	AVX1073	AVX1073	AVX1075	AVX1075	AVX1053	AVX1056	AVX1060	AVX1060	AVX1051	AVX1051	AVX1051
E,U	AVX1069	AVX1069	AVX1069	AVX1073	AVX1073	AVX1073	AVX1075	AVX1053	AVX1053	AVX1056	AVX1056	AVX1051	AVX1051	AVX1059	AVX1062	AVX1062	AVX1062
N	AVX1073	AVX1073	AVX1073	AVX1075	AVX1075	AVX1075	AVX1053	AVX1078	AVX1056	AVX1051	AVX1051	AVX1059	AVX1059	AVX1062	AVX1065	AVX1065	AVX1065
Integrated hydronic kit: DA, DB, DC, DD, PA, PB, PC, PD, PE, PF, PG																	
A	AVX1066	AVX1066	AVX1068	AVX1068	AVX1068	AVX1068	AVX1072	AVX1072	AVX1074	AVX1074	AVX1052	AVX1054	AVX1055	AVX1055	AVX1050	AVX1050	AVX1050
E,U	AVX1068	AVX1068	AVX1068	AVX1072	AVX1072	AVX1072	AVX1074	AVX1052	AVX1052	AVX1054	AVX1054	AVX1050	AVX1050	AVX1058	AVX1061	AVX1061	AVX1061
N	AVX1072	AVX1072	AVX1072	AVX1074	AVX1074	AVX1074	AVX1052	AVX1054	AVX1054	AVX1050	AVX1050	AVX1058	AVX1058	AVX1061	AVX1063	AVX1063	AVX1063
Integrated hydronic kit: DE, DF, DG, PH, PI																	
A	AVX1066	AVX1066	AVX1068	AVX1068	AVX1068	AVX1068	AVX1072	AVX1072	AVX1074	AVX1074	AVX1052	AVX1055	AVX1055	AVX1055	AVX1050	AVX1050	AVX1050
E,U	AVX1068	AVX1068	AVX1068	AVX1072	AVX1072	AVX1072	AVX1076	AVX1052	AVX1052	AVX1054	AVX1054	AVX1050	AVX1050	AVX1058	AVX1061	AVX1061	AVX1061
N	AVX1072	AVX1072	AVX1072	AVX1074	AVX1074	AVX1074	AVX1052	AVX1055	AVX1054	AVX1050	AVX1050	AVX1058	AVX1058	AVX1061	AVX1064	AVX1064	AVX1064
Integrated hydronic kit: DH, DI																	
A	AVX1067	AVX1067	AVX1068	AVX1068	AVX1068	AVX1068	AVX1072	AVX1072	AVX1079	AVX1076	AVX1052	AVX1055	AVX1055	AVX1055	AVX1050	AVX1050	AVX1050
E,U	AVX1068	AVX1068	AVX1068	AVX1072	AVX1072	AVX1072	AVX1076	AVX1052	AVX1052	AVX1055	AVX1055	AVX1050	AVX1050	AVX1058	AVX1061	AVX1061	AVX1061
N	AVX1072	AVX1072	AVX1072	AVX1076	AVX1076	AVX1076	AVX1052	AVX1077	AVX1055	AVX1050	AVX1050	AVX1058	AVX1058	AVX1061	AVX1064	AVX1064	AVX1064

Device for peak current reduction

Ver	0800	0900	1000	1100	1200	1400	1600	1805
A,E,N,U	DRENRB0800 (1)	DRENRB0900 (1)	DRENRB1000 (1)	DRENRB1100 (1)	DRENRB1200 (1)	DRENRB1400 (1)	DRENRB1600 (1)	DRENRB1805 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
A grey background indicates the accessory must be assembled in the factory

Ver	2006	2206	2406	2600	2800	3000	3200	3400
A,E,N,U	DRENRB2006 (1)	DRENRB2206 (1)	DRENRB2406 (1)	-	-	-	-	-

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

Power factor correction

Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006
A	RIFNRB0800	RIFNRB0900	RIFNRB1000	RIFNRB1100	RIFNRB1200	RIFNRB1400	RIFNRB1601	RIFNRB1805	RIFNRB2006

Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006
E,U	RIFNRB0800	RIFNRB0900	RIFNRB1000	RIFNRB1101	RIFNRB1201	RIFNRB1401	RIFNRB1601	RIFNRB1815	RIFNRB2016
N	RIFNRB0801	RIFNRB0901	RIFNRB1001	RIFNRB1101	RIFNRB1201	RIFNRB1401	RIFNRB1601	RIFNRB1815	RIFNRB2016

A grey background indicates the accessory must be assembled in the factory

Ver	2206	2406	2600	2800	3000	3200	3400	3600
A	RIFNRB2206	RIFNRB2416	RIFNRB2600	RIFNRB2800	RIFNRB3000	RIFNRB3200	RIFNRB3400	RIFNRB3600
E,N,U	RIFNRB2216	RIFNRB2416	RIFNRB2600	RIFNRB2800	RIFNRB3000	RIFNRB3200	RIFNRB3400	RIFNRB3600

A grey background indicates the accessory must be assembled in the factory

Anti-intrusion grid

Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
A	GP2VN	GP2VN	GP3VNF	GP3VNF	GP3VNF	GP3VNF	GP4VN	GP4VN	GP5VN	GP5VN	GP6V	GP7V	GP7V	GP7V	GP8V	GP8V	GP8V
E,U	GP3VNF	GP3VNF	GP3VNF	GP4VN	GP4VN	GP4VN	GP5VN	GP6V	GP6V	GP7V	GP7V	GP8V	GP8V	GP9VN	GP10V	GP10V	GP10V
N	GP4VN	GP4VN	GP4VN	GP5VN	GP5VN	GP5VN	GP6V	GP7V	GP7V	GP8V	GP8V	GP9VN	GP9VN	GP10V	GP11V	GP11V	GP11V

A grey background indicates the accessory must be assembled in the factory

Units 0800A and 0900A with the optional "storage tank" are 3970 mm long and must have the GP2VNA grids installed.

CONFIGURATOR

Field		Description
1,2,3		**NRB**
4,5,6,7		**Size** 0800, 0900, 1000, 1100, 1200, 1400, 1600, 1805, 2006, 2206, 2406, 2600, 2800, 3000, 3200, 3400, 3600
8		**Operating field**
	°	Standard mechanic thermostatic valve (1)
	X	Electronic thermostatic expansion valve (2)
	Y	Low temperature mechanic thermostatic valve
	Z	Low temperature electronic thermostatic valve
9		**Model**
	F	Free-cooling
	P	Free-cooling plus (3)
10		**Heat recovery**
	°	Without heat recovery
	D	With desuperheater (4)
11		**Version**
	A	High efficiency
	E	Silenced high efficiency
	N	Silenced very high efficiency
	U	Very high efficiency
12		**Coils / free-cooling coils**
	°	Alluminium microchannel / Copper - aluminium
	I	Copper-aluminium / Copper-aluminium
	O	Painted alluminium microchannel / Copper painted aluminium
	R	Copper-copper/Copper-copper
	S	Copper-Tinned copper / Copper -Tinned copper
	V	Copper-painted alumimium / Copper-painted alumimium
13		**Fans**
	°	Standard
	J	Inverter
14		**Power supply**
	°	400 V/3/50 Hz with magnet circuit breakers
15,16		**Integrated hydronic kit**
		Without hydronic kit
	00	Without hydronic kit
		Kit with n° 1 pump
	PA	Pump A
	PB	Pump B
	PC	Pump C
	PD	Pump D
	PE	Pump E
	PF	Pump F
	PG	Pump G
	PH	Pump H
	PI	Pump I
	PJ	Pump J (5)
		Pump n° 1 pump + stand-by pump
	DA	Pump A + stand-by pump
	DB	Pump B + stand-by pump
	DC	Pump C + stand-by pump
	DD	Pump D + stand-by pump
	DE	Pump E + stand-by pump
	DF	Pump F + stand-by pump
	DG	Pump G + stand-by pump
	DH	Pump H + stand-by pump
	DI	Pump I + stand-by pump
	DJ	Pump J + stand-by pump (5)
		Kit with storage tank and n° 1 pump
	AA	Storage tank and pump A
	AB	Storage tank and pump B
	AC	Storage tank and pump C
	AD	Storage tank and pump D
	AE	Storage tank and pump E
	AF	Storage tank and pump F
	AG	Storage tank and pump G
	AH	Storage tank and pump H
	AI	Storage tank and pump I
	AJ	Storage tank and pump J (5)
		Kit with storage tank and n° 1 pump + stand-by pump
	BA	Storage tank with pump A + stand-by pump
	BB	Storage tank with pump B + stand-by pump
	BC	Storage tank with pump C + stand-by pump
	BD	Storage tank with pump D + stand-by pump
	BE	Storage tank with pump E + stand-by pump
	BF	Storage tank with pump F + stand-by pump
	BG	Storage tank with pump G + stand-by pump
	BH	Storage tank with pump H + stand-by pump
	BI	Storage tank with pump I + stand-by pump
	BJ	Storage tank with pump J + stand-by pump (5)

(1) Water produced from 4 °C ÷ 18 °C
(2) Electronic thermostatic as standard from size 1805÷3600.
(3) Free cooling Plus models "P" are compatible only with "°" and "O" coils.
(4) The temperature of the water in the heat exchanger inlet must never drop below 35°C.
(5) For all configurations including pump J please contact the factory.

PERFORMANCE SPECIFICATIONS

NRB - A

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Model: F																		
Cooling performance chiller operation (1)																		
Cooling capacity	kW	211,8	234,3	273,4	307,1	335,9	373,3	432,0	474,2	542,2	584,4	655,6	720,2	759,5	803,3	878,1	922,4	962,2
Input power	kW	76,0	88,0	93,9	108,9	124,8	145,6	157,1	185,1	201,0	229,4	243,7	259,3	280,1	307,8	321,2	348,2	374,6
Cooling total input current	A	134,0	152,0	165,0	189,0	215,0	248,0	270,0	316,0	347,0	394,0	423,0	450,0	483,0	529,0	557,0	602,0	646,0
EER	W/W	2,79	2,66	2,91	2,82	2,69	2,56	2,75	2,56	2,70	2,55	2,69	2,78	2,71	2,61	2,73	2,65	2,57
Water flow rate system side	l/h	36397	40249	46968	52762	57713	64138	74217	81471	93153	100403	112635	123735	130494	138018	150865	158481	165325
Pressure drop system side	kPa	49	50	68	76	91	99	64	68	88	96	122	71	78	82	99	108	118
Cooling performances with free-cooling (2)																		
Cooling capacity	kW	139,8	142,0	203,2	208,4	211,6	214,7	280,5	284,4	350,8	354,8	421,5	486,7	491,2	644,2	562,5	566,7	570,0
Input power	kW	7,5	7,5	11,2	11,2	11,2	11,2	15,0	15,0	18,7	18,7	22,5	26,2	26,2	26,2	30,0	30,0	30,0
Free cooling total input current	A	13,0	13,0	20,0	20,0	19,0	19,0	26,0	26,0	32,0	32,0	39,0	46,0	45,0	45,0	52,0	52,0	52,0
EER	W/W	18,64	18,94	18,07	18,53	18,81	19,09	18,71	18,97	18,72	18,93	18,74	18,55	18,72	18,88	18,76	18,90	19,01
Water flow rate system side	l/h	36397	40249	46968	52762	57713	64138	74217	81471	93153	100403	112635	123735	130494	138018	150865	158481	165325
Pressure drop system side	kPa	88	97	101	117	139	158	112	125	144	161	188	119	132	142	159	175	190
Model: P																		
Cooling performance chiller operation (1)																		
Cooling capacity	kW	210,3	232,4	271,9	305,1	333,3	369,6	428,9	469,8	538,2	579,2	650,8	715,4	754,0	796,6	871,8	914,9	953,7
Input power	kW	76,8	89,2	94,8	110,0	126,2	147,6	158,7	187,5	203,2	232,3	246,6	262,0	283,2	311,5	324,9	352,5	379,6
Cooling total input current	A	135,0	154,0	167,0	191,0	217,0	251,0	272,0	320,0	351,0	399,0	427,0	454,0	487,0	534,0	562,0	608,0	653,0
EER	W/W	2,74	2,61	2,87	2,77	2,64	2,50	2,70	2,51	2,65	2,49	2,64	2,73	2,66	2,56	2,68	2,60	2,51
Water flow rate system side	l/h	36136	39921	46723	52411	57266	63506	73697	80717	92472	99510	111819	122911	129551	136864	149782	157193	163856
Pressure drop system side	kPa	48	49	67	75	89	97	63	66	87	95	120	70	77	81	97	106	116
Cooling performances with free-cooling (2)																		
Cooling capacity	kW	149,8	152,0	217,8	223,3	226,6	229,5	300,5	304,3	375,9	379,8	451,6	521,6	526,3	530,5	602,5	606,6	609,8
Input power	kW	7,6	7,6	11,4	11,4	11,4	11,4	15,2	15,2	19,0	19,0	22,8	26,7	26,7	26,7	30,5	30,5	30,5
Free cooling total input current	A	13,0	13,0	20,0	20,0	20,0	19,0	26,0	26,0	33,0	33,0	40,0	46,0	46,0	46,0	53,0	53,0	52,0
EER	W/W	19,66	19,95	19,06	19,55	19,83	20,09	19,73	19,98	19,74	19,94	19,76	19,57	19,74	19,90	19,78	19,91	20,01
Water flow rate system side	l/h	36136	29921	46723	52411	57266	63506	73697	80717	92472	99510	111819	122911	129551	136864	149782	157193	163856
Pressure drop system side	kPa	86	95	100	116	137	155	110	123	142	158	185	117	130	140	157	172	186

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) System side water heat exchanger 12 °C / * °C; External air 2°C

NRB - E

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Model: F																		
Cooling performance chiller operation (1)																		
Cooling capacity	kW	220,6	242,6	265,3	310,3	344,7	379,2	438,5	498,2	546,9	610,1	652,9	714,0	752,8	815,7	885,8	926,2	966,7
Input power	kW	73,4	84,2	95,7	106,6	122,4	142,0	155,3	174,8	199,2	219,5	244,7	257,6	278,8	299,8	316,7	342,9	369,1
Cooling total input current	A	126,0	142,0	160,0	179,0	205,0	236,0	258,0	292,0	333,0	368,0	411,0	432,0	465,0	501,0	531,0	575,0	619,0
EER	W/W	3,00	2,88	2,77	2,91	2,82	2,67	2,82	2,85	2,75	2,78	2,67	2,77	2,70	2,72	2,80	2,70	2,62
Water flow rate system side	l/h	37902	41688	45573	53310	59226	65155	75344	85588	93960	104827	112169	122679	129338	140150	152184	159137	166091
Pressure drop system side	kPa	44	53	57	82	90	109	58	75	85	89	102	69	77	85	100	109	119
Cooling performances with free-cooling (2)																		
Cooling capacity	kW	164,6	168,5	223,0	222,5	227,6	231,2	285,4	338,9	344,8	399,2	403,7	458,1	462,0	516,7	571,9	576,1	579,7
Input power	kW	7,9	7,9	7,9	10,5	10,5	10,5	13,1	15,8	15,8	18,4	18,4	21,0	21,0	23,6	26,3	26,3	26,3
Free cooling total input current	A	13,0	13,0	13,0	18,0	18,0	17,0	22,0	26,0	26,0	31,0	31,0	35,0	35,0	39,0	44,0	44,0	44,0
EER	W/W	20,90	21,39	21,78	21,18	21,67	22,02	21,74	21,51	21,89	21,72	21,97	21,81	22,00	21,87	21,78	21,94	22,08
Water flow rate system side	l/h	37902	41688	45573	53310	59226	65155	75344	85588	93960	104827	112169	122679	129338	140150	152184	159137	166091
Pressure drop system side	kPa	67	80	88	120	136	165	95	114	132	139	159	110	122	132	150	163	178
Model: P																		
Cooling performance chiller operation (1)																		
Cooling capacity	kW	219,4	241,1	263,2	308,4	342,1	375,8	435,2	494,7	542,4	605,4	647,1	708,4	746,2	808,9	878,9	918,2	957,4
Input power	kW	74,1	85,1	96,8	107,7	123,7	143,8	157,0	176,7	201,6	222,1	247,8	260,7	282,3	303,4	320,4	347,3	374,2
Cooling total input current	A	126,0	144,0	162,0	181,0	206,0	238,0	260,0	294,0	336,0	372,0	415,0	436,0	470,0	506,0	536,0	581,0	626,0
EER	W/W	2,96	2,83	2,72	2,86	2,76	2,61	2,77	2,80	2,69	2,73	2,61	2,72	2,64	2,67	2,74	2,64	2,56
Water flow rate system side	l/h	37695	41419	45215	52979	58785	64562	74775	84990	93195	104013	111187	121705	128201	138974	151002	157752	164500
Pressure drop system side	kPa	44	53	56	81	89	107	57	74	84	88	100	68	76	84	98	107	117
Cooling performances with free-cooling (2)																		
Cooling capacity	kW	175,0	179,4	182,7	236,7	242,4	246,2	304,0	360,9	367,2	425,1	429,9	487,9	491,9	550,3	609,1	613,5	617,1
Input power	kW	8,0	8,0	8,0	10,7	10,7	10,7	13,3	16,0	16,0	18,6	18,6	21,3	21,3	24,0	26,6	26,6	26,6
Free cooling total input current	A	14,0	13,0	13,0	18,0	18,0	18,0	22,0	27,0	27,0	31,0	31,0	36,0	35,0	40,0	45,0	45,0	45,0
EER	W/W	21,90	22,45	22,86	22,22	22,76	23,11	22,83	22,58	22,98	22,80	23,06	22,90	23,09	22,96	22,87	23,04	23,17
Water flow rate system side	l/h	37695	41419	45215	52979	58785	64562	74775	84990	93195	104013	111187	121705	128201	138974	151002	157752	164500
Pressure drop system side	kPa	66	79	87	118	134	162	94	113	130	137	156	108	120	130	147	160	174

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) System side water heat exchanger 12 °C / * °C; External air 2°C

NRB - U

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Model: F																		
Cooling performance chiller operation (1)																		
Cooling capacity	kW	227,3	250,9	275,8	320,4	357,9	396,3	455,4	515,9	569,2	633,7	680,9	742,0	785,1	849,2	919,7	965,1	1010,6
Input power	kW	73,7	83,6	94,1	106,4	120,6	138,5	153,5	173,2	195,2	215,9	238,4	253,0	272,3	293,7	311,5	334,6	357,7
Cooling total input current	A	133,0	149,0	166,0	189,0	212,0	240,0	267,0	304,0	341,0	379,0	418,0	444,0	474,0	513,0	547,0	587,0	626,0
EER	W/W	3,08	3,00	2,93	3,01	2,97	2,86	2,97	2,98	2,92	2,94	2,86	2,93	2,88	2,89	2,95	2,88	2,83
Water flow rate system side	l/h	39046	43104	47382	55045	61497	68087	78245	88642	97793	108881	116982	127489	134883	145908	158015	165823	173632
Pressure drop system side	kPa	47	57	61	88	97	120	62	81	92	96	111	75	84	92	108	118	130
Cooling performances with free-cooling (2)																		
Cooling capacity	kW	192,7	198,6	203,6	261,5	269,7	276,0	338,6	400,3	410,2	473,3	481,2	544,1	551,0	614,6	678,8	686,3	692,8
Input power	kW	11,2	11,2	11,2	15,0	15,0	15,0	18,7	22,5	22,5	26,2	26,2	30,0	30,0	33,7	37,5	37,5	37,5
Free cooling total input current	A	20,0	20,0	20,0	27,0	26,0	26,0	33,0	39,0	39,0	46,0	46,0	53,0	52,0	59,0	66,0	66,0	66,0
EER	W/W	17,13	17,66	18,11	17,44	17,99	18,41	18,07	17,80	18,24	18,04	18,34	18,14	18,37	18,22	18,11	18,31	18,48
Water flow rate system side	l/h	39046	43104	47382	55045	61497	68087	78245	88642	97793	108881	116982	127489	134883	145908	158015	165823	173632
Pressure drop system side	kPa	71	86	95	128	147	179	103	122	143	150	173	119	133	143	161	177	194
Model: P																		
Cooling performance chiller operation (1)																		
Cooling capacity	kW	226,2	249,6	274,2	318,8	356,0	393,8	452,9	513,3	565,9	630,2	676,8	737,9	780,4	844,3	914,6	959,5	1004,3
Input power	kW	74,4	84,4	95,0	107,4	121,8	139,9	154,8	174,8	197,2	218,0	240,9	255,4	275,0	296,5	314,5	338,0	361,5
Cooling total input current	A	134,0	150,0	167,0	190,0	213,0	242,0	269,0	306,0	344,0	382,0	421,0	447,0	478,0	517,0	551,0	591,0	631,0
EER	W/W	3,04	2,96	2,89	2,97	2,92	2,82	2,93	2,94	2,87	2,89	2,81	2,89	2,84	2,85	2,91	2,84	2,78
Water flow rate system side	l/h	38871	42893	47115	54781	61158	67658	77819	88186	97229	108280	116278	126780	134074	145060	157146	164847	172544
Pressure drop system side	kPa	46	57	60	87	96	118	62	80	91	95	110	74	83	91	106	117	128
Cooling performances with free-cooling (2)																		
Cooling capacity	kW	205,9	212,7	218,2	279,8	289,0	295,9	362,9	428,9	439,8	507,3	515,9	583,3	590,7	658,8	727,6	735,7	742,7
Input power	kW	11,4	11,4	11,4	15,2	15,2	15,2	19,0	22,8	22,8	26,7	26,7	30,5	30,5	34,3	38,1	38,1	38,1
Free cooling total input current	A	21,0	20,0	20,0	27,0	27,0	26,0	33,0	40,0	40,0	47,0	47,0	53,0	53,0	60,0	67,0	67,0	66,0
EER	W/W	18,02	18,62	19,10	18,37	18,97	19,42	19,06	18,77	19,25	19,03	19,35	19,14	19,39	19,22	19,10	19,32	19,50
Water flow rate system side	l/h	38871	42893	47115	54781	61158	67658	77819	88186	97229	108280	116278	126780	134074	145060	157146	164847	172544
Pressure drop system side	kPa	70	85	94	126	145	177	102	121	141	148	171	118	131	141	159	175	191

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) System side water heat exchanger 12 °C / * °C; External air 2°C

NRB - N

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Model: F																		
Cooling performance chiller operation (1)																		
Cooling capacity	kW	228,3	252,4	278,0	320,3	358,3	397,2	454,4	510,9	563,3	628,5	675,3	728,3	769,3	837,1	899,9	942,6	985,4
Input power	kW	72,5	82,2	92,3	104,6	118,7	136,3	151,0	171,5	194,0	213,5	236,4	253,2	273,3	292,4	312,3	337,1	361,8
Cooling total input current	A	124,0	140,0	156,0	177,0	199,0	227,0	251,0	287,0	325,0	360,0	399,0	425,0	457,0	490,0	525,0	567,0	608,0
EER	W/W	3,15	3,07	3,01	3,06	3,02	2,91	3,01	2,98	2,90	2,94	2,86	2,88	2,82	2,86	2,88	2,80	2,72
Water flow rate system side	l/h	39222	43370	47761	55033	61559	68239	78074	87785	96785	107983	116017	125122	132179	143818	154615	161957	169298
Pressure drop system side	kPa	50	61	66	88	98	120	63	79	90	94	109	72	80	90	103	113	123
Cooling performances with free-cooling (2)																		
Cooling capacity	kW	263,0	209,6	216,0	263,3	272,4	279,7	331,7	383,3	392,7	446,3	453,4	505,5	511,3	565,7	619,3	625,2	630,3
Input power	kW	10,5	10,5	10,5	13,1	13,1	13,1	15,8	18,4	18,4	21,0	21,0	23,6	23,6	26,3	28,9	28,9	28,9
Free cooling total input current	A	18,0	18,0	18,0	22,0	22,0	22,0	26,0	31,0	31,0	35,0	35,0	40,0	39,0	44,0	49,0	49,0	49,0
EER	W/W	25,04	19,96	20,57	20,06	20,75	21,30	21,06	20,85	21,37	21,25	21,59	21,39	21,64	21,55	21,44	21,65	21,83
Water flow rate system side	l/h	39222	43370	47761	55033	61559	68239	78074	87785	96785	107983	116017	125122	132179	143818	154615	161957	169298
Pressure drop system side	kPa	71	86	96	121	139	171	95	115	133	143	164	110	122	134	151	165	180
Model: P																		
Cooling performance chiller operation (1)																		
Cooling capacity	kW	227,4	251,4	276,7	318,8	356,3	394,6	451,9	508,1	559,8	624,6	670,7	723,5	763,9	831,4	894,1	935,9	977,8
Input power	kW	73,1	82,8	93,1	105,5	119,8	137,7	152,4	173,0	195,9	215,7	239,0	255,8	276,2	295,5	315,6	340,8	366,1
Cooling total input current	A	125,0	141,0	157,0	178,0	201,0	229,0	253,0	289,0	328,0	362,0	402,0	429,0	461,0	494,0	529,0	572,0	614,0
EER	W/W	3,11	3,03	2,97	3,02	2,98	2,87	2,97	2,94	2,86	2,90	2,81	2,83	2,77	2,81	2,83	2,75	2,67
Water flow rate system side	l/h	39073	43187	47536	54768	61222	67801	77644	87290	96173	107317	115226	124312	131253	142839	153613	160804	167994
Pressure drop system side	kPa	50	60	65	87	97	119	62	78	89	93	108	71	79	88	102	111	122
Cooling performances with free-cooling (2)																		
Cooling capacity	kW	213,1	221,8	229,3	278,7	289,4	297,7	352,9	407,4	418,1	475,0	482,9	538,2	544,6	602,5	659,5	666,0	671,4
Input power	kW	10,7	10,7	10,7	13,3	13,3	13,3	16,0	18,6	18,6	21,3	21,3	24,0	24,0	26,6	29,3	29,3	29,3
Free cooling total input current	A	18,0	18,0	18,0	22,0	22,0	22,0	27,0	31,0	31,0	36,0	36,0	40,0	40,0	45,0	49,0	49,0	49,0
EER	W/W	20,00	20,82	21,53	20,93	21,73	22,36	22,08	21,85	22,43	22,30	22,66	22,46	22,72	22,62	22,51	22,73	22,92
Water flow rate system side	l/h	39073	43187	47536	54768	61222	67801	77644	87290	96173	107317	115226	124312	131253	142839	153613	160804	167994
Pressure drop system side	kPa	70	86	96	120	138	169	94	114	132	141	162	108	121	132	149	163	177

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) System side water heat exchanger 12 °C / * °C; External air 2°C

ENERGY INDICES (REG. 2016/2281 EU)

Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Model: F																			
SEPR - (EN14825: 2018) High temperature with standard fans (1)																			
SEPR	A	W/W	6,24	5,77	6,03	6,11	5,82	5,27	6,09	5,55	5,79	5,55	5,70	5,89	5,66	5,52	5,75	5,56	5,56
	E	W/W	6,98	6,31	6,11	6,34	6,16	5,51	6,28	6,19	5,81	5,90	5,73	5,98	5,65	5,73	5,96	5,68	5,55
	N	W/W	7,33	7,13	6,84	6,84	6,70	6,12	6,70	6,57	6,21	6,29	6,07	6,24	5,89	6,03	6,11	5,88	5,75
	U	W/W	7,10	6,80	6,54	6,66	6,52	5,99	6,66	6,57	6,30	6,31	6,16	6,43	6,08	6,14	6,34	6,15	6,04
SEPR - (EN14825: 2018) High temperature with inverter fans (1)																			
SEPR	A	W/W	6,24	5,77	6,03	6,11	5,82	5,27	6,09	5,55	5,79	5,55	5,70	5,89	5,66	5,52	5,75	5,56	5,56
	E	W/W	6,98	6,31	6,11	6,34	6,16	5,51	6,28	6,19	5,81	5,90	5,73	5,98	5,65	5,73	5,96	5,68	5,55
	N	W/W	7,33	7,13	6,84	6,84	6,70	6,12	6,70	6,57	6,21	6,29	6,07	6,24	5,89	6,03	6,11	5,88	5,75
	U	W/W	7,10	6,80	6,54	6,66	6,52	5,99	6,66	6,57	6,30	6,31	6,16	6,43	6,08	6,14	6,34	6,15	6,04
Model: P																			
SEPR - (EN14825: 2018) High temperature with standard fans (1)																			
SEPR	A	W/W	6,09	5,62	5,91	5,97	5,68	5,13	5,95	5,51	5,65	5,51	5,57	5,75	5,52	5,54	5,62	5,53	5,50
	E	W/W	6,82	6,16	5,95	6,20	6,01	5,37	6,13	6,04	5,66	5,76	5,59	5,83	5,50	5,58	5,81	5,54	5,50
	N	W/W	7,22	6,98	6,71	6,69	6,54	5,98	6,55	6,42	6,07	6,14	5,92	6,09	5,75	5,89	5,98	5,74	5,66
	U	W/W	6,98	6,64	6,39	6,51	6,39	5,86	6,51	6,42	6,16	6,17	6,03	6,28	5,94	5,99	6,20	6,01	5,96
SEPR - (EN14825: 2018) High temperature with inverter fans (1)																			
SEPR	A	W/W	6,09	5,62	5,91	5,97	5,68	5,13	5,95	5,51	5,65	5,51	5,57	5,75	5,52	5,54	5,62	5,53	5,50
	E	W/W	6,82	6,16	5,95	6,20	6,01	5,37	6,13	6,04	5,66	5,76	5,59	5,83	5,50	5,58	5,81	5,54	5,50
	N	W/W	7,22	6,98	6,71	6,69	6,54	5,98	6,55	6,42	6,07	6,14	5,92	6,09	5,75	5,89	5,98	5,74	5,66
	U	W/W	6,98	6,64	6,39	6,51	6,39	5,86	6,51	6,42	6,16	6,17	6,03	6,28	5,94	5,99	6,20	6,01	5,96

(1) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Electric data																			
Maximum current (FLA)	A	A	190,4	206,8	242,5	271,9	301,2	330,2	378,6	423,4	487,6	516,6	570,9	639,2	672,1	713,0	773,4	814,3	855,2
	E,U	A	209,8	226,2	242,5	291,3	320,6	349,6	398,0	468,1	512,9	561,3	590,3	658,6	691,5	751,8	812,2	853,1	894,0
	N	A	229,2	245,6	261,9	310,7	340,0	369,0	423,3	487,5	532,3	580,7	609,7	678,0	710,9	771,2	831,6	872,5	913,4
Peak current (LRA)	A	A	379,0	434,2	469,9	522,6	551,9	664,4	712,8	757,6	821,8	850,8	905,1	908,5	941,4	982,3	1042,6	1083,6	1124,5
	E,U	A	398,4	453,6	469,9	542,0	571,3	683,8	732,2	802,3	847,1	895,5	924,5	927,9	960,8	1021,1	1081,4	1122,4	1163,3
	N	A	417,8	473,0	489,3	561,4	590,7	703,2	757,5	821,7	866,5	914,9	943,9	947,3	980,2	1040,5	1100,8	1141,8	1182,7

GENERAL TECHNICAL DATA

Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Compressor																			
Type	A,E,N,U	type	Scroll																
Compressor regulation	A,E,N,U	Type	On-Off																
Number	A,E,N,U	no.	4	4	4	4	4	4	4	5	6	6	6	5	6	6	6	6	6
Circuits	A,E,N,U	no.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Refrigerant	A,E,N,U	type	R410A																
Refrigerant charge (1)	A	kg	29,0	30,0	40,0	44,0	45,0	43,0	52,0	55,0	69,0	65,0	88,0	96,0	89,0	118,0	130,0	122,0	116,0
	E,U	kg	41,0	40,0	43,0	53,0	53,0	53,0	62,0	75,0	76,0	113,0	112,0	124,0	116,0	140,0	156,0	156,0	156,0
	N	kg	52,0	53,0	53,0	59,0	59,0	70,0	84,0	91,0	90,0	124,0	124,0	134,0	134,0	152,0	168,0	168,0	168,0
System side heat exchanger																			
Type	A,E,N,U	type	Brazed plate																
Number	A,E,N,U	no.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Hydraulic connections																			
Connections (in/out)	A,E,N,U	Type	Grooved joints																
Hydraulic connections without hydronic kit																			
Sizes (in/out)	A,E,N,U	Ø	3"	3"	3"	3"	3"	3"	4"	4"	4"	4"	4"	5"	5"	5"	5"	5"	5"
Hydraulic connections with hydronic kit																			
Sizes (in/out)	A,E,N,U	Ø	3"	3"	3"	3"	3"	3"	4"	4"	4"	4"	4"	5"	5"	5"	5"	5"	5"

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

In the versions without a hydronic kit, the water filter is supplied with a connection point for making the connection. In the versions with a hydronic kit, it is supplied ready-mounted.

SOUND DATA

Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Sound data calculated in cooling mode (1)																			
Sound power level	A	dB(A)	88,0	88,1	90,3	90,2	90,2	90,2	91,7	92,2	93,9	94,4	95,8	96,7	96,7	96,7	97,4	97,4	97,4
	E	dB(A)	85,0	85,1	85,1	86,5	86,5	86,5	87,7	89,2	89,7	91,0	91,5	92,2	92,2	92,8	93,4	93,4	93,4
	N	dB(A)	86,5	86,6	86,6	87,7	87,7	87,7	88,7	90,0	90,5	91,7	92,2	92,8	92,8	93,4	93,9	93,9	93,9
	U	dB(A)	90,2	90,3	90,3	91,7	91,7	91,7	92,9	94,4	94,9	96,2	96,7	97,4	97,4	98,0	98,6	98,6	98,6
Sound pressure level (10 m)	A	dB(A)	55,9	56,0	58,0	57,9	57,9	57,9	59,3	59,8	61,3	61,8	63,2	63,9	63,9	63,9	64,5	64,5	64,5
	E	dB(A)	52,7	52,8	52,8	54,2	54,2	54,2	55,2	56,5	57,0	58,2	58,7	59,3	59,3	59,8	60,2	60,2	60,2
	N	dB(A)	54,2	54,3	54,3	55,2	55,2	55,2	56,0	57,2	57,7	58,8	59,3	59,8	59,8	60,2	60,6	60,6	60,6
	U	dB(A)	57,9	58,0	58,0	59,3	59,3	59,3	60,4	61,7	62,2	63,4	63,9	64,5	64,5	65,0	65,4	65,4	65,4

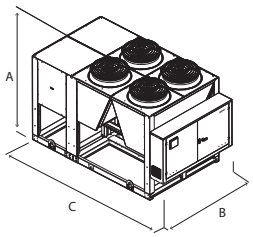
(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

FANS DATA

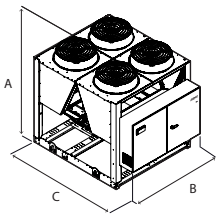
Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Model: F																			
Fan																			
Type	A,E,N,U	type									axials								
Number	A	no.	4	4	6	6	6	6	8	8	10	10	12	14	14	14	16	16	16
	E,U	no.	6	6	6	8	8	8	10	12	12	14	14	16	16	18	20	20	20
	N	no.	8	8	8	10	10	10	12	14	14	16	16	18	18	20	22	22	22
Air flow rate	A	m^3/h	57600	57600	86400	86400	86400	86400	115200	115200	144000	144000	172800	201600	201600	201600	230400	230400	230400
	E	m^3/h	64800	64800	64800	86400	86400	86400	108000	129600	129600	151200	151200	172800	172800	194400	216000	216000	216000
	N	m^3/h	86400	86400	86400	108000	108000	108000	129600	151200	151200	172800	172800	194400	194400	216000	237600	237600	237600
	U	m^3/h	86400	86400	86400	115200	115200	115200	144000	172800	172800	201600	201600	230400	230400	259200	288000	288000	288000
Model: P																			
Fan																			
Type	A,E,N,U	type									axials								
Number	A	no.	4	4	6	6	6	6	8	8	10	10	12	14	14	14	16	16	16
	E,U	no.	6	6	6	8	8	8	10	12	12	14	14	16	16	18	20	20	20
	N	no.	8	8	8	10	10	10	12	14	14	16	16	18	18	20	22	22	22
Air flow rate	A	m^3/h	54800	54800	82200	82200	82200	82200	109600	109600	137000	137000	164400	191800	191800	191800	219200	219200	230400
	E	m^3/h	61800	61800	61800	82400	82400	82400	103000	123600	123600	144200	144200	164800	164800	185400	206000	206000	216000
	N	m^3/h	82400	82400	82400	103000	103000	103000	123600	144200	144200	164800	164800	185400	185400	206000	226600	226600	237600
	U	m^3/h	82200	82200	82200	109600	109600	109600	137000	164400	164400	191800	191800	219200	219200	246600	274000	274000	288000

DIMENSIONS

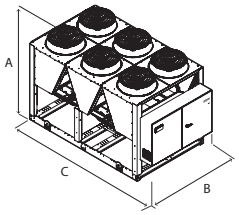
NRB 0800-0900 A (1)



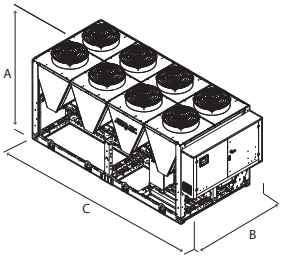
NRB 0800-0900 A



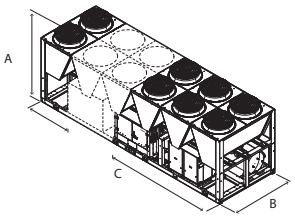
NRB 1000-1400 A
NRB 0800-1000 E-U



NRB 1805-2206 A



NRB 1600 A
NRB 2406-3600 A
NRB 1100-3600 E-U
NRB 0800-3600 N



(1) Additional module needed to contain the hydronic kit with "accumulation" option in sizes:
NRB 0800A, 0900A

Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Dimensions and weights																			
A	A,E,N,U	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	A,E,N,U	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	A	mm	2780	2780	3970	3970	3970	3970	4760	5160	6350	6350	7140	8330	8330	8330	9520	9520	9520
	E,U	mm	3970	3970	3970	4760	4760	4760	5950	7140	7140	8330	8330	9520	9520	10710	11900	11900	11900
	N	mm	4760	4760	4760	5950	5950	5950	7140	8330	8330	9520	9520	10710	10710	11900	13090	13090	13090

■ *Units 0800A and 0900A with the optional "storage tank" are 3970 mm long.*

Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Integrated hydronic kit: 00																			
Free-cooling																			
Empty weight	A	kg	2570	2620	3260	3330	3370	3420	4080	4290	5020	5100	5670	6570	6820	6970	7600	7730	7810
	E,U	kg	3080	3130	3290	3990	4060	4080	4660	5350	5570	6330	6390	7110	7360	8040	8630	8720	8800
	N	kg	3760	3800	3960	4530	4610	4630	5160	5940	6160	6870	6930	7640	7890	8500	9170	9250	9330
Free-cooling plus																			
Empty weight	A	kg	2630	2680	3350	3420	3460	3510	4200	4410	5170	5250	5850	6780	7030	7180	7840	7970	8050
	E,U	kg	3170	3220	3380	4110	4180	4200	4810	5530	5750	6540	6600	7350	7600	8310	8930	9020	9100
	N	kg	3880	3920	4080	4680	4760	4780	5340	6150	6370	7110	7170	7910	8160	8800	9500	9580	9660

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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www.aermec.com

NRB 0800-3600 B

Air-cooled chiller with free cooling (glycol-free)

Cooling capacity 211 ÷ 1010 kW

- **Microchannel coil**
- **Night mode**
- **Operation up to 50 °C outdoor air**
- **High efficiency also at partial loads**



DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications.
Outdoor units with scroll compressors, axial flow fans, micro-channel coil (source side), plate heat exchanger and thermostatic expansion valve (mechanical or electronic, depending on the model).
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

A High efficiency
E Silenced high efficiency
N Silenced very high efficiency
U Very high efficiency

FEATURES

Operating field

Operation at full load up to 50 °C external air temperature depending on the size and vesion. For more information refer to the dedicated documentations or the selection program Magellano.

Dual-circuit unit

Unit with 2 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.

Condensation control temperature

Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures, adapting the air flow rate to the actual system request in order to reduce consumption.

Aluminium microchannel coils

The whole range uses microchannel condenser coils allowing reduction of refrigerant charge but keeping the same high efficiency.

Free-cooling water coils

These units also have a water coil dedicated to free-cooling mode.
Free-cooling offers significant energy saving in applications that require cooling all year round.
As soon as the outside air temperature allows, a valve makes the water flow towards the free-cooling battery which is cooled directly by the air. The compressors are completely shut down, if possible, leading to considerable electrical savings.

If a higher output is needed in free cooling, there is also the "G" free cooling plus model with boosted water coil.

Free cooling with glycol water

Intermediate plate heat exchanger that creates two circuits:
1. Glycol hydraulic circuit (glycol is added to protect the coil from freezing).
2. Primary hydraulic circuit for glycol-free systems.

Electronic expansion valve

The units from size 1805 to 3600 have an electronic expansion valve as standard.
The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

Integrated hydronic kit

To obtain a solution that allows you to save money and to facilitate installation. These units can be configured with an integrated hydronic system.
The kit contains the main hydraulic components, and is available in various configurations with a single pump or a standby pump too, so the customer can choose the right useful head.

CONTROL

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.
— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
— The temperature control takes place with the integral proportional logic, based on the water output temperature.

— **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
FB1: Air filter to protect the micro-channel coils. Formed of a frame and a composite baffle in micro-expanded aluminium mesh, with particularly low pressure drops.
FL: Flow switch.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PGD1: Allows you to control the unit at a distance.
AVX: Spring anti-vibration supports.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.
RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
GP_: Anti-intrusion grid kit

ACCESSORIES COMPATIBILITY

Model	Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
AER485P1	A,E	•	•	•	•	•	•											
	N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERBACP	A,E	•	•	•	•	•	•											
	N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERNET	A,E	•	•	•	•	•	•											
	N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FB1	A,E	•	•	•	•	•	•											
	N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FL	A,E	•	•	•	•	•	•											
	N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	A,E	•	•	•	•	•	•											
	N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PGD1	A,E	•	•	•	•	•	•											
	N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Antivibration

Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Integrated hydronic kit: 00, DA, DB, DC, DE, DF, DG, DH, DI, DJ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ																	
A,E	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	-	-	-	-	-	-	-	-	-	-	-
N,U	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)

(1) Contact us.

Device for peak current reduction

Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006
A,E	DRENRB0800 (1)	DRENRB0900 (1)	DRENRB1000 (1)	DRENRB1100 (1)	DRENRB1200 (1)	DRENRB1400 (1)	-	-	-
N,U	DRENRB0800 (1)	DRENRB0900 (1)	DRENRB1000 (1)	DRENRB1100 (1)	DRENRB1200 (1)	DRENRB1400 (1)	DRENRB1600 (1)	DRENRB1805 (1)	DRENRB2006 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
A grey background indicates the accessory must be assembled in the factory

Ver	2206	2406	2600	2800	3000	3200	3400	3600
N,U	DRENRB2206 (1)	DRENRB2406 (1)	-	-	-	-	-	-

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

Power factor correction

Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006
A	RIFNRB0800	RIFNRB0900	RIFNRB1000	RIFNRB1100	RIFNRB1200	RIFNRB1400	-	-	-
E	RIFNRB0800	RIFNRB0900	RIFNRB1000	RIFNRB1101	RIFNRB1201	RIFNRB1401	-	-	-
N	RIFNRB0801	RIFNRB0901	RIFNRB1001	RIFNRB1101	RIFNRB1201	RIFNRB1401	RIFNRB1601	RIFNRB1815	RIFNRB2016
U	RIFNRB0800	RIFNRB0900	RIFNRB1000	RIFNRB1101	RIFNRB1201	RIFNRB1401	RIFNRB1601	RIFNRB1815	RIFNRB2016

A grey background indicates the accessory must be assembled in the factory

Ver	2206	2406	2600	2800	3000	3200	3400	3600
N,U	RIFNRB2216	RIFNRB2416	RIFNRB2600	RIFNRB2800	RIFNRB3000	RIFNRB3200	RIFNRB3400	RIFNRB3600

A grey background indicates the accessory must be assembled in the factory

Anti-intrusion grid

Ver	0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
A	GP2VN	GP2VN	GP3VNF	GP3VNF	GP3VNF	GP3VNF	-	-	-	-	-	-	-	-	-	-	-
E	GP3VNF	GP3VNF	GP3VNF	GP4VN	GP4VN	GP4VN	-	-	-	-	-	-	-	-	-	-	-
N	GP4VN	GP4VN	GP4VN	GP5VN	GP5VN	GP5VN	GP6V	GP7V	GP7V	GP8V	GP8V	GP9VN	GP9VN	GP10V	GP11V	GP11V	GP11V
U	GP3VNF	GP3VNF	GP3VNF	GP4VN	GP4VN	GP4VN	GP5VN	GP6V	GP6V	GP7V	GP7V	GP8V	GP8V	GP9VN	GP10V	GP10V	GP10V

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3	**NRB**
4,5,6,7	**Size** 0800, 0900, 1000, 1100, 1200, 1400, 1600, 1805, 2006, 2206, 2406, 2600, 2800, 3000, 3200, 3400, 3600
8	**Operating field**
°	Standard mechanic thermostatic valve
X	Electronic thermostatic expansion valve
Y	Low temperature mechanic thermostatic valve
Z	Low temperature electronic thermostatic valve
9	**Model**
B	Free-cooling glycol free
G	Free-cooling glycol free plus (1)
10	**Heat recovery**
°	Without heat recovery
D	With desuperheater (2)
11	**Version**
A	High efficiency
E	Silenced high efficiency
N	Silenced very high efficiency
U	Very high efficiency
12	**Coils / free-cooling coils**
°	Alluminium microchannel / Copper - aluminium
I	Copper-aluminium / Copper-aluminium
O	Painted alluminium microchannel / Copper painted aluminium
R	Copper-copper/Copper-copper
S	Copper-Tinned copper / Copper -Tinned copper
V	Copper-painted alumimium / Copper-painted alumimium
13	**Fans**
°	Standard
J	Inverter
14	**Power supply**
°	400V~3 50Hz with magnet circuit breakers
15,16	**Integrated hydronic kit**
00	Without hydronic kit
PA	Pump A
PB	Pump B
PC	Pump C
PD	Pump D
PE	Pump E
PF	Pump F
PG	Pump G
PH	Pump H
PI	Pump I
PJ	Pump J (3)
DA	Pump A + stand-by pump
DB	Pump B + stand-by pump
DC	Pump C + stand-by pump
DE	Pump E + stand-by pump
DF	Pump F + stand-by pump
DG	Pump G + stand-by pump
DH	Pump H + stand-by pump
DI	Pump I + stand-by pump
DJ	Pump J + stand-by pump (3)

(1) The Free cooling Plus "G" models are only compatible with "°" and "O" coils.
(2) The temperature of the water in the heat exchanger inlet must never drop below 35°C.
(3) For all configurations including pump J please contact the factory.

PERFORMANCE SPECIFICATIONS

NRB - A

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Model: B																		
Cooling performance chiller operation (1)																		
Cooling capacity	kW	211,8	234,3	273,4	307,1	335,9	373,3	-	-	-	-	-	-	-	-	-	-	-
Input power	kW	76,0	88,0	93,9	108,9	124,8	145,6	-	-	-	-	-	-	-	-	-	-	-
Cooling total input current	A	134,0	152,0	165,0	189,0	215,0	248,0	-	-	-	-	-	-	-	-	-	-	-
EER	W/W	2,79	2,66	2,91	2,82	2,69	2,56	-	-	-	-	-	-	-	-	-	-	-
Water flow rate system side	l/h	36397	40249	46968	52762	57713	64138	-	-	-	-	-	-	-	-	-	-	-
Pressure drop system side	kPa	53	58	66	74	88	100	-	-	-	-	-	-	-	-	-	-	-
Cooling performances with free-cooling glycol-free (2)																		
Cooling capacity	kW	119,9	121,9	165,6	172,5	176,2	181,3	-	-	-	-	-	-	-	-	-	-	-
Input power	kW	9,8	9,8	14,3	14,3	14,4	14,4	-	-	-	-	-	-	-	-	-	-	-
Free cooling total input current	A	17,0	17,0	25,0	25,0	25,0	25,0	-	-	-	-	-	-	-	-	-	-	-
EER	W/W	12,21	12,41	11,56	12,02	12,26	12,60	-	-	-	-	-	-	-	-	-	-	-
Model: G																		
Cooling performance chiller operation (1)																		
Cooling capacity	kW	210,3	232,4	271,9	305,1	333,3	369,6	-	-	-	-	-	-	-	-	-	-	-
Input power	kW	76,8	89,2	94,8	110,0	126,2	147,6	-	-	-	-	-	-	-	-	-	-	-
Cooling total input current	A	135,0	154,0	167,0	191,0	217,0	251,0	-	-	-	-	-	-	-	-	-	-	-
EER	W/W	2,74	2,61	2,87	2,77	2,64	2,50	-	-	-	-	-	-	-	-	-	-	-
Water flow rate system side	l/h	36136	39921	46723	52411	57266	63506	-	-	-	-	-	-	-	-	-	-	-
Pressure drop system side	kPa	53	57	65	73	87	98	-	-	-	-	-	-	-	-	-	-	-
Cooling performances with free-cooling glycol-free (2)																		
Cooling capacity	kW	125,4	127,6	172,1	179,6	183,6	189,2	-	-	-	-	-	-	-	-	-	-	-
Input power	kW	9,9	9,9	14,5	14,5	14,6	14,6	-	-	-	-	-	-	-	-	-	-	-
Free cooling total input current	A	17,0	17,0	25,0	25,0	25,0	25,0	-	-	-	-	-	-	-	-	-	-	-
EER	W/W	12,62	12,83	11,86	12,36	12,62	12,99	-	-	-	-	-	-	-	-	-	-	-

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) System side water heat exchanger 12 °C / 8,7 °C ; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

NRB - E

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Model: B																		
Cooling performance chiller operation (1)																		
Cooling capacity	kW	220,6	242,6	265,3	310,3	344,7	379,2	-	-	-	-	-	-	-	-	-	-	-
Input power	kW	73,4	84,2	95,7	106,6	122,4	142,0	-	-	-	-	-	-	-	-	-	-	-
Cooling total input current	A	126,0	142,0	160,0	179,0	205,0	236,0	-	-	-	-	-	-	-	-	-	-	-
EER	W/W	3,00	2,88	2,77	2,91	2,82	2,67	-	-	-	-	-	-	-	-	-	-	-
Water flow rate system side	l/h	37902	41688	45573	53310	59226	65155	-	-	-	-	-	-	-	-	-	-	-
Pressure drop system side	kPa	48	53	61	68	84	102	-	-	-	-	-	-	-	-	-	-	-
Cooling performances with free-cooling glycol-free (2)																		
Cooling capacity	kW	139,1	141,5	143,7	187,8	192,4	195,3	-	-	-	-	-	-	-	-	-	-	-
Input power	kW	11,0	11,0	11,0	14,6	14,6	14,6	-	-	-	-	-	-	-	-	-	-	-
Free cooling total input current	A	19,0	19,0	18,0	24,0	24,0	24,0	-	-	-	-	-	-	-	-	-	-	-
EER	W/W	12,69	12,92	13,11	12,89	13,17	13,37	-	-	-	-	-	-	-	-	-	-	-
Model: G																		
Cooling performance chiller operation (1)																		
Cooling capacity	kW	219,4	241,1	263,2	308,4	342,1	375,8	-	-	-	-	-	-	-	-	-	-	-
Input power	kW	74,1	85,1	96,8	107,7	123,7	143,8	-	-	-	-	-	-	-	-	-	-	-
Cooling total input current	A	126,0	144,0	162,0	181,0	206,0	238,0	-	-	-	-	-	-	-	-	-	-	-
EER	W/W	2,96	2,83	2,72	2,86	2,76	2,61	-	-	-	-	-	-	-	-	-	-	-
Water flow rate system side	l/h	37695	41419	45215	52979	58785	64562	-	-	-	-	-	-	-	-	-	-	-
Pressure drop system side	kPa	47	52	61	67	83	100	-	-	-	-	-	-	-	-	-	-	-
Cooling performances with free-cooling glycol-free (2)																		
Cooling capacity	kW	144,3	147,0	149,3	195,0	200,0	203,0	-	-	-	-	-	-	-	-	-	-	-
Input power	kW	11,1	11,1	11,1	14,7	14,8	14,8	-	-	-	-	-	-	-	-	-	-	-
Free cooling total input current	A	19,0	19,0	18,0	25,0	25,0	24,0	-	-	-	-	-	-	-	-	-	-	-
EER	W/W	13,03	13,28	13,48	13,24	13,55	13,75	-	-	-	-	-	-	-	-	-	-	-

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) System side water heat exchanger 12 °C / 8,7 °C ; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

NRB - U

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Model: B																		
Cooling performance chiller operation (1)																		
Cooling capacity	kW	227,3	250,9	275,8	320,4	357,9	396,3	455,4	515,9	569,2	633,7	680,9	742,0	785,1	849,2	919,7	965,1	1010,6
Input power	kW	73,7	83,6	94,1	106,4	120,6	138,5	153,5	173,2	195,2	215,9	238,4	253,0	272,3	293,7	311,5	334,6	357,7
Cooling total input current	A	133,0	149,0	166,0	189,0	212,0	240,0	267,0	304,0	341,0	379,0	418,0	444,0	474,0	513,0	547,0	587,0	626,0
EER	W/W	3,08	3,00	2,93	3,01	2,97	2,86	2,97	2,98	2,92	2,94	2,86	2,93	2,88	2,89	2,95	2,88	2,83
Water flow rate system side	l/h	39046	43104	47382	55045	61497	68087	78245	88642	97793	108881	116982	127489	134883	145908	158015	165823	173632
Pressure drop system side	kPa	51	56	66	72	90	111	75	92	112	133	126	110	124	133	158	160	176
Cooling performances with free-cooling glycol-free (2)																		
Cooling capacity	kW	159,6	162,9	165,8	215,5	222,0	225,8	284,2	346,2	361,7	409,5	413,7	470,6	474,2	525,1	581,4	584,6	587,3
Input power	kW	14,3	24,3	14,3	19,1	19,1	19,1	24,1	31,6	32,0	36,8	36,8	41,1	41,1	45,0	52,6	52,6	52,6
Free cooling total input current	A	26,0	26,0	25,0	34,0	33,0	33,0	42,0	55,0	56,0	65,0	64,0	72,0	72,0	79,0	92,0	92,0	92,0
EER	W/W	11,14	11,37	11,57	11,31	11,62	11,82	11,80	10,97	11,29	11,14	11,26	11,45	11,54	11,66	11,06	11,12	11,17
Model: G																		
Cooling performance chiller operation (1)																		
Cooling capacity	kW	226,2	249,6	274,2	318,8	356,0	393,8	452,9	513,3	565,9	630,2	676,8	737,9	780,4	844,3	914,6	959,5	1004,3
Input power	kW	74,4	84,4	95,0	107,4	121,8	139,9	154,8	174,8	197,2	218,0	240,9	255,4	275,0	296,5	314,5	338,0	361,5
Cooling total input current	A	134,0	150,0	167,0	190,0	213,0	242,0	269,0	306,0	344,0	382,0	421,0	447,0	478,0	517,0	551,0	591,0	631,0
EER	W/W	3,04	2,96	2,89	2,97	2,92	2,82	2,93	2,94	2,87	2,89	2,81	2,89	2,84	2,85	2,91	2,84	2,78
Water flow rate system side	l/h	38871	42893	47115	54781	61158	67658	77819	88186	97229	108280	116278	126780	134074	145060	157146	164847	172544
Pressure drop system side	kPa	50	56	-	72	89	109	74	91	111	132	125	109	122	132	157	158	174
Cooling performances with free-cooling glycol-free (2)																		
Cooling capacity	kW	165,6	169,1	172,3	223,6	230,7	234,8	295,8	360,9	278,5	427,4	432,0	491,6	495,5	547,8	606,7	610,2	613,2
Input power	kW	14,5	14,5	14,5	19,3	19,3	19,3	24,4	31,9	32,4	37,2	37,2	41,6	41,6	45,6	53,2	53,2	53,2
Free cooling total input current	A	26,0	26,0	25,0	34,0	34,0	33,0	42,0	56,0	57,0	65,0	65,0	73,0	72,0	79,0	93,0	93,0	93,0
EER	W/W	11,42	11,66	11,88	11,59	11,93	12,14	12,13	11,31	11,68	11,50	11,62	11,82	11,92	12,02	11,41	11,48	11,53

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) System side water heat exchanger 12 °C / 8,7 °C ; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

NRB - N

Size		0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Model: B																		
Cooling performance chiller operation (1)																		
Cooling capacity	kW	228,3	252,4	278,0	320,3	358,3	397,2	454,4	510,9	563,3	628,5	675,3	728,3	769,3	837,1	899,9	942,6	985,4
Input power	kW	72,5	82,2	92,3	104,6	118,7	136,3	151,0	171,5	194,0	213,5	236,4	253,2	273,3	292,4	312,3	337,1	361,8
Cooling total input current	A	124,0	140,0	156,0	177,0	199,0	227,0	251,0	287,0	325,0	360,0	399,0	425,0	457,0	490,0	525,0	567,0	608,0
EER	W/W	3,15	3,07	3,01	3,06	3,02	2,91	3,01	2,98	2,90	2,94	2,86	2,88	2,82	2,86	2,88	2,80	2,72
Water flow rate system side	l/h	39222	43370	47761	55033	61559	68239	78074	87785	96785	107983	116017	125122	132179	143818	154615	161957	169298
Pressure drop system side	kPa	46	50	60	72	91	103	71	90	110	131	124	97	109	130	141	158	170
Cooling performances with free-cooling glycol-free (2)																		
Cooling capacity	kW	173,9	177,9	181,5	218,5	225,6	235,0	293,7	331,4	347,7	386,9	390,8	445,3	448,6	497,1	534,8	537,7	540,1
Input power	kW	14,5	14,5	14,5	18,1	18,2	18,2	24,8	28,3	28,9	31,6	31,6	34,9	34,9	41,3	44,0	44,0	44,0
Free cooling total input current	A	25,0	25,0	25,0	31,0	31,0	30,0	41,0	47,0	48,0	53,0	53,0	59,0	58,0	69,0	74,0	74,0	74,0
EER	W/W	11,95	12,23	12,48	12,07	12,41	12,90	11,84	11,73	12,04	12,24	12,37	12,75	12,85	12,02	12,15	12,21	12,27
Model: G																		
Cooling performance chiller operation (1)																		
Cooling capacity	kW	227,4	251,4	276,7	318,8	356,3	394,6	451,9	508,1	559,8	624,6	670,7	723,5	763,9	831,4	894,1	935,9	977,8
Input power	kW	73,1	82,8	93,1	105,5	119,8	137,7	152,4	173,0	195,9	215,7	239,0	255,8	276,2	295,5	315,6	340,8	366,1
Cooling total input current	A	125,0	141,0	157,0	178,0	201,0	229,0	253,0	289,0	328,0	362,0	402,0	429,0	461,0	494,0	529,0	572,0	614,0
EER	W/W	3,11	3,03	2,97	3,02	2,98	2,87	2,97	2,94	2,86	2,90	2,81	2,83	2,77	2,81	2,83	2,75	2,67
Water flow rate system side	l/h	39073	43187	47536	54768	61222	67801	77644	87290	96173	107317	115226	124312	131253	142839	153613	160804	167994
Pressure drop system side	kPa	46	50	59	72	90	101	71	89	108	130	123	96	108	128	139	156	167
Cooling performances with free-cooling glycol-free (2)																		
Cooling capacity	kW	180,0	184,4	188,2	226,3	233,9	244,1	305,6	344,3	362,0	402,3	406,6	463,5	467,1	517,6	556,4	559,5	562,1
Input power	kW	14,7	14,6	14,7	18,3	18,4	18,4	25,0	28,5	29,2	31,9	31,9	35,3	35,3	41,7	44,4	44,4	44,4
Free cooling total input current	A	25,0	25,0	25,0	31,0	31,0	31,0	42,0	48,0	49,0	54,0	54,0	59,0	59,0	70,0	75,0	75,0	75,0
EER	W/W	12,25	12,55	12,81	12,37	12,73	13,26	12,20	12,07	12,42	12,61	12,74	13,14	13,25	12,41	12,52	12,59	12,65

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) System side water heat exchanger 12 °C / 8,7 °C ; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

ENERGY DATA

Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Model: B																			
SEPR - (EN14825: 2018) High temperature with standard fans (1)																			
SEPR	A	W/W	5,61	5,25	5,27	5,43	5,25	5,05	-	-	-	-	-	-	-	-	-	-	-
	E	W/W	6,07	5,58	5,44	5,59	5,50	5,13	-	-	-	-	-	-	-	-	-	-	-
	N	W/W	6,38	6,09	5,91	5,92	5,78	5,41	5,67	5,51	5,56	5,58	5,53	5,55	5,54	5,53	5,54	5,55	5,53
	U	W/W	6,22	5,87	5,69	5,84	5,71	5,56	5,73	5,52	5,60	5,58	5,53	5,58	5,56	5,55	5,53	5,56	5,56
Model: G																			
SEPR - (EN14825: 2018) High temperature with standard fans (1)																			
SEPR	A	W/W	5,82	5,37	5,48	5,60	5,37	4,87	-	-	-	-	-	-	-	-	-	-	-
	E	W/W	6,42	5,83	5,62	5,85	5,69	5,10	-	-	-	-	-	-	-	-	-	-	-
	N,U	W/W	6,96	6,54	6,28	6,28	6,08	5,63	6,13	5,90	5,77	5,73	5,58	5,79	5,47	5,56	5,61	5,32	5,18

(1) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Electric data																			
Maximum current (FLA)	A	A	190,4	206,8	242,5	271,9	301,2	330,2	-	-	-	-	-	-	-	-	-	-	-
	E	A	209,8	226,2	242,5	291,3	320,6	349,6	-	-	-	-	-	-	-	-	-	-	-
	N	A	229,2	245,6	261,9	310,7	340,0	369,0	423,3	487,5	532,3	580,7	609,7	678,0	710,9	771,2	831,6	872,5	913,4
	U	A	209,8	226,2	242,5	291,3	320,6	349,6	398,0	468,1	512,9	561,3	590,3	658,6	691,5	751,8	812,2	853,1	894,0
Peak current (LRA)	A	A	379,0	434,2	469,9	522,6	551,9	664,4	-	-	-	-	-	-	-	-	-	-	-
	E	A	398,4	453,6	469,9	542,0	571,3	683,8	-	-	-	-	-	-	-	-	-	-	-
	N	A	417,8	473,0	489,3	561,4	590,7	703,2	757,5	821,7	866,5	914,9	943,9	947,3	980,2	1040,5	1100,8	1141,8	1182,7
	U	A	398,4	453,6	469,9	542,0	571,3	683,8	732,2	802,3	847,1	895,5	924,5	927,9	960,8	1021,1	1081,4	1122,4	1163,3

GENERAL TECHNICAL DATA

Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Compressor																			
Type	A,E,N,U	type	Scroll																
Compressor regulation	A,E,N,U	Type	On-Off																
Number	A,E,N,U	no.	4	4	4	4	4	4	4	5	6	6	6	5	6	6	6	6	6
Circuits	A,E,N,U	no.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Refrigerant	A,E,N,U	type	R410A																
Refrigerant charge (1)	A	kg	32,0	32,0	48,0	48,0	48,0	48,0	64,0	64,0	80,0	80,0	96,0	112,0	112,0	112,0	128,0	128,0	128,0
	E,U	kg	48,0	48,0	48,0	64,0	64,0	64,0	80,0	96,0	96,0	112,0	112,0	128,0	128,0	144,0	160,0	160,0	160,0
	N	kg	64,0	64,0	64,0	80,0	80,0	80,0	96,0	112,0	112,0	128,0	128,0	144,0	144,0	160,0	176,0	176,0	176,0
Hydraulic connections																			
Connections (in/out)	A,E,N,U	Type	Grooved joints																
Hydraulic connections without hydronic kit																			
Sizes (in/out)	A,E,N,U	Ø	3"	3"	3"	3"	3"	3"	4"	4"	4"	4"	4"	5"	5"	5"	5"	5"	5"
Hydraulic connections with hydronic kit																			
Sizes (in/out)	A,E,N,U	Ø	3"	3"	3"	3"	3"	3"	4"	4"	4"	4"	4"	5"	5"	5"	5"	5"	5"

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

In the versions without a hydronic kit, the water filter is supplied with a connection point for making the connection. In the versions with a hydronic kit, it is supplied ready-mounted.

SOUND DATA

Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Sound data calculated in cooling mode (1)																			
Sound power level	A	dB(A)	88,0	88,1	90,3	90,2	90,2	90,2	-	-	-	-	-	-	-	-	-	-	-
	E	dB(A)	85,0	85,1	85,1	86,5	86,5	86,5	-	-	-	-	-	-	-	-	-	-	-
	N	dB(A)	86,5	86,6	86,6	87,7	87,7	87,7	88,7	90,0	90,5	91,7	92,2	92,8	92,8	93,4	93,9	93,9	93,9
	U	dB(A)	90,2	90,3	90,3	91,7	91,7	91,7	92,9	94,4	94,9	96,2	96,7	97,4	97,4	98,0	98,6	98,6	98,6
Sound pressure level (10 m)	A	dB(A)	55,9	56,0	58,0	57,9	57,9	57,9	-	-	-	-	-	-	-	-	-	-	-
	E	dB(A)	52,9	53,0	52,8	54,3	54,3	54,3	-	-	-	-	-	-	-	-	-	-	-
	N	dB(A)	54,4	54,5	54,4	55,4	55,4	55,4	56,3	57,6	58,0	59,2	59,6	60,1	60,1	60,6	61,0	61,0	61,0
	U	dB(A)	58,0	58,1	58,0	59,4	59,4	59,4	60,5	62,0	62,4	63,7	64,0	64,6	64,6	65,3	65,7	65,7	65,7

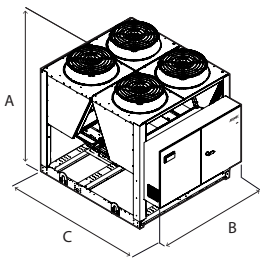
(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

FANS DATA

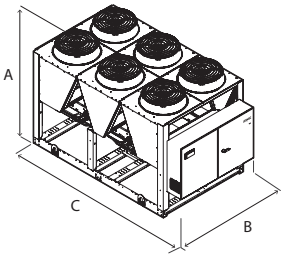
Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Model: B																			
Fan																			
Type	A,E	type	axials	axials	axials	axials	axials	axials	-	-	-	-	-	-	-	-	-	-	-
	N,U	type									axials								
Number	A	no.	4	4	6	6	6	6	-	-	-	-	-	-	-	-	-	-	-
	E	no.	6	6	6	8	8	8	-	-	-	-	-	-	-	-	-	-	-
	N	no.	8	8	8	10	10	10	12	14	14	16	16	18	18	20	22	22	22
	U	no.	6	6	6	8	8	8	10	12	12	14	14	16	16	18	20	20	20
Air flow rate	A	m^3/h	57600	57600	86400	86400	86400	86400	-	-	-	-	-	-	-	-	-	-	-
	E	m^3/h	64800	64800	64800	86400	86400	86400	-	-	-	-	-	-	-	-	-	-	-
	N	m^3/h	86400	86400	86400	108000	108000	108000	129600	151200	151200	172800	172800	194400	194400	216000	237600	237600	237600
	U	m^3/h	86400	86400	86400	115200	115200	115200	144000	172800	172800	201600	201600	230400	230400	259200	288000	288000	288000
Model: G																			
Fan																			
Type	A,E	type	axials	axials	axials	axials	axials	axials	-	-	-	-	-	-	-	-	-	-	-
	N,U	type									axials								
Number	A	no.	4	4	6	6	6	6	-	-	-	-	-	-	-	-	-	-	-
	E	no.	6	6	6	8	8	8	-	-	-	-	-	-	-	-	-	-	-
	N	no.	8	8	8	10	10	10	12	14	14	16	16	18	18	20	22	22	22
	U	no.	6	6	6	8	8	8	10	12	12	14	14	16	16	18	20	20	20
Air flow rate	A	m^3/h	57600	57600	86400	86400	86400	86400	-	-	-	-	-	-	-	-	-	-	-
	E	m^3/h	64800	64800	64800	86400	86400	86400	-	-	-	-	-	-	-	-	-	-	-
	N	m^3/h	86400	86400	86400	108000	108000	108000	129600	151200	151200	172800	172800	194400	194400	216000	237600	237600	237600
	U	m^3/h	86400	86400	86400	115200	115200	115200	144000	172800	172800	201600	201600	230400	230400	259200	288000	288000	288000

DIMENSIONS

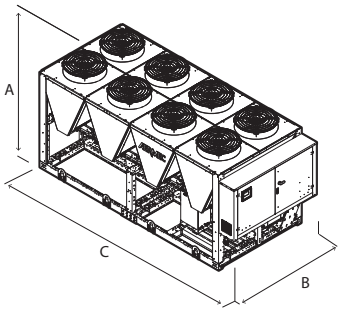
NRB 0800-0900 A



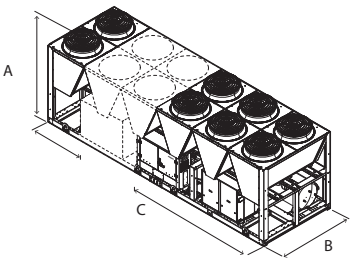
NRB 1000-1400 A
NRB 0800-1000 E-U



NRB 1100-1400 E-U
NRB 0800-1000 N



NRB 1100-3600 N
NRB 1600-3600 U



Size			0800	0900	1000	1100	1200	1400	1600	1805	2006	2206	2406	2600	2800	3000	3200	3400	3600
Dimensions and weights																			
A	A,E	mm	2450	2450	2450	2450	2450	2450	-	-	-	-	-	-	-	-	-	-	-
	N,U	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	A,E	mm	2200	2200	2200	2200	2200	2200	-	-	-	-	-	-	-	-	-	-	-
	N,U	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	A	mm	2780	2780	3970	3970	3970	3970	-	-	-	-	-	-	-	-	-	-	-
	E	mm	3970	3970	3970	4760	4760	4760	-	-	-	-	-	-	-	-	-	-	-
	N	mm	4760	4760	4760	5950	5950	5950	7140	8330	8330	9520	9520	10710	10710	11900	13090	13090	13090
	U	mm	3970	3970	3970	4760	4760	4760	5950	7140	7140	8330	8330	9520	9520	10710	11900	11900	11900

■ *For the weights please contact the factory.*

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NRV 0550 F

Air-water chiller with free-cooling

Cooling capacity 99,9 ÷ 105,4 kW

- **Easy and quick to install compact**
- **Reliability and modularity**
- **Microchannel coils**



DESCRIPTION

NRV is comprised of independent 99.9 kW modules, that can be connected together up to a power of 900 kW. Each individual module is an outdoor chiller for the production of chilled water.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

A High efficiency
E Silenced high efficiency

FEATURES

Operating field

Operation at full load up to 46°C external air temperature. Unit can produce chilled water up to 4 °C.
Maximum yield at full load but even partial load, thanks to the partialisation steps that increase as the number of connected modules increases this ensures continuous adaptation to the actual system requirements.

Modularity

It is possible to couple up to 9 chillers designed to reduce the overall unit dimensions to a minimum.
The combination of the various chillers allows all the strengths of the individual module to be maintained.
Modularity allows you to adapt installation to the actual development needs of the system. This way the cooling capacity can be increased over time simply and affordably.
Modularity is essential when component redundancy is required, as it allows for a safer system design and increased reliability.

Microchannel coils

Microchannel heat exchanger that guarantees higher thermal exchange yield. Circuit that optimises the liquid distribution in the coil, which is arranged with V beam geometry with open angle.

Free-cooling water coils

These units also have a water coil dedicated to free-cooling mode.
Free-cooling offers significant energy saving in applications that require cooling all year round.
As soon as the outside air temperature allows, a valve makes the water flow towards the free-cooling battery which is cooled directly by the air. The compressors are completely shut down, if possible, leading to considerable electrical savings.

Components

Already equipped with a water filter, differential pressure switch and butterfly check valves, useful to cut off the hydraulic circuit for maintenance; for instance, to clean the filter.
In the event of variable flow rate, the motorised hydronic valves can intercept one or more modules to reduce the flow rate in low heat load conditions.

CONTROL PCO_5

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.
Adjustment includes complete management of the alarms and their log.
The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
The temperature control takes place with the integral proportional logic, based on the water output temperature.
Modalità Night Mode: it is possible to set a silenced operation profile. **Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.**

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
FB1: Air filter to protect the micro-channel coils. Formed of a frame and a composite baffle in micro-expanded aluminium mesh, with particularly low pressure drops.

GPNYB_BACK: kit with 1 anti-intrusion grid for the short side of the unit.
GPNYB_SIDE: kit with 2 anti-intrusion grids for the long side of the unit.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PGD1: Allows you to control the unit at a distance.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.
KNYB: Pair of caps with grooved joints assembled on the unit manifold.
KREC: Accessory kit to remote the electric power supply input to the back
RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

COMPATIBILITY WITH VMF SYSTEM

For more information about VMF system, refer to the dedicated documentation.

ACCESSORIES COMPATIBILITY

Model	Ver	0550
AER485P1	A,E	•
AERBACP	A,E	•
FB1	A,E	•
GPNYB_BACK	A,E	•
GPNYB_SIDE	A,E	•
MULTICHILLER_EVO	A,E	•
PGD1	A,E	•

DRE: electronic device for peak current reduction

Ver	0550
A,E	DRE (1)

(1) Contact the factory
A grey background indicates the accessory must be assembled in the factory

KNYB: Pair of caps with grooved joints assembled on the unit manifold

Ver	0550
A,E	KNYB

A grey background indicates the accessory must be assembled in the factory

KREC: kit to remote the electric power supply input to the back

Ver	0550
A,E	KREC

A grey background indicates the accessory must be assembled in the factory

RIF: Power factor correction

Ver	0550
A,E	RIF (1)

(1) Contact the factory
A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field		Description
1,2,3		**NRV**
4,5,6,7		**Size** 0550
8		**Operating field**
	°	Standard mechanic thermostatic valve (1)
	X	Electronic thermostatic expansion valve
9		**Model**
	F	Free-cooling
10		**Heat recovery**
	°	Without heat recovery
	D	With desuperheater
11		**Version**
	A	High efficiency
	E	Silenced high efficiency

Field		Description
12		**Coils / free-cooling coils**
	°	Alluminium microchannel / Copper - aluminium
	0	Painted alluminium microchannel / Copper painted aluminium
	R	Copper-copper/Copper-copper
	S	Copper-Tinned copper / Copper -Tinned copper
	V	Copper-painted alumimium / Copper-painted alumimium
13		**Fans**
	°	Standard
	J	Inverter
14		**Power supply**
	°	400V ~ 3 50Hz with magnet circuit breakers
15,16		**Integrated hydronic kit**
	00	Without hydronic kit

(1) Water produced up to +4 °C

PERFORMANCE SPECIFICATIONS

NRV - FA/FE

Size			0550
Cooling performance chiller operation (1)			
Cooling capacity	A	kW	105,4
	E	kW	99,9
Input power	A	kW	36,6
	E	kW	38,2
Cooling total input current	A,E	A	65,0
EER	A	W/W	2,88
	E	W/W	2,61
Water flow rate system side	A	l/h	18104
	E	l/h	17164
Pressure drop system side	A	kPa	31
	E	kPa	27
Cooling performances with free-cooling (2)			
Cooling capacity	A	kW	69,3
	E	kW	57,7
Input power	A	kW	3,7
	E	kW	2,6
Free cooling total input current	A	A	6,7
	E	A	4,5
EER	A	W/W	18,48
	E	W/W	21,98
Water flow rate system side	A	l/h	18104
	E	l/h	17164
Pressure drop system side	A	kPa	73
	E	kPa	66

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) System side water heat exchanger 12 °C / * °C; External air 2°C

ENERGY INDICES (REG. 2016/2281 EU)

Size			0550
SEER - 23/18 (EN14825: 2018) with standard fans (1)			
Seasonal efficiency	A	%	184.2%
	E	%	181.3%
SEER	A	W/W	4,68
	E	W/W	4,61
SEER - 23/18 (EN14825: 2018) with inverter fans			
Seasonal efficiency	A	%	191.5%
	E	%	189.2%
SEER	A	W/W	4,86
	E	W/W	4,81
SEPR - (EN14825: 2018) High temperature with standard fans (1)			
SEPR	A	W/W	5,94
	E	W/W	5,60
SEPR - (EN14825: 2018) High temperature with inverter fans (1)			
SEPR	A	W/W	5,94
	E	W/W	5,60

(1) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

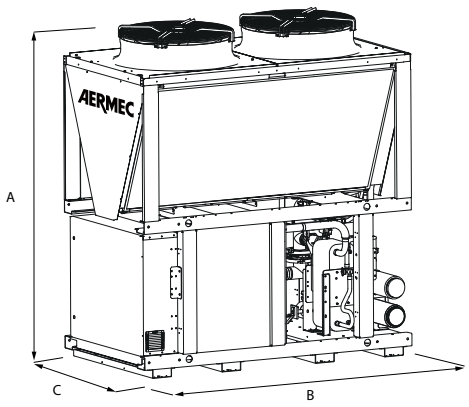
Size			0550
Electric data			
Maximum current (FLA)	A,E	A	95,6
Peak current (LRA)	A,E	A	280,6

GENERAL TECHNICAL DATA

Size			0550
Compressor			
Type	A,E	type	Scroll
Number	A,E	no.	2
Circuits	A,E	no.	1
Refrigerant	A,E	type	R410A
System side heat exchanger			
Type	A,E	type	Brazed plate
Number	A,E	no.	1
System side hydraulic connections			
Connections (in/out)	A,E	Type	Grooved joints
Sizes (in/out)	A,E	Ø	6"
Fan			
Type	A,E	type	axials
Fan motor	A,E	type	Asynchronous with phase cut
Number	A,E	no.	2
Air flow rate	A	m^3/h	28600
	E	m^3/h	22000
Sound data calculated in cooling mode (1)			
Sound power level	A	dB(A)	86,9
	E	dB(A)	81,8
Sound pressure level (10 m)	A	dB(A)	55,0
	E	dB(A)	49,9

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size			0550
Dimensions and weights			
A	A,E	mm	2480
B	A,E	mm	2200
C	A,E	mm	1190
Empty weight	A,E	kg	1389

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NSM 1402-9603 F

Air-water chiller with free-cooling

Cooling capacity 306 ÷ 2028 kW

- **Microchannel coil**
- **Night mode**
- **Operation up to 50 °C outdoor air**
- **High efficiency also at partial loads**



DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications.
These are outdoor units with screw compressors, axial fans, micro-channel coils, and shell and tube heat exchangers
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

A High efficiency
E Silenced high efficiency
N Silenced very high efficiency
U Very high efficiency

FEATURES

Operating field

Operation at full load up to 50 °C external air temperature depending on the size and vesion. For more information refer to the dedicated documentations or the selection program Magellano.

Unit with 2/3 cooling circuits

Unit with 2/3 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.

Condensation control temperature

Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures, adapting the air flow rate to the actual system request in order to reduce consumption.

Aluminium microchannel coils

The whole range uses microchannel condenser coils allowing reduction of refrigerant charge but keeping the same high efficiency.

Free-cooling water coils

These units also have a water coil dedicated to free-cooling mode.
Free-cooling offers significant energy saving in applications that require cooling all year round.
As soon as the outside air temperature allows, a valve makes the water flow towards the free-cooling battery which is cooled directly by the air. The compressors are completely shut down, if possible, leading to considerable electrical savings.

A "P" free-cooling plus model with the oversized water battery can be chosen for applications in which a higher free-cooling performance is required.

Electronic expansion valve

Electronic thermostatic as standard from size 5202 to 6402 and from 8403 to 9603.
The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

Integrated hydronic kit

To obtain a solution that offers economic savings and easy installation, these units can be configured with an integrated hydronic kit on both the service side and the recovery side.
The kit contains the main hydraulic components, and is available in various configurations with a single pump or a standby pump too, so the customer can choose the right useful head.

CONTROL

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.
— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
— The temperature control takes place with the integral proportional logic, based on the water output temperature.
— **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

ACCESSORIES

AER485P1 x n° 2: RS-485 interface for supervision systems with MODBUS protocol.

AER485P1 x n° 3: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PRV3: Allows you to control the chiller at a distance.
AVX: Spring anti-vibration supports.

FACTORY FITTED ACCESSORIES

RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
GP_: Anti-intrusion grid kit
KRS: Electric heater for the heat exchanger

ACCESSORIES COMPATIBILITY

Model	Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
AER485P1 x n° 2 (1)	A,E,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERBACP	A,E,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERNET	A,E,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	A,E,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PRV3	A,E,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Model	Ver	4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
AER485P1 x n° 2 (1)	A,E,N,U	•	•	•	•	•	•	•						
AER485P1 x n° 3 (1)	A,E,N,U								•	•	•	•	•	•
AERBACP	A,E,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•
AERNET	A,E,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	A,E,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•
PRV3	A,E,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•

(1) x Indicates the quantity of accessories to match.

Antivibration - NSM free - cooling

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Integrated hydronic kit: 00														
A	AVX929	AVX929	AVX929	AVX932	AVX933	AVX933	AVX933	AVX934	AVX937	AVX937	AVX937	AVX938	AVX938	AVX942
E,U	AVX929	AVX929	AVX930	AVX933	AVX933	AVX934	AVX934	AVX935	AVX935	AVX935	AVX935	AVX939	AVX939	AVX940
N	AVX930	AVX930	AVX931	AVX931	AVX934	AVX935	AVX935	AVX936	AVX936	AVX936	AVX936	AVX940	AVX941	AVX943

Ver	4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Integrated hydronic kit: 00													
A	AVX942	AVX944	AVX944	AVX944	AVX945	AVX947	AVX947	AVX953	AVX953	AVX957	AVX954	AVX956	AVX955
E,U	AVX941	AVX945	AVX947	AVX947	AVX950	AVX952	AVX948	AVX954	AVX956	AVX956	AVX958	-	-
N	AVX943	AVX946	AVX948	AVX949	AVX951	AVX951	AVX951	AVX955	-	-	-	-	-

Anti-intrusion grid

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
A	GP4V	GP4V	GP4V	GP4V	GP5V	GP5V	GP5V	GP6V	GP6V	GP6V	GP6V	GP7V	GP7V	GP8V
E,U	GP4V	GP4V	GP5V	GP5V	GP5V	GP6V	GP6V	GP7V	GP7V	GP7V	GP7V	GP8V	GP8V	GP9V
N	GP5V	GP5V	GP6V	GP6V	GP6V	GP7V	GP7V	GP8V	GP8V	GP8V	GP8V	GP9V	GP10V	GP11V

A grey background indicates the accessory must be assembled in the factory

Ver	4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
A	GP8V	GP9V	GP9V	GP9V	-	GP11V	GP11V	GP4V+GP8V	GP4V+GP8V	GP9V	GP5V+GP9V	GP5V+GP10V	GP6V+GP11V
E,U	GP10V	GP10V	GP11V	GP11V	GP6V+GP6V	GP6V+GP7V	GP7V+GP7V	GP5V+GP9V	GP5V+GP10V	GP5V+GP10V	GP6V+GP11V	-	-
N	GP11V	GP6V+GP7V	GP7V+GP7V	GP7V+GP8V	GP8V+GP8V	GP8V+GP8V	GP8V	GP6V+GP11V	-	-	-	-	-

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

Heater exchangers

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
A	KRS22	KRS22	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS24	KRS24	KRS24
E,N,U	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS24	KRS24	KRS24

A grey background indicates the accessory must be assembled in the factory

Ver	4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
A	KRS24	KRS24	KRS23	KRS23	KRS24	KRS24	KRS24	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24
E,U	KRS24	KRS24	KRS23	KRS23	KRS23+KRS23	KRS23+KRS23	KRS23+KRS23	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24	-	-
N	KRS24	KRS23+KRS23	KRS23+KRS23	KRS23+KRS23	KRS23+KRS23	KRS23+KRS23	KRS23+KRS23	KRS23+KRS24	-	-	-	-	-

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

Power factor correction

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802
A	RIFNSM1402Q	RIFNSM1602Q	RIFNSM1802Q	RIFNSM2002Q	RIFNSM2202Q	RIFNSM2352Q	RIFNSM2502Q	RIFNSM2652Q	RIFNSM2802C
E	RIFNSM1402Q	RIFNSM1602Q	RIFNSM1802Q	RIFNSM2002Q	RIFNSM2202Q	RIFNSM2352C	RIFNSM2502C	RIFNSM2652Q	RIFNSM2802C
N	RIFNSM1402Q	RIFNSM1602Q	RIFNSM1802C	RIFNSM2002Q	RIFNSM2202C	RIFNSM2352C	RIFNSM2502C	RIFNSM2652Q	RIFNSM2802C
U	RIFNSM1402Q	RIFNSM1602Q	RIFNSM1802Q	RIFNSM2002C	RIFNSM2202Q	RIFNSM2352C	RIFNSM2502C	RIFNSM2652Q	RIFNSM2802C

A grey background indicates the accessory must be assembled in the factory

Ver	3002	3202	3402	3602	3902	4202	4502	4802	5202
A,E,U	RIFNSM3002C	RIFNSM3202C	RIFNSM3402C	RIFNSM3602C	RIFNSM3902C	RIFNSM4202C	RIFNSM4502C	RIFNSM4802C	RIFNSM5202C
N	RIFNSM3002C	RIFNSM3202C	RIFNSM3402C	RIFNSM3602C	RIFNSM3902C	RIFNSM4202C	-	-	-

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

Ver	5602	6002	6402	6503	6703	6903	7203	8403	9603
A	RIFNSM5602C	RIFNSM6002C	RIFNSM6402C	-	-	-	-	-	-

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field		Description
1,2,3		**NSM**
4,5,6,7		**Size** 1402, 1602, 1802, 2002, 2202, 2352, 2502, 2652, 2802, 3002, 3202, 3402, 3602, 3902, 4202, 4502, 4802, 5202, 5602, 6002, 6402, 6503, 6703, 6903, 7203, 8403, 9603
8		**Operating field**
	°	Standard mechanic thermostatic valve (1)
	X	Electronic thermostatic expansion valve (2)
	Y	Low temperature mechanic thermostatic valve (3)
	Z	Low temperature electronic thermostatic valve (3)
9		**Model**
	F	Free-cooling
	P	Free-cooling plus (4)
10		**Heat recovery**
	°	Without heat recovery
	D	With desuperheater
11		**Version**
	A	High efficiency
	E	Silenced high efficiency
	N	Silenced very high efficiency
	U	Very high efficiency
12		**Coils / free-cooling coils**
	°	Alluminium microchannel / Copper - aluminium
	I	Copper-aluminium / Copper-aluminium
	O	Painted alluminium microchannel / Copper painted aluminium
	R	Copper-copper/Copper-copper
	S	Copper-Tinned copper / Copper -Tinned copper
	V	Copper-painted alumimium / Copper-painted alumimium
13		**Fans**
	°	Standard
	J	Inverter
14		**Power supply**
	°	400V ~ 3 50Hz with fuses
	2	230V ~ 3 50Hz with fuses (5)
	4	230V ~ 3 50Hz with magnet circuit breakers (5)
	5	500V ~ 3 50Hz with fuses (6)
	8	400V ~ 3 50Hz with magnet circuit breakers
	9	500V~3 50Hz with magnet circuit breakers (6)
15,16		**Integrated hydronic kit**
	00	Without hydronic kit
	PA	Pump A
	PB	Pump B
	PC	Pump C
	PD	Pump D
	PE	Pump E
	PF	Pump F
	PG	Pump G
	PH	Pump H
	PI	Pump I
	PJ	Pump J (7)
	DA	Pump A + stand-by pump
	DB	Pump B + stand-by pump
	DC	Pump C + stand-by pump
	DD	Pump D + stand-by pump
	DE	Pump E + stand-by pump
	DF	Pump F + stand-by pump
	DG	Pump G + stand-by pump
	DH	Pump H + stand-by pump
	DI	Pump I + stand-by pump
	DJ	Pump J + stand-by pump (7)
	TF	Double pump F (8)
	TG	Double pump G (8)
	TH	Double pump H (8)
	TI	Double pump I (8)
	TJ	Double pump J (8)

(1) Water produced from 4 °C ÷ 15 °C
(2) Water produced from 4 °C ÷ 18 °C
(3) Water produced from 4 °C ÷ 18 °C for ° version; -10 °C for the others versions
(4) The Free-Cooling Plus "P" models are only compatible with"°" ed "0"
(5) available only for size from 1402 to 2202
(6) available only for size from 1402 to 3202
(7) For all configurations including pump J please contact the factory.
(8) The unit from 5603 to 9603 can only have hydronic kit "TF - TG - TH- TI - TJ"

PERFORMANCE SPECIFICATIONS

NSM - A

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Model: F															
Cooling performance chiller operation (1)															
Cooling capacity	kW	306,5	350,2	396,8	450,5	505,3	522,5	556,5	600,8	649,8	678,4	726,3	813,3	872,8	954,1
Input power	kW	102,8	117,6	136,7	158,3	168,9	180,5	194,5	203,0	220,4	235,0	252,8	269,7	295,6	317,9
Cooling total input current	A	182,3	206,2	230,6	268,0	291,3	311,4	335,2	351,3	378,4	400,0	426,5	450,9	486,5	530,4
EER	W/W	2,98	2,98	2,90	2,85	2,99	2,90	2,86	2,96	2,95	2,89	2,87	3,02	2,95	3,00
Water flow rate system side	l/h	52654	60163	68174	77407	86812	89765	95621	103224	111642	116561	124785	139737	149958	163932
Pressure drop system side	kPa	45	59	54	36	45	48	54	63	67	73	65	43	50	61
Cooling performances with free-cooling (2)															
Cooling capacity	kW	347,7	362,0	373,1	381,9	468,1	471,2	476,5	560,7	569,1	573,2	578,8	671,5	677,9	770,2
Input power	kW	15,0	15,0	15,0	15,0	18,7	18,7	18,7	22,5	22,5	22,5	22,5	26,2	26,2	30,0
Free cooling total input current	A	30,4	30,4	30,4	30,4	38,0	38,0	38,0	45,6	45,6	45,6	45,6	53,2	53,2	60,8
EER	W/W	23,18	24,14	24,88	25,47	24,97	25,14	25,42	24,93	25,30	25,48	25,73	25,59	25,83	25,68
Water flow rate system side	l/h	60230	68250	77490	86910	89860	95730	103340	111770	116690	124920	139890	150120	164110	171460
Pressure drop system side	kPa	66	86	85	76	78	84	95	98	107	116	113	87	99	107
Model: P															
Cooling performance chiller operation (1)															
Cooling capacity	kW	305,8	349,3	395,0	447,3	502,1	519,1	552,6	597,2	645,4	674,3	721,9	807,8	865,0	946,8
Input power	kW	103,7	118,8	138,1	160,2	170,8	182,6	197,0	205,3	223,1	238,4	257,1	273,3	299,3	321,8
Cooling total input current	A	182,3	206,2	230,6	268,0	291,3	311,4	335,2	351,3	378,4	400,0	426,5	450,9	486,5	530,4
EER	W/W	2,95	2,94	2,86	2,79	2,94	2,84	2,81	2,91	2,89	2,83	2,81	2,96	2,89	2,94
Water flow rate system side	l/h	52546	60019	67864	76853	86266	89180	94948	102598	110891	115859	124023	138789	148609	162675
Pressure drop system side	kPa	45	59	54	36	45	48	54	63	67	73	65	43	50	61
Cooling performances with free-cooling (2)															
Cooling capacity	kW	371,8	388,1	400,1	409,1	501,9	505,2	510,5	601,2	610,0	614,2	619,7	719,2	725,2	824,6
Input power	kW	15,2	15,2	15,2	15,2	19,0	19,0	19,0	22,9	22,9	22,9	22,9	26,7	26,7	30,5
Free cooling total input current	A	30,7	30,7	30,7	30,7	38,4	38,4	38,4	46,1	46,1	46,1	46,1	53,7	53,7	61,4
EER	W/W	24,41	25,48	26,27	26,86	26,36	26,53	26,81	26,31	26,69	26,88	27,12	26,98	27,20	27,07
Water flow rate system side	l/h	52710	60230	68250	77490	86910	89860	95730	103340	111770	116690	124920	139890	150120	164110
Pressure drop system side	kPa	66	86	86	76	79	84	95	98	107	117	114	87	100	108

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) System side water heat exchanger 12 °C / * °C; External air 2°C

NSM - A

Size		4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Model: F														
Cooling performance chiller operation (1)														
Cooling capacity	kW	996,8	1082,3	1128,3	1167,3	1222,8	1304,9	1346,7	1459,2	1501,9	1659,0	1705,0	1838,1	2028,1
Input power	kW	346,1	365,7	391,9	422,5	438,9	452,7	472,4	492,1	520,2	557,2	583,3	659,0	704,1
Cooling total input current	A	581,4	614,0	654,6	703,8	733,3	761,1	795,9	821,1	872,1	945,1	985,8	1100,0	1197,7
EER	W/W	2,88	2,96	2,88	2,76	2,79	2,88	2,85	2,97	2,89	2,98	2,92	2,79	2,88
Water flow rate system side	l/h	171269	185947	193855	200561	210092	224201	231379	250713	258050	285029	292937	315803	348457
Pressure drop system side	kPa	66	81	88	75	82	96	102	61	66	81	88	82	102
Cooling performances with free-cooling (2)														
Cooling capacity	kW	774,7	867,5	872,2	875,9	966,0	1058,3	1062,8	1158,4	1162,7	1346,7	1351,7	1449,5	1636,8
Input power	kW	30,0	33,7	33,7	33,7	37,5	41,2	41,2	45,0	45,0	52,5	52,5	56,2	63,7
Free cooling total input current	A	60,8	68,4	68,4	68,4	76,0	83,6	83,6	91,2	91,2	106,4	106,4	114,0	129,2
EER	W/W	25,83	25,71	25,85	25,96	25,77	25,66	25,77	25,75	25,85	25,66	25,75	25,78	25,68
Water flow rate system side	l/h	186150	194070	200780	210330	224450	231640	250990	258340	285350	293260	316150	348840	348457
Pressure drop system side	kPa	117	130	141	131	134	145	154	107	117	130	141	134	154
Model: P														
Cooling performance chiller operation (1)														
Cooling capacity	kW	988,7	1074,2	1119,1	1156,4	1212,7	1295,2	1336,2	1447,7	1489,6	1646,9	1691,9	1822,8	2013,1
Input power	kW	350,6	370,3	397,1	428,3	444,3	458,0	478,2	498,2	527,1	564,0	590,8	667,0	712,4
Cooling total input current	A	581,4	614,0	654,6	703,8	733,3	761,1	795,9	821,1	872,1	945,1	985,8	1100,0	1197,7
EER	W/W	2,82	2,90	2,82	2,70	2,73	2,83	2,79	2,91	2,83	2,92	2,86	2,73	2,83
Water flow rate system side	l/h	169873	184553	192278	198678	208362	222522	229577	248739	255936	282961	290686	313186	345875
Pressure drop system side	kPa	66	81	88	75	82	96	102	61	66	81	88	82	102
Cooling performances with free-cooling (2)														
Cooling capacity	kW	828,9	928,7	933,1	936,5	1033,8	1133,1	1137,4	1239,8	1243,9	1442,0	1446,8	1551,1	1752,4
Input power	kW	30,5	34,3	34,3	34,3	38,1	41,9	41,9	45,7	45,7	53,3	53,3	57,1	64,7
Free cooling total input current	A	61,4	69,1	69,1	69,1	76,8	84,5	84,5	92,1	92,1	107,5	107,5	115,2	130,5
EER	W/W	27,21	27,09	27,22	27,32	27,15	27,05	27,15	27,13	27,22	27,04	27,13	27,15	27,07
Water flow rate system side	l/h	171460	186150	194070	200780	210330	224450	231640	250990	258340	285350	293260	316150	348840
Pressure drop system side	kPa	117	130	141	131	134	146	155	108	117	130	141	134	155

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) System side water heat exchanger 12 °C / * °C; External air 2°C

NSM - E

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Model: F															
Cooling performance chiller operation (1)															
Cooling capacity	kW	319,8	365,8	417,7	473,0	509,1	549,8	568,8	618,6	646,3	675,1	715,5	796,7	851,7	929,6
Input power	kW	105,5	123,3	137,5	159,4	178,3	183,3	195,5	205,2	220,4	235,9	253,5	270,8	297,1	320,1
Cooling total input current	A	177,3	205,7	223,1	261,0	294,5	304,8	325,9	341,6	365,4	388,5	414,7	437,5	474,1	516,8
EER	W/W	3,03	2,97	3,04	2,97	2,85	3,00	2,91	3,01	2,93	2,86	2,82	2,94	2,87	2,90
Water flow rate system side	l/h	54946	62848	71763	81260	87462	94455	97732	106280	111041	115993	122937	136886	146332	159723
Pressure drop system side	kPa	33	37	32	37	43	50	54	53	58	64	64	43	49	60
Cooling performances with free-cooling (2)															
Cooling capacity	kW	308,8	317,5	389,9	399,1	403,2	476,4	479,1	552,1	556,5	560,4	564,7	643,3	648,3	727,0
Input power	kW	11,0	11,0	13,7	13,7	13,7	16,5	16,5	19,2	19,2	19,2	19,2	22,0	22,0	24,7
Free cooling total input current	A	15,9	15,9	19,9	19,9	19,9	23,9	23,9	27,9	27,9	27,9	27,9	31,8	31,8	35,8
EER	W/W	28,07	28,87	28,36	29,03	29,33	28,88	29,04	28,69	28,91	29,11	29,34	29,25	29,47	29,38
Water flow rate system side	l/h	55010	62920	71840	81350	87560	94560	97840	106400	111160	116120	123070	137040	146490	159900
Pressure drop system side	kPa	56	67	56	68	78	80	85	82	90	98	102	77	88	97
Model: P															
Cooling performance chiller operation (1)															
Cooling capacity	kW	316,7	363,1	414,5	469,5	504,1	545,4	564,0	613,8	640,8	669,8	710,9	790,6	843,5	921,3
Input power	kW	106,6	124,7	138,6	161,1	181,0	185,4	197,8	207,6	223,1	239,2	257,8	274,6	301,1	324,4
Cooling total input current	A	177,3	205,7	223,1	261,0	294,5	304,8	325,9	341,6	365,4	388,5	414,7	437,5	474,1	516,8
EER	W/W	2,97	2,91	2,99	2,91	2,79	2,94	2,85	2,96	2,87	2,80	2,76	2,88	2,80	2,84
Water flow rate system side	l/h	54406	62391	71215	80666	86616	93710	96909	105464	110105	115087	122135	135840	144915	158291
Pressure drop system side	kPa	33	37	32	37	43	50	54	54	59	64	65	43	49	60
Cooling performances with free-cooling (2)															
Cooling capacity	kW	328,8	338,7	415,7	425,8	429,8	508,2	511,0	589,0	593,7	597,7	602,1	686,0	690,6	774,8
Input power	kW	11,2	11,2	13,9	13,9	13,9	16,7	16,7	19,5	19,5	19,5	19,5	22,3	22,3	25,1
Free cooling total input current	A	16,1	16,1	20,1	20,1	20,1	24,1	24,1	28,1	28,1	28,1	28,1	32,2	32,2	36,2
EER	W/W	29,48	30,36	29,81	30,53	30,82	30,37	30,54	30,17	30,41	30,62	30,84	30,75	30,95	30,87
Water flow rate system side	l/h	55010	62920	71840	81350	87560	94560	97840	106400	111160	116120	123070	137040	146490	159900
Pressure drop system side	kPa	57	67	57	68	78	80	86	83	90	98	103	77	88	98

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) System side water heat exchanger 12 °C / * °C; External air 2°C

NSM - E

Size		4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Model: F														
Cooling performance chiller operation (1)														
Cooling capacity	kW	995,2	1051,6	1137,0	1159,2	1217,3	1279,4	1341,6	1434,0	1499,6	1598,6	1684,0	-	-
Input power	kW	339,9	370,0	389,4	418,0	436,6	448,9	461,2	491,1	510,9	568,9	588,3	-	-
Cooling total input current	A	554,8	601,5	631,6	677,8	708,4	731,9	755,4	803,9	832,3	923,9	945,4	-	-
EER	W/W	2,93	2,84	2,92	2,77	2,79	2,85	2,91	2,92	2,93	2,81	2,86	-	-
Water flow rate system side	l/h	170980	180685	195353	199172	209139	219823	230507	246385	257643	274665	289333	-	-
Pressure drop system side	kPa	68	79	73	76	67	72	82	60	68	79	73	-	-
Cooling performances with free-cooling (2)														
Cooling capacity	kW	804,0	809,4	888,6	890,5	967,2	1043,7	1119,7	1129,8	1206,8	1215,8	1295,1	-	-
Input power	kW	27,5	27,5	30,2	30,2	33,0	35,7	38,5	38,5	41,2	41,2	44,0	-	-
Free cooling total input current	A	39,8	39,8	43,8	43,8	47,8	51,7	55,7	55,7	59,7	59,7	63,7	-	-
EER	W/W	29,24	29,44	29,38	29,44	29,31	29,20	29,09	29,35	29,26	29,48	29,44	-	-
Water flow rate system side	l/h	171170	180890	195570	199390	209370	220070	230760	246660	257930	274970	289650	-	-
Pressure drop system side	kPa	104	119	113	117	107	110	119	97	104	119	113	-	-
Model: P														
Cooling performance chiller operation (1)														
Cooling capacity	kW	987,5	1041,9	1127,1	1148,0	1206,7	1269,3	1332,0	1421,7	1487,9	1583,2	1668,4	-	-
Input power	kW	344,2	375,3	394,8	424,0	442,2	454,4	466,6	497,6	517,4	577,4	596,8	-	-
Cooling total input current	A	554,8	601,5	631,6	677,8	708,4	731,9	755,4	803,9	832,3	923,9	945,4	-	-
EER	W/W	2,87	2,78	2,86	2,71	2,73	2,79	2,85	2,86	2,88	2,74	2,80	-	-
Water flow rate system side	l/h	169667	179011	193652	197235	207320	218083	228845	244269	255645	272005	286645	-	-
Pressure drop system side	kPa	69	80	74	76	68	72	82	60	69	80	74	-	-
Cooling performances with free-cooling (2)														
Cooling capacity	kW	857,5	862,4	947,1	948,8	1031,1	1113,1	1194,5	1204,3	1286,9	1295,0	1379,9	-	-
Input power	kW	27,9	27,9	30,7	30,7	33,5	36,3	39,0	39,0	41,8	41,8	44,6	-	-
Free cooling total input current	A	40,2	40,2	44,2	44,2	48,2	52,3	56,3	56,3	60,3	60,3	64,3	-	-
EER	W/W	30,74	30,92	30,87	30,92	30,81	30,70	30,59	30,84	30,76	30,95	30,92	-	-
Water flow rate system side	l/h	171170	180890	195570	199390	209370	220070	230760	246660	257930	274970	289650	-	-
Pressure drop system side	kPa	105	119	113	117	107	111	120	98	105	119	113	-	-

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) System side water heat exchanger 12 °C / * °C; External air 2°C

NSM - U

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Model: F															
Cooling performance chiller operation (1)															
Cooling capacity	kW	328,1	378,5	429,3	491,9	531,3	568,6	589,0	638,0	667,8	695,1	735,8	824,8	891,0	967,9
Input power	kW	105,3	121,3	136,2	155,8	172,9	180,0	191,0	202,4	216,1	228,4	242,4	263,0	288,2	311,5
Cooling total input current	A	185,8	211,5	232,0	266,3	297,1	312,9	332,3	352,6	374,2	392,3	413,0	442,7	477,2	522,6
EER	W/W	3,12	3,12	3,15	3,16	3,07	3,16	3,08	3,15	3,09	3,04	3,04	3,14	3,09	3,11
Water flow rate system side	l/h	56372	65027	73755	84508	91287	97691	101204	109611	114731	119418	126414	141715	153088	166304
Pressure drop system side	kPa	35	39	34	40	46	53	57	57	62	68	68	46	53	65
Cooling performances with free-cooling (2)															
Cooling capacity	kW	356,2	369,9	451,2	466,4	473,4	555,1	559,4	641,6	648,6	654,2	661,5	753,3	763,5	854,0
Input power	kW	15,0	15,0	18,7	18,7	18,7	22,5	22,5	26,2	26,2	26,2	26,2	30,0	30,0	33,7
Free cooling total input current	A	30,4	30,4	38,0	38,0	38,0	45,6	45,6	53,2	53,2	53,2	53,2	60,8	60,8	68,4
EER	W/W	23,76	24,67	24,07	24,88	25,26	24,68	24,87	24,45	24,71	24,93	25,21	25,12	25,46	25,31
Water flow rate system side	l/h	56430	65100	73840	84600	91390	97800	101320	109730	114860	119550	126550	141870	153260	166490
Pressure drop system side	kPa	59	71	60	73	85	85	92	88	96	104	108	82	96	105
Model: P															
Cooling performance chiller operation (1)															
Cooling capacity	kW	326,9	376,7	427,6	488,8	527,6	565,4	585,6	634,6	664,0	691,7	732,5	820,3	884,7	961,8
Input power	kW	106,3	122,5	137,6	157,4	174,8	181,8	193,0	204,4	218,3	231,1	245,7	266,0	291,3	314,8
Cooling total input current	A	185,8	211,5	232,0	266,3	297,1	312,9	332,3	352,6	374,2	392,3	413,0	442,7	477,2	522,6
EER	W/W	3,08	3,07	3,11	3,10	3,02	3,11	3,03	3,10	3,04	2,99	2,98	3,08	3,04	3,06
Water flow rate system side	l/h	56168	64715	73458	83974	90642	97138	100613	109029	114089	118834	125850	140933	152002	165249
Pressure drop system side	kPa	35	40	34	40	47	54	58	57	63	68	69	46	54	65
Cooling performances with free-cooling (2)															
Cooling capacity	kW	381,5	396,7	483,5	500,0	507,4	595,1	599,9	687,8	695,4	701,6	709,4	807,7	818,0	915,4
Input power	kW	15,2	15,2	19,0	19,0	19,0	22,9	22,9	26,7	26,7	26,7	26,7	30,5	30,5	34,3
Free cooling total input current	A	30,7	30,7	38,4	38,4	38,4	46,1	46,1	53,7	53,7	53,7	53,7	61,4	61,4	69,1
EER	W/W	25,04	26,04	25,39	26,26	26,65	26,05	26,25	25,80	26,09	26,32	26,61	26,51	26,85	26,71
Water flow rate system side	l/h	56430	65100	73840	84600	91390	97800	101320	109730	114860	119550	126550	141870	153260	166490
Pressure drop system side	kPa	60	72	60	74	85	86	92	88	96	104	109	83	96	106

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) System side water heat exchanger 12 °C / * °C; External air 2°C

NSM - U

Size		4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Model: F														
Cooling performance chiller operation (1)														
Cooling capacity	kW	1031,1	1095,0	1181,2	1208,8	1265,8	1326,2	1386,6	1491,1	1554,3	1666,6	1752,7	-	-
Input power	kW	332,0	358,4	379,0	405,3	426,4	440,0	453,5	478,4	498,9	549,8	570,4	-	-
Cooling total input current	A	564,1	604,8	638,6	681,5	718,3	746,0	773,7	811,6	846,2	926,2	954,2	-	-
EER	W/W	3,11	3,06	3,12	2,98	2,97	3,01	3,06	3,12	3,12	3,03	3,07	-	-
Water flow rate system side	l/h	177155	188137	202935	207692	217477	227858	238239	256194	267046	286336	301135	-	-
Pressure drop system side	kPa	74	86	79	83	73	77	87	64	74	86	79	-	-
Cooling performances with free-cooling (2)														
Cooling capacity	kW	941,7	951,8	1043,5	1047,6	1134,8	1221,6	1307,8	1326,2	1413,8	1431,0	1522,9	-	-
Input power	kW	37,5	37,5	41,2	41,2	45,0	48,7	52,5	52,5	56,2	56,2	60,0	-	-
Free cooling total input current	A	76,0	76,0	83,6	83,6	91,2	98,8	106,4	106,4	114,0	114,0	121,6	-	-
EER	W/W	25,12	25,39	25,30	25,40	25,22	25,07	24,92	25,27	25,14	25,45	25,39	-	-
Water flow rate system side	l/h	177350	188350	203160	207920	217720	228110	238500	256480	267340	286650	301470	-	-
Pressure drop system side	kPa	112	129	122	127	115	119	128	105	112	129	122	-	-
Model: P														
Cooling performance chiller operation (1)														
Cooling capacity	kW	1025,3	1088,1	1174,0	1200,9	1257,9	1318,5	1379,2	1482,0	1545,4	1655,7	1741,6	-	-
Input power	kW	335,5	362,4	383,1	409,7	430,7	444,3	457,9	483,4	504,1	556,1	576,8	-	-
Cooling total input current	A	564,1	604,8	638,6	681,5	718,3	746,0	773,7	811,6	846,2	926,2	954,2	-	-
EER	W/W	3,06	3,00	3,06	2,93	2,92	2,97	3,01	3,07	3,07	2,98	3,02	-	-
Water flow rate system side	l/h	176150	186945	201699	206322	216119	226541	236963	254617	265517	284475	299229	-	-
Pressure drop system side	kPa	74	86	79	83	73	78	88	65	74	86	80	-	-
Cooling performances with free-cooling (2)														
Cooling capacity	kW	1009,7	1020,0	1118,5	1122,6	1216,5	1309,9	1402,4	1421,6	1515,9	1533,4	1632,1	-	-
Input power	kW	38,1	38,1	41,9	41,9	45,7	49,5	53,3	53,3	57,1	57,1	60,9	-	-
Free cooling total input current	A	76,8	76,8	84,5	84,5	92,1	99,8	107,5	107,5	115,2	115,2	122,8	-	-
EER	W/W	26,51	26,78	26,70	26,80	26,62	26,46	26,30	26,66	26,54	26,84	26,78	-	-
Water flow rate system side	l/h	177350	188350	203160	207920	217720	228110	238500	256480	267340	286650	301470	-	-
Pressure drop system side	kPa	113	129	122	128	116	119	128	106	113	130	123	-	-

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) System side water heat exchanger 12 °C / * °C; External air 2°C

NSM - N

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Model: F															
Cooling performance chiller operation (1)															
Cooling capacity	kW	326,0	376,5	424,5	486,3	525,3	559,6	579,7	626,1	655,1	682,6	723,4	811,7	888,8	960,7
Input power	kW	103,6	119,3	134,4	153,8	170,9	178,3	189,4	200,8	214,8	227,9	242,9	263,8	283,0	307,1
Cooling total input current	A	174,8	199,9	218,4	252,6	283,3	297,4	316,9	335,2	357,1	376,5	398,7	426,6	452,0	496,6
EER	W/W	3,15	3,16	3,16	3,16	3,07	3,14	3,06	3,12	3,05	3,00	2,98	3,08	3,14	3,13
Water flow rate system side	l/h	56017	64687	72926	83554	90260	96150	99597	107568	112546	117285	124287	139460	152703	165051
Pressure drop system side	kPa	34	39	33	39	45	52	55	55	60	65	66	44	53	64
Cooling performances with free-cooling (2)															
Cooling capacity	kW	365,1	381,0	449,3	465,6	473,2	541,5	545,8	615,7	622,3	627,8	634,7	713,7	791,0	867,2
Input power	kW	13,7	13,7	16,5	16,5	16,5	19,2	19,2	22,0	22,0	22,0	22,0	24,7	27,5	30,2
Free cooling total input current	A	19,9	19,9	23,9	23,9	23,9	27,9	27,9	31,8	31,8	31,8	31,8	35,8	39,8	43,8
EER	W/W	26,56	27,71	27,24	28,22	28,69	28,13	28,36	27,99	28,29	28,54	28,86	28,84	28,77	28,67
Water flow rate system side	l/h	56080	64760	73010	83650	90360	96260	99710	107690	112670	117420	124420	139610	152870	165230
Pressure drop system side	kPa	51	61	51	63	73	76	82	79	87	94	98	74	83	93
Model: P															
Cooling performance chiller operation (1)															
Cooling capacity	kW	325,1	375,2	422,9	483,6	522,0	556,8	576,7	623,1	651,8	679,6	720,3	807,0	882,8	955,1
Input power	kW	104,5	120,4	135,6	155,5	172,9	180,2	191,5	202,9	217,2	230,8	246,4	267,1	286,2	310,3
Cooling total input current	A	174,8	199,9	218,4	252,6	283,3	297,4	316,9	335,2	357,1	376,5	398,7	426,6	452,0	496,6
EER	W/W	3,11	3,12	3,12	3,11	3,02	3,09	3,01	3,07	3,00	2,94	2,92	3,02	3,09	3,08
Water flow rate system side	l/h	55859	64457	72661	83082	89692	95662	99076	107055	111979	116764	123749	138653	151682	164102
Pressure drop system side	kPa	35	39	33	39	46	52	56	55	61	66	67	45	54	64
Cooling performances with free-cooling (2)															
Cooling capacity	kW	387,5	406,1	478,1	496,6	505,0	577,5	582,4	656,5	663,9	670,1	677,6	761,7	844,0	925,5
Input power	kW	13,9	13,9	16,7	16,7	16,7	19,5	19,5	22,3	22,3	22,3	22,3	25,1	27,9	30,7
Free cooling total input current	A	20,1	20,1	24,1	24,1	24,1	28,1	28,1	32,2	32,2	32,2	32,2	36,2	40,2	44,2
EER	W/W	27,79	29,12	28,57	29,68	30,18	29,58	29,83	29,42	29,75	30,03	30,37	30,35	30,26	30,16
Water flow rate system side	l/h	56080	64760	73010	83650	90360	96260	99710	107690	112670	117420	124420	139610	152870	165230
Pressure drop system side	kPa	52	62	52	64	74	77	82	80	87	94	99	75	83	94

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) System side water heat exchanger 12 °C / * °C; External air 2°C

NSM - N

Size		4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Model: F														
Cooling performance chiller operation (1)														
Cooling capacity	kW	1004,9	1098,6	1161,7	1218,0	1274,5	1318,1	1361,6	1478,4	-	-	-	-	-
Input power	kW	332,9	349,5	369,2	392,7	416,2	433,5	450,9	472,0	-	-	-	-	-
Cooling total input current	A	544,1	569,7	600,1	638,5	677,0	708,3	739,7	770,6	-	-	-	-	-
EER	W/W	3,02	3,14	3,15	3,10	3,06	3,04	3,02	3,13	-	-	-	-	-
Water flow rate system side	l/h	172652	188754	199587	209274	218966	226457	233947	254013	-	-	-	-	-
Pressure drop system side	kPa	70	71	84	88	74	78	85	64	-	-	-	-	-
Cooling performances with free-cooling (2)														
Cooling capacity	kW	874,3	1018,1	1092,1	1164,5	1236,6	1246,2	1254,9	1339,1	-	-	-	-	-
Input power	kW	30,2	35,7	38,5	41,2	44,0	44,0	44,0	46,7	-	-	-	-	-
Free cooling total input current	A	43,8	51,7	55,7	59,7	63,7	63,7	63,7	67,7	-	-	-	-	-
EER	W/W	28,91	28,48	28,37	28,24	28,11	28,33	28,52	28,65	-	-	-	-	-
Water flow rate system side	l/h	172840	188960	199810	209510	219210	226710	234210	254300	-	-	-	-	-
Pressure drop system side	kPa	102	100	114	117	103	109	118	93	-	-	-	-	-
Model: P														
Cooling performance chiller operation (1)														
Cooling capacity	kW	998,8	1092,7	1155,6	1211,7	1267,7	1310,9	1354,2	1470,0	-	-	-	-	-
Input power	kW	336,7	353,2	373,0	396,5	420,0	437,6	455,3	476,9	-	-	-	-	-
Cooling total input current	A	544,1	569,7	600,1	638,5	677,0	708,3	739,7	770,6	-	-	-	-	-
EER	W/W	2,97	3,09	3,10	3,06	3,02	3,00	2,97	3,08	-	-	-	-	-
Water flow rate system side	l/h	171604	187733	198553	208183	217806	225235	232663	252555	-	-	-	-	-
Pressure drop system side	kPa	70	71	85	89	75	78	85	64	-	-	-	-	-
Cooling performances with free-cooling (2)														
Cooling capacity	kW	933,0	1086,4	1165,3	1242,2	1318,7	1329,5	1339,1	1429,1	-	-	-	-	-
Input power	kW	30,7	36,3	39,0	41,8	44,6	44,6	44,6	47,4	-	-	-	-	-
Free cooling total input current	A	44,2	52,3	56,3	60,3	64,3	64,3	64,3	68,3	-	-	-	-	-
EER	W/W	30,41	29,96	29,84	29,69	29,55	29,79	30,01	30,14	-	-	-	-	-
Water flow rate system side	l/h	172840	188960	199810	209510	219210	226710	234210	254300	-	-	-	-	-
Pressure drop system side	kPa	102	101	114	118	104	109	118	94	-	-	-	-	-

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) System side water heat exchanger 12 °C / * °C; External air 2°C

ENERGY INDICES (REG. 2016/2281 EU)

Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Model: F																
SEPR - (EN14825: 2018) High temperature with standard fans (1)																
SEPR	A	W/W	7,41	7,05	6,65	6,29	6,78	6,52	6,34	6,73	6,56	6,31	6,10	6,55	6,32	6,50
	E	W/W	7,22	6,77	7,10	6,65	6,30	6,89	6,59	6,81	6,69	6,42	6,09	6,28	6,23	6,44
	N	W/W	7,68	7,36	7,56	7,20	6,78	7,10	6,94	7,15	6,90	6,67	6,45	6,78	6,94	6,93
	U	W/W	7,50	7,13	7,47	7,13	6,79	7,22	6,97	7,28	7,03	6,82	6,62	6,97	6,75	6,86
SEPR - (EN14825: 2018) High temperature with inverter fans (1)																
SEPR	A	W/W	7,41	7,05	6,65	6,29	6,78	6,52	6,34	6,73	6,56	6,31	6,10	6,55	6,32	6,50
	E	W/W	7,22	6,77	7,10	6,65	6,30	6,89	6,59	6,81	6,69	6,42	6,09	6,28	6,23	6,44
	N	W/W	7,68	7,36	7,56	7,20	6,78	7,10	6,94	7,15	6,90	6,67	6,45	6,78	6,94	6,93
	U	W/W	7,50	7,13	7,47	7,13	6,79	7,22	6,97	7,28	7,03	6,82	6,62	6,97	6,75	6,86
Model: P																
SEPR - (EN14825: 2018) High temperature with standard fans (1)																
SEPR	A	W/W	7,38	7,12	6,67	6,25	6,79	6,49	6,27	6,71	6,49	6,23	5,99	6,51	6,26	6,44
	E	W/W	7,25	6,73	7,15	6,60	6,20	6,83	6,51	6,84	6,61	6,31	5,99	6,46	6,22	6,34
	N	W/W	7,71	7,39	7,62	7,22	6,83	7,18	6,91	7,16	6,88	6,63	6,39	6,75	6,90	6,88
	U	W/W	7,57	7,17	7,56	7,16	6,77	7,23	6,97	7,30	7,02	6,78	6,56	6,97	6,71	6,81
SEPR - (EN14825: 2018) High temperature with inverter fans (1)																
SEPR	A	W/W	7,38	7,12	6,67	6,25	6,79	6,49	6,27	6,71	6,49	6,23	5,99	6,51	6,26	6,44
	E	W/W	7,25	6,73	7,15	6,60	6,20	6,83	6,51	6,84	6,61	6,31	5,99	6,46	6,22	6,34
	N	W/W	7,71	7,39	7,62	7,22	6,83	7,18	6,91	7,16	6,88	6,63	6,39	6,75	6,90	6,88
	U	W/W	7,57	7,17	7,56	7,16	6,77	7,23	6,97	7,30	7,02	6,78	6,56	6,97	6,71	6,81

(1) Calculation performed with FIXED water flow rate.

Size			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Model: F															
Energy index															
SEPR	A	W/W	6,16	6,38	6,15	5,85	6,01	6,21	6,10	6,58	6,36	6,67	6,49	6,16	6,41
	E	W/W	6,50	6,19	6,41	5,96	6,00	6,16	6,47	6,70	6,81	6,19	6,44	-	-
	N	W/W	6,63	6,78	6,89	7,00	6,93	6,71	6,69	7,26	-	-	-	-	-
	U	W/W	6,90	6,51	6,82	6,49	6,51	6,66	6,80	7,14	7,19	6,84	6,97	-	-
Model: P															
Energy index															
SEPR	A	W/W	6,07	6,28	6,03	5,73	5,92	6,11	5,98	6,54	6,30	6,61	6,42	6,10	6,34
	E	W/W	6,41	6,06	6,29	5,84	5,92	6,08	6,37	6,64	6,76	6,09	6,34	-	-
	N	W/W	6,57	6,90	6,84	6,96	6,92	6,78	6,65	7,23	-	-	-	-	-
	U	W/W	6,86	6,60	6,76	6,42	6,48	6,63	6,77	7,12	7,16	6,80	6,93	-	-

ELECTRIC DATA

Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Electric data																
Maximum current (FLA)	A	A	243,9	271,9	299,1	332,5	374,4	395,7	417,0	450,2	474,9	474,9	474,9	531,4	579,4	635,9
	E,U	A	243,9	271,9	307,6	341,0	374,4	404,2	425,5	458,7	483,4	483,4	483,4	539,9	587,9	644,4
	N	A	252,4	280,4	316,1	349,5	382,9	412,7	434,0	467,2	491,9	491,9	491,9	548,4	604,9	667,2
Peak current (LRA)	A	A	265,5	307,3	350,2	388,2	419,8	466,8	484,0	519,5	529,4	529,4	529,4	661,9	701,8	831,3
	E,U	A	265,5	307,3	358,7	396,7	419,8	475,3	492,5	528,0	537,9	537,9	537,9	670,4	710,3	839,8
	N	A	274,0	315,8	367,2	405,2	428,3	483,8	501,0	536,5	546,4	546,4	546,4	678,9	727,3	862,6

Size			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Electric data															
Maximum current (FLA)	A	A	683,9	731,4	770,4	813,4	864,9	913,2	947,2	980,7	1028,7	1123,7	1162,7	1300,2	1419,2
	E,U	A	700,9	739,9	793,2	836,2	887,7	930,2	972,7	997,7	1054,2	1132,2	1179,7	-	-
	N	A	715,2	771,2	818,7	870,2	921,7	955,7	989,7	1023,2	-	-	-	-	-
Peak current (LRA)	A	A	858,2	930,7	953,4	1108,4	1163,9	1290,2	1287,2	1069,4	1096,3	1200,0	1222,7	1480,2	1603,2
	E,U	A	875,2	939,2	976,2	1131,2	1186,7	1307,2	1312,7	1086,4	1121,8	1208,5	1239,7	-	-
	N	A	889,5	970,5	1001,7	1165,2	1220,7	1332,7	1329,7	1111,9	-	-	-	-	-

GENERAL TECHNICAL DATA

Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Compressor																
Type	A,E,N,U	type	Screw													
Compressor regulation	A,E,N,U	Type	On-Off													
Number	A,E,N,U	no.	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Circuits	A,E,N,U	no.	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Refrigerant	A,E,N,U	type	R134a													
Refrigerant charge (1)	A	kg	64,0	64,0	64,0	64,0	80,0	80,0	80,0	96,0	96,0	101,0	106,0	117,0	112,0	128,0
	E,U	kg	64,0	64,0	80,0	80,0	80,0	96,0	96,0	112,0	112,0	117,0	122,0	133,0	128,0	144,0
	N	kg	80,0	80,0	96,0	96,0	96,0	112,0	112,0	128,0	128,0	133,0	138,0	149,0	160,0	176,0
System side heat exchanger																
Type	A,E,N,U	type	Shell and tube													
Number	A,E,N,U	no.	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Hydraulic connections																
Connections (in/out)	A,E,N,U	Type	Grooved joints													

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

Size			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Compressor															
Type	A,E,N,U	type	Screw												
Compressor regulation	A,E,N,U	Type	On-Off												
Number	A	no.	2	2	2	2	2	2	2	3	3	3	3	3	3
	E,U	no.	2	2	2	2	2	2	2	3	3	3	3	-	-
	N	no.	2	2	2	2	2	2	2	3	-	-	-	-	-
Circuits	A	no.	2	2	2	2	2	2	2	3	3	3	3	3	3
	E,U	no.	2	2	2	2	2	2	2	3	3	3	3	-	-
	N	no.	2	2	2	2	2	2	2	3	-	-	-	-	-
Refrigerant	A,E,N,U	type	R134a												
Refrigerant charge (1)	A	kg	128,0	144,0	144,0	144,0	160,0	176,0	176,0	192,0	192,0	224,0	224,0	240,0	272,0
	E,U	kg	160,0	160,0	176,0	176,0	192,0	208,0	224,0	224,0	240,0	240,0	256,0	-	-
	N	kg	176,0	208,0	224,0	240,0	256,0	256,0	256,0	272,0	-	-	-	-	-
System side heat exchanger															
Type	A,E,N,U	type	Shell and tube												
Number	A	no.	1	1	1	1	1	1	1	2	2	2	2	2	2
	E,U	no.	1	1	1	1	2	2	2	2	2	2	2	-	-
	N	no.	1	2	2	2	2	2	2	2	-	-	-	-	-
Hydraulic connections															
Connections (in/out)	A,E,N,U	Type	Grooved joints												

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

G.s. = Grooved joints

SOUND DATA

Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Sound data calculated in cooling mode (1)																
Sound power level	A	dB(A)	98,0	98,0	98,0	98,0	99,0	99,0	99,0	99,7	99,7	99,7	99,7	100,4	100,4	101,1
	E	dB(A)	91,0	91,0	91,7	91,9	92,1	92,6	92,5	93,0	93,0	93,0	93,0	93,7	93,9	94,6
	N	dB(A)	91,7	91,7	92,3	92,5	92,6	93,1	93,0	93,5	93,5	93,5	93,5	94,1	94,6	95,2
	U	dB(A)	98,0	98,0	98,9	99,0	99,0	99,7	99,7	100,4	100,4	100,4	100,4	100,9	101,0	101,5
Sound pressure level (10 m)	A	dB(A)	65,6	65,6	65,6	65,6	66,4	66,4	66,4	67,1	67,1	67,1	67,1	67,6	67,7	68,2
	E	dB(A)	58,6	58,6	59,2	59,4	59,5	59,9	59,9	60,3	60,3	60,3	60,3	60,8	61,0	61,6
	N	dB(A)	59,2	59,2	59,7	59,9	60,0	60,3	60,3	60,6	60,6	60,6	60,6	61,1	61,5	62,0
	U	dB(A)	65,6	65,6	66,4	66,4	66,4	67,1	67,1	67,6	67,6	67,6	67,6	68,1	68,1	68,5

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

Size			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Sound data calculated in cooling mode (1)															
Sound power level	A	dB(A)	101,1	101,6	101,6	101,6	102,1	102,5	102,5	102,7	102,8	103,4	103,4	103,7	104,2
	E	dB(A)	95,2	95,2	95,4	95,6	96,0	96,2	96,4	96,0	96,5	96,4	96,6	-	-
	N	dB(A)	95,5	96,0	96,2	96,6	96,9	96,9	96,9	96,7	-	-	-	-	-
	U	dB(A)	102,0	102,0	102,4	102,4	102,8	103,1	103,4	103,4	103,7	103,7	103,9	-	-
Sound pressure level (10 m)	A	dB(A)	68,2	68,6	68,6	68,6	69,0	69,2	69,2	69,4	69,4	69,8	69,8	70,0	70,4
	E	dB(A)	62,1	62,0	62,2	62,3	62,7	62,8	62,9	62,5	62,8	62,8	62,8	-	-
	N	dB(A)	62,3	62,5	62,6	62,9	63,1	63,1	63,1	62,8	-	-	-	-	-
	U	dB(A)	68,9	68,9	69,1	69,2	69,5	69,7	69,9	69,8	70,0	70,0	70,2	-	-

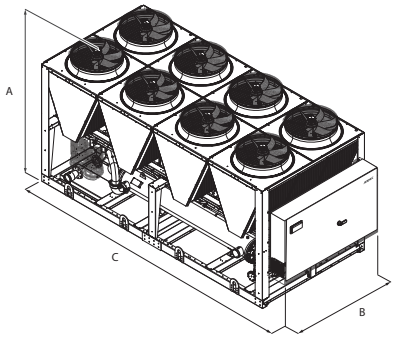
(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

FANS DATA

Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Model: F																
Fan																
Type	A,E,N,U	type	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial
Number	A	no.	8	8	8	8	10	10	10	12	12	12	12	14	14	16
	E,U	no.	8	8	10	10	10	12	12	14	14	14	14	16	16	18
	N	no.	10	10	12	12	12	14	14	16	16	16	16	18	20	22
Air flow rate	A	m^3/h	116000	116000	116000	116000	145000	145000	145000	174000	174000	174000	174000	203000	203000	232000
	E	m^3/h	89600	89600	112000	112000	112000	134400	134400	156800	156800	156800	156800	179200	179200	201600
	N	m^3/h	112000	112000	134400	134400	134400	156800	156800	179200	179200	179200	179200	201600	224000	246400
	U	m^3/h	116000	116000	145000	145000	145000	174000	174000	203000	203000	203000	203000	232000	232000	261000
Model: P																
Fan																
Type	A,E,N,U	type	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial
Number	A	no.	8	8	8	8	10	10	10	12	12	12	12	14	14	16
	E,U	no.	8	8	10	10	10	12	12	14	14	14	14	16	16	18
	N	no.	10	10	12	12	12	14	14	16	16	16	16	18	20	22
Air flow rate	A	m^3/h	109600	109600	109600	109600	137000	137000	137000	164400	164400	164400	164400	191800	191800	219200
	E	m^3/h	85600	85600	107000	107000	107000	128400	128400	149800	149800	149800	149800	171200	171200	192600
	N	m^3/h	107000	107000	128400	128400	128400	149800	149800	171200	171200	171200	171200	192600	214000	235400
	U	m^3/h	109600	109600	137000	137000	137000	164400	164400	191800	191800	191800	191800	219200	219200	246600

Size			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Model: F															
Fan															
Type	A,E,N,U	type	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial
Number	A	no.	16	18	18	18	20	22	22	24	24	28	28	30	34
	E,U	no.	20	20	22	22	24	26	28	28	30	30	32	-	-
	N	no.	22	26	28	30	32	32	32	34	-	-	-	-	-
Air flow rate	A	m^3/h	232000	261000	261000	261000	290000	319000	319000	348000	348000	406000	406000	435000	493000
	E	m^3/h	224000	224000	246400	246400	268800	291200	313600	313600	336000	336000	358400	-	-
	N	m^3/h	246400	291200	313600	336000	358400	358400	358400	380800	-	-	-	-	-
	U	m^3/h	290000	290000	319000	319000	348000	377000	406000	406000	435000	435000	464000	-	-
Model: P															
Fan															
Type	A,E,N,U	type	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial
Number	A	no.	16	18	18	18	20	22	22	24	24	28	28	30	34
	E,U	no.	20	20	22	22	24	26	28	28	30	30	32	-	-
	N	no.	22	26	28	30	32	32	32	34	-	-	-	-	-
Air flow rate	A	m^3/h	219200	246600	246600	246600	274000	301400	301400	328800	328800	383600	383600	411000	465800
	E	m^3/h	214000	214000	235400	235400	256800	278200	299600	299600	321000	321000	342400	-	-
	N	m^3/h	235400	278200	299600	321000	342400	342400	342400	363800	-	-	-	-	-
	U	m^3/h	274000	274000	301400	301400	328800	356200	383600	383600	411000	411000	438400	-	-

DIMENSIONS



Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Dimensions and weights																
A	A,E,N,U	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	A,E,N,U	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	A	mm	5160	5160	5160	5160	6350	6350	6350	7140	7140	7140	7140	8330	8330	9520
	E,U	mm	5160	5160	6350	6350	6350	7140	7140	8330	8330	8330	8330	9520	9520	10710
	N	mm	6350	6350	7140	7140	7140	8330	8330	9520	9520	9520	9520	10710	11900	13090
Empty weight	A	kg	4695	4730	4870	5200	6065	6080	6285	6950	7145	7200	7300	8500	8975	9590
	E,U	kg	4855	4875	5435	6025	6380	7025	7045	7625	7715	7785	7880	9145	9605	10475
	N	kg	5370	5390	6065	6655	7010	7560	7585	8175	8265	8340	8430	9930	10905	11630

Size			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Dimensions and weights															
A	A	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
	E,U	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	-	-
	N	mm	2450	2450	2450	2450	2450	2450	2450	2450	-	-	-	-	-
B	A	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
	E,U	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	-	-
	N	mm	2200	2200	2200	2200	2200	2200	2200	2200	-	-	-	-	-
C	A	mm	9520	10710	10710	10710	11900	13090	13090	14280	14280	16660	16660	17850	20230
	E,U	mm	11900	11900	13090	13090	14280	15470	16660	16660	17850	17850	19040	-	-
	N	mm	13090	15470	16660	17850	19040	19040	19040	20230	-	-	-	-	-
Empty weight	A	kg	9655	10475	10525	10945	11580	12265	12305	14815	14880	16240	16290	17510	18895
	E,U	kg	11070	11130	12135	12260	13260	13800	14340	16230	16825	16940	17955	-	-
	N	kg	11700	13205	13990	14725	15460	15505	15550	18085	-	-	-	-	-

For transport reasons, the units with the depth of more than 13090 mm are shipped separately. For more information, please refer to the technical manual and / or installation.

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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NSM 1402-9603 B

Air-cooled chiller with free cooling (glycol-free)

Cooling capacity 305,8 ÷ 2028,1 kW

- **Microchannel coil**
- **Night mode**
- **Operation up to 50 °C outdoor air**
- **High efficiency also at partial loads**



DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications.
These are outdoor units with screw compressors, axial fans, micro-channel coils, and shell and tube heat exchangers
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

A High efficiency
E Silenced high efficiency
N Silenced very high efficiency
U Very high efficiency

FEATURES

Operating field

Operation at full load up to 50 °C external air temperature depending on the size and vesion. For more information refer to the dedicated documentations or the selection program Magellano.

Unit with 2/3 cooling circuits

Unit with 2/3 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.

Condensation control temperature

Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures, adapting the air flow rate to the actual system request in order to reduce consumption.

Aluminium microchannel coils

The whole range uses microchannel condenser coils allowing reduction of refrigerant charge but keeping the same high efficiency.

Free-cooling water coils

These units also have a water coil dedicated to free-cooling mode.
Free-cooling offers significant energy saving in applications that require cooling all year round.
As soon as the outside air temperature allows, a valve makes the water flow towards the free-cooling battery which is cooled directly by the air. The compressors are completely shut down, if possible, leading to considerable electrical savings.

Free cooling with glycol water

Intermediate plate heat exchanger that creates two circuits:

1. Glycol hydraulic circuit (glycol is added to protect the coil from freezing).
2. Primary hydraulic circuit for glycol-free systems.

Electronic expansion valve

Electronic thermostatic as standard from size 5202 to 6402 and from 8403 to 9603.
The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

CONTROL

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.

— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
— The temperature control takes place with the integral proportional logic, based on the water output temperature.
— **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

ACCESSORIES

AER485P1 x n° 2: RS-485 interface for supervision systems with MODBUS protocol.
AER485P1 x n° 3: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using

Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PRV3: Allows you to control the chiller at a distance.
AVX: Spring anti-vibration supports.

FACTORY FITTED ACCESSORIES

RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
GP_: Anti-intrusion grid kit
KRS: Electric heater for the heat exchanger
AK: Acoustic kit that lowers the noise level even further, thanks to the special coating on the panelling or on those components that produce the most noise in the unit. Available for the low noise version only.
KDI: Double thickness evaporator insulation. Provides stand-still protection down to -20°C. Must be ordered in conjunction with options KRS.

ACCESSORIES COMPATIBILITY

Model	Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
AER485P1 x n° 2 (1)	A,E,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERBACP	A,E,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERNET	A,E,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	A,E,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PRV3	A,E,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Model	Ver	4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
AER485P1 x n° 2 (1)	A,E,N,U	•	•	•	•	•	•	•						
AER485P1 x n° 3 (1)	A,E,N,U								•	•	•	•	•	•
AERBACP	A,E,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•
AERNET	A,E,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	A,E,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•
PRV3	A,E,N,U	•	•	•	•	•	•	•	•	•	•	•	•	•

(1) x Indicates the quantity of accessories to match.

Antivibration

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
A	AVX929	AVX929	AVX929	AVX932	AVX933	AVX933	AVX933	AVX934	AVX937	AVX937	AVX937	AVX938	AVX938	AVX942
E,U	AVX929	AVX929	AVX930	AVX933	AVX933	AVX934	AVX934	AVX935	AVX935	AVX935	AVX935	AVX939	AVX939	AVX940
N	AVX930	AVX930	AVX931	AVX931	AVX934	AVX935	AVX935	AVX936	AVX936	AVX936	AVX936	AVX940	AVX941	AVX943

Ver	4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
A	AVX942	AVX944	AVX944	AVX944	AVX945	AVX947	AVX947	AVX953	AVX953	AVX957	AVX954	AVX956	AVX955
E,U	AVX941	AVX945	AVX947	AVX947	AVX950	AVX952	AVX948	AVX954	AVX956	AVX956	AVX958	-	-
N	AVX943	AVX946	AVX948	AVX949	AVX951	AVX951	AVX951	AVX955	-	-	-	-	-

The accessory cannot be fitted on the configurations indicated with -

Power factor correction

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802
A	RIFNSM1402Q	RIFNSM1602Q	RIFNSM1802Q	RIFNSM2002Q	RIFNSM2202Q	RIFNSM2352Q	RIFNSM2502Q	RIFNSM2652Q	RIFNSM2802C
E	RIFNSM1402Q	RIFNSM1602Q	RIFNSM1802Q	RIFNSM2002Q	RIFNSM2202Q	RIFNSM2352C	RIFNSM2502C	RIFNSM2652Q	RIFNSM2802C
N	RIFNSM1402Q	RIFNSM1602Q	RIFNSM1802C	RIFNSM2002Q	RIFNSM2202C	RIFNSM2352C	RIFNSM2502C	RIFNSM2652Q	RIFNSM2802C
U	RIFNSM1402Q	RIFNSM1602Q	RIFNSM1802Q	RIFNSM2002C	RIFNSM2202Q	RIFNSM2352C	RIFNSM2502C	RIFNSM2652Q	RIFNSM2802C

A grey background indicates the accessory must be assembled in the factory

Ver	3002	3202	3402	3602	3902	4202	4502	4802	5202
A,E,U	RIFNSM3002C	RIFNSM3202C	RIFNSM3402C	RIFNSM3602C	RIFNSM3902C	RIFNSM4202C	RIFNSM4502C	RIFNSM4802C	RIFNSM5202C
N	RIFNSM3002C	RIFNSM3202C	RIFNSM3402C	RIFNSM3602C	RIFNSM3902C	RIFNSM4202C	-	-	-

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

Ver	5602	6002	6402	6503	6703	6903	7203	8403	9603
A	RIFNSM5602C	RIFNSM6002C	RIFNSM6402C	-	-	-	-	-	-

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

Anti-intrusion grid

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
A	GP4V	GP4V	GP4V	GP4V	GP5V	GP5V	GP5V	GP6V	GP6V	GP6V	GP6V	GP7V	GP7V	GP8V
E,U	GP4V	GP4V	GP5V	GP5V	GP5V	GP6V	GP6V	GP7V	GP7V	GP7V	GP7V	GP8V	GP8V	GP9V
N	GP5V	GP5V	GP6V	GP6V	GP6V	GP7V	GP7V	GP8V	GP8V	GP8V	GP8V	GP9V	GP10V	GP11V

A grey background indicates the accessory must be assembled in the factory

Ver	4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
A	GP8V	GP9V	GP9V	GP9V	GP10V	GP11V	GP11V	GP4V+GP8V	GP4V+GP8V	GP5V+GP9V	GP5V+GP9V	GP5V+GP10V	GP6V+GP11V
E,U	GP10V	GP10V	GP11V	GP11V	GP6V+GP6V	GP6V+GP7V	GP7V+GP7V	GP5V+GP9V	GP5V+GP10V	GP5V+GP10V	GP6V+GP11V	-	-
N	GP11V	GP6V+GP7V	GP7V+GP7V	GP7V+GP8V	GP8V+GP8V	GP8V+GP8V	GP8V+GP8V	GP6V+GP11V	-	-	-	-	-

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

Heater exchangers

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802
A	KRS22	KRS22	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802
E,N,U	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23

A grey background indicates the accessory must be assembled in the factory

Ver	3002	3202	3402	3602	3902	4202	4502	4802	5202
A,E,U	KRS23	KRS23	KRS24	KRS24	KRS24	KRS24	KRS24	KRS24	KRS24
N	KRS23	KRS23	KRS24	KRS24	KRS24	KRS24	KRS23+KRS23	KRS23+KRS23	KRS23+KRS23

A grey background indicates the accessory must be assembled in the factory

Ver	5602	6002	6402	6503	6703	6903	7203	8403	9603
A	KRS24	KRS24	KRS24	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24
E,U	KRS23+KRS23	KRS23+KRS23	KRS23+KRS23	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24	KRS23+KRS24	-	-
N	KRS23+KRS23	KRS23+KRS23	KRS23+KRS23	KRS23+KRS24	-	-	-	-	-

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

Acoustic kit

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
E,N	AK (1)	AK (1)	AK (1)	AK (1)	AK (1)	AK (1)	AK (1)	AK (1)	AK (1)	AK (1)	AK (1)	AK (1)	AK (1)	AK (1)

(1) Available only in low noise version
A grey background indicates the accessory must be assembled in the factory

Ver	4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
E,N	AK (1)	AK (1)	AK (1)	AK (1)	AK (1)	AK (1)	AK (1)	AK (1)	AK (1)	AK (1)	AK (1)	AK (1)	AK (1)

(1) Available only in low noise version
A grey background indicates the accessory must be assembled in the factory

Double thickness evaporator insulation

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
A,E,N,U	KDI (1)	KDI (1)	KDI (1)	KDI (1)	KDI (1)	KDI (1)	KDI (1)	KDI (1)	KDI (1)	KDI (1)	KDI (1)	KDI (1)	KDI (1)	KDI (1)

(1) Contact us.
A grey background indicates the accessory must be assembled in the factory

Ver	4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
A,E,N,U	KDI (1)	KDI (1)	KDI (1)	KDI (1)	KDI (1)	KDI (1)	KDI (1)	KDI (1)	KDI (1)	KDI (1)	KDI (1)	KDI (1)	KDI (1)

(1) Contact us.
A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field		Description
1,2,3		**NSM**
4,5,6,7		**Size** 1402, 1602, 1802, 2002, 2202, 2352, 2502, 2652, 2802, 3002, 3202, 3402, 3602, 3902, 4202, 4502, 4802, 5202, 5602, 6002, 6402, 6503, 6703, 6903, 7203, 8403, 9603
8		**Operating field**
	°	Standard mechanic thermostatic valve (1)
	X	Electronic thermostatic expansion valve (2)
	Y	Low temperature mechanic thermostatic valve (3)
	Z	Low temperature electronic thermostatic valve (3)
9		**Model**
	B	Free-cooling glycol free
	G	Free-cooling glycol free plus (4)
10		**Heat recovery**
	°	Without heat recovery
11		**Version**
	A	High efficiency
	E	Silenced high efficiency
	N	Silenced very high efficiency
	U	Very high efficiency
12		**Coils / free-cooling coils**
	°	Alluminium microchannel / Copper - aluminium
	0	Painted alluminium microchannel / Copper painted aluminium
	R	Copper-copper/Copper-copper
	S	Copper-Tinned copper / Copper -Tinned copper
	V	Copper-painted alumimium / Copper-painted alumimium
13		**Fans**
	°	Standard
	J	Inverter
14		**Power supply**
	°	400V ~ 3 50Hz with fuses
	2	230V ~ 3 50Hz with fuses (5)
	4	230V ~ 3 50Hz with magnet circuit breakers (5)
	5	500V ~ 3 50Hz with fuses (6)
	8	400V ~ 3 50Hz with magnet circuit breakers
	9	500V ~ 3 50Hz with magnet circuit breakers (6)
15,16		**Integrated hydronic kit**
	00	Without hydronic kit

(1) Water produced up to +4 °C.
(2) Water produced up to +4 °C
(3) Water produced from +4 °C ÷ -6 °C
(4) The Free cooling Plus "G" models are only compatible with "°" and "0" coils.
(5) Available only for size from 1402 to 2202
(6) Available only for size from 1402 to 3202

PERFORMANCE SPECIFICATIONS

NSM - A

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Model: B															
Cooling performance chiller operation (1)															
Cooling capacity	kW	306,5	350,2	396,8	450,5	505,3	522,5	556,5	600,8	649,8	678,4	726,3	813,3	872,8	954,1
Input power	kW	102,8	117,6	136,7	158,3	168,9	180,5	194,5	203,0	220,4	235,0	252,8	269,7	295,6	317,9
Cooling total input current	A	182,0	206,0	231,0	268,0	291,0	311,0	335,0	351,0	378,0	400,0	427,0	451,0	487,0	530,0
EER	W/W	2,98	2,98	2,90	2,85	2,99	2,90	2,86	2,96	2,95	2,89	2,87	3,02	2,95	3,00
Water flow rate system side	l/h	52653	60163	68174	77407	86812	89765	95621	103224	111642	116561	124785	139737	149957	163932
Pressure drop system side	kPa	73	94	100	72	90	96	108	107	117	100	94	81	93	112
Cooling performances with free-cooling glycol-free (2)															
Cooling capacity	kW	201,2	207,2	212,6	221,0	271,8	273,9	277,4	334,0	337,2	352,7	355,8	414,1	417,7	460,7
Input power	kW	18,5	18,5	18,5	18,5	24,6	24,6	24,6	32,7	32,7	32,9	32,9	38,1	38,1	42,0
Free cooling total input current	A	33,0	32,0	31,0	31,0	42,0	42,0	42,0	57,0	56,0	56,0	56,0	64,0	63,0	70,0
EER	W/W	10,87	11,19	11,48	11,92	11,06	11,14	11,28	10,20	10,30	10,71	10,81	10,86	10,95	10,97
Model: G															
Cooling performance chiller operation (1)															
Cooling capacity	kW	305,8	349,3	395,0	447,3	502,1	519,1	552,6	597,2	645,4	674,3	721,9	807,8	865,0	946,8
Input power	kW	103,7	118,8	138,1	160,2	170,8	182,6	197,0	205,3	223,1	238,4	257,1	273,3	299,3	321,8
Cooling total input current	A	184,0	208,0	233,0	271,0	294,0	315,0	339,0	355,0	382,0	405,0	433,0	456,0	492,0	536,0
EER	W/W	2,95	2,94	2,86	2,79	2,94	2,84	2,81	2,91	2,89	2,83	2,81	2,96	2,89	2,94
Water flow rate system side	l/h	52546	60019	67864	76853	86266	89180	94948	102598	110891	115859	124023	138789	148609	162675
Pressure drop system side	kPa	48	64	74	62	78	84	95	70	74	81	74	86	98	68
Cooling performances with free-cooling glycol-free (2)															
Cooling capacity	kW	213,5	220,0	226,6	237,8	288,8	291,7	294,5	353,1	360,2	374,3	378,1	439,1	443,5	495,5
Input power	kW	18,3	18,3	18,3	18,3	24,2	24,2	24,2	32,1	32,1	32,3	32,3	37,4	37,4	41,3
Free cooling total input current	A	32,0	32,0	31,0	31,0	42,0	42,0	42,0	55,0	55,0	55,0	54,0	62,0	61,0	69,0
EER	W/W	11,68	12,03	12,39	12,99	11,92	12,04	12,16	11,00	11,22	11,59	11,71	11,74	11,86	12,00

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) System side water heat exchanger 12 °C / 8,7 °C ; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

NSM - A

Size		4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Model: B														
Cooling performance chiller operation (1)														
Cooling capacity	kW	996,8	1082,3	1128,3	1167,3	1222,8	1304,9	1346,7	1459,2	1501,9	1659,0	1705,0	1838,1	2028,1
Input power	kW	346,1	365,7	391,9	422,5	438,9	452,7	472,4	492,1	520,2	557,2	583,3	659,0	704,1
Cooling total input current	A	581,0	614,0	655,0	704,0	733,0	761,0	796,0	821,0	872,0	945,0	986,0	1100,0	1198,0
EER	W/W	2,88	2,96	2,88	2,76	2,79	2,88	2,85	2,97	2,89	2,98	2,92	2,79	2,88
Water flow rate system side	l/h	171269	185947	193855	200561	210092	224201	231379	250713	258050	285029	292937	315803	348457
Pressure drop system side	kPa	122	132	143	116	109	125	133	112	127	132	143	108	135
Cooling performances with free-cooling glycol-free (2)														
Cooling capacity	kW	464,4	522,4	524,0	526,5	571,2	612,5	614,9	684,4	688,1	798,8	801,4	867,6	965,2
Input power	kW	42,0	46,2	46,2	46,2	50,1	53,8	53,9	60,5	60,5	70,7	70,8	78,9	86,8
Free cooling total input current	A	71,0	77,0	77,0	77,0	84,0	91,0	91,0	101,0	101,0	120,0	120,0	132,0	148,0
EER	W/W	11,06	11,32	11,35	11,41	11,41	11,38	11,41	11,31	11,37	11,29	11,32	10,99	11,12
Model: G														
Cooling performance chiller operation (1)														
Cooling capacity	kW	988,7	1074,2	1119,1	1156,4	1212,7	1295,2	1336,2	1447,7	1489,6	1646,9	1691,9	1822,8	2013,1
Input power	kW	350,6	370,3	397,1	428,3	444,3	458,0	478,2	498,2	527,1	564,0	590,8	667,1	712,4
Cooling total input current	A	588,0	621,0	663,0	713,0	741,0	769,0	805,0	830,0	882,0	956,0	998,0	1112,0	1211,0
EER	W/W	2,82	2,90	2,82	2,70	2,73	2,83	2,79	2,91	2,83	2,92	2,86	2,73	2,83
Water flow rate system side	l/h	169873	184553	192278	198678	208362	222522	229577	248739	255937	282961	290686	313186	345875
Pressure drop system side	kPa	74	91	98	86	95	109	116	84	84	110	110	101	116
Cooling performances with free-cooling glycol-free (2)														
Cooling capacity	kW	500,3	559,0	564,4	569,9	610,4	656,1	662,5	737,9	742,7	856,4	861,8	926,6	1037,6
Input power	kW	41,3	45,5	45,5	45,5	49,3	53,1	53,1	59,6	59,6	69,7	69,7	77,6	85,4
Free cooling total input current	A	69,0	76,0	76,0	76,0	82,0	89,0	89,0	99,0	100,0	118,0	118,0	129,0	145,0
EER	W/W	12,12	12,30	12,42	12,54	12,38	12,36	12,48	12,38	12,46	12,29	12,37	11,95	12,15

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) System side water heat exchanger 12 °C / 8,7 °C ; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

NSM - E

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Model: B															
Cooling performance chiller operation (1)															
Cooling capacity	kW	319,8	365,8	417,7	473,0	509,1	549,8	568,8	618,6	646,3	675,1	715,5	796,7	851,7	929,6
Input power	kW	105,5	123,3	137,5	159,4	178,3	183,3	195,5	205,2	220,4	235,9	253,5	270,8	297,1	320,1
Cooling total input current	A	177,0	206,0	223,0	261,0	295,0	305,0	326,0	342,0	365,0	389,0	415,0	438,0	474,0	517,0
EER	W/W	3,03	2,97	3,04	2,97	2,85	3,00	2,91	3,01	2,93	2,86	2,82	2,94	2,87	2,90
Water flow rate system side	l/h	54946	62848	71763	81260	87462	94455	97732	106280	111042	115993	122937	136886	146332	159723
Pressure drop system side	kPa	62	76	84	78	90	88	94	100	109	91	94	80	92	110
Cooling performances with free-cooling glycol-free (2)															
Cooling capacity	kW	186,6	192,0	231,5	241,7	246,1	294,5	297,3	334,0	337,2	351,6	354,9	403,7	407,3	448,1
Input power	kW	15,5	15,5	19,5	19,6	19,6	26,8	26,8	30,6	30,6	31,0	31,0	34,0	34,0	36,8
Free cooling total input current	A	26,0	26,0	32,0	32,0	32,0	44,0	45,0	51,0	51,0	51,0	51,0	55,0	54,0	59,0
EER	W/W	12,01	12,36	11,89	12,34	12,57	11,01	11,11	10,92	11,03	11,35	11,45	11,88	11,98	12,18
Model: G															
Cooling performance chiller operation (1)															
Cooling capacity	kW	316,7	363,1	414,5	469,5	504,1	545,4	564,0	613,8	640,8	669,8	710,9	790,6	843,5	921,3
Input power	kW	106,6	124,7	138,6	161,1	181,0	185,4	197,8	207,6	223,1	239,2	257,8	274,6	301,1	324,4
Cooling total input current	A	179,0	208,0	225,0	263,0	298,0	308,0	329,0	345,0	369,0	393,0	421,0	443,0	480,0	523,0
EER	W/W	2,97	2,91	2,99	2,91	2,79	2,94	2,85	2,96	2,87	2,80	2,76	2,88	2,80	2,84
Water flow rate system side	l/h	54406	62391	71215	80666	86616	93710	96910	105465	110105	115087	122135	135840	144915	158291
Pressure drop system side	kPa	36	42	54	66	76	54	58	59	65	71	73	47	54	66
Cooling performances with free-cooling glycol-free (2)															
Cooling capacity	kW	197,2	203,1	242,3	255,6	258,0	307,4	310,5	349,3	352,8	266,5	373,6	421,8	425,7	470,1
Input power	kW	15,2	15,2	19,1	19,2	19,2	26,1	26,1	29,9	29,9	30,3	30,3	33,3	33,3	36,1
Free cooling total input current	A	26,0	25,0	31,0	31,0	32,0	43,0	44,0	50,0	50,0	50,0	49,0	54,0	53,0	58,0
EER	W/W	12,94	13,32	12,67	13,29	13,42	11,76	11,88	11,68	11,79	12,11	12,35	12,68	12,80	13,02

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) System side water heat exchanger 12 °C / 8,7 °C ; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

NSM - E

Size		4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Model: B														
Cooling performance chiller operation (1)														
Cooling capacity	kW	995,2	1051,6	1137,0	1159,2	1217,3	1279,4	1341,6	1434,0	1499,6	1598,6	1684,0	-	-
Input power	kW	339,9	370,0	389,4	418,0	436,6	448,9	461,2	491,1	510,9	568,9	588,3	-	-
Cooling total input current	A	555,0	601,0	632,0	678,0	708,0	732,0	755,0	804,0	832,0	924,0	945,0	-	-
EER	W/W	2,93	2,84	2,92	2,77	2,79	2,85	2,91	2,92	2,93	2,81	2,86	-	-
Water flow rate system side	l/h	170980	180685	195353	199172	209139	219823	230507	246385	257643	274665	289333	-	-
Pressure drop system side	kPa	125	128	130	135	84	115	112	110	121	121	130	-	-
Cooling performances with free-cooling glycol-free (2)														
Cooling capacity	kW	495,6	509,3	549,8	551,2	600,1	640,5	682,5	692,0	739,5	761,7	802,2	-	-
Input power	kW	44,0	44,2	46,9	47,0	53,5	57,3	61,5	56,4	63,5	65,6	68,4	-	-
Free cooling total input current	A	72,0	72,0	76,0	76,0	87,0	93,0	100,0	92,0	104,0	107,0	110,0	-	-
EER	W/W	11,27	11,54	11,72	11,73	11,22	11,17	11,14	12,27	11,64	11,60	11,72	-	-
Model: G														
Cooling performance chiller operation (1)														
Cooling capacity	kW	987,5	1041,9	1127,1	1148,0	1206,7	1269,3	1332,0	1421,7	1487,9	1583,2	1668,4	-	-
Input power	kW	344,2	375,3	394,8	424,0	442,2	454,4	466,6	497,6	517,4	577,4	596,9	-	-
Cooling total input current	A	561,0	609,0	640,0	687,0	717,0	740,0	763,0	814,0	842,0	937,0	957,0	-	-
EER	W/W	2,87	2,78	2,86	2,71	2,73	2,79	2,85	2,86	2,88	2,74	2,80	-	-
Water flow rate system side	l/h	169667	179011	193651	197235	207320	218083	228846	244269	255645	272005	286645	-	-
Pressure drop system side	kPa	76	87	83	86	58	70	70	86	86	100	100	-	-
Cooling performances with free-cooling glycol-free (2)														
Cooling capacity	kW	523,4	531,6	576,1	581,5	627,1	669,8	712,5	728,1	781,4	795,8	840,2	-	-
Input power	kW	43,0	43,1	46,0	46,0	52,3	56,1	59,8	55,3	62,2	64,2	67,0	-	-
Free cooling total input current	A	70,0	70,0	74,0	74,0	85,0	91,0	98,0	91,0	101,0	104,0	107,0	-	-
EER	W/W	12,17	12,32	12,53	12,65	11,99	11,95	11,91	13,16	12,55	12,40	12,54	-	-

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) System side water heat exchanger 12 °C / 8,7 °C ; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

NSM - U

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Model: B															
Cooling performance chiller operation (1)															
Cooling capacity	kW	328,1	378,5	429,3	491,9	531,3	568,6	589,0	638,0	667,8	695,1	735,8	824,8	891,0	967,9
Input power	kW	105,3	121,3	136,2	155,8	172,9	180,0	191,0	202,4	216,1	228,4	242,4	263,0	288,2	311,5
Cooling total input current	A	186,0	212,0	232,0	266,0	297,0	313,0	332,0	353,0	374,0	392,0	413,0	443,0	477,0	523,0
EER	W/W	3,12	3,12	3,15	3,16	3,07	3,16	3,08	3,15	3,09	3,04	3,04	3,14	3,09	3,11
Water flow rate system side	l/h	56372	65027	73755	84508	91287	97691	101204	109611	114731	119419	126414	141715	153088	166304
Pressure drop system side	kPa	66	81	88	83	96	93	99	106	88	95	87	85	99	117
Cooling performances with free-cooling glycol-free (2)															
Cooling capacity	kW	207,3	213,5	254,5	275,3	278,0	330,7	333,2	373,6	391,6	395,4	406,8	452,9	456,9	499,3
Input power	kW	19,5	19,5	24,5	26,5	26,5	32,7	32,8	37,6	38,0	38,0	38,1	42,0	42,0	45,8
Free cooling total input current	A	34,0	34,0	42,0	45,0	46,0	57,0	57,0	65,0	66,0	65,0	65,0	71,0	70,0	77,0
EER	W/W	10,62	10,94	10,40	10,40	10,49	10,10	10,17	9,94	10,31	10,41	10,67	10,79	10,88	10,90
Model: G															
Cooling performance chiller operation (1)															
Cooling capacity	kW	326,9	376,7	427,6	488,8	527,6	565,4	585,6	634,6	664,0	691,7	732,5	820,3	884,7	961,8
Input power	kW	106,3	122,5	137,6	157,4	174,8	181,8	193,0	204,4	218,3	231,1	245,7	266,0	291,3	314,8
Cooling total input current	A	187,0	213,0	234,0	269,0	300,0	316,0	335,0	356,0	377,0	396,0	418,0	447,0	482,0	528,0
EER	W/W	3,08	3,07	3,11	3,10	3,02	3,11	3,03	3,10	3,04	2,99	2,98	3,08	3,04	3,06
Water flow rate system side	l/h	56168	64715	73458	83974	90643	97138	100613	109029	114089	118834	125850	140933	152003	165249
Pressure drop system side	kPa	39	45	58	72	84	59	63	64	70	76	78	51	59	72
Cooling performances with free-cooling glycol-free (2)															
Cooling capacity	kW	219,8	228,8	272,7	291,1	297,0	349,6	353,1	394,9	414,0	418,2	430,6	479,9	489,3	530,2
Input power	kW	19,2	19,2	24,1	26,0	26,0	32,1	32,1	36,9	37,3	37,3	37,4	41,3	41,3	45,1
Free cooling total input current	A	34,0	33,0	41,0	44,0	45,0	56,0	56,0	64,0	64,0	64,0	64,0	69,0	68,0	75,0
EER	W/W	11,43	11,90	11,30	11,20	11,42	10,89	11,00	10,71	11,11	11,22	11,51	11,63	11,86	11,77

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) System side water heat exchanger 12 °C / 8,7 °C ; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

NSM - U

Size		4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Model: B														
Cooling performance chiller operation (1)														
Cooling capacity	kW	1031,1	1095,0	1181,2	1208,8	1265,8	1326,2	1386,6	1491,1	1554,3	1666,6	1752,7	-	-
Input power	kW	332,0	358,4	379,0	405,3	426,4	440,0	453,5	478,4	498,9	549,8	570,4	-	-
Cooling total input current	A	564,0	605,0	639,0	682,0	718,0	746,0	774,0	812,0	846,0	926,0	954,0	-	-
EER	W/W	3,11	3,06	3,12	2,98	2,97	3,01	3,06	3,12	3,12	3,03	3,07	-	-
Water flow rate system side	l/h	177155	188137	202935	207692	217477	227858	238239	256194	267046	286336	301135	-	-
Pressure drop system side	kPa	119	137	138	145	104	124	113	117	119	137	138	-	-
Cooling performances with free-cooling glycol-free (2)														
Cooling capacity	kW	565,8	570,9	615,3	617,2	681,2	721,6	762,0	777,2	843,7	865,6	910,0	-	-
Input power	kW	54,1	54,1	57,9	58,0	67,5	71,3	75,2	72,3	80,6	83,9	87,7	-	-
Free cooling total input current	A	92,0	91,0	98,0	97,0	114,0	121,0	128,0	123,0	137,0	141,0	147,0	-	-
EER	W/W	10,46	10,55	10,62	10,65	10,10	10,12	10,14	10,75	10,47	10,32	10,38	-	-
Model: G														
Cooling performance chiller operation (1)														
Cooling capacity	kW	1025,3	1088,1	1174,0	1200,9	1257,9	1318,5	1379,2	1482,0	1545,4	1655,7	1741,6	-	-
Input power	kW	335,5	362,4	383,1	409,7	430,7	444,3	457,9	483,4	504,1	556,1	576,8	-	-
Cooling total input current	A	569,0	611,0	645,0	688,0	725,0	752,0	780,0	819,0	854,0	936,0	963,0	-	-
EER	W/W	3,06	3,00	3,06	2,93	2,92	2,97	3,01	3,07	3,07	2,98	3,02	-	-
Water flow rate system side	l/h	176150	186945	201699	206322	216119	226541	236963	254617	265517	284475	299229	-	-
Pressure drop system side	kPa	81	94	90	94	63	70	75	85	92	103	113	-	-
Cooling performances with free-cooling glycol-free (2)														
Cooling capacity	kW	600,3	606,3	654,1	660,5	720,3	764,2	808,1	827,1	897,3	920,4	968,2	-	-
Input power	kW	53,1	53,1	57,0	57,0	66,1	69,9	73,8	71,0	79,1	82,2	86,0	-	-
Free cooling total input current	A	90,0	90,0	96,0	96,0	111,0	118,0	126,0	120,0	134,0	138,0	144,0	-	-
EER	W/W	11,30	11,41	11,48	11,60	10,90	10,93	10,95	11,64	11,34	11,20	11,25	-	-

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) System side water heat exchanger 12 °C / 8,7 °C ; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

NSM - N

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Model: B															
Cooling performance chiller operation (1)															
Cooling capacity	kW	326,0	376,5	424,5	486,3	525,3	559,6	579,7	626,1	655,1	682,6	723,4	811,7	888,8	960,7
Input power	kW	103,6	119,3	134,4	153,8	170,9	178,3	189,4	200,8	214,8	227,9	242,9	263,8	283,0	307,1
Cooling total input current	A	175,0	200,0	218,0	253,0	283,0	297,0	317,0	335,0	357,0	376,0	399,0	427,0	452,0	497,0
EER	W/W	3,15	3,16	3,16	3,16	3,07	3,14	3,06	3,12	3,05	3,00	2,98	3,08	3,14	3,13
Water flow rate system side	l/h	56017	64687	72926	83554	90260	96150	99597	107568	112546	117285	124287	139460	152704	165051
Pressure drop system side	kPa	54	65	67	83	96	92	98	79	86	93	86	84	100	106
Cooling performances with free-cooling glycol-free (2)															
Cooling capacity	kW	220,8	232,6	273,9	282,2	286,3	327,6	330,8	378,1	381,7	385,4	396,5	442,9	482,6	528,7
Input power	kW	18,3	19,6	26,5	26,5	27,4	30,6	30,6	33,8	33,8	33,8	34,0	40,8	43,6	46,5
Free cooling total input current	A	31,0	33,0	43,0	44,0	45,0	51,0	51,0	56,0	56,0	56,0	56,0	66,0	70,0	75,0
EER	W/W	12,04	11,88	10,32	10,63	10,44	10,71	10,82	11,17	11,28	11,39	11,66	10,86	11,07	11,37
Model: G															
Cooling performance chiller operation (1)															
Cooling capacity	kW	325,1	375,2	422,9	483,6	522,0	556,8	576,7	623,1	651,8	679,6	720,3	807,0	882,8	955,1
Input power	kW	104,5	120,4	135,6	155,5	172,9	180,2	191,5	202,9	217,2	230,8	246,4	267,1	286,2	310,3
Cooling total input current	A	176,0	201,0	220,0	255,0	286,0	300,0	320,0	338,0	360,0	381,0	404,0	431,0	457,0	501,0
EER	W/W	3,11	3,12	3,12	3,11	3,02	3,09	3,01	3,07	3,00	2,94	2,92	3,02	3,09	3,08
Water flow rate system side	l/h	55859	64457	72661	83082	89692	95662	99076	107055	111979	116764	123748	138653	151682	164102
Pressure drop system side	kPa	39	46	36	44	51	58	62	40	43	47	46	50	60	72
Cooling performances with free-cooling glycol-free (2)															
Cooling capacity	kW	230,8	243,4	284,6	294,0	301,4	342,3	345,8	395,2	403,2	407,2	414,7	463,0	509,0	554,0
Input power	kW	18,0	19,2	25,6	25,9	26,7	29,9	29,9	33,1	33,1	33,1	33,3	39,8	42,6	45,6
Free cooling total input current	A	30,0	32,0	42,0	43,0	44,0	50,0	50,0	55,0	55,0	55,0	55,0	64,0	68,0	74,0
EER	W/W	12,79	12,66	10,98	11,34	11,27	11,44	11,56	11,93	12,17	12,29	12,46	11,62	11,94	12,15

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) System side water heat exchanger 12 °C / 8,7 °C ; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

NSM - N

Size		4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Model: B														
Cooling performance chiller operation (1)														
Cooling capacity	kW	1004,9	1098,6	1161,7	1218,0	1274,5	1318,1	1361,7	1478,4	-	-	-	-	-
Input power	kW	332,9	349,5	369,2	392,7	416,2	433,5	450,9	472,0	-	-	-	-	-
Cooling total input current	A	544,0	570,0	600,0	639,0	677,0	708,0	740,0	771,0	-	-	-	-	-
EER	W/W	3,02	3,14	3,15	3,10	3,06	3,04	3,02	3,13	-	-	-	-	-
Water flow rate system side	l/h	172652	188754	199587	209274	218966	226456	233947	254013	-	-	-	-	-
Pressure drop system side	kPa	116	112	104	109	72	78	81	105	-	-	-	-	-
Cooling performances with free-cooling glycol-free (2)														
Cooling capacity	kW	533,7	625,3	661,6	712,1	756,1	767,1	770,8	815,0	-	-	-	-	-
Input power	kW	46,5	57,3	61,2	64,4	67,7	67,7	67,7	73,9	-	-	-	-	-
Free cooling total input current	A	76,0	93,0	99,0	105,0	110,0	111,0	111,0	121,0	-	-	-	-	-
EER	W/W	11,47	10,91	10,82	11,05	11,17	11,34	11,39	11,03	-	-	-	-	-
Model: G														
Cooling performance chiller operation (1)														
Cooling capacity	kW	998,8	1092,7	1155,6	1211,7	1267,7	1310,9	1354,2	1470,0	-	-	-	-	-
Input power	kW	336,7	353,2	373,0	396,5	420,0	437,6	455,3	476,9	-	-	-	-	-
Cooling total input current	A	550,0	575,0	606,0	644,0	682,0	714,0	746,0	778,0	-	-	-	-	-
EER	W/W	2,97	3,09	3,10	3,06	3,02	3,00	2,97	3,08	-	-	-	-	-
Water flow rate system side	l/h	171604	187733	198553	208183	217806	225235	232663	252555	-	-	-	-	-
Pressure drop system side	kPa	79	67	76	76	41	44	47	72	-	-	-	-	-
Cooling performances with free-cooling glycol-free (2)														
Cooling capacity	kW	559,3	653,2	691,6	748,6	798,5	804,6	806,4	852,3	-	-	-	-	-
Input power	kW	45,6	56,1	59,8	63,1	66,3	66,2	66,3	72,3	-	-	-	-	-
Free cooling total input current	A	74,0	91,0	97,0	102,0	108,0	108,0	109,0	118,0	-	-	-	-	-
EER	W/W	12,27	11,65	11,56	11,87	12,05	12,15	12,17	11,79	-	-	-	-	-

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) System side water heat exchanger 12 °C / 8,7 °C ; External air 2 °C; glycol hydraulic circuit 30%; primary hydraulic circuit glycol 0%.

ENERGY INDICES (REG. 2016/2281 EU)

Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Model: B																
SEPR - (EN14825: 2018) High temperature with standard fans (1)																
SEPR	A	W/W	6,16	5,97	5,71	5,54	5,80	5,60	5,52	5,67	5,57	5,55	5,52	5,72	5,57	5,66
	E	W/W	6,18	5,87	6,03	5,79	5,54	5,86	5,65	5,80	5,67	5,56	5,51	5,72	5,57	5,64
	N	W/W	6,43	6,20	6,09	5,96	5,71	5,94	5,78	6,01	5,85	5,70	5,61	5,76	5,86	5,88
	U	W/W	6,20	6,02	6,11	6,09	5,85	6,00	5,84	5,96	5,92	5,78	5,71	5,96	5,82	5,86
SEPR - (EN14825: 2018) High temperature with inverter fans (1)																
SEPR	A	W/W	6,16	5,97	5,71	5,54	5,80	5,60	5,52	5,67	5,57	5,55	5,52	5,72	5,57	5,66
	E	W/W	6,18	5,87	6,03	5,79	5,54	5,86	5,65	5,80	5,67	5,56	5,51	5,72	5,57	5,64
	N	W/W	6,43	6,20	6,09	5,96	5,71	5,94	5,78	6,01	5,85	5,70	5,61	5,76	5,86	5,88
	U	W/W	6,20	6,02	6,11	6,09	5,85	6,00	5,84	5,96	5,92	5,78	5,71	5,96	5,82	5,86
Model: G																
SEPR - (EN14825: 2018) High temperature with standard fans (1)																
SEPR	A	W/W	6,24	6,04	5,75	5,52	5,79	5,58	5,51	5,71	5,62	5,53	5,51	5,64	5,54	5,71
	E	W/W	6,21	5,91	6,07	5,76	5,51	5,87	5,66	5,84	5,71	5,53	5,51	5,71	5,56	5,66
	N	W/W	6,46	6,23	6,14	6,02	5,77	5,99	5,82	6,08	5,93	5,77	5,64	5,78	5,91	5,91
	U	W/W	6,27	6,11	6,19	6,07	5,83	6,05	5,89	6,04	5,93	5,78	5,68	6,01	5,88	5,92
SEPR - (EN14825: 2018) High temperature with inverter fans (1)																
SEPR	A	W/W	6,24	6,04	5,75	5,52	5,79	5,58	5,51	5,71	5,62	5,53	5,51	5,64	5,54	5,71
	E	W/W	6,21	5,91	6,07	5,76	5,51	5,87	5,66	5,84	5,71	5,53	5,51	5,71	5,56	5,66
	N	W/W	6,46	6,23	6,14	6,02	5,77	5,99	5,82	6,08	5,93	5,77	5,64	5,78	5,91	5,91
	U	W/W	6,27	6,11	6,19	6,07	5,83	6,05	5,89	6,04	5,93	5,78	5,68	6,01	5,88	5,92

(1) Calculation performed with FIXED water flow rate.

Size			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Model: B															
SEPR - (EN14825: 2018) High temperature with standard fans (1)															
SEPR	A	W/W	5,52	5,60	5,53	5,53	5,52	5,52	5,51	5,73	5,60	5,77	5,64	5,52	5,58
	E	W/W	5,61	5,52	5,59	5,54	5,52	5,51	5,60	5,83	5,85	5,55	5,61	-	-
	N	W/W	5,69	5,85	5,82	5,93	5,94	5,87	5,81	6,05	-	-	-	-	-
	U	W/W	5,86	5,72	5,81	5,66	5,62	5,63	5,77	6,04	6,05	5,78	5,85	-	-
SEPR - (EN14825: 2018) High temperature with inverter fans (1)															
SEPR	A	W/W	5,52	5,60	5,53	5,53	5,52	5,52	5,51	5,73	5,60	5,77	5,64	5,52	5,58
	E	W/W	5,61	5,52	5,59	5,54	5,52	5,51	5,60	5,83	5,85	5,55	5,61	-	-
	N	W/W	5,69	5,85	5,82	5,93	5,94	5,87	5,81	6,05	-	-	-	-	-
	U	W/W	5,86	5,72	5,81	5,66	5,62	5,63	5,77	6,04	6,05	5,78	5,85	-	-
Model: G															
SEPR - (EN14825: 2018) High temperature with standard fans (1)															
SEPR	A	W/W	5,57	5,64	5,57	5,53	5,51	5,50	5,51	5,75	5,64	5,77	5,66	5,51	5,58
	E	W/W	5,65	5,52	5,61	5,55	5,49	5,53	5,62	5,81	5,87	5,51	5,58	-	-
	N	W/W	5,72	5,90	5,84	5,97	5,99	5,91	5,84	6,08	-	-	-	-	-
	U	W/W	5,91	5,76	5,87	5,73	5,67	5,71	5,82	6,09	6,09	5,81	5,87	-	-
SEPR - (EN14825: 2018) High temperature with inverter fans (1)															
SEPR	A	W/W	5,57	5,64	5,57	5,53	5,51	5,50	5,51	5,75	5,64	5,77	5,66	5,51	5,58
	E	W/W	5,65	5,52	5,61	5,55	5,49	5,53	5,62	5,81	5,87	5,51	5,58	-	-
	N	W/W	5,72	5,90	5,84	5,97	5,99	5,91	5,84	6,08	-	-	-	-	-
	U	W/W	5,91	5,76	5,87	5,73	5,67	5,71	5,82	6,09	6,09	5,81	5,87	-	-

(1) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Electric data																
Maximum current (FLA)	A	A	243,9	271,9	299,1	332,5	374,4	395,7	417,0	450,2	474,9	474,9	474,9	531,4	579,4	635,9
	E,U	A	243,9	271,9	307,6	341,0	374,4	404,2	425,5	458,7	483,4	483,4	483,4	539,9	587,9	644,4
	N	A	252,4	280,4	316,1	349,5	382,9	412,7	434,0	467,2	491,9	491,9	491,9	548,4	604,9	667,2
Peak current (LRA)	A	A	265,5	307,3	350,2	388,2	419,8	466,8	484,0	519,5	529,4	529,4	529,4	661,9	701,8	831,3
	E,U	A	265,5	307,3	358,7	396,7	419,8	475,3	492,5	528,0	537,9	537,9	537,9	670,4	710,3	839,8
	N	A	274,0	315,8	367,2	405,2	428,3	483,8	501,0	536,5	546,4	546,4	546,4	678,9	727,3	862,6

Size			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Electric data															
Maximum current (FLA)	A	A	683,9	731,4	770,4	813,4	864,9	913,2	947,2	980,7	1028,7	1123,7	1162,7	1300,2	1419,2
	E,U	A	700,9	739,9	793,2	836,2	887,7	930,2	972,7	997,7	1054,2	1132,2	1179,7	-	-
	N	A	715,2	771,2	818,7	870,2	921,7	955,7	989,7	1023,2	-	-	-	-	-
Peak current (LRA)	A	A	858,2	930,7	953,4	1108,4	1163,9	1290,2	1287,2	1069,4	1096,3	1200,0	1222,7	1480,2	1603,2
	E,U	A	875,2	939,2	976,2	1131,2	1186,7	1307,2	1312,7	1086,4	1121,8	1208,5	1239,7	-	-
	N	A	889,5	970,5	1001,7	1165,2	1220,7	1332,7	1329,7	1111,9	-	-	-	-	-

GENERAL TECHNICAL DATA

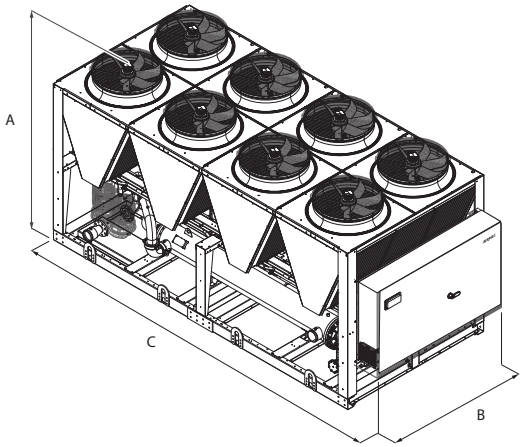
Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Compressor																
Type	A,E,N,U	type	Bi-vite													
Compressor regulation	A,E,N,U	Type	On-Off													
Number	A,E,N,U	no.	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Circuits	A,E,N,U	no.	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Refrigerant	A,E,N,U	type	R134a													
System side heat exchanger																
Type	A,E,N,U	type	Shell and tube													
Number	A,E,N,U	no.	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Connections (in/out)	A,E,N,U	Type	Grooved joints													
Fan																
Type	A,E,N,U	type	Axial													
Number	A	no.	8	8	8	8	10	10	10	12	12	12	12	14	14	16
	E,U	no.	8	8	10	10	10	12	12	14	14	14	14	16	16	18
	N	no.	10	10	12	12	12	14	14	16	16	16	16	18	20	22
Air flow rate	A	m^3/h	116000	116000	116000	116000	145000	145000	145000	174000	174000	174000	174000	203000	203000	232000
	E	m^3/h	89600	89600	112000	112000	112000	134400	134400	156800	156800	156800	156800	179200	179200	201600
	N	m^3/h	112000	112000	134400	134400	134400	156800	156800	179200	179200	179200	179200	201600	224000	246400
	U	m^3/h	116000	116000	145000	145000	145000	174000	174000	203000	203000	203000	203000	232000	232000	261000
Sound data calculated in cooling mode (1)																
Sound power level	A	dB(A)	98,0	98,0	98,0	98,0	99,0	99,0	99,0	99,7	99,7	99,7	99,7	100,4	100,4	101,1
	E	dB(A)	91,0	91,0	91,7	91,9	92,1	92,6	92,5	93,0	93,0	93,0	93,0	93,7	93,9	94,6
	N	dB(A)	91,7	91,7	92,3	92,5	92,6	93,1	93,0	93,5	93,5	93,5	93,5	94,1	94,6	95,2
	U	dB(A)	98,0	98,0	98,9	99,0	99,0	99,7	99,7	100,4	100,4	100,4	100,4	100,9	101,0	101,5
Sound pressure level (10 m)	A	dB(A)	65,6	65,6	65,6	65,6	66,4	66,4	66,4	67,1	67,1	67,1	67,1	67,6	67,7	68,2
	E	dB(A)	58,6	58,6	59,2	59,4	59,5	59,9	59,9	60,3	60,3	60,3	60,3	60,8	61,0	61,6
	N	dB(A)	59,2	59,2	59,7	59,9	60,0	60,3	60,3	60,6	60,6	60,6	60,6	61,1	61,5	62,0
	U	dB(A)	65,6	65,6	66,4	66,4	66,4	67,1	67,1	67,6	67,6	67,6	67,6	68,1	68,1	68,5

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

Size			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Compressor															
Type	A,E,N,U	type	Bi-vite												
Compressor regulation	A,E,N,U	Type	On-Off												
Number	A	no.	2	2	2	2	2	2	2	3	3	3	3	3	3
	E,U	no.	2	2	2	2	2	2	2	3	3	3	3	-	-
	N	no.	2	2	2	2	2	2	2	3	-	-	-	-	-
Circuits	A	no.	2	2	2	2	2	2	2	3	3	3	3	3	3
	E,U	no.	2	2	2	2	2	2	2	3	3	3	3	-	-
	N	no.	2	2	2	2	2	2	2	3	-	-	-	-	-
Refrigerant	A,E,N,U	type	R134a												
System side heat exchanger															
Type	A,E,N,U	type	Shell and tube												
Number	A	no.	1	1	1	1	1	1	1	2	2	2	2	2	2
	E,U	no.	1	1	1	1	2	2	2	2	2	2	2	-	-
	N	no.	1	2	2	2	2	2	2	2	-	-	-	-	-
Connections (in/out)	A,E,N,U	Type	Grooved joints												
Fan															
Type	A,E,N,U	type	Axial												
Number	A	no.	16	18	18	18	20	22	22	24	24	28	28	30	34
	E,U	no.	20	20	22	22	24	26	28	28	30	30	32	-	-
	N	no.	22	26	28	30	32	32	32	34	-	-	-	-	-
Air flow rate	A	m^3/h	232000	261000	261000	261000	290000	319000	319000	348000	348000	406000	406000	435000	493000
	E	m^3/h	224000	224000	246400	246400	268800	291200	313600	313600	336000	336000	358400	-	-
	N	m^3/h	246400	291200	313600	336000	358400	358400	358400	380800	-	-	-	-	-
	U	m^3/h	290000	290000	319000	319000	348000	377000	406000	406000	435000	435000	464000	-	-
Sound data calculated in cooling mode (1)															
Sound power level	A	dB(A)	101,1	101,6	101,6	101,6	102,1	102,5	102,5	102,7	102,8	103,4	103,4	103,7	104,2
	E	dB(A)	95,2	95,2	95,4	95,6	96,0	96,2	96,4	96,0	96,5	96,4	96,6	-	-
	N	dB(A)	95,5	96,0	96,2	96,6	96,9	96,9	96,9	96,7	-	-	-	-	-
	U	dB(A)	102,0	102,0	102,4	102,4	102,8	103,1	103,4	103,4	103,7	103,7	103,9	-	-
Sound pressure level (10 m)	A	dB(A)	68,2	68,6	68,6	68,6	69,0	69,2	69,2	69,4	69,4	69,8	69,8	70,0	70,4
	E	dB(A)	62,1	62,0	62,2	62,3	62,7	62,8	62,9	62,5	62,8	62,8	62,8	-	-
	N	dB(A)	62,3	62,5	62,6	62,9	63,1	63,1	63,1	62,8	-	-	-	-	-
	U	dB(A)	68,9	68,9	69,1	69,2	69,5	69,7	69,9	69,8	70,0	70,0	70,2	-	-

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602	3902
Dimensions and weights																
A	A,E,N,U	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	A,E,N,U	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	A	mm	5160	5160	5160	5160	6350	6350	6350	7140	7140	7140	7140	8330	8330	9520
	E,U	mm	5160	5160	6350	6350	6350	7140	7140	8330	8330	8330	8330	9520	9520	10710
	N	mm	6350	6350	7140	7140	7140	8330	8330	9520	9520	9520	9520	10710	11900	13090

Size			4202	4502	4802	5202	5602	6002	6402	6503	6703	6903	7203	8403	9603
Dimensions and weights															
A	A	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
	E,U	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	-	-
	N	mm	2450	2450	2450	2450	2450	2450	2450	2450	-	-	-	-	-
B	A	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
	E,U	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	-	-
	N	mm	2200	2200	2200	2200	2200	2200	2200	2200	-	-	-	-	-
C	A	mm	9520	10710	10710	10710	11900	13090	13090	14280	14280	16660	16660	17850	20230
	E,U	mm	11900	11900	13090	13090	14280	15470	16660	16660	17850	17850	19040	-	-
	N	mm	13090	15470	16660	17850	19040	19040	19040	20230	-	-	-	-	-

For transport reasons, the units with the depth of more than 13090 mm are shipped separately. For more information, please refer to the technical manual and / or installation.

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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NSM-HWT-1402-9603-F

Air-water chiller with free-cooling

Cooling capacity 306 ÷ 2001 kW

- **High efficiency also at partial loads**
- **Microchannel coil**
- **Ideal in data center applications**
- **Water outlet temperatures up to 30°C**
- **Night mode**



FREECOOLING

DESCRIPTION

The NSM are chillers, designed and manufactured to meet air conditioning requirements in residential/commercial buildings or to meet refrigeration requirements in industrial facilities.
These are outdoor units with screw compressors, axial fans, micro-channel coils, and shell and tube heat exchangers. The base, the structure and the panels are made of steel treated with rustproof polyester paint.
These chillers are also equipped with a Free cooling coil and are used when the refrigerant load request persists even during the winter months, or when the outdoor air temperature is below the temperature of the return liquid from the system. In Free cooling operation (mixed Free cooling and compressors, or Free cooling only), the fluid is cooled directly by the outdoor air, allowing even the complete shutdown of compressors with a significant energy saving.
Extremely reliable and flexible units which perfectly adapt themselves to all thermal load requests thanks to inverter technology, with high energy efficiencies both at full and partial load.

VERSIONS

NSM WF_A High Efficiency
NSM WF_E High efficiency low noise
NSM WF_U Very high efficiency
NSM WF_N Very high efficiency low noise

FEATURES

— Unit with 1/2 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.
— The full range uses aluminium microchannel coils, ensuring very high levels of efficiency. This allows using less refrigerant compared to traditional copper coils.
— Electronic Thermostatic valve brings significant benefits, in particular when the refrigerant is working at partial loads to the benefit of energy efficiency of the unit.
— Standard differential pressure switch
— Throttle valve in the hydraulic circuit for water switching on the Free-Cooling coils
— Fans inverter
— Device for electronically controlling the series condensation, for operation even at low temperatures or in free cooling, which allows adjusting the air flow rate to actual system demand with resulting advantages in terms of consumption reduction.

CONTROLS

Microprocessor adjustment, that allows isolating the condenser coils to maximise the free cooling efficiency, even in mixed Free cooling and compressor operation
— Complete with latest generation Touch screen allowing real time graphics visualization showing water and external air temperatures, pressures and requested load.
— Ethernet communication is offered as standard and allows all information to be visualized on a PC connected to the controller (via IP and browser).
— The presence of a programmable timer allows setting time bands of operation and a possible second set-point
— The temperature control takes place with the integral proportional logic, based on the water output temperature.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
PRV3: Allows you to control the chiller at a distance.
FB1: Air filter
MULTICHILLER_EVO: Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
AVX: Spring anti-vibration supports

ACCESSORIES FACTORY FITTED ONLY

KRS: Evaporator trace heating
GP: Anti-intrusion grids.

AK: ACOUSTIC KIT. This accessory allows further sound reduction. Must be requested at time of order and is available factory fitted only.
RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

ACCESSORIES COMPATIBILITY

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
AER485P1		•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)
AERNET		•	•	•	•	•	•	•	•	•	•	•	•	•
PRV3		•	•	•	•	•	•	•	•	•	•	•	•	•
FB1		•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO		•	•	•	•	•	•	•	•	•	•	•	•	•
AVX	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•

Size		3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
AER485P1		•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x3)	•(x3)	•(x3)	•(x3)
AERNET		•	•	•	•	•	•	•	•	•	•	•	•
PRV3		•	•	•	•	•	•	•	•	•	•	•	•
FB1		•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO		•	•	•	•	•	•	•	•	•	•	•	•
AVX	(1)	•	•	•	•	•	•	•	•	•	•	•	•

(1) Accessories to be defined for compatibility
(x2) Indicates the amount to order

KRS: Evaporator trace heating

Ver		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
all	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•

Ver		3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
all	(1)	•	•	•	•	•	•	•	•	•	•	•	•

(1) Accessories to be defined for compatibility
A grey background indicates the accessory must be assembled in the factory

GP: Anti-intrusion grids

Ver		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
all	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•

Ver		3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
all	(1)	•	•	•	•	•	•	•	•	•	•	•	•

(1) Accessories to be defined for compatibility
A grey background indicates the accessory must be assembled in the factory

AK: Acoustic kit

Ver		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
all	(2)	•	•	•	•	•	•	•	•	•	•	•	•	•

Ver		3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
all	(2)	•	•	•	•	•	•	•	•	•	•	•	•

(2) The accessory is only available for the "E/N" silenced versions
A grey background indicates the accessory must be assembled in the factory

RIF: Power factor correction

Ver	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
all	RIFNSM1402	RIFNSM1602	RIFNSM1802	RIFNSM2002	RIFNSM2202	RIFNSM2352	RIFNSM2502	RIFNSM2652	RIFNSM2802	RIFNSM3002	RIFNSM3202	RIFNSM3402	RIFNSM3602

Ver	3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
all	RIFNSM3902	RIFNSM4202	RIFNSM4502	RIFNSM4802	RIFNSM5202	RIFNSM5602	RIFNSM6002	RIFNSM6402	RIFNSM6903	RIFNSM7203	RIFNSM8403	RIFNSM9603

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field		Description
1,2,3		**NSM**
4,5,6,7		**Size** 1402-1602-1802-2002-2202-2352-2502-2652-2802-3002-3202-3402-3602-3902-4202-4502-4802-5202-5602-6002-6402-6903-7203-8403-9603
8		**Operating field**
	W	Electronic thermostatic valve (temperature of water produced from 5°C to 30 °C)
9		**Model**
	F	Free-cooling
	P	Free-cooling plus (1)
11		**Version**
	A	High efficiency
	E	Silenced high efficiency
	U	Very high efficiency
	N	Silenced very high efficiency
12		**Condensing coils / Free cooling water coils**
	°	Aluminium microchannel / Copper Aluminium
	0	Painted aluminium microchannel / Painted Aluminium Copper
	R	Copper - Copper (1) / Copper Copper
	S	Copper - Thinned (1) / Copper - Thinned
	V	Epoxy paint (only free cooling coil)(1) / Epoxy paint (only free cooling coil)
13		**Fans**
	J	Inverter
14		**Power supply**
	°	400V/3/50Hz
15,16		**Integrated hydronic kit**
	00	Without hydronic kit
	PA	Pumping unit (pump A)
	PB	Pumping unit (pump B)
	PC	Pumping unit (pump C)
	PD	Pumping unit (pump D)
	PE	Pumping unit (pump E)
	PF	Pumping unit (pump F)
	PG	Pumping unit (pump G)
	PH	Pumping unit (pump H)
	PI	Pumping unit (pump I)
	PJ	Pumping unit (pump J)
	DA	Pumping unit (pump A and stand-by pump)
	DB	Pumping unit (pump B and stand-by pump)
	DC	Pumping unit (pump C and stand-by pump)
	DD	Pumping unit (pump D and stand-by pump)
	DE	Pumping unit (pump E and stand-by pump)
	DF	Pumping unit (pump F and stand-by pump)
	DG	Pumping unit (pump G and stand-by pump)
	DH	Pumping unit (pump H and stand-by pump)
	DI	Pumping unit (pump I and stand-by pump)
	DJ	Pumping unit (pump J and stand-by pump)
	TF	Double static, pressure pump (pump F)
	TG	Double static, pressure pump (pump G)
	TH	Double static, pressure pump (pump h)
	TI	Double static, pressure pump (pump i)
	TJ	Double static, pressure pump (pump J)

(1) The free cooling plus models can have coils only in options "°" and "0"

PERFORMANCE SPECIFICATIONS

NSMW - FA - PA

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Free-cooling														
Cooling performance chiller operation (1)														
Cooling capacity	kW	306	351	400	441	479	505	546	589	638	653	687	753	792
Input power	kW	82	95	109	118	125	135	147	155	167	172	179	192	205
Cooling total input current	A	146	166	187	200	208	224	242	258	277	290	306	327	348
EER	W/W	3,75	3,69	3,69	3,73	3,83	3,73	3,71	3,79	3,81	3,80	3,84	3,92	3,86
Water flow rate system side	l/h	52650	60360	68820	75940	82440	86790	93850	101330	109680	112330	118100	129500	136230
Pressure drop system side	kPa	60	80	95	76	89	99	116	85	91	96	84	93	103
Cooling performances with free-cooling (2)														
Cooling capacity	kW	336	351	363	370	449	454	462	542	551	554	559	644	651
Input power	kW	19,3	19,3	19,3	19,3	24,1	24,1	24,1	28,9	28,9	28,9	28,9	33,7	33,7
Free cooling total input current	A	30,0	30,0	30,0	30,0	37,6	37,6	37,6	45,1	45,1	45,1	45,1	52,6	52,6
EER	W/W	17,43	18,20	18,82	19,20	18,63	18,86	19,16	18,74	19,06	19,15	19,32	19,11	19,29
Water flow rate system side	l/h	52650	60360	68820	75940	82440	86790	93850	101330	109680	112330	118100	129500	136230
Pressure drop system side	kPa	87	115	139	129	133	147	171	128	141	147	141	146	161
Free-cooling Plus														
Cooling performance chiller operation (1)														
Cooling capacity	kW	305	349	398	439	477	502	543	587	635	650	683	749	788
Input power	kW	82	96	109	120	126	136	148	157	169	174	181	194	207
Cooling total input current	A	147	167	188	201	210	226	244	260	279	292	308	330	351
EER	W/W	3,70	3,64	3,64	3,68	3,78	3,68	3,66	3,74	3,76	3,74	3,78	3,86	3,80
Water flow rate system side	l/h	52410	60090	68480	75580	82100	86410	93420	100950	109190	111820	117510	128910	135580
Pressure drop system side	kPa	59	79	94	75	89	98	115	84	90	95	83	92	102
Cooling performances with free-cooling (2)														
Cooling capacity	kW	361	378	391	399	484	490	497	584	594	597	602	694	701
Input power	kW	19,7	19,7	19,7	19,7	24,6	24,6	24,6	29,5	29,5	29,5	29,5	34,4	34,4
Free cooling total input current	A	30,6	30,6	30,6	30,6	38,2	38,2	38,2	45,9	45,9	45,9	45,9	53,5	53,5
EER	W/W	18,35	19,22	19,89	20,29	19,69	19,93	20,25	19,81	20,15	20,24	20,41	20,19	20,38
Water flow rate system side	l/h	52410	60090	68480	75580	82100	86410	93420	100950	109190	111820	117510	128910	135580
Pressure drop system side	kPa	86	114	138	128	131	145	169	127	139	146	139	145	160

Size		3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
Free-cooling													
Cooling performance chiller operation (1)													
Cooling capacity	kW	853	882	959	1014	1082	1169	1262	1327	1476	1531	1758	2001
Input power	kW	216	228	244	260	281	295	319	343	373	388	442	512
Cooling total input current	A	362	377	416	453	478	494	531	567	646	683	740	854
EER	W/W	3,95	3,87	3,92	3,90	3,86	3,97	3,95	3,87	3,96	3,94	3,97	3,91
Water flow rate system side	l/h	146650	151620	165010	174350	186190	201150	217040	228220	253930	263260	302310	344170
Pressure drop system side	kPa	69	74	91	101	94	110	130	144	116	116	117	138
Cooling performances with free-cooling (2)													
Cooling capacity	kW	735	740	827	836	845	935	1025	1033	1284	1293	1402	1590
Input power	kW	38,5	38,5	43,4	43,4	43,4	48,2	53,0	53,0	67,5	67,5	72,3	81,9
Free cooling total input current	A	60,1	60,1	67,6	67,6	67,6	75,1	82,6	82,6	105,1	105,1	112,7	127,7
EER	W/W	19,07	19,19	19,07	19,27	19,48	19,39	19,33	19,49	19,03	19,17	19,40	19,42
Water flow rate system side	l/h	146650	151620	165010	174350	186190	201150	217040	228220	253930	263260	302310	344170
Pressure drop system side	kPa	119	127	142	158	159	173	194	213	165	165	179	207
Free-cooling Plus													
Cooling performance chiller operation (1)													
Cooling capacity	kW	849	878	955	1009	1077	1164	1256	1320	1470	1524	1749	1991
Input power	kW	218	230	247	262	284	298	322	346	377	392	447	517
Cooling total input current	A	365	381	420	456	482	498	536	571	652	688	747	861
EER	W/W	3,90	3,81	3,87	3,84	3,80	3,91	3,90	3,81	3,90	3,89	3,91	3,85
Water flow rate system side	l/h	146000	150930	164290	173550	185230	200120	215990	227050	252860	262120	300800	342450
Pressure drop system side	kPa	69	73	90	100	93	109	129	142	115	115	115	136
Cooling performances with free-cooling (2)													
Cooling capacity	kW	792	797	891	900	910	1007	1104	1113	1384	1393	1510	1713
Input power	kW	39,3	39,3	44,2	44,2	44,2	49,1	54,0	54,0	68,8	68,8	73,7	83,5
Free cooling total input current	A	61,2	61,2	68,8	68,8	68,8	76,5	84,1	84,1	107,0	107,0	114,7	130,0
EER	W/W	20,16	20,28	20,16	20,36	20,58	20,49	20,42	20,59	20,12	20,25	20,49	20,51
Water flow rate system side	l/h	146000	150930	164290	173550	185230	200120	215990	227050	252860	262120	300800	342450
Pressure drop system side	kPa	118	126	141	156	157	172	192	211	164	164	178	205

(1) System side water heat exchanger 25°C/20°C, External air 35°C; 0% Free-cooling
(2) System side water heat exchanger 25°C; External air 12°C

PERFORMANCE SPECIFICATIONS

NSMW - FE - PE

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Free-cooling														
Cooling performance chiller operation (1)														
Cooling capacity	kW	315	362	415	456	478	524	551	599	626	641	667	735	772
Input power	kW	75	91	101	112	120	127	138	145	156	161	169	178	192
Cooling total input current	A	134	158	175	189	199	210	227	240	258	272	288	303	325
EER	W/W	4,19	3,97	4,09	4,07	3,98	4,13	4,00	4,12	4,02	3,97	3,95	4,13	4,03
Water flow rate system side	l/h	54220	62220	71300	78430	82240	90170	94830	102950	107680	110230	114670	126390	132800
Pressure drop system side	kPa	42	49	64	76	85	61	66	68	74	79	80	51	58
Cooling performances with free-cooling (2)														
Cooling capacity	kW	267	273	337	342	344	408	411	474	478	479	482	548	551
Input power	kW	6,4	6,4	7,9	7,9	7,9	9,5	9,5	11,1	11,1	11,1	11,1	12,7	12,7
Free cooling total input current	A	9,4	9,4	11,8	11,8	11,8	14,1	14,1	16,5	16,5	16,5	16,5	18,8	18,8
EER	W/W	41,99	43,01	42,41	43,05	43,31	42,79	43,10	42,64	42,94	43,08	43,29	43,10	43,35
Water flow rate system side	l/h	54220	62220	71300	78430	82240	90170	94830	102950	107680	110230	114670	126390	132800
Pressure drop system side	kPa	71	86	97	115	127	95	104	102	112	118	122	89	99
Free-cooling Plus														
Cooling performance chiller operation (1)														
Cooling capacity	kW	314	360	412	453	474	521	548	595	622	637	662	730	767
Input power	kW	76	92	102	113	122	128	139	147	157	163	170	180	194
Cooling total input current	A	134	159	176	190	201	211	229	242	260	274	291	306	328
EER	W/W	4,14	3,92	4,03	4,00	3,90	4,07	3,93	4,06	3,96	3,90	3,88	4,06	3,95
Water flow rate system side	l/h	53990	61890	70890	77860	81600	89640	94230	102360	107020	109540	113890	125570	131860
Pressure drop system side	kPa	42	49	63	75	83	60	65	67	73	78	79	51	57
Cooling performances with free-cooling (2)														
Cooling capacity	kW	285	292	360	365	367	435	438	506	509	511	513	584	587
Input power	kW	6,5	6,5	8,1	8,1	8,1	9,7	9,7	11,3	11,3	11,3	11,3	12,9	12,9
Free cooling total input current	A	9,6	9,6	11,9	11,9	11,9	14,3	14,3	16,7	16,7	16,7	16,7	19,1	19,1
EER	W/W	44,05	45,10	44,49	45,14	45,38	44,88	45,19	44,73	45,03	45,17	45,36	45,18	45,42
Water flow rate system side	l/h	53990	61890	70890	77860	81600	89640	94230	102360	107020	109540	113890	125570	131860
Pressure drop system side	kPa	70	86	96	113	125	94	102	101	110	116	120	88	98

Size		3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
Free-cooling													
Cooling performance chiller operation (1)													
Cooling capacity	kW	823	870	932	1011	1070	1152	1226	1300	1423	1502	-	-
Input power	kW	202	210	228	241	260	275	296	318	350	364	-	-
Cooling total input current	A	339	348	388	421	443	460	493	526	601	631	-	-
EER	W/W	4,07	4,15	4,09	4,19	4,12	4,19	4,14	4,09	4,07	4,13	-	-
Water flow rate system side	l/h	141610	149590	160240	173870	184060	198120	210870	223620	244770	258380	-	-
Pressure drop system side	kPa	69	78	91	86	94	65	81	81	105	105	-	-
Cooling performances with free-cooling (2)													
Cooling capacity	kW	616	680	686	753	759	826	893	960	1031	1099	-	-
Input power	kW	14,3	15,9	15,9	17,5	17,5	19,1	20,7	22,3	23,8	25,4	-	-
Free cooling total input current	A	21,2	23,5	23,5	25,9	25,9	28,2	30,6	32,9	35,3	37,6	-	-
EER	W/W	43,07	42,76	43,17	43,10	43,39	43,32	43,24	43,16	43,27	43,21	-	-
Water flow rate system side	l/h	141610	149590	160240	173870	184060	198120	210870	223620	244770	258380	-	-
Pressure drop system side	kPa	107	114	133	128	140	106	121	121	150	150	-	-
Free-cooling Plus													
Cooling performance chiller operation (1)													
Cooling capacity	kW	818	865	926	1005	1063	1144	1218	1292	1414	1493	-	-
Input power	kW	204	212	230	244	263	278	300	321	354	368	-	-
Cooling total input current	A	342	351	392	425	448	464	497	531	607	636	-	-
EER	W/W	4,00	4,08	4,02	4,12	4,04	4,12	4,07	4,02	3,99	4,06	-	-
Water flow rate system side	l/h	140680	148750	159230	172870	182790	196750	209470	222190	243180	256800	-	-
Pressure drop system side	kPa	68	77	90	85	93	64	80	80	104	104	-	-
Cooling performances with free-cooling (2)													
Cooling capacity	kW	657	725	732	803	808	880	952	1024	1099	1171	-	-
Input power	kW	14,5	16,2	16,2	17,8	17,8	19,4	21,0	22,6	24,2	25,9	-	-
Free cooling total input current	A	21,5	23,9	23,9	26,3	26,3	28,7	31,0	33,4	35,8	38,2	-	-
EER	W/W	45,16	44,85	45,26	45,19	45,45	45,40	45,32	45,24	45,35	45,30	-	-
Water flow rate system side	l/h	140680	148750	159230	172870	182790	196750	209470	222190	243180	256800	-	-
Pressure drop system side	kPa	106	113	131	127	139	104	119	120	148	149	-	-

(1) System side water heat exchanger 25°C/20°C, External air 35°C; 0% Free-cooling
(2) System side water heat exchanger 25°C; External air 12°C

PERFORMANCE SPECIFICATIONS

NSMW - FU - PU

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Free-cooling														
Cooling performance chiller operation (1)														
Cooling capacity	kW	328	381	435	482	506	550	580	627	657	674	703	772	814
Input power	kW	84	98	112	121	128	138	148	159	168	172	178	191	203
Cooling total input current	A	148	170	192	204	212	229	244	263	279	291	305	326	345
EER	W/W	3,93	3,90	3,89	3,99	3,97	3,99	3,92	3,94	3,91	3,91	3,95	4,05	4,02
Water flow rate system side	l/h	56440	65570	74810	82890	87080	94670	99780	107790	113080	115880	120880	132770	139960
Pressure drop system side	kPa	46	54	71	84	94	66	72	74	81	86	87	56	64
Cooling performances with free-cooling (2)														
Cooling capacity	kW	344	359	437	450	455	533	540	617	625	629	635	719	728
Input power	kW	19,3	19,3	24,1	24,1	24,1	28,9	28,9	33,7	33,7	33,7	33,7	38,5	38,5
Free cooling total input current	A	30,0	30,0	37,6	37,6	37,6	45,1	45,1	52,6	52,6	52,6	52,6	60,1	60,1
EER	W/W	17,84	18,61	18,16	18,66	18,87	18,43	18,67	18,31	18,54	18,65	18,84	18,66	18,89
Water flow rate system side	l/h	56440	65570	74810	82890	87080	94670	99780	107790	113080	115880	120880	132770	139960
Pressure drop system side	kPa	77	95	107	127	142	104	114	111	122	129	134	97	109
Free-cooling Plus														
Cooling performance chiller operation (1)														
Cooling capacity	kW	327	380	433	480	504	548	578	624	655	671	700	769	810
Input power	kW	84	99	113	122	129	139	149	160	170	174	180	192	205
Cooling total input current	A													
EER	W/W	3,88	3,84	3,84	3,93	3,91	3,94	3,87	3,89	3,86	3,86	3,89	4,00	3,96
Water flow rate system side	l/h	56250	65300	74510	82510	86670	94290	99370	107380	112630	115420	120380	132250	139380
Pressure drop system side	kPa	46	54	70	83	93	66	72	73	80	85	86	55	63
Cooling performances with free-cooling (2)														
Cooling capacity	kW	370	386	471	484	490	574	582	665	674	678	685	775	785
Input power	kW	19,7	19,7	24,6	24,6	24,6	29,5	29,5	34,4	34,4	34,4	34,4	39,3	39,3
Free cooling total input current	A													
EER	W/W	18,82	19,66	19,17	19,72	19,94	19,47	19,73	19,34	19,59	19,71	19,91	19,72	19,97
Water flow rate system side	l/h	56250	65300	74510	82510	86670	94290	99370	107380	112630	115420	120380	132250	139380
Pressure drop system side	kPa	77	94	106	126	140	103	113	111	121	128	133	96	108

Size		3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
Free-cooling													
Cooling performance chiller operation (1)													
Cooling capacity	kW	864	909	978	1059	1127	1213	1289	1365	1495	1576	-	-
Input power	kW	216	228	243	260	276	293	317	341	372	388	-	-
Cooling total input current	A	363	378	414	454	472	493	529	566	639	677	-	-
EER	W/W	3,99	3,99	4,02	4,08	4,09	4,14	4,06	4,00	4,02	4,06	-	-
Water flow rate system side	l/h	148610	156340	168140	182140	193790	208610	221670	234730	257070	271060	-	-
Pressure drop system side	kPa	75	84	99	94	103	71	88	88	116	116	-	-
Cooling performances with free-cooling (2)													
Cooling capacity	kW	808	886	902	989	1003	1091	1177	1262	1359	1446	-	-
Input power	kW	43,4	48,2	48,2	53,0	53,0	57,8	62,6	67,5	72,3	77,1	-	-
Free cooling total input current	A	67,6	75,1	75,1	82,6	82,6	90,1	97,6	105,1	112,7	120,2	-	-
EER	W/W	18,64	18,38	18,72	18,65	18,92	18,86	18,78	18,71	18,80	18,75	-	-
Water flow rate system side	l/h	148610	156340	168140	182140	193790	208610	221670	234730	257070	271060	-	-
Pressure drop system side	kPa	117	124	145	140	154	116	132	132	166	165	-	-
Free-cooling Plus													
Cooling performance chiller operation (1)													
Cooling capacity	kW	861	906	974	1055	1122	1208	1284	1359	1489	1570	-	-
Input power	kW	218	230	245	262	278	296	320	344	375	392	-	-
Cooling total input current	A	366	381	418	457	475	497	533	570	644	682	-	-
EER	W/W	3,94	3,94	3,97	4,03	4,03	4,08	4,01	3,95	3,97	4,01	-	-
Water flow rate system side	l/h	148030	155780	167500	181460	193010	207750	220780	233810	256070	270020	-	-
Pressure drop system side	kPa	75	84	99	93	102	70	87	87	115	115	-	-
Cooling performances with free-cooling (2)													
Cooling capacity	kW	871	954	972	1066	1081	1176	1268	1360	1465	1558	-	-
Input power	kW	44,2	49,1	49,1	54,0	54,0	59,0	63,9	68,8	73,7	78,6	-	-
Free cooling total input current	A	68,8	76,5	76,5	84,1	84,1	91,8	99,4	107,0	114,7	122,3	-	-
EER	W/W	19,70	19,42	19,79	19,71	20,00	19,94	19,85	19,77	19,88	19,82	-	-
Water flow rate system side	l/h	148030	155780	167500	181460	193010	207750	220780	233810	256070	270020	-	-
Pressure drop system side	kPa	117	123	144	139	153	115	131	131	164	164	-	-

(1) System side water heat exchanger 25°C/20°C, External air 35°C; 0% Free-cooling
(2) System side water heat exchanger 25°C; External air 12°C

PERFORMANCE SPECIFICATIONS

NSMW - FN - PN

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Free-cooling														
Cooling performance chiller operation (1)														
Cooling capacity	kW	324	376	428	473	497	538	567	614	643	659	687	751	803
Input power	kW	74	88	99	109	116	124	134	142	152	157	163	174	184
Cooling total input current	A	132	154	172	184	192	206	222	235	252	265	280	297	313
EER	W/W	4,41	4,27	4,31	4,35	4,29	4,33	4,21	4,32	4,24	4,21	4,22	4,32	4,38
Water flow rate system side	l/h	55800	64730	73570	81410	85540	92510	97450	105570	110670	113400	118220	129100	138190
Pressure drop system side	kPa	46	54	42	49	56	65	71	45	49	53	51	54	64
Cooling performances with free-cooling (2)														
Cooling capacity	kW	318	330	391	401	404	465	470	531	536	539	543	607	670
Input power	kW	7,9	7,9	9,5	9,5	9,5	11,1	11,1	12,7	12,7	12,7	12,7	14,3	15,9
Free cooling total input current	A	12	12	14	14	14	16	16	19	19	19	19	21	24
EER	W/W	39,96	41,57	41,02	42,00	42,41	41,76	42,22	41,75	42,17	42,36	42,67	42,46	42,16
Water flow rate system side	l/h	55800	64730	73570	81410	85540	92510	97450	105570	110670	113400	118220	129100	138190
Pressure drop system side	kPa	67	81	66	78	87	93	102	72	79	84	84	87	95
Free-cooling Plus														
Cooling performance chiller operation (1)														
Cooling capacity	kW	323	374	426	471	494	535	564	611	640	656	683	746	799
Input power	kW	74	89	100	110	117	125	136	143	153	158	164	175	185
Cooling total input current	A	132	155	173	185	194	207	224	237	254	267	282	300	316
EER	W/W	4,36	4,22	4,26	4,29	4,23	4,27	4,15	4,26	4,18	4,15	4,16	4,26	4,32
Water flow rate system side	l/h	55590	64410	73210	80970	85050	92040	96930	105040	110080	112780	117540	128400	137510
Pressure drop system side	kPa	45	53	42	49	55	64	70	44	49	52	50	54	63
Cooling performances with free-cooling (2)														
Cooling capacity	kW	337	352	417	427	431	495	501	566	572	575	579	648	715
Input power	kW	8,1	8,1	9,7	9,7	9,7	11,3	11,3	12,9	12,9	12,9	12,9	14,5	16,2
Free cooling total input current	A	12	12	14	14	14	17	17	19	19	19	19	21	24
EER	W/W	41,76	43,58	42,96	44,05	44,49	43,79	44,29	43,78	44,23	44,44	44,76	44,54	44,22
Water flow rate system side	l/h	55590	64410	73210	80970	85050	92040	96930	105040	110080	112780	117540	128400	137510
Pressure drop system side	kPa	66	80	65	77	86	92	101	71	78	83	83	86	94

Size		3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
Free-cooling													
Cooling performance chiller operation (1)													
Cooling capacity	kW	852	881	969	1033	1115	1198	1263	1329	-	-	-	-
Input power	kW	195	207	218	232	249	265	288	311	-	-	-	-
Cooling total input current	A	328	343	374	408	427	447	481	516	-	-	-	-
EER	W/W	4,37	4,26	4,44	4,46	4,49	4,51	4,38	4,27	-	-	-	-
Water flow rate system side	l/h	146560	151590	166730	177640	191820	206010	217280	228590	-	-	-	-
Pressure drop system side	kPa	75	81	80	80	80	45	53	53	-	-	-	-
Cooling performances with free-cooling (2)													
Cooling capacity	kW	731	737	857	921	988	1056	1068	1079	-	-	-	-
Input power	kW	17,5	17,5	20,7	22,3	23,8	25,4	25,4	25,4	-	-	-	-
Free cooling total input current	A	26	26	31	33	35	38	38	38	-	-	-	-
EER	W/W	41,84	42,13	41,48	41,37	41,45	41,52	42,01	42,42	-	-	-	-
Water flow rate system side	l/h	146560	151590	166730	177640	191820	206010	217280	228590	-	-	-	-
Pressure drop system side	kPa	105	113	106	106	106	71	84	84	-	-	-	-
Free-cooling Plus													
Cooling performance chiller operation (1)													
Cooling capacity	kW	848	877	965	1028	1110	1192	1257	1322	-	-	-	-
Input power	kW	197	209	220	234	251	268	291	314	-	-	-	-
Cooling total input current	A	330	346	377	411	430	450	485	520	-	-	-	-
EER	W/W	4,31	4,20	4,38	4,40	4,43	4,45	4,32	4,21	-	-	-	-
Water flow rate system side	l/h	145850	150820	165970	176870	190950	205020	216210	227390	-	-	-	-
Pressure drop system side	kPa	74	80	79	79	79	45	53	53	-	-	-	-
Cooling performances with free-cooling (2)													
Cooling capacity	kW	780	786	914	981	1053	1125	1139	1151	-	-	-	-
Input power	kW	17,8	17,8	21,0	22,6	24,2	25,9	25,9	25,9	-	-	-	-
Free cooling total input current	A	26	26	31	33	36	38	38	38	-	-	-	-
EER	W/W	43,88	44,20	43,48	43,37	43,45	43,52	44,06	44,51	-	-	-	-
Water flow rate system side	l/h	145850	150820	165970	176870	190950	205020	216210	227390	-	-	-	-
Pressure drop system side	kPa	104	112	105	105	105	70	84	84	-	-	-	-

(1) System side water heat exchanger 25°C/20°C, External air 35°C; 0% Free-cooling
(2) System side water heat exchanger 25°C; External air 12°C

ELECTRIC DATA

Size				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Electrical data																
Maximum current (FLA)	FA-PA	(1)	A	204	226	251	257	273	290	306	335	355	380	405	428	440
	FE-PE	(1)	A	204	226	261	267	273	299	316	345	364	390	415	437	450
	FU-PU	(1)	A	204	226	261	267	273	299	316	345	364	390	415	437	450
	FN-PN	(1)	A	214	236	270	277	283	309	325	354	374	399	425	447	469
Peak current (LRA)	FA-PA	(1)	A	277	285	299	336	350	346	359	439	451	515	568	622	592
	FE-PE	(1)	A	277	285	308	345	350	356	368	449	461	525	578	632	601
	FU-PU	(1)	A	277	285	308	345	350	356	368	449	461	525	578	632	601
	FN-PN	(1)	A	287	295	318	355	360	366	378	458	471	535	588	641	621

Size				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
Electrical data															
Maximum current (FLA)	FA-PA	(1)	A	473	497	538	570	590	620	668	701	831	863	933	1051
	FE-PE	(1)	A	483	516	548	595	615	645	688	730	841	882	-	-
	FU-PU	(1)	A	483	516	548	595	615	645	688	730	841	882	-	-
	FN-PN	(1)	A	508	531	583	624	654	683	716	749	-	-	-	-
Peak current (LRA)	FA-PA	(1)	A	601	625	680	710	846	886	965	958	902	932	1137	1205
	FE-PE	(1)	A	611	644	690	735	871	911	984	986	911	951	-	-
	FU-PU	(1)	A	611	644	690	735	871	911	984	986	911	951	-	-
	FN-PN	(1)	A	636	659	724	764	910	949	1013	1006	-	-	-	-

(1) Unit standard configuration without hydronic kit

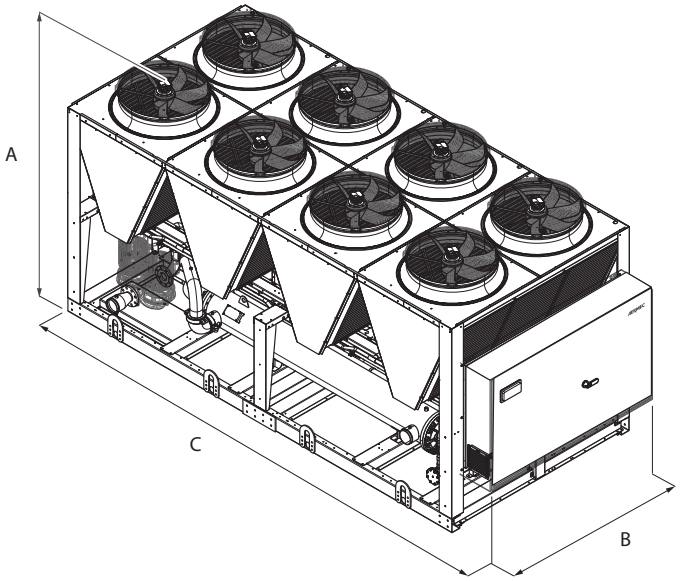
GENERAL TECHNICAL DATA

Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Compressors															
Compressors	All	Type	Screw												
Compressors / Circuit	All	n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant	All	Type	R134a												
System side heat exchanger															
Exchanger	All	Type	Shell&tube												
Exchanger	All	n°	1	1	1	1	1	1	1	1	1	1	1	1	1
Fans															
Fans	All	Type	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial
Fans	FA-PA	n°	8	8	8	8	10	10	10	12	12	12	12	14	14
	FE-PE	n°	8	8	10	10	10	12	12	14	14	14	14	16	16
	FU-PU	n°	8	8	10	10	10	12	12	14	14	14	14	16	16
	FN-PN	n°	10	10	12	12	12	14	14	16	16	16	16	18	20
Sound data calculated in cooling mode															
Sound power level (1)	FA-PA	dB(A)	97	97	97	97	98	98	98	98	98	99	99	100	101
	FE-PE	dB(A)	93	93	93	94	94	93	93	93	93	95	96	98	98
	FU-PU	dB(A)	97	97	98	98	98	99	99	99	99	99	100	101	102
	FN-PN	dB(A)	93	93	94	94	94	94	93	93	93	94	96	98	99

Size			3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
Compressors														
Compressors	All	Type	Screw											
Compressors / Circuit	FA-PA	n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	3/3	3/3	3/3
	FE-PE	n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3-3	3-3	-	-
	FU-PU	n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3-3	3-3	-	-
	FN-PN	n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	-	-	-	-
Refrigerant	All	Type	R134a											
System side heat exchanger														
Exchanger	All	Type	Shell&tube											
Exchanger	FA-PA	n°	1	1	1	1	1	1	1	1	2	2	2	2
	FE-PE	n°	1	1	1	1	1	1	1	1	2	2	-	-
	FU-PU	n°	1	1	1	1	1	2	2	2	2	2	-	-
	FN-PN	n°	1	1	2	2	2	2	2	2	-	-	-	-
Fans														
Fans	All	Type	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial
Fans	FA-PA	n°	16	16	18	18	18	20	22	22	28	28	30	34
	FE-PE	n°	18	20	20	22	22	24	26	28	30	32	-	-
	FU-PU	n°	18	20	20	22	22	24	26	28	30	32	-	-
	FN-PN	n°	22	22	26	28	30	32	32	32	-	-	-	-
Sound data calculated in cooling mode														
Sound power level (1)	FA-PA	dB(A)	101	100	101	101	101	102	102	102	104	104	105	105
	FE-PE	dB(A)	98	96	97	97	99	100	100	99	99	99	-	-
	FU-PU	dB(A)	101	101	101	102	102	103	103	103	104	104	-	-
	FN-PN	dB(A)	98	97	97	97	99	100	100	99	-	-	-	-

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification

DIMENSIONS



Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Dimensions and weights															
A	mm	All	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	mm	All	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	mm	A	5160	5160	5160	5160	6350	6350	6350	7140	7140	7140	7140	8330	8330
		E	5160	5160	6350	6350	6350	7140	7140	8330	8330	8330	8330	9520	9520
		U	5160	5160	6350	6350	6350	7140	7140	8330	8330	8330	8330	9520	9520
		N	6350	6350	7140	7140	7140	8330	8330	9520	9520	9520	9520	10710	11900

Size			3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
Dimensions and weights														
A	mm	All	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	mm	All	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	mm	A	9520	9520	10710	10710	10710	11900	13090	13090	16660	16660	17850	20230
		E	10710	11900	11900	13090	13090	14280	15470	16660	17850	19040	-	-
		U	10710	11900	11900	13090	13090	14280	15470	16660	17850	19040	-	-
		N	13090	13090	15470	16660	17850	19040	19040	19040	-	-	-	-

For transport reasons, units with depth greater than 13090 mm are shipped separately. For further information, refer to the technical and/or installation manual.

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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NSM-HWT-1402-9603-B

Air-water chiller with free-cooling glycol free

Cooling capacity 306 ÷ 1991 kW

- **High efficiency also at partial loads**
- **Microchannel condenser technology**
- **Ideal in data center applications**
- **Water outlet temperatures up to 30°C**
- **Night mode function**



DESCRIPTION

NSM chillers are designed and manufactured to meet air conditioning requirements in residential/commercial buildings or to meet refrigeration requirements in industrial facilities.
These are outdoor units with screw compressors, axial fans, micro-channel coils, and shell and tube heat exchangers. The base, the structure and the panels are made of steel treated with rustproof polyester paint.
These chillers are also equipped with a Free cooling coil and are used when the refrigerant load request persists even during the winter months, or when the outdoor air temperature is below the temperature of the return liquid from the system. In Free cooling operation (mixed Free cooling and compressors, or Free cooling only), the fluid is cooled directly by the outdoor air, allowing even the complete shutdown of compressors with a significant energy saving.

VERSIONS

A High Efficiency
E High efficiency low noise
U Very high efficiency
N Very high efficiency low noise

FEATURES

— Unit with 2 or 3 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.
— An intermediate plate heat exchanger provides two circuits: a glycol circuit, where glycol is added to protect the chiller's coils from freezing, and the chilled water circuit without glycol.
— The full range uses aluminium microchannel coils, ensuring very high levels of efficiency. This allows using less refrigerant compared to traditional copper coils.
— Electronic Thermostatic valve brings significant benefits, in particular when the refrigerant is working at partial loads to the benefit of energy efficiency of the unit.
— Standard differential pressure switch
— Throttle valve in the hydraulic circuit for water switching on the Free-Cooling coils
— Fans inverter
— Device for electronically controlling the series condensation, for operation even at low temperatures or in free cooling, which allows adjusting the air flow rate to actual system demand with resulting advantages in terms of consumption reduction.

CONTROL

Microprocessor adjustment, that allows isolating the condenser coils to maximise the free cooling efficiency, even in mixed Free cooling and compressor operation

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
FB1: Air filter
MULTICHILLER_EVO: Control system for multiple parallel installed constant flow chillers providing individual chiller on/off and control capability.
AVX: Spring anti-vibration mounts.

ACCESSORIES FACTORY FITTED ONLY

KRS: Evaporator trace heating
RIFNSM: Current power factor correction. Connected in parallel to the motor, it allows a reduction of the input current (approx. 10%).
GP: Anti-intrusion grids.
AK: ACOUSTIC KIT. This accessory allows further sound reduction. Must be requested at time of order and is available factory fitted only.

ACCESSORIES COMPATIBILITY

Size	vers.	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
AER485P1		•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)
AERNET		•	•	•	•	•	•	•	•	•	•	•	•	•
PRV3		•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO		•	•	•	•	•	•	•	•	•	•	•	•	•
AVX	(1)	•	•	•	•	•	•	•	•	•	•	•	•	•

Size		3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
AER485P1		•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x2)	•(x3)	•(x3)	•(x3)	•(x3)
AERNET		•	•	•	•	•	•	•	•	•	•	•	•
PRV3		•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO		•	•	•	•	•	•	•	•	•	•	•	•
AVX	(1)	•	•	•	•	•	•	•	•	•	•	•	•

(1) Accessories to be defined for compatibility
(x2) Indicates the amount to order

Evaporator trace heating

Vers.	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
(1)	KRS	KRS	KRS	KRS	KRS	KRS	KRS	KRS	KRS	KRS	KRS	KRS	KRS

Vers.	3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
(1)	KRS	KRS	KRS	KRS	KRS	KRS	KRS	KRS	KRS	KRS	KRS	KRS

(1) Accessories to be defined for compatibility
A grey background indicates the accessory must be assembled in the factory

Power factor correction

Vers.	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
	RIFNSM1402	RIFNSM1602	RIFNSM1802	RIFNSM2002	RIFNSM2202	RIFNSM2352	RIFNSM2502	RIFNSM2652	RIFNSM2802	RIFNSM3002	RIFNSM3202	RIFNSM3402	RIFNSM3602

Vers.	3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
	RIFNSM3902	RIFNSM4202	RIFNSM4502	RIFNSM4802	RIFNSM5202	RIFNSM5602	RIFNSM6002	RIFNSM6402	RIFNSM6903	RIFNSM7203	RIFNSM8403	RIFNSM9603

A grey background indicates the accessory must be assembled in the factory

Anti-intrusion grids

Vers.	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
(1)	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP

Vers.	3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
(1)	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP	GP

(1) Accessories to be defined for compatibility
A grey background indicates the accessory must be assembled in the factory

Acoustic kit

Vers.	1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
(2)	AK	AK	AK	AK	AK	AK	AK	AK	AK	AK	AK	AK	AK

Vers.	3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
(2)	AK	AK	AK	AK	AK	AK	AK	AK	AK	AK	AK	AK

(2) The accessory is only available for the "E/N" silenced versions
A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3	NSM
4,5,6,7	**Size**
	1402-1602-1802-2002-2202-2352-2502-2652-2802-3002-3202
	3402-3602-3902-4202-4502-4802-5202-5602-6002-6402
	6903-7203-8403-9603
8	**Operational limits**
W	Electronic thermostatic valve (temperature of water produced from 5°C to 30 °C)
9	**Model**
B	Free cooling Glycol Free
G	Free cooling Glycol Free Plus (1)
10	**Versions**
A	High efficiency
E	Low noise high efficency
U	Very high efficiency
N	Low noise very high efficiency

(1) The free cooling plus models can have coils only in options "°" and "0"

Field	Description
11	**Condensing coils/ Free cooling water coils**
°	Aluminium microchannel/ Copper Aluminium
0	Painted aluminium microchannel/ Painted Aluminium Copper
R	Copper - Copper/Copper - Copper (1)
S	Copper - Thinned/Copper - Thinned (1)
V	Epoxy paint (only free cooling coil)/Epoxy paint (only free cooling coil) (1)
12	**Fans**
J	Inverter
13	**Power supply**
°	400V/3/50Hz
14-15	**Integrated hydronic kit**
0	Without hydronic kit

PERFORMANCE SPECIFICATIONS

NSMW - BA - GA

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Free-cooling glycol free														
Cooling performance chiller operation (1)														
Cooling capacity	kW	306	351	400	441	479	505	546	589	638	653	687	753	792
Input power	kW	82	95	109	118	125	135	147	155	167	172	179	192	205
Cooling total input current	A	146	166	187	200	208	224	242	258	277	290	306	327	348
EER	W/W	3,75	3,69	3,69	3,73	3,83	3,73	3,71	3,79	3,81	3,8	3,84	3,92	3,86
Water flow rate system side	l/h	52824	60556	69042	76187	82709	87074	94164	101663	110040	112699	118488	129925	136678
Pressure drop system side	kPa	91	120	119	91	107	118	139	135	152	133	130	99	110
Cooling performances with glycol-free (2)														
Cooling capacity	kW	303	276	281	292	360	363	367	437	441	454	456	541	542
Input power	kW	22,6	22,6	22,6	22,6	29,7	29,7	29,7	38,6	38,6	38,7	38,7	44,8	44,8
Free cooling total input current	A	36,1	36,1	36,1	36,1	47	47	47	61,5	61,5	61,7	61,7	71,2	71,2
EER	W/W	13,43	12,22	12,46	12,93	12,14	12,23	12,36	11,32	11,43	11,73	11,79	12,07	12,11
Water flow rate system side	l/h	52824	60556	69042	76187	82709	87074	94164	101663	110040	112699	118488	129925	136678
Pressure drop system side	kPa	91	120	119	91	107	118	139	135	152	133	130	99	110
Free-cooling glycol free Plus														
Cooling performance chiller operation (1)														
Cooling capacity	kW	305	349	398	439	477	502	543	587	635	650	683	749	788
Input power	kW	82	96	109	120	126	136	148	157	169	174	181	194	207
Cooling total input current	A	147	167	188	201	210	226	244	260	279	292	308	330	351
EER	W/W	3,70	3,64	3,64	3,68	3,78	3,68	3,66	3,74	3,76	3,74	3,78	3,86	3,80
Water flow rate system side	l/h	52588	60291	68707	75829	82367	86693	93725	101283	109546	112184	117898	129336	136024
Pressure drop system side	kPa	90	119	118	90	106	117	137	134	151	132	129	98	108
Cooling performances with glycol-free (2)														
Cooling capacity	kW	314	287	293	305	377	380	384	459	463	478	481	570	572
Input power	kW	23	22,9	22,9	23	30,1	30,1	30,1	39,2	39,2	39,3	39,3	45,5	45,5
Free cooling total input current	A	36,6	36,6	36,6	36,6	47,7	47,7	47,7	62,3	62,3	62,5	62,5	72,1	72,1
EER	W/W	13,67	12,52	12,77	13,30	12,51	12,60	12,74	11,72	11,84	12,18	12,25	12,53	12,58
Water flow rate system side	l/h	52588	60291	68707	75829	82367	86693	93725	101283	109546	112184	117898	129336	136024
Pressure drop system side	kPa	90	119	118	90	106	117	137	134	151	132	129	98	108

Size		3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
Free-cooling glycol free													
Cooling performance chiller operation (1)													
Cooling capacity	kW	853	882	959	1014	1082	1169	1262	1327	1476	1531	1758	2001
Input power	kW	216	228	244	260	281	295	319	343	373	388	442	512
Cooling total input current	A	362	377	416	453	478	494	531	567	646	683	740	854
EER	W/W	3,95	3,87	3,92	3,9	3,86	3,97	3,95	3,87	3,96	3,94	3,97	3,91
Water flow rate system side	l/h	147129	152124	165550	174920	186802	201811	217758	228975	254763	264131	303311	345300
Pressure drop system side	kPa	128	137	148	165	155	146	171	190	126	141	111	144
Cooling performances with glycol-free (2)													
Cooling capacity	kW	598	599	674	675	675	748	802	807	1038	1039	1134	1263
Input power	kW	49,8	49,8	55	55	55	60	64,9	64,9	84,7	84,7	93,7	103,6
Free cooling total input current	A	78,9	78,9	87,1	87,1	87,1	95	102,6	102,6	134,1	134,1	148,7	164,3
EER	W/W	12,03	12,04	12,26	12,28	12,28	12,46	12,36	12,43	12,26	12,27	12,1	12,18
Water flow rate system side	l/h	147129	152124	165550	174920	186802	201811	217758	228975	254763	264131	303311	345300
Pressure drop system side	kPa	128	137	148	165	155	146	171	190	126	141	111	144
Free-cooling glycol free Plus													
Cooling performance chiller operation (1)													
Cooling capacity	kW	849	878	955	1009	1077	1164	1256	1320	1470	1524	1749	1991
Input power	kW	218	230	247	262	284	298	322	346	377	392	447	517
Cooling total input current	A	365	381	420	456	482	498	536	571	652	688	747	861
EER	W/W	3,90	3,81	3,87	3,84	3,80	3,91	3,90	3,81	3,90	3,89	3,91	3,85
Water flow rate system side	l/h	146478	151430	164829	174121	185838	200784	216706	227798	253695	262987	301787	343582
Pressure drop system side	kPa	127	136	147	164	153	144	170	188	125	140	110	143
Cooling performances with glycol-free (2)													
Cooling capacity	kW	628	629	708	709	709	785	839	844	1089	1090	1192	1325
Input power	kW	50,5	50,5	55,8	55,8	55,8	61,0	66,0	66,0	86,0	86,0	95,1	105,2
Free cooling total input current	A	80,0	80,0	88,3	88,3	88,3	96,4	104,1	104,1	136,0	136,0	150,8	166,6
EER	W/W	12,43	12,45	12,68	12,70	12,70	12,86	12,72	12,80	12,67	12,68	12,54	12,59
Water flow rate system side	l/h	146478	151430	164829	174121	185838	200784	216706	227798	253695	262987	301787	343582
Pressure drop system side	kPa	127	136	147	164	153	144	170	188	125	140	110	143

(1) System side water heat exchanger 25°C/20°C, External air 35°C; 0% Free-cooling
(2) System side water heat exchanger 25°C; External air 12°C

PERFORMANCE SPECIFICATIONS

NSMW - BE - GE

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Free-cooling glycol free														
Cooling performance chiller operation (1)														
Cooling capacity	kW	315	362	415	456	478	524	551	599	626	641	667	735	772
Input power	kW	75	91	101	112	120	127	138	145	156	161	169	178	192
Cooling total input current	A	134	158	175	189	199	210	227	240	258	272	288	303	325
EER	W/W	4,19	3,97	4,09	4,07	3,98	4,13	4,00	4,12	4,02	3,97	3,95	4,13	4,03
Water flow rate system side	l/h	54400	62421	71530	78692	82506	90469	95144	103288	108035	110595	115049	126808	133234
Pressure drop system side	kPa	81	100	101	95	104	105	116	127	139	121	125	96	106
Cooling performances with glycol-free (2)														
Cooling capacity	kW	260	228	276	285	287	343	345	389	391	402	403	469	471
Input power	kW	10,6	10,6	13,4	13,5	13,5	19,2	19,2	21,9	21,9	22,1	22,1	23,9	23,9
Free cooling total input current	A	16,7	16,6	21,0	21,2	21,2	30,5	30,5	34,5	34,5	34,9	34,9	37,6	37,6
EER	W/W	24,39	21,44	20,58	21,09	21,21	17,84	17,94	17,79	17,87	18,15	18,22	19,61	19,67
Water flow rate system side	l/h	54400	62421	71530	78692	82506	90469	95144	103288	108035	110595	115049	126808	133234
Pressure drop system side	kPa	81	100	101	95	104	105	116	127	139	121	125	96	106
Free-cooling glycol free Plus														
Cooling performance chiller operation (1)														
Cooling capacity	kW	314	360	412	453	474	521	548	595	622	637	662	730	767
Input power	kW	76	92	102	113	122	128	139	147	157	163	170	180	194
Cooling total input current	A	134	159	176	190	201	211	229	242	260	274	291	306	328
EER	W/W	4,14	3,92	4,03	4,00	3,90	4,07	3,93	4,06	3,96	3,90	3,88	4,06	3,95
Water flow rate system side	l/h	54167	62091	71121	78115	81864	89932	94544	102700	107375	109898	114268	125980	132294
Pressure drop system side	kPa	81	99	99	94	103	103	114	126	138	119	123	94	104
Cooling performances with glycol-free (2)														
Cooling capacity	kW	270	237	288	298	300	358	360	406	408	419	421	491	492
Input power	kW	10,8	10,7	13,5	13,7	13,7	19,4	19,4	22,1	22,1	22,3	22,3	24,1	24,1
Free cooling total input current	A	16,8	16,8	21,2	21,4	21,4	30,8	30,8	34,8	34,8	35,2	35,2	37,9	37,9
EER	W/W	25,10	22,15	21,24	21,80	21,93	18,48	18,59	18,39	18,48	18,80	18,87	20,33	20,39
Water flow rate system side	l/h	54167	62091	71121	78115	81864	89932	94544	102700	107375	109898	114268	125980	132294
Pressure drop system side	kPa	81	99	99	94	103	103	114	126	138	119	123	94	104

Size		3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
Free-cooling glycol free													
Cooling performance chiller operation (1)													
Cooling capacity	kW	823	870	932	1011	1070	1152	1226	1300	1423	1502	-	-
Input power	kW	202	210	228	241	260	275	296	318	350	364	-	-
Cooling total input current	A	339	348	388	421	443	460	493	526	601	631	-	-
EER	W/W	4,07	4,15	4,09	4,19	4,12	4,19	4,14	4,09	4,07	4,13	-	-
Water flow rate system side	l/h	142081	150081	160772	174443	184665	198768	211564	224359	245581	259231	-	-
Pressure drop system side	kPa	121	135	142	152	170	81	128	110	119	123	-	-
Cooling performances with glycol-free (2)													
Cooling capacity	kW	515	578	588	633	634	693	742	788	880	924	-	-
Input power	kW	25,6	31,3	31,5	33,1	33,1	38,4	41,1	43,7	46,8	48,5	-	-
Free cooling total input current	A	40,1	48,8	49,1	51,6	51,6	61,1	65,0	69,0	73,4	75,9	-	-
EER	W/W	20,11	18,44	18,68	19,09	19,12	18,02	18,06	18,01	18,79	19,06	-	-
Water flow rate system side	l/h	142081	150081	160772	174443	184665	198768	211564	224359	245581	259231	-	-
Pressure drop system side	kPa	121	135	142	152	170	81	128	110	119	123	-	-
Free-cooling glycol free Plus													
Cooling performance chiller operation (1)													
Cooling capacity	kW	818	865	926	1005	1063	1144	1218	1292	1414	1493	-	-
Input power	kW	204	212	230	244	263	278	300	321	354	368	-	-
Cooling total input current	A	342	351	392	425	448	464	497	531	607	636	-	-
EER	W/W	4,00	4,08	4,02	4,12	4,04	4,12	4,07	4,02	3,99	4,06	-	-
Water flow rate system side	l/h	141148	149240	159755	173439	183394	197398	210159	222920	243982	257648	-	-
Pressure drop system side	kPa	120	134	140	150	168	80	127	109	118	122	-	-
Cooling performances with glycol-free (2)													
Cooling capacity	kW	538	604	615	661	662	724	775	822	920	966	-	-
Input power	kW	25,8	31,6	31,7	33,4	33,4	38,8	41,4	44,1	46,8	48,9	-	-
Free cooling total input current	A	40,5	49,2	49,4	52,0	52,0	61,5	65,5	69,5	73,9	76,5	-	-
EER	W/W	20,80	19,11	19,38	19,78	19,80	18,67	18,70	18,64	19,65	19,74	-	-
Water flow rate system side	l/h	141148	149240	159755	173439	183394	197398	210159	222920	243982	257648	-	-
Pressure drop system side	kPa	120	134	140	150	168	80	127	109	118	122	-	-

(1) System side water heat exchanger 25°C/20°C, External air 35°C; 0% Free-cooling
(2) System side water heat exchanger 25°C; External air 12°C

PERFORMANCE SPECIFICATIONS

NSMW - BU - GU

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Free-cooling glycol free														
Cooling performance chiller operation (1)														
Cooling capacity	kW	328	381	435	482	506	550	580	627	657	674	703	772	814
Input power	kW	84	98	112	121	128	138	148	159	168	172	178	191	203
Cooling total input current	A	148	170	192	204	212	229	244	263	279	291	305	326	345
EER	W/W	3,93	3,90	3,89	3,99	3,97	3,99	3,92	3,94	3,91	3,91	3,95	4,05	4,02
Water flow rate system side	l/h	56622	65790	75056	83161	87363	94979	100110	108143	113452	116262	121282	133207	140417
Pressure drop system side	kPa	88	112	111	106	117	115	128	139	127	134	130	106	117
Cooling performances with glycol-free (2)														
Cooling capacity	kW	319	287	345	367	369	433	436	488	506	507	538	595	597
Input power	kW	23,6	23,5	29,6	31,5	31,5	38,6	38,6	44,5	44,7	44,7	44,8	49,8	49,8
Free cooling total input current	A	37,3	37,3	46,8	50,1	50,1	61,5	61,5	70,6	71,0	71,0	71,2	78,9	78,9
EER	W/W	13,52	12,20	11,67	11,64	11,72	11,22	11,30	10,96	11,31	11,35	12,01	11,96	12,00
Water flow rate system side	l/h	56622	65790	75056	83161	87363	94979	100110	108143	113452	116262	121282	133207	140417
Pressure drop system side	kPa	88	112	111	106	117	115	128	139	127	134	130	106	117
Free-cooling glycol free Plus														
Cooling performance chiller operation (1)														
Cooling capacity	kW	327	380	433	480	504	548	578	624	655	671	700	769	810
Input power	kW	84	99	113	122	129	139	149	160	170	174	180	192	205
Cooling total input current	A	149	171	194	205	214	231	246	265	281	294	308	328	347
EER	W/W	3,88	3,84	3,84	3,93	3,91	3,94	3,87	3,89	3,86	3,86	3,89	4,00	3,96
Water flow rate system side	l/h	56434	65512	74759	82781	86955	94601	99699	107739	113006	115799	120780	132683	139835
Pressure drop system side	kPa	87	111	110	105	116	115	127	138	126	132	129	105	116
Cooling performances with glycol-free (2)														
Cooling capacity	kW	331	300	360	385	388	455	458	510	531	533	567	624	626
Input power	kW	23,9	23,9	30	32	32	39,2	39,2	45,1	45,4	45,4	45,5	50,5	50,5
Free cooling total input current	A	37,9	37,8	47,5	50,8	50,8	62,3	62,3	71,6	72,0	72,0	72,1	80,0	80,0
EER	W/W	13,81	12,56	11,98	12,04	12,13	11,61	11,69	11,30	11,70	11,73	12,47	12,36	12,40
Water flow rate system side	l/h	56434	65512	74759	82781	86955	94601	99699	107739	113006	115799	120780	132683	139835
Pressure drop system side	kPa	87	111	110	105	116	115	127	138	126	132	129	105	116

Size		3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
Free-cooling glycol free													
Cooling performance chiller operation (1)													
Cooling capacity	kW	864	909	978	1059	1127	1213	1289	1365	1495	1576	-	-
Input power	kW	216	228	243	260	276	293	317	341	372	388	-	-
Cooling total input current	A	363	378	414	454	472	493	529	566	639	677	-	-
EER	W/W	3,99	3,99	4,02	4,08	4,09	4,14	4,06	4,00	4,02	4,06	-	-
Water flow rate system side	l/h	149099	156852	168696	182745	194431	209298	222401	235505	257918	271953	-	-
Pressure drop system side	kPa	134	133	156	166	188	112	142	128	131	135	-	-
Cooling performances with glycol-free (2)													
Cooling capacity	kW	647	743	746	796	797	885	938	990	1126	1177	-	-
Input power	kW	54,7	63,8	63,8	68,7	68,7	79,0	84,0	89,0	98,2	103,1	-	-
Free cooling total input current	A	86,6	100,7	100,7	108,3	108,3	125,7	133,4	141,2	155,6	163,2	-	-
EER	W/W	11,83	11,65	11,69	11,60	11,61	11,20	11,17	11,13	11,46	11,41	-	-
Water flow rate system side	l/h	149099	156852	168696	182745	194431	209298	222401	235505	257918	271953	-	-
Pressure drop system side	kPa	134	133	156	166	188	112	142	128	131	135	-	-
Free-cooling glycol free Plus													
Cooling performance chiller operation (1)													
Cooling capacity	kW	861	906	974	1055	1122	1208	1284	1359	1489	1570	-	-
Input power	kW	218	230	245	262	278	296	320	344	375	392	-	-
Cooling total input current	A	366	381	418	457	475	497	533	570	644	682	-	-
EER	W/W	3,94	3,94	3,97	4,03	4,03	4,08	4,01	3,95	3,97	4,01	-	-
Water flow rate system side	l/h	148519	156292	168052	182059	193641	208436	221510	234585	256917	270905	-	-
Pressure drop system side	kPa	133	132	155	165	187	111	141	127	130	134	-	-
Cooling performances with glycol-free (2)													
Cooling capacity	kW	676	780	783	834	835	931	984	1036	1185	1236	-	-
Input power	kW	55,5	64,7	64,7	69,7	69,7	80,1	85,2	90,3	99,6	104,6	-	-
Free cooling total input current	A	87,8	102	102	109,8	109,8	127,3	135,2	143,1	157,6	165,4	-	-
EER	W/W	12,18	12,05	12,11	11,97	11,98	11,62	11,54	11,48	11,90	11,81	-	-
Water flow rate system side	l/h	148519	156292	168052	182059	193641	208436	221510	234585	256917	270905	-	-
Pressure drop system side	kPa	133	132	155	165	187	111	141	127	130	134	-	-

(1) System side water heat exchanger 25°C/20°C, External air 35°C; 0% Free-cooling
(2) System side water heat exchanger 25°C; External air 12°C

PERFORMANCE SPECIFICATIONS

NSMW - BN - GN

Size		1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Free-cooling glycol free														
Cooling performance chiller operation (1)														
Cooling capacity	kW	324	376	428	473	497	538	567	614	643	659	687	751	803
Input power	kW	74	88	99	109	116	124	134	142	152	157	163	174	184
Cooling total input current	A	132	154	172	184	192	206	222	235	252	265	280	297	313
EER	W/W	4,41	4,27	4,31	4,35	4,29	4,33	4,21	4,32	4,24	4,21	4,22	4,32	4,38
Water flow rate system side	l/h	55983	64940	73810	81682	85818	92811	97769	105919	111036	113774	118607	129528	138643
Pressure drop system side	kPa	74	93	87	102	113	110	122	111	122	128	125	100	115
Cooling performances with glycol-free (2)														
Cooling capacity	kW	266	278	329	334	337	384	387	439	441	442	467	523	567
Input power	kW	12	14	19	19	20	22	22	24	24	24	24	29	31
Free cooling total input current	A	19,1	21,2	30,3	30,3	31,5	34,5	34,5	37,5	37,5	37,5	37,6	45,8	48,3
EER	W/W	21,73	20,57	17,29	17,53	16,94	17,58	17,68	18,41	18,50	18,55	19,52	17,83	18,28
Water flow rate system side	l/h	55983	64940	73810	81682	85818	92811	97769	105919	111036	113774	118607	129528	138643
Pressure drop system side	kPa	74	93	87	102	113	110	122	111	122	128	125	100	115
Free-cooling glycol free Plus														
Cooling performance chiller operation (1)														
Cooling capacity	kW	323	374	426	471	494	535	564	611	640	656	683	746	799
Input power	kW	74	89	100	110	117	125	136	143	153	158	164	175	185
Cooling total input current	A	132	155	173	185	194	207	224	237	254	267	282	300	316
EER	W/W	4,36	4,22	4,26	4,29	4,23	4,27	4,15	4,26	4,18	4,15	4,16	4,26	4,32
Water flow rate system side	l/h	55770	64623	73447	81232	85330	92341	97251	105389	110441	113149	117928	128821	137959
Pressure drop system side	kPa	74	92	86	101	112	109	121	110	121	127	123	99	113
Cooling performances with glycol-free (2)														
Cooling capacity	kW	279	292	346	351	354	404	407	461	463	464	491	549	595
Input power	kW	12,4	13,7	19,2	19,2	20	22,1	22,1	24,1	24,1	24,1	24,1	29,5	31,3
Free cooling total input current	A	19,2	21,4	30,5	30,5	31,7	34,8	34,8	37,8	37,8	37,8	37,9	46,1	48,6
EER	W/W	22,53	21,40	18,03	18,27	17,67	18,32	18,43	19,17	19,27	19,31	20,33	18,59	19,04
Water flow rate system side	l/h	55770	64623	73447	81232	85330	92341	97251	105389	110441	113149	117928	128821	137959
Pressure drop system side	kPa	74	92	86	101	112	109	121	110	121	127	123	99	113

Size		3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
Free-cooling glycol free													
Cooling performance chiller operation (1)													
Cooling capacity	kW	852	881	969	1033	1115	1198	1263	1329	-	-	-	-
Input power	kW	195	207	218	232	249	265	288	311	-	-	-	-
Cooling total input current	A	328	343	374	408	427	447	481	516	-	-	-	-
EER	W/W	4,37	4,26	4,44	4,46	4,49	4,51	4,38	4,27	-	-	-	-
Water flow rate system side	l/h	147047	152087	167278	178230	192448	206685	217997	229339	-	-	-	-
Pressure drop system side	kPa	117	125	101	93	102	75	92	92	-	-	-	-
Cooling performances with glycol-free (2)													
Cooling capacity	kW	617	618	727	770	828	880	887	889	-	-	-	-
Input power	kW	32,8	32,8	41,1	43,7	45,7	47,7	47,7	47,7	-	-	-	-
Free cooling total input current	A	51,0	51,0	65,0	69,0	72,0	75,0	75,0	75,0	-	-	-	-
EER	W/W	18,81	18,85	17,68	17,59	18,12	18,46	18,60	18,64	-	-	-	-
Water flow rate system side	l/h	147047	152087	167278	178230	192448	206685	217997	229339	-	-	-	-
Pressure drop system side	kPa	117	125	101	93	102	75	92	92	-	-	-	-
Free-cooling glycol free Plus													
Cooling performance chiller operation (1)													
Cooling capacity	kW	848	877	965	1028	1110	1192	1257	1322	-	-	-	-
Input power	kW	197	209	220	234	251	268	291	314	-	-	-	-
Cooling total input current	A	330	346	377	411	430	450	485	520	-	-	-	-
EER	W/W	4,31	4,20	4,38	4,40	4,43	4,45	4,32	4,21	-	-	-	-
Water flow rate system side	l/h	146331	151317	166517	177452	191576	205700	216918	228136	-	-	-	-
Pressure drop system side	kPa	116	124	100	92	101	74	91	91	-	-	-	-
Cooling performances with glycol-free (2)													
Cooling capacity	kW	647	649	764	809	870	925	932	934	-	-	-	-
Input power	kW	33,1	33,1	41,4	44,1	46,1	48,1	48,1	48,1	-	-	-	-
Free cooling total input current	A	51,4	51,4	65,5	69,5	72,5	75,5	75,5	75,5	-	-	-	-
EER	W/W	19,56	19,61	18,44	18,34	18,87	19,22	19,37	19,41	-	-	-	-
Water flow rate system side	l/h	146331	151317	166517	177452	191576	205700	216918	228136	-	-	-	-
Pressure drop system side	kPa	116	124	100	92	101	74	91	91	-	-	-	-

(1) System side water heat exchanger 25°C/20°C, External air 35°C; 0% Free-cooling
(2) System side water heat exchanger 25°C; External air 12°C

ELECTRIC DATA

Size				1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Electrical data																
Maximum current (FLA)	BA,GA	(1)	A	206	228	253	265	289	306	324	362	384	400	415	449	472
	BE,GE	(1)	A	207	229	265	277	289	322	339	372	394	410	426	457	480
	BU,GU	(1)	A	207	229	265	280	292	322	339	372	395	410	426	457	480
	BN,GN	(1)	A	215	240	280	292	305	332	349	381	404	419	434	472	503
Peak current (LRA)	BA,GA	(1)	A	279	269	308	346	362	395	406	457	472	490	500	536	551
	BE,GE	(1)	A	279	269	317	354	362	403	415	466	480	499	509	545	560
	BU,GU	(1)	A	279	269	317	357	365	403	415	466	481	499	509	545	560
	BN,GN	(1)	A	288	280	332	369	378	414	425	475	490	508	518	559	583

Size				3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
Electrical data															
Maximum current (FLA)	BA,GA	(1)	A	504	527	569	602	619	645	698	737	877	910	976	1111
	BE,GE	(1)	A	512	550	583	631	648	681	730	779	894	936	-	-
	BU,GU	(1)	A	512	550	583	631	648	683	731	779	899	941	-	-
	BN,GN	(1)	A	541	564	624	667	693	719	758	797	-	-	-	-
Peak current (LRA)	BA,GA	(1)	A	590	611	643	665	857	883	963	990	866	888	1072	1204
	BE,GE	(1)	A	598	628	651	687	879	906	980	1016	875	905	-	-
	BU,GU	(1)	A	598	628	651	687	879	909	982	1016	880	910	-	-
	BN,GN	(1)	A	627	642	692	723	924	945	1009	1034	-	-	-	-

(1) Unit standar configuration without hydronic kit

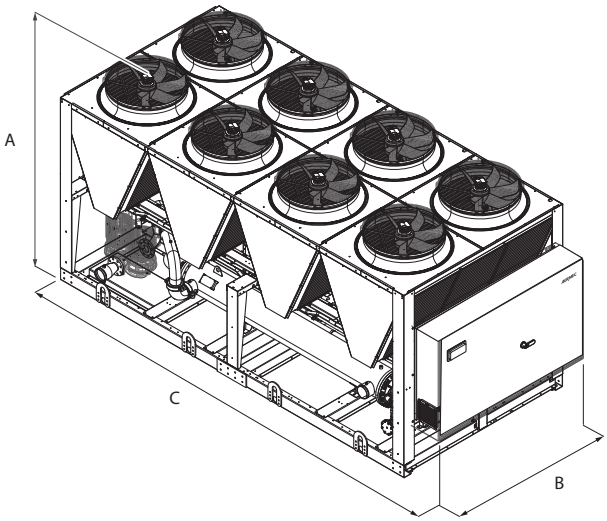
GENERAL TECHNICAL DATA

Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Compressors															
Compressors	All	type	Screw												
Compressors / Circuit	All	n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2
Refrigerant	All	type	R134a												
System side heat exchanger															
Exchanger	All	type	Shell&tube												
Exchanger	All	n°	1	1	1	1	1	1	1	1	1	1	1	1	1
Fans															
Fans	All	type	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial
Fans	BA,GA	n°	8	8	8	8	10	10	10	12	12	12	12	14	14
	BE,GE	n°	8	8	10	10	10	12	12	14	14	14	14	16	16
	BU,GU	n°	8	8	10	10	10	12	12	14	14	14	14	16	16
	BN,GN	n°	10	10	12	12	12	14	14	16	16	16	16	18	20
Sound data calculated in cooling mode															
Sound power level (1)	BA,GA	dB(A)	97,1	97,1	97,4	97,3	98,1	98,0	97,8	98,4	98,4	98,7	99,3	100,4	100,8
	BE,GE	dB(A)	92,7	93,0	93,4	93,6	93,8	93,4	92,8	92,7	92,5	94,9	96,4	97,6	98,4
	BU,GU	dB(A)	97,3	97,4	98,4	98,3	98,4	98,8	98,7	99,1	99,1	99,5	100,1	101,2	101,6
	BN,GN	dB(A)	92,8	93,1	93,9	93,8	93,9	93,7	93,2	93,0	92,8	94,3	96,0	97,9	98,7

Size			3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
Compressors														
Compressors	All	Type	Screw											
Compressors / Circuit	BA,GA	n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	3/3	3/3	3/3
	BE,GE	n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	3/3	-	-
	BU,GU	n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	3/3	3/3	-	-
	BN,GN	n°	2/2	2/2	2/2	2/2	2/2	2/2	2/2	2/2	-	-	-	-
Refrigerant	All	Type	R134a											
System side heat exchanger														
Exchanger	All	Type	Shell&tube											
Exchanger	BA,GA	n°	1	1	1	1	1	1	1	1	1	1	1	1
	BE,GE	n°	1	1	1	1	1	2	2	2	2	2	-	-
	BU,GU	n°	1	1	1	1	1	2	2	2	2	2	-	-
	BN,GN	n°	1	1	2	2	2	2	2	2	-	-	-	-
Fans														
Fans	All	Type	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial
Fans	BA,GA	n°	16	16	18	18	18	20	22	22	28	28	30	34
	BE,GE	n°	18	20	20	22	22	24	26	28	30	32	-	-
	BU,GU	n°	18	20	20	22	22	24	26	28	30	32	-	-
	BN,GN	n°	22	22	26	28	30	32	32	32	-	-	-	-
Sound data calculated in cooling mode														
Sound power level (1)	BA,GA	dB(A)	100,8	100,4	100,8	100,9	101,4	102,3	102,3	101,9	103,7	103,8	105,0	104,8
	BE,GE	dB(A)	97,6	96,4	96,7	97,0	98,9	100,3	99,5	98,7	98,7	98,9	-	-
	BU,GU	dB(A)	101,5	101,4	101,4	101,8	102,3	103,2	103,1	102,9	104,0	104,3	-	-
	BN,GN	dB(A)	97,9	96,8	97,0	97,3	98,7	100,1	99,5	98,7	-	-	-	-

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification

DIMENSIONS



Size			1402	1602	1802	2002	2202	2352	2502	2652	2802	3002	3202	3402	3602
Dimensions and weights															
A	mm	Alls	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	mm	Alls	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	mm	A	5160	5160	5160	5160	6350	6350	6350	7140	7140	7140	7140	8330	8330
		E	5160	5160	6350	6350	6350	7140	7140	8330	8330	8330	8330	9520	9520
		U	5160	5160	6350	6350	6350	7140	7140	8330	8330	8330	8330	9520	9520
		N	6350	6350	7140	7140	7140	8330	8330	9520	9520	9520	9520	10710	11900

Size			3902	4202	4502	4802	5202	5602	6002	6402	6903	7203	8403	9603
Dimensions and weights														
A	mm	Alls	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	mm	Alls	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	mm	A	9520	9520	10710	10710	10710	11900	13090	13090	16660	16660	17850	20230
		E	10710	11900	11900	13090	13090	14280	15470	16660	17850	19040	-	-
		U	10710	11900	11900	13090	13090	14280	15470	16660	17850	19040	-	-
		N	13090	13090	15470	16660	17850	19040	19040	19040	-	-	-	-

For transport reasons, units with depth greater than 13090 mm are shipped separately. For further information, refer to the technical and/or installation manual.

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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NSMI 1251-6102 F

Air-water chiller with free-cooling

Cooling capacity 286 ÷ 1280 kW

- **High efficiency also at partial loads**
- **Microchannel coil**
- **Low electrical consumption**



DESCRIPTION

Air-cooled outdoor chiller designed to meet air conditioning needs in residential/commercial complexes or industrial applications.
Outdoor units with high-efficiency screw compressors axial fans, microchannel external coils and plant side shell and tube heat exchanger. In the unit with desuperheater, it is also possible to produce free-hot water.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

A High efficiency
E Silenced high efficiency

FEATURES

Operating field

Operation at full load up to 50 °C external air temperature. Unit can produce chilled water (up to -6 °C).

Units mono or dual-circuit

Unit with 1–2 refrigerant circuits.
The single circuit units have the inverter compressor, while the dual-circuit have an asynchronous compressor on/off switch and an inverter,the combination provides both high efficiency at part load and full load

Aluminium microchannel coils

The microchannel condensing aluminum coils ensure high levels of efficiency, reduced quantities of refrigerant and lower unit weight. The treatment "O" available as configurator it ensures high resistance to corrosion even in the most aggressive environments.

Free-cooling water coils

These units also have a water coil dedicated to free-cooling mode.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.

Free-cooling offers significant energy saving in applications that require cooling all year round.
As soon as the outside air temperature allows, a valve makes the water flow towards the free-cooling battery which is cooled directly by the air. The compressors are completely shut down, if possible, leading to considerable electrical savings.

A "P" free-cooling plus model with the oversized water battery can be chosen for applications in which a higher free-cooling performance is required.

Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations, to obtain a solution that allows you to save money and to facilitate installation.

Low noise version

Silenced versions feature a special compressor jacket which ensures a further noise reduction of approximately 4 dB.

CONTROL PCO[5]

Microprocessor adjustment, with 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time and the ad adjustment includes complete management of the alarms and their log.
Further features:
— Possibility to control two units in a Master-Slave configuration
— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
— The temperature control takes place with the integral proportional logic, based on the water output temperature.

AER485P1 x n° 2: RS-485 interface for supervision systems with MODBUS protocol.

AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
FB1: Air filter to protect the micro-channel coils. Formed of a frame and a composite baffle in micro-expanded aluminium mesh, with particularly low pressure drops.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PRV3: Allows you to control the chiller at a distance.
AVX: Spring anti-vibration supports.

FACTORY FITTED ACCESSORIES

GP_: Anti-intrusion grid kit
KRS: Electric heater for the heat exchanger

ACCESSORIES COMPATIBILITY

Model	Ver	1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	5702	6102
AER485P1	A,E	•	•	•												
AER485P1 x n°2 (1)	A,E				•	•	•	•	•	•	•	•	•	•	•	•
AERBACP	A,E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERNET	A,E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FB1	A,E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	A,E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PRV3	A,E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

(1) x Indicates the quantity of accessories to match.

Ver	1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	5702	6102
A,E	GP4V	GP4V	GP5V	GP5V	GP6V	GP7V	GP7V	GP7V	GP8V	GP9V	GP10V	GP11V	GP11V	GP11V	GP11V

A grey background indicates the accessory must be assembled in the factory

Antivibration - NSMI free-cooling

Ver	1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	5702	6102
Integrated hydronic kit: 00															
A	AVX991	AVX992	AVX993	AVX966	AVX970	AVX995	AVX995	AVX995	AVX996	AVX988	AVX989	AVX990	AVX990	AVX990	AVX990
E	AVX991	AVX992	AVX994	AVX966	AVX970	AVX995	AVX995	AVX995	AVX996	AVX988	AVX989	AVX990	AVX990	AVX990	AVX990

Antivibration - NSMI free-cooling plus

Ver	1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	5702	6102
Integrated hydronic kit: 00															
A	AVX991	AVX992	AVX993	AVX966	AVX970	AVX995	AVX995	AVX995	AVX996	AVX988	AVX989	AVX990	AVX990	AVX990	AVX990
E	AVX991	AVX992	AVX994	AVX966	AVX970	AVX995	AVX995	AVX999	AVX996	AVX988	AVX989	AVX990	AVX990	AVX990	AVX990

Heater exchangers

Ver	1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	5702	6102
A	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	-	KRS24	KRS24	KRS24	KRS24	KRS24	KRS24	KRS24	KRS24
E	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS23	KRS24	KRS24	KRS24	KRS24	KRS24	KRS24	KRS24	KRS24

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3,4	**NSMI**
5,6,7,8	**Size** 1251, 1601, 1801, 2352, 2652, 2802, 3202, 3402, 3802, 4102, 4402, 4802, 5202, 5702, 6102
9	**Operating field**
10	**Model**
F	Free-cooling
P	Free-cooling plus (1)
11	**Heat recovery**
°	Without heat recovery
D	With desuperheater (2)
12	**Version**
A	High efficiency
E	Silenced high efficiency
13	**Coils / free-cooling coils**
°	Alluminium microchannel / Copper - aluminium
0	Painted alluminium microchannel / Copper painted aluminium
R	Copper-copper/Copper-copper
S	Copper-Tinned copper / Copper -Tinned copper
V	Copper-painted alumimium / Copper-painted alumimium
14	**Fans**
°	Standard
J	Inverter
15	**Power supply**
°	400V ~ 3 50Hz with magnet circuit breakers
16,17	**Integrated hydronic kit**
00	Without hydronic kit
	Kit with n° 1 pump
PA	Pump A
PB	Pump B
PC	Pump C
PD	Pump D
PE	Pump E
PF	Pump F
PG	Pump G
PH	Pump H
PI	Pump I
PJ	Pump J (3)
	Pump n° 1 pump + stand-by pump
DA	Pump A + stand-by pump
DB	Pump B + stand-by pump
DC	Pump C + stand-by pump
DD	Pump D + stand-by pump
DE	Pump E + stand-by pump
DF	Pump F + stand-by pump
DG	Pump G + stand-by pump
DH	Pump H + stand-by pump
DI	Pump I + stand-by pump
DJ	Pump J + stand-by pump (3)
	Kit with 2 pumps
TF	Double pump F
TG	Double pump G
TH	Double pump H
TI	Double pump I
TJ	Double pump J (3)

(1) The Free-Cooling Plus "P" models are only compatible with"°" ed "0"
(2) The temperature of the water in the heat exchanger inlet must never drop below 35°C.
(3) For all configurations including pump J please contact the factory.

PERFORMANCE SPECIFICATIONS

NSMI - free-cooling (FA/FE - PA/PE)

Size			1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	5702	6102
Model: F																	
Cooling performance chiller operation (1)																	
Cooling capacity	A,E	kW	286,5	385,6	455,6	496,5	587,5	649,6	718,4	784,3	832,8	929,0	989,0	1096,3	1164,2	1208,4	1280,3
Input power	A,E	kW	96,6	126,7	157,5	177,7	206,3	221,2	244,7	272,7	280,5	324,3	343,8	368,4	417,3	436,6	477,9
Cooling total input current	A,E	A	166,0	212,0	261,0	309,0	356,0	381,0	417,0	456,0	470,0	547,0	580,0	644,0	692,0	728,0	761,0
EER	A,E	W/W	2,97	3,04	2,89	2,79	2,85	2,94	2,94	2,88	2,97	2,86	2,88	2,98	2,79	2,77	2,68
Water flow rate system side	A,E	l/h	49230	66245	78283	85309	100931	111607	123424	134748	143088	159614	169917	188349	200020	207622	219967
Pressure drop system side	A,E	kPa	52	78	75	48	67	68	76	46	54	68	79	80	90	94	107
Cooling performances with free-cooling (2)																	
Cooling capacity	A,E	kW	254,5	276,0	340,9	346,5	414,6	649,6	488,1	495,1	559,2	628,2	692,4	762,8	771,1	775,7	782,2
Input power	A,E	kW	15,0	15,0	18,7	18,7	22,5	26,2	26,2	26,2	30,0	33,7	37,5	41,2	41,2	41,2	41,2
Free cooling total input current	A,E	A	26,0	25,0	31,0	33,0	39,0	45,0	45,0	44,0	50,0	57,0	63,0	72,0	68,0	69,0	66,0
EER	A,E	W/W	19,97	18,41	18,19	18,49	18,43	18,22	18,60	18,87	18,65	18,62	18,47	18,50	18,70	18,81	18,97
Water flow rate system side	A,E	l/h	49230	66245	78283	85309	100931	111607	123424	134748	143088	159614	169917	188349	200020	207622	219967
Pressure drop system side	A,E	kPa	80	121	128	88	109	109	124	94	99	108	125	127	143	157	169
Model: P																	
Cooling performance chiller operation (1)																	
Cooling capacity	A,E	kW	285,5	383,5	453,4	493,5	584,0	646,4	714,7	778,5	827,8	923,5	983,6	1090,1	1156,6	1200,5	1270,3
Input power	A,E	kW	97,4	127,8	158,9	179,7	208,6	223,4	247,5	275,8	283,4	327,8	347,4	372,4	421,9	441,5	483,8
Cooling total input current	A,E	A	168,0	214,0	263,0	312,0	360,0	385,0	421,0	461,0	474,0	553,0	585,0	644,0	692,0	728,0	761,0
EER	A,E	W/W	2,93	3,00	2,85	2,75	2,80	2,89	2,89	2,82	2,92	2,82	2,83	2,93	2,74	2,72	2,63
Water flow rate system side	A,E	l/h	49048	65887	77903	84789	100332	111060	122801	133758	142233	158667	168998	187289	198712	206254	218254
Pressure drop system side	A,E	kPa	51	78	74	47	67	67	75	45	53	67	79	79	89	92	105
Cooling performances with free-cooling (2)																	
Cooling capacity	A,E	kW	271,8	296,0	365,5	371,4	444,5	512,7	523,2	530,1	599,3	673,3	742,3	817,7	826,2	830,9	837,1
Input power	A,E	kW	15,2	15,2	19,0	19,0	22,8	26,7	26,7	26,7	30,5	34,3	38,1	41,9	41,9	41,9	41,9
Free cooling total input current	A,E	A	26,0	25,0	32,0	33,0	39,0	46,0	45,0	45,0	51,0	58,0	64,0	72,0	69,0	69,0	66,0
EER	A,E	W/W	17,84	19,43	19,19	19,50	19,45	19,23	19,63	19,89	19,67	19,64	19,49	19,52	19,72	19,83	19,98
Water flow rate system side	A,E	l/h	49048	65887	77903	84789	100332	111060	122801	133758	142233	158667	168998	187289	198712	206254	218254
Pressure drop system side	A,E	kPa	80	120	127	87	108	108	123	93	98	107	123	125	141	155	166

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) System side water heat exchanger 12 °C / * °C; External air 2°C

ENERGY INDICES (REG. 2016/2281 EU)

Size			1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	5702	6102
Model: F																	
SEPR - (EN14825: 2018) High temperature with standard fans (1)																	
SEPR	A,E	W/W	6,95	6,32	6,23	6,60	6,73	7,06	6,85	6,65	6,98	6,74	6,83	7,24	7,11	7,28	7,05
SEPR - (EN14825: 2018) High temperature with inverter fans (1)																	
SEPR	A,E	W/W	6,95	6,32	6,23	6,60	6,73	7,06	6,85	6,65	6,98	6,74	6,83	7,24	7,11	7,28	7,05
Model: P																	
SEPR - (EN14825: 2018) High temperature with standard fans (1)																	
SEPR	A,E	W/W	7,02	6,39	6,31	6,69	6,83	7,19	6,93	6,69	7,06	6,82	6,93	7,30	7,15	7,31	7,05
SEPR - (EN14825: 2018) High temperature with inverter fans (1)																	
SEPR	A,E	W/W	7,02	6,39	6,31	6,69	6,83	7,19	6,93	6,69	7,06	6,82	6,93	7,30	7,15	7,31	7,05

(1) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

Size			1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	5702	6102
Electric data																	
Maximum current (FLA)	A,E	A	259,9	299,9	388,4	452,7	485,9	534,4	534,4	582,4	670,9	727,4	774,9	874,2	917,2	1002,2	1036,2
Peak current (LRA)	A,E	A	59,9	59,9	68,4	582,4	617,9	666,4	666,4	790,4	878,9	1008,4	1080,0	1180,2	1335,2	1420,2	1532,2

GENERAL TECHNICAL DATA

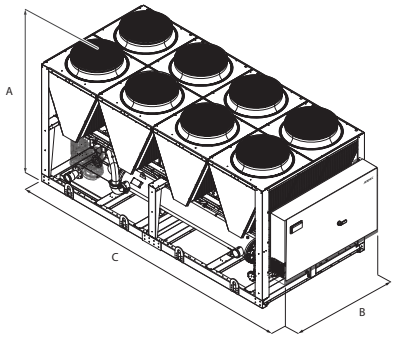
Size			1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	5702	6102
Compressor																	
Type	A,E	type	Screw														
Compressor regulation	A,E	Type	I	I	I	I+On/Off	I+On/Off	I+On/Off	I+On/Off	I+On/Off	I+On/Off	I+On/Off	I+On/Off	I+On/Off	I+On/Off	I+On/Off	I+On/Off
Number	A,E	no.	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2
Circuits	A,E	no.	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2
Refrigerant	A,E	type	R134a														
System side heat exchanger																	
Type	A,E	type	Shell and tube														
Number	A,E	no.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
System side hydraulic connections																	
Connections (in/out)	A,E	Type	Grooved joints														
Sizes (in/out)	A,E	Ø	5"	6"	6"	6"	6"	6"	6"	8"	8"	8"	8"	10"	10"	10"	10"
Fan																	
Type	A,E	type	Axial														
Fan motor	A,E	type	Asynchronous with phase cut														
Number	A,E	no.	8	8	10	10	12	14	14	14	16	18	20	22	22	22	22
Air flow rate	A,E	m^3/h	109600	109600	137000	137000	164400	191800	191800	191800	219200	146600	274000	301400	301400	301400	301400

Sound data

Size			1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	5702	6102
Sound data calculated in cooling mode (1)																	
Sound power level	A	dB(A)	98,1	99,2	99,4	99,4	99,7	100,7	100,7	101,1	101,2	101,3	101,9	103,6	103,8	103,8	103,9
	E	dB(A)	94,2	96,0	96,3	95,7	96,2	96,6	96,6	97,8	97,9	98,3	98,6	100,2	100,2	100,2	100,3

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size			1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	5702	6102
Dimensions and weights																	
A	A,E	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	A,E	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	A,E	mm	4760	4760	5950	6400	7140	8330	8330	8330	9520	10710	11900	13090	13090	13090	13090

Weight NSMI free-cooling

Size			1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	5702	6102
Integrated hydronic kit: 00																	
Dimensions and weights																	
Empty weight	A	kg	4220	4670	5207	6669	7211	7767	7858	8507	9106	9983	10543	12125	12214	12244	12318
	E	kg	4522	4972	5508	7272	7815	8371	8462	9110	9709	10586	11146	12963	13053	13083	13156

Weight NSMI free-cooling plus

Size			1251	1601	1801	2352	2652	2802	3202	3402	3802	4102	4402	4802	5202	5702	6102
Integrated hydronic kit: 00																	
Dimensions and weights																	
Empty weight	A	kg	4327	4777	5340	6803	7404	7992	8083	8731	9363	10272	10864	12478	12567	12597	12671
	E	kg	4629	5079	5642	7406	8007	8596	8687	9335	9966	10875	11467	13316	13406	13436	13510

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Tel. 0442633111 - Telefax 044293577
www.aermec.com

TBA 1300-3350 F

Air-water chiller with free-cooling

Cooling capacity 317,2 ÷ 1223,6 kW

- **High efficiency also at partial loads**
- **Microchannel coil**
- **Low peak current (only 6 Amps!)**
- **Evaporator with low refrigerant charge**
- **Available also R513A (XP10) refrigerant gas**



DESCRIPTION

Air-cooled chiller designed to meet air conditioning needs in residential / commercial complexes or industrial applications.
These are outdoor units with oil free centrifugal compressor, axial fans, micro-channel coils, and shell and tube heat exchangers.
The base, the structure and the panels are made of steel treated with polyester paint RAL 9003.

VERSIONS

A High efficiency
E Silenced high efficiency

FEATURES

Operating field

Operation at full load up to 43°C external air temperature depending on size and version. For further details refer to the selection software/ technical documentation.

Units mono or dual-circuit

The units according to the size are mono or dual-circuit, to ensure maximum efficiency both at full load and at partial load.

Oil free centrifugal compressor

Two-stage oil-free centrifugal compressor with magnetic levitation and inverter.

Compressor features:

— Operates without oil as bearings are magnetic levitation type
— Continuous load modulation by varying rpm (from 30% to 100%)
— Low peak currents (only 6 Amps!)

Aluminium microchannel coils

The whole range uses microchannel condenser coils allowing reduction of refrigerant charge but keeping the same high efficiency.

Free-cooling water coils

These units also have a water coil dedicated to free-cooling mode.
Free-cooling offers significant energy saving in applications that require cooling all year round.
As soon as the outside air temperature allows, a valve makes the water flow towards the free-cooling battery which is cooled directly by the air. The compressors are completely shut down, if possible, leading to considerable electrical savings.

A "P" free-cooling plus model with the oversized water battery can be chosen for applications in which a higher free-cooling performance is required.

Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations, to obtain a solution that allows you to save money and to facilitate installation.

CONTROL PCO[5]

Microprocessor adjustment, with 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time and the ad adjustment includes complete management of the alarms and their log.
Further features:

— Possibility to control two units in a Master-Slave configuration
— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
— The temperature control takes place with the integral proportional logic, based on the water output temperature.

CONFIGURATOR

Field		Description
1,2,3		**TBA**
4,5,6,7		**Size** 1300, 1350, 2300, 2325, 2350, 3300, 3320, 3340, 3350
8		**Model**
	F	Free-cooling
	P	Free-cooling plus (1)
9		**Heat recovery**
	°	Without heat recovery
10		**Version**
	A	High efficiency
	E	Silenced high efficiency
11		**Coils / free-cooling coils**
	°	Alluminium microchannel / Copper - aluminium
	0	Painted alluminium microchannel / Copper painted aluminium
	R	Copper-copper/Copper-copper
	S	Copper-Tinned copper / Copper -Tinned copper
	V	Copper-painted alumimium / Copper-painted alumimium
12		**Fans**
	J	Inverter
13		**Power supply**
	°	400V ~ 3 50Hz with magnet circuit breakers
14,15		**Integrated hydronic kit**
	00	Without hydronic kit
		Kit with n° 1 pump
	PA	Pump A
	PB	Pump B
	PC	Pump C
	PD	Pump D
	PE	Pump E
	PF	Pump F
	PG	Pump G
	PH	Pump H
	PI	Pump I
	PJ	Pump J (2)
		Pump n° 1 pump + stand-by pump
	DA	Pump A + stand-by pump
	DB	Pump B + stand-by pump
	DC	Pump C + stand-by pump
	DD	Pump D + stand-by pump
	DE	Pump E + stand-by pump
	DF	Pump F + stand-by pump
	DG	Pump G + stand-by pump
	DH	Pump H + stand-by pump
	DI	Pump I + stand-by pump
	DJ	Pump J + stand-by pump (2)
		Kit with inverter pump to fixed speed
	IA	Pump A equipped with inverter device to work at fixed speed
	IB	Pump B equipped with inverter device to work at fixed speed
	IC	Pump C equipped with inverter device to work at fixed speedr
	ID	Pump D equipped with inverter device to work at fixed speed
	IE	Pump E equipped with inverter device to work at fixed speed
	IF	Pump F equipped with inverter device to work at fixed speed
	IG	Pump G equipped with inverter device to work at fixed speed
	IH	Pump H equipped with inverter device to work at fixed speed
	II	Pump I equipped with inverter device to work at fixed speed
	IJ	Pump J equipped with inverter device to work at fixed speed (2)
		Kit with n°1 pump + stand-by pump both equipped wih inverter device to work at fixed speed
	JA	Pump A+stand-by pump, both equipped with inverter to work at fixed speed
	JB	Pump B+stand-by pump, both equipped with inverter to work at fixed speed
	JC	Pump C+stand-by pump, both equipped with inverter to work at fixed speed
	JD	Pump D+stand-by pump, both equipped with inverter to work at fixed speed
	JE	Pump E+stand-by pump, both equipped with inverter to work at fixed speed
	JF	Pump F+stand-by pump, both equipped with inverter to work at fixed speed
	JG	Pump G+stand-by pump, both equipped with inverter to work at fixed speed
	JH	Pump H+stand-by pump, both equipped with inverter to work at fixed speed
	JI	Pump I+stand-by pump, both equipped with inverter to work at fixed speed
	JJ	Pump J+stand-by pump, both equipped with inverter to work at fixed speed (2)
		Kit with double pump both equipped with inverter device to work at fixed speed
	KF	Doble pump F with inverter device to work at fixed speed
	KG	Doble pump G with inverter device to work at fixed speed
	KH	Doble pump H with inverter device to work at fixed speed
	KI	Doble pump I with inverter device to work at fixed speed
	KJ	Doble pump J with inverter device to work at fixed speed (2)
		Kit with double pumps
	TF	Double pump F
	TG	Double pump G
	TH	Double pump H
	TI	Double pump I
	TJ	Double pump J (2)
16		**Refrigerant gas**
	°	R134a
	G	R513A (XP10)

(1) The Free-Cooling Plus "P" models are only compatible with"°" ed "0"
(2) For all configurations including pump J please contact the factory.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AER485P1 x n° 2: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PGD1: Allows you to control the unit at a distance.
AVX: Spring anti-vibration supports.

FACTORY FITTED ACCESSORIES

GP_T: Anti-intrusion grid kit

ACCESSORIES COMPATIBILITY

Model	Ver	1300	1350	2300	2325	2350	3300	3320	3340	3350
AER485P1	A,E	•	•	•		•	•		•	•
AER485P1 x n° 2 (1)	A,E				•			•		
AERBACP	A,E	•	•	•	•	•	•	•	•	•
AERNET	A,E	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	A,E	•	•	•	•	•	•	•	•	•
PGD1	A,E	•	•	•	•	•	•	•	•	•

(1) x Indicates the quantity of accessories to match.

Antivibration

Ver	1300	1350	2300	2325	2350	3300	3320	3340	3350
A,E	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)

(1) Contact us.

Anti-intrusion grid

Ver	1300	1350	2300	2325	2350	3300	3320	3340	3350
A,E	GP3T	GP4T	GP6T	GP7T	GP8T	GP9T	GP10T	GP11T	GP11T

A grey background indicates the accessory must be assembled in the factory

PERFORMANCE SPECIFICATIONS

Size			1300	1350	2300	2325	2350	3300	3320	3340	3350
Model: F											
Cooling performance chiller operation (1)											
Cooling capacity	A,E	kW	317,2	419,2	634,5	736,4	838,4	934,7	1065,0	1149,0	1223,6
Input power	A,E	kW	91,6	121,8	182,8	214,3	244,4	267,3	311,2	337,8	365,9
Cooling total input current	A,E	A	147,5	198,3	295,0	345,8	396,7	427,5	498,3	559,2	604,2
EER	A,E	W/W	3,46	3,44	3,47	3,44	3,43	3,50	3,42	3,40	3,34
Water flow rate system side	A,E	l/h	54505	72025	109011	126530	144050	160596	182983	197414	210235
Pressure drop system side	A,E	kPa	65	32	70	54	45	69	72	66	52
Cooling performances with free-cooling (2)											
Cooling capacity	A,E	kW	297,2	395,5	594,4	692,7	791,1	888,3	994,1	1085,0	1100,1
Input power	A,E	kW	11,3	15,0	22,5	26,3	30,0	33,8	37,5	41,3	41,3
Free cooling total input current	A,E	A	17,5	23,3	35,0	40,8	46,7	52,5	58,3	64,2	64,2
EER	A,E	W/W	26,41	26,36	26,41	26,38	26,36	26,31	26,50	26,30	26,66
Water flow rate system side	A,E	l/h	54505	72025	109011	126530	144050	160596	182983	197414	210235
Pressure drop system side	A,E	kPa	118	78	130	103	99	127	138	117	109
Model: P											
Cooling performance chiller operation (1)											
Cooling capacity	A,E	kW	317,2	419,2	634,5	736,4	838,4	934,7	1065,0	1149,0	1206,6
Input power	A,E	kW	93,1	123,9	185,8	217,9	248,6	271,6	316,4	343,6	366,0
Cooling total input current	A,E	A	147,9	198,8	295,7	346,7	397,6	428,6	499,6	560,5	605,5
EER	A,E	W/W	3,41	3,38	3,42	3,38	3,37	3,44	3,37	3,34	3,30
Water flow rate system side	A,E	l/h	54505	72025	109011	126530	144050	160596	182983	197414	207315
Pressure drop system side	A,E	kPa	65	32	70	54	45	69	72	66	50
Cooling performances with free-cooling (2)											
Cooling capacity	A,E	kW	319,4	425,1	638,8	744,5	850,2	954,8	1068,2	1166,2	1181,8
Input power	A,E	kW	11,5	15,3	23,0	26,8	30,7	34,5	38,4	42,2	42,2
Free cooling total input current	A,E	A	17,9	18,8	35,7	36,7	37,6	53,6	44,6	65,5	80,5
EER	A,E	W/W	27,76	27,71	27,76	27,73	27,71	27,66	27,85	27,64	28,01
Water flow rate system side	A,E	l/h	54505	72025	109011	126530	144050	160596	182983	197414	207315
Pressure drop system side	A,E	kPa	114	74	126	99	95	123	134	113	102

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) System side water heat exchanger 12 °C / * °C; External air 2°C

ENERGY INDICES (REG. 2016/2281 EU)

Size			1300	1350	2300	2325	2350	3300	3320	3340	3350
Model: F											
SEER - (EN14825:2018) 12/7 with inverter fans (1)											
SEER	A,E	W/W	5,06	5,14	5,21	5,17	5,30	5,40	5,32	5,26	5,23
Seasonal efficiency	A,E	%	199,3%	202,7%	205,5%	203,6%	208,8%	212,8%	209,6%	207,2%	206,1%
SEPR - (EN14825: 2018) High temperature with inverter fans (2)											
SEPR	A,E	W/W	8,65	8,51	8,79	8,32	8,53	9,04	9,34	8,89	8,58
Model: P											
SEER - (EN14825:2018) 12/7 with inverter fans (1)											
SEER	A,E	W/W	4,98	5,06	5,14	5,09	5,21	5,32	5,11	5,18	5,17
Seasonal efficiency	A,E	%	196,3%	199,4%	202,5%	200,4%	205,5%	209,7%	201,2%	204,0%	203,7%
SEPR - (EN14825: 2018) High temperature with inverter fans (2)											
SEPR	A,E	W/W	8,91	8,45	8,88	8,53	8,65	9,18	8,99	9,06	8,81

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

Size			1300	1350	2300	2325	2350	3300	3320	3340	3350
Electric data											
Maximum current (FLA)	A,E	A	165,0	249,0	329,0	413,0	498,0	493,0	577,0	737,0	737,0
Peak current (LRA)	A,E	A	36,0	45,0	210,0	305,0	315,0	384,0	479,0	575,0	575,0

GENERAL TECHNICAL DATA

Size			1300	1350	2300	2325	2350	3300	3320	3340	3350
Compressor											
Type	A,E	type					Centrifugal				
Compressor regulation	A,E	Type					Inverter				
Number	A,E	no.	1	1	2	2	2	3	3	3	3
Circuits	A,E	no.	1	1	1	2	1	1	2	1	1
Refrigerant	A,E	type					R134a				
Refrigerant charge (1)	A,E	kg	81,5	165,7	163,0	253,8	295,8	275,2	317,2	327,9	397,9
System side heat exchanger											
Type	A,E	type					Shell and tube				
Number	A,E	no.	1	1	1	1	1	1	1	1	1
Hydraulic connections											
Connections (in/out)	A,E	Type					Grooved joints				
Size (in)	A,E	Ø	3″	4″	4″	5″	5″	5″	5″	6″	6″
Size (out)	A,E	Ø	3″	4″	4″	5″	5″	5″	5″	6″	6″
Sound data calculated in cooling mode (2)											
Sound power level	A	dB(A)	88,3	90,0	91,3	92,8	93,1	93,1	94,1	95,5	95,5
	E	dB(A)	82,3	84,0	85,3	86,8	87,1	87,1	88,1	89,5	89,5
Sound pressure level (10 m)	A	dB(A)	56,1	57,6	58,7	60,0	60,2	60,1	61,0	62,3	62,3
	E	dB(A)	50,1	51,6	52,7	54,0	54,2	54,1	55,0	56,3	56,3

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

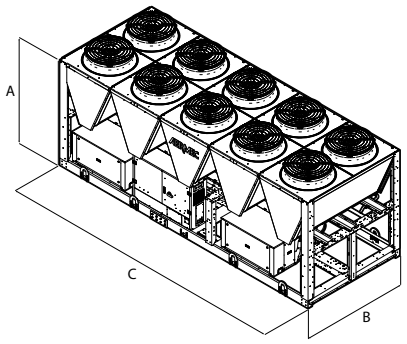
General data - fans (F model)

Size			1300	1350	2300	2325	2350	3300	3320	3340	3350
Fan											
Type	A,E	type					Axial				
Fan motor	A,E	type					Inverter				
Number	A,E	no.	6	8	12	14	16	18	20	22	22
Air flow rate	A,E	m^3/h	93180	124240	186360	217420	248480	279540	310600	341660	341660

General data - fans (P model)

Size			1300	1350	2300	2325	2350	3300	3320	3340	3350
Fan											
Type	A,E	type					Axial				
Fan motor	A,E	type					Inverter				
Number	A,E	no.	6	8	12	14	16	18	20	22	22
Air flow rate	A,E	m^3/h	88680	118240	177360	206920	236480	266040	295600	325160	325160

DIMENSIONS



Size			1300	1350	2300	2325	2350	3300	3320	3340	3350
Dimensions and weights											
A	A,E	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	A,E	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	A,E	mm	3570	4760	7140	8330	9520	10710	11900	13090	13090

Model F

Size			1300	1350	2300	2325	2350	3300	3320	3340	3350
Integrated hydronic kit: 00											
Weights											
Empty weight	A	kg	3290	4330	5860	7050	8020	8490	9820	10310	10670
	E	kg	3370	4440	6030	7250	8240	8740	10100	10610	10970
Weight functioning	A	kg	3570	4720	6380	7680	8790	9270	10720	11270	11710
	E	kg	3650	4830	6550	7880	9010	9520	11000	11570	12010

Model P

Size			1300	1350	2300	2325	2350	3300	3320	3340	3350
Integrated hydronic kit: 00											
Weights											
Empty weight	A	kg	3380	4460	6050	7270	8270	8780	10140	10650	11020
	E	kg	3470	4570	6220	7470	8490	9020	10410	10960	11320
Weight functioning	A	kg	3700	4910	6650	8000	9150	9680	11180	11760	12220
	E	kg	3790	5020	6820	8200	9370	9920	11450	12070	12520

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TBG 1230-4310 F

Air-water chiller with free-cooling

Cooling capacity 238 ÷ 1110 kW

- **HFO R1234ze refrigerant gas**
- **High efficiency also at partial loads**
- **Microchannel coil**
- **Low peak current (only 6 Amps!)**
- **Evaporator with low refrigerant charge**



DESCRIPTION

Air-cooled chiller designed to meet air conditioning needs in residential / commercial complexes or industrial applications.
These are outdoor units with oil free centrifugal compressor, axial fans, micro-channel coils, and shell and tube heat exchangers.
The base, the structure and the panels are made of steel treated with polyester paint RAL 9003.

VERSIONS

A High efficiency
E Silenced high efficiency

FEATURES

Operating field

Operation at full load up to 43°C external air temperature depending on size and version. For further details refer to the selection software/ technical documentation.

Units mono or dual-circuit

The units according to the size are mono or dual-circuit, to ensure maximum efficiency both at full load and at partial load.

Oil free centrifugal compressor

Two-stage oil-free centrifugal compressor with magnetic levitation and inverter.

Compressor features:

— Operates without oil as bearings are magnetic levitation type
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— Low peak currents (only 6 Amps!)

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These units also have a water coil dedicated to free-cooling mode.
Free-cooling offers significant energy saving in applications that require cooling all year round.
As soon as the outside air temperature allows, a valve makes the water flow towards the free-cooling battery which is cooled directly by the air. The compressors are completely shut down, if possible, leading to considerable electrical savings.

A "P" free-cooling plus model with the oversized water battery can be chosen for applications in which a higher free-cooling performance is required.

Integrated hydronic kit

Integrated hydronic kit containing the main hydraulic components; available with various configurations, to obtain a solution that allows you to save money and to facilitate installation.

HFO R1234ze refrigerant gas

HFO R1234ze is a mixture featuring:
da ODP = 0 e GWP (Global Warming Potential) = 7, R134a GWP = 1430;
with thermodynamic properties that guarantee and sometimes improve efficiencies achieved with HFC refrigerants.

CONTROL PCO[5]

Microprocessor adjustment, with 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time and the ad adjustment includes complete management of the alarms and their log.
Further features:

— Possibility to control two units in a Master-Slave configuration
— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
— The temperature control takes place with the integral proportional logic, based on the water output temperature.

CONFIGURATOR

Field		Description
1,2,3		**TBG**
4,5,6,7		**Size** 1230, 1310, 2230, 2270, 2310, 3270, 3280, 3310, 4270, 4310
8		**Model**
	F	Free-cooling
	P	Free-cooling plus (1)
9		**Heat recovery**
	°	Without heat recovery
10		**Version**
	A	High efficiency
	E	Silenced high efficiency
11		**Coils / free-cooling coils**
	°	Alluminium microchannel / Copper - aluminium
	0	Painted alluminium microchannel / Copper painted aluminium
	R	Copper-copper/Copper-copper
	S	Copper-Tinned copper / Copper -Tinned copper
	V	Copper-painted alumimium / Copper-painted alumimium
12		**Fans**
	J	Inverter
13		**Power supply**
	°	400V ~ 3 50Hz with magnet circuit breakers
14,15		**Integrated hydronic kit**
	00	Without hydronic kit
		Kit with n° 1 pump
	PA	Pump A
	PB	Pump B
	PC	Pump C
	PD	Pump D
	PE	Pump E
	PF	Pump F
	PG	Pump G
	PH	Pump H
	PI	Pump I
	PJ	Pump J (2)
		Pump n° 1 pump + stand-by pump
	DA	Pump A + stand-by pump
	DB	Pump B + stand-by pump
	DC	Pump C + stand-by pump
	DD	Pump D + stand-by pump
	DE	Pump E + stand-by pump
	DF	Pump F + stand-by pump
	DG	Pump G + stand-by pump
	DH	Pump H + stand-by pump
	DI	Pump I + stand-by pump
	DJ	Pump J + stand-by pump (2)
		Kit with inverter pump to fixed speed
	IA	Pump A equipped with inverter device to work at fixed speed
	IB	Pump B equipped with inverter device to work at fixed speed
	IC	Pump C equipped with inverter device to work at fixed speedr
	ID	Pump D equipped with inverter device to work at fixed speed
	IE	Pump E equipped with inverter device to work at fixed speed
	IF	Pump F equipped with inverter device to work at fixed speed
	IG	Pump G equipped with inverter device to work at fixed speed
	IH	Pump H equipped with inverter device to work at fixed speed
	II	Pump I equipped with inverter device to work at fixed speed
	IJ	Pump J equipped with inverter device to work at fixed speed (2)
		Kit with n°1 pump + stand-by pump both equipped wih inverter device to work at fixed speed
	JA	Pump A+stand-by pump, both equipped with inverter to work at fixed speed
	JB	Pump B+stand-by pump, both equipped with inverter to work at fixed speed
	JC	Pump C+stand-by pump, both equipped with inverter to work at fixed speed
	JD	Pump D+stand-by pump, both equipped with inverter to work at fixed speed
	JE	Pump E+stand-by pump, both equipped with inverter to work at fixed speed
	JF	Pump F+stand-by pump, both equipped with inverter to work at fixed speed
	JG	Pump G+stand-by pump, both equipped with inverter to work at fixed speed
	JH	Pump H+stand-by pump, both equipped with inverter to work at fixed speed
	JI	Pump I+stand-by pump, both equipped with inverter to work at fixed speed
	JJ	Pump J+stand-by pump, both equipped with inverter to work at fixed speed (2)
		Kit with double pump both equipped with inverter device to work at fixed speed
	KF	Doble pump F with inverter device to work at fixed speed
	KG	Doble pump G with inverter device to work at fixed speed
	KH	Doble pump H with inverter device to work at fixed speed
	KI	Doble pump I with inverter device to work at fixed speed
	KJ	Doble pump J with inverter device to work at fixed speed (2)
		Kit with double pumps
	TF	Double pump F
	TG	Double pump G
	TH	Double pump H
	TI	Double pump I
	TJ	Double pump J (2)

(1) The Free-Cooling Plus "P" models are only compatible with"°" ed "0"
(2) For all configurations including pump J please contact the factory.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AER485P1 x n° 2: RS-485 interface for supervision systems with MODBUS protocol.
AER485P1 x n° 3: RS-485 interface for supervision systems with MODBUS protocol.
AER485P1 x n° 4: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
PGD1: Allows you to control the unit at a distance.
AVX: Spring anti-vibration supports.

FACTORY FITTED ACCESSORIES

GP_T: Anti-intrusion grid kit

ACCESSORIES COMPATIBILITY

Model	Ver	1230	1310	2230	2270	2310	3270	3280	3310	4270	4310
AER485P1	A,E	•	•								
AER485P1 x n° 2 (1)	A,E			•	•	•					
AER485P1 x n° 3 (1)	A,E						•	•	•	•	
AER485P1 x n° 4 (1)	A,E										•
AERBACP	A,E	•	•	•	•	•	•	•	•	•	•
AERNET	A,E	•	•	•	•	•	•	•	•	•	•
PGD1	A,E	•	•	•	•	•	•	•	•	•	•

(1) x Indicates the quantity of accessories to match.

Antivibration

Ver	1230	1310	2230	2270	2310	3270	3280	3310	4270	4310
A,E	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)

(1) Contact us.

Anti-intrusion grid

Ver	1230	1310	2230	2270	2310	3270	3280	3310	4270	4310
A,E	GP3T	GP4T	GP5T	GP6T	GP7T	GP8T	GP9T	GP10T	GP11T	GP11T

A grey background indicates the accessory must be assembled in the factory

PERFORMANCE SPECIFICATIONS

Size			1230	1310	2230	2270	2310	3270	3280	3310	4270	4310
Model: F												
Cooling performance chiller operation (1)												
Cooling capacity	A,E	kW	237,9	328,6	453,2	526,8	623,2	730,8	798,8	907,5	1019,7	1110,3
Input power	A,E	kW	68,6	95,3	130,6	153,1	181,1	211,4	231,7	260,0	294,0	328,1
Cooling total input current	A,E	A	112,5	158,3	214,2	255,0	300,8	346,7	387,5	433,3	489,2	549,2
EER	A,E	W/W	3,47	3,45	3,47	3,44	3,44	3,46	3,45	3,49	3,47	3,38
Water flow rate system side	A,E	l/h	40879	56452	77865	90518	107064	125557	137237	155924	175196	190769
Pressure drop system side	A,E	kPa	48	51	45	54	50	55	54	63	46	56
Cooling performances with free-cooling (2)												
Cooling capacity	A,E	kW	275,5	371,6	478,0	568,6	665,9	766,4	855,5	956,3	1057,8	1079,5
Input power	A,E	kW	11,3	15,0	18,8	22,5	26,3	30,0	33,8	37,5	41,3	41,3
Free cooling total input current	A,E	A	17,5	23,3	29,2	35,0	40,8	46,7	52,5	58,3	64,2	64,2
EER	A,E	W/W	24,49	24,77	25,49	25,27	25,36	25,54	25,34	25,50	25,64	26,16
Water flow rate system side	A,E	l/h	40879	56452	77865	90518	107064	125557	137237	155924	175196	190769
Pressure drop system side	A,E	kPa	81	93	86	97	87	97	98	113	88	105
Model: P												
Cooling performance chiller operation (1)												
Cooling capacity	A,E	kW	237,9	328,6	453,2	526,8	623,1	730,8	798,8	907,5	1019,7	1110,3
Input power	A,E	kW	69,6	96,9	132,6	155,8	184,3	214,7	235,6	265,7	296,9	337,7
Cooling total input current	A,E	A	112,5	158,3	214,2	255,0	300,8	346,7	387,5	433,3	489,2	549,2
EER	A,E	W/W	3,42	3,39	3,42	3,38	3,38	3,40	3,39	3,42	3,43	3,29
Water flow rate system side	A,E	l/h	40879	56452	77865	90518	107064	125557	137237	155924	175196	190769
Pressure drop system side	A,E	kPa	48	51	45	54	50	55	54	63	46	56
Cooling performances with free-cooling (2)												
Cooling capacity	A,E	kW	295,4	398,2	514,2	610,9	714,2	823,8	919,0	1029,7	1136,1	1160,9
Input power	A,E	kW	11,5	15,4	19,2	23,0	26,9	30,7	34,5	38,3	42,2	42,2
Free cooling total input current	A,E	A	17,5	23,3	29,2	35,0	40,8	46,7	52,5	58,3	64,2	64,2
EER	A,E	W/W	25,70	25,90	26,80	26,50	26,60	26,90	26,60	26,90	26,90	27,50
Water flow rate system side	A,E	l/h	40879	56452	77864	90517	107064	125557	137236	155924	175196	190768
Pressure drop system side	A,E	kPa	78	91	83	94	84	94	95	110	84	101

(1) System side water heat exchanger 12 °C/7 °C; External air 35 °C; Chiller operation 100%; Free-cooling 0%
(2) System side water heat exchanger 12 °C / * °C; External air 2°C

ENERGY INDICES (REG. 2016/2281 EU)

Size			1230	1310	2230	2270	2310	3270	3280	3310	4270	4310
Model: F												
SEER - (EN14825:2018) 12/7 with inverter fans (1)												
SEER	A,E	W/W	5,40	5,47	5,72	5,35	5,72	5,53	5,64	5,67	5,66	5,49
Seasonal efficiency	A,E	%	213,1%	215,7%	225,9%	210,9%	225,8%	218,0%	222,6%	223,7%	223,4%	216,4%
SEPR - (EN14825: 2018) High temperature with inverter fans (2)												
SEPR	A,E	W/W	9,45	9,36	9,37	8,49	9,15	9,31	9,45	9,50	9,47	9,13
Model: P												
SEER - (EN14825:2018) 12/7 with inverter fans (1)												
SEER	A,E	W/W	5,33	5,58	5,65	5,27	5,63	5,45	5,56	5,56	5,63	5,34
Seasonal efficiency	A,E	%	210,3%	220,0%	222,8%	207,6%	222,2%	214,9%	219,2%	219,3%	222,3%	210,7%
SEPR - (EN14825: 2018) High temperature with inverter fans (2)												
SEPR	A,E	W/W	9,36	9,24	9,27	8,55	9,21	9,34	9,35	9,35	9,43	8,93

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

Size			1230	1310	2230	2270	2310	3270	3280	3310	4270	4310
Electric data												
Maximum current (FLA)	A,E	A	125,0	189,0	239,0	304,0	368,0	418,0	538,0	547,0	597,0	707,0
Peak current (LRA)	A,E	A	36,0	45,0	161,0	230,0	239,0	355,0	424,0	433,0	549,0	608,0

GENERAL TECHNICAL DATA

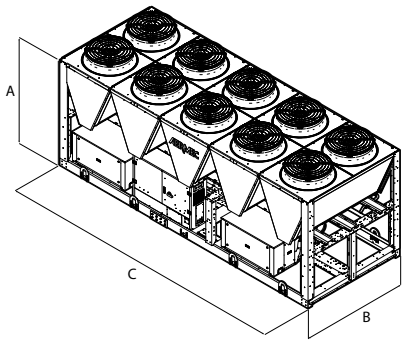
Size			1230	1310	2230	2270	2310	3270	3280	3310	4270	4310
Compressor												
Type	A,E	type	Centrifugal									
Compressor regulation	A,E	Type	Inverter									
Number	A,E	no.	1	1	2	2	2	3	3	3	4	4
Circuits	A,E	no.	1	1	1	2	1	2	1	1	2	2
Refrigerant	A,E	type	R1234ze									
Refrigerant charge (1)	A,E	kg	81,5	120,1	152,3	187,1	197,8	264,5	275,2	285,9	327,9	327,9
System side heat exchanger												
Type	A,E	type	Shell and tube									
Number	A,E	no.	1	1	1	1	1	1	1	1	1	1
Hydraulic connections												
Connections (in/out)	A,E	Type	Grooved joints									
Size (in)	A,E	Ø	3″	3″	4″	4″	5″	5″	5″	5″	6″	6″
Size (out)	A,E	Ø	3″	3″	4″	4″	5″	5″	5″	5″	6″	6″
Sound data calculated in cooling mode (2)												
Sound power level	A	dB(A)	86,3	88,9	88,8	90,5	91,7	91,6	93,1	93,3	93,3	94,2
	E	dB(A)	83,3	85,9	85,8	87,5	88,7	88,6	90,1	90,3	90,3	91,2
Sound pressure level (10 m)	A	dB(A)	54,1	56,5	56,3	57,9	58,9	58,7	60,1	60,2	60,1	61,0
	E	dB(A)	51,1	53,5	53,3	54,9	55,9	55,7	57,1	57,2	57,1	58,0

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

General data - fans

Size			1230	1310	2230	2270	2310	3270	3280	3310	4270	4310
Model: F												
Inverter fan												
Type	A,E	type	Axial									
Fan motor	A,E	type	Inverter									
Number	A,E	no.	6	8	10	12	14	16	18	20	22	22
Air flow rate	A,E	m^3/h	93150	124200	155250	186300	217350	248400	279450	310500	341550	341550
Model: P												
Inverter fan												
Type	A,E	type	Axial									
Fan motor	A,E	type	Inverter									
Number	A,E	no.	6	8	10	12	14	16	18	20	22	22
Air flow rate	A,E	m^3/h	88800	118400	148000	177600	207200	236800	266400	296000	325600	325600

DIMENSIONS



Size			1230	1310	2230	2270	2310	3270	3280	3310	4270	4310
Dimensions and weights												
A	A,E	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	A,E	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	A,E	mm	3570	4760	5950	7140	8330	9520	10710	11900	13090	13090

Model F

Size			1230	1310	2230	2270	2310	3270	3280	3310	4270	4310
Integrated hydronic kit: 00												
Weights												
Empty weight	A	kg	3250	4110	5220	6180	6770	8130	8720	9400	10960	11220
	E	kg	3330	4220	5360	6350	6960	8350	8960	9670	11270	11520
Weight functioning	A	kg	3510	4450	5630	6700	7360	8820	9500	10250	11920	12190
	E	kg	3590	4560	5770	6870	7550	9040	9740	10520	12230	12490

Model P

Size			1230	1310	2230	2270	2310	3270	3280	3310	4270	4310
Integrated hydronic kit: 00												
Weights												
Empty weight	A	kg	3340	4240	5380	6370	6990	8380	9000	9710	11310	11570
	E	kg	3430	4350	5520	6540	7180	8600	9250	9990	11610	11870
Weight functioning	A	kg	3640	4640	5860	6970	7680	9180	9900	10700	12420	12690
	E	kg	3730	4750	6000	7140	7870	9400	10150	10980	12720	12990

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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WATER / WATER CHILLERS AND HEAT PUMPS

Aermec plant engineering really comes into its own in the field of machines and technology for centralised systems. Aermec offer a full range of chillers and heat pumps from the small domestic system up to that of the large size for the service industry.

The cooling capacity range is extremely wide, and the fittings solutions are equally diverse, for scroll, screw or centrifugal compressor applications.

The careful selection of materials and the close attention paid to every detail of assembly coupled with the huge selection of accessories complete the industry-leading products designed for use in this sector, making Aermec units a real "must" in the world of Italian and European climate control.

WATER / WATER CHILLERS AND HEAT PUMPS

			Air flow rate (m³/h)	Cool. Cap. (kW)	Heat. Cap. (kW)	Page
	Units with scroll compressors					
	VENICE H	Reversible water-cooled heat pump, gas side	-	6,9-9,8	8,3-11,6	662
	WRL 026H-161H	Reversible water-cooled heat pump, gas side	-	6,0-40,0	8,0-48,0	664
	WRL 026-161	Water cooled heat pump reversible water side	-	6,6-44,2	7,5-48,0	671
	WRL 180H-650H	Reversible water-cooled heat pump, gas side	-	44,9-157,4	53,0-183,3	676
	WRL 180-650	Water cooled heat pump reversible water side	-	49,0-174,0	55,0-192,0	680
	WRK	Reversible water-cooled heat pump, gas side	-	38,9-165,9	48,5-207,7	685
	WWB 0300-0900	Water-water heat pumps only	-	-	56,7-265,9	692
	WWM	Water cooled heat pump reversible water side	-	96	110	696
	NXW 0503-1654	Water cooled heat pump reversible water side	-	111-511	127-582	702
	NXW 0503H - 1654H	Reversible water-cooled heat pump, gas side	-	106-477	125-565	707
	Units with screw compressors					
	WS 0601-2802	Water cooled heat pump reversible water side	-	147-700	164-778	712
	HWS 0601 - 2802	Water cooled heat pump reversible water side	-	147-369	165-778	716
	HWSG	Water cooled heat pump reversible water side	-	110-396	122-595	720
	WSH	Reversible water-cooled heat pump, gas side	-	165,8-269,7	183,3-300,3	724
	WFGI	Water cooled heat pump reversible water side	-	670-2406	741-2664	728
	WFGN	Water cooled heat pump reversible water side	-	489-1455	545-1601	736
	WFI	Water cooled heat pump reversible water side	-	670-2406	741-2664	741
	WFN	Water cooled heat pump reversible water side	-	652-2349	726-2610	749
	Units with centrifugal compressors					
	WMX	Water/water chiller (with R134a)	-	280,1-324,2	-	755
	WMG	Water/water chiller (with R1234ze)	-	282,3-312,4	-	758
	WTX	Water/water chiller	-	222,9-1958,4	-	761
new	**WTG**	Water/water chiller (with R1234ze)	-	246,6-1959,4	-	766

VENICE-H

Reversible water-cooled heat pump, gas side

Cooling capacity 6,9 ÷ 9,8 kW
Heating capacity 8,3 ÷ 11,6 kW

- **Compact dimensions**
- **Quick and easy installation**



VERSIONS

Venice H Heat pump

FEATURES

— Cycle reversal on refrigerant circuit
— All versions are equipped with circulation pump, water tank, water filter and safety valve
— Complies with EEC Safety Directive (CE)
— High efficiency scroll compressors
— Differential pressure switch on the external circuit standard on heat pumps
— Fluxostat standard on installation circuit
— Modular microprocessor control system
— Straightforward intuitive control panel
— High efficiency plate type heat exchangers
— Compact size
— Metallic protective cabinet with rustproof polyester paint
— Degree of protection IP 24

ACCESSORIES

PR3: Remote control panel with ON/OFF, operating mode selection (cooling / heating) and general alarm indication.
VPH: Pressure switch valve with bypass solenoid valve: during cooling mode operation the bypass valve is closed so the water flows exclusively through the circuit with the pressure switch. During heating mode operation the water flows through both branches of the circuit.
VT: Rubber anti-vibration mounts.
VT M: Spring anti-vibration mounts.

ACCESSORIES COMPATIBILITY

Size	20H	25H	30H
PR 3	•	•	•
VPH 10	•		
VPH 11		•	•
VT 7	•	•	•
VT M	•	•	•

PERFORMANCE SPECIFICATIONS

Size		20H	25H	30H
Power supply	V/ph/Hz		230V~50Hz	
Cooling performance 12 °C / 7 °C (1)				
Cooling capacity	kW	6,9	8,3	9,8
Input power	kW	1,9	2,2	2,6
EER		3,71	3,80	3,81
Water flow rate system side	l/h	1185	1409	1666
Useful head system side	kPa	63	61	59
Water flow rate source side	l/h	1495	1769	2095
Pressure drop source side	kPa	18	17	12
Heating performance 40 °C / 45 °C (2)				
Heating capacity	kW	8,3	9,9	11,6
Input power	kW	2,3	2,7	3,1
COP		3,66	3,66	3,71
Water flow rate system side	l/h	1450	1729	2027
Useful head system side	kPa	48	44	41
Water flow rate source side	l/h	1791	2133	2505
Pressure drop source side	kPa	25	25	17

(1) Date 14511:2018; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C
(2) Date 14511:2018; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

ENERGY INDICES (REG. 2016/2281 EU)

Size		20H	25H	30H
SEER - 12/7 (EN14825: 2018) (1)				
SEER	W/W	3,66	3,94	4,02
ηsc	%	143,4%	154,6%	157,8%
Performance under average climatic conditions (Average) UE n°811/2013 Pdesignh ≤ 70kW (2)				
Pdesignh	kW	11	13	16
SCOP		4,20	4,25	4,33
ηsh	%	160	162	165
Efficiency Energy Class		A++	A++	A++

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Efficiencies for low temperature Applications (35°C)

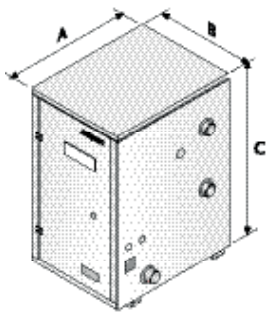
GENERAL TECHNICAL DATA

Size			20H	25H	30H
Electric data					
Cooling total input current	(1)	A	9	11	13
Heating total input current	(1)	A	12	14	16
Maximum current (FLA)	(1)	A	15	18	24
Peak current (LRA)	(1)	A	61	76	100
Compressor					
Compressor		Type/n°		Scroll/1	
Circuit		n°	1	1	1
Refrigerant		Type		R407C	
System side heat exchanger					
Exchanger		Type/n°		Plate/1	
Hydraulic connections (in/out)		Type/Ø		male Gas/1"	
Source side heat exchanger					
Exchanger		Type/n°		Plate/1	
Hydraulic connections (in/out)		Type/Ø		male Gas/1"	
Sound data					
Sound power level	(2)	dB(A)	56	56	57
Sound pressure level	(2)	dB(A)	48	48	49

(1) Including circulator pump power consumption
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS

Size		20H	25H	30H
A	mm	504	504	504
B	mm	404	404	404
C	mm	625	625	625
Weight	kg	103	106	109



Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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WRL 026H - 161H

Reversible water-cooled heat pump, gas side

Cooling capacity 6 ÷ 40 kW
Heating capacity 8 ÷ 48 kW

- High efficiency
- Production of hot water up to 60 °C
- Production of domestic hot water priority
- Suitable for geothermal applications



DESCRIPTION

Water-water offering chilled/hot water, designed to mit air conditioning needs in residential/commercial complexes or industrial applications.
Indoor units with hermetic scroll compressors and plate heat exchangers.
In the configuration with desuperheater, it is also possible to produce free-hot water.
The technological choices made, always oriented to the highest quality, ensure very easy installation. In fact the electrical and hydraulic connections are all located in the upper part of the unit, facilitating the installation and maintenance operations and also reducing the technical gaps and their position in as little space as possible.

VERSIONS

° Without storage tank
A With storage tank

FEATURES

Operating field

Operation at full power with domestic hot water for the system up to 60 °C.
(for more information, refer to the technical documentation).

Plug and play

All the units are equipped with scroll compressors and plate heat exchangers; the base and panelling are made of steel treated with RAL 9003 polyester paints.
The electric and hydraulic connections are all located on the upper part of the unit facilitating installation and maintenance. This allows reduced plant room space and installation in the smallest space possible.
The heat pump can be supplied with all the components required for its installation in new systems and to replace other heat generators. It can be combined with low temperature emission systems such as floor heating or fan coils, but also with conventional radiators.

Version with Integrated hydronic kit

The standard unit is supplied with a water filter, differential pressure switch and safety valve already installed on the service and source side (and also on the recovery side, if present).
To obtain a solution that offers economic savings and facilitates installation, these units can be configured with an integrated hydronic kit on both hydraulic sides (service and source).
Low-head and high-head pumps are available, along with a modulating 2-way valve that can only be applied on the source side to reduce consumption in applications with groundwater.

CONTROL MPC

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.
— Possibility to control two units in a Master-Slave configuration
— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
— The temperature control takes place with the integral proportional logic, based on the water output temperature.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
KSAE: External air sensor.
PGD1: Allows you to control the unit at a distance.
SSM: Probe to be used with the mixer valve in applications with radiant panels. The probe requires the VMF-CRP area accessory as well.
TAH: Ambient terminal with temperature and humidity probe - 230V AC flush-mounting model that can command an On-Off valve or a zone pump and dehumidifier consent.
TAT: Ambient terminal with temperature probe - 230V AC flush-mounting model that can command an On-Off valve or a zone pump.
VT: Anti-vibration supports.
VPHL: Pressure switch valve with bypass solenoid valve, during cooling mode operation the bypass valve is closed so the water flows exclusive-

ly through the circuit with the pressure switch. During heating mode operation the water flows through both branches of the circuit.

ACCESSORIES COMPATIBILITY

Model	026	031	041	051	071	081	101	141	161
AER485P1	•	•	•	•	•	•	•	•	•
KSAE	•	•	•	•	•	•	•	•	•
PGD1	•	•	•	•	•	•	•	•	•
SSM	•	•	•	•	•	•	•	•	•
TAH	•	•	•	•	•	•	•	•	•
TAT	•	•	•	•	•	•	•	•	•

Antivibration

Version	Integrated hydronic kit, source side	Integrated hydronic kit, user side	026	031	041	051	071
°	°,B,I,U,V	°,N,P	VT9	VT9	VT9	VT9	VT9
A	°,B,I,U,V	°,N,P	VT15	VT15	VT15	VT15	VT15

Version	Integrated hydronic kit, source side	Integrated hydronic kit, user side	081	101	141	161
°	°,B,I,U,V	°,N,P	VT9	VT15	VT15	VT15
A	°,B,I,U,V	°,N,P	VT15	VT15A	VT15A	VT15A

Pressure switch valve

Ver	026	031	041	051	071	081	101	141	161
°,A	VPHL1	VPHL1	VPHL2	VPHL2	VPHL3	VPHL3	VPHL4	VPHL4	VPHL4

CONFIGURATOR

Field		Description
1,2,3		**WRL**
4,5,6		**Size** 026, 031, 041, 051, 071, 081, 101, 141, 161
7		**Operating field**
	X	Electronic thermostatic expansion valve
8		**Model**
	H	Reversible heat pump, gas side
9		**Version**
	°	Without storage tank
	A	With storage tank
10		**Heat recovery**
	°	Without heat recovery
11		**Integrated hydronic kit, source side**
	°	Without hydronic kit
	B	On-off pump (1)
	I	Inverter pump (2)
	U	Pump high head (3)
	V	Applications with bore hole water
12		**Integrated hydronic kit, user side**
	°	Without hydronic kit
	N	Pump high head (3)
	P	On-off pump (4)
13		**Integrated hydronic kit, recovery side**
	°	Without hydronic kit
14		**Soft-start**
	°	Without soft-start
	S	With soft-start
15		**Power supply**
	°	400V~3N 50Hz
	4	230V~3 50Hz (5)
	M	230V~ 50Hz (6)

(1) Inverter pump for size WRL 026 ÷ 081.
(2) Only for WRL 026 ÷ 081
(3) Only for WRL 101 ÷ 161
(4) Inverter pump for size WRL 026 ÷ 081. The speed of the inverter pump must be set upon commissioning, according to the useful static pressure required; once it has been set, the pump will work at a constant flow rate.
(5) Only for WRL 051 ÷ 141
(6) Only for WRL 026 ÷ 041

PERFORMANCE SPECIFICATIONS 12 °C/ 7 °C - 40 °C/ 45 °C

WRL - (H°) - (400V 3N ~ 50Hz)

Size		026	031	041	051	071	081	101	141	161
Power supply: °										
Cooling performance 12 °C / 7 °C (1)										
Cooling capacity	kW	6,3	8,1	10,4	13,7	17,8	20,3	27,6	35,4	40,4
Input power	kW	1,6	2,3	2,3	3,0	4,2	5,0	6,1	8,5	10,1
Cooling total input current	A	4,0	4,0	6,0	7,0	9,0	10,0	13,0	17,0	19,0
EER	W/W	3,98	3,47	4,52	4,51	4,18	4,08	4,49	4,15	4,01
Water flow rate source side	l/h	1346	1782	2178	2870	3759	4312	5763	7501	8611
Pressure drop source side	kPa	13	16	19	20	24	27	28	37	44
Water flow rate system side	l/h	1085	1396	1798	2367	3058	3492	4748	6098	6964
Pressure drop system side	kPa	9	11	13	14	16	18	20	24	29
Heating performance 40 °C / 45 °C (2)										
Heating capacity	kW	7,9	9,5	12,4	16,4	20,9	24,0	32,7	41,7	47,6
Input power	kW	2,1	2,4	3,0	4,0	5,2	6,1	8,1	10,5	12,3
Heating total input current	A	4,8	4,8	6,6	8,3	10,0	12,0	16,0	20,0	23,0
COP	W/W	3,84	3,96	4,08	4,07	4,01	3,94	4,05	3,97	3,87
Water flow rate source side	l/h	1714	2086	2759	3635	4611	5291	7248	9196	10445
Pressure drop source side	kPa	34	34	46	43	50	59	52	62	73
Water flow rate system side	l/h	1364	1644	2151	2842	3616	4165	5669	7217	8246
Pressure drop system side	kPa	20	18	28	28	32	38	35	43	51

(1) Date 14511:2018; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C
(2) Date 14511:2018; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

Technical data WRL (H°) - (230V ~ 50Hz)

Size		026	031	041	051	071	081	101	141	161
Power supply: M										
Cooling performance 12 °C / 7 °C (1)										
Cooling capacity	kW	6,3	7,9	10,3	-	-	-	-	-	-
Input power	kW	1,7	1,9	2,4	-	-	-	-	-	-
Cooling total input current	A	9,0	11,0	14,0	-	-	-	-	-	-
EER	W/W	3,74	4,13	4,28	-	-	-	-	-	-
Water flow rate source side	l/h	1363	1678	2179	-	-	-	-	-	-
Pressure drop source side	kPa	14	16	19	-	-	-	-	-	-
Water flow rate system side	l/h	1085	1362	1781	-	-	-	-	-	-
Pressure drop system side	kPa	9	10	13	-	-	-	-	-	-
Heating performance 40 °C / 45 °C (2)										
Heating capacity	kW	7,9	9,9	12,6	-	-	-	-	-	-
Input power	kW	2,1	2,6	3,3	-	-	-	-	-	-
Heating total input current	A	10,0	13,0	17,0	-	-	-	-	-	-
COP	W/W	3,85	3,89	3,82	-	-	-	-	-	-
Water flow rate source side	l/h	1717	2173	2745	-	-	-	-	-	-
Pressure drop source side	kPa	34	36	46	-	-	-	-	-	-
Water flow rate system side	l/h	1366	1723	2186	-	-	-	-	-	-
Pressure drop system side	kPa	20	22	29	-	-	-	-	-	-

(1) Date 14511:2018; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C
(2) Date 14511:2018; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

PERFORMANCE SPECIFICATIONS 23 °C/ 18 °C - 30 °C/ 35 °C

WRL - (H°) - (400V 3N ~ 50Hz)

Size		026	031	041	051	071	081	101	141	161
Power supply: °										
Cooling performance 23 °C / 18 °C (1)										
Cooling capacity	kW	8,3	10,0	13,5	17,5	23,9	27,4	34,9	47,8	54,5
Input power	kW	1,6	1,9	2,4	3,3	4,4	5,2	6,6	9,0	10,7
Cooling total input current	A	4,1	3,0	6,0	7,6	9,2	10,0	14,0	17,0	19,0
EER	W/W	5,22	5,34	5,54	5,35	5,39	5,25	5,31	5,32	5,11
Water flow rate source side	l/h	1681	2039	2719	3547	4844	5557	7089	9679	11092
Pressure drop source side	kPa	20	21	30	31	40	45	42	62	73
Water flow rate system side	l/h	1428	1737	2330	3022	4136	4730	6040	8270	9438
Pressure drop system side	kPa	16	17	22	23	29	33	32	44	53
Heating performance 30 °C / 35 °C (2)										
Heating capacity	kW	8,1	10,1	13,0	17,0	22,6	25,8	34,1	45,0	50,8
Input power	kW	1,6	1,9	2,5	3,2	4,3	5,1	6,4	8,7	10,3
Heating total input current	A	3,7	3,7	5,2	6,4	8,4	9,7	12,0	16,0	19,0
COP	W/W	5,03	5,38	5,29	5,33	5,24	5,06	5,31	5,18	4,91
Water flow rate source side	l/h	1397	1751	2246	2934	3893	4456	5888	7770	8761
Pressure drop source side	kPa	21	20	30	30	37	43	38	50	58
Water flow rate system side	l/h	1901	2418	3098	4045	5363	6102	8125	10710	11951
Pressure drop system side	kPa	42	46	58	53	68	78	65	84	95

(1) Date 14511:2018; Water user side 23 °C / 18 °C; Water source side 30 °C / 35 °C
(2) Date 14511:2018; Water user side 30 °C / 35 °C; Water source side 10 °C / 5 °C

WRL (H°) - (230V ~ 50Hz)

Size		026	031	041	051	071	081	101	141	161
Power supply: M										
Cooling performance 23 °C / 18 °C (1)										
Cooling capacity	kW	8,3	10,1	13,3	-	-	-	-	-	-
Input power	kW	1,6	2,0	2,5	-	-	-	-	-	-
Cooling total input current	A	8,1	11,0	14,0	-	-	-	-	-	-
EER	W/W	5,05	5,18	5,27	-	-	-	-	-	-
Water flow rate source side	l/h	1690	2070	2699	-	-	-	-	-	-
Pressure drop source side	kPa	22	24	29	-	-	-	-	-	-
Water flow rate system side	l/h	1428	1755	2295	-	-	-	-	-	-
Pressure drop system side	kPa	16	17	22	-	-	-	-	-	-
Heating performance 30 °C / 35 °C (2)										
Heating capacity	kW	8,2	10,2	13,1	-	-	-	-	-	-
Input power	kW	1,6	1,9	2,6	-	-	-	-	-	-
Heating total input current	A	8,1	9,7	13,0	-	-	-	-	-	-
COP	W/W	5,05	5,27	5,01	-	-	-	-	-	-
Water flow rate source side	l/h	1409	1767	2263	-	-	-	-	-	-
Pressure drop source side	kPa	21	23	31	-	-	-	-	-	-
Water flow rate system side	l/h	1919	2430	3082	-	-	-	-	-	-
Pressure drop system side	kPa	42	45	58	-	-	-	-	-	-

(1) Date 14511:2018; Water user side 23 °C / 18 °C; Water source side 30 °C / 35 °C
(2) Date 14511:2018; Water user side 30 °C / 35 °C; Water source side 10 °C / 5 °C

ENERGY INDICES (REG. 2016/2281 EU)

WRL - (H°) - (400V 3N ~ 50Hz)

Size		026	031	041	051	071	081	101	141	161
Power supply: °										
SEER - 12/7 (EN14825: 2018) (1)										
SEER	W/W	3,64	3,39	4,31	4,53	4,20	4,13	4,81	4,49	4,36
Seasonal efficiency	%	142,7%	132,4%	169,4%	178,1%	165,1%	162,3%	189,4%	176,5%	171,4%
UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 70 kW (2)										
Pdesignh	kW	10	12	16	21	26	31	42	53	61
ηsh	%	141.0%	145.0%	151.0%	152.0%	151.0%	150.0%	175.0%	173.0%	167.0%
SCOP		3,73	3,83	3,98	4,00	3,98	3,95	4,58	4,53	4,38
Efficiency energy class		A++	A++	A+++	A+++	A+++	A+++	A+++	A+++	A+++
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (3)										
Pdesignh	kW	11	14	17	23	30	35	45	60	68
ηsh	%	195.0%	210.0%	207.0%	212.0%	211.0%	205.0%	233.0%	226.0%	212.0%
SCOP		5,08	5,45	5,38	5,50	5,48	5,33	6,03	5,85	5,50
Efficiency energy class		A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Efficiencies for average temperature applications (55 °C)
(3) Efficiencies for low temperature applications (35 °C)

WRL - (H°) - (230V ~ 50Hz)

Size		026	031	041	051	071	081	101	141	161
Power supply: M										
SEER - 12/7 (EN14825: 2018) (1)										
SEER	W/W	3,48	3,80	4,15	-	-	-	-	-	-
Seasonal efficiency	%	136,2%	148,8%	163,1%	-	-	-	-	-	-
UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 70 kW (2)										
Pdesignh	kW	10	13	16	-	-	-	-	-	-
ηsh	%	142.0%	145.0%	142.0%	-	-	-	-	-	-
SCOP		3,75	3,83	3,75	-	-	-	-	-	-
Efficiency energy class		A++	A++	A++	-	-	-	-	-	-
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (3)										
Pdesignh	kW	11	14	17	-	-	-	-	-	-
ηsh	%	198.0%	212.0%	199.0%	-	-	-	-	-	-
SCOP		5,15	5,50	5,18	-	-	-	-	-	-
Efficiency energy class		A+++	A+++	A+++	-	-	-	-	-	-

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Efficiencies for average temperature applications (55 °C)
(3) Efficiencies for low temperature applications (35 °C)

WRL - (H ABP) - (400V 3N ~ 50Hz)

Size		026	031	041	051	071	081	101	141	161
Power supply: °										
SEER - 12/7 (EN14825: 2018) (1)										
SEER	W/W	4,47	4,07	5,37	5,40	4,96	4,85	5,17	4,75	4,67
Seasonal efficiency	%	175,9%	159,7%	211,8%	213,1%	195,3%	190,9%	203,7%	186,8%	183,9%
UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 70 kW (2)										
Pdesignh	kW	10	12	16	21	26	30	41	52	60
ηsh	%	151.0%	155.0%	161.0%	161.0%	157.0%	155.0%	173.0%	170.0%	166.0%
SCOP		3,98	4,08	4,23	4,23	4,13	4,08	4,53	4,45	4,35
Efficiency energy class		A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (3)										
Pdesignh	kW	10	13	17	22	30	34	44	59	66
ηsh	%	223.0%	238.0%	222.0%	237.0%	222.0%	210.0%	232.0%	230.0%	216.0%
SCOP		5,78	6,15	5,75	6,13	5,75	5,45	6,00	5,95	5,60
Efficiency energy class		A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Efficiencies for average temperature applications (55 °C)
(3) Efficiencies for low temperature applications (35 °C)

WRL - (H ABP) - (230V ~ 50Hz)

Size			026	031	041	051	071	081	101	141	161
Power supply: M											
SEER - 12/7 (EN14825: 2018) (1)											
SEER		W/W	4,21	4,63	5,14	-	-	-	-	-	-
Seasonal efficiency		%	165,5%	182,3%	202,7%	-	-	-	-	-	-
UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 70 kW (2)											
Pdesignh		kW	10	13	16	-	-	-	-	-	-
ηsh		%	152.0%	156.0%	152.0%	-	-	-	-	-	-
SCOP			4,00	4,10	4,00	-	-	-	-	-	-
Efficiency energy class			A+++	A+++	A+++	-	-	-	-	-	-
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (3)											
Pdesignh		kW	11	13	17	-	-	-	-	-	-
ηsh		%	228.0%	243.0%	214.0%	-	-	-	-	-	-
SCOP			5,90	6,28	5,55	-	-	-	-	-	-
Efficiency energy class			A+++	A+++	A+++	-	-	-	-	-	-

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Efficiencies for average temperature applications (55 °C)
(3) Efficiencies for low temperature applications (35 °C)

ELECTRIC DATA

Size			026	031	041	051	071	081	101	141	161
Power supply: °											
Electric data											
Maximum current (FLA)		A	8,5	9,0	11,0	13,0	20,0	23,0	23,0	37,0	43,0
Peak current (LRA)		A	34,0	37,0	50,0	66,0	75,0	75,0	88,0	91,0	94,0

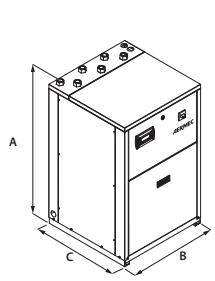
Size			026	031	041	051	071	081	101	141	161
Power supply: M											
Electric data											
Maximum current (FLA)		A	19,0	22,0	26,0	-	-	-	-	-	-
Peak current (LRA)		A	63,0	84,0	99,0	-	-	-	-	-	-

GENERAL TECHNICAL DATA

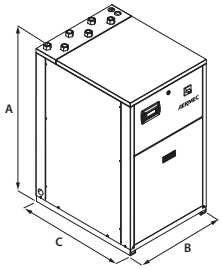
Size			026	031	041	051	071	081	101	141	161
Compressor											
Type	°,A	type					Scroll				
Number	°,A	no.	1	1	1	1	1	1	2	2	2
Circuits	°,A	no.	1	1	1	1	1	1	1	1	1
Refrigerant	°,A	type					R410A				
Source side heat exchanger											
Type	°,A	type					Brazed plate				
Number	°,A	no.	1	1	1	1	1	1	1	1	1
System side heat exchanger											
Type	°,A	type					Brazed plate				
Number	°,A	no.	1	1	1	1	1	1	1	1	1
Source side hydraulic connections											
Connections (in/out)	°,A	Type					Gas - F				
Sizes (in/out)	°,A	Ø					1" 1/4				
System side hydraulic connections											
Connections (in/out)	°,A	Type					Gas - F				
Sizes (in/out)	°,A	Ø					1" 1/4				
Sound data calculated in cooling mode (1)											
Sound power level	°,A	dB(A)	55,5	57,0	57,5	59,0	60,0	60,5	62,0	63,0	63,5
Sound pressure level (10 m)	°,A	dB(A)	24,3	25,8	26,3	27,7	28,7	29,2	30,6	31,6	32,1

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

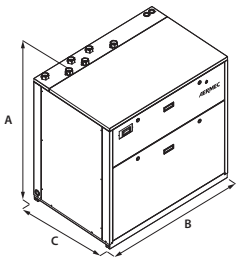
DIMENSIONS



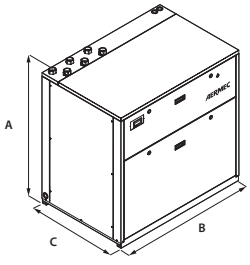
WRL 026-041



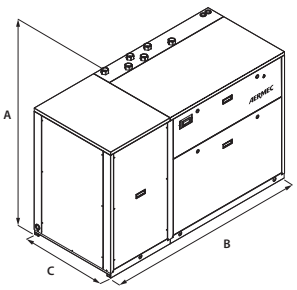
WRL 051-081



WRL 101-161



WRL-A 026-081



WRL-A 101-161

Size			026	031	041	051	071	081	101	141	161
Dimensions and weights											
A	°	mm	976	976	976	1126	1126	1126	1126	1126	1126
	A	mm	1126	1126	1126	1126	1126	1126	1126	1126	1126
B	°	mm	605	605	605	605	605	605	1155	1155	1155
	A	mm	1155	1155	1155	1155	1155	1155	1155	1155	1155
C	°	mm	603	603	603	773	773	773	773	773	773
	A	mm	773	773	773	773	773	773	773	773	773
Empty weight	°	kg	120	125	130	150	170	180	260	270	280
	A	kg	190 (1)	200 (1)	210 (1)	230 (1)	250 (1)	260 (1)	340 (1)	350 (1)	360 (1)

(1) Units with two heat exchangers and storage tank, without pumps

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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WRL 026 -161

Water cooled heat pump reversible water side

Cooling capacity 6,6 ÷ 44,2 kW
Heating capacity 7,5 ÷ 48,0 kW

- **High efficiency**
- **Suitable for geothermal applications**



EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

DESCRIPTION

Water-water offering chilled/hot water, designed to mit air conditioning needs in residential/commercial complexes or industrial applications.
Indoor units with hermetic scroll compressors and plate heat exchangers.
In the configuration with desuperheater, it is also possible to produce free-hot water.
The technological choices made, always oriented to the highest quality, ensure very easy installation. In fact the electrical and hydraulic connections are all located in the upper part of the unit, facilitating the installation and maintenance operations and also reducing the technical gaps and their position in as little space as possible.

VERSIONS

° Without storage tank
A With storage tank

FEATURES

Operating field

Full-load operation with the production of chilled water 4-18°C, and the possibility to produce also negative temperature water down to -8°C for the evaporator and hot water for the condenser up to 55 °C.
(for more information, refer to the technical documentation).

Plug and play

All the units are equipped with scroll compressors and plate heat exchangers; the base and panelling are made of steel treated with RAL 9003 polyester paints.
The electric and hydraulic connections are all located on the upper part of the unit facilitating installation and maintenance. This allows reduced plant room space and installation in the smallest space possible.
The heat pump can be supplied with all the components required for its installation in new systems and to replace other heat generators. It can be combined with low temperature emission systems such as floor heating or fan coils, but also with conventional radiators.

Version with Integrated hydronic kit

The standard unit is supplied with a water filter, differential pressure switch and safety valve already installed on the service and source side (and also on the recovery side, if present).
To obtain a solution that offers economic savings and facilitates installation, these units can be configured with an integrated hydronic kit on both hydraulic sides (service and source).
Low-head and high-head pumps are available, along with a modulating 2-way valve that can only be applied on the source side to reduce consumption in applications with groundwater.

MODUCONTROL CONTROL

The command panel of the unit allows the rapid setting of the working parameters of the machine, and their visualisation. The display consists of 4 figures and various LEDs for indicating the type of operational mode, the visualisation of the parameters set and of any alarms triggered. The card stores all the default settings and any modifications.
The regulation using an outside air temperature sensor (accessory) allows a dynamic control of the water temperature produced by increasing the energy efficiency of the system.

ACCESSORIES

AERSET: It makes it possible to automatically compensate for the operation setting of the unit to which it is connected, based on a 0-10V MODBUS input signal. Mandatory accessory MODU-485BL.
KSAE: External air sensor.
MODU-485BL: RS-485 interface for supervision systems with MODBUS protocol.
PR3: Simplified remote panel. This makes it possible to carry out the unit's basic controls with the signalling of alarms. Can be made remote with shielded cable up to 150 m.
VT: Anti-vibration supports.
VPL: Pressure switch valve complete with connections, piloted directly in relation to condensation pressure; the valve modulates the volume of water needed to cool the condenser, thereby maintaining the condensation temperature unchanged.

ACCESSORIES COMPATIBILITY

Model	Ver	026	031	041	051	071	081	101	141	161
AERSET	°,A	•	•	•	•	•	•	•	•	•
KSAE	°,A	•	•	•	•	•	•	•	•	•
MODU-485BL	°,A	•	•	•	•	•	•	•	•	•
PR3	°,A	•	•	•	•	•	•	•	•	•

Antivibration

Version	Integrated hydronic kit, source side	Integrated hydronic kit, user side	026	031	041	051	071
°	°	°	VT9	VT9	VT9	VT9	VT9
°	B,I,U,V	N,P	VT9	VT9	VT9	VT9	VT9
A	°,B,I,U,V	°,N,P	VT15	VT15	VT15	VT15	VT15

Version	Integrated hydronic kit, source side	Integrated hydronic kit, user side	081	101	141	161
°	°	°	VT9	VT15	VT15	VT15
°	U	N,P	VT9	VT15	VT15	VT15
°	B,I,V	N,P	VT9	VT15	VT15	-
A	°,B,I,U,V	°,N,P	VT15	VT15A	VT15A	VT15A

- not available

Pressure switch valve

Ver	026	031	041	051	071	081	101	141	161
°,A	VPL1	VPL1	VPL2	VPL2	VPL3	VPL3	VPL4	VPL4	VPL4

CONFIGURATOR

Field	Description
1,2,3	**WRL**
4,5,6	**Size** 026, 031, 041, 051, 071, 081, 101, 141, 161
7	**Operating field**
°	Standard mechanic thermostatic valve (1)
Y	Low temperature mechanic thermostatic valve (2)
8	**Model**
°	Heat pump reversible on the water side
9	**Version**
°	Without storage tank
A	With storage tank
10	**Heat recovery**
°	Without heat recovery
D	With desuperheater
11	**Integrated hydronic kit, source side**
°	Without hydronic kit
B	On-off pump (3)
I	Inverter pump (4)
U	Pump high head (5)
	Applications with bore hole water
V	2-way modulating valve
12	**Integrated hydronic kit, user side**
°	Without hydronic kit
N	Pump high head (5)
P	On-off pump (3)
13	**Field for future development**
°	Field not used
14	**Soft-start**
°	Without soft-start
S	With soft-start
15	**Power supply**
°	400V~3N 50Hz
M	230V~ 50Hz (6)

(1) Water produced from 4 °C ÷ 18 °C
(2) Water produced from 4 °C ÷ - 8 °C
(3) Inverter pump for size WRL 026 ÷ 081. The speed of the inverter pump must be set upon commissioning, according to the useful static pressure required; once it has been set, the pump will work at a constant flow rate.
(4) Only for WRL 026 ÷ 081
(5) Only for WRL 101 ÷ 161
(6) Only for WRL 026 ÷ 041

PERFORMANCE SPECIFICATIONS

WRL - °

Size		026	031	041	051	071	081	101	141	161
Power supply: °										
Cooling performance 12 °C / 7 °C (1)										
Cooling capacity	kW	6,7	8,4	11,3	14,7	19,3	21,9	29,5	38,5	43,9
Input power	kW	1,5	1,8	2,6	3,1	4,0	4,7	6,2	8,1	9,5
Cooling total input current	A	3,1	2,6	4,9	6,4	7,4	9,1	13,0	15,0	18,0
EER	W/W	4,49	4,74	4,39	4,70	4,77	4,63	4,72	4,75	4,62
Water flow rate source side	l/h	1396	1735	2375	3054	3978	4538	6100	7947	9077
Pressure drop source side	kPa	28	30	35	32	40	46	42	57	66
Water flow rate system side	l/h	1154	1447	1955	2541	3320	3770	5078	6638	7555
Pressure drop system side	kPa	15	17	23	21	26	30	25	34	38
Heating performance 40 °C / 45 °C (2)										
Heating capacity	kW	7,7	9,3	12,6	16,3	21,0	24,0	32,5	42,1	48,0
Input power	kW	1,9	2,3	3,2	4,0	5,1	5,9	8,0	10,2	12,0
Heating total input current	A	4,1	3,4	6,1	8,2	9,2	11,0	16,0	18,0	23,0
COP	W/W	3,93	4,04	3,94	4,05	4,17	4,04	4,06	4,14	4,02
Water flow rate source side	l/h	1680	2053	2767	3602	4708	5325	7200	9414	10671
Pressure drop source side	kPa	32	34	46	42	52	60	50	68	76
Water flow rate system side	l/h	1326	1607	2181	2819	3647	4159	5629	7284	8315
Pressure drop system side	kPa	25	26	30	27	34	39	36	48	55
Power supply: M										
Cooling performance 12 °C / 7 °C (1)										
Cooling capacity	kW	6,6	8,3	11,3	-	-	-	-	-	-
Input power	kW	1,5	1,8	2,5	-	-	-	-	-	-
Cooling total input current	A	7,2	9,2	12,0	-	-	-	-	-	-
EER	W/W	4,30	4,50	4,56	-	-	-	-	-	-
Water flow rate source side	l/h	1386	1731	2359	-	-	-	-	-	-
Pressure drop source side	kPa	28	29	36	-	-	-	-	-	-
Water flow rate system side	l/h	1137	1430	1955	-	-	-	-	-	-
Pressure drop system side	kPa	15	17	23	-	-	-	-	-	-
Heating performance 40 °C / 45 °C (2)										
Heating capacity	kW	7,6	9,4	12,5	-	-	-	-	-	-
Input power	kW	2,0	2,4	3,1	-	-	-	-	-	-
Heating total input current	A	9,3	12,0	15,0	-	-	-	-	-	-
COP	W/W	3,86	3,89	4,05	-	-	-	-	-	-
Water flow rate source side	l/h	1662	2053	2778	-	-	-	-	-	-
Pressure drop source side	kPa	32	35	46	-	-	-	-	-	-
Water flow rate system side	l/h	1319	1626	2171	-	-	-	-	-	-
Pressure drop system side	kPa	25	26	30	-	-	-	-	-	-

(1) Date 14511:2018; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C
(2) Date 14511:2018; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

ENERGY INDICES (REG. 2016/2281 EU)

WRL - °

Size		026	031	041	051	071	081	101	141	161
Power supply: °										
SEER - 12/7 (EN14825: 2018) (1)										
SEER	W/W	3,93	4,29	4,13	4,51	4,66	4,52	4,93	4,93	4,75
Seasonal efficiency	%	154,0%	168,5%	162,1%	177,3%	183,3%	177,8%	194,1%	194,0%	187,1%
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (2)										
Pdesignh	kW	11	14	17	23	30	35	45	60	68
SCOP		5,08	5,45	5,38	5,50	5,48	5,33	6,03	5,85	5,50
ηsh	%	195.0%	210.0%	207.0%	212.0%	211.0%	205.0%	233.0%	226.0%	212.0%
Efficiency energy class		A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++
Power supply: M										
SEER - 12/7 (EN14825: 2018) (1)										
SEER	W/W	3,77	4,13	4,27	-	-	-	-	-	-
Seasonal efficiency	%	147,9%	162,0%	167,6%	-	-	-	-	-	-
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (2)										
Pdesignh	kW	11	14	17	-	-	-	-	-	-
SCOP		5,15	5,50	5,18	-	-	-	-	-	-
ηsh	%	198.0%	212.0%	199.0%	-	-	-	-	-	-
Efficiency energy class		A+++	A+++	A+++	-	-	-	-	-	-

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Efficiencies for low temperature applications (35 °C)

PERFORMANCE SPECIFICATIONS

WRL ABP

Size		026	031	041	051	071	081	101	141	161
Power supply: °										
Cooling performance 12 °C / 7 °C (1)										
Cooling capacity	kW	6,8	8,5	11,4	14,9	19,4	22,0	29,8	38,9	44,2
Input power	kW	1,4	1,7	2,5	3,1	3,9	4,6	6,3	8,1	9,4
Cooling total input current	A	3,7	3,3	5,6	7,5	8,6	10,0	14,0	17,0	20,0
EER	W/W	4,75	5,02	4,62	4,84	4,93	4,78	4,75	4,79	4,69
Water flow rate source side	l/h	1396	1735	2375	3054	3978	4538	6100	7947	9077
Useful head source side	kPa	59	53	36	63	43	28	116	137	125
Water flow rate system side	l/h	1154	1447	1955	2541	3320	3770	5078	6638	7555
Useful head system side	kPa	74,0	70,0	56,0	79,0	66,0	56,0	148,0	164,0	157,0
Heating performance 40 °C / 45 °C (2)										
Heating capacity	kW	7,6	9,2	12,5	16,1	20,9	23,8	32,2	41,6	47,6
Input power	kW	1,9	2,2	3,1	3,9	4,9	5,8	8,0	10,1	11,8
Heating total input current	A	4,7	4,0	6,7	9,3	10,0	13,0	18,0	20,0	25,0
COP	W/W	4,05	4,17	4,05	4,11	4,24	4,09	4,01	4,13	4,04
Water flow rate source side	l/h	1680	2053	2767	3602	4708	5325	7200	9414	10671
Useful head source side	kPa	52	43	16	46	20	4	90	121	109
Water flow rate system side	l/h	1326	1607	2181	2819	3647	4159	5629	7284	8315
Useful head system side	kPa	63,0	59,0	46,0	70,0	54,0	41,0	130,0	148,0	138,0
Power supply: M										
Cooling performance 12 °C / 7 °C (1)										
Cooling capacity	kW	6,7	8,4	11,4	-	-	-	-	-	-
Input power	kW	1,5	1,8	2,4	-	-	-	-	-	-
Cooling total input current	A	7,8	9,9	12,0	-	-	-	-	-	-
EER	W/W	4,54	4,75	4,80	-	-	-	-	-	-
Water flow rate source side	l/h	1386	1731	2359	-	-	-	-	-	-
Useful head source side	kPa	59	54	36	-	-	-	-	-	-
Water flow rate system side	l/h	1137	1430	1955	-	-	-	-	-	-
Useful head system side	kPa	74,0	70,0	56,0	-	-	-	-	-	-
Heating performance 40 °C / 45 °C (2)										
Heating capacity	kW	7,5	9,3	12,4	-	-	-	-	-	-
Input power	kW	1,9	2,3	3,0	-	-	-	-	-	-
Heating total input current	A	9,9	13,0	15,0	-	-	-	-	-	-
COP	W/W	3,97	4,01	4,17	-	-	-	-	-	-
Water flow rate source side	l/h	1662	2053	2778	-	-	-	-	-	-
Useful head source side	kPa	52	43	16	-	-	-	-	-	-
Water flow rate system side	l/h	1319	1626	2171	-	-	-	-	-	-
Useful head system side	kPa	63,0	59,0	45,0	-	-	-	-	-	-

(1) Date 14511:2018; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C
(2) Date 14511:2018; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

ENERGY INDICES (REG. 2016/2281 EU)

WRL ABP

Size		026	031	041	051	071	081	101	141	161
Power supply: °										
SEER - 12/7 (EN14825: 2018) (1)										
SEER	W/W	5,00	5,37	5,22	5,38	5,62	5,30	5,31	5,27	5,21
Seasonal efficiency	%	196,9%	211,7%	205,8%	212,0%	221,7%	208,8%	209,2%	207,7%	205,5%
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (2)										
Pdesignh	kW	10	13	17	22	30	34	44	59	66
SCOP		5,78	6,15	5,75	6,13	5,75	5,45	6,00	5,95	5,60
ηsh	%	223.0%	238.0%	222.0%	237.0%	222.0%	210.0%	232.0%	230.0%	216.0%
Efficiency energy class		A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++
Power supply: M										
SEER - 12/7 (EN14825: 2018) (1)										
SEER	W/W	4,73	5,20	5,22	-	-	-	-	-	-
Seasonal efficiency	%	186,3%	205,1%	205,6%	-	-	-	-	-	-
UE 811/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 70 kW (2)										
Pdesignh	kW	11	13	17	-	-	-	-	-	-
SCOP		5,90	6,28	5,55	-	-	-	-	-	-
ηsh	%	228.0%	243.0%	214.0%	-	-	-	-	-	-
Efficiency energy class		A+++	A+++	A+++	-	-	-	-	-	-

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Efficiencies for low temperature applications (35 °C)

ELECTRIC DATA

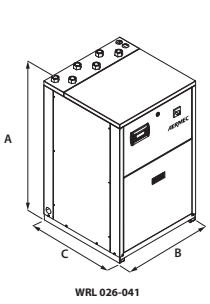
Size			026	031	041	051	071	081	101	141	161
Electric data											
Maximum current (FLA)	°	A	8,0	8,0	15,0	17,0	21,0	22,0	32,0	40,0	41,0
	M	A	18,0	21,0	34,0	-	-	-	-	-	-
Peak current (LRA)	°	A	34,0	37,0	65,0	75,0	75,0	75,0	90,0	94,0	95,0
	M	A	63,0	84,0	119,0	-	-	-	-	-	-

GENERAL TECHNICAL DATA

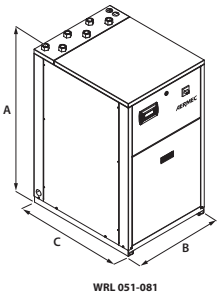
Size			026	031	041	051	071	081	101	141	161
Compressor											
Type	°,A	type					Scroll				
Number	°,A	no.	1	1	1	1	1	1	2	2	2
Circuits	°,A	no.	1	1	1	1	1	1	1	1	1
Refrigerant	°,A	type					R410A				
Refrigerant charge (1)	°,A	kg	0,8	0,9	1,2	1,6	1,9	2,0	3,6	4,4	4,7
Source side heat exchanger											
Type	°,A	type					Brazed plate				
Number	°,A	no.	1	1	1	1	1	1	1	1	1
System side heat exchanger											
Type	°,A	type					Brazed plate				
Number	°,A	no.	1	1	1	1	1	1	1	1	1
Source side hydraulic connections											
Connections (in/out)	°,A	Type					Gas-F				
Sizes (in/out)	°,A	Ø					1" 1/4				
System side hydraulic connections											
Connections (in/out)	°,A	Type					Gas-F				
Sizes (in/out)	°,A	Ø					1" 1/4				
Sound data calculated in cooling mode (2)											
Sound power level	°,A	dB(A)	55,5	57,0	57,5	59,0	60,0	60,5	62,0	63,0	63,5
Sound pressure level (10 m)	°	dB(A)	24,3	25,8	26,3	27,7	28,7	29,2	30,6	31,6	32,1
	A	dB(A)	24,1	25,6	26,1	27,6	28,6	29,1	30,5	31,5	32,0

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

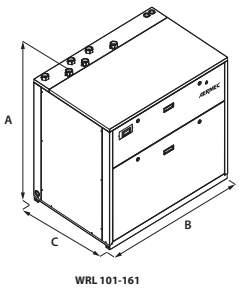
DIMENSIONS



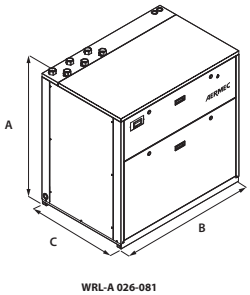
WRL 026-041



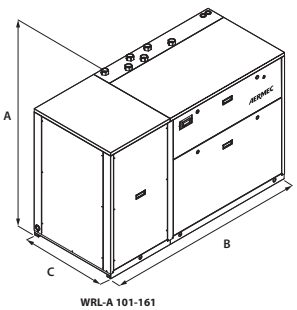
WRL 051-081



WRL 101-161



WRL-A 026-081



WRL-A 101-161

Size			026	031	041	051	071	081	101	141	161
Dimensions and weights											
A	°	mm	976	976	976	1126	1126	1126	1126	1126	1126
	A	mm	1126	1126	1126	1126	1126	1126	1126	1126	1126
B	°	mm	605	605	605	605	605	605	1155	1155	1155
	A	mm	1155	1155	1155	1155	1155	1155	1755	1755	1755
C	°	mm	603	603	603	773	773	773	773	773	773
	A	mm	773	773	773	773	773	773	773	773	773
Empty weight	°	kg	120	125	130	150	170	180	260	270	280
	A	kg	190 (1)	200 (1)	210 (1)	230 (1)	250 (1)	260 (1)	340 (1)	350 (1)	360 (1)

(1) Units with two heat exchangers and storage tank, without pumps

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WRL 180H - 650H

Reversible water-cooled heat pump, gas side

Cooling capacity 44,9 ÷ 157,4 kW
Heating capacity 53,0 ÷ 183,3 kW

- **High efficiency**
- **Suitable for geothermal applications**
- **Production of hot water up to 55 °C**





EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

DESCRIPTION

Water-water offering chilled/hot water, designed to mit air conditioning needs in residential/commercial complexes or industrial applications.
Indoor units with hermetic scroll compressors and plate heat exchangers.
In the configuration with desuperheater, it is also possible to produce free-hot water.
The technological choices made, always oriented to the highest quality, ensure very easy installation. In fact the electrical and hydraulic connections are all located in the upper part of the unit, facilitating the installation and maintenance operations and also reducing the technical gaps and their position in as little space as possible.

FEATURES

Operating field

Full-load operation with the production of chilled water 4-18°C, and the possibility to produce also negative temperature water down to -8°C for the evaporator and hot water for the condenser up to 55 °C.
(for more information, refer to the technical documentation).

Plug and play

All the units are equipped with scroll compressors and plate heat exchangers; the base and panelling are made of steel treated with RAL 9003 polyester paints.
The electric and hydraulic connections are all located on the upper part of the unit facilitating installation and maintenance. This allows reduced plant room space and installation in the smallest space possible.
The heat pump can be supplied with all the components required for its installation in new systems and to replace other heat generators. It can be combined with low temperature emission systems such as floor heating or fan coils, but also with conventional radiators.

Version with Integrated hydronic kit

The standard unit is supplied with a water filter, differential pressure switch and safety valve already installed on the service and source side (and also on the recovery side, if present).
To obtain a solution that offers economic savings and facilitates installation, these units can be configured with an integrated hydronic kit on both hydraulic sides (service and source).
Low-head and high-head pumps are available, along with a modulating 2-way valve that can only be applied on the source side to reduce consumption in applications with groundwater.

CONTROL MPC

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.
— Possibility to control two units in a Master-Slave configuration
— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
— The temperature control takes place with the integral proportional logic, based on the water output temperature.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
KSAE: External air sensor.
PGD1: Allows you to control the unit at a distance.
SSM: Probe to be used with the mixer valve in applications with radiant panels. The probe requires the VMF-CRP area accessory as well.
TAH: Ambient terminal with temperature and humidity probe - 230V AC flush-mounting model that can command an On-Off valve or a zone pump and dehumidifier consent.
TAT: Ambient terminal with temperature probe - 230V AC flush-mounting model that can command an On-Off valve or a zone pump.
VMF-CRP: Accessory module for controlling boilers, heat recover units and pumps (if associated with VMF-E5 / RCC panels); if associated with

the VMF-E6 panel, the VMF-CRP modules will be able to manage heat recovery units, RAS, boiler, sanitary management, I/O control, pumps.

VT: Anti-vibration supports.

ACCESSORIES COMPATIBILITY

Model	Ver	180	200	300	400	500	550	600	650
AER485P1	°	•	•	•	•	•	•	•	•
AERNET	°	•	•	•	•	•	•	•	•
KSAE	°	•	•	•	•	•	•	•	•
PGD1	°	•	•	•	•	•	•	•	•
SSM	°	•	•	•	•	•	•	•	•
TAH	°	•	•	•	•	•	•	•	•
TAT	°	•	•	•	•	•	•	•	•
VMF-CRP	°	•	•	•	•	•	•	•	•

Antivibration

Version	Integrated hydronic kit, user side	Integrated hydronic kit, source side	180	200	300	400	500	550	600	650
°	°,N,P	°,B,F,I,U,V	VT9	VT9	VT9	VT9	VT15	VT15	VT15	VT15

CONFIGURATOR

Field		Description
1,2,3		**WRL**
4,5,6		**Size** 180, 200, 300, 400, 500, 550, 600, 650
7		**Operating field**
	°	Standard mechanic thermostatic valve (1)
	X	Electronic thermostatic expansion valve
	Y	Low temperature mechanic thermostatic valve (2)
8		**Model**
	H	Reversible heat pump, gas side
9		**Version**
	°	Standard
10		**Heat recovery**
	°	Without heat recovery
	D	With desuperheater
11		**Integrated hydronic kit, source side**
	°	Without hydronic kit
	B	On-off pump
	F	Single low-head inverter pump
	I	High-head inverter pump
	U	Pump high head
		Applications with bore hole water
	V	2-way modulating valve
12		**Integrated hydronic kit, user side**
	°	Without hydronic kit
	N	Pump high head
	P	Pump low head
13		**Field for future development**
	°	Field for future development
14		**Soft-start**
	°	Without soft-start
	S	With soft-start
15		**Power supply**
	°	400V ~ 3N 50Hz

(1) Water produced from 4 °C ÷ 18 °C
(2) Water produced from 4 °C ÷ - 8 °C

PERFORMANCE SPECIFICATIONS

WRL - °

Size			180	200	300	400	500	550	600	650
Cooling performance 12 °C / 7 °C (1)										
Cooling capacity	°	kW	44,9	59,6	64,8	79,5	93,0	120,1	140,1	157,4
Input power	°	kW	10,8	14,7	16,3	18,6	20,1	27,6	31,4	35,8
Cooling total input current	°	A	20,0	25,0	28,0	32,0	36,0	52,0	60,0	69,0
EER	°	W/W	4,15	4,06	3,97	4,27	4,63	4,34	4,46	4,39
Water flow rate source side	°	l/h	9520	12659	13823	16682	19331	25177	29250	32920
Pressure drop source side	°	kPa	31	52	51	74	34	56	57	71
Water flow rate system side	°	l/h	7732	10274	11168	13711	16013	20686	24139	27112
Pressure drop system side	°	kPa	22	37	36	52	25	40	40	38
Heating performance 40 °C / 45 °C (2)										
Heating capacity	°	kW	53,0	70,9	76,6	92,6	106,4	143,7	164,2	183,3
Input power	°	kW	12,9	17,7	19,1	22,6	24,0	33,1	37,2	42,7
Heating total input current	°	A	23,0	29,0	31,0	37,0	41,0	56,0	64,0	74,0
COP	°	W/W	4,10	4,00	4,01	4,10	4,44	4,34	4,41	4,30
Water flow rate source side	°	l/h	11777	15734	17011	20840	24211	32704	37512	41689
Pressure drop source side	°	kPa	49	89	92	132	61	107	101	126
Water flow rate system side	°	l/h	9190	12277	13264	16046	18452	24913	28485	31788
Pressure drop system side	°	kPa	30	52	49	72	32	58	56	70

(1) Date 14511:2018; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C
(2) Date 14511:2018; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

ELECTRIC DATA

Size			180	200	300	400	500	550	600	650
Electric data										
Maximum current (FLA)	°	A	32,6	41,8	45,2	52,1	59,0	99,0	112,0	125,0
Peak current (LRA)	°	A	119,0	123,0	125,0	167,0	174,0	265,0	310,0	323,0

ENERGY INDICES (REG. 2016/2281 EU)

Size			180	200	300	400	500	550	600	650
SEER - 12/7 (EN14825: 2018) (1)										
SEER	°	W/W	4,25	4,04	4,15	4,38	5,04	4,62	4,80	4,69
Seasonal efficiency	°	%	166,9%	158,5%	162,8%	172,3%	198,4%	181,7%	188,9%	184,5%
UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (2)										
Pdesignh	°	kW	68	91	98	119	137	185	212	236
ηsh	°	%	173.0%	170.0%	170.0%	175.0%	189.0%	186.0%	189.0%	184.0%
SCOP	°		4,53	4,45	4,45	4,58	4,93	4,85	4,93	4,80
Efficiency energy class	°		A+++	-	-	-	-	-	-	-
UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (3)										
Pdesignh	°	kW	79	-	-	-	-	-	-	-
ηsh	°	%	222.0%	-	-	-	-	-	-	-
SCOP	°		5,75	-	-	-	-	-	-	-
Efficiency energy class	°		A+++	-	-	-	-	-	-	-

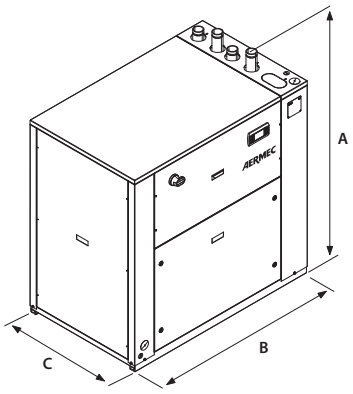
(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Efficiencies for average temperature applications (55 °C)
(3) Efficiencies for low temperature applications (35 °C)

GENERAL TECHNICAL DATA

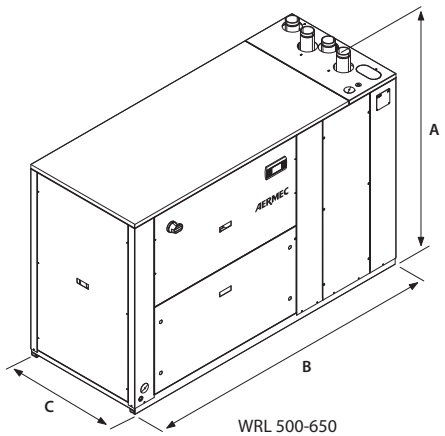
Size			180	200	300	400	500	550	600	650
Compressor										
Type	°	type				Scroll				
Compressor regulation	°	Type				On-Off				
Number	°	no.	2	2	2	2	2	2	2	2
Circuits	°	no.	1	1	1	1	1	1	1	1
Refrigerant	°	type				R410A				
Source side heat exchanger										
Type	°	type				Brazed plate				
Number	°	no.	1	1	1	1	1	1	1	1
System side heat exchanger										
Type	°	type				Brazed plate				
Number	°	no.	1	1	1	1	1	1	1	1
Source side hydraulic connections										
Connections (in/out)	°	Type				Grooved joints				
Sizes (in/out)	°	Ø	2"	2"	2"	2"	2"1/2	2"1/2	2"1/2	2"1/2
System side hydraulic connections										
Connections (in/out)	°	Type				Grooved joints				
Sizes (in/out)	°	Ø	2"	2"	2"	2"	2"1/2	2"1/2	2"1/2	2"1/2
Sound data calculated in cooling mode (1)										
Sound power level	°	dB(A)	61,1	61,8	62,9	71,1	67,6	79,1	79,1	79,1
Sound pressure level (10 m)	°	dB(A)	29,6	30,3	31,4	39,6	36,0	47,5	47,5	47,5

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



WRL 180-400



WRL 500-650

Size			180	200	300	400	500	550	600	650
Dimensions and weights										
A	°	mm	1380	1380	1380	1380	1380	1380	1380	1380
B	°	mm	1320	1320	1320	1320	2060	2060	2060	2060
C	°	mm	845	845	845	845	845	845	845	845
Empty weight	°	kg	370	370	381	388	522	598	708	753

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WRL 180 - 650

Water cooled heat pump reversible water side

Cooling capacity 49 ÷ 174 kW
Heating capacity 55 ÷ 192 kW

- **High efficiency**
- **Suitable for geothermal applications**
- **Production of hot water up to 55 °C**



DESCRIPTION

Water-water offering chilled/hot water, designed to mit air conditioning needs in residential/commercial complexes or industrial applications.
Indoor units with hermetic scroll compressors and plate heat exchangers.
In the configuration with desuperheater, it is also possible to produce free-hot water.
The technological choices made, always oriented to the highest quality, ensure very easy installation. In fact the electrical and hydraulic connections are all located in the upper part of the unit, facilitating the installation and maintenance operations and also reducing the technical gaps and their position in as little space as possible.

FEATURES

Operating field

Full-load operation with the production of chilled water 4-18°C, and the possibility to produce also negative temperature water down to -8°C for the evaporator and hot water for the condenser up to 55 °C.
(for more information, refer to the technical documentation).

Plug and play

All the units are equipped with scroll compressors and plate heat exchangers; the base and panelling are made of steel treated with RAL 9003 polyester paints.
The electric and hydraulic connections are all located on the upper part of the unit facilitating installation and maintenance. This allows reduced plant room space and installation in the smallest space possible.
The heat pump can be supplied with all the components required for its installation in new systems and to replace other heat generators. It can be combined with low temperature emission systems such as floor heating or fan coils, but also with conventional radiators.

Version with Integrated hydronic kit

The standard unit is supplied with a water filter, differential pressure switch and safety valve already installed on the service and source side (and also on the recovery side, if present).
To obtain a solution that offers economic savings and facilitates installation, these units can be configured with an integrated hydronic kit on both hydraulic sides (service and source).
Low-head and high-head pumps are available, along with a modulating 2-way valve that can only be applied on the source side to reduce consumption in applications with groundwater.

CONTROL MPC

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.
— Possibility to control two units in a Master-Slave configuration
— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
— The temperature control takes place with the integral proportional logic, based on the water output temperature.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
KSAE: External air sensor.
PGD1: Allows you to control the unit at a distance.
SSM: Probe to be used with the mixer valve in applications with radiant panels. The probe requires the VMF-CRP area accessory as well.
TAH: Ambient terminal with temperature and humidity probe - 230V AC flush-mounting model that can command an On-Off valve or a zone pump and dehumidifier consent.
TAT: Ambient terminal with temperature probe - 230V AC flush-mounting model that can command an On-Off valve or a zone pump.
VMF-CRP: Accessory module for controlling boilers, heat recover units and pumps (if associated with VMF-E5 / RCC panels); if associated with

the VMF-E6 panel, the VMF-CRP modules will be able to manage heat recovery units, RAS, boiler, sanitary management, I/O control, pumps.

VT: Anti-vibration supports.

ACCESSORIES COMPATIBILITY

Ver	180	200	300	400	500	550	600	650
Model: °, E, K								
°	AER485P1, AERNET, KSAE, PGD1, SSM, TAH, TAT, VMF-CRP	AER485P1, AERNET, KSAE, PGD1, SSM, TAH, TAT, VMF-CRP	AER485P1, AERNET, KSAE, PGD1, SSM, TAH, TAT, VMF-CRP	AER485P1, AERNET, KSAE, PGD1, SSM, TAH, TAT, VMF-CRP	AER485P1, AERNET, KSAE, PGD1, SSM, TAH, TAT, VMF-CRP	AER485P1, AERNET, KSAE, PGD1, SSM, TAH, TAT, VMF-CRP	AER485P1, AERNET, KSAE, PGD1, SSM, TAH, TAT, VMF-CRP	AER485P1, AERNET, KSAE, PGD1, SSM, TAH, TAT, VMF-CRP

Antivibration

Version	Integrated hydronic kit, source side	Integrated hydronic kit, user side	180	200	300	400	500	550	600	650
°	°,B,F,I,U,V	°,N,P	VT9	VT9	VT9	VT9	VT15	VT15	VT15	VT15

CONFIGURATOR

Field	Description
1,2,3	**WRL**
4,5,6	**Size** 180, 200, 300, 400, 500, 550, 600, 650
7	**Operating field**
°	Standard mechanic thermostatic valve (1)
X	Electronic thermostatic expansion valve
Y	Low temperature mechanic thermostatic valve (2)
8	**Model**
°	Heat pump reversible on the water side
E	Evaporating unit (3)
K	Heat pump reversible on the water side with low pressure drops
9	**Version**
°	Standard
10	**Heat recovery**
°	Without heat recovery
D	With desuperheater
11	**Integrated hydronic kit, source side**
°	Without hydronic kit
B	On-off pump
F	Single low-head inverter pump
I	High-head inverter pump
U	Pump high head
	Applications with bore hole water
V	2-way modulating valve
12	**Integrated hydronic kit, user side**
°	Without hydronic kit
N	Pump high head
P	Pump low head
13	**Field for future development**
°	Field for future development
14	**Soft-start**
°	Without soft-start
S	With soft-start
15	**Power supply**
°	400V~3N 50Hz

(1) Water produced from 4 °C ÷ 18 °C
(2) Water produced from 4 °C ÷ - 8 °C
(3) Shipped with holding charge only

PERFORMANCE SPECIFICATIONS

WRL - E

Size		180	200	300	400	500	550	600	650
Cooling performance 12 °C / 7 °C (1)									
Cooling capacity	kW	46,0	60,1	69,6	80,1	90,6	121,3	140,2	158,7
Input power	kW	12,4	16,0	18,5	19,8	23,1	29,6	34,1	38,5
Cooling total input current	A	23,0	29,0	32,0	36,0	42,0	56,0	65,0	74,0
EER	W/W	3,71	3,76	3,76	4,05	3,92	4,10	4,11	4,12
Water flow rate system side	l/h	7903	10326	11958	13762	15566	20841	24088	27266
Pressure drop system side	kPa	23	39	39	56	25	42	47	57

(1) Service side water 12 °C / 7 °C; Condensing temperature 45 °C

WRL - °

Size		180	200	300	400	500	550	600	650
Cooling performance 12 °C / 7 °C (1)									
Cooling capacity	kW	49,7	64,3	74,4	85,9	99,8	129,5	150,1	169,0
Input power	kW	10,8	14,4	16,8	18,3	20,4	27,0	31,0	35,7
Cooling total input current	A	20,0	25,0	29,0	62,0	36,0	51,0	59,0	68,0
EER	W/W	4,59	4,47	4,42	4,69	4,90	4,80	4,84	4,73
Water flow rate source side	l/h	10336	13418	15531	17725	20550	26664	30860	34836
Pressure drop source side	kPa	27	46	62	81	32	52	57	72
Water flow rate system side	l/h	8549	11082	12824	14822	17186	22296	25844	29025
Pressure drop system side	kPa	27	43	46	60	30	49	53	67
Heating performance 40 °C / 45 °C (2)									
Heating capacity	kW	55,8	72,6	84,1	95,6	110,7	143,6	166,1	187,7
Input power	kW	13,2	17,6	20,5	22,4	24,8	32,9	37,9	43,9
Heating total input current	A	24,0	30,0	34,0	38,0	44,0	61,0	71,0	82,0
COP	W/W	4,24	4,13	4,10	4,27	4,46	4,36	4,38	4,27
Water flow rate source side	l/h	12542	16257	18813	21745	25213	32709	37914	42683
Pressure drop source side	kPa	58	93	99	129	65	105	114	144
Water flow rate system side	l/h	9685	12580	14561	16557	19196	24909	28816	32553
Pressure drop system side	kPa	24	40	55	71	28	45	50	63

(1) Date 14511:2018; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C
(2) Date 14511:2018; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

WRL - K

Size		180	200	300	400	500	550	600	650
Cooling performance 12 °C / 7 °C (1)									
Cooling capacity	kW	49,7	66,3	76,7	88,6	99,8	133,5	154,6	174,1
Input power	kW	10,8	14,4	16,9	18,3	20,4	26,7	30,8	35,6
Cooling total input current	A	20,0	25,0	29,0	32,0	36,0	51,0	59,0	68,0
EER	W/W	4,59	4,61	4,55	4,85	4,50	5,00	5,02	4,90
Water flow rate source side	l/h	10336	13753	15919	18173	20550	27338	31642	35716
Pressure drop source side	kPa	27	48	65	85	32	55	60	76
Water flow rate system side	l/h	8549	11414	13209	15267	17186	22965	26619	29967
Pressure drop system side	kPa	27	34	42	48	30	24	33	41
Heating performance 40 °C / 45 °C (2)									
Heating capacity	kW	55,8	74,3	86,1	97,9	110,7	147,1	170,1	192,1
Input power	kW	13,2	17,5	20,5	22,2	24,8	32,3	37,3	43,1
Heating total input current	A	24,0	30,0	34,0	38,0	44,0	61,0	71,0	82,0
COP	W/W	4,24	4,24	4,20	4,40	4,46	4,56	4,56	4,46
Water flow rate source side	l/h	12542	16745	19337	22397	25213	33690	39052	43963
Pressure drop source side	kPa	58	73	90	103	65	52	71	88
Water flow rate system side	l/h	9685	12876	14904	16953	19196	25504	29507	33331
Pressure drop system side	kPa	24	42	57	74	28	48	52	66

(1) Date 14511:2018; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C
(2) Date 14511:2018; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

ENERGY INDICES (REG. 2016/2281 EU)

WRL °

Size		180	200	300	400	500	550	600	650
SEER - 12/7 (EN14825: 2018) (1)									
SEER	W/W	4,65	4,55	4,54	4,74	5,31	5,04	5,12	4,97
Seasonal efficiency	%	182,8%	178,9%	178,5%	186,4%	209,3%	198,7%	201,7%	195,8%
UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (2)									
Pdesignh	kW	68	91	98	119	137	185	212	236
ηsh	%	173.0%	170.0%	170.0%	175.0%	189.0%	186.0%	189.0%	184.0%
SCOP		4,53	4,45	4,45	4,58	4,93	4,85	4,93	4,80
Efficiency energy class		A+++	-	-	-	-	-	-	-
UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (3)									
Pdesignh	kW	79	-	-	-	-	-	-	-
ηsh	%	222.0%	-	-	-	-	-	-	-
SCOP		5,75	-	-	-	-	-	-	-
Efficiency energy class		A+++	-	-	-	-	-	-	-

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Efficiencies for average temperature applications (55 °C)
(3) Efficiencies for low temperature applications (35 °C)

WRL K

Size		180	200	300	400	500	550	600	650
SEER - 12/7 (EN14825: 2018) (1)									
SEER	W/W	4,65	4,71	4,67	4,90	5,31	5,31	5,35	5,19
Seasonal efficiency	%	182,8%	185,3%	183,6%	192,9%	209,3%	209,2%	210,9%	204,6%
UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (2)									
Pdesignh	kW	68	91	98	119	137	185	212	236
ηsh	%	173.0%	170.0%	170.0%	175.0%	189.0%	186.0%	189.0%	184.0%
SCOP		4,53	4,45	4,45	4,58	4,93	4,85	4,93	4,80
Efficiency energy class		A+++	-	-	-	-	-	-	-
UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (3)									
Pdesignh	kW	79	-	-	-	-	-	-	-
ηsh	%	222.0%	-	-	-	-	-	-	-
SCOP		5,75	-	-	-	-	-	-	-
Efficiency energy class		A+++	-	-	-	-	-	-	-

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Efficiencies for average temperature applications (55 °C)
(3) Efficiencies for low temperature applications (35 °C)

ELECTRIC DATA

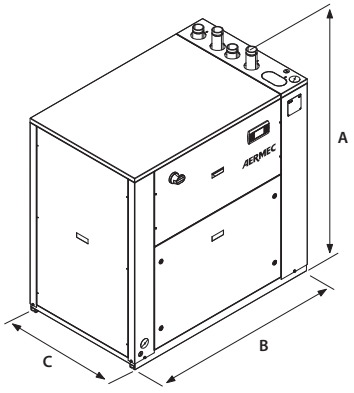
Size			180	200	300	400	500	550	600	650
Electric data										
Maximum current (FLA)	°,E,K	A	32,6	41,8	45,2	52,1	59,0	99,0	112,0	125,0
Peak current (LRA)	°,E,K	A	119,0	123,0	125,0	167,0	174,0	265,0	310,0	323,0

GENERAL TECHNICAL DATA

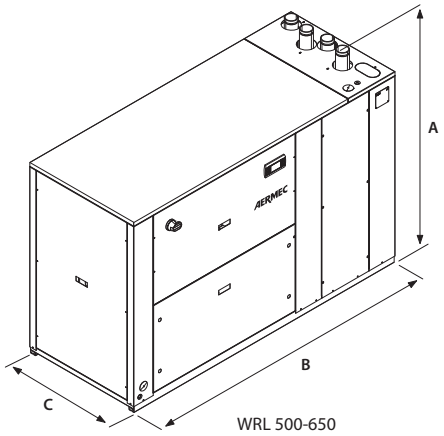
Size			180	200	300	400	500	550	600	650
Compressor										
Type	°,E,K	type				Scroll				
Compressor regulation	°,E,K	Type				On-Off				
Number	°,E,K	no.	2	2	2	2	2	2	2	2
Circuits	°,E,K	no.	1	1	1	1	1	1	1	1
Refrigerant	°,E,K	type				R410A				
Refrigerant charge (1)	°,K	kg	6,0	7,0	6,8	7,2	9,0	14,5	16,8	16,5
	E	kg	Holding charge	Holding charge	Holding charge	Holding charge	Holding charge	Holding charge	Holding charge	Holding charge
Source side heat exchanger										
Type	°,K	type				Brazed plate				
	E	type								
Number	°,K	no.	1	1	1	1	1	1	1	1
	E	no.	-	-	-	-	-	-	-	-
System side heat exchanger										
Type	°,E,K	type				Brazed plate				
Number	°,E,K	no.	1	1	1	1	1	1	1	1
Source side hydraulic connections										
Connections (in/out)	°,K	Type				Grooved joints				
	E	Type								
Sizes (in/out)	°,K	Ø	2"	2"	2"	2"	2"1/2	2"1/2	2"1/2	2"1/2
	E	Ø								
System side hydraulic connections										
Connections (in/out)	°,E,K	Type				Grooved joints				
Sizes (in/out)	°,E,K	Ø	2"	2"	2"	2"	2"1/2	2"1/2	2"1/2	2"1/2
Sound data calculated in cooling mode (2)										
Sound power level	°,E,K	dB(A)	61,1	61,8	62,9	71,1	67,6	79,1	79,1	79,1
Sound pressure level (10 m)	°,E,K	dB(A)	29,6	30,3	31,4	39,6	36,0	47,5	47,5	47,5

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



WRL 180-400



WRL 500-650

Size			180	200	300	400	500	550	600	650
Dimensions and weights										
A	°,E,K	mm	1380	1380	1380	1380	1380	1380	1380	1380
B	°,E,K	mm	1320	1320	1320	1320	2060	2060	2060	2060
C	°,E,K	mm	845	845	845	845	845	845	845	845
Empty weight	°,K	kg	375	375	381	388	518	594	670	715
	E	kg	-	-	-	-	-	-	-	-

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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www.aermec.com

WRK

Reversible water-cooled heat pump, gas side

Cooling capacity 38,9 ÷ 165,9 kW
Heating capacity 48,5 ÷ 207,7 kW

- **Optimised for heating in centralised systems.**
- **Production of hot water at high temperature up to 68°C.**
- **Independent from the gas network.**
- **DHW production.**



EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

DESCRIPTION
Water source heat pump with reverse cycle valve. The unit can produce chilled and hot water but it is optimized for high temperature hot water production, making it a perfect solution for DHW applications. It can also work with low source temperatures which make it possible to work with geothermal applications.

VERSIONS
° Standard
L Standard silenced

FEATURES

Extended operating range
Particular attention has been given to winter operation, ensuring the production of hot water up to 68°C.

Plug and play
All units are equipped with scroll compressors with steam injection and brazed plate heat exchangers. The base and panels are made of steel treated with polyester paints RAL 9003.
The heat pump can be supplied with all the components required for its installation in new systems and in retrofit applications. It can be combined with low temperature emission systems such as in floor radiant heating or fan coils, but also with conventional radiators.

Integrated hydronic kit
Integrated hydronic kit containing the main hydraulic components; available with various configurations with one or two pumps, high or low head, to obtain a solution that allows you to save money and to facilitate installation.

CONTROL PCO_5
Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.
— Possibility to control two units in a Master-Slave configuration
— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
— The temperature control takes place with the integral proportional logic, based on the water output temperature.

ACCESSORIES
AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
PGD1: Allows you to control the unit at a distance.
AVX: Spring anti-vibration supports.
VT: Anti-vibration supports.

FACTORY FITTED ACCESSORIES
DRE: Electronic device for peak current reduction.
RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
T6: Double safety valve with exchange cock, both on the high and low pressure branches.

ACCESSORIES COMPATIBILITY

Model	Ver	0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
AER485P1	°						•	•	•	•	•
	L	•	•	•	•	•	•	•	•	•	•
AERBACP	°						•	•	•	•	•
	L	•	•	•	•	•	•	•	•	•	•
AERNET	°						•	•	•	•	•
	L	•	•	•	•	•	•	•	•	•	•
PGD1	°						•	•	•	•	•
	L	•	•	•	•	•	•	•	•	•	•

Antivibration

Version	Integrated hydronic kit, user side	Integrated hydronic kit, source side	0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
°	°	°	-	-	-	-	-	AVX345	AVX342	AVX342	AVX342	AVX342
°	°,M	J,K,U,W	-	-	-	-	-	AVX343	AVX343	AVX343	AVX343	AVX343
°	N	°	-	-	-	-	-	AVX343	AVX343	AVX343	AVX343	AVX343
°	O	J,K,U,W	-	-	-	-	-	AVX343	AVX343	AVX343	AVX343	AVX343
°	P	°	-	-	-	-	-	AVX343	AVX343	AVX343	AVX343	AVX343
°	°	Q,R,V,Z	-	-	-	-	-	AVX313	AVX343	AVX343	AVX343	AVX343
°	M,O	°	-	-	-	-	-	AVX313	AVX343	AVX343	AVX343	AVX343
°	N,P	Q,R,V,Z	-	-	-	-	-	AVX343	AVX343	AVX343	AVX344	AVX344
L	°	°	-	-	-	-	-	AVX345	AVX342	AVX342	AVX342	AVX342
L	°,M	J,K,U,W	-	-	-	-	-	AVX343	AVX343	AVX343	AVX343	AVX343
L	N	°	-	-	-	-	-	AVX343	AVX343	AVX343	AVX343	AVX343
L	O	J,K,U,W	-	-	-	-	-	AVX343	AVX343	AVX343	AVX343	AVX343
L	P	°	-	-	-	-	-	AVX343	AVX343	AVX343	AVX343	AVX343
L	°	Q,R,V,Z	-	-	-	-	-	AVX313	AVX343	AVX343	AVX343	AVX343
L	M,O	°	-	-	-	-	-	AVX313	AVX343	AVX343	AVX343	AVX343
L	N,P	Q,R,V,Z	-	-	-	-	-	AVX343	AVX343	AVX343	AVX344	AVX344

- not available

Version	Integrated hydronic kit, user side	Integrated hydronic kit, source side	0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
°	°	°,J,K,Q,R,U,V,W,Z	-	-	-	-	-	-	-	-	-	-
°	M	°,J,K,U,W	-	-	-	-	-	-	-	-	-	-
°	N	°,Q,R,V,Z	-	-	-	-	-	-	-	-	-	-
°	O	°,J,K,U,W	-	-	-	-	-	-	-	-	-	-
°	P	°,Q,R,V,Z	-	-	-	-	-	-	-	-	-	-
L	°	°	VT9	VT9	VT9	VT9	VT9	-	-	-	-	-
L	°	J,K,Q,R,U,V,W,Z	VT15	VT15	VT15	VT15	VT15	-	-	-	-	-
L	M	°,J,K,U,W	VT15	VT15	VT15	VT15	VT15	-	-	-	-	-
L	N	°,Q,R,V,Z	VT15	VT15	VT15	VT15	VT15	-	-	-	-	-
L	O	°,J,K,U,W	VT15	VT15	VT15	VT15	VT15	-	-	-	-	-
L	P	°,Q,R,V,Z	VT15	VT15	VT15	VT15	VT15	-	-	-	-	-

- not available

Electronic device for peak current reduction.

Ver	0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
°	-	-	-	-	-	DREWRK0500 (1)	DREWRK0550 (1)	DREWRK0600 (1)	DREWRK0650 (1)	DREWRK0700 (1)
L	DREWRK0200 (1)	DREWRK0280 (1)	DREWRK0300 (1)	DREWRK0330 (1)	DREWRK0350 (1)	DREWRK0500 (1)	DREWRK0550 (1)	DREWRK0600 (1)	DREWRK0650 (1)	DREWRK0700 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
A grey background indicates the accessory must be assembled in the factory

Power factor correction.

Ver	0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
°	-	-	-	-	-	RIFWRK0500	RIFWRK0550	RIFWRK0600	RIFWRK0650	RIFWRK0700
L	RIFWRK0200	RIFWRK0280	RIFWRK0300	RIFWRK0330	RIFWRK0350	RIFWRK0500	RIFWRK0550	RIFWRK0600	RIFWRK0650	RIFWRK0700

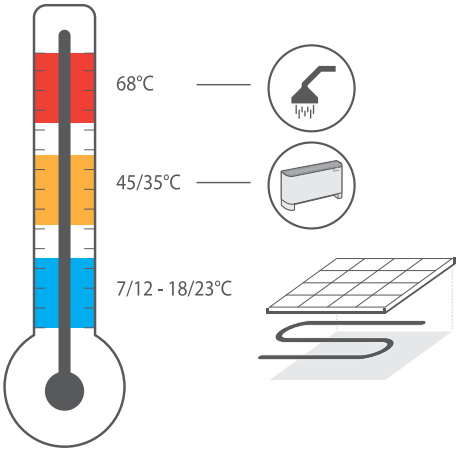
A grey background indicates the accessory must be assembled in the factory

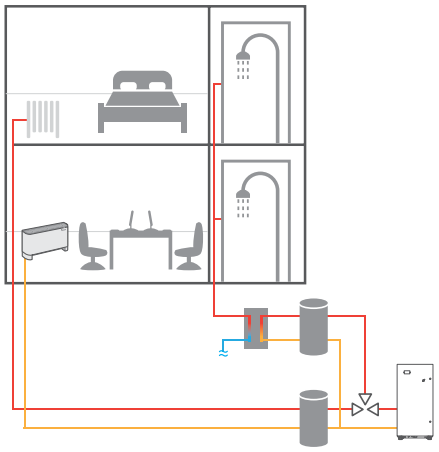
Double safety valve.

Ver	0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
°	-	-	-	-	-	T6WRK2	T6WRK2	T6WRK2	T6WRK2	T6WRK2
L	T6WRK1	T6WRK1	T6WRK1	T6WRK1	T6WRK1	T6WRK2	T6WRK2	T6WRK2	T6WRK2	T6WRK2

A grey background indicates the accessory must be assembled in the factory

APPLICATION EXAMPLES





WRK units are used in building renovations, where centralised boilers need replacing, while maintaining the existing distribution system and terminals (e.g. radiators) at the same time, to ensure the production of domestic hot water. This situation is typical when operating in contexts such as public buildings, but also in the case of centralised residential systems such as condominiums, where costs must be limited without changing the distribution system, while also offering a renewable energy source, represented precisely by heat pumps. Being able to upgrade a building without involving the distribution system also eliminates the inconveniences associated with the renovation of the premises, ensuring the continuity of the property's use, saving time and money.

CONFIGURATOR

Field		Description
1,2,3		**WRK**
4,5,6,7		**Size** 0200, 0280, 0300, 0330, 0350, 0500, 0550, 0600, 0650, 0700
8		**Operating field**
	°	Standard mechanic thermostatic valve
9		**Model**
	H	Heat pump
10		**Version**
	°	Standard
	L	Standard silenced (1)
11		**Evaporator**
	°	Standard
12		**Heat recovery**
	°	Without heat recovery
	D	With desuperheater
13		**Power supply**
	°	400V ~ 3 50Hz with magnet circuit breakers
14		**Integrated hydronic kit, user side**
	°	Without hydronic kit
	M	Single pump low head
	N	Pump low head + stand-by pump
	O	Single pump high head
	P	Pump high head + stand-by pump
15		**Integrated hydronic kit, source side (2)**
	°	Without hydronic kit
	J	Single low-head inverter pump
	K	Single high-head inverter pump
	Q	Single high-head inverter pump + stand-by pump
	R	Single low-head inverter pump + stand-by pump
	U	Single pump low head
	V	Pump low head + stand-by pump
	W	Single pump high head
	Z	Pump high head + stand-by pump
16		**Field for future development**
	°	Field for future development

(1) The size 0200-0280-0300-0330-0350 only available in low noise version (L)
(2) Heat pumps R and Q are availables only for sizes 0500÷0700

PERFORMANCE SPECIFICATIONS 12 °C/ 7 °C - 40 °C/ 45 °C

WRK - H°

Size		0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
Cooling performance 12 °C / 7 °C (1)											
Cooling capacity	kW	-	-	-	-	-	96,2	110,9	130,0	145,8	166,1
Input power	kW	-	-	-	-	-	21,5	24,0	28,6	33,3	37,4
Cooling total input current	A	-	-	-	-	-	48,0	50,0	62,0	86,0	89,0
EER	W/W	-	-	-	-	-	4,47	4,63	4,55	4,38	4,44
Water flow rate source side	l/h	-	-	-	-	-	20140	23075	27128	30634	34797
Pressure drop source side	kPa	-	-	-	-	-	25	25	25	24	25
Water flow rate system side	l/h	-	-	-	-	-	16552	19082	22366	25077	28566
Pressure drop system side	kPa	-	-	-	-	-	17	17	17	16	17
Heating performance 40 °C / 45 °C (2)											
Heating capacity	kW	-	-	-	-	-	120,8	137,7	163,1	187,1	207,9
Input power	kW	-	-	-	-	-	26,4	29,7	35,4	41,2	45,4
Heating total input current	A	-	-	-	-	-	52,0	56,0	69,0	92,0	95,0
COP	W/W	-	-	-	-	-	4,58	4,64	4,61	4,55	4,58
Water flow rate source side	l/h	-	-	-	-	-	27658	31618	37369	42704	47563
Pressure drop source side	kPa	-	-	-	-	-	49	49	50	47	50
Water flow rate system side	l/h	-	-	-	-	-	20958	23884	28290	32459	36068
Pressure drop system side	kPa	-	-	-	-	-	28	27	28	27	28

(1) Date 14511:2018; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C
(2) Date 14511:2018; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

WRK - HL

Size		0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
Cooling performance 12 °C / 7 °C (1)											
Cooling capacity	kW	38,9	54,4	65,0	74,1	83,5	96,2	110,9	130,0	145,8	166,1
Input power	kW	8,6	12,0	14,3	16,8	18,8	21,5	24,0	28,6	33,3	37,4
Cooling total input current	A	20,0	25,0	31,0	43,0	45,0	48,0	50,0	62,0	86,0	89,0
EER	W/W	4,54	4,54	4,54	4,41	4,43	4,47	4,63	4,55	4,38	4,44
Water flow rate source side	l/h	8131	11358	13570	15551	17498	20140	23075	27128	30634	34797
Pressure drop source side	kPa	19	23	24	25	26	25	25	25	24	25
Water flow rate system side	l/h	6699	9362	11186	12754	14363	16552	19082	22366	25077	28566
Pressure drop system side	kPa	13	16	16	17	17	17	17	17	16	17
Heating performance 40 °C / 45 °C (2)											
Heating capacity	kW	48,4	68,6	81,6	93,4	104,0	120,8	137,7	163,1	187,1	207,9
Input power	kW	10,6	14,8	17,8	20,8	22,9	26,4	29,7	35,4	41,2	45,4
Heating total input current	A	21,0	28,0	35,0	46,0	48,0	52,0	45,0	69,0	92,0	95,0
COP	W/W	4,57	4,62	4,58	4,48	4,54	4,58	4,64	4,61	4,55	4,58
Water flow rate source side	l/h	11062	15751	18684	21290	23771	27658	31618	37369	42704	47563
Pressure drop source side	kPa	37	45	47	49	50	49	49	50	47	50
Water flow rate system side	l/h	8397	11904	14149	16207	18041	20958	23884	28290	32459	36068
Pressure drop system side	kPa	21	26	27	28	29	28	27	28	27	28

(1) Date 14511:2018; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C
(2) Date 14511:2018; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

PERFORMANCE SPECIFICATIONS 23 °C/ 18 °C - 30 °C/ 35 °C

WRK - H°

Size		0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
Cooling performance 23 °C / 18 °C (1)											
Cooling capacity	kW	-	-	-	-	-	126,3	144,8	169,8	189,7	217,3
Input power	kW	-	-	-	-	-	21,7	23,3	29,3	33,4	39,0
Cooling total input current	A	-	-	-	-	-	47,0	47,0	62,0	84,0	91,0
EER	W/W	-	-	-	-	-	5,82	6,20	5,80	5,69	5,58
Water flow rate source side	l/h	-	-	-	-	-	25317	28767	34057	38166	43828
Pressure drop source side	kPa	-	-	-	-	-	39	39	40	37	40
Water flow rate system side	l/h	-	-	-	-	-	21826	25015	29337	32770	37528
Pressure drop system side	kPa	-	-	-	-	-	29	29	29	28	29
Heating performance 30 °C / 35 °C (2)											
Heating capacity	kW	-	-	-	-	-	116,4	132,7	155,6	178,3	198,1
Input power	kW	-	-	-	-	-	20,7	23,0	27,5	32,1	35,4
Heating total input current	A	-	-	-	-	-	42,0	44,0	54,0	73,0	75,0
COP	W/W	-	-	-	-	-	5,62	5,77	5,66	5,56	5,60
Water flow rate source side	l/h	-	-	-	-	-	16656	19095	22309	25455	28334
Pressure drop source side	kPa	-	-	-	-	-	18	18	18	17	18
Water flow rate system side	l/h	-	-	-	-	-	20118	22943	26905	30825	34248
Pressure drop system side	kPa	-	-	-	-	-	25	25	25	24	25

(1) Date 14511:2018; Water user side 23 °C / 18 °C; Water source side 30 °C / 35 °C
(2) Date 14511:2018; Water user side 30 °C / 35 °C; Water source side 10 °C / 5 °C

WRK - HL

Size		0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
Cooling performance 23 °C / 18 °C (1)											
Cooling capacity	kW	50,9	71,0	84,9	96,4	109,2	126,3	144,8	169,8	189,7	217,3
Input power	kW	8,8	11,7	14,7	16,9	19,8	21,7	23,3	29,3	33,4	39,0
Cooling total input current	A	20,0	24,0	31,0	42,0	46,0	47,0	47,0	62,0	84,0	91,0
EER	W/W	5,81	6,10	5,78	5,69	5,53	5,82	6,20	5,80	5,69	5,58
Water flow rate source side	l/h	10217	14150	17036	19386	22038	25317	28767	34057	38166	43828
Pressure drop source side	kPa	30	36	37	39	41	39	39	40	37	40
Water flow rate system side	l/h	8796	12274	14672	16662	18865	21826	25015	29337	32770	37528
Pressure drop system side	kPa	22	27	28	29	30	29	29	29	28	29
Heating performance 30 °C / 35 °C (2)											
Heating capacity	kW	46,4	66,1	77,8	89,0	100,1	116,4	132,7	155,6	178,3	198,1
Input power	kW	8,3	11,5	13,8	16,2	18,2	20,7	23,0	27,5	32,1	35,4
Heating total input current	A	17,0	22,0	28,0	36,0	39,0	42,0	44,0	54,0	73,0	75,0
COP	W/W	5,60	5,76	5,66	5,51	5,49	5,62	5,77	5,66	5,56	5,60
Water flow rate source side	l/h	6629	9514	11157	12694	14269	16656	19095	22309	25455	28334
Pressure drop source side	kPa	13	17	17	17	18	18	18	18	17	18
Water flow rate system side	l/h	8016	11435	13458	15390	17310	20118	22943	26905	30825	34248
Pressure drop system side	kPa	19	24	24	25	26	25	25	25	24	25

(1) Date 14511:2018; Water user side 23 °C / 18 °C; Water source side 30 °C / 35 °C
(2) Date 14511:2018; Water user side 30 °C / 35 °C; Water source side 10 °C / 5 °C

ENERGY INDICES (REG. 2016/2281 EU)

Size			0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
SEER - 12/7 (EN14825: 2018) (1)												
SEER	°	W/W	-	-	-	-	-	5,33	5,46	5,28	5,38	5,28
	L	W/W	4,75	5,14	5,04	5,04	4,97	5,33	5,46	5,28	5,38	5,28
Seasonal efficiency	°	%	-	-	-	-	-	210,2%	215,4%	208,2%	212,2%	208,2%
	L	%	187,0%	202,6%	198,6%	198,6%	195,8%	210,2%	215,4%	208,2%	212,2%	208,2
UE 811/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 70 kW (2)												
Efficiency energy class	°		-	-	-	-	-	-	-	-	-	-
	L		A+++	-	-	-	-	-	-	-	-	-
Pdesignh	°	kW	-	-	-	-	-	157	179	212	244	271
	L	kW	63	89	106	122	135	157	179	212	244	271
ηsh	°	%	-	-	-	-	-	191.0%	195.0%	194.0%	193.0%	192.0%
	L	%	181.0%	187.0%	185.0%	181.0%	182.0%	191.0%	195.0%	194.0%	193.0%	192.0%
SCOP	°		-	-	-	-	-	4,98	5,08	5,05	5,03	5,00
	L		4,73	4,88	4,83	4,73	4,75	4,98	5,08	5,05	5,03	5,00

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Efficiencies for average temperature applications (55 °C)

ELECTRIC DATA

Size			0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
Electric data												
Maximum current (FLA)	°	A	-	-	-	-	-	75,0	84,0	104,0	130,0	132,0
	L	A	32,0	42,0	52,0	65,0	66,0	75,0	84,0	104,0	130,0	132,0
Peak current (LRA)	°	A	-	-	-	-	-	216,0	181,0	218,0	271,5	273,0
	L	A	144,0	139,0	166,0	206,5	207,0	216,0	181,0	218,0	271,5	273,0

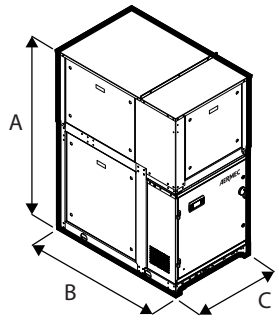
GENERAL TECHNICAL DATA

Size			0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
Compressor												
Type	°	type	-	-	-	-	-	Scroll	Scroll	Scroll	Scroll	Scroll
	L	type	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
Number	°	no.	-	-	-	-	-	3	4	4	4	4
	L	no.	2	2	2	2	2	3	4	4	4	4
Circuits	°	no.	-	-	-	-	-	2	2	2	2	2
	L	no.	2	2	2	2	2	2	2	2	2	2
Refrigerant	°	type	-	-	-	-	-	R410A	R410A	R410A	R410A	R410A
	L	type	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A	R410A
Refrigerant charge (1)	°	kg	-	-	-	-	-	13,0	16,0	18,0	22,0	24,0
	L	kg	6,0	8,0	9,0	10,0	11,0	13,0	16,0	18,0	22,0	24,0
Source side heat exchanger												
Type	°	type	-	-	-	-	-	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate
	L	type	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate
Number	°	no.	-	-	-	-	-	1	1	1	1	1
	L	no.	1	1	1	1	1	1	1	1	1	1
System side heat exchanger												
Type	°	type	-	-	-	-	-	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate
	L	type	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate
Number	°	no.	-	-	-	-	-	1	1	1	1	1
	L	no.	1	1	1	1	1	1	1	1	1	1
Source side hydraulic connections												
Connections (in/out)	°	Type	-	-	-	-	-	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints
	L	Type	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints
Sizes (in/out)	°	Ø	-	-	-	-	-	2 1/2″	2 1/2″	2 1/2″	2 1/2″	2 1/2″
	L	Ø	2 1/2″	2 1/2″	2 1/2″	2 1/2″	2 1/2″	2 1/2″	2 1/2″	2 1/2″	2 1/2″	2 1/2″
System side hydraulic connections												
Connections (in/out)	°	Type	-	-	-	-	-	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints
	L	Type	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints
Sizes (in/out)	°	Ø	-	-	-	-	-	2 1/2″	2 1/2″	2 1/2″	2 1/2″	2 1/2″
	L	Ø	2 1/2″	2 1/2″	2 1/2″	2 1/2″	2 1/2″	2 1/2″	2 1/2″	2 1/2″	2 1/2″	2 1/2″
Sound data calculated in cooling mode (2)												
Sound power level	°	dB(A)	-	-	-	-	-	81,6	82,2	81,6	82,7	83,4
	L	dB(A)	71,6	73,9	72,4	74,0	75,6	76,3	77,0	75,9	77,5	78,0
Sound pressure level (10 m)	°	dB(A)	-	-	-	-	-	49,9	50,5	49,9	51,0	51,7
	L	dB(A)	40,1	42,4	40,9	42,5	44,1	44,6	45,3	44,2	45,8	46,3

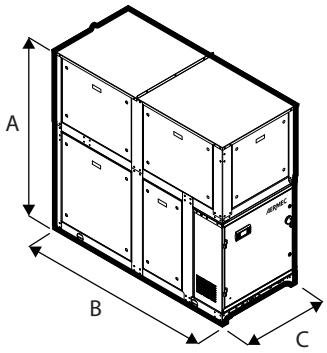
(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS

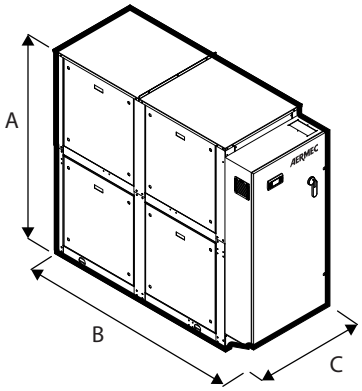
WRK 0350 °



WRK 0350 U-V-W-Z-J-R-K-Q



WRK 0700 °



Size				0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
Dimensions and weights without hydronic kit													
A	°		mm	-	-	-	-	-	1840	1840	1840	1840	1840
	L		mm	1675	1675	1675	1675	1675	1885	1885	1885	1885	1885
B	°		mm	-	-	-	-	-	2155	2155	2155	2155	2155
	L		mm	1265	1265	1265	1265	1265	2155	2155	2155	2155	2155
C	°		mm	-	-	-	-	-	800	800	800	800	800
	L		mm	800	800	800	800	800	800	800	800	800	800
Dimensions and weights with pump/s													
A	°		mm	-	-	-	-	-	1840	1840	1840	1840	1840
	L		mm	1675	1675	1675	1675	1675	1885	1885	1885	1885	1885
B	°		mm	-	-	-	-	-	3090	3090	3090	3090	3090
	L		mm	1890	1890	1890	1890	1890	3090	3090	3090	3090	3090
C	°		mm	-	-	-	-	-	800	800	800	800	800
	L		mm	800	800	800	800	800	800	800	800	800	800

	Version	Integrated hydronic kit, user side	Integrated hydronic kit, source side		0200	0280	0300	0330	0350	0500	0550	0600	0650	0700
Empty weight	°	°	°	kg	-	-	-	-	-	755	840	865	890	920
	°	°	J/K/U/W	kg	-	-	-	-	-	935	1020	1045	1085	1115
	°	°	Q/R/V/Z	kg	-	-	-	-	-	1005	1090	1115	1170	1200
	°	M/O	°	kg	-	-	-	-	-	900	985	1010	1045	1075
	°	M/O	J/K/U/W	kg	-	-	-	-	-	990	1075	1100	1150	1180
	°	M	Q/R/V/Z	kg	-	-	-	-	-	-	-	-	-	-
	°	N	J/K/U/W	kg	-	-	-	-	-	-	-	-	-	-
	°	O	Q/R/V/Z	kg	-	-	-	-	-	-	-	-	-	-
	°	P	J/K/U/W	kg	-	-	-	-	-	-	-	-	-	-
	°	N/P	°	kg	-	-	-	-	-	970	1055	1080	1125	1155
	°	N/P	Q/R/V/Z	kg	-	-	-	-	-	1130	1215	1240	1315	1340
	L	°	°	kg	495	550	565	570	580	930	1015	1040	1065	1095
	L	°	J/K/U/W	kg	665	720	735	740	750	1155	1240	1265	1305	1335
	L	°	Q/R/V/Z	kg	690	745	760	765	775	1225	1310	1335	1390	1420
	L	M/O	°	kg	665	720	730	740	750	1120	1205	1230	1265	1295
	L	M/O	J/K/U/W	kg	695	755	765	775	785	1210	1295	1320	1370	1400
	L	M	Q/R/V/Z	kg	-	-	-	-	-	-	-	-	-	-
	L	N	J/K/U/W	kg	-	-	-	-	-	-	-	-	-	-
	L	O	Q/R/V/Z	kg	-	-	-	-	-	-	-	-	-	-
	L	P	J/K/U/W	kg	-	-	-	-	-	-	-	-	-	-
	L	N/P	°	kg	690	745	760	765	775	1190	1275	1300	1345	1375
	L	N/P	Q/R/V/Z	kg	750	805	820	825	835	1350	1435	1460	1535	1560

- not available

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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WWB 0300-0900

Water-water heat pumps only

Heating capacity 56,7 ÷ 265,9 kW

- **Optimised to produce high temperature hot water**
- **Can be used with any air or water cooled heat pump**
- **Max. processed water temperature: 80 °C**
- **Max inlet temperature on source side: 45 °C**



DESCRIPTION

WWB is a range of irreversible water-water heat pumps that produce high temperature water with a low or medium temperature source.
Internal unit suitable for use in centralised residential systems, in systems that serve hotels and other forms of accommodation, and for applications in the tertiary and industrial sectors.

FEATURES

Maximum energy efficiency

Aermec, which has focused for years on energy efficiency, designed the WWB units with the aim of guaranteeing high efficiency both with full and partial loads.

Operating field

With its wide operating range, it can be integrated with numerous applications and is a valid alternative to boilers and all conventional systems used to produce high temperature hot water since it also uses existing systems.
Production of hot water up to 80 °C (Max inlet temperature on source side 45 °C).

Constructional characteristics of unit

— Optimised plate heat exchangers with low pressure drops.
— 2 cooling circuits, 1 compressor per circuit.
— Scroll compressors for high condensing temperatures.
— Compact size for easier installation.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit.

CONTROL

Control unit accessible externally with touch-screen user interface, multilingual display of all operating parameters.
Optimised control logic for use with low and medium temperature heat pumps.
Complies with safety (EC) and electromagnetic compatibility directives.
Removable slide-out electrical panel with opening side (LH/RH side) configurator option

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PGD1: Allows you to control the unit at a distance.
VT: Anti-vibration supports.

FACTORY FITTED ACCESSORIES

RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

ACCESSORIES COMPATIBILITY

Model	Ver	0300	0330	0350	0550	0600	0700	0800	0900
AER485P1	L	•	•	•	•	•	•	•	•
AERBACP	L	•	•	•	•	•	•	•	•
AERNET	L	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	L	•	•	•	•	•	•	•	•
PGD1	L	•	•	•	•	•	•	•	•

MULTICHILLER_EVO: Contact the factory for compatibility of the accessory with the type of implant envisaged.

Antivibration

Ver	0300	0330	0350	0550	0600	0700	0800	0900
L	VT9	VT9	VT9	VT9	VT15	VT15	VT15	VT15

Power factor correction

Ver	0300	0330	0350	0550	0600	0700	0800	0900
L	RIFWWB0300	RIFWWB0330	RIFWWB0350	RIFWWB0550	RIFWWB0600	RIFWWB0700	RIFWWB0800	RIFWWB0900

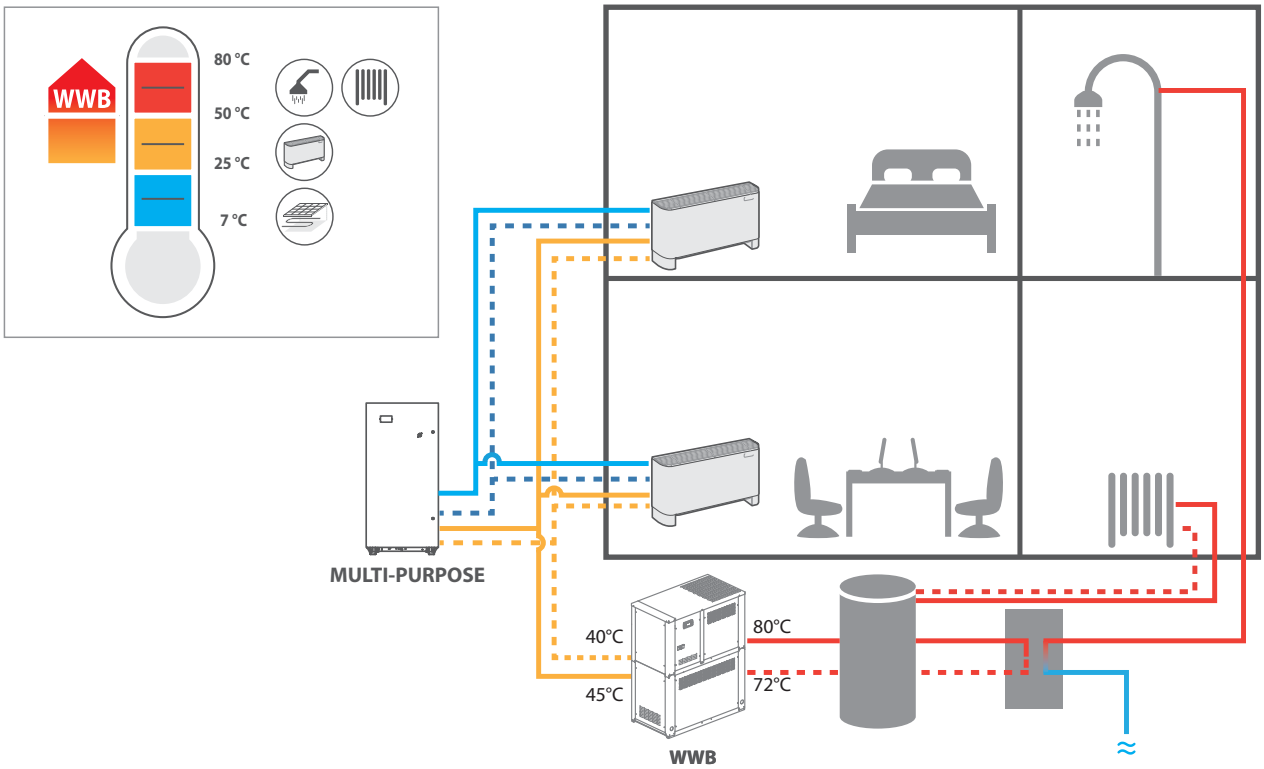
A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field		Description
1,2,3		**WWB**
4,5,6,7		**Size** 0300, 0330, 0350, 0550, 0600, 0700, 0800, 0900
8		**Operating field (1)**
	X	Standard
9		**Model**
	H	Heat pump
10		**Version**
	L	Silenced
11		**Power supply**
	°	400V ~ 3 50Hz
	S	400V ~ 3 50Hz with Soft-Start
12		**Electrical panel version**
	°	Standard opening (LH)
	R	Reverse opening (RH)

(1) Evaporator water up to +5°C. Electronic thermostatic valve as standard.

Example of four-pipe system



PERFORMANCE SPECIFICATIONS

Size			0300	0330	0350	0550	0600	0700	0800	0900
Heating performances (Water user side 70 °C / 78 °C; Water source side 45 °C / 40 °C) (1)										
Heating capacity	L	kW	70,3	77,7	93,2	114,6	143,7	181,7	220,5	265,9
Input power	L	kW	16,7	18,0	21,6	27,7	34,7	44,3	55,4	66,4
Heating total input current	L	A	29,0	30,0	36,0	46,0	61,0	71,0	89,0	104,0
COP	L	W/W	4,22	4,31	4,33	4,14	4,14	4,11	3,98	4,00
Water flow rate system side	L	l/h	7721	8537	10243	12592	15787	19973	24229	29221
Pressure drop system side	L	kPa	18	22	31	21	33	24	35	24
Water flow rate source side	L	l/h	9339	10400	12491	15141	18986	23950	28791	34785
Pressure drop source side	L	kPa	12	15	10	15	8	12	16	23
Heating performances (Water user side 70 °C / 78 °C; Water source side 35 °C / 30 °C) (2)										
Heating capacity	L	kW	56,7	62,7	75,2	92,4	115,9	146,5	177,8	214,4
Input power	L	kW	16,3	17,6	21,0	27,0	33,9	43,2	54,0	64,7
Heating total input current	L	A	28,0	29,0	35,0	45,0	59,0	70,0	87,0	102,0
COP	L	W/W	3,48	3,56	3,58	3,42	3,42	3,39	3,29	3,31
Water flow rate system side	L	l/h	6228	6886	8262	10157	12734	16110	19543	23570
Pressure drop system side	L	kPa	12	14	20	14	22	15	23	16
Water flow rate source side	L	l/h	7008	7820	9396	11340	14221	17924	21486	25974
Pressure drop source side	L	kPa	7	9	6	8	4	7	9	13

(1) Date 14511:2018; Water user side 70 °C / 78 °C; Water source side 45 °C / 40 °C
(2) Date 14511:2018; Water user side 70 °C / 78 °C; Water source side 35 °C / 30 °C

ENERGY DATA

Size			0300	0330	0350	0550	0600	0700	0800	0900
UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (1)										
Pdesignh	L	kW	46	51	61	76	95	120	145	175
ηsh	L	%	176.0%	180.0%	180.0%	175.0%	174.0%	174.0%	169.0%	171.0%
SCOP	L		4,60	4,69	4,69	4,56	4,55	4,56	4,43	4,49
Efficiency energy class	L		A++	A++	A++	-	-	-	-	-

(1) Efficiencies for average temperature applications (55 °C)

ELECTRIC DATA

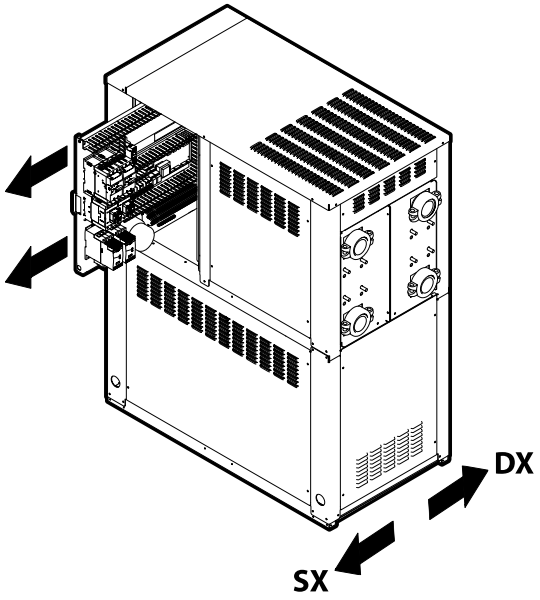
Size			0300	0330	0350	0550	0600	0700	0800	0900
Power supply: °										
Electric data										
Maximum current (FLA)	L	A	30,9	32,2	38,2	50,2	64,6	79,8	94,6	113,7
Peak current (LRA)	L	A	110,4	127,1	137,1	165,1	206,3	264,9	319,3	366,9
Power supply: S										
Electric data										
Maximum current (FLA)	L	A	30,9	32,2	38,2	50,2	64,6	79,8	94,6	113,7
Peak current (LRA)	L	A	53,4	60,5	66,3	81,1	101,9	129,9	156,1	180,9

GENERAL TECHNICAL DATA

Size			0300	0330	0350	0550	0600	0700	0800	0900
Compressor										
Type	L	type	Scroll							
Compressor regulation	L	Type	On-Off							
Number	L	no.	2	2	2	2	2	2	2	2
Circuits	L	no.	2	2	2	2	2	2	2	2
Refrigerant	L	type	R134a							
Refrigerant load circuit 1 (1)	L	kg	2,8	2,8	3,6	4,4	6,5	7,7	8,0	9,9
Refrigerant load circuit 2 (1)	L	kg	2,8	2,8	3,5	4,3	6,3	7,5	7,8	9,7
Source side heat exchanger										
Type	L	type	Brazed plate							
Number	L	no.	1	1	1	1	1	1	1	1
Connections (in/out)	L	Type	Grooved joints							
Sizes (in/out)	L	Ø	2"	2"	2"	2"	2"	2"1/2	2"1/2	2"1/2
System side heat exchanger										
Type	L	type	Brazed plate							
Number	L	no.	1	1	1	1	1	1	1	1
Connections (in/out)	L	Type	Grooved joints							
Sizes (in/out)	L	Ø	2"	2"	2"	2"	2"	2"1/2	2"1/2	2"1/2
Sound data calculated in cooling mode (2)										
Sound power level	L	dB(A)	71,8	71,8	71,8	75,1	78,3	79,3	80,4	82,4
Sound pressure level (10 m)	L	dB(A)	40,2	40,2	40,2	43,5	46,7	47,7	48,9	50,9

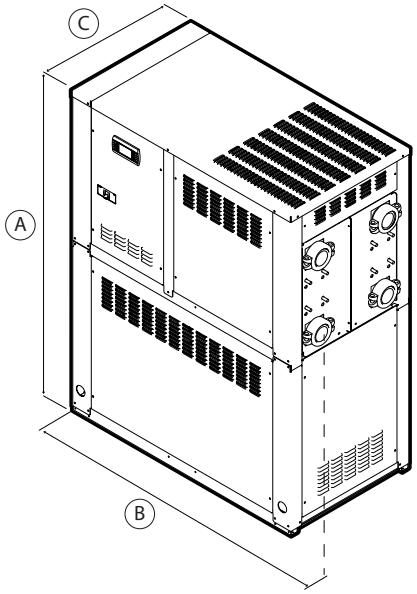
(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

Removal of electrical panel



Electrical panel version	Configurator option
Sx - LH side	° (Standard)
Dx - RH side	R

DIMENSIONS



Size			0300	0330	0350	0550	0600	0700	0800	0900
Dimensions and weights										
A	L	mm	1650	1650	1650	1650	1650	1650	1650	1650
B	L	mm	1300	1300	1300	1300	1300	1300	1300	1300
C	L	mm	710	710	710	710	710	710	710	710
Weights										
Weight empty + packaging	L	kg	420	425	440	455	500	715	760	820
Weight functioning	L	kg	415	420	440	460	510	730	775	840

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WWM

Water cooled heat pump reversible water side

Cooling capacity 96 kW
Heating capacity 110 kW

- Compact module
- Single or dual refrigerant circuit
- Reliable and modular
- Max 2 levels of stackable units
- Up to 36 connectable units (see the modularity options)
- Easy installation and maintenance



DESCRIPTION

Water-water offering chilled/hot water, designed to mit air conditioning needs in residential/commercial complexes or industrial applications.
These are indoor units with hermetic scroll compressors, system side heat exchanger and plate source.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

FEATURES

The precise choice of components, the special configuration, and the possibility to connect several independent modules and manage them as if they were a single unit are all aspects that guarantee maximum output at full load, whilst ensuring continuous adaptation to the real service needs.
Bus Bar, to facilitate the electrical connections.

Modularity

Thanks to its modular construction, the installation can be adapted to suit specific system development needs whilst guaranteeing improved safety and reliability.
As a result, the cooling capacity can be easily increased over time, at a limited cost.
WWM consists of independent 96 kW modules that can be linked together to reach a capacity of 3456 kW.
With WWM, you can combine up to 36 units designed to minimise the overall dimensions.
The modules are easy to install and link together from the hydronic point of view, thanks to the connections with grooved joints.

Refrigerant circuit

The refrigerant circuit can easily be disconnected from the unit, maintaining all the functions of the hydronic circuit to ensure correct system operation.

Hydraulic components

WWM version PN10 has the **switch**; WWM version PN21 mounts the **transmitter**.
Fitted as standard, with **butterfly shut-off valves** on both hydronic lines for disconnecting the circuit when maintenance needs to be carried out.
In the event of a variable flow rate, the **motorised hydronic valves** can intercept one module or more in order to reduce the flow rate when there is a low thermal load level.

Very quiet

The WWM units stand out for their quiet operation.
Accurate unit sound-proofing, using good-quality sound absorbent material, means all the units work at low noise levels.

Units in parallel

The MULTICHILLER_EVO (accessory) allows up to 9 units to be managed in parallel mode.
This accessory allow to maximise the total efficency to the system under to work load, external air temperature conditions and water produced.
Each unit has its own electrical panel, guaranteeing continuity even if one module malfunctions or goes into lockout.

CONTROL

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.
— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
— The adjustment system includes the complete management of alarms and the alarm log.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible

to save a log file with all the connected unit datas in the personal terminal for post analysis.
KWWM: Kit containing 4 caps with a diameter of 6" for the water manifolds.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.

FACTORY FITTED ACCESSORIES

CRATE_WWM°: Special crate for transport
CRATE_WWMH-A: Special crate for transport
KITIDRO_WWM: Water filter with connection pipe (diameter 6") with drain tap and additional bulb well (diameter ½") available to the installer.
KREC_WWM: Cable entries box in order to facilitate the electrical installation.

ACCESSORIES COMPATIBILITY

Accessory	WWM05001°	WWM05001H	WWM05002°	WWM05002H
AER485P1	•	•	•	•
AERBACP	•	•	•	•
AERNET	•	•	•	•
KWWM	•	•	•	•
MULTICHILLER_EVO	•	•	•	•

For the control with MULTICHILLER EVO, nr.1 accessory AER485P1 is mandatory for every WWM of the system.

Special crate for transport

Accessory	WWM05001°	WWM05001H	WWM05002°	WWM05002H
CRATE_WWM°	•		•	
CRATE_WWMH-A		•		•

CRATE_WWM°: 100 kg, CRATE_WWMH-A: 130 kg

Cable entries box

Accessory	WWM05001°	WWM05001H	WWM05002°	WWM05002H
KREC_WWM	•	•	•	•

Water filter

Accessory	WWM05001°	WWM05001H	WWM05002°	WWM05002H
KITIDRO_WWM	•	•	•	•

CONFIGURATOR

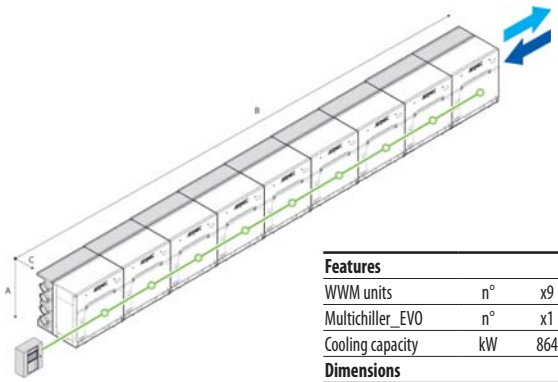
Field		Description
1,2,3		**WWM**
4,5,6,7		**Size** 0500
8		**Operating field (1)**
	°	Standard mechanic thermostatic valve
9		**Model**
	1	Single refrigerant circuit
	2	Double refrigerant circuit
10		**Hydraulic pressure rating**
	1	145 psi (PN10)
	3	300 psi (PN21)
11		**Hydraulic headers kit**
	°	No headers provided
	H	6" Headers kit - PN21 standard carbon steel pipes declared in accordance with EN 10255

Field		Description
12		**Power connection**
	°	Without bus bars
	B	With bus bars
13		**Power supply**
	°	400V ~ 3 50Hz with magnet circuit breakers
14		**Electrical panel SCCR**
	°	10 kA control panel
15		**Peak current reduction**
	°	Without power factor device
	R	With power factor device (2)
16		**Field for future development**
	°	-

(1) Water produced up to +4 °C
(2) Factory installed

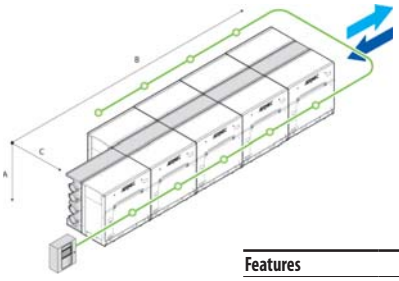
MODULARITY OPTIONS

CONFIGURATION 1: IN LINE



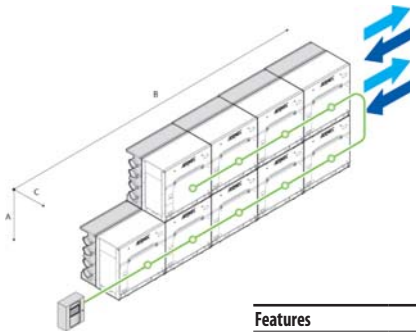
Features		
WWM units	n°	x9
Multichiller_EVO	n°	x1
Cooling capacity	kW	864
Dimensions		
A	mm	1300
B	mm	11970
C	mm	1150

CONFIGURATION 2: BACK TO BACK



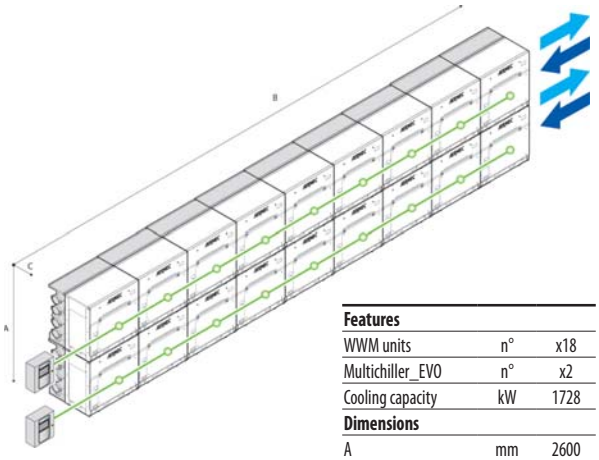
Features		
WWM units	n°	x9
Multichiller_EVO	n°	x1
Cooling capacity	kW	864
Dimensions		
A	mm	1300
B	mm	6650
C	mm	1850

CONFIGURATION 3.1: STACK IN LINE



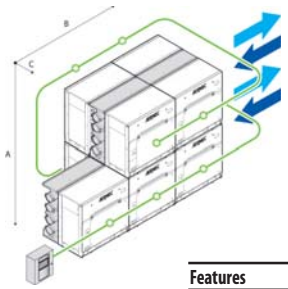
Features		
WWM units	n°	x9
Multichiller_EVO	n°	x1
Cooling capacity	kW	864
Dimensions		
A	mm	2600
B	mm	6650
C	mm	1150

CONFIGURATION 3.2: STACK IN LINE



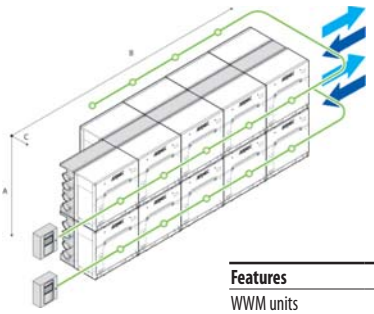
Features		
WWM units	n°	x18
Multichiller_EVO	n°	x2
Cooling capacity	kW	1728
Dimensions		
A	mm	2600
B	mm	11970
C	mm	1150

CONFIGURATION4.1: STACK IN LINE BACK TO BACK



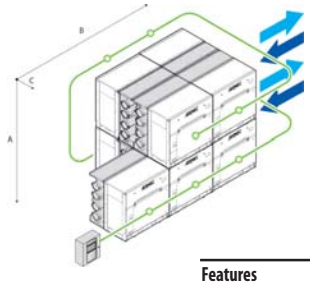
Features		
WWM units	n°	x9
Multichiller_EVO	n°	x1
Cooling capacity	kW	864
Dimensions		
A	mm	2600
B	mm	3990
C	mm	1850

CONFIGURATION 4.2: STACK IN LINE BACK TO BACK



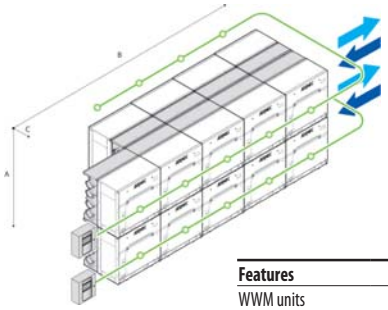
Features		
WWM units	n°	x18
Multichiller_EVO	n°	x2
Cooling capacity	kW	1728
Dimensions		
A	mm	2600
B	mm	6650
C	mm	1850

CONFIGURATION 5.1: STACK IN LINE BACK TO BACK DOUBLE



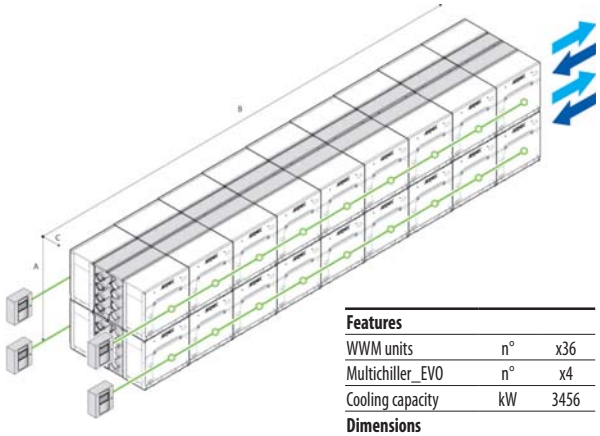
Features		
WWM units	n°	x9
Multichiller_EVO	n°	x1
Cooling capacity	kW	864
Dimensions		
A	mm	2600
B	mm	3990
C	mm	2300

CONFIGURATION 5.2: STACK IN LINE BACK TO BACK DOUBLE



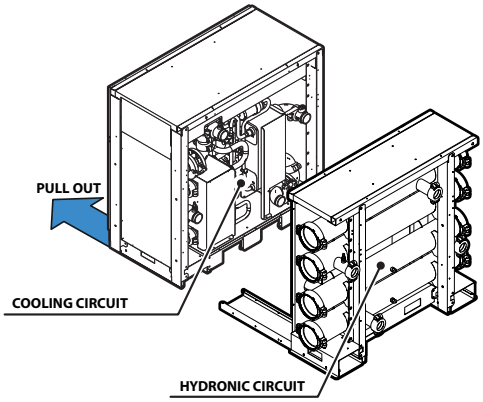
Features		
WWM units	n°	x18
Multichiller_EVO	n°	x2
Cooling capacity	kW	1728
Dimensions		
A	mm	2600
B	mm	6650
C	mm	2300

CONFIGURATION 5.3: STACK IN LINE BACK TO BACK DOUBLE



Features		
WWM units	n°	x36
Multichiller_EVO	n°	x4
Cooling capacity	kW	3456
Dimensions		
A	mm	2600
B	mm	11970
C	mm	2300

EASY MAINTENANCE



PERFORMANCE SPECIFICATIONS

WWM - Single refrigerant circuit "1" - Double refrigerant circuit "2"

		WWM05001°	WWM05002°
Cooling performance 12 °C / 7 °C (1)			
Cooling capacity	kW	96,0	95,2
Input power	kW	20,3	20,0
Cooling total input current	A	40,0	40,0
EER	W/W	4,74	4,76
Water flow rate source side	l/h	20046	19895
Pressure drop source side	kPa	34	23
Water flow rate system side	l/h	16528	16384
Pressure drop system side	kPa	24	17
Heating performance 40 °C / 45 °C (2)			
Heating capacity	kW	109,2	110,0
Input power	kW	24,8	24,1
Heating total input current	A	48,0	48,0
COP	W/W	4,41	4,57
Water flow rate system side	l/h	18943	19092
Pressure drop system side	kPa	30	21
Water flow rate source side	l/h	24430	24809
Pressure drop source side	kPa	52	39

(1) Date 14511:2018; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C
(2) Date 14511:2018; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

ENERGY DATA

		WWM05001°	WWM05002°
SEER - 12/7 (EN14825:2018) with standard fans (1)			
SEER	W/W	6,12	5,37
Seasonal efficiency	%	241,8%	211,8%
UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (2)			
Pdesignh	kW	138	140
SCOP		4,83	4,68
ηsh	%	185.0%	179.0%

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Efficiencies for average temperature applications (55 °C)

ELECTRIC DATA

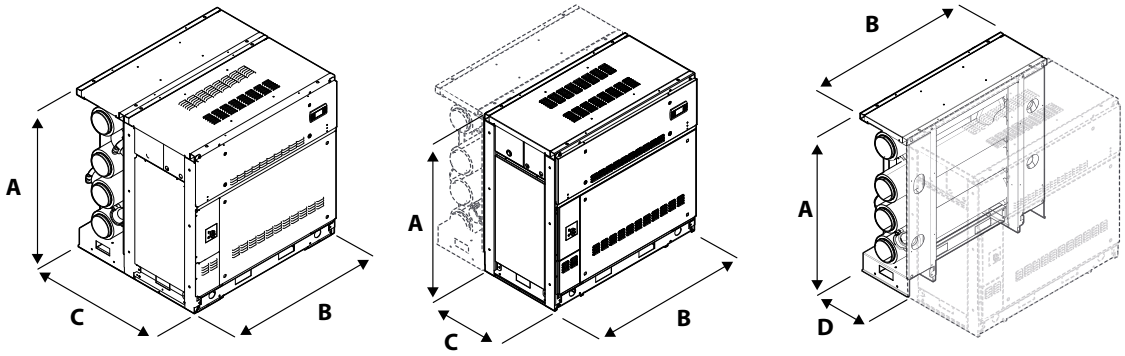
		WWM05001°	WWM05002°
Electric data			
Maximum current (FLA)	A	62,0	62,0
Peak current (LRA)	A	148,9	148,9

GENERAL TECHNICAL DATA

		WWM05001°	WWM05002°
Compressor			
Type	type	Scroll	Scroll
Number	no.	2	2
Circuits	no.	1	2
Refrigerant	type	R410A	R410A
Source side heat exchanger			
Type	type	Brazed plate	Brazed plate
Number	no.	1	1
Connections (in/out)	Type	Grooved joints	Grooved joints
Sizes (in/out)	Ø	6"	6"
System side heat exchanger			
Type	type	Brazed plate	Brazed plate
Number	no.	1	1
Connections (in/out)	Type	Grooved joints	Grooved joints
Sizes (in/out)	Ø	6"	6"
Sound data calculated in cooling mode (1)			
Sound power level	dB(A)	81,0	81,0
Sound pressure level (10 m)	dB(A)	49,5	49,5

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



		WWM05001°	WWM05001H	WWM05002°	WWM05002H
Dimensions and weights					
A	mm	1300	1300	1300	1300
B	mm	1330	1330	1330	1330
C	mm	775	1150	775	1150
D	mm	-	452	-	452
Weights					
Weight empty + packaging	kg	700	930	700	930
Weight functioning	kg	711	1042	711	1042
Empty weight + packaging (with bus bars)	kg	736	966	736	966
Weight functioning (with bus bars)	kg	747	1078	747	1078
Hydraulic headers kit					
Weight empty + packaging	kg	-	230	-	230
Weight functioning	kg	-	330	-	330

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NXW 0503 - 1654

Water cooled heat pump reversible water side

Cooling capacity 111 ÷ 511 kW
Heating capacity 127 ÷ 582 kW

- **Installation versatility also for geothermal applications.**
- **Options of 1 or 2 pumps on both source and user side.**
- **Reversible on hydraulic side in heat pump**



DESCRIPTION

Water-water offering chilled/hot water, designed to mit air conditioning needs in residential/commercial complexes or industrial applications.
Indoor units with hermetic scroll compressors and plate heat exchangers.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

° Standard
L Standard silenced

FEATURES

Operating field

Full-load operation with the production of chilled water 4-18 °C, and the possibility to produce also negative temperature water down to -10°C for the evaporator and hot water for the condenser up to 55 °C. (for more information, refer to the technical documentation).

Dual-circuit unit

The units are dual-circuit, to ensure maximum efficiency both at full load and at partial load.

Option integrated hydronic kit, source and user side

The built-in hydronic module includes the main water circuit components; it is available in varius configurations with one or two pumps with high or low head both on the system side and the source side, to obtain a solution that allows you to save money and to facilitate installation.

CONTROL PCO

Microprocessor adjustment, with display LCD which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and the ad adjustment includes complete management of the alarms and their log.
You also have the possibility to:
— Check two units in parallel Master-Slave
— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
— The temperature control takes place with the integral proportional logic, based on the water output temperature.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PGD1: Allows you to control the unit at a distance.
AVX: Spring anti-vibration supports.
DRE: Electronic device for peak current reduction.
RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

ACCESSORIES COMPATIBILITY

Model	Ver	0503	0553	0604	0654	0704	0754	0804	0904	1004	1254	1404	1504	1654
AER485P1	°,L	•	•	•	•	•	•	•	•	•	•	•	•	•
AERBACP	°,L	•	•	•	•	•	•	•	•	•	•	•	•	•
AERNET	°,L	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	°,L	•	•	•	•	•	•	•	•	•	•	•	•	•
PGD1	°,L	•	•	•	•	•	•	•	•	•	•	•	•	•

Antivibration

Version	Integrated hydronic kit, user side	Integrated hydronic kit, source side	0503	0553	0604	0654	0704	0754	0804
°	°	°	AVX319	AVX319	AVX301	AVX301	AVX301	AVX303	AVX310
°	°	J,K,U,W	AVX320	AVX320	AVX320	AVX320	AVX320	AVX312	AVX651
°	M,O	°	AVX320	AVX320	AVX320	AVX320	AVX320	AVX312	AVX651
°	°	V,Z	AVX320	AVX320	AVX309	AVX309	AVX309	AVX312	AVX651
°	M	J,K,U,V,W,Z	AVX320	AVX320	AVX309	AVX309	AVX309	AVX312	AVX651
°	N	°,J,K,U,W	AVX320	AVX320	AVX309	AVX309	AVX309	AVX312	AVX651
°	O	J,K,U,V,W,Z	AVX320	AVX320	AVX309	AVX309	AVX309	AVX312	AVX651
°	P	°,J,K,U,W	AVX320	AVX320	AVX309	AVX309	AVX309	AVX312	AVX651
°	N,P	V,Z	AVX309	AVX309	AVX310	AVX310	AVX310	AVX312	AVX651
L	°	°	AVX309	AVX309	AVX310	AVX303	AVX303	AVX310	AVX314
L	°	J,K,U,W	AVX321	AVX321	AVX311	AVX311	AVX651	AVX651	AVX652
L	M,O	°	AVX321	AVX321	AVX311	AVX311	AVX651	AVX651	AVX652
L	°	V,Z	AVX311	AVX311	AVX311	AVX311	AVX651	AVX651	AVX652
L	M	J,K,U,W	AVX311	AVX311	AVX311	AVX311	AVX651	AVX651	AVX652
L	N	°	AVX311	AVX311	AVX311	AVX311	AVX651	AVX651	AVX652
L	O	J,K,U,W	AVX311	AVX311	AVX311	AVX311	AVX651	AVX651	AVX652
L	P	°	AVX311	AVX311	AVX311	AVX311	AVX651	AVX651	AVX652
L	M	V,Z	AVX311	AVX311	AVX312	AVX312	AVX651	AVX651	AVX652
L	N	J,K,U,W	AVX311	AVX311	AVX312	AVX312	AVX651	AVX651	AVX652
L	O	V,Z	AVX311	AVX311	AVX312	AVX312	AVX651	AVX651	AVX652
L	P	J,K,U,W	AVX311	AVX311	AVX312	AVX312	AVX651	AVX651	AVX652
L	N,P	V,Z	AVX312	AVX312	AVX312	AVX310	AVX651	AVX651	AVX652

Version	Integrated hydronic kit, user side	Integrated hydronic kit, source side	0904	1004	1254	1404	1504	1654
°	°	°	AVX314	AVX316	AVX316	AVX315	AVX330	AVX330
°	°	J,K,U,W	AVX655	AVX653	AVX654	AVX654	AVX334	AVX337
°	M,N,O	°	AVX655	AVX653	AVX654	AVX654	AVX334	AVX337
°	°	V,Z	AVX655	AVX653	AVX654	AVX654	AVX337	-
°	M,O	J,K,U,W	AVX665	AVX653	AVX654	AVX654	AVX337	AVX335
°	M,O	V,Z	AVX655	AVX653	AVX654	AVX654	AVX340	-
°	N	J,K,U,W	AVX665	AVX653	AVX654	AVX654	AVX340	AVX335
°	N	V,Z	AVX665	AVX653	AVX654	AVX654	AVX335	-
°	P	°	AVX655	AVX653	AVX654	AVX654	-	-
°	P	J,K,U,V,W,Z	AVX665	AVX653	AVX654	AVX654	-	-
L	°	°	AVX314	AVX315	AVX315	AVX317	AVX331	AVX331
L	°	J,K,U,W	AVX653	AVX654	AVX659	AVX659	AVX335	AVX338
L	M,O	°	AVX653	AVX654	AVX659	AVX659	AVX335	AVX338
L	°	V,Z	AVX653	AVX654	AVX659	AVX659	AVX338	-
L	M	J,K,U,W	AVX653	AVX654	AVX659	AVX659	AVX338	AVX339
L	N	°	AVX653	AVX654	AVX659	AVX659	AVX338	AVX339
L	O	J,K,U,W	AVX653	AVX654	AVX659	AVX659	AVX338	AVX339
L	M,N,O	V,Z	AVX653	AVX654	AVX659	AVX659	AVX339	-
L	N	J,K,U,W	AVX653	AVX654	AVX659	AVX659	AVX339	AVX341
L	P	°,J,K,U,V,W,Z	AVX653	AVX654	AVX659	AVX659	-	-

- not available

Power factor correction

Ver	0503	0553	0604	0654	0704	0754	0804	0904	1004	1254	1404	1504	1654
°,L	RIF98	RIF98	RIF95	RIF95	RIF95	RIF95	RIF95	RIF96	RIF97	RIF97	RIF97	RIF97	RIF97

A grey background indicates the accessory must be assembled in the factory

Device for peak current reduction

Ver	0503	0553	0604	0654	0704	0754	0804	0904	1004	1254	1404	1504	1654
°,L	DRE501 (1)	DRE551 (1)	DRE601 (1)	DRE651 (1)	DRE701 (1)	DRE751 (1)	DRE801 (1)	DRE901 (1)	DRE1001 (1)	DRE1251 (1)	DRE1401 (1)	DRE1500 (1)	DRE1650 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3	**NXW**
4,5,6,7	**Size** 0503, 0553, 0604, 0654, 0704, 0754, 0804, 0904, 1004, 1254, 1404, 1504, 1654
8	**Operating field**
°	Standard mechanic thermostatic valve (1)
X	Electronic thermostatic expansion valve (1)
Y	Low temperature mechanic thermostatic valve (2)
9	**Model**
°	Heat pump reversible on the water side
K	Heat pump reversible on the water side with low pressure drops
10	**Version**
°	Standard
L	Standard silenced
11	**Evaporator**
°	Standard
E	Evaporating unit (3)
12	**Heat recovery**
°	Without heat recovery
D	With desuperheater (4)
T	With total recovery (5)
13	**Power supply**
°	400V ~ 3 50Hz with magnet circuit breakers
4	220V ~ 3 50Hz with magnet circuit breakers (6)
5	500V ~ 3 50Hz with magnet circuit breakers (7)
14	**Integrated hydronic kit, user side**
°	Without hydronic kit
M	Single pump low head
N	Pump low head + stand-by pump
O	Single pump high head
P	Pump high head + stand-by pump (8)
15	**Integrated hydronic kit, source side**
°	Without hydronic kit
J	Single low-head inverter pump (8)
K	Single high-head inverter pump (8)
U	Single pump low head
V	Pump low head + stand-by pump (9)
W	Pump high head
Z	Pump high head + stand-by pump (9)

(1) Water produced from 4 °C ÷ 18 °C
(2) Water produced from 4 °C ÷ -10 °C; for the avalability with the heat recovery we advise you to contact us
(3) Shipped with holding charge only.
(4) The desuperheater must be isolated in heating mode. In cooling mode, a water temperature no lower than 35°C must always be guaranteed on the heat exchanger inlet.
(5) Options not available for condensing unit, and for models with pump/s
(6) Only for 0503 ÷ 0704 sizes
(7) Only for 0804 ÷ 1004 sizes
(8) Not available for size 1504 ÷ 1654
(9) Not available for size 1654

PERFORMANCE SPECIFICATIONS

Size			0503	0553	0604	0654	0704	0754	0804	0904	1004	1254	1404	1504	1654
Cooling performance 12 °C / 7 °C (1)															
Cooling capacity	°,L	kW	111,8	120,7	148,7	166,7	188,7	222,7	257,6	291,6	325,7	354,6	384,6	453,9	511,4
Input power	°,L	kW	23,0	24,8	30,6	34,4	38,9	45,6	53,0	60,3	66,5	72,6	78,7	92,3	104,0
Cooling total input current	°,L	A	48,0	51,0	58,0	63,0	86,0	94,0	102,0	120,0	138,0	140,0	143,0	160,0	178,0
EER	°,L	W/W	4,87	4,86	4,86	4,85	4,85	4,88	4,86	4,84	4,90	4,88	4,89	4,92	4,92
Water flow rate source side	°,L	l/h	23047	24886	30656	34332	38866	45790	52970	60075	67065	73041	79190	93374	105103
Pressure drop source side	°,L	kPa	25	29	29	37	37	45	60	38	29	34	36	36	47
Water flow rate system side	°,L	l/h	19243	20789	25600	28692	32472	38314	44327	50169	56011	60993	66147	78063	87938
Pressure drop system side	°,L	kPa	30	35	32	40	43	47	49	55	35	36	36	36	40
Heating performance 40 °C / 45 °C (2)															
Heating capacity	°,L	kW	127,6	137,8	170,0	190,3	215,4	253,7	293,5	332,9	371,5	404,7	438,7	517,1	582,0
Input power	°,L	kW	27,6	29,9	36,3	40,9	46,4	54,5	63,3	72,3	79,0	86,2	93,3	109,5	123,4
Heating total input current	°,L	A	57,0	60,0	68,0	73,0	100,0	109,0	119,0	140,0	161,0	163,0	166,0	186,0	207,0
COP	°,L	W/W	4,62	4,61	4,69	4,66	4,64	4,66	4,64	4,60	4,70	4,69	4,70	4,72	4,71
Water flow rate source side	°,L	l/h	29340	31697	39235	43975	49768	58721	67938	76891	85844	93480	101380	119642	134776
Pressure drop source side	°,L	kPa	70	81	75	94	101	110	115	129	82	85	85	85	94
Water flow rate system side	°,L	l/h	22142	23905	29490	33021	37384	44030	50933	57790	64513	70265	76175	89802	101065
Pressure drop system side	°,L	kPa	23	27	27	34	34	42	55	35	27	31	33	33	43

(1) Date 14511:2018; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C
(2) Date 14511:2018; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

ENERGY INDICES (REG. 2016/2281 EU)

Size			0503	0553	0604	0654	0704	0754	0804	0904	1004	1254	1404	1504	1654
SEER - 12/7 (EN14825: 2018) (1)															
SEER	°,L	W/W	5,50	5,85	5,79	5,77	5,84	5,81	5,52	6,30	6,42	6,37	6,38	6,49	6,48
Seasonal efficiency	°,L	%	217,0%	231,0%	228,6%	227,8%	230,6%	229,4%	217.8%	248,8%	253,8%	251,6%	252,0%	256,4%	256,2%
SEPR - (EN 14825: 2018) High temperature (2)															
SEPR	°	W/W	-	-	-	-	-	-	-	7,90	7,90	7,80	7,80	8,00	8,00
	L	W/W	-	-	-	-	-	-	-	7,93	7,90	7,78	7,80	8,00	8,02
UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (3)															
Pdesignh	°,L	kW	164	177	218	244	277	326	377	-	-	-	-	-	-
SCOP	°,L		5,10	5,05	5,18	5,10	5,10	5,10	5,08	-	-	-	-	-	-
ηsh	°,L	%	196.0%	194.0%	199.0%	196.0%	196.0%	196.0%	195.0%	-	-	-	-	-	-

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Calculation performed with FIXED water flow rate.
(3) Efficiencies for average temperature applications (55 °C)

ELECTRIC DATA

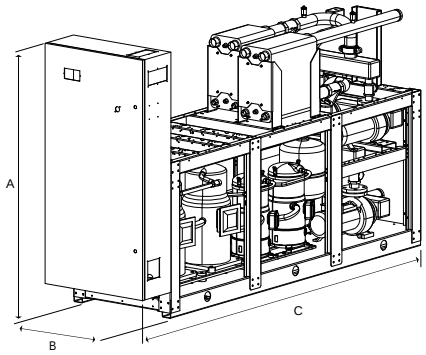
Size			0503	0553	0604	0654	0704	0754	0804	0904	1004	1254	1404	1504	1654
Electric data															
Maximum current (FLA)	°,L	A	75,0	80,0	96,0	107,0	122,0	146,0	169,0	193,0	217,0	231,0	248,0	267,0	296,0
Peak current (LRA)	°,L	A	240,0	245,0	227,0	238,0	289,0	319,0	341,0	398,0	422,0	490,0	504,0	601,0	630,0

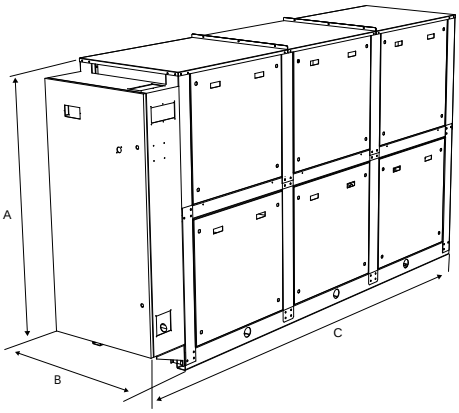
GENERAL TECHNICAL DATA

Size			0503	0553	0604	0654	0704	0754	0804	0904	1004	1254	1404	1504	1654
Compressor															
Type	°,L	type	Scroll												
Compressor regulation	°,L	Type	On-Off												
Number	°,L	no.	3	3	4	4	4	4	4	4	4	4	4	4	4
Circuits	°,L	no.	2	2	2	2	2	2	2	2	2	2	2	2	2
Refrigerant	°,L	type	R410A												
Refrigerant charge (1)	°,L	kg	13,2	12,5	15,6	15,6	18,0	22,0	26,0	33,0	38,0	44,0	44,0	46,0	53,0
Source side heat exchanger															
Type	°,L	type	Brazed plate												
Number	°,L	no.	1	1	1	1	1	1	1	1	1	1	1	1	1
Connections (in/out)	°,L	Type	Grooved joints												
Size (in)	°,L	Ø	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	3"	3"	3"	3"	3"	3"
Size (out)	°,L	Ø	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	3"	3"	3"	3"	3"	3"
System side heat exchanger															
Type	°,L	type	Brazed plate												
Number	°,L	no.	1	1	1	1	1	1	1	1	1	1	1	1	1
Connections (in/out)	°,L	Type	Grooved joints												
Size (in)	°,L	Ø	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	3"	3"	3"	3"	3"
Size (out)	°,L	Ø	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	3"	3"	3"	3"	3"
Sound data calculated in cooling mode (2)															
Sound power level	°	dB(A)	78,0	79,0	79,0	80,0	82,0	86,0	88,0	88,0	88,0	90,0	90,0	93,0	95,0
	L	dB(A)	72,0	73,0	73,0	74,0	76,0	80,0	82,0	82,0	82,0	84,0	84,0	86,0	87,0
Sound pressure level (10 m)	°	dB(A)	46,4	47,4	47,4	48,4	50,4	54,3	56,3	56,3	56,3	58,3	58,3	61,3	63,3
	L	dB(A)	40,3	41,3	41,3	42,3	44,3	48,3	50,3	50,3	50,3	52,3	52,3	54,3	55,3

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS





Size			0503	0553	0604	0654	0704	0754	0804	0904	1004	1254	1404	1504	1654
Dimensions and weights															
A	°	mm	1835	1835	1835	1835	1835	1775	1775	1820	1820	1820	1820	1820	1820
	L	mm	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
B	°,L	mm	800	800	800	800	800	800	800	800	800	800	800	800	800
C	°	mm	1795	1795	1795	1795	1795	2420	2420	2420	2420	2420	2420	2420	2420
	L	mm	2090	2090	2090	2090	2090	2420	2420	2420	2420	2420	2420	2420	2420
Empty weight	°	kg	578	582	682	690	727	882	989	1180	1417	1461	1539	1613	1721
	L	kg	750	755	854	863	900	1054	1187	1378	1615	1659	1737	1811	1919

The weight of the unit does not include the hydronic kit and accessories.

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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NXW 0503H - 1654H

Reversible water-cooled heat pump, gas side

Cooling capacity 106 ÷ 477 kW
Heating capacity 125 ÷ 565 kW

- **Installation versatility also for geothermal applications.**
- **Options of 1 or 2 pumps on both source and user side.**
- **Production of hot water up to 55 °C**



EUROVENT CERTIFIED PERFORMANCE
www.eurovent-certification.com

DESCRIPTION

Water-water offering chilled/hot water, designed to mit air conditioning needs in residential/commercial complexes or industrial applications.
These are indoor units with hermetic scroll compressors, system side heat exchanger and plate source.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

° Standard
L Standard silenced

FEATURES

Operating field

Full-load operation with the production of chilled water 4-18°C, and the possibility to produce also negative temperature water down to -8°C for the evaporator and hot water for the condenser up to 55 °C.
(for more information, refer to the technical documentation).

Dual-circuit unit

The units are dual-circuit, to ensure maximum efficiency both at full load and at partial load.

Option integrated hydronic kit, source and user side

Possibility of integrated hydronic kit containing the main hydraulic components and available with various configurations.

CONTROL PCO

Microprocessor adjustment, with display LCD which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and the ad adjustment includes complete management of the alarms and their log.
You also have the possibility to:
— Check two units in parallel Master-Slave
— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
— The temperature control takes place with the integral proportional logic, based on the water output temperature.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PGD1: Allows you to control the unit at a distance.
AVX: Spring anti-vibration supports.
DRE: Electronic device for peak current reduction.
RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

ACCESSORIES COMPATIBILITY

Model	Ver	0503	0553	0604	0654	0704	0754	0804	0904	1004	1254	1404	1504	1654
AER485P1	°,L	•	•	•	•	•	•	•	•	•	•	•	•	•
AERBACP	°,L	•	•	•	•	•	•	•	•	•	•	•	•	•
AERNET	°,L	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	°,L	•	•	•	•	•	•	•	•	•	•	•	•	•
PGD1	°,L	•	•	•	•	•	•	•	•	•	•	•	•	•

Antivibration

Version	Integrated hydronic kit, user side	Integrated hydronic kit, source side	0503	0553	0604	0654	0704	0754	0804	0904	1004	1254	1404	1504	1654
°	°	°	AVX319	AVX319	AVX301	AVX301	AVX302	AVX310	AVX310	AVX314	AVX316	AVX315	AVX317	AVX330	AVX331
°	°	J,K,U,W	AVX320	AVX320	AVX320	AVX309	AVX309	AVX651	AVX651	AVX665	AVX654	AVX654	AVX654	AVX337	AVX336
°	M,O	°	AVX320	AVX320	AVX320	AVX309	AVX309	AVX651	AVX651	AVX665	AVX654	AVX654	AVX654	AVX337	AVX336
°	°	V,Z	AVX320	AVX320	AVX303	AVX309	AVX311	AVX651	AVX651	AVX665	AVX654	AVX654	AVX654	AVX336	-
°	M	J,K,U,W	AVX320	AVX320	AVX303	AVX309	AVX311	AVX651	AVX651	AVX665	AVX654	AVX654	AVX654	AVX336	AVX335
°	N	°	AVX320	AVX320	AVX303	AVX309	AVX311	AVX651	AVX651	AVX665	AVX654	AVX654	AVX654	AVX336	AVX335
°	O	J,K,U,W	AVX320	AVX320	AVX303	AVX309	AVX311	AVX651	AVX651	AVX665	AVX654	AVX654	AVX654	AVX336	AVX335
°	M,O	V,Z	AVX309	AVX309	AVX303	AVX311	AVX312	AVX651	AVX651	AVX665	AVX654	AVX654	AVX654	AVX335	-
°	N	J,K,U,W	AVX309	AVX309	AVX303	AVX311	AVX312	AVX651	AVX651	AVX665	AVX654	AVX654	AVX654	AVX335	AVX339
°	N,P	V,Z	AVX309	AVX309	AVX312	AVX312	AVX312	AVX651	AVX651	AVX665	AVX654	AVX654	AVX654	-	-
°	P	°	AVX320	AVX320	AVX303	AVX309	AVX311	AVX651	AVX651	AVX665	AVX654	AVX654	AVX654	-	-
°	P	J,K,U,W	AVX309	AVX309	AVX303	AVX311	AVX312	AVX651	AVX651	AVX665	AVX654	AVX654	AVX654	-	-
L	°	°	AVX309	AVX309	AVX310	AVX303	AVX304	AVX314	AVX314	AVX315	AVX317	AVX317	AVX318	AVX331	AVX333
L	°	J,K,U,W	AVX311	AVX311	AVX311	AVX311	AVX651	AVX652	AVX665	AVX653	AVX659	AVX659	AVX659	AVX338	AVX338
L	°	V,Z	AVX311	AVX311	AVX312	AVX313	AVX651	AVX652	AVX665	AVX653	AVX659	AVX659	AVX659	AVX338	AVX341
L	M	J,K,U,W	AVX311	AVX311	AVX312	AVX313	AVX651	AVX652	AVX665	AVX653	AVX659	AVX659	AVX659	AVX338	AVX341
L	N	°	AVX311	AVX311	AVX312	AVX313	AVX651	AVX652	AVX665	AVX653	AVX659	AVX659	AVX659	AVX338	AVX341
L	O	J,K,U,W	AVX311	AVX311	AVX312	AVX313	AVX651	AVX652	AVX665	AVX653	AVX659	AVX659	AVX659	AVX338	AVX341
L	M,O	°	AVX311	AVX311	AVX311	AVX311	AVX651	AVX652	AVX665	AVX653	AVX659	AVX659	AVX659	AVX338	AVX341
L	M,O	V,Z	AVX312	AVX312	AVX312	AVX313	AVX651	AVX652	AVX665	AVX653	AVX659	AVX659	AVX659	AVX339	-
L	N	J,K,U,W	AVX312	AVX312	AVX312	AVX313	AVX651	AVX652	AVX665	AVX653	AVX659	AVX659	AVX659	AVX339	AVX341
L	N	V,Z	AVX312	AVX312	AVX312	AVX313	AVX651	AVX652	AVX665	AVX653	AVX659	AVX659	AVX659	AVX341	-
L	P	°	AVX311	AVX311	AVX312	AVX313	AVX651	AVX652	AVX665	AVX653	AVX659	AVX659	AVX659	-	-
L	P	J,K,U,V,W,Z	AVX312	AVX312	AVX312	AVX313	AVX651	AVX652	AVX665	AVX653	AVX659	AVX659	AVX659	-	-

- not available

Power factor correction

Ver	0503	0553	0604	0654	0704	0754	0804	0904	1004	1254	1404	1504	1654
°,L	RIF98	RIF98	RIF95	RIF95	RIF95	RIF95	RIF95	RIF96	RIF97	RIF97	RIF97	RIF97	RIF97

A grey background indicates the accessory must be assembled in the factory

Device for peak current reduction

Ver	0503	0553	0604	0654	0704	0754	0804	0904	1004	1254	1404	1504	1654
°,L	DRE501 (1)	DRE551 (1)	DRE601 (1)	DRE651 (1)	DRE701 (1)	DRE751 (1)	DRE801 (1)	DRE901 (1)	DRE1001 (1)	DRE1251 (1)	DRE1401 (1)	DRE1500 (1)	DRE1650 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3	**NXW**
4,5,6,7	**Size** 0503, 0553, 0604, 0654, 0704, 0754, 0804, 0904, 1004, 1254, 1404, 1504, 1654
8	**Operating field (1)**
°	Standard mechanic thermostatic valve
X	Electronic thermostatic expansion valve
9	**Model**
H	Heat pump
10	**Version**
°	Standard
L	Standard silenced
11	**Evaporator**
°	Standard
12	**Heat recovery**
°	Without heat recovery
D	With desuperheater (2)
13	**Power supply**
°	400V ~ 3 50Hz with magnet circuit breakers
4	220V ~ 3 50Hz with magnet circuit breakers (3)
5	500V ~ 3 50Hz with magnet circuit breakers (4)
14	**Integrated hydronic kit, user side**
°	Without hydronic kit
M	Single pump low head
N	Pump low head + stand-by pump
O	Single pump high head
P	Pump high head + stand-by pump (5)
15	**Integrated hydronic kit, source side**
°	Without hydronic kit
J	Single low-head inverter pump
K	Single high-head inverter pump
U	Single pump low head
V	Pump low head + stand-by pump (6)
W	Pump high head
Z	Pump high head + stand-by pump (6)

(1) Water produced from 4 °C ÷ 18 °C
(2) The desuperheater must be isolated in heating mode. In cooling mode, a water temperature no lower than 35°C must always be guaranteed on the heat exchanger inlet.
(3) Only for 0503 ÷ 0704 sizes
(4) Only for 0804 ÷ 1004 sizes
(5) The hydronic kit P is not available for sizes 1504 and 1654
(6) The hydronic kits V and Z are not available for size 1654

PERFORMANCE SPECIFICATIONS

Size			0503	0553	0604	0654	0704	0754	0804	0904	1004	1254	1404	1504	1654
Cooling performance 12 °C / 7 °C (1)															
Cooling capacity	°,L	kW	105,9	113,8	140,8	159,8	180,7	211,6	242,7	277,7	313,6	341,7	369,7	423,6	477,0
Input power	°,L	kW	23,8	25,7	31,1	35,3	40,2	47,1	54,2	62,2	70,4	76,6	82,7	94,8	106,7
Cooling total input current	°,L	A	49,0	52,0	60,0	65,0	87,0	95,0	104,0	122,0	140,0	144,0	147,0	164,0	183,0
EER	°,L	W/W	4,45	4,43	4,52	4,52	4,50	4,49	4,47	4,47	4,45	4,46	4,47	4,47	4,47
Water flow rate source side	°,L	l/h	22173	23854	29402	33334	37744	44198	50635	58078	65694	71514	77333	88547	99702
Pressure drop source side	°,L	kPa	25	29	28	35	35	42	55	36	28	32	34	41	44
Water flow rate system side	°,L	l/h	18212	19586	24225	27490	31098	36424	41750	47764	53949	58759	63570	72837	82027
Pressure drop system side	°,L	kPa	17	20	19	24	24	29	38	24	19	22	24	29	30
Heating performance 40 °C / 45 °C (2)															
Heating capacity	°,L	kW	125,4	135,8	165,8	187,6	210,4	269,6	310,2	325,2	365,6	399,8	434,0	500,6	565,2
Input power	°,L	kW	27,9	30,2	36,8	41,8	46,9	55,6	64,6	72,6	80,8	88,6	96,4	111,2	124,9
Heating total input current	°,L	A	54,0	57,0	66,0	72,0	94,0	105,0	115,0	135,0	154,0	160,0	165,0	181,0	202,0
COP	°,L	W/W	4,49	4,49	4,51	4,49	4,48	4,85	4,80	4,48	4,52	4,51	4,50	4,50	4,52
Water flow rate source side	°,L	l/h	28545	30928	37776	42774	47928	62567	71944	74067	83306	91109	98905	114256	129207
Pressure drop source side	°,L	kPa	43	49	46	58	58	46	61	58	46	52	58	66	71
Water flow rate system side	°,L	l/h	21762	23561	28776	32552	36508	46797	53844	56470	63485	69420	75355	86926	98135
Pressure drop system side	°,L	kPa	24	28	26	33	32	31	40	33	26	30	32	41	43

(1) Date 14511:2018; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C
(2) Date 14511:2018; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

ENERGY INDICES (REG. 2016/2281 EU)

Size			0503	0553	0604	0654	0704	0754	0804	0904	1004	1254	1404	1504	1654
SEER - 12/7 (EN14825: 2018) (1)															
SEER	°,L	W/W	5,39	5,38	5,53	5,60	5,38	5,60	5,27	5,77	5,88	5,94	5,97	6,43	6,44
Seasonal efficiency	°,L	%	212,6%	212,2%	218,2%	221,0%	212,2%	221,0%	207.8%	227,8%	232,2%	234,5%	235,6%	254,2%	254,7%
SEPR - (EN 14825: 2018) High temperature (2)															
SEPR	°,L	W/W	-	-	-	-	-	-	-	7,03	7,06	7,06	7,03	-	-
UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (3)															
Pdesignh	°,L	kW	161	175	213	241	271	320	368	-	-	-	-	-	-
SCOP	°,L		4,95	4,93	4,95	4,93	4,93	4,90	4,80	-	-	-	-	-	-
ηsh	°,L	%	190.0%	189.0%	190.0%	189.0%	189.0%	188.0%	184.0%	-	-	-	-	-	-

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Calculation performed with FIXED water flow rate.
(3) Efficiencies for average temperature applications (55 °C)

ELECTRIC DATA

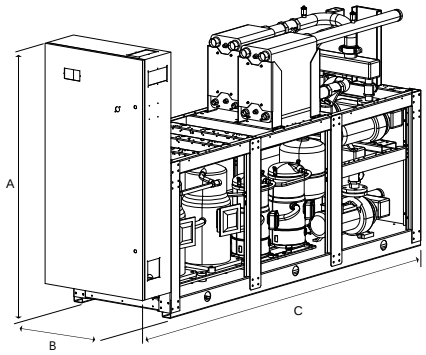
Size			0503	0553	0604	0654	0704	0754	0804	0904	1004	1254	1404	1504	1654
Electric data															
Maximum current (FLA)	°,L	A	75,0	80,0	96,0	107,0	122,0	146,0	169,0	193,0	217,0	231,0	248,0	267,0	296,0
Peak current (LRA)	°,L	A	240,0	245,0	227,0	238,0	289,0	319,0	341,0	398,0	422,0	490,0	504,0	601,0	630,0

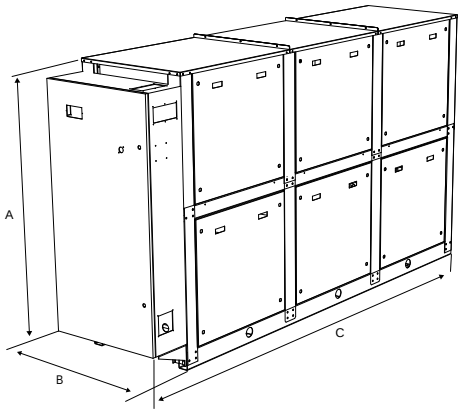
GENERAL TECHNICAL DATA

Size			0503	0553	0604	0654	0704	0754	0804	0904	1004	1254	1404	1504	1654
Compressor															
Type	°,L	type	Scroll												
Compressor regulation	°,L	Type	On-Off												
Number	°,L	no.	3	3	4	4	4	4	4	4	4	4	4	4	4
Circuits	°,L	no.	2	2	2	2	2	2	2	2	2	2	2	2	2
Refrigerant	°,L	type	R410A												
Refrigerant charge (1)	°,L	kg	13,0	13,0	17,0	17,0	20,0	22,0	26,0	36,0	54,0	54,0	58,0	60,0	62,0
Source side heat exchanger															
Type	°,L	type	Brazed plate												
Number	°,L	no.	1	1	1	1	1	1	1	1	1	1	1	1	1
Connections (in/out)	°,L	Type	Grooved joints												
Size (in)	°,L	Ø	2″1/2	2″1/2	2″1/2	2″1/2	2″1/2	2″1/2	2″1/2	3″	3″	3″	3″	3″	3″
Size (out)	°,L	Ø	2″1/2	2″1/2	2″1/2	2″1/2	2″1/2	2″1/2	2″1/2	3″	3″	3″	3″	3″	3″
System side heat exchanger															
Type	°,L	type	Brazed plate												
Number	°,L	no.	1	1	1	1	1	1	1	1	1	1	1	1	1
Connections (in/out)	°,L	Type	Grooved joints												
Size (in)	°,L	Ø	2″1/2	2″1/2	2″1/2	2″1/2	2″1/2	2″1/2	2″1/2	3″	3″	3″	3″	3″	3″
Size (out)	°,L	Ø	2″1/2	2″1/2	2″1/2	2″1/2	2″1/2	2″1/2	2″1/2	3″	3″	3″	3″	3″	3″
Sound data calculated in cooling mode (2)															
Sound power level	°	dB(A)	78,0	79,0	79,0	80,0	82,0	86,0	88,0	88,0	88,0	90,0	90,0	93,0	95,0
	L	dB(A)	72,0	73,0	73,0	74,0	76,0	80,0	82,0	82,0	82,0	84,0	84,0	86,0	87,0
Sound pressure level (10 m)	°	dB(A)	46,4	47,4	47,4	48,4	50,4	54,3	56,3	56,3	56,3	58,3	58,3	61,3	63,3
	L	dB(A)	40,3	41,3	41,3	42,3	44,3	48,3	50,3	50,3	50,3	52,3	52,3	54,3	55,3

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS





Size			0503	0553	0604	0654	0704	0754	0804	0904	1004	1254	1404	1504	1654
Dimensions and weights															
A	°	mm	1835	1835	1835	1835	1835	1775	1775	1820	1820	1820	1820	1820	1820
	L	mm	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885	1885
B	°,L	mm	800	800	800	800	800	800	800	800	800	800	800	800	800
C	°	mm	1795	1795	1795	1795	1795	2420	2420	2420	2420	2420	2420	2420	2420
	L	mm	2090	2090	2090	2090	2090	2420	2420	2420	2420	2420	2420	2420	2420
Empty weight	°	kg	628	633	734	743	791	948	1042	1275	1545	1577	1657	1687	1825
	L	kg	801	805	907	915	963	1121	1240	1473	1743	1774	1855	1885	2023

The weight of the unit does not include the hydronic kit and accessories.

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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WS 0601 - 2802

Water cooled heat pump reversible water side

Cooling capacity 147 ÷ 700 kW
Heating capacity 164 ÷ 778 kW

- **High efficiency all in Class A Eurovent**
- **Optimised for low condenser temperatures**
- **Optimised for geothermal applications**
- **Available also R513A (XP10) refrigerant gas**



DESCRIPTION

Units for internal installation offering chilled/hot water, designed to mit air conditioning needs in residential/commercial complexes or industrial applications.
Compact and flexible, perfect alignment to the requested load thanks to an accurate control algorithm.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

° Standard
L Standard silenced

FEATURES

Operating field

Full-load operation with the production of chilled water from 4 to 16°C, and the possibility to produce negative temperature water (down to -6°C) on the evaporator and hot water (up to 50 °C) on the condenser. (for more information, refer to the technical documentation).

Units mono or dual-circuit

Depending on the size, the units are one-circuit or two-circuit models to ensure maximum efficiency with full loads as well as partial loads and guarantee operation continuity if one of the circuits stop.
They are equipped with screw compressors and system and source side plate heat exchangers.

CONTROL PCO_5

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.
Adjustment includes complete management of the alarms and their log.
Possibility to control two units in a Master-Slave configuration
The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
The temperature control takes place with the integral proportional logic, based on the water output temperature.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AER485P1 x n° 2: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PRV3: Allows you to control the chiller at a distance.
AVX: Spring anti-vibration supports.

FACTORY FITTED ACCESSORIES

RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
AKW: Acoustic kit that lowers the noise level even further, thanks to the special coating on the panelling or on those components that produce the most noise in the unit. Available for the low noise version only.

ACCESSORIES COMPATIBILITY

Model	Ver	0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802
AER485P1	°,L	•	•	•	•	•								
AER485P1 x n° 2 (1)	°,L						•	•	•	•	•	•	•	•
AERBACP	°,L	•	•	•	•	•	•	•	•	•	•	•	•	•
AERNET	°,L	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	°,L	•	•	•	•	•	•	•	•	•	•	•	•	•
PRV3	°,L	•	•	•	•	•	•	•	•	•	•	•	•	•

(1) x Indicates the quantity of accessories to match.

Antivibration

	Ver	0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802
Evaporator: °														
	°,L	AVX651	AVX651	AVX652	AVX652	AVX656	AVX658	AVX658	AVX658	AVX659	AVX667	AVX661	AVX661	AVX661
Evaporator: E														
	°,L	AVX651	AVX651	AVX652	AVX652	AVX656	AVX658	AVX658	AVX658	AVX659	AVX667	AVX661	AVX661	AVX661

Power factor correction

Ver	0601	0701	0801	0901	1101	1202	1402
°,L	-	RIF161	RIF161	RIF201	RIF241	RIF161 x2	RIF161 x2

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

Ver	1602	1802	2002	2202	2502	2802
°,L	RIF161 x2	RIF201 x 2	RIF201+RIF241	RIF241 x2	RIF301 x2	RIF301 x2

A grey background indicates the accessory must be assembled in the factory

Acoustic kit

Ver	0601	0701	0801	0901	1101	1202	1402
L	AKW (1)	AKW (1)	AKW (1)	AKW (1)	AKW (1)	AKW (1)	AKW (1)

(1) Available only in low noise version
A grey background indicates the accessory must be assembled in the factory

Ver	1602	1802	2002	2202	2502	2802
L	AKW (1)	AKW (1)	AKW (1)	AKW (1)	AKW (1)	AKW (1)

(1) Available only in low noise version
A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field		Description
1,2		**WS**
3,4,5,6		**Size** 0601, 0701, 0801, 0901, 1101, 1202, 1402, 1602, 1802, 2002, 2202, 2502, 2802
7		**Operating field**
	°	Standard mechanic thermostatic valve (1)
	X	Electronic thermostatic expansion valve (1)
	Y	Low temperature mechanic thermostatic valve (2)
	Z	Low temperature electronic thermostatic valve (2)
8		**Model**
	°	Heat pump reversible on the water side
9		**Heat recovery**
	°	Without heat recovery
	D	With desuperheater (3)
	T	With total recovery (4)
10		**Version**
	°	Standard
	L	Standard silenced
11		**Evaporator**
	°	Standard
	E	Evaporating unit (5)
12		**Power supply**
	°	400V ~ 3 50Hz with fuses
	2	230V ~ 3 50Hz with fuses
	4	230V ~ 3 50Hz with magnet circuit breakers
	5	500V ~ 3 50Hz with fuses
	8	400V ~ 3 50Hz with magnet circuit breakers
	9	500V ~ 3 50Hz with magnet circuit breakers

(1) Water produced from 4 °C ÷ 16 °C
(2) Water produced from 4 °C ÷ -6 °C; for the avalability with the heat recovery we advise you to contact us
(3) In cooling mode, a water temperature no lower than 35°C must always be guaranteed on the heat exchanger inlet.
(4) Option not available for condenserless unit.
(5) Shipped with holding charge only.

PERFORMANCE SPECIFICATIONS

WS - °/L

Size			0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802
Cooling performance 12 °C / 7 °C (1)															
Cooling capacity	°/L	kW	147,7	186,9	212,2	233,8	299,0	308,6	369,1	421,6	469,8	545,6	599,8	654,3	700,4
Input power	°/L	kW	29,1	36,6	81,8	46,0	58,7	605,6	72,8	83,2	92,7	106,7	117,2	128,1	136,8
Cooling total input current	°/L	A	56,0	67,0	74,0	83,0	95,0	110,0	133,0	149,0	167,0	179,0	190,0	219,0	235,0
EER	°/L	W/W	5,08	5,11	5,07	5,08	5,09	5,10	5,07	5,06	5,07	5,11	5,12	5,11	5,12
Water flow rate source side	°/L	l/h	30238	38269	43508	47922	61258	63078	75593	86332	96177	111478	122506	133608	142894
Pressure drop source side	°/L	kPa	33	23	22	22	25	47	36	39	43	48	52	58	65
Water flow rate system side	°/L	l/h	25421	32148	36495	40212	51431	53088	63476	72492	80788	93813	103143	112508	120438
Pressure drop system side	°/L	kPa	23	17	15	16	18	33	25	27	30	33	35	39	44
Heating performance 40 °C / 45 °C (2)															
Heating capacity	°/L	kW	164,9	208,7	237,3	261,4	334,0	343,7	412,1	470,6	524,2	607,2	667,2	727,6	778,0
Input power	°/L	kW	36,8	46,3	52,9	58,1	74,2	76,9	92,2	105,5	117,7	135,5	148,8	162,8	174,1
Heating total input current	°/L	A	70,0	84,0	94,0	105,0	120,0	138,0	168,0	188,0	210,0	225,0	240,0	275,0	296,0
COP	°/L	W/W	4,48	4,51	4,49	4,50	4,50	4,47	4,47	4,46	4,46	4,48	4,48	4,47	4,47
Water flow rate system side	°/L	l/h	28611	36218	41197	45370	57987	59660	71552	81718	91025	105442	115854	126347	135087
Pressure drop system side	°/L	kPa	29	21	19	20	23	42	32	35	38	43	46	52	58
Water flow rate source side	°/L	l/h	37525	47456	53873	59360	75920	78366	93702	107011	119257	138485	152256	166081	177787
Pressure drop source side	°/L	kPa	49	37	33	34	39	73	54	59	65	72	77	85	96

(1) Date 14511:2018; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C
(2) Date 14511:2018; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

Performance specifications Evaporating units

WS - E

Size			0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802
Evaporator: E															
Cooling performance 12 °C / 7 °C (1)															
Cooling capacity	°/L	kW	134,5	167,9	189,2	216,7	264,4	276,7	333,2	381,0	431,7	489,8	542,5	591,7	629,6
Input power	°/L	kW	34,7	42,2	48,2	55,0	67,0	69,3	84,4	96,5	109,9	122,0	134,1	146,8	157,0
Cooling total input current	°/L	A	63,0	75,0	85,0	96,0	111,0	127,0	151,0	170,0	192,0	207,0	222,0	252,0	270,0
EER	°/L	W/W	3,88	3,98	3,92	3,94	3,94	3,99	3,95	3,95	3,93	4,01	4,05	4,03	4,01
Water flow rate system side	°/L	l/h	23108	28849	32512	37238	45248	47546	57251	65458	74169	84147	93212	101661	108175
Pressure drop system side	°/L	kPa	18	13	12	12	14	25	19	20	23	25	27	30	34

(1) Service side water 12 °C / 7 °C; Condensing temperature 45 °C

ENERGY INDICES (REG. 2016/2281 EU)

Size			0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802
SEER - 12/7 (EN14825: 2018) (1)															
SEER	°/L	W/W	5,58	5,80	6,09	6,04	5,96	6,22	6,24	6,39	6,39	6,38	6,38	6,42	6,39
Seasonal efficiency	°/L	%	220,2%	229,0%	240,6%	238.6%	235,2%	245,7%	246,6%	252,5%	252,6%	252,1%	252,2%	253,9%	252,7%
SEPR - (EN 14825: 2018) High temperature (2)															
SEPR	°/L	W/W	-	-	-	-	7,77	7,97	7,99	8,11	8,01	8,04	8,01	8,05	8,01
UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (3)															
Pdesignh	°/L	kW	229	290	330	363	-	-	-	-	-	-	-	-	-
SCOP	°/L		5,98	6,10	6,30	6,25	-	-	-	-	-	-	-	-	-
ηsh	°/L	%	231.0%	236.0%	244.0%	242.0%	-	-	-	-	-	-	-	-	-

(1) Calculation performed with VARIABLE water flow rate and VARIABLE outlet temperature.
(2) Calculation performed with VARIABLE water flow rate.
(3) Efficiencies for low temperature applications (35 °C)

ELECTRIC DATA

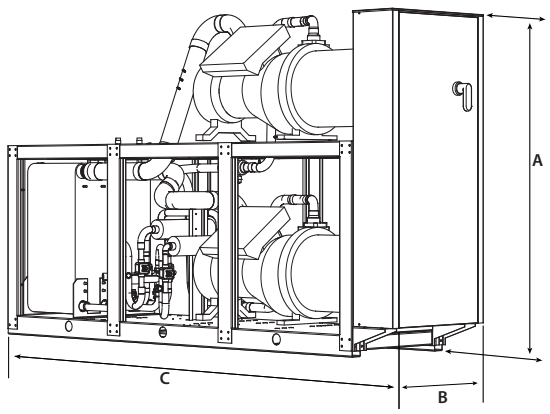
Size			0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802
Electric data															
Maximum current (FLA)	°/L	A	90,7	98,0	112,0	128,0	156,0	168,0	196,0	224,0	256,0	284,0	312,0	354,0	380,0
Peak current (LRA)	°/L	A	147,0	140,0	163,0	192,0	246,0	194,1	198,5	228,0	262,6	316,6	324,7	388,1	448,1

GENERAL TECHNICAL DATA

Size			0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802
Compressor															
Type	°,L	type							Screw						
Compressor regulation	°,L	Type							On-Off						
Number	°,L	no.	1	1	1	1	1	2	2	2	2	2	2	2	2
Circuits	°,L	no.	1	1	1	1	1	2	2	2	2	2	2	2	2
Refrigerant	°,L	type							R134a						
Refrigerant charge (1)	°,L	kg	18,0	22,0	22,0	25,0	38,0	36,0	42,0	44,0	50,0	59,0	68,0	70,0	80,0
System side heat exchanger															
Type	°,L	type							Brazed plate						
Number	°,L	no.	1	1	1	1	1	1	1	1	1	1	1	1	1
Source side heat exchanger															
Type	°,L	type							Brazed plate						
Number	°,L	no.	1	1	1	1	1	1	1	1	1	1	1	1	1
System side hydraulic connections															
Connections (in/out)	°,L	Type							Grooved joints						
Sizes (in/out)	°,L	Ø							3″						
Source side hydraulic connections															
Connections (in/out)	°,L	Type							Grooved joints						
Sizes (in/out)	°,L	Ø							3″						
Sound data calculated in cooling mode (2)															
Sound power level	°	dB(A)	86,1	86,8	87,1	87,8	87,1	89,1	89,8	90,1	90,8	90,5	90,1	91,3	91,8
	L	dB(A)	78,1	78,8	79,1	79,9	78,1	81,1	81,8	82,1	82,9	82,1	81,1	83,4	84,1
Sound pressure level (10 m)	°	dB(A)	54,3	55,0	55,3	56,0	55,3	57,2	57,9	58,3	59,0	58,6	58,2	59,3	59,9
	L	dB(A)	46,3	47,0	47,3	48,1	46,3	49,2	50,0	50,2	51,0	50,2	49,2	51,5	52,2

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size			0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802
Dimensions and weights															
A	°	mm	1775	1775	1775	1775	1775	1975	1975	1975	2005	1985	2065	2065	2065
	L	mm	1775	1775	1775	1775	1775	2120	2120	2120	2120	2120	2120	2120	2120
B	°,L	mm	810	810	810	810	810	810	810	810	810	810	810	810	810
C	°,L	mm	2960	2960	2960	2960	3360	2960	2960	2960	2960	3360	3360	3360	3360
Empty weight	°	kg	1101	1251	1301	1357	1788	1738	2071	2140	2212	2648	3050	3131	3131
	L	kg	1229	1379	1429	1485	1934	1966	2299	2368	2440	2905	3307	3388	3388

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HWS 0601 - 2802

Water cooled heat pump reversible water side

Cooling capacity 147 ÷ 369 kW
Heating capacity 165 ÷ 778 kW

- **High efficiency all in Class A Eurovent**
- **Unit optimised for high condenser temperatures.**
- **Optimised for geothermal applications**
- **Available also R513A (XP10) refrigerant gas**



DESCRIPTION

Units for internal installation offering chilled/hot water, designed to mit air conditioning needs in residential/commercial complexes or industrial applications.
Compact and flexible, perfect alignment to the requested load thanks to an accurate control algorithm.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

° Standard
L Standard silenced

FEATURES

Operating field

Full-load operation with the production of chilled water 4-16 °C, and the possibility to produce also hot water for the condenser up to 60 °C. (for more information, refer to the technical documentation).

Units mono or dual-circuit

Depending on the size, the units are one-circuit or two-circuit models to ensure maximum efficiency with full loads as well as partial loads and guarantee operation continuity if one of the circuits stop.
They are equipped with screw compressors and system and source side plate heat exchangers.

Integral acoustic enclosure

For all versions, if required, it is available the integral acoustic enclosure, which can further reduce the sound level.

CONTROL PCO_5

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.
Adjustment includes complete management of the alarms and their log.
Possibility to control two units in a Master-Slave configuration
The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
The temperature control takes place with the integral proportional logic, based on the water output temperature.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AER485P1 x n° 2: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PRV3: Allows you to control the chiller at a distance.
AVX: Spring anti-vibration supports.

FACTORY FITTED ACCESSORIES

RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
AKW: Acoustic kit that lowers the noise level even further, thanks to the special coating on the panelling or on those components that produce the most noise in the unit. Available for the low noise version only.

ACCESSORIES COMPATIBILITY

Model	Ver	0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802
AER485P1	°,L	•	•	•	•	•								
AER485P1 x n° 2 (1)	°,L						•	•	•	•	•	•	•	•
AERBACP	°,L	•	•	•	•	•	•	•	•	•	•	•	•	•
AERNET	°,L	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	°,L	•	•	•	•	•	•	•	•	•	•	•	•	•
PRV3	°,L	•	•	•	•	•	•	•	•	•	•	•	•	•

(1) x Indicates the quantity of accessories to match.

Antivibration

Version	Heat recovery	Evaporator	0601	0701	0801	0901	1101	1202	1402
°	°	°	AVX651	AVX651	AVX652	AVX652	AVX656	AVX658	AVX658
°	°,D	E	-	AVX668	AVX668	AVX668	AVX669	-	AVX670
°	D	°	-	AVX651	AVX652	AVX652	AVX654	AVX658	AVX658
°	T	°	-	AVX652	AVX655	AVX655	AVX657	-	AVX662
L	°	°	AVX651	AVX651	AVX652	AVX652	AVX656	AVX658	AVX658
L	°,D	E	-	AVX668	AVX668	AVX668	AVX669	-	AVX670
L	D	°	-	AVX651	AVX652	AVX652	AVX654	AVX658	AVX658
L	T	°	-	AVX652	AVX655	AVX655	AVX657	-	AVX662

Version	Heat recovery	Evaporator	1602	1802	2002	2202	2502	2802
°	°	°	AVX658	AVX659	AVX667	AVX661	AVX661	AVX661
°	°	E	AVX670	AVX670	AVX671	AVX672	AVX672	AVX672
°	D	°,E	-	-	-	-	-	-
°	T	°	-	-	-	-	-	-
L	°	°	AVX658	AVX659	AVX667	AVX661	AVX661	AVX661
L	°	E	AVX670	AVX670	AVX671	AVX672	AVX672	AVX672
L	D	°,E	-	-	-	-	-	-
L	T	°	-	-	-	-	-	-

- not available

Power factor correction

Ver	0601	0701	0801	0901	1101	1202	1402
°,L	-	RIF161	RIF161	RIF201	RIF241	-	RIF161 x2

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

Ver	1602	1802	2002	2202	2502	2802
°,L	RIF161 x2	RIF201 x 2	RIF201+RIF241	RIF241 x2	RIF301 x2	RIF301 x2

A grey background indicates the accessory must be assembled in the factory

Acoustic kit

Ver	0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802
L	AKW (1)	AKW (1)	AKW (1)	AKW (1)	AKW (1)	AKW (1)	AKW (1)	AKW (1)	AKW (1)	AKW (1)	AKW (1)	AKW (1)	AKW (1)

(1) Available only in low noise version
A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3	**HWS**
4,5,6,7	**Size** 0601, 0701, 0801, 0901, 1101, 1202, 1402, 1602, 1802, 2002, 2202, 2502, 2802
8	**Operating field**
°	Standard mechanic thermostatic valve
X	Electronic thermostatic expansion valve
9	**Model**
°	Heat pump reversible on the water side
10	**Heat recovery**
°	Without heat recovery
D	With desuperheater (1)
T	With total recovery (2)
11	**Version**
°	Standard
L	Standard silenced

Field	Description
12	**Evaporator**
°	Standard
E	Evaporating unit (3)
13	**Power supply**
°	400V ~ 3 50Hz with fuses
2	230V ~ 3 50Hz with fuses
4	230V ~ 3 50Hz with magnet circuit breakers
5	500V ~ 3 50Hz with fuses
8	400V ~ 3 50Hz with magnet circuit breakers
9	500V ~ 3 50Hz with magnet circuit breakers

(1) In cooling mode, a water temperature no lower than 35°C must always be guaranteed on the heat exchanger inlet. The desuperheater is not available for size for 0601 to 1202 and from 1602 to 2802.
(2) The desuperheater and total recovery are not available for sizes 0601 and 1202 and size up 1602 to 2802; T are not compatible with E
(3) Shipped with holding charge only. Option not available for size 0601 and 1202.

PERFORMANCE SPECIFICATIONS

HWS - °/L

Size			0601	0701	0801	0901	1101	1202	1402
Cooling performance 12 °C / 7 °C (1)									
Cooling capacity	°,L	kW	146,7	178,8	212,7	233,7	293,7	293,7	356,6
Input power	°,L	kW	31,7	38,0	43,2	49,2	59,7	63,5	76,8
Cooling total input current	°,L	A	56,0	66,0	74,0	82,0	101,0	112,0	132,0
EER	°,L	W/W	4,63	4,70	4,92	4,75	4,92	4,62	4,64
Water flow rate source side	°,L	l/h	30474	37085	43795	48419	60454	60948	73996
Pressure drop source side	°,L	kPa	40	27	27	26	31	53	50
Water flow rate system side	°,L	l/h	25256	30754	36596	40204	50513	50513	61337
Pressure drop system side	°,L	kPa	29	20	20	19	23	38	36
Heating performance 40 °C / 45 °C (2)									
Heating capacity	°,L	kW	163,9	199,3	234,8	260,1	324,0	327,5	397,5
Input power	°,L	kW	38,0	45,4	51,6	58,8	71,4	76,3	92,2
Heating total input current	°,L	A	66,0	78,0	88,0	97,0	120,0	133,0	157,0
COP	°,L	W/W	4,31	4,39	4,55	4,42	4,54	4,29	4,31
Water flow rate source side	°,L	l/h	36968	45016	53566	58847	73936	73936	89780
Pressure drop source side	°,L	kPa	62	43	43	41	49	81	77
Water flow rate system side	°,L	l/h	28421	34581	40752	45134	56255	56843	69010
Pressure drop system side	°,L	kPa	35	23	23	23	27	46	43

(1) Date 14511:2018; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C
(2) Date 14511:2018; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

Size			1602	1802	2002	2202	2502	2802
Heating performance 40 °C / 45 °C (1)								
Heating capacity	°,L	kW	465,7	522,8	584,8	646,9	730,9	799,6
Input power	°,L	kW	104,0	121,3	133,2	145,1	165,9	181,5
Heating total input current	°,L	A	176,0	195,0	218,0	241,0	277,0	280,0
COP	°,L	W/W	4,48	4,31	4,39	4,46	4,41	4,40
Water flow rate source side	°,L	l/h	106378	118198	133036	147873	166735	182932
Pressure drop source side	°,L	kPa	86	88	96	103	114	137
Water flow rate system side	°,L	l/h	80851	90770	101543	112315	126902	138328
Pressure drop system side	°,L	kPa	48	50	54	58	65	79

(1) Date 14511:2018; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

Performance specifications Evaporating units

HWS - E

Size			0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802
Evaporator: E															
Cooling performance 12 °C / 7 °C (1)															
Cooling capacity	°,L	kW	-	163,0	192,0	212,0	263,0	-	326,0	385,0	428,0	481,0	539,0	601,0	676,0
Input power	°,L	kW	-	41,0	47,0	54,0	66,0	-	82,0	93,0	108,0	120,0	132,0	146,0	159,0
Cooling total input current	°,L	A	-	72,0	81,0	90,0	113,0	-	144,0	162,0	180,0	204,0	226,0	254,0	272,0
EER	°,L	W/W	-	3,98	4,09	3,93	3,98	-	3,98	4,14	3,96	4,01	4,08	4,12	4,25
Water flow rate system side	°,L	l/h	-	28005	32988	36424	45186	-	56011	66147	73535	82641	92606	103259	116144
Pressure drop system side	°,L	kPa	-	20	20	19	23	-	36	40	41	45	48	53	62

(1) Service side water 12 °C / 7 °C; Condensing temperature 45 °C

ENERGY INDICES (REG. 2016/2281 EU)

Size			0601	0701	0801	0901	1101	1202	1402
SEER - 12/7 (EN14825: 2018) (1)									
SEER	°,L	W/W	5,01	5,28	5,57	5,43	5,59	5,36	5,42
Seasonal efficiency	°,L	%	197,4%	208,2%	219.8%	214.2%	220,6%	211,4%	213,6%
UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (2)									
Pdesignh	°,L	kW	215	257	293	330	-	-	-
SCOP	°,L		4,55	4,60	4,73	4,58	-	-	-
ηsh	°,L	%	174.0%	176.0%	181.0%	175.0%	-	-	-

(1) Calculation performed with VARIABLE water flow rate and VARIABLE outlet temperature.
(2) Efficiencies for average temperature applications (55 °C)

ELECTRIC DATA

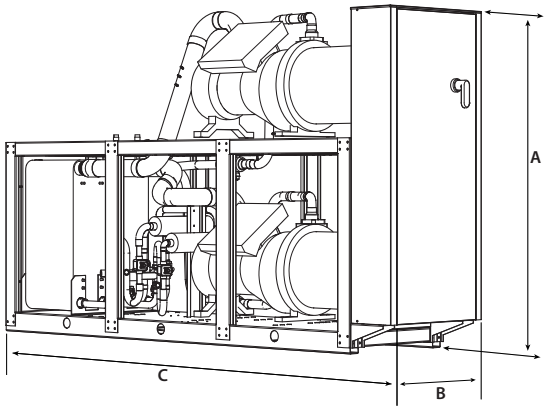
Size			0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802
Electric data															
Maximum current (FLA)	°,L	A	105,0	124,0	144,0	162,0	182,0	210,0	248,0	288,0	324,0	344,0	364,0	430,0	430,0
Peak current (LRA)	°,L	A	180,0	163,0	192,0	229,0	300,0	285,0	287,0	336,0	391,0	462,0	482,0	575,0	575,0

GENERAL TECHNICAL DATA

Size			0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802
Compressor															
Type	°,L	type							Screw						
Compressor regulation	°,L	Type							On-Off						
Number	°,L	no.	1	1	1	1	1	2	2	2	2	2	2	2	2
Circuits	°,L	no.	1	1	1	1	1	2	2	2	2	2	2	2	2
Refrigerant	°,L	type							R134a						
System side heat exchanger															
Type	°,L	type							Brazed plate						
Number	°,L	no.	1	1	1	1	1	1	1	1	1	1	1	1	1
Source side heat exchanger															
Type	°,L	type							Brazed plate						
Number	°,L	no.	1	1	1	1	1	1	1	1	1	1	1	1	1
System side hydraulic connections															
Connections (in/out)	°,L	Type							Grooved joints						
Sizes (in/out)	°,L	Ø							3″						
Source side hydraulic connections															
Connections (in/out)	°,L	Type							Grooved joints						
Sizes (in/out)	°,L	Ø							3″						
Sound data calculated in cooling mode (1)															
Sound power level	°	dB(A)	85,0	86,0	86,0	86,0	92,0	88,0	89,0	89,0	89,0	93,0	95,0	95,0	95,0
	L	dB(A)	77,0	78,0	78,0	78,0	84,0	80,0	81,0	81,0	81,0	85,0	87,0	87,0	87,0
Sound pressure level (10 m)	°	dB(A)	53,2	54,2	54,2	54,2	60,2	56,2	57,2	57,2	57,2	61,1	63,1	63,1	63,1
	L	dB(A)	45,2	46,2	46,2	46,2	52,2	48,1	49,1	49,1	49,1	53,1	55,1	55,1	55,1

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size			0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802
Dimensions and weights															
A	°	mm	1775	1775	1775	1775	1775	1975	1975	1975	2005	1985	2065	2065	2065
	L	mm	1775	1775	1775	1775	1775	2120	2120	2120	2120	2120	2120	2120	2120
B	°,L	mm	810	810	810	810	810	810	810	810	810	810	810	810	810
C	°,L	mm	2960	2960	2960	2960	3360	2960	2960	2960	2960	3360	3360	3360	3360
Empty weight	°,L	kg	1101	1251	1301	1357	1788	1738	2028	2097	2169	2598	3000	3095	3095

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HWSG

Water cooled heat pump reversible water side

Cooling capacity 110 ÷ 396 kW
Heating capacity 122 ÷ 595 kW

- **Use of the new ecological gas R1234ze**
- **Unit optimised for high condenser temperatures.**
- **Production of hot water from condenser up to 65° C.**



DESCRIPTION

Units for internal installation offering chilled/hot water, designed to mit air conditioning needs in residential/commercial complexes or industrial applications.
Compact and flexible, perfect alignment to the requested load thanks to an accurate control algorithm.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

° Standard
L Standard silenced

FEATURES

Operating field

Production of chilled water up to 4°C of water produced on the evaporator side, but also suitable for use in heat pump mode with condenser water temperature up to 65°C.

Units mono or dual-circuit

Depending on the size, the units are one-circuit or two-circuit models to ensure maximum efficiency with full loads as well as partial loads and guarantee operation continuity if one of the circuits stop.
They are equipped with screw compressors and system and source side plate heat exchangers dedicated to use of the new HFO R1234ze gas.

HFO R1234ze refrigerant gas

HFO R1234ze is a mixture featuring:
ODP = 0 e GWP (Global Warming Potential) = 7, R134a GWP = 1430, with thermodynamic properties that guarantee and sometimes improve efficiencies achieved with HFC refrigerants.

Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit. Standard for all sizes.

CONTROL

pCO^5 control type
Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.
Adjustment includes complete management of the alarms and their log.
Possibility to control two units in a Master-Slave configuration
The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
The temperature control takes place with the integral proportional logic, based on the water output temperature.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AER485P1 x n° 2: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PRV3: Allows you to control the chiller at a distance.
AVX: Spring anti-vibration supports.

ACCESSORIES COMPATIBILITY

Model	Ver	0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802
AER485P1	°,L	•	•	•	•	•								
AER485P1 x n° 2 (1)	°,L						•	•	•	•	•	•	•	•
AERBACP	°,L	•	•	•	•	•	•	•	•	•	•	•	•	•
AERNET	°,L	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	°,L	•	•	•	•	•	•	•	•	•	•	•	•	•
PRV3	°,L	•	•	•	•	•	•	•	•	•	•	•	•	•

(1) x Indicates the quantity of accessories to match.

Antivibration

Ver	0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802
°,L	AVX651	AVX651	AVX652	AVX652	AVX656	AVX658	AVX658	AVX658	AVX659	AVX667	AVX661	AVX661	AVX661

CONFIGURATOR

Field	Description
1,2,3,4	**HWSG**
5,6,7,8	**Size** 0601, 0701, 0801, 0901, 1101, 1202, 1402, 1602, 1802, 2002, 2202, 2502, 2802
9	**Operating field**
X	Electronic thermostatic expansion valve (1)
Z	Low temperature electronic thermostatic valve (2)
10	**Model**
°	Optimised for high condenser temperatures
11	**Heat recovery**
°	Without heat recovery
D	With desuperheater (3)
T	With total recovery (3)
12	**Version**
°	Standard
L	Standard silenced
13	**Evaporator**
°	Standard
14	**Power supply**
°	400V ~ 3 50Hz with fuses

(1) Water produced from 4 °C ÷ 16 °C
(2) Water produced from -5 °C ÷ 4 °C
(3) Order management

PERFORMANCE SPECIFICATIONS

HWSG - °/L

Size			0601	0701	0801	0901	1101	1202	1402	1602	1802	2002
Cooling performance 12 °C / 7 °C (1)												
Cooling capacity	°/L	kW	110,5	135,1	156,5	176,0	215,8	221,7	271,4	315,9	354,9	396,8
Input power	°/L	kW	23,2	27,7	31,3	35,6	43,2	46,2	57,0	63,9	73,6	80,7
Cooling total input current	°/L	A	48,0	55,0	61,0	66,0	82,0	96,0	111,0	122,0	132,0	149,0
EER	°/L	W/W	4,77	4,87	5,00	4,94	4,99	4,80	4,76	4,94	4,82	4,92
Water flow rate system side	°/L	l/h	19007	23236	26907	30255	37102	38143	46690	54329	61030	68240
Pressure drop system side	°/L	kPa	16	11	10	11	12	24	32	21	23	25
Water flow rate source side	°/L	l/h	22875	27903	32183	36261	44378	45808	56089	64986	73289	81668
Pressure drop source side	°/L	kPa	23	16	15	15	17	34	47	31	34	36
Heating performance 40 °C / 45 °C (2)												
Heating capacity	°/L	kW	122,8	149,7	172,4	194,4	237,8	245,8	301,0	348,2	393,1	437,6
Input power	°/L	kW	27,7	33,1	37,3	42,5	51,6	55,2	68,3	76,4	88,0	96,5
Heating total input current	°/L	A	58,0	65,0	72,0	78,0	97,0	114,0	131,0	145,0	157,0	176,0
COP	°/L	W/W	4,43	4,52	4,62	4,57	4,61	4,45	4,41	4,56	4,47	4,53
Water flow rate system side	°/L	l/h	21319	25989	29942	33756	41288	42668	52248	60463	68263	75995
Pressure drop system side	°/L	kPa	20	14	13	13	15	29	41	27	30	31
Water flow rate source side	°/L	l/h	27820	34012	39384	44285	54307	55832	68342	79522	89331	99885
Pressure drop source side	°/L	kPa	35	24	22	23	26	50	69	46	50	54

(1) Date 14511:2018; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C
(2) Date 14511:2018; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

Size			2202	2502	2802
Heating performance 40 °C / 45 °C (1)					
Heating capacity	°/L	kW	488,6	540,8	595,5
Input power	°/L	kW	106,1	119,3	131,9
Heating total input current	°/L	A	196,0	225,0	240,0
COP	°/L	W/W	4,60	4,53	4,52
Water flow rate system side	°/L	l/h	84852	93902	103410
Pressure drop system side	°/L	kPa	34	37	45
Water flow rate source side	°/L	l/h	112042	123541	136133
Pressure drop source side	°/L	kPa	58	62	75

(1) Date 14511:2018; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

ENERGY INDICES (REG. 2016/2281 EU)

Size			0601	0701	0801	0901	1101	1202	1402	1602	1802	2002
SEER - 12/7 (EN14825: 2018) (1)												
Seasonal efficiency	°/L	%	205,9%	214,4%	222,6%	221,7%	221,9%	210,8%	211,5%	228,3%	223,0%	226,4%
SEER	°/L	W/W	5,22	5,44	5,64	5,62	5,62	5,35	5,36	5,78	5,65	5,74
UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (2)												
Pdesignh	°/L	kW	155	188	217	245	299	309	379	-	-	-
SCOP	°/L		4,52	4,62	4,72	4,69	4,69	4,63	4,60	-	-	-
ηsh	°/L	%	173.0%	177.0%	181.0%	179.0%	181.0%	177.0%	176.0%	-	-	-

(1) Calculation performed with VARIABLE water flow rate and VARIABLE outlet temperature.
(2) Efficiencies for average temperature applications (55 °C)

ELECTRIC DATA

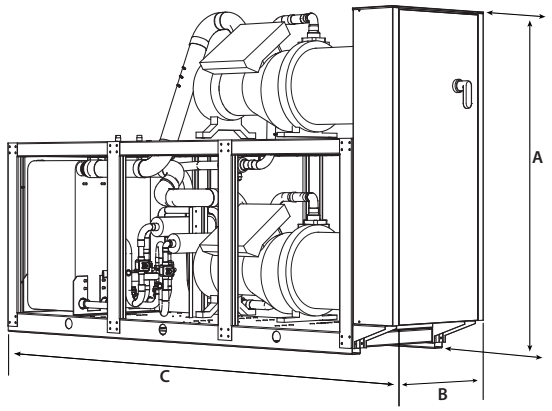
Size			0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802
Electric data															
Maximum current (FLA)	°/L	A	75,6	95,6	104,4	115,9	143,2	151,2	191,2	208,8	231,8	259,1	286,4	323,8	352,0
Peak current (LRA)	°/L	A	180,0	163,0	192,0	229,0	267,0	255,6	258,6	296,4	344,9	372,2	410,2	475,9	490,0

GENERAL TECHNICAL DATA

Size			0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802
Compressor															
Type	°,L	type							Screw						
Compressor regulation	°,L	Type							On/Off						
Number	°,L	no.	1	1	1	1	1	2	2	2	2	2	2	2	2
Circuits	°,L	no.	1	1	1	1	1	2	2	2	2	2	2	2	2
Refrigerant	°,L	type							R1234ze						
Refrigerant load circuit 1 (1)	°,L	kg	18,0	20,0	22,0	25,0	38,0	18,0	20,5	21,5	25,0	25,0	33,0	35,0	39,0
Refrigerant load circuit 2 (1)	°,L	kg	-	-	-	-	-	18,0	20,0	22,0	25,0	30,0	18,0	20,5	21,5
System side heat exchanger															
Type	°,L	type							Brazed plate						
Number	°,L	no.	1	1	1	1	1	1	1	1	1	1	1	1	1
Source side heat exchanger															
Type	°,L	type							Brazed plate						
Number	°,L	no.	1	1	1	1	1	1	1	1	1	1	1	1	1
System side hydraulic connections															
Connections (in/out)	°,L	Type							Grooved joints						
Size (in) (2)	°,L	Ø							3″						
Size (out) (2)	°,L	Ø							3″						
Source side hydraulic connections															
Connections (in/out)	°,L	Type							Grooved joints						
Size (in)	°,L	Ø							3″						
Size (out)	°,L	Ø							3″						
Sound data calculated in cooling mode (3)															
Sound power level	°	dB(A)	87,0	86,0	86,0	86,0	92,0	89,0	90,0	89,0	89,0	93,0	95,0	95,0	95,0
	L	dB(A)	78,9	78,0	78,0	78,0	84,0	81,0	81,9	81,0	81,0	85,0	87,0	87,0	87,0
Sound pressure level (10 m)	°	dB(A)	55,2	54,2	54,2	54,2	60,2	57,2	58,1	57,2	57,2	61,1	63,1	63,1	63,1
	L	dB(A)	47,1	46,2	46,2	46,2	52,2	49,1	50,0	49,1	49,1	53,1	55,1	55,1	55,1

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(2) Size
(3) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size			0601	0701	0801	0901	1101	1202	1402	1602	1802	2002	2202	2502	2802
Dimensions and weights															
A	°	mm	1775	1775	1775	1775	1775	1975	1975	1975	2005	1985	2065	2065	2065
	L	mm	1775	1775	1775	1775	1775	2120	2120	2120	2120	2120	2120	2120	2120
B	°,L	mm	810	810	810	810	810	810	810	810	810	810	810	810	810
C	°,L	mm	2960	2960	2960	2960	3360	2960	2960	2960	2960	3360	3360	3360	3360
Empty weight	°	kg	1101	1251	1301	1357	1788	1738	2028	2097	2169	2598	3000	3095	3095
	L	kg	1229	1379	1429	1485	1934	1966	2256	2325	2397	2855	3257	3352	3352

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WSH

Reversible water-cooled heat pump, gas side

Cooling capacity 165,8 ÷ 269,7 kW
Heating capacity 183,3 ÷ 300,3 kW

- **Reversing valve**
- **Optional electronic expansion valve which allows: cooling down to -6 °C**
- **Modulating capacity control 25-100%**



DESCRIPTION

Units for internal installation offering chilled/hot water, designed to mit air conditioning needs in residential/commercial complexes or industrial applications.

High-efficiency screw compressors, with silent functioning and with cooling capacity adjustment via continuous modulation from 40 to 100%. (25-100% with electronic valve OPTION which is to be requested when placing the order)

Compact and flexible, perfect alignment to the requested load thanks to an accurate control algorithm.

The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

° Standard
L Standard silenced

FEATURES

Operating field

Full-load operation with the production of chilled water 4-16 °C, and the possibility to produce also negative temperature water down to -6 °C for the evaporator and hot water for the condenser up to 55 °C.
(for more information, refer to the technical documentation).

CONTROL PCO_5

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.

Adjustment includes complete management of the alarms and their log.

Possibility to control two units in a Master-Slave configuration

The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.

The temperature control takes place with the integral proportional logic, based on the water output temperature.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AER485P1 x n° 2: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PRV3: Allows you to control the chiller at a distance.
AVX: Spring anti-vibration supports.

FACTORY FITTED ACCESSORIES

RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
AKW: Acoustic kit that lowers the noise level even further, thanks to the special coating on the panelling or on those components that produce the most noise in the unit. Available for the low noise version only.

ACCESSORIES COMPATIBILITY

Model	Ver	0701	0801	0901	1101
AER485P1	°,L	•	•	•	•
AERBACP	°,L	•	•	•	•
AERNET	°,L	•	•	•	•
MULTICHILLER_EVO	°,L	•	•	•	•
PRV3	°,L	•	•	•	•

Antivibration

Ver	0701	0801	0901	1101
°,L	AVX665	AVX665	AVX665	AVX666

Power factor correction

Ver	0701	0801	0901	1101
°,L	RIF161	RIF161	RIF201	RIF241

A grey background indicates the accessory must be assembled in the factory

Acoustic kit

Ver	0701	0801	0901	1101
L	AKW (1)	AKW (1)	AKW (1)	AKW (1)

(1) Available only in low noise version
A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field		Description
1,2,3		**WSH**
4,5,6,7		**Size** 0701, 0801, 0901, 1101
8		**Operating field**
	°	Standard mechanic thermostatic valve (1)
	X	Low temperature electronic thermostatic valve (2)
9		**Model**
	°	Reversible heat pump, gas side
10		**Heat recovery**
	°	Without heat recovery
	D	With desuperheater (3)
11		**Version**
	°	Standard
	L	Standard silenced
12		**Condenser**
	°	PED regulation
13		**Power supply**
	°	400V ~ 3 50Hz
	2	230V ~ 3 50Hz with fuses
	4	230V ~ 3 50Hz with magnet circuit breakers
	5	500V ~ 3 50Hz with fuses
	8	400V ~ 3 50Hz with magnet circuit breakers
	9	500V ~ 3 50Hz with magnet circuit breakers

(1) Water produced up to +4 °C
(2) Water produced up to +4 °C. For different temperature please contact the factory.
(3) In cooling mode, a water temperature no lower than 35°C must always be guaranteed on the heat exchanger inlet.

PERFORMANCE SPECIFICATIONS

WSH - °/L

Size			0701	0801	0901	1101
Cooling performance 12 °C / 7 °C (1)						
Cooling capacity	°,L	kW	165,8	195,7	216,7	269,7
Input power	°,L	kW	37,1	42,3	48,3	58,8
Cooling total input current	°,L	A	65,0	73,0	81,0	100,0
EER	°,L	W/W	4,47	4,63	4,48	4,59
Water flow rate source side	°,L	l/h	34669	40687	45310	56133
Pressure drop source side	°,L	kPa	30	31	30	36
Water flow rate system side	°,L	l/h	28521	33675	37283	46389
Pressure drop system side	°,L	kPa	23	24	22	27
Heating performance 40 °C / 45 °C (2)						
Heating capacity	°,L	kW	183,3	210,3	237,3	300,3
Input power	°,L	kW	45,4	51,6	58,7	74,4
Heating total input current	°,L	A	81,0	91,0	101,0	131,0
COP	°,L	W/W	4,04	4,08	4,05	4,03
Water flow rate source side	°,L	l/h	40419	46517	52342	66297
Pressure drop source side	°,L	kPa	42	42	39	51
Water flow rate system side	°,L	l/h	31805	36498	41190	52140
Pressure drop system side	°,L	kPa	24	23	23	29

(1) Date 14511:2018; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C
(2) Date 14511:2018; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

ENERGY INDICES (REG. 2016/2281 EU)

Size			0701	0801	0901	1101
SEER - 12/7 (EN14825: 2018) (1)						
SEER	°,L	W/W	5,04	5,47	5,29	5,11
Seasonal efficiency	°,L	%	198,6%	215,8%	208.6%	201,3%
UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (2)						
Pdesignh	°,L	kW	249	285	322	-
SCOP	°,L		4,20	4,25	4,23	-
ηsh	°,L	%	160.0%	162.0%	161.0%	-

(1) Calculation performed with VARIABLE water flow rate and VARIABLE outlet temperature.
(2) Efficiencies for average temperature applications (55 °C)

ELECTRIC DATA

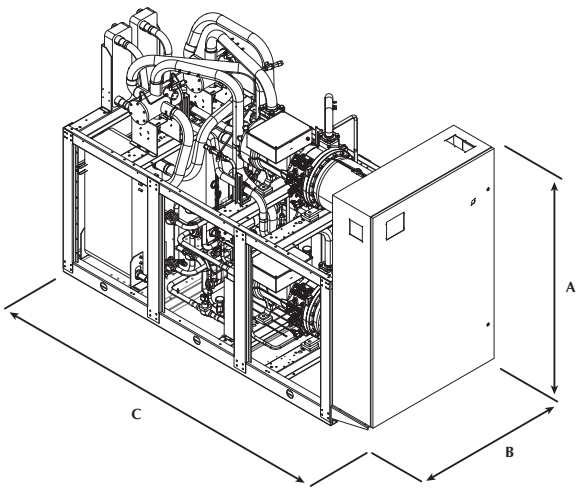
Size			0701	0801	0901	1101
Electric data						
Maximum current (FLA)	°,L	A	124,0	144,0	162,0	182,0
Peak current (LRA)	°,L	A	163,0	192,0	229,0	300,0

GENERAL TECHNICAL DATA

Size			0701	0801	0901	1101
Compressor						
Type	°,L	type		Bi-vite		
Compressor regulation	°,L	Type		On-Off		
Number	°,L	no.	1	1	1	1
Circuits	°,L	no.	1	1	1	1
Refrigerant	°,L	type		R134a		
System side heat exchanger						
Type	°,L	type		Brazed plate		
Number	°,L	no.	1	1	1	1
Connections (in/out)	°,L	Type		Grooved joints		
Sizes (in/out)	°,L	Ø		3"		
Source side heat exchanger						
Type	°,L	type		Brazed plate		
Number	°,L	no.	1	1	1	1
Connections (in/out)	°,L	Type		Grooved joints		
Sizes (in/out)	°,L	Ø		3"		
Sound data calculated in cooling mode (1)						
Sound power level	°	dB(A)	86,0	86,0	86,0	92,0
	L	dB(A)	78,0	78,0	78,0	84,0
Sound pressure level (10 m)	°	dB(A)	54,1	54,1	54,1	60,1
	L	dB(A)	46,1	46,1	46,1	52,1

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size			0701	0801	0901	1101
Dimensions and weights						
A	°	mm	2050	2050	2050	2050
	L	mm	2120	2120	2120	2120
B	°,L	mm	809	809	809	809
C	°,L	mm	2960	2960	2960	3360
Empty weight	°	kg	1391	1443	1506	1946
	L	kg	1622	1674	1737	2206

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WFGI

Water cooled heat pump reversible water side

Cooling capacity 506 ÷ 1765 kW
Heating capacity 564 ÷ 1960 kW

- **Production of hot water from condenser up to 65° C.**
- **Production of chilled water down to -8°C.**



DESCRIPTION

Units for internal installation offering chilled/hot water, designed to mit air conditioning needs in residential/commercial complexes or industrial applications.
Compact and flexible, perfect alignment to the requested load thanks to an accurate control algorithm.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

° Standard
A High efficiency

FEATURES

Operating field

Production of chilled water up to 20 °C of water produced on the evaporator side, but also suitable for use in heat pump mode with condenser water temperature up to 65 °C depending on the model.

With option Z (double electronic expansion valve) the unit is capable to produce chilled water temperature from -8°C up to 10°C.

Bi-tri circuit unit

Unit with 2-3 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.
All units are equipped with an inverter compressor combined with an on-off compressor (two-circuit sizes) or two on/off compressors (three-circuit sizes), with R1234ze refrigerant.
The R515B refrigerant with this type of gas is also available on the configurator. Performances do not vary when the refrigerant gas available on the configurator varies.
For further details refer to the technical documentation or to the Magellano selection program.

Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit. Standard for all sizes.

CONTROL PCO_5

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.
Adjustment includes complete management of the alarms and their log.
Possibility to control two units in a Master-Slave configuration
The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
The temperature control takes place with the integral proportional logic, based on the water output temperature.

ACCESSORIES

AER485P1 x n° 2: RS-485 interface for supervision systems with MODBUS protocol.
AER485P1 x n° 3: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
AERSET: It makes it possible to automatically compensate for the operation setting of the unit to which it is connected, based on a 0-10V MODBUS input signal. Mandatory accessory MODU-485BL.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PGD1: Allows you to control the unit at a distance.

FACTORY FITTED ACCESSORIES

RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

ISG: Insulation kit for condensers. Mandatory accessory for machine functioning in heat pump; standard in units with desuperheater or with heat recovery.

ACCESSORIES COMPATIBILITY

Model	Ver	2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
AER485P1 x n° 2 (1)	A	•	•	•	•	•	•	•	•				
AER485P1 x n° 3 (1)	°,A									•	•	•	•
AERBACP	°									•	•	•	•
	A	•	•	•	•	•	•	•	•	•	•	•	•
AERNET	°									•	•	•	•
AERSET	A	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	°									•	•	•	•
	A	•	•	•	•	•	•	•	•	•	•	•	•
PGD1	°,A	•	•	•	•	•	•	•	•	•	•	•	•

(1) x Indicates the quantity of accessories to match.

Antivibration

Version	Set-up	Heat recovery	2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
°	°,L	°,D,T	-	-	-	-	-	-	-	-	Contact us.	Contact us.	Contact us.	Contact us.
A	°	°	AVX673	AVX674	AVX679	AVX679	AVX679	AVX678	AVX678	AVX678	Contact us.	Contact us.	Contact us.	Contact us.
A	°	D	AVX674	AVX674	AVX679	AVX679	AVX679	AVX678	AVX678	AVX678	Contact us.	Contact us.	Contact us.	Contact us.
A	L	°	AVX674	AVX674	AVX679	AVX679	AVX679	AVX678	AVX678	AVX678	Contact us.	Contact us.	Contact us.	Contact us.
A	°	T	AVX674	AVX674	AVX679	AVX679	AVX678	AVX678	AVX678	AVX678	Contact us.	Contact us.	Contact us.	Contact us.
A	L	D,T	AVX674	AVX674	AVX679	AVX679	AVX678	AVX678	AVX678	AVX678	Contact us.	Contact us.	Contact us.	Contact us.

- not available

Power factor correction

Ver	2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
°	-	-	-	-	-	-	-	-	RIFWFI6703	RIFWFI7203	RIFWFI8403	RIFWFI9603
A	RIFWFI2502	RIFWFI2802	RIFWFI3202	RIFWFI3602	RIFWFI4202	RIFWFI4802	RIFWFI5602	RIFWFI6402	RIFWFI6703	RIFWFI7203	RIFWFI8403	RIFWFI9603

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

For the size of the units with the RIF accessory we ask you to contact the headquarters.

Isolating kit

Ver	2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
°	-	-	-	-	-	-	-	-	ISG7	ISG8	ISG8	ISG8
A	ISG1	ISG1	ISG2	ISG2	ISG2	ISG3	ISG3	ISG3	ISG7	ISG8	ISG8	ISG8

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

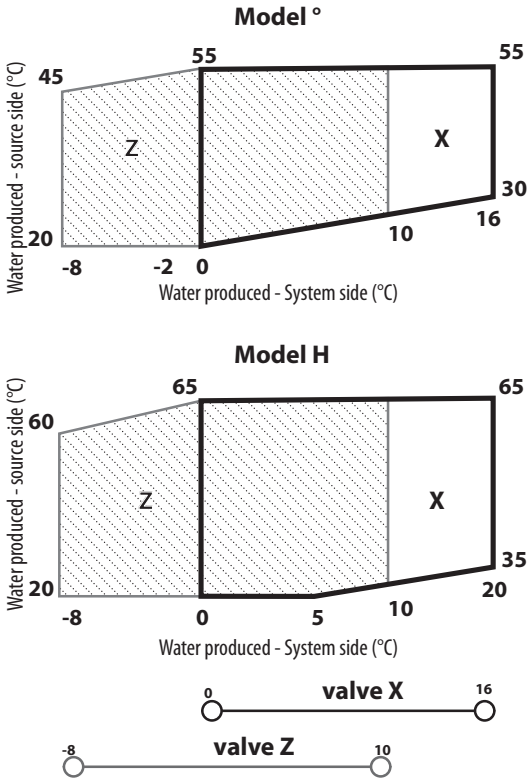
CONFIGURATOR

Field		Description
1,2,3,4		**WFGI**
5,6,7,8		**Size** 2502, 2802, 3202, 3602, 4202, 4802, 5602, 6402, 6703, 7203, 8403, 9603
9		**Model**
	°	Standard condensation
	H	Optimised for high condensation
10		**Version**
	°	Standard (1)
	A	High efficiency
11		**Operating field**
	X	Electronic thermostatic expansion valve
	Z	Double electronic thermostatic for low temperature
12		**Set-up**
	°	Standard without hood
	L	Silenced with hood

Field		Description
13		**Heat recovery**
	°	Without heat recovery
	D	With desuperheater (2)
	T	With total recovery (2)
14		**Evaporator**
	°	Standard
	E	Evaporating unit
15		**Power supply**
	°	400V ~ 3 50Hz with fuses
	8	400V ~ 3 50Hz with magnet circuit breakers
16		**Refrigerant gas (3)**
	°	R1234ze
	G	R515B

(1) Only for sizes from 6703 to 9603
(2) Not available for the condenserless "E"
(3) Performances do not vary when the refrigerant gas available on the configurator varies.

OPERATING LIMITS



MODEL PERFORMANCE DATA (°) - FOR CONDENSING TEMPERATURES UP TO 55°C

WFGI - model (°) version A - gas R1234ze

Size		2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
Model: °													
Cooling performance 12 °C / 7 °C (1)													
Cooling capacity	kW	506,3	571,0	664,9	737,9	869,3	989,2	1096,6	1223,1	1323,2	1463,2	1605,2	1765,9
Input power	kW	96,8	107,6	125,2	143,4	166,7	185,8	206,7	234,8	238,3	265,7	299,4	337,5
Cooling total input current	A	171,0	192,0	215,0	245,0	273,0	311,0	346,0	396,0	407,0	468,0	519,0	591,0
EER	W/W	5,23	5,31	5,31	5,15	5,22	5,32	5,30	5,21	5,55	5,51	5,36	5,23
Water flow rate source side	l/h	102932	115945	135099	150773	177155	200809	223021	249142	267794	296179	326287	360505
Pressure drop source side	kPa	61	55	46	30	45	50	36	51	11	24	23	22
Water flow rate system side	l/h	87066	98181	114326	126885	149451	170077	188509	210265	227441	251516	275910	303500
Pressure drop system side	kPa	45	35	33	41	32	44	34	43	26	31	29	17
Heating performance 40 °C / 45 °C (2)													
Heating capacity	kW	564,4	631,4	731,6	821,0	966,2	1093,4	1212,3	1370,1	1454,7	1611,8	1770,0	1960,8
Input power	kW	124,9	136,1	155,8	181,8	211,1	235,7	260,5	299,0	300,1	334,7	374,9	420,6
Heating total input current	A	218,0	241,0	264,0	306,0	343,0	390,0	431,0	498,0	507,0	582,0	643,0	732,0
COP	W/W	4,52	4,64	4,70	4,52	4,58	4,64	4,65	4,58	4,85	4,82	4,72	4,66
Water flow rate system side	l/h	97998	109633	127054	142602	167814	189909	210585	237978	252762	280014	307509	340678
Pressure drop system side	kPa	56	50	41	27	41	45	32	46	10	22	20	20
Water flow rate source side	l/h	129450	145407	168838	187634	221376	252011	278815	314719	336930	373381	407768	449226
Pressure drop source side	kPa	99	76	73	89	70	96	73	96	56	69	63	37

(1) Date 14511:2018; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C
(2) Date 14511:2018; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

WFGI - model (°) version ° - gas R1234ze

Size		6703	7203	8403	9603
Model: °					
Cooling performance 12 °C / 7 °C (1)					
Cooling capacity	kW	1309,2	1445,9	1559,4	1729,0
Input power	kW	242,2	267,6	299,6	340,9
Cooling total input current	A	396,0	475,0	525,0	588,0
EER	W/W	5,40	5,40	5,20	5,07
Water flow rate source side	l/h	265488	293277	318297	354161
Pressure drop source side	kPa	44	39	34	41
Water flow rate system side	l/h	225045	248539	268020	297184
Pressure drop system side	kPa	27	29	22	26
Heating performance 40 °C / 45 °C (2)					
Heating capacity	kW	1443,5	1597,2	1729,1	1928,5
Input power	kW	304,0	336,2	373,6	425,5
Heating total input current	A	493,0	592,0	650,0	729,0
COP	W/W	4,75	4,75	4,63	4,53
Water flow rate system side	l/h	250744	277455	300382	335030
Pressure drop system side	kPa	39	35	30	37
Water flow rate source side	l/h	333379	368962	396107	439877
Pressure drop source side	kPa	59	64	49	58

(1) Date 14511:2018; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C
(2) Date 14511:2018; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

Energy indices (Reg. 2016/2281 EU)

Size			2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
Model: °														
SEER - 12/7 (EN14825: 2018) (1)														
Seasonal efficiency	°	%	-	-	-	-	-	-	-	-	335.7%	337.9%	329.7%	326.0%
	A	%	340.8%	345.4%	342.7%	347.3%	346.2%	347.8%	355.7%	349.1%	355.8%	353.7%	354.5%	349.3%
SEER	°	W/W	-	-	-	-	-	-	-	-	8,47	8,52	8,32	8,23
	A	W/W	8,60	8,71	8,64	8,76	8,73	8,77	8,97	8,80	8,97	8,92	8,94	8,81
SEPR - (EN 14825: 2018) High temperature (2)														
SEPR	°	W/W	-	-	-	-	-	-	-	-	8,80	8,70	8,60	8,70
	A	W/W	9,30	9,40	8,90	9,00	9,10	9,10	9,20	9,20	8,90	8,90	9,00	9,00

(1) Calculation performed with VARIABLE water flow rate and VARIABLE outlet temperature.
(2) Calculation performed with VARIABLE water flow rate.

Electric data

Size			2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
Model: °														
Electric data														
Maximum current (FLA)	°	A	-	-	-	-	-	-	-	-	682,4	765,6	849,2	957,6
	A	A	309,0	331,4	368,6	408,3	456,2	523,3	582,2	663,0	682,4	765,4	849,2	957,6
Peak current (LRA)	°	A	-	-	-	-	-	-	-	-	1063,0	1177,0	1391,0	1583,0
	A	A	498,0	592,0	641,0	689,0	837,0	934,0	1124,0	1287,0	1063,0	1177,0	1391,0	1583,0

MODEL PERFORMANCE DATA (H) - FOR CONDENSING TEMPERATURES UP TO 65°C

WFGI - model (H) version A - gas R1234ze

Size		2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
Model: H													
Cooling performance 12 °C / 7 °C (1)													
Cooling capacity	kW	511,3	581,3	664,4	741,3	869,2	988,5	1083,6	1218,4	1312,3	1450,5	1588,3	1759,4
Input power	kW	100,0	114,5	129,9	146,9	170,3	191,3	214,6	243,5	249,2	279,2	314,2	360,4
Cooling total input current	A	182,0	205,0	225,0	248,0	291,0	326,0	370,0	411,0	449,0	491,0	556,0	651,0
EER	W/W	5,11	5,08	5,11	5,04	5,10	5,17	5,05	5,00	5,27	5,20	5,06	4,88
Water flow rate source side	l/h	104337	118851	135775	151933	177734	201586	222077	249762	267707	296196	325814	363151
Pressure drop source side	kPa	61	55	46	30	45	50	36	51	11	24	23	22
Water flow rate system side	l/h	87940	99961	114232	127463	149434	169953	186288	209453	225564	249326	273015	302384
Pressure drop system side	kPa	45	35	33	41	32	44	34	43	26	31	29	17
Heating performance 40 °C / 45 °C (2)													
Heating capacity	kW	563,1	641,8	731,2	822,8	961,9	1089,6	1200,8	1381,7	1445,1	1599,5	1759,3	1964,0
Input power	kW	120,6	137,4	154,1	177,9	203,8	229,4	255,3	289,7	297,6	333,6	372,8	425,2
Heating total input current	A	216,0	243,0	263,0	295,0	344,0	385,0	434,0	479,0	530,0	579,0	651,0	763,0
COP	W/W	4,67	4,67	4,75	4,63	4,72	4,75	4,70	4,77	4,86	4,79	4,72	4,62
Water flow rate system side	l/h	97770	111434	126975	142910	167067	189246	208586	239997	251090	277882	305657	341230
Pressure drop system side	kPa	54	49	41	26	40	44	31	47	10	22	20	20
Water flow rate source side	l/h	130239	148043	169179	189222	222144	252647	276929	320765	334856	370130	405298	448896
Pressure drop source side	kPa	99	76	73	90	70	96	74	100	56	69	64	37

(1) Date 14511:2018; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C
(2) Date 14511:2018; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

WFGI - model (H) version ° - gas R1234ze

Size		6703	7203	8403	9603
Model: H					
Cooling performance 12 °C / 7 °C (1)					
Cooling capacity	kW	1298,6	1433,8	1544,1	1739,6
Input power	kW	252,7	280,5	312,9	362,4
Cooling total input current	A	449,0	491,0	553,0	649,0
EER	W/W	5,14	5,11	4,93	4,80
Water flow rate source side	l/h	265376	293300	317856	359510
Pressure drop source side	kPa	44	39	34	41
Water flow rate system side	l/h	223228	246460	265406	299001
Pressure drop system side	kPa	27	29	22	26
Heating performance 40 °C / 45 °C (2)					
Heating capacity	kW	1433,5	1584,7	1718,0	1945,1
Input power	kW	300,7	334,3	369,6	428,4
Heating total input current	A	530,0	579,0	649,0	761,0
COP	W/W	4,77	4,74	4,65	4,54
Water flow rate system side	l/h	249013	275290	298460	337909
Pressure drop system side	kPa	39	35	30	36
Water flow rate source side	l/h	331388	365876	394002	443875
Pressure drop source side	kPa	59	64	49	58

(1) Date 14511:2018; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C
(2) Date 14511:2018; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

Energy indices (Reg. 2016/2281 EU)

Size			2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
Model: H														
SEER - 12/7 (EN14825: 2018) (1)														
Seasonal efficiency	°	%	-	-	-	-	-	-	-	-	287.7%	286.9%	287.6%	281.6%
	A	%	294.9%	295.7%	300.5%	291.4%	301.0%	304.5%	309.3%	298.9%	302.4%	297.7%	302.9%	295.0%
SEER	°	W/W	-	-	-	-	-	-	-	-	7,27	7,25	7,27	7,12
	A	W/W	7,45	7,47	7,59	7,36	7,60	7,69	7,81	7,55	7,64	7,52	7,65	7,45
SEPR - (EN 14825: 2018) High temperature (2)														
SEPR	°	W/W	-	-	-	-	-	-	-	-	8,20	8,20	8,30	8,30
	A	W/W	8,60	8,60	8,50	8,60	8,50	8,60	8,50	8,60	8,60	8,50	8,70	8,70

(1) Calculation performed with VARIABLE water flow rate and VARIABLE outlet temperature.
(2) Calculation performed with VARIABLE water flow rate.

Electric data

Size			2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
Model: H														
Electric data														
Maximum current (FLA)	°	A	-	-	-	-	-	-	-	-	853,0	939,0	1047,0	1178,0
	A	A	343,0	389,0	422,0	488,0	559,0	644,0	719,0	797,0	853,0	939,0	1047,0	1178,0
Peak current (LRA)	°	A	-	-	-	-	-	-	-	-	1179,0	1297,0	1527,0	1737,0
	A	A	494,0	545,0	661,0	730,0	885,0	1002,0	1198,0	1357,0	1179,0	1297,0	1527,0	1737,0

PERFORMANCE SPECIFICATIONS EVAPORATING UNITS

Model output data WFGI° - AE - gas R1234ze

Size		2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
Model: °													
Cooling performance 12 °C / 7 °C - gas R1234ze (1)													
Cooling capacity	kW	453,9	510,4	593,1	659,9	765,6	890,9	975,6	1082,9	1179,9	1316,9	1449,4	1574,0
Input power	kW	116,3	128,9	149,1	172,3	195,5	215,5	242,5	277,6	290,6	321,6	361,5	409,6
Cooling total input current	A	207,0	229,0	256,0	293,0	327,0	370,0	411,0	471,0	488,0	555,0	616,0	700,0
EER	W/W	3,90	3,96	3,98	3,83	3,92	4,13	4,02	3,90	4,06	4,09	4,01	3,84
Evaporator water flow rate	l/h	77982	87695	101893	113381	131535	153062	167617	186047	202720	226251	249032	270431
Pressure drop evaporator side	kPa	36	28	26	33	27	35	26	33	20	26	25	14
Length of refrigerant lines from/to 0 - 10 m													
Gas line (C1)	Ø	67,0	67,0	67,0	76,0	76,0	88,9	88,9	88,9	76,0	88,9	88,9	88,9
Gas line (C2)	Ø	67,0	67,0	67,0	76,0	76,0	88,9	88,9	88,9	76,0	88,9	88,9	88,9
Gas line (C3)	Ø	-	-	-	-	-	-	-	42,0	76,0	88,9	88,9	88,9
Liquid line (C1)	Ø	42,0	42,0	42,0	42,0	54,0	54,0	54,0	54,0	54,0	54,0	54,0	54,0
Liquid line (C2)	Ø	42,0	42,0	42,0	42,0	54,0	54,0	54,0	54,0	54,0	54,0	54,0	54,0
Liquid line (C3)	Ø	-	-	-	-	-	-	-	-	54,0	54,0	54,0	54,0

(1) Service side water 12 °C / 7 °C; Condensing temperature 45 °C

Model output data WFGI° - °E - gas R1234ze

Size			6703	7203	8403	9603
Model: °						
Cooling performance 12 °C / 7 °C - gas R1234ze (1)						
Cooling capacity		kW	1146,9	1278,8	1388,3	1517,0
Input power		kW	291,2	322,2	361,3	409,8
Cooling total input current		A	489,0	556,0	615,0	700,0
EER		W/W	3,94	3,97	3,84	3,70
Evaporator water flow rate		l/h	197057	219704	238518	260630
Pressure drop evaporator side		kPa	20	23	17	21
Length of refrigerant lines from/to 0 - 10 m						
Gas line (C1)		Ø	76,0	88,9	88,9	88,9
Gas line (C2)		Ø	76,0	88,9	88,9	88,9
Gas line (C3)		Ø	76,0	88,9	88,9	88,9
Liquid line (C1)		Ø	54,0	54,0	54,0	54,0
Liquid line (C2)		Ø	54,0	54,0	54,0	54,0
Liquid line (C3)		Ø	54,0	54,0	54,0	54,0

(1) Service side water 12 °C / 7 °C; Condensing temperature 45 °C

Model output data - model WFGIH - AE - gas R1234ze

Size		2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
Model: H													
Cooling performance 12 °C / 7 °C - gas R1234ze (1)													
Cooling capacity	kW	453,9	510,4	593,1	659,9	765,6	890,9	975,6	1082,9	1179,9	1316,9	1449,4	1574,0
Input power	kW	116,3	128,9	149,1	172,3	195,5	215,5	242,5	277,6	290,6	321,6	361,5	409,6
Cooling total input current	A	207,0	229,0	256,0	293,0	327,0	370,0	411,0	471,0	488,0	555,0	616,0	700,0
EER	W/W	3,90	3,96	3,98	3,83	3,92	4,13	4,02	3,90	4,06	4,09	4,01	3,84
Evaporator water flow rate	l/h	77982	87695	101893	113381	131535	153062	167617	186047	202720	226251	249032	270431
Pressure drop evaporator side	kPa	36	28	26	33	27	35	26	33	20	26	25	14
Length of refrigerant lines from/to 0 - 10 m													
Gas line (C1)	Ø	67,0	67,0	67,0	76,0	76,0	88,9	88,9	88,9	76,0	88,9	88,9	88,9
Gas line (C2)	Ø	67,0	67,0	67,0	76,0	76,0	88,9	88,9	88,9	76,0	88,9	88,9	88,9
Gas line (C3)	Ø	-	-	-	-	-	-	-	42,0	76,0	88,9	88,9	88,9
Liquid line (C1)	Ø	42,0	42,0	42,0	42,0	54,0	54,0	54,0	54,0	54,0	54,0	54,0	54,0
Liquid line (C2)	Ø	42,0	42,0	42,0	42,0	54,0	54,0	54,0	54,0	54,0	54,0	54,0	54,0
Liquid line (C3)	Ø	-	-	-	-	-	-	-	-	54,0	54,0	54,0	54,0

(1) Service side water 12 °C / 7 °C; Condensing temperature 45 °C

Model output data - model WFGIH - °E - gas R1234ze

Size		6703	7203	8403	9603
Model: H					
Cooling performance 12 °C / 7 °C - gas R1234ze (1)					
Cooling capacity	kW	1146,9	1278,8	1388,3	1517,0
Input power	kW	291,2	322,2	361,3	409,8
Cooling total input current	A	489,0	556,0	615,0	700,0
EER	W/W	3,94	3,97	3,84	3,70
Evaporator water flow rate	l/h	197057	219704	238518	260630
Pressure drop evaporator side	kPa	20	23	17	21
Length of refrigerant lines from/to 0 - 10 m					
Gas line (C1)	Ø	76,0	88,9	88,9	88,9
Gas line (C2)	Ø	76,0	88,9	88,9	88,9
Gas line (C3)	Ø	76,0	88,9	88,9	88,9
Liquid line (C1)	Ø	54,0	54,0	54,0	54,0
Liquid line (C2)	Ø	54,0	54,0	54,0	54,0
Liquid line (C3)	Ø	54,0	54,0	54,0	54,0

(1) Service side water 12 °C / 7 °C; Condensing temperature 45 °C

GENERAL TECHNICAL DATA

Size			2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
Compressor														
Type	°,A	type	Screw											
Compressor regulation	°,A	Type	Inverter+On/Off											
Number	°,A	no.	2	2	2	2	2	2	2	2	3	3	3	3
Circuits	°,A	no.	2	2	2	2	2	2	2	2	3	3	3	3
Refrigerant	°,A	type	R1234ze											
Refrigerant load circuit 1 (1)	°	kg	-	-	-	-	-	-	-	-	107,0	115,0	136,0	157,0
	A	kg	50,0	53,0	81,0	71,0	70,0	123,0	124,0	121,0	106,0	104,0	110,0	120,0
Refrigerant load circuit 2 (1)	°	kg	-	-	-	-	-	-	-	-	107,0	115,0	136,0	157,0
	A	kg	50,0	53,0	81,0	71,0	70,0	123,0	124,0	121,0	106,0	104,0	110,0	120,0
Refrigerant load circuit 3 (1)	°	kg	-	-	-	-	-	-	-	-	107,0	115,0	136,0	157,0
	A	kg	-	-	-	-	-	-	-	-	106,0	104,0	110,0	120,0
System side heat exchanger														
Type	°,A	type	Shell and tube											
Number	°,A	no.	1	1	1	1	1	1	1	1	1	1	1	1
Connections (in/out)	°,A	Type	Grooved joints											
Source side heat exchanger														
Type	°,A	type	Shell and tube											
Number	°,A	no.	2	2	2	2	2	2	2	2	3	3	3	3
Connections (in/out)	°,A	Type	Grooved joints											

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

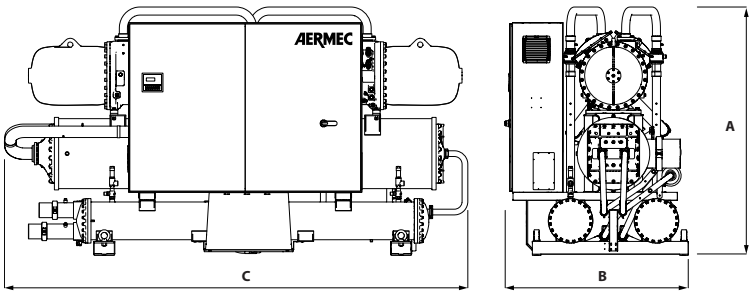
SOUND DATA

Sound data calculated with functioning in cooling mode - R1234ze gas

Size			2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
Refrigerant gas: °														
Standard equipment														
Sound power level (1)	°	dB(A)	-	-	-	-	-	-	-	-	99,5	100,6	101,0	102,0
	A	dB(A)	97,3	97,7	98,8	98,8	98,9	98,9	99,3	100,0	99,5	100,6	101,0	102,0
Silenced equipment														
Sound power level (1)	°	dB(A)	-	-	-	-	-	-	-	-	95,5	96,6	97,0	98,0
	A	dB(A)	93,3	93,7	94,8	94,8	94,9	94,9	95,3	96,0	95,5	96,6	97,0	98,0

(1) Sound power: calculated in agreement with the Standard UNI EN ISO 9614-2, in compliance with that requested by Eurovent certification.

DIMENSIONS



Size			2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
Model: °, H														
Dimensions and weights - standard configuration														
A	°	mm	-	-	-	-	-	-	-	-	2250	2250	2250	2250
	A	mm	2131	2131	2195	2195	2340	2455	2440	2432	2250	2250	2250	2250
B	°	mm	-	-	-	-	-	-	-	-	2200	2200	2200	2200
	A	mm	1645	1645	1675	1675	1685	1875	1875	2000	2200	2200	2200	2200
C	°	mm	-	-	-	-	-	-	-	-	5650	5650	5650	5650
	A	mm	4320	4345	4380	4380	4395	4500	4580	4580	5650	5650	5650	5650
Empty weight	°	kg	-	-	-	-	-	-	-	-	8740	9680	9900	10000
	A	kg	3710	3980	5160	5220	5710	6440	6680	6770	9730	11440	11980	12060
Dimensions and weights - quiet configuration														
A	°	mm	-	-	-	-	-	-	-	-	2250	2250	2250	2250
	A	mm	2131	2131	2195	2195	2340	2455	2440	2432	2250	2250	2250	2250
B	°	mm	-	-	-	-	-	-	-	-	2200	2200	2200	2200
	A	mm	1645	1645	1675	1675	1685	1875	1875	2000	2200	2200	2200	2200
C	°	mm	-	-	-	-	-	-	-	-	5650	5650	5650	5650
	A	mm	4320	4345	4630	4630	4600	5015	5060	5060	5650	5650	5650	5650
Empty weight	°	kg	-	-	-	-	-	-	-	-	9270	10240	10510	10610
	A	kg	4020	4290	5500	5560	6050	6810	7080	7170	10260	12000	12590	12670

■ *For the sizes of D-T-E versions please contact the factory.*

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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WFGN

Water cooled heat pump reversible water side

Cooling capacity 489 ÷ 1727 kW
Heating capacity 545 ÷ 1921 kW

- **Production of hot water up to 55°C.**
- **Production of chilled water down to -8°C.**



DESCRIPTION

Units for internal installation offering chilled/hot water, designed to mit air conditioning needs in residential/commercial complexes or industrial applications.
Compact and flexible, perfect alignment to the requested load thanks to an accurate control algorithm.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

° Standard
A High efficiency

FEATURES

Operating field

Production of chilled water up to 16 °C of water produced on the evaporator side, but also suitable for use in heat pump mode with condenser water temperature up to 55 °C.

With option Z (double electronic expansion valve) the unit is capable to produce chilled water temperature from -8°C up to 10°C.

Bi-tri circuit unit

Unit with 2-3 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.
They are equipped with screw compressors and system and source side shell and tube heat exchangers dedicated to use of the new HFO R1234ze gas.
The R515B refrigerant with this type of gas is also available on the configurator. Performances do not vary when the refrigerant gas available on the configurator varies.
For further details refer to the technical documentation or to the Magellano selection program.

Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit. Standard for all sizes.

CONTROL PCO_5

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.
Adjustment includes complete management of the alarms and their log.
Possibility to control two units in a Master-Slave configuration
The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
The temperature control takes place with the integral proportional logic, based on the water output temperature.

ACCESSORIES

AER485P1 x n° 2: RS-485 interface for supervision systems with MODBUS protocol.
AER485P1 x n° 3: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PGD1: Allows you to control the unit at a distance.
AVX: Spring anti-vibration supports.

FACTORY FITTED ACCESSORIES

RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

ISG: Insulation kit for condensers. Mandatory accessory for machine functioning in heat pump; standard in units with desuperheater or with heat recovery.

ACCESSORIES COMPATIBILITY

Model	Ver	2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
AER485P1 x n° 2 (1)	°,A	•	•	•	•	•	•	•	•				
AER485P1 x n° 3 (1)	°,A									•	•	•	•
AERBACP	°,A	•	•	•	•	•	•	•	•	•	•	•	•
AERNET	°,A	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	°,A	•	•	•	•	•	•	•	•	•	•	•	•
PGD1	°,A	•	•	•	•	•	•	•	•	•	•	•	•

(1) x Indicates the quantity of accessories to match.

Antivibration

Version	Set-up	Heat recovery	2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
°	°,L	°,D,T	-	-	-	-	-	-	-	-	Contact us.	Contact us.	Contact us.	Contact us.
A	°	°	AVX673	AVX674	AVX679	AVX679	AVX678	AVX678	AVX678	AVX678	Contact us.	Contact us.	Contact us.	Contact us.
A	°	D	AVX674	AVX674	AVX679	AVX679	AVX678	AVX678	AVX678	AVX678	Contact us.	Contact us.	Contact us.	Contact us.
A	°	T	AVX674	AVX674	AVX678	AVX678	AVX678	AVX678	AVX678	AVX678	Contact us.	Contact us.	Contact us.	Contact us.
A	L	°,D	AVX674	AVX674	AVX678	AVX678	AVX678	AVX678	AVX678	AVX678	Contact us.	Contact us.	Contact us.	Contact us.
A	L	T	AVX674	AVX674	AVX678	AVX678	AVX678	AVX676	AVX676	AVX676	Contact us.	Contact us.	Contact us.	Contact us.

Power factor correction

Ver	2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
°	-	-	-	-	-	-	-	-	RIFWFN6703	RIFWFN7203	RIFWFN8403	RIFWFN9603
A	RIFWFN2502	RIFWFN2802	RIFWFN3202	RIFWFN3602	RIFWFN4202	RIFWFN4802	RIFWFN5602	RIFWFN6402	RIFWFN6703	RIFWFN7203	RIFWFN8403	RIFWFN9603

For the size of the units with the RIF accessory we ask you to contact the headquarters.

Isolating kit

Ver	2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
°	-	-	-	-	-	-	-	-	ISG5	ISG5	ISG6	ISG6
A	ISG1	ISG1	ISG2	ISG2	ISG2	ISG3	ISG3	ISG3	ISG7	ISG8	ISG8	ISG8

CONFIGURATOR

Field	Description
1,2,3,4	**WFGN**
5,6,7,8	**Size** 2502, 2802, 3202, 3602, 4202, 4802, 5602, 6402, 6703, 7203, 8403, 9603
9	**Model**
°	Heat pump reversible on the water side
10	**Version**
°	Standard (1)
A	High efficiency
11	**Operating field**
X	Electronic thermostatic expansion valve
Z	Double electronic thermostatic for low temperature
12	**Set-up**
°	Standard
L	Silenced with hood
13	**Heat recovery**
°	Without heat recovery
D	With desuperheater (2)
T	With total recovery (2)
14	**Evaporator**
°	Standard
E	Evaporating unit
15	**Power supply**
°	400V/3/50Hz with fuses on compressors and magnet circuit breakers on auxiliary circuit
2	230V/3/50Hz with fuses on compressors and magnet circuit breakers on auxiliary circuit (3)
4	230V/3/50Hz with magnet circuit breakers on compressors and auxiliary circuit (3)
5	500V/3/50Hz with fuses on compressors and magnet circuit breakers on auxiliary circuit (3)
8	400V/3/50Hz with magnet circuit breakers on compressors and auxiliary circuit
9	500V/3/50Hz with magnet circuit breakers on compressors and auxiliary circuit (3)
16	**Refrigerant gas (4)**
°	R1234ze
G	R515B

(1) Only for sizes from 6703 to 9603
(2) Not available for the condenserless "E"
(3) The 230V and 500V power supplies are only available for sizes 2502 - 2802
(4) Performances do not vary when the refrigerant gas available on the configurator varies.

PERFORMANCE SPECIFICATIONS

WFGN - version ° - gas R1234ze

Size		6703	7203	8403	9603
Cooling performance 12 °C / 7 °C (1)					
Cooling capacity	kW	1300,7	1439,0	1554,8	1692,4
Input power	kW	239,3	265,4	297,1	329,6
Cooling total input current	A	396,0	475,0	525,0	588,0
EER	W/W	5,44	5,42	5,23	5,13
Water flow rate system side	l/h	223578	247357	267235	290895
Pressure drop system side	kPa	26	29	22	26
Water flow rate source side	l/h	263609	291721	317119	346049
Pressure drop source side	kPa	39	39	33	39
Heating performance 40 °C / 45 °C (2)					
Heating capacity	kW	1444,7	1588,0	1725,3	1890,3
Input power	kW	296,0	328,4	364,3	404,7
Heating total input current	A	485,0	583,0	639,0	716,0
COP	W/W	4,88	4,83	4,74	4,67
Water flow rate system side	l/h	250963	275857	299728	328385
Pressure drop system side	kPa	36	35	29	35
Water flow rate source side	l/h	335840	368447	397507	434518
Pressure drop source side	kPa	59	65	48	58

(1) Date 14511:2018; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C
(2) Date 14511:2018; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

WFGN - version A - gas R1234ze

Size		2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
Cooling performance 12 °C / 7 °C (1)													
Cooling capacity	kW	489,1	556,6	675,8	750,2	879,3	995,4	1100,3	1217,3	1315,3	1454,9	1594,7	1727,0
Input power	kW	91,4	103,5	125,1	138,3	159,8	180,3	202,1	225,0	236,7	262,9	296,7	326,6
Cooling total input current	A	166,0	192,0	214,0	237,0	261,0	312,0	346,0	388,0	386,0	466,0	515,0	577,0
EER	W/W	5,35	5,38	5,40	5,42	5,50	5,52	5,45	5,41	5,56	5,53	5,38	5,29
Water flow rate system side	l/h	84115	95704	116204	128995	151168	171142	189154	209277	226089	250084	274117	296820
Pressure drop system side	kPa	42	33	34	42	35	44	33	41	25	31	30	17
Water flow rate source side	l/h	99161	112842	136932	152026	177654	200961	222817	246414	266044	294386	324122	352026
Pressure drop source side	kPa	53	50	49	31	51	51	42	62	19	18	18	21
Heating performance 40 °C / 45 °C (2)													
Heating capacity	kW	545,1	618,4	747,2	833,5	967,0	1093,6	1204,7	1333,7	1457,0	1601,3	1761,4	1921,0
Input power	kW	116,1	130,9	155,9	173,0	198,3	224,8	248,9	277,7	293,3	326,6	365,9	400,0
Heating total input current	A	208,0	240,0	264,0	291,0	320,0	383,0	421,0	473,0	473,0	571,0	627,0	702,0
COP	W/W	4,70	4,73	4,79	4,82	4,88	4,87	4,84	4,80	4,97	4,90	4,81	4,80
Water flow rate system side	l/h	94650	107376	129767	144768	167936	189943	209256	231650	253135	278220	306025	333765
Pressure drop system side	kPa	49	45	44	28	45	46	37	55	17	16	16	19
Water flow rate source side	l/h	126174	143007	173413	193793	225352	255129	279883	310087	339613	372508	407744	443369
Pressure drop source side	kPa	95	74	77	96	79	98	73	91	56	70	66	37

(1) Date 14511:2018; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C
(2) Date 14511:2018; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

ENERGY INDICES (REG. 2016/2281 EU)

Size			2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
SEER - 12/7 (EN14825: 2018) (1)														
SEER	°	W/W	-	-	-	-	-	-	-	-	7,11	7,14	7,03	6,94
	A	W/W	6,94	7,01	6,90	7,11	7,08	7,08	6,92	6,89	7,36	7,36	7,26	7,18
Seasonal efficiency	°	%	-	-	-	-	-	-	-	-	281.3%	282.5%	278.3%	274.40
	A	%	274.5%	277.40%	272.8%	281.4%	280.2%	280.3%	273.7%	272.7%	291.3%	291.4%	287.4%	284.3%

(1) Calculation performed with VARIABLE water flow rate and VARIABLE outlet temperature.

PERFORMANCE SPECIFICATIONS EVAPORATING UNITS

WFGN - version AE - gas R1234ze

Size		2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
Evaporator: E													
Cooling performance 12 °C / 7 °C - gas R1234ze (1)													
Cooling capacity	kW	435,2	495,4	598,4	665,6	796,3	895,9	964,3	1068,0	1165,6	1325,4	1443,9	1565,4
Input power	kW	109,2	124,2	148,1	164,9	188,7	212,3	238,2	262,9	279,7	316,3	354,8	392,2
Cooling total input current	A	193,0	222,0	250,0	279,0	310,0	365,0	405,0	451,0	459,0	545,0	603,0	673,0
EER	W/W	3,99	3,99	4,04	4,04	4,22	4,22	4,05	4,06	4,17	4,19	4,07	3,99
Evaporator water flow rate	l/h	74770	85110	102813	114362	136819	153933	165685	183500	200259	227721	248077	268953
Pressure drop evaporator side	kPa	60	48	49	63	50	63	45	56	34	46	43	24
Length of refrigerant lines from/to 0 - 10 m													
Gas line (C1)	Ø	67,0	67,0	67,0	76,0	76,0	88,9	88,9	88,9	76,0	88,9	88,9	88,9
Gas line (C2)	Ø	67,0	67,0	67,0	76,0	76,0	88,9	88,9	88,9	76,0	88,9	88,9	88,9
Gas line (C3)	Ø	-	-	-	-	-	-	-	42,0	76,0	88,9	88,9	88,9
Liquid line (C1)	Ø	42,0	42,0	42,0	42,0	54,0	54,0	54,0	54,0	54,0	54,0	54,0	54,0
Liquid line (C2)	Ø	42,0	42,0	42,0	42,0	54,0	54,0	54,0	54,0	54,0	54,0	54,0	54,0
Liquid line (C3)	Ø	-	-	-	-	-	-	-	-	54,0	54,0	54,0	54,0

(1) Service side water 12 °C / 7 °C; Condensing temperature 45 °C

WFGN - version °E - gas R1234ze

Size			6703	7203	8403	9603
Evaporator: E						
Cooling performance 12 °C / 7 °C - gas R1234ze (1)						
Cooling capacity	kW		1129,2	1283,0	1378,4	1504,1
Input power	kW		282,3	319,1	356,8	394,8
Cooling total input current	A		463,0	549,0	606,0	676,0
EER	W/W		4,00	4,02	3,86	3,81
Evaporator water flow rate	l/h		194017	220439	236821	258428
Pressure drop evaporator side	kPa		35	41	30	36
Length of refrigerant lines from/to 0 - 10 m						
Gas line (C1)	Ø		76,0	88,9	88,9	88,9
Gas line (C2)	Ø		76,0	88,9	88,9	88,9
Gas line (C3)	Ø		76,0	88,9	88,9	88,9
Liquid line (C1)	Ø		54,0	54,0	54,0	54,0
Liquid line (C2)	Ø		54,0	54,0	54,0	54,0
Liquid line (C3)	Ø		54,0	54,0	54,0	54,0

(1) Service side water 12 °C / 7 °C; Condensing temperature 45 °C

ELECTRIC DATA

Size			2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
Electric data														
Maximum current (FLA)	°	A	-	-	-	-	-	-	-	-	913,0	1050,0	1166,0	1281,0
	A	A	365,0	416,0	486,0	549,0	609,0	700,0	777,0	854,0	913,0	1050,0	1166,0	1281,0
Peak current (LRA)	°	A	-	-	-	-	-	-	-	-	998	1129	1334	1502
	A	A	440	486	601	650	792	890	1070	1210	998	1129	1334	1502

GENERAL TECHNICAL DATA

Size			2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
Compressor														
Type	°,A	type	Screw											
Compressor regulation	°,A	Type	On-Off											
Number	°,A	no.	2	2	2	2	2	2	2	2	3	3	3	3
Circuits	°,A	no.	2	2	2	2	2	2	2	2	3	3	3	3
Refrigerant	°,A	type	R1234ze											
Refrigerant load circuit 1 (1)	°	kg	-	-	-	-	-	-	-	-	107,0	115,0	136,0	157,0
	A	kg	50,0	53,0	81,0	71,0	70,0	123,0	124,0	121,0	106,0	104,0	110,0	120,0
Refrigerant load circuit 2 (1)	°	kg	-	-	-	-	-	-	-	-	107,0	115,0	136,0	157,0
	A	kg	50,0	53,0	81,0	71,0	70,0	123,0	124,0	121,0	106,0	104,0	110,0	120,0
Refrigerant load circuit 3 (1)	°	kg	-	-	-	-	-	-	-	-	107,0	115,0	136,0	157,0
	A	kg	-	-	-	-	-	-	-	-	106,0	104,0	110,0	120,0
System side heat exchanger														
Type	°,A	type	Shell and tube											
Number	°,A	no.	1	1	1	1	1	1	1	1	1	1	1	1
Connections (in/out)	°,A	Type	Grooved joints											
Source side heat exchanger														
Type	°,A	type	Shell and tube											
Number	°,A	no.	2	2	2	2	2	2	2	2	3	3	3	3
Connections (in/out)	°,A	Type	Grooved joints											

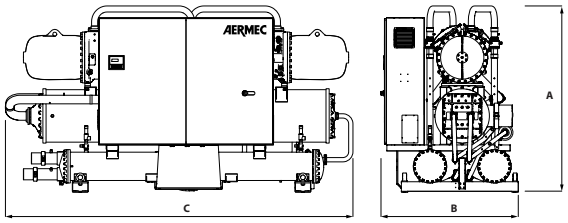
(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

SOUND DATA

Size			2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
Refrigerant gas: °														
Standard equipment														
Sound power level (1)	°	dB(A)	-	-	-	-	-	-	-	-	97,0	97,2	99,5	100,0
	A	dB(A)	93,5	94,0	94,0	94,5	95,0	95,5	97,5	98,0	97,0	97,2	99,5	100,0
Silenced equipment														
Sound power level (1)	°	dB(A)	-	-	-	-	-	-	-	-	93,0	93,2	95,5	96,0
	A	dB(A)	89,5	90,0	90,0	90,5	91,0	91,5	93,5	94,0	93,0	93,2	95,5	96,0

(1) Sound power: calculated in agreement with the Standard UNI EN ISO 9614-2, in compliance with that requested by Eurovent certification.

DIMENSIONS



Size			2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
Set-up: °														
Dimensions and weights														
A	°	mm	-	-	-	-	-	-	-	-	2250	2250	2250	2250
	A	mm	2000	2075	2195	2195	2340	2432	2440	2432	2250	2250	2250	2250
B	°	mm	-	-	-	-	-	-	-	-	2200	2200	2200	2200
	A	mm	1500	1500	1575	1575	1585	1775	1775	1820	2200	2200	2200	2200
C	°	mm	-	-	-	-	-	-	-	-	5650	5650	5650	5650
	A	mm	4320	4345	4380	4380	4395	4535	4605	4605	5650	5650	5650	5650
Empty weight	°	kg	-	-	-	-	-	-	-	-	9330	9910	10130	10200
	A	kg	3810	4100	5690	5750	6300	6670	6970	7070	10320	11670	12270	12360
Set-up: L														
Dimensions and weights														
A	°	mm	-	-	-	-	-	-	-	-	2250	2250	2250	2250
	A	mm	2000	2075	2195	2195	2340	2432	2440	2432	2250	2250	2250	2250
B	°	mm	-	-	-	-	-	-	-	-	2200	2200	2200	2200
	A	mm	1500	1500	1575	1575	1585	1775	1775	1820	2200	2200	2200	2200
C	°	mm	-	-	-	-	-	-	-	-	5650	5650	5650	5650
	A	mm	4320	4345	4650	4650	4600	5015	5150	5150	5650	5650	5650	5650
Empty weight	°	kg	-	-	-	-	-	-	-	-	9890	10470	10760	10830
	A	kg	4120	4410	6050	6120	6670	7040	7420	7490	10880	12230	12950	12990

■ *For the sizes of D-T-E versions please contact the factory.*

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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www.aermec.com

WFI

Water cooled heat pump reversible water side

Cooling capacity 670 ÷ 2406 kW
Heating capacity 746 ÷ 2664 kW

- **Condenser side hot water production up to 60°C.**
- **Production of chilled water down to -8°C.**
- **Available also R513A refrigerant gas**



EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

DESCRIPTION

Units for internal installation offering chilled/hot water, designed to mit air conditioning needs in residential/commercial complexes or industrial applications.
Compact and flexible, perfect alignment to the requested load thanks to an accurate control algorithm.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

° Standard
A High efficiency

FEATURES

Operating field

Production of chilled water up to 16°C of water produced on the evaporator side, but also suitable for use in heat pump mode with condenser water temperature up to 60°C depending on the model.

With option Z (double electronic expansion valve) the unit is capable to produce chilled water temperature from -8°C up to 10°C.

Bi-tri circuit unit

Unit with 2-3 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.
All units are equipped with an inverter compressor combined with an on-off compressor (two-circuit sizes) or two on/off compressors (three-circuit sizes) with R134a refrigerant.
The R513A (XP10) refrigerant with this type of gas is also available on the configurator. On average, the units have a yield > 2% and an EER < 3% compared to the same size with R134a.
For further details refer to the technical documentation or to the Magellano selection program.

Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit. Standard for all sizes.

CONTROL PCO_5

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.
Adjustment includes complete management of the alarms and their log.
Possibility to control two units in a Master-Slave configuration
The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
The temperature control takes place with the integral proportional logic, based on the water output temperature.

ACCESSORIES

AER485P1 x n° 2: RS-485 interface for supervision systems with MODBUS protocol.
AER485P1 x n° 3: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PGD1: Allows you to control the unit at a distance.
AVX: Spring anti-vibration supports.

FACTORY FITTED ACCESSORIES

RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

ISG: Insulation kit for condensers. Mandatory accessory for machine functioning in heat pump; standard in units with desuperheater or with heat recovery.

ACCESSORIES COMPATIBILITY

Model	Ver	2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
AER485P1 x n° 2 (1)	A	•	•	•	•	•	•	•	•				
AER485P1 x n° 3 (1)	°,A									•	•	•	•
AERBACP	°									•	•	•	•
	A	•	•	•	•	•	•	•	•	•	•	•	•
AERNET	°									•	•	•	•
	A	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	°									•	•	•	•
	A	•	•	•	•	•	•	•	•	•	•	•	•
PGD1	°,A	•	•	•	•	•	•	•	•	•	•	•	•

(1) x Indicates the quantity of accessories to match.

Antivibration

Version	Set-up	Heat recovery	2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
°	°,K,L	°,D,T	-	-	-	-	-	-	-	-	Contact us.	Contact us.	Contact us.	Contact us.
A	°	°	AVX673	AVX674	AVX679	AVX679	AVX679	AVX678	AVX678	AVX678	Contact us.	Contact us.	Contact us.	Contact us.
A	°	D	AVX674	AVX674	AVX679	AVX679	AVX679	AVX678	AVX678	AVX678	Contact us.	Contact us.	Contact us.	Contact us.
A	L	°	AVX674	AVX674	AVX679	AVX679	AVX679	AVX678	AVX678	AVX678	Contact us.	Contact us.	Contact us.	Contact us.
A	°	T	AVX674	AVX674	AVX679	AVX679	AVX678	AVX678	AVX678	AVX678	Contact us.	Contact us.	Contact us.	Contact us.
A	L	D,T	AVX674	AVX674	AVX679	AVX679	AVX678	AVX678	AVX678	AVX678	Contact us.	Contact us.	Contact us.	Contact us.
A	K	°,D,T	Contact us.	Contact us.	Contact us.	Contact us.	Contact us.	Contact us.	Contact us.	Contact us.	Contact us.	Contact us.	Contact us.	Contact us.

- not available

Power factor correction

Ver	2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
°	-	-	-	-	-	-	-	-	RIFWFI6703	RIFWFI7203	RIFWFI8403	RIFWFI9603
A	RIFWFI2502	RIFWFI2802	RIFWFI3202	RIFWFI3602	RIFWFI4202	RIFWFI4802	RIFWFI5602	RIFWFI6402	RIFWFI6703	RIFWFI7203	RIFWFI8403	RIFWFI9603

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

For the size of the units with the RIF accessory we ask you to contact the headquarters.

Isolating kit

Ver	2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
°	-	-	-	-	-	-	-	-	ISG5	ISG5	ISG6	ISG6
A	ISG1	ISG1	ISG2	ISG2	ISG2	ISG3	ISG3	ISG3	ISG7	ISG8	ISG8	ISG8

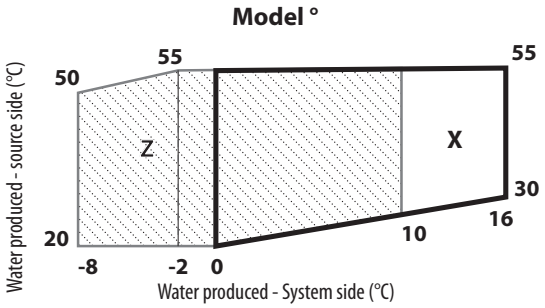
The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

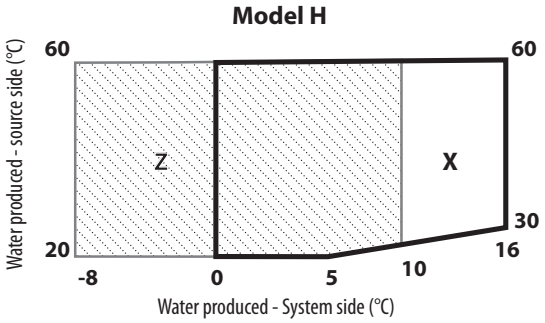
CONFIGURATOR

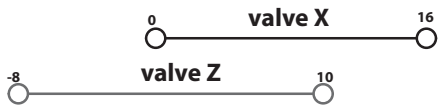
Field	Description
1,2,3	**WFI**
4,5,6,7	**Size** 2502, 2802, 3202, 3602, 4202, 4802, 5602, 6402, 6703, 7203, 8403, 9603
8	**Model**
°	Standard condensation
H	Optimised for high condensation
9	**Version**
°	Standard (1)
A	High efficiency
10	**Operating field**
X	Electronic thermostatic expansion valve (2)
Z	Double electronic thermostatic for low temperature (3)
11	**Set-up**
°	Standard without hood
K	Super silenced
L	Silenced with hood
12	**Heat recovery**
°	Without heat recovery
D	With desuperheater (4)
T	With total recovery (4)
13	**Evaporator**
°	Standard
E	Evaporating unit
14	**Power supply**
°	400V ~ 3 50Hz with fuses
8	400V ~ 3 50Hz with magnet circuit breakers
15	**Refrigerant gas**
°	R134a
G	R513A (XP10) (5)

(1) Only for sizes from 6703 to 9603
(2) Water produced from 0 °C ÷ 16 °C
(3) Water produced from -8 °C up to 10 °C
(4) Not available for the condenserless "E"
(5) For further details refer to the technical documentation or to the Magellano selection program.

OPERATING LIMITS







MODEL PERFORMANCE DATA (°) - FOR CONDENSING TEMPERATURES UP TO 55°C

WFI - model (°) version A - gas R134a

Size		2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
Model: °													
Cooling performance 12 °C / 7 °C (1)													
Cooling capacity	kW	670,0	757,4	889,1	1002,3	1143,6	1304,6	1441,8	1621,2	1771,2	1940,6	2167,0	2406,5
Input power	kW	127,4	144,9	168,9	192,8	218,4	244,5	275,3	309,9	327,6	362,0	410,0	458,2
Cooling total input current	A	214,0	244,0	277,0	315,0	351,0	399,0	446,0	497,0	527,0	597,0	667,0	751,0
EER	W/W	5,26	5,23	5,26	5,20	5,24	5,34	5,24	5,23	5,41	5,36	5,29	5,25
Water flow rate source side	l/h	136129	154084	180866	204404	232973	264813	293658	330152	359034	393872	440716	490182
Pressure drop source side	kPa	55	58	48	46	44	47	48	48	38	31	32	40
Water flow rate system side	l/h	115215	130225	152866	172295	196591	224275	247834	278670	304461	333577	372486	413608
Pressure drop system side	kPa	53	43	38	27	31	44	31	39	45	54	57	33
Heating performance 40 °C / 45 °C (2)													
Heating capacity	kW	746,2	839,5	979,7	1112,5	1270,4	1441,8	1597,0	1815,3	1951,6	2145,2	2391,0	2664,3
Input power	kW	165,1	183,8	210,4	242,5	276,5	310,2	346,1	394,1	414,4	459,6	518,3	573,6
Heating total input current	A	273,0	305,0	341,0	394,0	441,0	499,0	556,0	624,0	656,0	743,0	826,0	931,0
COP	W/W	4,52	4,57	4,66	4,59	4,59	4,65	4,61	4,61	4,71	4,67	4,61	4,64
Water flow rate system side	l/h	129578	145788	170162	193225	220670	250442	277422	315345	339051	372698	415418	462891
Pressure drop system side	kPa	50	51	42	41	40	42	43	44	34	28	28	36
Water flow rate source side	l/h	171302	192864	225753	254786	291203	332319	366559	417106	451025	495203	550498	612203
Pressure drop source side	kPa	118	95	82	60	67	97	69	88	98	118	125	73

(1) Date 14511:2018; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C
(2) Date 14511:2018; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

WFI - model (°) version ° - gas R134a

Size		6703	7203	8403	9603
Model: °					
Cooling performance 12 °C / 7 °C (1)					
Cooling capacity	kW	1723,4	1905,7	2114,5	2327,9
Input power	kW	331,7	366,9	409,8	463,6
Cooling total input current	A	522,0	592,0	659,0	744,0
EER	W/W	5,20	5,19	5,16	5,02
Water flow rate source side	l/h	350768	387913	431371	476493
Pressure drop source side	kPa	73	69	58	71
Water flow rate system side	l/h	296246	327572	363441	400118
Pressure drop system side	kPa	47	51	39	46
Heating performance 40 °C / 45 °C (2)					
Heating capacity	kW	1909,4	2114,9	2342,8	2593,9
Input power	kW	418,2	463,2	513,0	581,3
Heating total input current	A	651,0	737,0	817,0	922,0
COP	W/W	4,57	4,57	4,57	4,46
Water flow rate system side	l/h	331680	367403	407019	450652
Pressure drop system side	kPa	65	62	52	63
Water flow rate source side	l/h	438855	486287	537130	592236
Pressure drop source side	kPa	103	112	85	102

(1) Date 14511:2018; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C
(2) Date 14511:2018; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

Energy indices (Reg. 2016/2281 EU)

Size			2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
Model: °														
SEER - 12/7 (EN14825: 2018) . refrigerant gas R134a (1)														
Seasonal efficiency	°	%	-	-	-	-	-	-	-	-	319.8%	319.2%	318.2%	313.6%
	A	%	339.2%	340.0%	341.7%	340.2%	337.9%	340.3%	343.5%	344.3%	343.1%	341,0%	340.5%	342.5%
SEER	°	W/W	-	-	-	-	-	-	-	-	8,07	8,06	8,03	7,92
	A	W/W	8,56	8,58	8,62	8,58	8,52	8,58	8,66	8,68	8,65	8,60	8,59	8,64
SEPR - (EN 14825: 2018) High temperature - refrigerant gas R134a (2)														
SEPR	°	W/W	-	-	-	-	-	-	-	-	8,60	8,60	8,40	8,40
	A	W/W	9,10	9,00	8,90	8,80	8,90	8,80	8,90	8,90	9,00	8,80	8,60	8,80

(1) Calculation performed with VARIABLE water flow rate and VARIABLE outlet temperature.
(2) Calculation performed with VARIABLE water flow rate.

Electric data

Size			2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
Model: °														
Electric data														
Maximum current (FLA)	°	A	-	-	-	-	-	-	-	-	862,9	965,5	1077,5	1211,4
	A	A	354,5	395,1	447,5	511,1	576,7	647,2	724,3	824,0	862,9	965,5	1077,5	1211,4
Peak current (LRA)	°	A	-	-	-	-	-	-	-	-	1176,0	1301,0	1533,0	1744,0
	A	A	506,0	550,0	666,0	730,0	889,0	982,0	1179,0	1355,0	1176,0	1301,0	1533,0	1744,0

MODEL PERFORMANCE DATA (H) - FOR CONDENSING TEMPERATURES UP TO 60°C

WFI - model (H) version A - gas R134a

Size		2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
Model: H													
Cooling performance 12 °C / 7 °C (1)													
Cooling capacity	kW	672,4	770,8	886,7	999,1	1145,7	1305,1	1454,0	1620,1	1770,6	1939,2	2161,5	2375,7
Input power	kW	132,4	153,1	173,5	195,9	224,6	254,6	288,9	327,3	340,1	376,7	435,1	482,5
Cooling total input current	A	226,0	257,0	285,0	316,0	364,0	415,0	475,0	543,0	567,0	621,0	715,0	806,0
EER	W/W	5,08	5,04	5,11	5,10	5,10	5,13	5,03	4,95	5,21	5,15	4,97	4,92
Water flow rate source side	l/h	137384	157768	181226	204349	234273	266548	297970	332858	360998	396033	443977	488997
Pressure drop source side	kPa	53	55	48	48	49	48	50	46	36	32	32	38
Water flow rate system side	l/h	115641	132532	152452	171756	196959	224366	249941	278496	304349	333335	371531	408313
Pressure drop system side	kPa	54	44	36	27	32	44	32	40	46	54	51	30
Heating performance 40 °C / 45 °C (2)													
Heating capacity	kW	741,6	852,1	975,8	1106,1	1267,8	1441,2	1611,1	1842,1	1948,7	2138,6	2398,1	2642,8
Input power	kW	160,3	184,4	206,0	235,2	268,6	305,3	343,0	388,6	408,5	453,9	520,2	571,4
Heating total input current	A	268,0	305,0	334,0	376,0	431,0	490,0	558,0	633,0	669,0	732,0	838,0	945,0
COP	W/W	4,63	4,62	4,74	4,70	4,72	4,72	4,70	4,74	4,77	4,71	4,61	4,62
Water flow rate system side	l/h	128783	147970	169486	192116	220216	250335	279872	320004	338539	371554	416652	459154
Pressure drop system side	kPa	47	48	42	42	44	43	44	42	32	28	29	33
Water flow rate source side	l/h	171266	196282	225782	254976	292792	333536	371554	426498	451814	494844	551546	606152
Pressure drop source side	kPa	118	96	80	60	71	97	71	93	101	118	113	66

(1) Date 14511:2018; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C
(2) Date 14511:2018; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

WFI - model (H) version ° - gas R134a

Size		6703	7203	8403	9603
Model: H					
Cooling performance 12 °C / 7 °C (1)					
Cooling capacity	kW	1706,6	1904,2	2109,2	2298,6
Input power	kW	343,5	381,7	434,3	486,5
Cooling total input current	A	561,0	616,0	705,0	796,0
EER	W/W	4,97	4,99	4,86	4,72
Water flow rate source side	l/h	349811	390073	434460	475234
Pressure drop source side	kPa	73	70	59	70
Water flow rate system side	l/h	293360	327313	362530	395080
Pressure drop system side	kPa	47	51	38	46
Heating performance 40 °C / 45 °C (2)					
Heating capacity	kW	1891,1	2108,3	2348,6	2571,3
Input power	kW	411,1	457,6	515,2	578,0
Heating total input current	A	662,0	727,0	826,0	933,0
COP	W/W	4,60	4,61	4,56	4,45
Water flow rate system side	l/h	328503	366257	408016	446727
Pressure drop system side	kPa	64	62	52	62
Water flow rate source side	l/h	435501	485905	538185	586506
Pressure drop source side	kPa	104	112	85	101

(1) Date 14511:2018; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C
(2) Date 14511:2018; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

Energy indices (Reg. 2016/2281 EU)

Size			2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
Model: H														
SEER - 12/7 (EN14825: 2018) . refrigerant gas R134a (1)														
Seasonal efficiency	°	%	-	-	-	-	-	-	-	-	279.7%	281.0%	284.8%	278.6%
	A	%	298.0%	297.1%	301.3%	295.4%	301.8%	303.6%	307.3%	298,0%	297.8%	295.6%	296.9%	297.5%
SEER	°	W/W	-	-	-	-	-	-	-	-	7,07	7,10	7,20	7,04
	A	W/W	7,53	7,50	7,61	7,46	7,62	7,67	7,76	7,53	7,52	7,47	7,50	7,51
SEPR - (EN 14825: 2018) High temperature - refrigerant gas R134a (2)														
SEPR	°	W/W	-	-	-	-	-	-	-	-	8,40	8,30	8,20	8,10
	A	W/W	8,80	8,80	8,60	8,40	8,60	8,50	8,60	8,60	8,70	8,60	8,40	8,50

(1) Calculation performed with VARIABLE water flow rate and VARIABLE outlet temperature.
(2) Calculation performed with VARIABLE water flow rate.

Electric data

Size			2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
Model: H														
Electric data														
Maximum current (FLA)	°	A	-	-	-	-	-	-	-	-	954,0	1052,0	1180,0	1290,0
	A	A	378,0	428,0	473,0	535,0	616,0	704,0	787,0	864,0	954,0	1357,0	1180,0	1290,0
Peak current (LRA)	°	A	-	-	-	-	-	-	-	-	1234,0	1357,0	1595,0	1784,0
	A	A	507,0	560,0	676,0	742,0	897,0	1009,0	1203,0	1359,0	1234,0	1052,0	1595,0	1784,0

PERFORMANCE SPECIFICATIONS EVAPORATING UNITS

Model performance data (°) - for condensing temperatures up to 55°C

Model output data - model WFI° - AE - gas R134a

Size		2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
Model: °													
Cooling performance 12 °C / 7 °C - gas R134a (1)													
Cooling capacity	kW	603,1	688,5	797,4	899,3	1008,4	1169,8	1287,8	1439,2	1558,1	1742,4	1896,4	2110,0
Input power	kW	152,9	171,4	198,1	229,9	259,8	287,4	323,9	364,6	386,3	431,2	481,0	540,3
Cooling total input current	A	261,4	292,5	330,2	380,6	424,7	476,4	532,4	600,3	631,3	709,7	792,6	891,2
EER	W/W	3,94	4,02	4,03	3,91	3,88	4,07	3,98	3,95	4,03	4,04	3,94	3,91
Evaporator water flow rate	l/h	103615	118287	137003	154508	173247	200980	221262	247268	267705	299365	325826	362526
Pressure drop evaporator side	kPa	43	35	29	22	25	35	25	31	35	43	39	24
Length of refrigerant lines from/to 0 - 10 m													
Gas line (C1)	Ø	67,0	67,0	67,0	76,0	76,0	88,9	88,9	88,9	76,0	88,9	88,9	88,9
Gas line (C2)	Ø	67,0	67,0	67,0	76,0	76,0	88,9	88,9	88,9	76,0	88,9	88,9	88,9
Gas line (C3)	Ø	-	-	-	-	-	-	-	42,0	76,0	88,9	88,9	88,9
Liquid line (C1)	Ø	42,0	42,0	42,0	42,0	54,0	54,0	54,0	54,0	54,0	54,0	54,0	54,0
Liquid line (C2)	Ø	42,0	42,0	42,0	42,0	54,0	54,0	54,0	54,0	54,0	54,0	54,0	54,0
Liquid line (C3)	Ø	-	-	-	-	-	-	-	-	54,0	54,0	54,0	54,0

(1) Service side water 12 °C / 7 °C; Condensing temperature 45 °C

Model output data - model WFI° - °E - gas R134a

Size		6703	7203	8403	9603
Model: °					
Cooling performance 12 °C / 7 °C - gas R134a (1)					
Cooling capacity	kW	1515,4	1689,7	1833,1	2021,9
Input power	kW	387,7	429,0	481,0	541,3
Cooling total input current	A	633,0	713,0	793,0	893,0
EER	W/W	3,91	3,94	3,81	3,74
Evaporator water flow rate	l/h	260358	290307	314947	347392
Pressure drop evaporator side	kPa	37	40	29	35
Length of refrigerant lines from/to 0 - 10 m					
Gas line (C1)	Ø	76,0	88,9	88,9	88,9
Gas line (C2)	Ø	76,0	88,9	88,9	88,9
Gas line (C3)	Ø	76,0	88,9	88,9	88,9
Liquid line (C1)	Ø	54,0	54,0	54,0	54,0
Liquid line (C2)	Ø	54,0	54,0	54,0	54,0
Liquid line (C3)	Ø	54,0	54,0	54,0	54,0

(1) Service side water 12 °C / 7 °C; Condensing temperature 45 °C

Model performance data (H) - for condensing temperatures up to 60°C

Model output data - model WFI° - AE - gas R134a

Size		2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
Model: °													
Cooling performance 12 °C / 7 °C - gas R134a (1)													
Cooling capacity	kW	603,1	688,5	797,4	899,3	1008,4	1169,8	1287,8	1439,2	1558,1	1742,4	1896,4	2110,0
Input power	kW	152,9	171,4	198,1	229,9	259,8	287,4	323,9	364,6	386,3	431,2	481,0	540,3
Cooling total input current	A	261,4	292,5	330,2	380,6	424,7	476,4	532,4	600,3	631,3	709,7	792,6	891,2
EER	W/W	3,94	4,02	4,03	3,91	3,88	4,07	3,98	3,95	4,03	4,04	3,94	3,91
Evaporator water flow rate	l/h	103615	118287	137003	154508	173247	200980	221262	247268	267705	299365	325826	362526
Pressure drop evaporator side	kPa	43	35	29	22	25	35	25	31	35	43	39	24
Length of refrigerant lines from/to 0 - 10 m													
Gas line (C1)	Ø	67,0	67,0	67,0	76,0	76,0	88,9	88,9	88,9	76,0	88,9	88,9	88,9
Gas line (C2)	Ø	67,0	67,0	67,0	76,0	76,0	88,9	88,9	88,9	76,0	88,9	88,9	88,9
Gas line (C3)	Ø	-	-	-	-	-	-	-	42,0	76,0	88,9	88,9	88,9
Liquid line (C1)	Ø	42,0	42,0	42,0	42,0	54,0	54,0	54,0	54,0	54,0	54,0	54,0	54,0
Liquid line (C2)	Ø	42,0	42,0	42,0	42,0	54,0	54,0	54,0	54,0	54,0	54,0	54,0	54,0
Liquid line (C3)	Ø	-	-	-	-	-	-	-	-	54,0	54,0	54,0	54,0

(1) Service side water 12 °C / 7 °C; Condensing temperature 45 °C

Model output data - model WFIH - °E - gas R134a

Size		6703	7203	8403	9603
Model: H					
Cooling performance 12 °C / 7 °C - gas R134a (1)					
Cooling capacity	kW	1524,4	1698,4	1844,7	2016,4
Input power	kW	383,7	425,2	483,3	533,7
Cooling total input current	A	645,8	709,0	803,3	895,1
EER	W/W	3,97	3,99	3,82	3,78
Evaporator water flow rate	l/h	261912	291802	316947	346444
Pressure drop evaporator side	kPa	38	40	29	35
Length of refrigerant lines from/to 0 - 10 m					
Gas line (C1)	Ø	76,0	88,9	88,9	88,9
Gas line (C2)	Ø	76,0	88,9	88,9	88,9
Gas line (C3)	Ø	76,0	88,9	88,9	88,9
Liquid line (C1)	Ø	54,0	54,0	54,0	54,0
Liquid line (C2)	Ø	54,0	54,0	54,0	54,0
Liquid line (C3)	Ø	54,0	54,0	54,0	54,0

(1) Service side water 12 °C / 7 °C; Condensing temperature 45 °C

GENERAL TECHNICAL DATA

Size			2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
Compressor														
Type	°,A	type	Screw											
Compressor regulation	°,A	Type	Inverter+On/Off											
Number	°,A	no.	2	2	2	2	2	2	2	2	3	3	3	3
Circuits	°,A	no.	2	2	2	2	2	2	2	2	3	3	3	3
Refrigerant	°,A	type	R134a											
Refrigerant load circuit 1 (1)	°	kg	-	-	-	-	-	-	-	-	106,0	104,0	110,0	120,0
	A	kg	50,0	53,0	81,0	71,0	70,0	123,0	124,0	121,0	106,0	104,0	110,0	120,0
Refrigerant load circuit 2 (1)	°	kg	-	-	-	-	-	-	-	-	106,0	104,0	110,0	120,0
	A	kg	50,0	53,0	81,0	71,0	70,0	123,0	124,0	121,0	106,0	104,0	110,0	120,0
Refrigerant load circuit 3 (1)	°,A	kg	-	-	-	-	-	-	-	-	106,0	104,0	110,0	120,0
System side heat exchanger														
Type	°,A	type	Shell and tube											
Number	°,A	no.	1	1	1	1	1	1	1	1	1	1	1	1
Connections (in/out)	°,A	Type	Grooved joints											
Source side heat exchanger														
Type	°,A	type	Shell and tube											
Number	°,A	no.	2	2	2	2	2	2	2	2	3	3	3	3
Connections (in/out)	°,A	Type	Grooved joints											

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

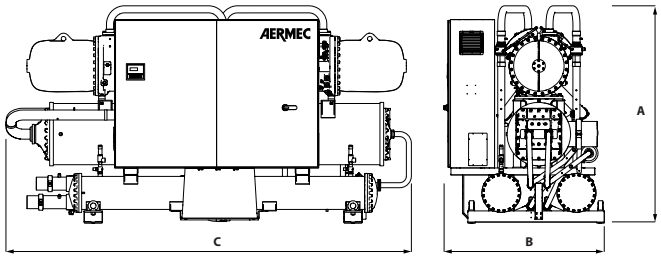
SOUND DATA

Sound data calculated with functioning in cooling mode - R134a gas

Size			2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
Model: °														
Standard equipment														
Sound power level (1)	°	dB(A)	-	-	-	-	-	-	-	-	99,2	98,9	100,0	100,5
	A	dB(A)	96,9	97,4	97,9	98,0	98,8	98,8	98,6	98,9	99,2	98,9	100,0	100,5
Silenced equipment														
Sound power level (1)	°	dB(A)	-	-	-	-	-	-	-	-	92,3	91,3	92,8	93,0
	A	dB(A)	89,3	89,6	90,3	90,5	91,5	91,1	91,2	91,3	92,3	91,3	92,8	93,0
Super silenced equipment														
Sound power level (1)	°	dB(A)	-	-	-	-	-	-	-	-	89,4	88,4	89,8	90,0
	A	dB(A)	86,3	86,7	87,4	87,5	88,5	88,1	88,2	88,8	89,4	88,4	89,8	90,0
Model: H														
Standard equipment														
Sound power level (1)	°	dB(A)	-	-	-	-	-	-	-	-	99,5	100,6	101,0	102,0
	A	dB(A)	97,3	97,7	98,8	98,8	98,9	98,9	99,3	100,0	99,5	100,6	101,0	102,0
Silenced equipment														
Sound power level (1)	°	dB(A)	-	-	-	-	-	-	-	-	94,4	94,6	94,6	94,9
	A	dB(A)	89,5	90,0	91,6	91,9	92,7	92,4	92,5	92,6	94,4	94,6	94,6	94,9
Super silenced equipment														
Sound power level (1)	°	dB(A)	-	-	-	-	-	-	-	-	91,5	91,6	91,6	91,9
	A	dB(A)	86,5	87,0	88,6	89,0	89,7	89,5	89,6	90,0	91,5	91,6	91,6	91,9

(1) Sound power: calculated in agreement with the Standard UNI EN ISO 9614-2, in compliance with that requested by Eurovent certification.

DIMENSIONS



Unit dimensions and weights °/H in standard configuration

Size			2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
Model: °, H														
Dimensions and weights - standard configuration														
A	°	mm	-	-	-	-	-	-	-	-	2250	2250	2250	2250
	A	mm	2131	2131	2195	2195	2340	2455	2440	2432	2250	2250	2250	2250
B	°	mm	-	-	-	-	-	-	-	-	2200	2200	2200	2200
	A	mm	1645	1645	1675	1675	1685	1875	1875	2000	2200	2200	2200	2200
C	°	mm	-	-	-	-	-	-	-	-	5650	5650	5650	5650
	A	mm	4320	4345	4380	4380	4395	4500	4580	4580	5650	5650	5650	5650
Empty weight	°	kg	-	-	-	-	-	-	-	-	8740	9680	9900	10000
	A	kg	3710	3980	5160	5220	5710	6440	6680	6770	9730	11440	11980	12060

Unit dimensions and weights °/H in silenced configuration

Size			2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
Model: °, H														
Dimensions and weights - quiet configuration														
A	°	mm	-	-	-	-	-	-	-	-	2250	2250	2250	2250
	A	mm	2131	2131	2195	2195	2340	2455	2440	2432	2250	2250	2250	2250
B	°	mm	-	-	-	-	-	-	-	-	2200	2200	2200	2200
	A	mm	1645	1645	1675	1675	1685	1875	1875	2000	2200	2200	2200	2200
C	°	mm	-	-	-	-	-	-	-	-	5650	5650	5650	5650
	A	mm	4320	4345	4630	4630	4600	5015	5060	5060	5650	5650	5650	5650
Empty weight	°	kg	-	-	-	-	-	-	-	-	9270	10240	10510	10610
	A	kg	4020	4290	5500	5560	6050	6810	7080	7170	10260	12000	12590	12670
Super silenced equipment dimensions and weights														
A	°	mm	-	-	-	-	-	-	-	-	2250	2250	2250	2250
	A	mm	2131	2131	2195	2195	2340	2455	2440	2432	2250	2250	2250	2250
B	°	mm	-	-	-	-	-	-	-	-	2200	2200	2200	2200
	A	mm	1645	1645	1675	1675	1685	1875	1875	2000	2200	2200	2200	2200
C	°	mm	-	-	-	-	-	-	-	-	5650	5650	5650	5650
	A	mm	4320	4345	4630	4630	4600	5015	5060	5060	5650	5650	5650	5650
Empty weight	°	kg	-	-	-	-	-	-	-	-	9890	10890	11230	11330
	A	kg	4400	4670	5910	5970	6460	7240	7550	7640	10880	12650	13310	13390

■ *For the sizes of D-T-E versions please contact the factory.*

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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WFN

Water cooled heat pump reversible water side

Cooling capacity 652÷ 2349 kW
Heating capacity 726÷ 2610 kW

- **Production of hot water up to 55°C.**
- **Production of chilled water down to -8°C.**



EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

DESCRIPTION

Units for internal installation offering chilled/hot water, designed to mit air conditioning needs in residential/commercial complexes or industrial applications.
Compact and flexible, perfect alignment to the requested load thanks to an accurate control algorithm.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

° Standard
A High efficiency

FEATURES

Operating field

Production of chilled water up to 16 °C of water produced on the evaporator side, but also suitable for use in heat pump mode with condenser water temperature up to 55 °C.

With option Z (double electronic expansion valve) the unit is capable to produce chilled water temperature from -8°C up to 10°C.

Bi-tri circuit unit

Unit with 2-3 refrigerant circuits designed to provide maximum efficiency at full load, ensuring high efficiency at partial loads also and ensuring continuity in case one of the circuits stops.
They are equipped with screw compressors and system and source side shell and tube heat exchangers with R134a refrigerant.
The R513A (XP10) refrigerant with this type of gas is also available on the configurator. On average, the units have a yield > 2% and an EER < 3% compared to the same size with R134a.
For further details refer to the technical documentation or to the Magellano selection program.

Electronic expansion valve

The possibility to use electronic expansion valve, offers significant benefits, especially when the chiller is working with partial loads, increasing the energy efficiency of the unit. Standard for all sizes.

CONTROL PCO_5

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.
Adjustment includes complete management of the alarms and their log.
Possibility to control two units in a Master-Slave configuration
The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
The temperature control takes place with the integral proportional logic, based on the water output temperature.

ACCESSORIES

AER485P1 x n° 2: RS-485 interface for supervision systems with MODBUS protocol.
AER485P1 x n° 3: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PGD1: Allows you to control the unit at a distance.
AVX: Spring anti-vibration supports.

FACTORY FITTED ACCESSORIES

RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
ISG: Insulation kit for condensers. Mandatory accessory for machine functioning in heat pump; standard in units with desuperheater or with heat recovery.

ACCESSORIES COMPATIBILITY

Model	Ver	2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
AER485P1 x n° 2 (1)	A	•	•	•	•	•	•	•	•				
AER485P1 x n° 3 (1)	°,A									•	•	•	•
AERBACP	°									•	•	•	•
	A	•	•	•	•	•	•	•	•	•	•	•	•
AERNET	°									•	•	•	•
	A	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	°									•	•	•	•
	A	•	•	•	•	•	•	•	•	•	•	•	•
PGD1	°,A	•	•	•	•	•	•	•	•	•	•	•	•

(1) x Indicates the quantity of accessories to match.

Antivibration

Version	Set-up	Heat recovery	2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
°	°,K,L	°,D,T	-	-	-	-	-	-	-	-	Contact us.	Contact us.	Contact us.	Contact us.
A	°	°	AVX673	AVX674	AVX679	AVX679	AVX678	AVX678	AVX678	AVX678	Contact us.	Contact us.	Contact us.	Contact us.
A	°	D	AVX674	AVX674	AVX679	AVX679	AVX678	AVX678	AVX678	AVX678	Contact us.	Contact us.	Contact us.	Contact us.
A	°	T	AVX674	AVX674	AVX678	AVX678	AVX678	AVX678	AVX678	AVX678	Contact us.	Contact us.	Contact us.	Contact us.
A	L	°,D	AVX674	AVX674	AVX678	AVX678	AVX678	AVX678	AVX678	AVX678	Contact us.	Contact us.	Contact us.	Contact us.
A	K	°,D,T	Contact us.	Contact us.	Contact us.	Contact us.	Contact us.	Contact us.	Contact us.	Contact us.	Contact us.	Contact us.	Contact us.	Contact us.
A	L	T	AVX674	AVX674	AVX678	AVX678	AVX678	AVX676	AVX676	AVX676	Contact us.	Contact us.	Contact us.	Contact us.

- not available

Power factor correction

Ver	2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
°	-	-	-	-	-	-	-	-	RIFWFN6703	RIFWFN7203	RIFWFN8403	RIFWFN9603
A	RIFWFN2502	RIFWFN2802	RIFWFN3202	RIFWFN3602	RIFWFN4202	RIFWFN4802	RIFWFN5602	RIFWFN6402	RIFWFN6703	RIFWFN7203	RIFWFN8403	RIFWFN9603

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

For the size of the units with the RIF accessory we ask you to contact the headquarters.

Isolating kit

Ver	2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
°	-	-	-	-	-	-	-	-	ISG5	ISG5	ISG6	ISG6
A	ISG1	ISG1	ISG2	ISG2	ISG2	ISG3	ISG3	ISG3	ISG7	ISG8	ISG8	ISG8

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3	**WFN**
4,5,6,7	**Size** 2502, 2802, 3202, 3602, 4202, 4802, 5602, 6402, 6703, 7203, 8403, 9603
8	**Model**
°	Heat pump reversible on the water side
9	**Version**
°	Standard (1)
A	High efficiency
10	**Operating field**
X	Electronic thermostatic expansion valve (2)
Z	Double electronic thermostatic for low temperature (3)
11	**Set-up**
°	Standard
K	Super silenced
L	Silenced with hood
12	**Heat recovery**
°	Without heat recovery
D	With desuperheater (4)
T	With total recovery (4)

Field	Description
13	**Evaporator**
°	Standard
E	Evaporating unit
14	**Power supply**
°	400V/3/50Hz with fuses on compressors and magnet circuit breakers on auxiliary circuit (5)
2	230V/3/50Hz with fuses on compressors and magnet circuit breakers on auxiliary circuit (5)
4	230V/3/50Hz with magnet circuit breakers on compressors and auxiliary circuit (5)
5	500V/3/50Hz with fuses on compressors and magnet circuit breakers on auxiliary circuit
8	400V/3/50Hz with magnet circuit breakers on compressors and auxiliary circuit
9	500V/3/50Hz with magnet circuit breakers on compressors and auxiliary circuit (5)
15	**Refrigerant gas**
°	R134a
G	R513A (XP10)

(1) Only for sizes from 6703 to 9603
(2) Water produced from 0 °C ÷ 16 °C
(3) Water produced from -8 °C up to 10 °C
(4) Not available for the condenserless "E"
(5) The 230V and 500V power supplies are only available for sizes 2502 - 2802

PERFORMANCE SPECIFICATIONS

WFN - version ° - gas R134a

Size		6703	7203	8403	9603
Cooling performance 12 °C / 7 °C (1)					
Cooling capacity	kW	1691,1	1925,6	2120,1	2310,0
Input power	kW	322,4	364,9	407,2	452,6
Cooling total input current	A	505,0	594,0	660,0	733,0
EER	W/W	5,00	5,00	5,00	5,00
Water flow rate system side	l/h	290696	330989	364406	397041
Pressure drop system side	kPa	46	52	39	46
Water flow rate source side	l/h	343740	390980	431894	471655
Pressure drop source side	kPa	70	70	58	69
Heating performance 40 °C / 45 °C (2)					
Heating capacity	kW	1885,5	2129,2	2348,8	2575,2
Input power	kW	401,0	454,4	501,6	558,6
Heating total input current	A	619,0	728,0	803,0	893,0
COP	W/W	5,00	5,00	5,00	5,00
Water flow rate system side	l/h	327527	369895	408061	447398
Pressure drop system side	kPa	64	63	52	62
Water flow rate source side	l/h	436659	493020	542047	593071
Pressure drop source side	kPa	105	115	86	103

(1) Date 14511:2018; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C
(2) Date 14511:2018; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

WFN - version A - gas R134a

Size		2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
Cooling performance 12 °C / 7 °C (1)													
Cooling capacity	kW	652,3	746,8	905,7	1024,5	1164,3	1325,5	1446,9	1589,7	1721,1	1960,7	2149,5	2349,3
Input power	kW	121,4	137,8	167,7	189,5	213,7	242,9	270,4	296,6	317,6	359,9	406,3	445,4
Cooling total input current	A	208,0	239,0	275,0	310,0	341,0	401,0	447,0	493,0	509,0	598,0	667,0	739,0
EER	W/W	5,37	5,42	5,40	5,41	5,45	5,46	5,35	5,36	5,42	5,45	5,29	5,28
Water flow rate system side	l/h	112179	128411	155723	176117	200144	227870	248717	273259	295856	337027	369472	403784
Pressure drop system side	kPa	51	41	38	29	33	45	32	38	43	55	51	30
Water flow rate source side	l/h	132175	151199	183520	207646	235653	268115	293728	322600	348857	396964	437212	478412
Pressure drop source side	kPa	49	50	49	49	50	49	48	46	34	32	32	36
Heating performance 40 °C / 45 °C (2)													
Heating capacity	kW	726,4	828,1	1001,4	1138,6	1283,2	1459,8	1589,2	1809,3	1911,8	2159,8	2376,5	2610,0
Input power	kW	154,8	174,8	209,3	234,9	264,8	302,9	332,5	371,1	396,0	450,7	504,3	547,7
Heating total input current	A	260,0	298,0	339,0	381,0	418,0	492,0	545,0	606,0	624,0	733,0	812,0	900,0
COP	W/W	4,69	4,74	4,78	4,85	4,85	4,82	4,78	4,88	4,83	4,79	4,71	4,77
Water flow rate system side	l/h	126142	143812	173923	197757	222889	253571	276062	314312	332129	375231	412895	453465
Pressure drop system side	kPa	45	45	44	45	45	44	43	44	31	28	28	32
Water flow rate source side	l/h	168271	191878	232387	264585	298364	339696	368017	421779	444410	502013	549582	603144
Pressure drop source side	kPa	114	92	85	65	73	101	70	91	97	122	112	66

(1) Date 14511:2018; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C
(2) Date 14511:2018; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C

ENERGY INDICES (REG. 2016/2281 EU)

Size			2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
SEER - 12/7 (EN14825: 2018) (1)														
SEER	°	W/W	-	-	-	-	-	-	-	-	6,88	6,98	7,02	6,85
	A	W/W	7,06	7,19	7,07	7,23	7,24	7,18	7,01	7,14	7,37	7,44	7,31	7,34
Seasonal efficiency	°	%	-	-	-	-	-	-	-	-	272.3%	276.2%	277.7%	270.8%
	A	%	279.5%	284.6%	279.8%	286.3%	286.5%	284.3%	277.3%	282.4%	291.9%	294.5%	289.5%	290.4%

(1) Calculation performed with VARIABLE water flow rate and VARIABLE outlet temperature.

PERFORMANCE SPECIFICATIONS EVAPORATING UNITS

WFN - AE- gas R134a

Size		2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
Evaporator: E													
Cooling performance 12 °C / 7 °C - gas R134a (1)													
Cooling capacity	kW	584,6	668,6	803,3	911,8	1043,5	1186,8	1284,6	1414,9	1544,3	1758,8	1912,5	2076,9
Input power	kW	143,3	163,2	196,5	222,8	249,8	283,2	317,9	349,1	373,7	422,6	474,7	523,3
Cooling total input current	A	246,7	282,2	326,3	368,7	405,5	472,6	525,9	578,3	606,7	705,8	785,6	867,1
EER	W/W	4,08	4,10	4,09	4,09	4,18	4,19	4,04	4,05	4,13	4,16	4,03	3,97
Evaporator water flow rate	l/h	100443	114870	138020	156649	179280	203906	220716	243093	265322	302189	328596	356829
Pressure drop evaporator side	kPa	41	33	30	23	27	36	25	30	35	44	40	23
Length of refrigerant lines from/to 0 - 10 m													
Gas line (C1)	Ø	67,0	67,0	67,0	76,0	76,0	88,9	88,9	88,9	76,0	88,9	88,9	88,9
Gas line (C2)	Ø	67,0	67,0	67,0	76,0	76,0	88,9	88,9	88,9	76,0	88,9	88,9	88,9
Gas line (C3)	Ø	-	-	-	-	-	-	-	42,0	76,0	88,9	88,9	88,9
Liquid line (C1)	Ø	42,0	42,0	42,0	42,0	54,0	54,0	54,0	54,0	54,0	54,0	54,0	54,0
Liquid line (C2)	Ø	42,0	42,0	42,0	42,0	54,0	54,0	54,0	54,0	54,0	54,0	54,0	54,0
Liquid line (C3)	Ø	-	-	-	-	-	-	-	-	54,0	54,0	54,0	54,0

(1) Service side water 12 °C / 7 °C; Condensing temperature 45 °C

WFN - °E - gas R134a

Size			6703	7203	8403	9603
Evaporator: E						
Cooling performance 12 °C / 7 °C - gas R134a (1)						
Cooling capacity	kW		1500,1	1704,7	1830,1	1998,5
Input power	kW		375,4	424,4	474,7	524,9
Cooling total input current	A		609,0	708,0	786,0	869,0
EER	W/W		4,00	4,02	3,86	3,81
Evaporator water flow rate	l/h		257735	292888	314432	343357
Pressure drop evaporator side	kPa		36	41	29	35
Length of refrigerant lines from/to 0 - 10 m						
Gas line (C1)	Ø		76,0	88,9	88,9	88,9
Gas line (C2)	Ø		76,0	88,9	88,9	88,9
Gas line (C3)	Ø		76,0	88,9	88,9	88,9
Liquid line (C1)	Ø		54,0	54,0	54,0	54,0
Liquid line (C2)	Ø		54,0	54,0	54,0	54,0
Liquid line (C3)	Ø		54,0	54,0	54,0	54,0

(1) Service side water 12 °C / 7 °C; Condensing temperature 45 °C

ELECTRIC DATA

Size			2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
Electric data														
Maximum current (FLA)	°	A	-	-	-	-	-	-	-	-	913,0	1050,0	1166,0	1281,0
	A	A	365,0	416,0	486,0	549,0	609,0	700,0	777,0	854,0	913,0	1050,0	1166,0	1281,0
Peak current (LRA)	°	A	-	-	-	-	-	-	-	-	1198,0	1353,0	1585,0	1774,0
	A	A	500,0	552,0	682,0	743,0	894,0	1003,0	1197,0	1347,0	1198,0	1353,0	1585,0	1774,0

GENERAL TECHNICAL DATA

Size			2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
Compressor														
Type	°,A	type						Screw						
Compressor regulation	°,A	Type						On-Off						
Number	°,A	no.	2	2	2	2	2	2	2	2	3	3	3	3
Circuits	°,A	no.	2	2	2	2	2	2	2	2	3	3	3	3
Refrigerant	°,A	type						R134a						
Refrigerant load circuit 1 (1)	°	kg	-	-	-	-	-	-	-	-	107,0	115,0	136,0	157,0
	A	kg	50,0	53,0	81,0	71,0	70,0	123,0	124,0	121,0	106,0	104,0	110,0	120,0
Refrigerant load circuit 2 (1)	°	kg	-	-	-	-	-	-	-	-	107,0	115,0	136,0	157,0
	A	kg	50,0	53,0	81,0	71,0	70,0	123,0	124,0	121,0	106,0	104,0	110,0	120,0
Refrigerant load circuit 3 (1)	°	kg	-	-	-	-	-	-	-	-	107,0	115,0	136,0	157,0
	A	kg	-	-	-	-	-	-	-	-	106,0	104,0	110,0	120,0
System side heat exchanger														
Type	°,A	type						Shell and tube						
Number	°,A	no.	1	1	1	1	1	1	1	1	1	1	1	1
Connections (in/out)	°,A	Type						Grooved joints						
Sizes (in/out)	°	Ø	-	-	-	-	-	-	-	-	10″	10″	10″	10″
	A	Ø	8″	8″	8″	8″	10″	10″	10″	10″	-	-	-	-
Source side heat exchanger														
Type	°,A	type						Shell and tube						
Number	°,A	no.	2	2	2	2	2	2	2	2	3	3	3	3
Connections (in/out)	°,A	Type						Grooved joints						
Sizes (in/out)	°	Ø	-	-	-	-	-	-	-	-	5″	5″	6″	6″
	A	Ø	4″	4″	4″	4″	5″	6″	6″	6″	-	-	-	-

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

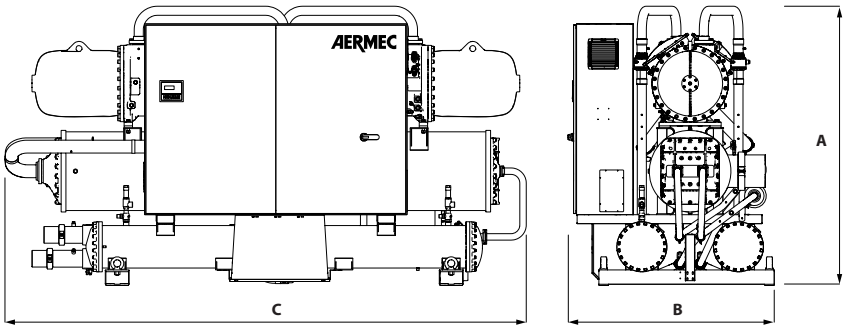
SOUND DATA

Sound data calculated with functioning in cooling mode - R134a gas

Size			2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
Standard equipment														
Sound power level (1)	°	dB(A)	-	-	-	-	-	-	-	-	97,0	97,2	99,5	100,0
	A	dB(A)	93,5	94,0	94,0	94,5	95,0	95,5	97,5	98,0	97,0	97,2	99,5	100,0
Silenced equipment														
Sound power level (1)	°	dB(A)	-	-	-	-	-	-	-	-	91,1	90,2	92,8	93,3
	A	dB(A)	86,6	86,6	87,5	88,2	89,1	88,5	90,8	91,3	91,1	90,2	92,8	93,3
Super silenced equipment														
Sound power level (1)	°	dB(A)	-	-	-	-	-	-	-	-	88,1	87,3	89,8	90,3
	A	dB(A)	83,6	83,6	84,5	85,2	86,1	85,6	87,8	88,3	88,1	87,3	89,8	90,3

(1) Sound power: calculated in agreement with the Standard UNI EN ISO 9614-2, in compliance with that requested by Eurovent certification.

DIMENSIONS



Size			2502	2802	3202	3602	4202	4802	5602	6402	6703	7203	8403	9603
Dimensions and weights - standard configuration														
A	°	mm	-	-	-	-	-	-	-	-	2250	2250	2250	2250
	A	mm	2000	2075	2195	2195	2340	2432	2440	2432	2250	2250	2250	2250
B	°	mm	-	-	-	-	-	-	-	-	2200	2200	2200	2200
	A	mm	1500	1500	1575	1575	1585	1775	1775	1820	2200	2200	2200	2200
C	°	mm	-	-	-	-	-	-	-	-	5650	5650	5650	5650
	A	mm	4320	4345	4380	4380	4395	4535	4605	4605	5650	5650	5650	5650
Empty weight	°	kg	-	-	-	-	-	-	-	-	9330	9910	10130	10200
	A	kg	3810	4100	5690	5750	6300	6670	6970	7070	10320	11670	12270	12360
Dimensions and weights - quiet configuration														
A	°	mm	-	-	-	-	-	-	-	-	2250	2250	2250	2250
	A	mm	2000	2075	2195	2195	2340	2432	2440	2432	2250	2250	2250	2250
B	°	mm	-	-	-	-	-	-	-	-	2200	2200	2200	2200
	A	mm	1500	1500	1575	1575	1585	1775	1775	1820	2200	2200	2200	2200
C	°	mm	-	-	-	-	-	-	-	-	5650	5650	5650	5650
	A	mm	4320	4345	4650	4650	4600	5015	5150	5150	5650	5650	5650	5650
Empty weight	°	kg	-	-	-	-	-	-	-	-	9890	10470	10760	10830
	A	kg	4120	4410	6050	6120	6670	7040	7420	7490	10880	12230	12950	12990
Super silenced equipment dimensions and weights														
A	°	mm	-	-	-	-	-	-	-	-	2250	2250	2250	2250
	A	mm	2000	2075	2195	2195	2340	2432	2440	2432	2250	2250	2250	2250
B	°	mm	-	-	-	-	-	-	-	-	2200	2200	2200	2200
	A	mm	1500	1500	1575	1575	1585	1775	1775	1820	2200	2200	2200	2200
C	°	mm	-	-	-	-	-	-	-	-	5650	5650	5650	5650
	A	mm	4320	4345	4650	4650	4600	5015	5150	5150	5650	5650	5650	5650
Empty weight	°	kg	-	-	-	-	-	-	-	-	10540	11120	11510	11580
	A	kg	4500	4790	6480	6550	7100	7470	7890	7990	11530	12880	13650	13740

■ *For the sizes of D-T-E versions please contact the factory.*

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WMX

Water-water chiller

Cooling capacity 280,1 ÷ 324,2 kW

- **High efficiency also at partial loads ESEER 8,4**
- **Compact design**
- **Extremely flexible and reliable**



EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

DESCRIPTION

Indoor unit for the production of chilled water, equipped with magnetic levitation centrifugal compressors and system side, flooded source heat exchangers that guarantee a 50% reduction of the refrigerant load in comparison to conventional flooded heat exchangers.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.
The technological choices made, always oriented to the highest quality and efficiency can reach 5.71 EER values (class A for the working conditions Eurovent).

EFFICIENCY

A High efficiency
U Very high efficiency
Both units can be silenced.

FEATURES

— 5 times lighter than an equivalent screw compressor.
— Extremely compact wide to allow access through a standard doorway.
— High efficiency with generously sizes heat exchanger.

Two-stage, oil-free centrifugal compressor with latest-generation magnetic levitation

Oil-free operation without mechanical friction it is possible thanks to the use of magnetic levitation bearings that also ensure the total absence of vibration and low frequency noise.
Provided with inverter technology that permits capacity modulation down to 30% A version.
Built-in device to reduce starting current (only 6 Amps!)

Operating field

Water produced from 20 °C up to 45 °C on Condenser side and from 5 °C up to 20 °C on Evaporator side.

Acoustic chiller enclosure (option)

in galvanised sheet metal of suitable thickness insulated on the inside with sound-proofing material.

CONTROL

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PTW: Allows you to control the unit at a distance.

CONFIGURATOR

Field		Description
1,2,3		WMX
4,5,6		Size 300
7		Efficiency
	A	High efficiency
	U	Very high efficiency
8		Version
	°	Standard
	L	Silenced

PERFORMANCE SPECIFICATIONS

Size			300
Efficiency: A			
Cooling performance 12 °C / 7 °C (1)			
Cooling capacity	°,L	kW	324,2
Input power	°,L	kW	60,3
Cooling total input current	°,L	A	94,0
EER	°,L	W/W	5,37
Water flow rate system side	°,L	l/h	55761
Pressure drop system side	°,L	kPa	34
Water flow rate source side	°,L	l/h	65750
Pressure drop source side	°,L	kPa	41
Efficiency: U			
Cooling performance 12 °C / 7 °C (1)			
Cooling capacity	°,L	kW	280,1
Input power	°,L	kW	48,9
Cooling total input current	°,L	A	78,0
EER	°,L	W/W	5,72
Water flow rate system side	°,L	l/h	48180
Pressure drop system side	°,L	kPa	25
Water flow rate source side	°,L	l/h	56338
Pressure drop source side	°,L	kPa	30

(1) Date 14511:2018; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

ENERGY INDICES (REG. 2016/2281 EU)

Size			300
SEER - 12/7 (EN14825: 2018) (1)			
SEER	A	W/W	8,99
	U	W/W	9,04
Seasonal efficiency	A	%	356,6%
	U	%	358,5%
SEPR - (EN 14825: 2018) High temperature (2)			
SEPR	A	W/W	9,70
	U	W/W	10,35

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

Size			300
Efficiency: A, U			
Electric data			
Maximum current (FLA)	°,L	A	135,0
Peak current (LRA)	°,L	A	6,0

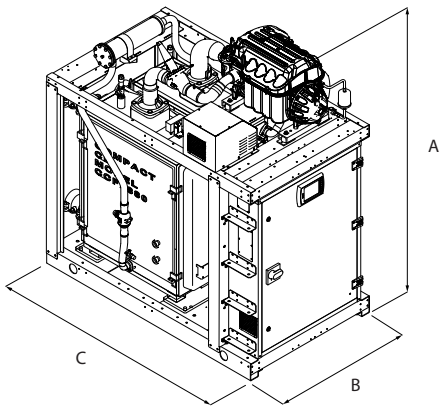
GENERAL TECHNICAL DATA

Size			300
Efficiency: A, U			
Compressor			
Type	°,L	type	Centrifugal
Compressor regulation	°,L	Type	Inverter
Number	°,L	no.	1
Circuits	°,L	no.	1
Refrigerant	°,L	type	R134a
Source side heat exchanger			
Type	°,L	type	Shell and tube - flooded compact
Number	°,L	no.	1
Connections (in/out)	°,L	Type	Grooved joints
Sizes (in/out)	°,L	Ø	4"
System side heat exchanger			
Type	°,L	type	Shell and tube - flooded compact with Spray system
Number	°,L	no.	1
Connections (in/out)	°,L	Type	Grooved joints
Sizes (in/out)	°,L	Ø	4"

Size			300
Efficiency: A			
Sound data calculated in cooling mode (1)			
Sound power level	°	dB(A)	90,0
	L	dB(A)	84,0
Efficiency: U			
Sound data calculated in cooling mode (1)			
Sound power level	°	dB(A)	85,0
	L	dB(A)	78,0

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size			300
Efficiency: A, U			
Dimensions and weights			
A	°	mm	1905
	L	mm	1942
B	°,L	mm	1041
C	°,L	mm	1770
Empty weight	°	kg	2025
	L	kg	2210

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WMG

Water-water chiller

Cooling capacity 282,3 ÷ 312,4 kW

- **High efficiency also at partial loads ESEER 8,4**
- **Compact design**
- **Extremely flexible and reliable**



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Indoor unit for the production of chilled water, equipped with magnetic levitation centrifugal compressors and system side, flooded source heat exchangers that guarantee a 50% reduction of the refrigerant load in comparison to conventional flooded heat exchangers.
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EFFICIENCY

A High efficiency
U Very high efficiency
Both units can be silenced.

FEATURES

— 5 times lighter than an equivalent screw compressor.
— Extremely compact wide to allow access through a standard doorway.
— High efficiency with generously sizes heat exchanger.

HFO R1234ze refrigerant gas

HFO R1234ze is a mixture featuring:
da ODP = 0 e GWP (Global Warming Potential) = 7, R134a GWP = 1430;
with thermodynamic properties that guarantee and sometimes improve efficiencies achieved with HFC refrigerants.

Two-stage, oil-free centrifugal compressor with latest-generation magnetic levitation

Oil-free operation without mechanical friction it is possible thanks to the use of magnetic levitation bearings that also ensure the total absence of vibration and low frequency noise.
Provided with inverter technology that permits capacity modulation down to 30% A version.
Built-in device to reduce starting current (only 6 Amps!)

Operating field

Water produced from 20 °C up to 55 °C on Condenser side and from 5 °C up to 20 °C on Evaporator side.

Acoustic chiller enclosure (option)

in galvanised sheet metal of suitable thickness insulated on the inside with sound-proofing material.

CONTROL

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.

ACCESSORIES

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PTW: Allows you to control the unit at a distance.

CONFIGURATOR

Field		Description
1,2,3		WMG
4,5,6		Size 300
7		Efficiency
	A	High efficiency
	U	Very high efficiency
8		Version
	°	Standard
	L	Silenced

PERFORMANCE SPECIFICATIONS

Size			300
Efficiency: A			
Cooling performance 12 °C / 7 °C (1)			
Cooling capacity	°,L	kW	312,4
Input power	°,L	kW	57,6
Cooling total input current	°,L	A	85,0
EER	°,L	W/W	5,42
Water flow rate system side	°,L	l/h	53731
Pressure drop system side	°,L	kPa	31
Water flow rate source side	°,L	l/h	63303
Pressure drop source side	°,L	kPa	36
Efficiency: U			
Cooling performance 12 °C / 7 °C (1)			
Cooling capacity	°,L	kW	282,3
Input power	°,L	kW	49,1
Cooling total input current	°,L	A	74,0
EER	°,L	W/W	5,75
Water flow rate system side	°,L	l/h	48548
Pressure drop system side	°,L	kPa	25
Water flow rate source side	°,L	l/h	56739
Pressure drop source side	°,L	kPa	29

(1) Date 14511:2018; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

ENERGY INDICES (REG. 2016/2281 EU)

Size			300
SEER - 12/7 (EN14825: 2018) (1)			
SEER	A	W/W	8,88
	U	W/W	8,91
Seasonal efficiency	A	%	352,0%
	U	%	353,4%
SEPR - (EN 14825: 2018) High temperature (2)			
SEPR	A	W/W	9,96
	U	W/W	10,37

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

Size			300
Efficiency: A, U			
Electric data			
Maximum current (FLA)	°,L	A	150,0
Peak current (LRA)	°,L	A	6,0

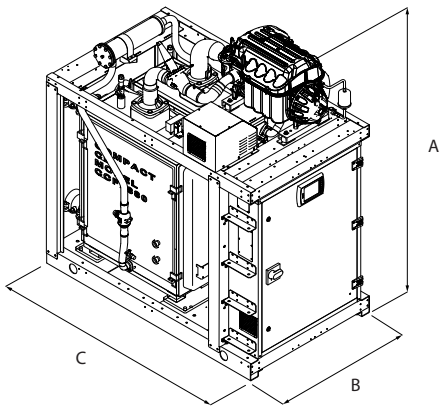
GENERAL TECHNICAL DATA

Size			300
Efficiency: A, U			
Compressor			
Type	°,L	type	Centrifugal
Compressor regulation	°,L	Type	Inverter
Number	°,L	no.	1
Circuits	°,L	no.	1
Refrigerant	°,L	type	R1234ze
Source side heat exchanger			
Type	°,L	type	Shell and tube - flooded compact
Number	°,L	no.	1
Connections (in/out)	°,L	Type	Grooved joints
Sizes (in/out)	°,L	Ø	4"
System side heat exchanger			
Type	°,L	type	Shell and tube - flooded compact with Spray system
Number	°,L	no.	1
Connections (in/out)	°,L	Type	Grooved joints
Sizes (in/out)	°,L	Ø	4"

Size			300
Efficiency: A			
Sound data calculated in cooling mode (1)			
Sound power level	°	dB(A)	90,0
	L	dB(A)	85,0
Efficiency: U			
Sound data calculated in cooling mode (1)			
Sound power level	°	dB(A)	84,0
	L	dB(A)	78,0

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size			300
Efficiency: A, U			
Dimensions and weights			
A	°	mm	1905
	L	mm	1942
B	°,L	mm	1041
C	°,L	mm	1770
Empty weight	°	kg	2065
	L	kg	2250

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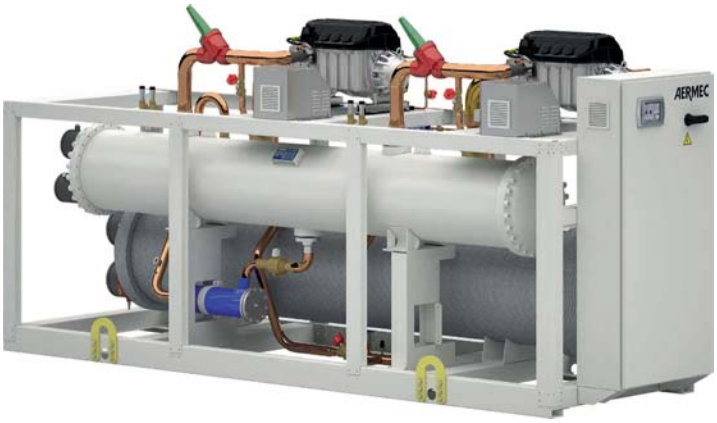
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www.aermec.com

WTX

Water-water chiller

Cooling capacity 222,9 ÷ 1958,4 kW

- **High efficiency ESEER up to 9**
- **Extended operating range**
- **Possibility of selecting between heat exchangers with 1 or 2 passes on water side**



DESCRIPTION

Indoor unit producing chilled water equiped with magnetic levitation centrifugal compressors and shell & tube heat exchangers.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.
The technological choices made always focus on maximum quality and efficiency, thereby achieving EER > 6 values (class A for Eurovent operating conditions).

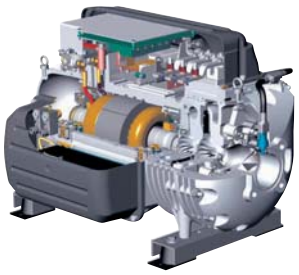
EFFICIENCY

A High efficiency
U Very high efficiency
Both units can be silenced.

FEATURES

Two-stage, oil-free centrifugal compressor with latest-generation magnetic levitation

Oil-free operation without mechanical friction it is possible thanks to the use of magnetic levitation bearings that also ensure the total absence of vibration and low frequency noise.
The compressor is equipped with an inverter for continuous load modulation by varying rpm (from 30% to 100%).
Built-in device to reduce starting current (only 6 Amps!)



Operating field

Water produced from 15 °C up to 50 °C on Condenser side and from 5 °C up to 25 °C on Evaporator side.

Flooded Evaporator with subcooler

Subcooler effect
— Superheats compressor gas intake;
— Subcools thermostatic valve fluid intake;
— Increases chiller yield and ensures gas suction from compressor.
Condenser
— With refrigerant on shell side and water on pipe side

Acoustic chiller enclosure (option)

in galvanised sheet metal of suitable thickness insulated on the inside with sound-proofing material.

CONTROL

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
FL: Flow switch.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
AVX: Spring anti-vibration supports.

ACCESSORIES COMPATIBILITY

Model	Ver	1300	1350	2300	2350	3300	3325	3350	4325	4350
AER485P1	A,U	•	•	•	•	•	•	•	•	•
AERBACP	A,U	•	•	•	•	•	•	•	•	•
FL	A,U	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	A,U	•	•	•	•	•	•	•	•	•

With the MULTICHILLER_EVO accessory, it is necessary to add AER485P1 for each connected unit.

Antivibration

Ver	1300	1350	2300	2350	3300	3325	3350	4325	4350
A,U	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)

(1) Contact us.

CONFIGURATOR

Field	Description
1,2,3	**WTX**
4,5,6,7	**Size** 1300, 1350, 2300, 2350, 3300, 3325, 3350, 4325, 4350
8	**Efficiency**
A	High efficiency
U	Very high efficiency
9	**Exchanger**
1	One pass on water side (1)
2	Two passes on water side
10	**Version**
°	Standard
L	Silenced
11	**Power supply**
°	400V ~ 3 50Hz with circuit breakers on compressors and auxiliary circuit

(1) Option available only for size from 3300 to 4350.

EXCHANGERS

Over-sized tube core exchangers ensure excellent performances at full and partial loads.

Flooded evaporator: with level adjustment through an electronic valve controlled by a level sensor.

Backflow condenser: with refrigerant on shell side and water on tube side.

From size 1300 to 2350, heat exchangers have 2 passes on the water side

Starting from size WTX 3300, heat exchangers are available as versions with one or two passes on the water side, to meet any plant installation requirement. **The dimensions of the two configurations ensure similar performances** (same approach to heat exchangers). **The difference is that the version with two passes on the water side due offers the convenience of water connections all on the same side**, against a generally higher but nonetheless limited drop in pressure compared to the version with one pass on the water side.



PERFORMANCE SPECIFICATIONS

WTX - A

Size		1300	1350	2300	2350	3300	3325	3350	4325	4350
Exchanger: 1										
Cooling performance 12 °C / 7 °C (1)										
Cooling capacity	kW	-	-	-	-	1054,4	1214,3	1466,1	1716,2 (2)	1955,0 (2)
Input power	kW	-	-	-	-	211,4	219,9	281,6	315,3	375,1
Cooling total input current	A	-	-	-	-	317,0	356,0	435,0	503,0	580,0
EER	W/W	-	-	-	-	4,99	5,52	5,21	5,44	5,21
Water flow rate system side	l/h	-	-	-	-	181266	208751	252017	294970	336022
Pressure drop system side	kPa	-	-	-	-	32	39	31	24	31
Water flow rate source side	l/h	-	-	-	-	218376	247239	301544	350417	402059
Pressure drop source side	kPa	-	-	-	-	31	38	31	42	31
Exchanger: 2										
Cooling performance 12 °C / 7 °C (1)										
Cooling capacity	kW	351,3	488,5	702,8	899,4	1054,3	1215,9	1466,0	1715,9 (2)	1958,4 (2)
Input power	kW	70,8	94,3	141,8	164,1	212,6	220,6	283,8	318,8	380,0
Cooling total input current	A	106,0	145,0	212,0	255,0	317,0	356,0	435,0	503,0	580,0
EER	W/W	4,96	5,18	4,96	5,48	4,96	5,51	5,17	5,38	5,15
Water flow rate system side	l/h	60422	84006	120844	154630	181266	209053	252017	294970	336647
Pressure drop system side	kPa	32	30	40	33	54	77	54	60	82
Water flow rate source side	l/h	72792	100515	145584	183481	218376	247235	301544	350417	402062
Pressure drop source side	kPa	31	33	35	28	28	35	33	41	53

(1) Date 14511:2018; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C
(2) Sizes 4325 and 4350 not included in the EUROVENT certification programme because Cooling capacity > 1500 kW

WTX - U

Size		1300	1350	2300	2350	3300	3325	3350	4325	4350
Exchanger: 1										
Cooling performance 12 °C / 7 °C (1)										
Cooling capacity	kW	-	-	-	-	669,0	869,6	1002,7	1179,6	1336,9
Input power	kW	-	-	-	-	112,2	144,9	166,9	195,3	222,3
Cooling total input current	A	-	-	-	-	180,0	237,0	273,0	316,0	364,0
EER	W/W	-	-	-	-	5,96	6,00	6,01	6,04	6,01
Water flow rate system side	l/h	-	-	-	-	115004	149476	172333	202737	229777
Pressure drop system side	kPa	-	-	-	-	12	18	14	10	14
Water flow rate source side	l/h	-	-	-	-	135049	175273	202156	237660	269542
Pressure drop source side	kPa	-	-	-	-	12	17	13	17	13
Exchanger: 2										
Cooling performance 12 °C / 7 °C (1)										
Cooling capacity	kW	222,9	334,1	445,9	559,7	669,0	840,1	1006,1	1191,4	1342,6
Input power	kW	37,5	55,9	75,1	94,3	112,5	140,7	167,2	198,4	223,4
Cooling total input current	A	60,0	91,0	120,0	158,0	180,0	237,0	273,0	316,0	364,0
EER	W/W	5,95	5,98	5,94	5,93	5,95	5,97	6,02	6,01	6,01
Water flow rate system side	l/h	38335	57444	76669	96214	115004	144425	172942	204799	230804
Pressure drop system side	kPa	12	13	16	12	21	32	24	26	37
Water flow rate source side	l/h	45016	67385	90033	113067	135049	169344	202690	240041	270255
Pressure drop source side	kPa	12	14	13	10	10	15	14	18	23

(1) Date 14511:2018; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

ENERGY INDICES (REG. 2016/2281 EU)

Size			1300	1350	2300	2350	3300	3325	3350	4325	4350
Exchanger: 1											
SEER - 12/7 (EN14825: 2018) (1)											
SEER	A	W/W	-	-	-	-	8,25	8,64	8,78	8,76	8,95
	U	W/W	-	-	-	-	9,70	9,54	9,85	9,59	9,92
Seasonal efficiency	A	%	-	-	-	-	326,8%	342,6%	348,2%	347,2%	354,8%
	U	%	-	-	-	-	384,8%	378,4%	390,8%	380,6%	393,7%
SEPR - (EN 14825: 2018) High temperature (2)											
SEPR	A	W/W	-	-	-	-	8,75	9,92	9,33	9,71	9,35
	U	W/W	-	-	-	-	11,80	11,36	11,44	11,49	11,47
Exchanger: 2											
SEER - 12/7 (EN14825: 2018) (1)											
SEER	A	W/W	8,40	8,59	8,19	8,76	8,03	8,34	8,45	8,32	8,39
	U	W/W	9,69	9,07	9,47	9,73	9,54	9,31	9,66	9,28	9,60
Seasonal efficiency	A	%	332,9%	340,6%	324,5%	347,3%	318,1%	330,4%	334,9%	329,8%	332,6%
	U	%	384,4%	359,9%	375,6%	386,3%	378,6%	369,5%	383,5%	368,1%	380,8%
SEPR - (EN 14825: 2018) High temperature (2)											
SEPR	A	W/W	8,26	9,17	8,25	9,70	8,64	9,75	9,17	9,48	9,08
	U	W/W	11,65	11,34	11,62	11,17	11,70	11,20	11,37	11,30	11,31

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Calculation performed with FIXED water flow rate.

ELECTRIC DATA

Size				1300	1350	2300	2350	3300	3325	3350	4325	4350
Electric data												
Maximum current (FLA)		A,U	A	135,0	210,0	270,0	420,0	405,0	405,0	630,0	630,0	630,0
Peak current (LRA)		A,U	A	6,0	6,0	141,0	216,0	276,0	276,0	426,0	426,0	426,0

GENERAL TECHNICAL DATA

Size			1300	1350	2300	2350	3300	3325	3350	4325	4350
Compressor											
Type	A,U	type					Centrifugal - Oil Free				
Compressor regulation	A,U	Type					Inverter				
Number	A,U	no.	1	1	2	2	3	3	3	4	4
Circuits	A,U	no.	1	1	1	1	1	1	1	1	1
Refrigerant	A,U	type					R134a				

Size			1300	1350	2300	2350	3300	3325	3350	4325	4350
Exchanger: 1											
System side heat exchanger											
Type	A,U	type	-	-	-	-	Shell and tube	Shell and tube	Shell and tube	Shell and tube	Shell and tube
Number	A,U	no.	-	-	-	-	1	1	1	1	1
Connections (in/out)	A,U	Type	-	-	-	-	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints
Sizes (in/out)	A,U	Ø	-	-	-	-	6″	10″	10″	6″	8″
Source side heat exchanger											
Type	A,U	type	-	-	-	-	Shell and tube	Shell and tube	Shell and tube	Shell and tube	Shell and tube
Number	A,U	no.	-	-	-	-	1	1	1	1	1
Connections (in/out)	A,U	Type	-	-	-	-	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints
Sizes (in/out)	A,U	Ø	-	-	-	-	6″	6″	10″	8″	8″
Exchanger: 2											
System side heat exchanger											
Type	A,U	type	Shell and tube	Shell and tube	Shell and tube	Shell and tube	Shell and tube	Shell and tube	Shell and tube	Shell and tube	Shell and tube
Number	A,U	no.	1	1	1	1	1	1	1	1	1
Connections (in/out)	A,U	Type	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints
Sizes (in/out)	A,U	Ø	5″	5″	5″	6″	6″	10″	6″	8″	8″
Source side heat exchanger											
Type	A,U	type	Shell and tube	Shell and tube	Shell and tube	Shell and tube	Shell and tube	Shell and tube	Shell and tube	Shell and tube	Shell and tube
Number	A,U	no.	1	1	1	1	1	1	1	1	1
Connections (in/out)	A,U	Type	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints	Grooved joints
Sizes (in/out)	A,U	Ø	5″	5″	6″	6″	6″	6″	8″	8″	8″

SOUND DATA

Size			1300	1350	2300	2350	3300	3325	3350	4325	4350
Efficiency: A											
Sound data calculated in cooling mode (1)											
Sound power level	°	dB(A)	90,0	91,0	93,0	93,5	96,0	95,5	97,0	98,5	100,0
	L	dB(A)	84,0	85,0	87,0	87,5	90,0	89,5	91,0	92,5	94,0
Efficiency: U											
Sound data calculated in cooling mode (1)											
Sound power level	°	dB(A)	87,0	88,0	90,0	88,0	90,0	91,0	94,0	94,0	97,0
	L	dB(A)	81,0	82,0	84,0	82,0	84,0	85,0	88,0	88,0	91,0

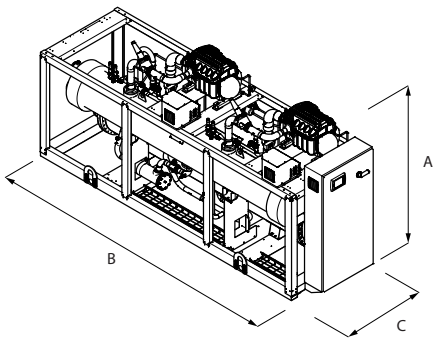
(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

Size			1300	1350	2300	2350	3300	3325	3350	4325	4350
Efficiency: A											
Sound data calculated in cooling mode (1)											
Sound power level	°	dB(A)	90,0	91,0	93,0	93,5	96,0	95,5	97,0	98,5	100,0
	L	dB(A)	84,0	85,0	87,0	87,5	90,0	89,5	91,0	92,5	94,0
Efficiency: U											
Sound data calculated in cooling mode (1)											
Sound power level	°	dB(A)	87,0	88,0	90,0	88,0	90,0	91,0	94,0	94,0	97,0
	L	dB(A)	81,0	82,0	84,0	82,0	84,0	85,0	88,0	88,0	91,0

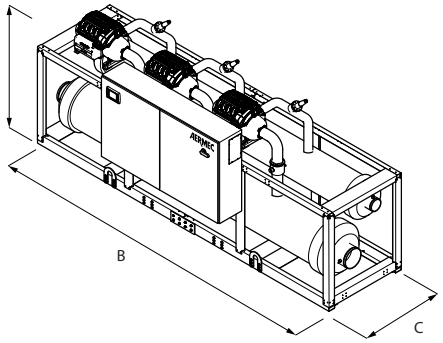
(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS

WTX 1300 - 2350



WTX 3300 - 4350



Size			1300	1350	2300	2350	3300	3325	3350	4325	4350
Exchanger: 1											
Dimensions and weights											
A	A,U	mm	-	-	-	-	1970	2010	2010	2010	2280
B	A,U	mm	-	-	-	-	4966	4966	4966	4966	4966
C	A,U	mm	-	-	-	-	1640	1640	1640	1640	1732
Empty weight	A,U	kg	-	-	-	-	4090	4430	5120	5690	6640
Weight functioning	A,U	kg	-	-	-	-	4430	4810	5620	6250	7450
Exchanger: 2											
Dimensions and weights											
A	A,U	mm	1850	1950	1970	2010	2240	2280	2280	2280	2280
B	A,U	mm	3040	3040	3340	3440	3990	3990	3990	4966	4966
C	A,U	mm	1000	1000	1240	1240	1732	1732	1836	1836	1836
Empty weight	A,U	kg	2190	2370	2770	3390	5440	5730	6630	7200	7380
Weight functioning	A,U	kg	2350	2560	3010	3740	6170	6480	7540	8160	8400

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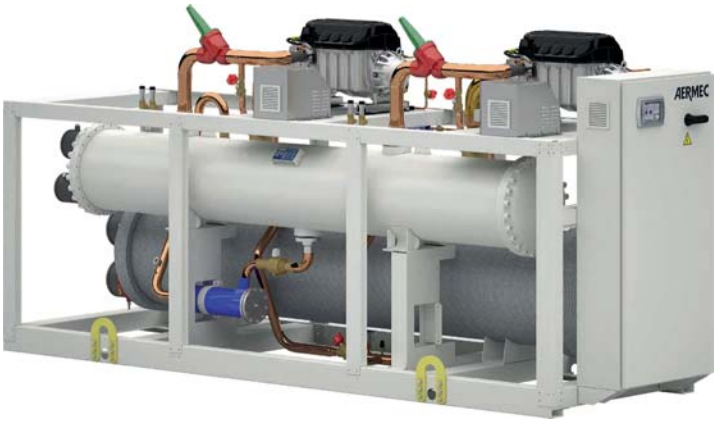
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WTG

Water-water chiller

Cooling capacity 246,6 ÷ 1959,4 kW

- **Extended operating range**
- **Possibility of selecting between heat exchangers with 1 or 2 passes on water side**



DESCRIPTION

Indoor unit producing chilled water equiped with magnetic levitation centrifugal compressors and shell & tube heat exchangers.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.
The technological choices made always focus on maximum quality and efficiency, thereby achieving EER > 6 values (class A for Eurovent operating conditions).

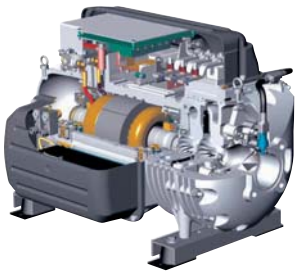
EFFICIENCY

A High efficiency
U Very high efficiency
Both units can be silenced.

FEATURES

Two-stage, oil-free centrifugal compressor with latest-generation magnetic levitation

Oil-free operation without mechanical friction it is possible thanks to the use of magnetic levitation bearings that also ensure the total absence of vibration and low frequency noise.
The compressor is equipped with an inverter for continuous load modulation by varying rpm (from 30% to 100%).
Built-in device to reduce starting current (only 6 Amps!)



Operating field

Water produced from 15 °C up to 50 °C on Condenser side and from 5 °C up to 25 °C on Evaporator side.

Flooded Evaporator

Evaporator
— Low charge content
Condenser
— With refrigerant on shell side and water on pipe side

Acoustic chiller enclosure (option)

in galvanised sheet metal of suitable thickness insulated on the inside with sound-proofing material.

CONTROL

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
FL: Flow switch.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
AVX: Spring anti-vibration supports.

ACCESSORIES COMPATIBILITY

Model	Ver	1310	1490	2310	2490	3310	3400	3490	4400	4490
AER485P1	A,U	•	•	•	•	•	•	•	•	•
AERBACP	A,U	•	•	•	•	•	•	•	•	•
FL	A,U	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	A,U	•	•	•	•	•	•	•	•	•

With the MULTICHILLER_EVO accessory, it is necessary to add AER485P1 for each connected unit.

Antivibration

Ver	1310	1490	2310	2490	3310	3400	3490	4400	4490
A,U	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)	AVX (1)

(1) Contact us.

CONFIGURATOR

Field		Description
1,2,3		**WTG**
4,5,6,7		**Size** 1310, 1490, 2310, 2490, 3310, 3400, 3490, 4400, 4490
8		**Version**
	A	High efficiency
	U	Very high efficiency
9		**Exchanger**
	1	One pass on water side
	2	Two passes on water side
10		**Set-up**
	°	Standard
	L	Silenced
11		**Power supply**
	°	400V ~ 3 50Hz with circuit breakers on compressors and auxiliary circuit
12		**Refrigerant gas**
	°	R1234ze

EXCHANGERS

Over-sized tube core exchangers ensure excellent performances at full and partial loads.

Flooded evaporator: with level adjustment through an electronic valve controlled by a level sensor.

Backflow condenser: with refrigerant on shell side and water on tube side.

From size 1310 to 2490, heat exchangers have 2 passes on the water side

Starting from size WTX 3310, heat exchangers are available as versions with one or two passes on the water side, to meet any plant installation requirement. **The dimensions of the two configurations ensure similar performances** (same approach to heat exchangers). **The difference is that the version with two passes on the water side due offers the convenience of water connections all on the same side**, against a generally higher but nonetheless limited drop in pressure compared to the version with one pass on the water side.



PERFORMANCE SPECIFICATIONS

WTG - A

Size		1310	1490	2310	2490	3310	3400	3490	4400	4490
Exchanger: 1										
Cooling performance 12 °C / 7 °C (1)										
Cooling capacity	kW	-	-	-	-	1049,5	1199,4	1409,4	1679,3 (2)	1955,0 (2)
Input power	kW	-	-	-	-	194,3	202,4	245,0	286,4	334,3
Cooling total input current	A	-	-	-	-	310,0	324,0	389,0	457,0	532,0
EER	W/W	-	-	-	-	5,40	5,93	5,75	5,86	5,85
Water flow rate system side	l/h	-	-	-	-	180402	206174	242254	288643	336022
Pressure drop system side	kPa	-	-	-	-	24	32	27	29	28
Water flow rate source side	l/h	-	-	-	-	213103	240238	283553	336857	392518
Pressure drop source side	kPa	-	-	-	-	23	23	24	27	19
Exchanger: 2										
Cooling performance 12 °C / 7 °C (1)										
Cooling capacity	kW	349,7	469,7	699,6	899,3	1049,3	1199,2	1409,2	1679,2 (2)	1958,5 (2)
Input power	kW	66,4	81,4	132,2	158,8	196,5	204,4	248,0	290,2	339,1
Cooling total input current	A	106,0	130,0	211,0	250,0	310,0	324,0	389,0	457,0	532,0
EER	W/W	5,27	5,77	5,29	5,66	5,34	5,87	5,68	5,79	5,78
Water flow rate system side	l/h	60134	80751	120268	154630	180402	206174	242254	288643	336647
Pressure drop system side	kPa	24	14	22	50	45	49	40	44	46
Water flow rate source side	l/h	71250	94518	142500	181033	213103	240238	283553	336857	393148
Pressure drop source side	kPa	23	18	23	32	33	32	42	47	39

(1) Date 14511:2018; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C
(2) Sizes 4400 and 4490 not included in the EUROVENT certification programme because Cooling capacity > 1500 kW

WTG - U

Size		1310	1490	2310	2490	3310	3400	3490	4400	4490
Exchanger: 1										
Cooling performance 12 °C / 7 °C (1)										
Cooling capacity	kW	-	-	-	-	736,7	869,6	999,1	1159,6	1336,9
Input power	kW	-	-	-	-	120,2	140,2	153,5	186,2	211,9
Cooling total input current	A	-	-	-	-	205,0	233,0	254,0	311,0	349,0
EER	W/W	-	-	-	-	6,13	6,20	6,51	6,23	6,31
Water flow rate system side	l/h	-	-	-	-	126626	149476	171729	199301	229777
Pressure drop system side	kPa	-	-	-	-	12	17	14	14	13
Water flow rate source side	l/h	-	-	-	-	147066	173222	197868	230962	265867
Pressure drop source side	kPa	-	-	-	-	16	22	18	19	18
Exchanger: 2										
Cooling performance 12 °C / 7 °C (1)										
Cooling capacity	kW	246,4	334,3	492,9	669,8	736,6	869,5	999,1	1159,5	1342,8
Input power	kW	40,1	50,9	80,1	105,5	120,7	140,3	154,1	187,0	212,7
Cooling total input current	A	69,0	85,0	137,0	173,0	205,0	233,0	254,0	311,0	349,0
EER	W/W	6,15	6,57	6,16	6,35	6,10	6,20	6,48	6,20	6,31
Water flow rate system side	l/h	42371	57462	84741	115160	126626	149476	171729	199301	230804
Pressure drop system side	kPa	12	7	11	28	22	26	20	21	22
Water flow rate source side	l/h	49186	66178	98371	132989	147066	173222	197868	230962	266902
Pressure drop source side	kPa	11	9	11	17	16	16	20	22	18

(1) Date 14511:2018; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C

ELECTRIC DATA

Size			1310	1490	2310	2490	3310	3400	3490	4400	4490
Electric data											
Maximum current (FLA)	A,U	A	150,0	217,0	300,0	434,0	450,0	651,0	651,0	868,0	868,0
Peak current (LRA)	A,U	A	6,0	6,0	156,0	223,0	306,0	440,0	440,0	657,0	657,0

GENERAL TECHNICAL DATA

Size			1310	1490	2310	2490	3310	3400	3490	4400	4490
Compressor											
Type	A,U	type					Centrifugal - Oil Free				
Compressor regulation	A,U	Type					Inverter				
Number	A,U	no.	1	1	2	2	3	3	3	4	4
Circuits	A,U	no.	1	1	1	1	1	1	1	1	1
Refrigerant	A,U	type					R1234ze				

Size			1310	1490	2310	2490	3310	3400	3490	4400	4490
Exchanger: 1											
System side heat exchanger											
Type	A,U	type	-	-	-	-	Shell and tube	Shell and tube	Shell and tube	Shell and tube	Shell and tube
Number	A,U	no.	-	-	-	-	1	1	1	1	1
Source side heat exchanger											
Type	A,U	type	-	-	-	-	Shell and tube	Shell and tube	Shell and tube	Shell and tube	Shell and tube
Number	A,U	no.	-	-	-	-	1	1	1	1	1
Exchanger: 2											
System side heat exchanger											
Type	A,U	type					Shell and tube				
Number	A,U	no.	1	1	1	1	1	1	1	1	1
Source side heat exchanger											
Type	A,U	type					Shell and tube				
Number	A,U	no.	1	1	1	1	1	1	1	1	1

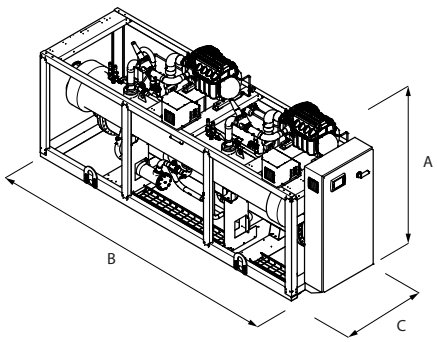
SOUND DATA

Size			1310	1490	2310	2490	3310	3400	3490	4400	4490
Set-up: °											
Sound data calculated in cooling mode (1)											
Sound power level	A	dB(A)	89,0	91,0	92,0	94,0	94,0	93,0	96,0	94,0	97,0
	U	dB(A)	86,0	88,0	89,0	91,0	91,0	93,0	93,0	94,0	94,0

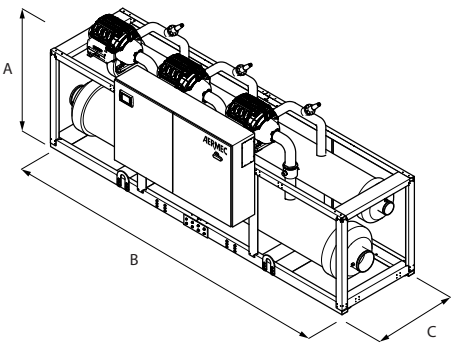
(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS

WTG 1300 - 2350



WTG 3300 - 4350



Size			1300	1350	2300	2350	3300	3325	3350	4325	4350
Exchanger: 1											
Dimensions and weights											
A	A,U	mm	-	-	-	-	1970	2010	2010	2010	2280
B	A,U	mm	-	-	-	-	4966	4966	4966	4966	4966
C	A,U	mm	-	-	-	-	1640	1640	1640	1640	1732
Empty weight	A,U	kg	-	-	-	-	4090	4430	5120	5690	6640
Weight functioning	A,U	kg	-	-	-	-	4430	4810	5620	6250	7450
Exchanger: 2											
Dimensions and weights											
A	A,U	mm	1850	1950	1970	2010	2240	2280	2280	2280	2280
B	A,U	mm	3040	3040	3340	3440	3990	3990	3990	4966	4966
C	A,U	mm	1000	1000	1240	1240	1732	1732	1836	1836	1836
Empty weight	A,U	kg	2190	2370	2770	3390	5440	5730	6630	7200	7380
Weight functioning	A,U	kg	2350	2560	3010	3740	6170	6480	7540	8160	8400

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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MULTI-PURPOSE

Thanks to the special architecture of the refrigerant circuit and advanced control logic, the multi-purpose heat pump is able to simultaneously satisfy different installation requirements and to independently modulate the power delivered on each of them.

The ability to simultaneously meet the demand of the hot and cold circuit, whatever the proportion of the load on the two circuits may be, derives from the capacity of its control to switch the operation between the various possible modes.

MULTI-PURPOSE

		Air flow rate (m^3/h)	Cool. Cap. (kW)	Heat. Cap. (kW)	Page
NRP 0200-0750	Air-water multipurpose (plate heat exchanger)	-	43-185	46-205	772
NRP 0804-3606	Air-water multipurpose (plate heat exchanger)	-	207-963	208-988	779
CPS	Multifunction unit with multiple temperature level capability	-	164-491	176-505	790
NXP 0500-1650	Water-water multipurpose (plate heat exchanger)	-	108-502	122-549	795

NRP 0200-0750

Air-water multipurpose

Cooling capacity 43 ÷ 185 kW
Heating capacity 46 ÷ 205 kW

- **High efficiency also at partial loads**
- **Units designed for 2 or 4-pipe systems**
- **Simultaneous and independent production of hot and chilled water**
- **Compact dimensions**



DESCRIPTION
Multipurpose external units designed for 2 or 4-pipe systems. With just one unit simultaneous and independent requests for hot and chilled water can be accommodated all year round.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS
A High efficiency
E Silenced high efficiency

FEATURES

Operating field
Working at full load up to -15 °C outside air temperature in winter, and up to 46 °C in summer. Hot water production up to 55 °C (for more details refer to the selection software and technical documentation).

Dual-circuit unit
The units are dual-circuit, to ensure maximum efficiency both at full load and at partial load.

Condensation control temperature
Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures, adapting the air flow rate to the actual system request in order to reduce consumption.

Option integrated hydronic kit
To obtain a solution that offers economic savings and easy installation, these units can be configured with an integrated hydronic kit on both the service side and the recovery side.
The kit contains the main hydraulic components, and is available in various configurations with a single pump or a standby pump too, so the customer can choose the right useful head.

CONTROL PCO[5]
Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.
— Possibility to control two units in a Master-Slave configuration
— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
— The temperature control takes place with the integral proportional logic, based on the water output temperature.

ACCESSORIES
AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PGD1: Allows you to control the unit at a distance.
GP: Anti-intrusion grid.
VT: Anti-vibration supports.

FACTORY FITTED ACCESSORIES
DRE: Electronic device for peak current reduction.
RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

ACCESSORIES COMPATIBILITY

Model	Ver	0200	0240	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
AER485P1	A							•	•	•	•	•	•
	E	•	•	•	•	•	•	•	•	•	•	•	•
AERBACP	A							•	•	•	•	•	•
	E	•	•	•	•	•	•	•	•	•	•	•	•
AERNET	A							•	•	•	•	•	•
	E	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	A							•	•	•	•	•	•
	E	•	•	•	•	•	•	•	•	•	•	•	•
PGD1	A							•	•	•	•	•	•
	E	•	•	•	•	•	•	•	•	•	•	•	•

Anti-intrusion grid

Ver	0200	0240	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
A	-	-	-	-	-	-	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP10 x 3 (1)
E	GP3	GP3	GP3	GP4	GP4	GP4	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 2 (1)	GP2 x 3 (1)	GP10 x 3 (1)

(1) x _ indicates the quantity to buy

Antivibration

Version	Integrated hydronic kit, user side	Integrated hydronic kit, recovery side	0200	0240	0280
A	00	00,R1,R2,R3,R4	-	-	-
A	01,02,03,04,05,06,07,08	00	-	-	-
A	P1,P2,P3,P4	00,R1,R2,R3,R4	-	-	-
E	00,P1,P2,P3,P4	00,R1,R2,R3,R4	VT17	VT17	VT17
E	01,02,03,04,05,06,07,08	00	VT13	VT13	VT13

Version	Integrated hydronic kit, user side	Integrated hydronic kit, recovery side	0300	0330	0350
A	00	00,R1,R2,R3,R4	-	-	-
A	01,02,03,04,05,06,07,08	00	-	-	-
A	P1,P2,P3,P4	00,R1,R2,R3,R4	-	-	-
E	00,P1,P2,P3,P4	00,R1,R2,R3,R4	VT17	VT17	VT17
E	01,02,03,04,05,06,07,08	00	VT13	VT13	VT13

Version	Integrated hydronic kit, user side	Integrated hydronic kit, recovery side	0500	0550	0600
A	00	00,R1,R2,R3,R4	VT11	VT11	VT11
A	01,02,03,04,05,06,07,08	00	VT11	VT11	VT11
A	P1,P2,P3,P4	00,R1,R2,R3,R4	VT11	VT11	VT11
E	00	00,R1,R2,R3,R4	VT11	VT11	VT11
E	01,02,03,04,05,06,07,08	00	VT11	VT11	VT11
E	P1,P2,P3,P4	00,R1,R2,R3,R4	VT11	VT11	VT11

Version	Integrated hydronic kit, user side	Integrated hydronic kit, recovery side	0650	0700	0750
A	00	00,R1,R2,R3,R4	VT11	VT22	VT23
A	01,02,03,04,05,06,07,08	00	VT11	VT22	VT23
A	P1,P2,P3,P4	00,R1,R2,R3,R4	VT11	VT22	VT23
E	00	00,R1,R2,R3,R4	VT11	VT22	VT23
E	01,02,03,04,05,06,07,08	00	VT11	VT22	VT23
E	P1,P2,P3,P4	00,R1,R2,R3,R4	VT11	VT22	VT23

- not available

Device for peak current reduction

Ver	0200	0240	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Power supply: °												
A	-	-	-	-	-	-	DRE501 (1)	DRE551 (1)	DRE601 (1)	DRE651 (1)	DRE701 (1)	DRE751 (1)
E	DRE281 (1)	DRE281 (1)	DRE281 (1)	DRE301 (1)	DRE331 (1)	DRE351 (1)	DRE501 (1)	DRE551 (1)	DRE601 (1)	DRE651 (1)	DRE701 (1)	DRE751 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
A grey background indicates the accessory must be assembled in the factory

Power factor correction

Ver	0200	0240	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
A	-	-	-	-	-	-	RIF52	RIF52	RIF53	RIF53	RIF53	RIF53
E	RIF54	RIF54	RIF50	RIF50	RIF50	RIF51	RIF52	RIF52	RIF53	RIF53	RIF53	RIF53

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3	**NRP**
4,5,6,7	**Size** 0200, 0240, 0280, 0300, 0330, 0350, 0500, 0550, 0600, 0650, 0700, 0750
8	**Version**
A	High efficiency
E	Silenced high efficiency (1)
9	**System type**
2	2-pipe system
4	4-pipe system
10	**Coils**
°	Copper-aluminium
R	Copper pipes-copper fins
S	Copper pipes-Tinned copper fins
V	Copper pieps-Coated aluminium fins
11	**Fans**
°	Standard (2)
J	Inverter (3)
M	Oversized (4)
12	**Power supply**
°	400V ~ 3N 50Hz with magnet circuit breakers
1	220V ~ 3 50Hz with magnet circuit breakers (5)
13,14	**Integrated hydronic kit, user side**
00	Without hydronic kit
01	Storage tank with low head pump
02	Storage tank with low head pump + stand-by pump
03	Storage tank with high head pump
04	Storage tank with high head pump + stand-by pump
05	Storage tank with holes for heaters and single low head pump (6)
06	Storage tank with holes for heaters and pump low head + stand-by pump (6)
07	Storage tank with holes for heaters and single high head pump (6)
08	Storage tank with holes for heaters and pump high head + stand-by pump (6)
P1	Single pump low head
P2	Pump low head + stand-by pump
P3	Single pump high head
P4	Pump high head + stand-by pump
15,16	**Integrated hydronic kit, recovery side**
00	Without hydronic kit
R1	Single pump low head
R2	Pump low head + stand-by pump
R3	Single pump high head
R4	Pump high head + stand-by pump

(1) The size up 0200 to 0350 are only available in the silenced versions (E)
(2) As standard in sizes fom 0500 to 0750
(3) Standard for size from 0200 to 0350 without useful static pressure, option for other sizes
(4) Available only for size from 0200 to 0350
(5) Not available for size 0750
(6) Storage tanks with holes for supplementary heaters (not provided) are sent from the factory with plastic protection caps. Before loading the system, if the installation of one or all resistances is not expected, all plastic caps must be replaced with the special caps, commonly commercially available.

PERFORMANCE SPECIFICATIONS

NRP - 2-pipe system version A

Size		0200	0240	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Cooling system side 2-pipe system (1)													
Cooling capacity	kW	-	-	-	-	-	-	99,8	103,7	123,7	140,7	159,7	184,6
Input power	kW	-	-	-	-	-	-	32,4	36,0	44,1	50,5	55,2	64,6
Cooling total input current	A	-	-	-	-	-	-	55,0	59,0	72,0	82,0	88,0	113,0
EER	W/W	-	-	-	-	-	-	3,08	2,89	2,80	2,79	2,89	2,86
Water flow rate system side	l/h	-	-	-	-	-	-	17181	17868	21305	24225	27490	31785
Pressure drop system side	kPa	-	-	-	-	-	-	37	39	37	48	56	67
Heating system side 2-pipe system (2)													
Heating capacity	kW	-	-	-	-	-	-	106,3	112,3	137,3	152,3	173,3	205,4
Input power	kW	-	-	-	-	-	-	32,6	35,1	41,3	45,8	53,8	62,8
Heating total input current	A	-	-	-	-	-	-	55,0	59,0	72,0	82,0	88,0	113,0
COP	W/W	-	-	-	-	-	-	3,26	3,20	3,33	3,33	3,22	3,27
Water flow rate system side	l/h	-	-	-	-	-	-	18423	19466	23810	26417	30067	35629
Pressure drop system side	kPa	-	-	-	-	-	-	43	46	46	57	67	84
Heating domestic hot water side 2-pipe system (3)													
Heating capacity	kW	-	-	-	-	-	-	106,2	112,2	137,3	152,3	173,4	205,3
Input power	kW	-	-	-	-	-	-	32,5	34,9	41,3	45,7	53,5	62,3
Heating total input current	A	-	-	-	-	-	-	55,0	59,0	72,0	82,0	88,0	113,0
COP	W/W	-	-	-	-	-	-	3,27	3,21	3,32	3,34	3,24	3,29
Water flow rate domestic hot water side	l/h	-	-	-	-	-	-	18423	19466	23810	26417	30067	35629
Pressure drop domestic hot water side	kPa	-	-	-	-	-	-	30	34	51	48	35	49
Simultaneous operation (heating + cooling), 2 pipes (4)													
Cooling capacity	kW	-	-	-	-	-	-	103,3	111,3	133,8	148,5	169,2	202,7
Recovered heating power	kW	-	-	-	-	-	-	132,2	142,2	174,3	193,3	218,4	261,3
Input power	kW	-	-	-	-	-	-	30,8	32,9	43,2	48,0	52,5	63,0
Water flow rate system side	l/h	-	-	-	-	-	-	17181	17868	21305	24225	27490	31785
Pressure drop system side	kPa	-	-	-	-	-	-	37	39	37	48	56	67
Water flow rate domestic hot water side	l/h	-	-	-	-	-	-	18423	19466	23810	26417	30067	35629
Pressure drop domestic hot water side	kPa	-	-	-	-	-	-	30	34	51	48	35	49

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C; All units are Eurovent certified
(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.
(3) Water exchanger to the total recovery side 40 °C / 45 °C;
(4) Water exchanger to the total recovery side * / 45 °C; Water to the system side heat exchanger * / 7 °C;

NRP - 2-pipe system version E

Size		0200	0240	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Cooling system side 2-pipe system (1)													
Cooling capacity	kW	42,9	49,9	55,9	63,9	67,9	79,8	94,8	98,8	115,8	130,7	152,7	178,7
Input power	kW	13,9	16,5	18,9	20,8	23,2	27,0	35,2	38,9	48,3	55,5	61,9	70,6
Cooling total input current	A	28,0	33,0	38,0	41,0	45,0	52,0	60,0	64,0	79,0	91,0	99,0	120,0
EER	W/W	3,08	3,02	2,97	3,07	2,93	2,96	2,70	2,54	2,40	2,35	2,47	2,53
Water flow rate system side	l/h	7388	8591	9621	10996	11683	13745	16322	17009	19930	22507	26287	30754
Pressure drop system side	kPa	26	37	22	29	22	31	34	35	32	41	51	63
Heating system side 2-pipe system (2)													
Heating capacity	kW	46,1	53,2	60,1	75,2	80,2	84,2	106,3	112,3	137,3	152,3	173,3	205,4
Input power	kW	13,3	15,6	17,7	22,4	23,9	25,6	32,6	35,1	41,3	45,7	53,8	62,8
Heating total input current	A	28,0	33,0	38,0	41,0	45,0	52,0	60,0	64,0	79,0	91,0	99,0	120,0
COP	W/W	3,47	3,42	3,40	3,36	3,36	3,28	3,26	3,20	3,33	3,33	3,22	3,27
Water flow rate system side	l/h	7995	9211	10428	13035	13904	14599	18423	19466	23812	26417	30067	35629
Pressure drop system side	kPa	30	43	26	41	31	35	43	46	46	56	67	85
Heating domestic hot water side 2-pipe system (3)													
Heating capacity	kW	46,1	53,1	60,1	75,2	80,2	84,1	106,2	112,2	137,3	152,3	173,4	205,3
Input power	kW	13,2	15,4	17,7	22,3	24,0	25,5	32,5	34,9	41,3	45,7	53,5	62,3
Heating total input current	A	28,0	33,0	38,0	41,0	45,0	52,0	60,0	64,0	79,0	91,0	99,0	120,0
COP	W/W	3,49	3,44	3,40	3,37	3,35	3,30	3,27	3,21	3,32	3,34	3,24	3,29
Water flow rate domestic hot water side	l/h	7995	9211	10428	13035	13904	14599	18423	19466	23810	26417	30067	35629
Pressure drop domestic hot water side	kPa	13	17	21	33	38	19	30	34	51	48	35	49
Simultaneous operation (heating + cooling), 2 pipes (4)													
Cooling capacity	kW	45,6	52,4	58,3	68,9	74,0	87,1	103,3	111,4	133,9	148,5	169,2	202,7
Recovered heating power	kW	58,1	67,1	75,1	88,2	95,2	111,1	132,2	142,2	174,3	193,3	218,4	261,3
Input power	kW	13,2	15,5	17,8	20,5	22,5	25,5	30,7	32,8	43,1	47,9	52,5	62,9
Water flow rate system side	l/h	7388	8591	9621	10996	11683	13745	16322	17009	19930	22507	26287	30754
Pressure drop system side	kPa	26	37	22	29	22	31	34	35	32	41	51	63
Water flow rate domestic hot water side	l/h	7995	9211	10428	13035	13904	14599	18423	19446	23810	26417	30067	35629
Pressure drop domestic hot water side	kPa	13	17	21	33	38	19	30	34	51	48	35	49

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C; All units are Eurovent certified
(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.
(3) Water exchanger to the total recovery side 40 °C / 45 °C;
(4) Water exchanger to the total recovery side * / 45 °C; Water to the system side heat exchanger * / 7 °C;

NRP - 4-pipe system version A

Size		0200	0240	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Cooling system side 4-pipe system (1)													
Cooling capacity	kW	-	-	-	-	-	-	99,8	103,7	123,7	140,7	159,7	184,6
Input power	kW	-	-	-	-	-	-	32,4	36,0	44,1	50,5	55,2	64,6
Cooling total input current	A	-	-	-	-	-	-	55,0	59,0	72,0	82,0	88,0	113,0
EER	W/W	-	-	-	-	-	-	3,08	2,89	2,80	2,79	2,89	2,86
Water flow rate system side	l/h	-	-	-	-	-	-	17181	17868	21305	24225	27490	31785
Pressure drop system side	kPa	-	-	-	-	-	-	37	39	37	48	56	67
Heating system side 4-pipe system (2)													
Heating capacity	kW	-	-	-	-	-	-	106,2	112,2	137,3	152,3	173,4	205,3
Input power	kW	-	-	-	-	-	-	32,5	39,9	41,3	45,7	53,5	62,3
Heating total input current	A	-	-	-	-	-	-	55,0	59,0	72,0	82,0	88,0	113,0
COP	W/W	-	-	-	-	-	-	3,27	3,21	3,32	3,34	3,24	3,29
Water flow rate system side	l/h	-	-	-	-	-	-	18423	19466	23810	26417	30067	35629
Pressure drop system side	kPa	-	-	-	-	-	-	30	34	51	48	35	49
Simultaneous operation (heating + cooling), 4 pipes (3)													
Cooling capacity	kW	-	-	-	-	-	-	103,3	111,3	133,8	148,5	169,2	202,7
Recovered heating power	kW	-	-	-	-	-	-	132,2	142,2	174,3	193,3	218,4	261,3
Input power	kW	-	-	-	-	-	-	30,8	32,9	43,2	48,0	52,5	63,0
Water flow rate cold side	l/h	-	-	-	-	-	-	17181	17868	21305	24225	27490	31785
Pressure drop cold side	kPa	-	-	-	-	-	-	37	39	37	48	56	67
Water flow rate hot side	l/h	-	-	-	-	-	-	18423	19466	23810	26417	30067	35629
Pressure drop hot side	kPa	-	-	-	-	-	-	30	34	51	48	35	49

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C
(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.
(3) Water exchanger to the total recovery side * / 45 °C; Water to the system side heat exchanger * / 7 °C;

NRP - 4-pipe system version E

Size		0200	0240	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Cooling system side 4-pipe system (1)													
Cooling capacity	kW	42,9	49,9	55,9	63,9	67,9	79,8	94,8	98,8	115,8	130,7	152,7	178,7
Input power	kW	13,9	16,5	18,9	20,8	23,2	27,0	35,2	38,9	48,3	55,5	61,9	70,6
Cooling total input current	A	28,0	33,0	38,0	41,0	45,0	52,0	60,0	64,0	79,0	91,0	99,0	120,0
EER	W/W	3,08	3,02	2,97	3,07	2,93	2,96	2,70	2,54	2,40	2,35	2,47	2,53
Water flow rate system side	l/h	7388	8591	9621	10996	11683	13745	16322	17009	19930	22507	26287	30754
Pressure drop system side	kPa	26	37	22	29	22	31	34	35	32	41	51	63
Heating system side 4-pipe system (2)													
Heating capacity	kW	46,1	53,1	60,1	75,2	80,2	84,1	106,2	112,2	137,3	152,3	173,4	205,3
Input power	kW	13,2	15,4	17,7	22,3	24,0	25,5	32,5	34,9	41,3	45,7	53,5	62,3
Heating total input current	A	28,0	33,0	38,0	41,0	45,0	52,0	60,0	64,0	79,0	91,0	99,0	120,0
COP	W/W	3,49	3,44	3,40	3,37	3,35	3,30	3,27	3,21	3,32	3,34	3,24	3,29
Water flow rate system side	l/h	7995	9211	10428	13035	13904	14599	18423	19466	23810	26417	30067	35629
Pressure drop system side	kPa	13	17	21	33	38	19	30	34	51	48	35	49
Simultaneous operation (heating + cooling), 4 pipes (3)													
Cooling capacity	kW	45,6	52,4	58,3	68,9	74,0	87,1	103,3	111,4	133,9	148,5	169,2	202,7
Recovered heating power	kW	58,1	67,1	75,1	88,2	95,2	111,1	132,2	142,2	174,3	193,3	218,4	261,3
Input power	kW	13,2	15,5	17,8	20,5	22,5	25,5	30,7	32,8	43,1	47,9	52,5	62,9
Water flow rate cold side	l/h	7388	8591	9621	10996	11683	13745	16322	17009	19930	22507	26287	30754
Pressure drop cold side	kPa	26	37	22	29	22	31	34	35	32	41	51	63
Water flow rate hot side	l/h	7995	9211	10428	13035	13904	14599	18423	19466	23810	26417	30067	35629
Pressure drop hot side	kPa	13	17	21	33	38	19	30	34	51	48	35	49

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C
(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.
(3) Water exchanger to the total recovery side * / 45 °C; Water to the system side heat exchanger * / 7 °C;

ENERGY DATA

Size			0200	0240	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Cooling capacity with low leaving water temp (UE n° 2016/2281)														
SEER	A	W/W	-	-	-	-	-	-	3,62	3,34	3,78	3,83	3,86	3,92
	E	W/W	3,78	3,74	3,77	3,70	3,74	4,00	3,53	3,29	3,67	3,72	3,75	3,76
ηsc	A	%	-	-	-	-	-	-	141,60	130,60	148,00	150,10	151,30	153,70
	E	%	148,20	146,50	147,70	145,00	146,50	157,10	138,10	128,50	143,60	145,70	146,90	147,50
UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (1)														
Pdesignh	A	kW	-	-	-	-	-	-	90,00	95,00	116,00	129,00	147,00	174,00
	E	kW	39,00	45,00	51,00	64,00	68,00	71,00	90,00	95,00	116,00	129,00	147,00	174,00
SCOP	A		-	-	-	-	-	-	3,53	3,50	3,60	3,68	3,55	3,60
	E		3,60	3,53	3,55	3,50	3,50	3,43	3,53	3,50	3,70	3,68	3,55	3,60
ηsh	A	%	-	-	-	-	-	-	138,00	137,00	145,00	144,00	139,00	141,00
	E	%	141,00	138,00	139,00	137,00	137,00	134,00	138,00	137,00	145,00	144,00	139,00	141,00

(1) Efficiencies for low temperature applications (35 °C)

ELECTRIC DATA

Size			0200	0240	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Power supply: °														
Electric data														
Maximum current (FLA)	A	A	-	-	-	-	-	-	76,0	81,0	100,0	112,0	122,0	144,0
	E	A	36,0	41,0	46,0	53,0	58,0	63,0	76,0	81,0	100,0	112,0	122,0	144,0
Peak current (LRA)	A	A	-	-	-	-	-	-	214,0	220,0	232,0	243,0	261,0	320,0
	E	A	119,0	150,0	155,0	184,0	190,0	200,0	214,0	220,0	232,0	243,0	261,0	320,0

GENERAL TECHNICAL DATA

Size			0200	0240	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Compressor														
Type	A	type	-	-	-	-	-	-	Scroll	Scroll	Scroll	Scroll	Scroll	Scroll
	E	type	Scroll											
Number	A	no.	-	-	-	-	-	-	3	3	4	4	4	4
	E	no.	2	2	2	2	2	2	3	3	4	4	4	4
Circuits	A	no.	-	-	-	-	-	-	2	2	2	2	2	2
	E	no.	2	2	2	2	2	2	2	2	2	2	2	2
Refrigerant	A	type	-	-	-	-	-	-	R410A	R410A	R410A	R410A	R410A	R410A
	E	type	R410A											
Refrigerant charge (1)	A	kg	-	-	-	-	-	-	33,0	33,0	-	-	-	-
	E	kg	16,0	16,0	16,0	20,0	20,0	20,0	33,0	33,0	-	-	-	-
2-pipe system - System side heat exchanger (hot/cold)														
Type	A	type	-	-	-	-	-	-	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate
	E	type	Brazed plate											
Number	A	no.	-	-	-	-	-	-	1	1	1	1	1	1
	E	no.	1	1	1	1	1	1	1	1	1	1	1	1
Connections (in/out)	A	Type	-	-	-	-	-	-	G.s.	G.s.	G.s.	G.s.	G.s.	G.s.
	E	Type	G.s.											
Size (in)	A	Ø	-	-	-	-	-	-	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	3"
	E	Ø	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	3"
Size (out)	A	Ø	-	-	-	-	-	-	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	3"
	E	Ø	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	3"
2-pipe system - Recovery side heat exchanger (domestic hot water)														
Type	A	type	-	-	-	-	-	-	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate
	E	type	Brazed plate											
Number	A	no.	-	-	-	-	-	-	2	2	2	2	2	2
	E	no.	2	2	2	2	2	2	2	2	2	2	2	2
Manifold connection (in/out)	A	Type	-	-	-	-	-	-	-	G.s.	G.s.	G.s.	G.s.	G.s.
	E	Type	G.s.											
Manifold diameter (in)	A	Ø	-	-	-	-	-	-	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	3"
	E	Ø	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	3"
Manifold diameter (out)	A	Ø	-	-	-	-	-	-	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	3"
	E	Ø	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	3"
4-pipe system - System side heat exchanger (cold side)														
Type	A	type	-	-	-	-	-	-	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate
	E	type	Brazed plate											
Number	A	no.	-	-	-	-	-	-	1	1	1	1	1	1
	E	no.	1	1	1	1	1	1	1	1	1	1	1	1
Connections (in/out)	A	Type	-	-	-	-	-	-	G.s.	G.s.	G.s.	G.s.	G.s.	G.s.
	E	Type	G.s.											
Size (in)	A	Ø	-	-	-	-	-	-	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	3"
	E	Ø	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	3"
Size (out)	A	Ø	-	-	-	-	-	-	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	3"
	E	Ø	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	3"
4-pipe system - Recovery side heat exchanger (hot side)														
Type	A	type	-	-	-	-	-	-	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate	Brazed plate
	E	type	Brazed plate											
Number	A	no.	-	-	-	-	-	-	2	2	2	2	2	2
	E	no.	2	2	2	2	2	2	2	2	2	2	2	2
Manifold connection (in/out)	A	Type	-	-	-	-	-	-	-	G.s.	G.s.	G.s.	G.s.	G.s.
	E	Type	G.s.											
Manifold diameter (in)	A	Ø	-	-	-	-	-	-	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	3"
	E	Ø	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	3"
Manifold diameter (out)	A	Ø	-	-	-	-	-	-	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	3"
	E	Ø	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	3"

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

G.s. = Grooved joints

FANS DATA

Size			0200	0240	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Fan														
Type	A	type	-	-	-	-	-	-	Axial	Axial	Axial	Axial	Axial	Axial
	E	type	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial	Axial
Number	A	no.	-	-	-	-	-	-	2	2	2	2	3	3
	E	no.	6	6	6	8	8	8	2	2	2	2	3	3
Air flow rate	A	m^3/h	-	-	-	-	-	-	37000	37000	36500	36500	58000	48000
	E	m^3/h	20000	20000	20000	26000	26000	26000	20200	21100	21400	22400	31900	34600

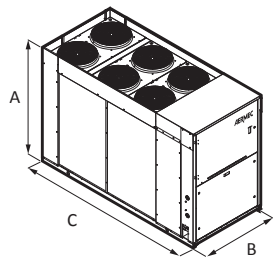
SOUND DATA

Size			0200	0240	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Sound data calculated in cooling mode (1)														
Sound power level	A	dB(A)	-	-	-	-	-	-	82,0	82,0	82,0	83,0	85,0	85,0
	E	dB(A)	74,0	74,0	74,0	75,0	75,0	76,0	74,0	74,0	74,0	75,0	77,0	77,0
Sound pressure level (10 m)	A	dB(A)	-	-	-	-	-	-	50,0	50,0	50,0	51,0	53,0	53,0
	E	dB(A)	42,0	42,0	42,0	43,0	43,0	44,0	42,0	42,0	42,0	43,0	45,0	45,0

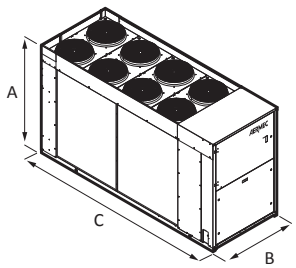
(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS

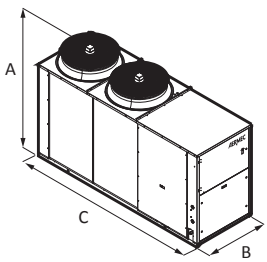
NRP 0200 - 0280



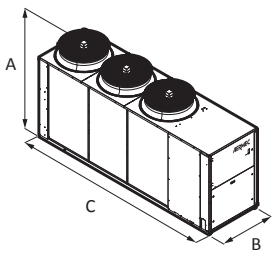
NRP 0300 - 0350



NRP 0500 - 0600



NRP 0700 - 0750



Size			0200	0240	0280	0300	0330	0350	0500	0550	0600	0650	0700	0750
Dimensions and weights														
A	A	mm	-	-	-	-	-	-	1875	1875	1875	1875	1875	1975
	E	mm	1606	1606	1606	1606	1606	1606	1875	1875	1875	1875	1875	1975
B	A	mm	-	-	-	-	-	-	1100	1100	1100	1100	1100	1500
	E	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1500
C	A	mm	-	-	-	-	-	-	3342	3342	3342	3342	4342	4350
	E	mm	2700	2700	2700	3200	3200	3200	3342	3342	3342	3342	4342	4350
Empty weight	A	kg	-	-	-	-	-	-	1233	1237	1359	1378	1591	1939
	E	kg	788	790	792	862	872	894	1233	1237	1359	1378	1591	1939

■ *The weights are for standard units with plate heat exchangers and no hydronic kit.*

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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NRP 0804-3606

Air-water multipurpose

Cooling capacity 207 ÷ 963 kW
Heating capacity 208 ÷ 988 kW

- **Units designed for 2 or 4-pipe systems**
- **High efficiency also at partial loads**
- **Simultaneous and independent production of hot and chilled water**
- **Also available with Shell and tube heat exchanger**



DESCRIPTION

Multipurpose external units designed for 2 or 4-pipe systems. With just one unit simultaneous and independent requests for hot and chilled water can be accommodated all year round.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS

A High efficiency
E Silenced high efficiency

FEATURES

Operating field

Working at full load up to -15 °C outside air temperature in winter, and up to 50 °C in summer. Hot water production up to 55 °C (for more details refer to the selection software and technical documentation).

Dual-circuit unit

The units are dual-circuit, to ensure maximum efficiency both at full load and at partial load.

Exchangers

All the units have plate heat exchangers on service and recovery as standard but, upon request, they can be supplied with a shell & tube heat exchanger as well.
If the customer chooses a unit with tube core exchangers, it is not possible to add a hydronic kit.

Condensation control temperature

Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures, adapting the air flow rate to the actual system request in order to reduce consumption.

Option integrated hydronic kit

To obtain a solution that offers economic savings and easy installation, these units can be configured with an integrated hydronic kit on both the service side and the recovery side.
The kit contains the main hydraulic components, and is available in various configurations with a single pump or a standby pump too, so the customer can choose the right useful head.

The flow switch is available as an accessory for both the system side and the recovery side, and is compulsory; if it is not installed, the warranty will be considered invalid.

Electronic expansion valve

The units from size 1604 to 3606 have an electronic expansion valve as standard.
There are significant benefits in particular when the unit is working with partial loads, increasing the energy efficiency level.

CONTROL PCO[5]

Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.
— Possibility to control two units in a Master-Slave configuration
— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
— The temperature control takes place with the integral proportional logic, based on the water output temperature.

ACCESSORIES

AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
FL: Flow switch.

MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PGD1: Allows you to control the unit at a distance.
AVX: Spring anti-vibration supports.

FACTORY FITTED ACCESSORIES

DRE: Electronic device for peak current reduction.
RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.
GP_: Anti-intrusion grid kit
BRC1: Condensate drip tray. Consider 1 for each V-block.
BRC1R: Condensate drip tray with heater. Consider 1 for each V-block.

ACCESSORIES COMPATIBILITY

Model	Ver	0804	0904	1004	1104	1204	1414	1604	1805	2006	2206	2406	2606	2806	3006	3206	3406	3606
AER485P1	A,E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERBACP	A,E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
AERNET	A,E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
FL	A,E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	A,E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PGD1	A,E	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

	IDR IMP	IDR REC	0804	0904	1004	1104	1204	1414	1604	1805	2006
A	00	00	AVX882	AVX887	AVX887	AVX887	AVX887	AVX871	AVX871	AVX875	AVX875
	PA-DJ	00	AVX886	AVX887	AVX887	AVX887	AVX887	AVX872	AVX872	AVX875	AVX884
	00	RA-SJ	AVX886	AVX887	AVX887	AVX887	AVX883	AVX873	AVX873	AVX876	AVX876
	PA-DJ	RA-SJ	AVX870	AVX883	AVX883	AVX883	AVX883	AVX874	AVX874	AVX876	AVX884
E	00	00	AVX886	AVX871	AVX871	AVX871	AVX871	AVX875	AVX877	AVX878	AVX878
	PA-DJ	00	AVX886	AVX872	AVX872	AVX872	AVX872	AVX875	AVX877	AVX878	AVX865
	00	RA-SJ	AVX870	AVX873	AVX873	AVX873	AVX873	AVX876	AVX877	AVX865	AVX865
	PA-DJ	RA-SJ	AVX870	AVX874	AVX874	AVX874	AVX874	AVX876	AVX877	AVX879	AVX865

	IDR IMP	IDR REC	2206	2406	2606	2806	3006	3206	3406	3606
A	00	00	AVX877	AVX877	AVX865	AVX865	AVX866	AVX866	AVX869	AVX869
	PA-DJ	00	AVX877	AVX885	AVX865	AVX865	AVX866	AVX866	AVX868	AVX868
	00	RA-SJ	AVX885	AVX885	AVX865	AVX865	AVX867	AVX867	AVX869	AVX869
	PA-DJ	RA-SJ	AVX885	AVX885	AVX865	AVX865	AVX867	AVX867	AVX868	AVX868
E	00	00	AVX866	AVX866	AVX869	AVX869	AVX880	AVX880	AVX881	AVX881
	PA-DJ	00	AVX866	AVX866	AVX868	AVX868	AVX880	AVX880	AVX881	AVX881
	00	RA-SJ	AVX867	AVX867	AVX869	AVX869	AVX880	AVX880	AVX888	AVX888
	PA-DJ	RA-SJ	AVX867	AVX867	AVX868	AVX868	AVX880	AVX880	AVX888	AVX888

Device for peak current reduction

Ver	0804	0904	1004	1104	1204	1414	1604	1805	2006
A,E	DRENRP0804	DRENRP0904	DRENRP1004	DRENRP1104	DRENRP1204 (1)	DRENRP1404 (2)	DRENRP1604 (1)	DRENRP1805	DRENRP2006

(1) Only for power supply 400V 3N ~ 50Hz e 400V 3 ~ 50Hz.
(2) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
A grey background indicates the accessory must be assembled in the factory

Ver	2206	2406	2606	2806	3006	3206	3406	3606
A,E	DRENRP2206	DRENRP2406	-	-	-	-	-	-

The accessory cannot be fitted on the configurations indicated with -
A grey background indicates the accessory must be assembled in the factory

Power factor correction

Ver	0804	0904	1004	1104	1204	1414	1604	1805	2006
A	RIFNRP0804A	RIFNRP0904A	RIFNRP1004A	RIFNRP1104A	RIFNRP1204A	RIFNRP1404	RIFNRP1604	RIFNRP1805	RIFNRP2006
E	RIFNRP0804E	RIFNRP0904E	RIFNRP1004E	RIFNRP1104E	RIFNRP1204E	RIFNRP1404	RIFNRP1604	RIFNRP1805	RIFNRP2006

A grey background indicates the accessory must be assembled in the factory

Ver	2206	2406	2606	2806	3006	3206	3406	3606
A,E	RIFNRP2206	RIFNRP2406	RIFNRP2606	RIFNRP2806	RIFNRP3006	RIFNRP3206	RIFNRP3406	RIFNRP3606

A grey background indicates the accessory must be assembled in the factory

Anti-intrusion grid

Ver	0804	0904	1004	1104	1204	1414	1604	1805	2006
A	GP2VN	GP3VN	GP3VN	GP3VN	GP3VN	GP4VN	GP4VN	GP5VN	GP5V
E	GP3VN	GP4VN	GP4VN	GP4VN	GP4VN	GP5VN	GP6V	GP7V	GP7V

A grey background indicates the accessory must be assembled in the factory

Ver	2206	2406	2606	2806	3006	3206	3406	3606
A	GP6V	GP6V	GP7V	GP7V	GP8V	GP8V	GP9VN	GP9VN
E	GP8V	GP8V	GP9VN	GP9VN	GP10V	GP10V	GP11V	GP11V

A grey background indicates the accessory must be assembled in the factory

Ver	0804	0904	1004	1104	1204	1414	1604	1805	2006
A,E	BRC1 (1)	BRC1 (1)	BRC1 (1)	BRC1 (1)	BRC1 (1)	BRC1 (1)	BRC1 (1)	BRC1 (1)	BRC1 (1)

(1) Condensate drip tray. Consider 1 for each V-block.
A grey background indicates the accessory must be assembled in the factory

Ver	2206	2406	2606	2806	3006	3206	3406	3606
A,E	BRC1 (1)	BRC1 (1)	BRC1 (1)	BRC1 (1)	BRC1 (1)	BRC1 (1)	BRC1 (1)	BRC1 (1)

(1) Condensate drip tray. Consider 1 for each V-block.
A grey background indicates the accessory must be assembled in the factory

Ver	0804	0904	1004	1104	1204	1414	1604	1805	2006
A,E	BRC1R (1)	BRC1R (1)	BRC1R (1)	BRC1R (1)	BRC1R (1)	BRC1R (1)	BRC1R (1)	BRC1R (1)	BRC1R (1)

(1) Consider 1 for each V-block.
A grey background indicates the accessory must be assembled in the factory

Ver	2206	2406	2606	2806	3006	3206	3406	3606
A,E	BRC1R (1)	BRC1R (1)	BRC1R (1)	BRC1R (1)	BRC1R (1)	BRC1R (1)	BRC1R (1)	BRC1R (1)

(1) Consider 1 for each V-block.
A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3	**NRP**
4,5,6,7	**Size** 0804, 0904, 1004, 1104, 1204, 1414, 1604, 1805, 2006, 2206, 2406, 2606, 2806, 3006, 3206, 3406, 3606
8	**Version**
A	High efficiency (1)
E	Silenced high efficiency
9	**System type**
2	2-pipe system
4	4-pipe system
10	**Coils**
°	Copper-aluminium
R	Copper pipes-copper fins
S	Copper pipes-Tinned copper fins
V	Copper pieps-Coated aluminium fins
11	**Fans**
°	AC standard
J	EC Inverter motors
12	**Power supply**
°	400V ~ 3 50Hz with magnet circuit breakers
13,14	**Integrated hydronic kit, user side**
00	Without hydronic kit
DA	Pump A + stand-by pump
DB	Pump B + stand-by pump
DC	Pump C + stand-by pump
DD	Pump D + stand-by pump
DE	Pump E + stand-by pump
DF	Pump F + stand-by pump
DG	Pump G + stand-by pump
DH	Pump H + stand-by pump
DI	Pump I + stand-by pump
DJ	Pump J + stand-by pump (2)
PA	Pump A
PB	Pump B
PC	Pump C
PD	Pump D
PE	Pump E
PF	Pump F
PG	Pump G
PH	Pump H
PI	Pump I
PJ	Pump J (2)
15,16	**Integrated hydronic kit, recovery side**
00	Without hydronic kit
RA	Pump A
RB	Pump B
RC	Pump C
RD	Pump D
RE	Pump E
RF	Pump F
RG	Pump G
RH	Pump H
RI	Pump I
RJ	Pump J (2)
SA	Pump A + stand-by pump
SB	Pump B + stand-by pump
SC	Pump C + stand-by pump
SD	Pump D + stand-by pump
SE	Pump E + stand-by pump
SF	Pump F + stand-by pump
SG	Pump G + stand-by pump
SH	Pump H + stand-by pump
SI	Pump I + stand-by pump
SJ	Pump J + stand-by pump (2)

(1) Unit 804 version A cannot be configured with a twin pump on both the system side and the recovery side.
(2) For all configurations including pump J please contact the factory.

PERFORMANCE SPECIFICATIONS

NRP - 2-pipe system version A

Size		0804	0904	1004	1104	1204	1414	1604	1805	2006
Cooling system side 2-pipe system (1)										
Cooling capacity	kW	206,7	230,6	259,2	299,6	332,2	386,3	426,2	490,5	544,3
Input power	kW	69,4	76,3	86,1	99,5	116,2	128,1	146,7	165,5	189,8
Cooling total input current	A	124,0	138,0	155,0	172,0	195,0	218,0	247,0	280,0	319,0
EER	W/W	2,98	3,02	3,01	3,01	2,86	3,02	2,91	2,96	2,87
Water flow rate system side	l/h	35565	39671	44593	51536	57151	66430	73295	84370	93611
Pressure drop system side	kPa	24	33	34	42	43	36	36	49	54
Heating system side 2-pipe system (2)										
Heating capacity	kW	209,9	246,0	272,7	306,2	340,5	396,2	437,6	504,8	562,7
Input power	kW	66,8	79,6	85,5	95,7	107,8	125,7	136,8	159,6	180,8
Heating total input current	A	120,0	143,0	154,0	166,0	183,0	214,0	233,0	272,0	306,0
COP	W/W	3,14	3,09	3,19	3,20	3,16	3,15	3,20	3,16	3,11
Water flow rate system side	l/h	36426	42701	47339	53155	59117	68781	75976	87653	97701
Pressure drop system side	kPa	25	34	39	50	41	52	35	47	51
Heating domestic hot water side 2-pipe system (3)										
Heating capacity	kW	209,9	246,0	272,7	306,2	340,6	396,2	437,6	504,9	562,7
Input power	kW	66,9	79,8	85,6	95,7	108,3	125,4	137,0	159,8	180,9
Heating total input current	A	120,0	143,0	154,0	166,0	183,0	214,0	233,0	272,0	306,0
COP	W/W	3,14	3,08	3,19	3,20	3,15	3,16	3,19	3,16	3,11
Water flow rate domestic hot water side	l/h	36426	42701	47339	53155	59117	68781	75976	87653	97701
Pressure drop domestic hot water side	kPa	34	47	39	49	61	42	44	53	55
Simultaneous operation (heating + cooling), 2 pipes (4)										
Cooling capacity	kW	211,2	236,7	258,2	306,9	350,5	398,0	446,2	510,6	584,4
Recovered heating power	kW	270,3	304,4	331,0	392,1	448,5	510,5	570,1	653,9	749,6
Input power	kW	62,8	72,4	77,7	91,3	105,2	120,2	132,4	153,7	177,2
Water flow rate system side	l/h	35565	39671	44593	51536	57151	66430	73295	84370	93611
Pressure drop system side	kPa	24	33	34	42	43	36	36	49	54
Water flow rate domestic hot water side	l/h	36426	42701	47339	53155	59117	68781	75976	87653	97701
Pressure drop domestic hot water side	kPa	34	47	39	49	61	42	44	53	55

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C; All units are Eurovent certified
(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.
(3) Water exchanger to the total recovery side 40 °C / 45 °C;
(4) Water exchanger to the total recovery side * / 45 °C; Water to the system side heat exchanger * / 7 °C;

NRP - 2-pipe system version A

Size		2206	2406	2606	2806	3006	3206	3406	3606
Cooling system side 2-pipe system (1)									
Cooling capacity	kW	598,2	638,8	699,7	743,3	810,1	853,8	919,4	963,0
Input power	kW	202,0	220,3	235,7	257,3	273,7	295,4	312,1	333,7
Cooling total input current	A	341,0	371,0	403,0	441,0	474,0	511,0	544,0	582,0
EER	W/W	2,96	2,90	2,97	2,89	2,96	2,89	2,95	2,89
Water flow rate system side	l/h	102896	109845	120321	127822	139307	146824	158090	165596
Pressure drop system side	kPa	64	47	43	48	52	57	66	73
Heating system side 2-pipe system (2)									
Heating capacity	kW	618,6	660,8	723,7	772,5	829,5	888,9	940,2	988,2
Input power	kW	199,7	209,7	230,5	247,9	265,5	286,7	304,3	321,9
Heating total input current	A	337,0	356,0	395,0	427,0	462,0	489,0	533,0	565,0
COP	W/W	3,10	3,15	3,14	3,12	3,12	3,10	3,09	3,07
Water flow rate system side	l/h	107407	114743	125675	134158	144044	154357	163276	171605
Pressure drop system side	kPa	62	47	42	48	50	57	63	70
Heating domestic hot water side 2-pipe system (3)									
Heating capacity	kW	618,7	660,8	723,7	772,6	829,5	888,9	940,2	988,2
Input power	kW	199,9	209,9	230,6	248,2	265,8	287,3	304,0	321,6
Heating total input current	A	337,0	356,0	395,0	427,0	462,0	489,0	533,0	565,0
COP	W/W	3,10	3,15	3,14	3,11	3,12	3,09	3,09	3,07
Water flow rate domestic hot water side	l/h	107407	114743	125675	134158	144044	154357	163276	171605
Pressure drop domestic hot water side	kPa	66	50	44	53	56	67	57	66
Simultaneous operation (heating + cooling), 2 pipes (4)									
Cooling capacity	kW	630,2	680,0	736,5	788,3	857,7	909,8	966,0	1019,1
Recovered heating power	kW	810,9	871,0	945,6	1015,4	1098,5	1168,6	1242,9	1313,5
Input power	kW	194,7	204,6	223,6	243,4	258,4	278,4	297,9	317,4
Water flow rate system side	l/h	102896	109845	120321	127822	139307	146824	158090	165596
Pressure drop system side	kPa	64	47	43	48	52	57	66	73
Water flow rate domestic hot water side	l/h	107407	114743	125675	134158	144044	154357	163276	171605
Pressure drop domestic hot water side	kPa	66	50	44	53	56	67	57	66

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C; All units are Eurovent certified
(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.
(3) Water exchanger to the total recovery side 40 °C / 45 °C;
(4) Water exchanger to the total recovery side * / 45 °C; Water to the system side heat exchanger * / 7 °C;

NRP - 2-pipe system version E

Size		0804	0904	1004	1104	1204	1414	1604	1805	2006
Cooling system side 2-pipe system (1)										
Cooling capacity	kW	200,7	225,7	255,3	296,9	332,7	382,2	427,0	487,6	549,9
Input power	kW	66,0	73,4	83,2	96,4	113,0	125,6	139,1	159,0	182,6
Cooling total input current	A	113,0	125,0	142,0	159,0	182,0	203,0	225,0	256,0	294,0
EER	W/W	3,04	3,07	3,07	3,08	2,94	3,04	3,07	3,07	3,01
Water flow rate system side	l/h	34534	38826	43915	51070	57226	65736	73434	83856	94585
Pressure drop system side	kPa	25	33	34	43	44	37	38	49	54
Heating system side 2-pipe system (2)										
Heating capacity	kW	207,4	240,7	262,4	300,7	338,4	389,4	436,7	503,3	567,2
Input power	kW	63,8	74,6	80,5	92,8	104,9	121,1	134,3	155,5	181,7
Heating total input current	A	109,0	126,0	136,0	153,0	170,0	195,0	217,0	250,0	293,0
COP	W/W	3,25	3,22	3,26	3,24	3,23	3,22	3,25	3,24	3,12
Water flow rate system side	l/h	35981	41776	45554	52195	58753	67603	75830	87384	98488
Pressure drop system side	kPa	25	33	37	48	40	50	35	46	52
Heating domestic hot water side 2-pipe system (3)										
Heating capacity	kW	207,3	240,7	262,4	300,7	338,5	389,4	436,8	503,3	567,3
Input power	kW	64,0	74,8	80,5	92,8	105,4	120,8	134,6	155,7	181,9
Heating total input current	A	109,0	126,0	136,0	153,0	170,0	195,0	217,0	250,0	293,0
COP	W/W	3,24	3,22	3,26	3,24	3,21	3,22	3,24	3,23	3,12
Water flow rate domestic hot water side	l/h	35981	41776	45554	52195	58753	67603	75830	87384	98488
Pressure drop domestic hot water side	kPa	34	45	38	48	60	41	44	53	55
Simultaneous operation (heating + cooling), 2 pipes (4)										
Cooling capacity	kW	211,0	236,8	258,3	306,6	350,0	397,8	445,0	509,9	583,9
Recovered heating power	kW	270,0	304,5	331,0	391,9	448,2	510,5	569,2	653,4	749,1
Input power	kW	62,8	72,3	77,6	91,4	105,3	120,3	132,7	153,9	177,3
Water flow rate system side	l/h	34534	38826	43915	51070	57226	65736	73434	83856	94585
Pressure drop system side	kPa	25	33	34	43	44	37	38	49	54
Water flow rate domestic hot water side	l/h	35981	41776	45554	52195	58753	67603	75830	87384	98488
Pressure drop domestic hot water side	kPa	34	45	38	48	60	41	44	53	55

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C; All units are Eurovent certified
(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.
(3) Water exchanger to the total recovery side 40 °C / 45 °C;
(4) Water exchanger to the total recovery side * / 45 °C; Water to the system side heat exchanger * / 7 °C;

NRP - 2-pipe system version E

Size		2206	2406	2606	2806	3006	3206	3406	3606
Cooling system side 2-pipe system (1)									
Cooling capacity	kW	598,5	639,4	695,8	739,2	801,8	844,7	906,4	948,9
Input power	kW	195,9	214,0	230,3	252,1	269,0	291,1	308,1	330,4
Cooling total input current	A	315,0	344,0	375,0	413,0	444,0	482,0	512,0	551,0
EER	W/W	3,05	2,99	3,02	2,93	2,98	2,90	2,94	2,87
Water flow rate system side	l/h	102947	109954	119646	127107	137868	145260	155858	163168
Pressure drop system side	kPa	64	48	43	48	51	57	65	71
Heating system side 2-pipe system (2)									
Heating capacity	kW	618,5	661,8	714,3	763,4	816,0	864,2	922,4	970,1
Input power	kW	199,3	209,7	223,0	240,3	256,1	273,3	293,1	310,5
Heating total input current	A	320,0	338,0	363,0	395,0	424,0	456,0	490,0	521,0
COP	W/W	3,10	3,16	3,20	3,18	3,19	3,16	3,15	3,12
Water flow rate system side	l/h	107379	114913	124046	132574	141707	150072	160181	168462
Pressure drop system side	kPa	62	47	41	47	48	54	61	67
Heating domestic hot water side 2-pipe system (3)									
Heating capacity	kW	618,5	661,8	714,3	763,5	816,0	864,2	922,4	970,1
Input power	kW	199,5	209,9	223,1	240,6	256,5	273,8	292,8	310,3
Heating total input current	A	320,0	338,0	363,0	395,0	424,0	456,0	490,0	521,0
COP	W/W	3,10	3,15	3,20	3,17	3,18	3,16	3,15	3,13
Water flow rate domestic hot water side	l/h	107379	114913	124046	132574	141707	150072	160181	168462
Pressure drop domestic hot water side	kPa	66	50	43	52	55	63	55	63
Simultaneous operation (heating + cooling), 2 pipes (4)									
Cooling capacity	kW	630,2	679,9	737,0	788,9	858,6	911,1	967,3	1018,8
Recovered heating power	kW	810,9	871,0	946,0	1015,9	1099,3	1169,6	1244,0	1313,7
Input power	kW	194,7	204,7	223,3	243,1	258,1	277,8	297,4	317,5
Water flow rate system side	l/h	102947	109954	119646	127107	137868	145260	155858	163168
Pressure drop system side	kPa	64	48	43	48	51	57	65	71
Water flow rate domestic hot water side	l/h	107379	114913	124046	132574	141707	150072	160181	168462
Pressure drop domestic hot water side	kPa	66	50	43	52	55	63	55	63

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C; All units are Eurovent certified
(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.
(3) Water exchanger to the total recovery side 40 °C / 45 °C;
(4) Water exchanger to the total recovery side * / 45 °C; Water to the system side heat exchanger * / 7 °C;

NRP - 4-pipe system version A

Size		0804	0904	1004	1104	1204	1414	1604	1805	2006
Cooling system side 4-pipe system (1)										
Cooling capacity	kW	206,7	230,6	259,2	299,6	332,2	386,3	426,2	490,5	544,3
Input power	kW	69,4	76,3	86,1	99,5	116,2	128,1	146,7	165,5	189,8
Cooling total input current	A	124,0	138,0	155,0	172,0	195,0	218,0	247,0	280,0	319,0
EER	W/W	2,98	3,02	3,01	3,01	2,86	3,02	2,91	2,96	2,87
Water flow rate system side	l/h	35565	39671	44593	51536	57151	66430	73295	84370	93611
Pressure drop system side	kPa	24	33	34	42	43	36	36	49	54
Heating system side 4-pipe system (2)										
Heating capacity	kW	209,9	246,0	272,7	306,2	340,6	396,2	437,6	504,9	562,7
Input power	kW	66,9	79,8	85,6	95,7	108,3	125,4	137,0	159,8	180,9
Heating total input current	A	120,0	143,0	154,0	166,0	183,0	214,0	233,0	272,0	306,0
COP	W/W	3,14	3,08	3,19	3,20	3,15	3,16	3,19	3,16	3,11
Water flow rate system side	l/h	36426	42701	47339	53155	59117	68781	75976	87653	97701
Pressure drop system side	kPa	34	47	39	49	61	42	44	53	55
Simultaneous operation (heating + cooling), 4 pipes (3)										
Cooling capacity	kW	211,2	236,7	258,2	306,9	350,5	398,0	446,2	510,6	584,4
Recovered heating power	kW	270,3	304,4	331,0	392,1	448,5	510,5	570,1	653,9	749,6
Input power	kW	62,8	72,4	77,7	91,3	105,2	120,2	132,4	153,7	177,2
Water flow rate cold side	l/h	35565	39671	44593	51536	57151	66430	73295	84370	93611
Pressure drop cold side	kPa	24	33	34	42	43	36	36	49	54
Water flow rate hot side	l/h	36426	42701	47339	53155	59117	68781	75976	87653	97701
Pressure drop hot side	kPa	34	47	39	49	61	42	44	53	55

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C
(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.
(3) Water exchanger to the total recovery side * / 45 °C; Water to the system side heat exchanger * / 7 °C;

NRP - 4-pipe system version A

Size		2206	2406	2606	2806	3006	3206	3406	3606
Cooling system side 4-pipe system (1)									
Cooling capacity	kW	598,2	638,8	699,7	743,3	810,1	853,8	919,4	963,0
Input power	kW	202,0	220,3	235,7	257,3	273,7	295,4	312,1	333,7
Cooling total input current	A	341,0	371,0	403,0	441,0	474,0	511,0	544,0	582,0
EER	W/W	2,96	2,90	2,97	2,89	2,96	2,89	2,95	2,89
Water flow rate system side	l/h	102896	109845	120321	127822	139307	146824	158090	165596
Pressure drop system side	kPa	64	47	43	48	52	57	66	73
Heating system side 4-pipe system (2)									
Heating capacity	kW	618,7	660,8	723,7	772,6	829,5	888,9	940,2	988,2
Input power	kW	199,9	209,9	230,6	248,2	265,8	287,3	304,0	321,6
Heating total input current	A	337,0	356,0	395,0	427,0	462,0	489,0	533,0	565,0
COP	W/W	3,10	3,15	3,14	3,11	3,12	3,09	3,09	3,07
Water flow rate system side	l/h	107407	114743	125675	134158	144044	154357	163276	171605
Pressure drop system side	kPa	66	50	44	53	56	67	57	66
Simultaneous operation (heating + cooling), 4 pipes (3)									
Cooling capacity	kW	630,2	680,0	736,5	788,3	857,7	909,8	966,0	1019,1
Recovered heating power	kW	810,9	871,0	945,6	1015,4	1098,5	1168,6	1242,9	1313,5
Input power	kW	194,7	204,6	223,6	243,4	258,4	278,4	297,9	317,4
Water flow rate cold side	l/h	102896	109845	120321	127822	139307	146824	158090	165596
Pressure drop cold side	kPa	64	47	43	48	52	57	66	73
Water flow rate hot side	l/h	107407	114743	125675	134158	144044	154357	163276	171605
Pressure drop hot side	kPa	66	50	44	53	56	67	57	66

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C
(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.
(3) Water exchanger to the total recovery side * / 45 °C; Water to the system side heat exchanger * / 7 °C;

NRP - 4-pipe system version E

Size		0804	0904	1004	1104	1204	1414	1604	1805	2006
Cooling system side 4-pipe system (1)										
Cooling capacity	kW	200,7	225,7	255,3	296,9	332,7	382,2	427,0	487,6	549,9
Input power	kW	66,0	73,4	83,2	96,4	113,0	125,6	139,1	159,0	182,6
Cooling total input current	A	113,0	125,0	142,0	159,0	182,0	203,0	225,0	256,0	294,0
EER	W/W	3,04	3,07	3,07	3,08	2,94	3,04	3,07	3,07	3,01
Water flow rate system side	l/h	34534	38826	43915	51070	57226	65736	73434	83856	94585
Pressure drop system side	kPa	25	33	34	43	44	37	38	49	54
Heating system side 4-pipe system (2)										
Heating capacity	kW	207,3	240,7	262,4	300,7	338,5	389,4	436,8	503,3	567,3
Input power	kW	64,0	74,8	80,5	92,8	105,4	120,8	134,6	155,7	181,9
Heating total input current	A	109,0	126,0	136,0	153,0	170,0	195,0	217,0	250,0	293,0
COP	W/W	3,24	3,22	3,26	3,24	3,21	3,22	3,24	3,23	3,12
Water flow rate system side	l/h	35981	41776	45554	52195	58753	67603	75830	87384	98488
Pressure drop system side	kPa	34	45	38	48	60	41	44	53	55
Simultaneous operation (heating + cooling), 4 pipes (3)										
Cooling capacity	kW	211,0	236,8	258,3	306,6	350,0	397,8	445,0	509,9	583,9
Recovered heating power	kW	270,0	304,5	331,0	391,9	448,2	510,5	569,2	653,4	749,1
Input power	kW	62,8	72,3	77,6	91,4	105,3	120,3	132,7	153,9	177,3
Water flow rate cold side	l/h	34534	38826	43915	51070	57226	65736	73434	83856	94585
Pressure drop cold side	kPa	25	33	34	43	44	37	38	49	54
Water flow rate hot side	l/h	35981	41776	45554	52195	58753	67603	75830	87384	98488
Pressure drop hot side	kPa	34	45	38	48	60	41	44	53	55

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C
(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.
(3) Water exchanger to the total recovery side * / 45 °C; Water to the system side heat exchanger * / 7 °C;

NRP - 4-pipe system version E

Size		2206	2406	2606	2806	3006	3206	3406	3606
Cooling system side 4-pipe system (1)									
Cooling capacity	kW	598,5	639,4	695,8	739,2	801,8	844,7	906,4	948,9
Input power	kW	195,9	214,0	230,3	252,1	269,0	291,1	308,1	330,4
Cooling total input current	A	315,0	344,0	375,0	413,0	444,0	482,0	512,0	551,0
EER	W/W	3,05	2,99	3,02	2,93	2,98	2,90	2,94	2,87
Water flow rate system side	l/h	102947	109954	119646	127107	137868	145260	155858	163168
Pressure drop system side	kPa	64	48	43	48	51	57	65	71
Heating system side 4-pipe system (2)									
Heating capacity	kW	618,5	661,8	714,3	763,5	816,0	864,2	922,4	970,1
Input power	kW	199,5	209,9	223,1	240,6	256,5	273,8	292,8	310,3
Heating total input current	A	320,0	338,0	363,0	395,0	424,0	456,0	490,0	521,0
COP	W/W	3,10	3,15	3,20	3,17	3,18	3,16	3,15	3,13
Water flow rate system side	l/h	107379	114913	124046	132574	141707	150072	160181	168462
Pressure drop system side	kPa	66	50	43	52	55	63	55	63
Simultaneous operation (heating + cooling), 4 pipes (3)									
Cooling capacity	kW	630,2	679,9	737,0	788,9	858,6	911,1	967,3	1018,8
Recovered heating power	kW	810,9	871,0	946,0	1015,9	1099,3	1169,6	1244,0	1313,7
Input power	kW	194,7	204,7	223,3	243,1	258,1	277,8	297,4	317,5
Water flow rate cold side	l/h	102947	109954	119646	127107	137868	145260	155858	163168
Pressure drop cold side	kPa	64	48	43	48	51	57	65	71
Water flow rate hot side	l/h	107379	114913	124046	132574	141707	150072	160181	168462
Pressure drop hot side	kPa	66	50	43	52	55	63	55	63

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C
(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.
(3) Water exchanger to the total recovery side * / 45 °C; Water to the system side heat exchanger * / 7 °C;

ENERGY DATA

Size			0804	0904	1004	1104	1204	1414	1604	1805	2006
Fans: °											
Cooling capacity with low leaving water temp (UE n° 2016/2281)											
SEER	A	W/W	3,94	4,04	4,00	3,89	4,03	4,14	4,21	4,23	4,24
	E	W/W	4,22	4,30	4,21	4,08	4,12	4,25	4,24	4,28	4,27
ηsc	A	%	154,60	158,50	156,90	152,80	158,20	162,50	165,50	166,00	166,60
	E	%	166,00	169,00	165,40	160,10	161,70	167,00	166,80	168,20	167,80
UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (1)											
Pdesignh	A	kW	188,98	221,78	246,64	276,68	309,44	358,27	395,99	-	-
	E	kW	184,95	215,78	235,92	269,81	305,13	350,22	391,37	-	-
SCOP	A		3,53	3,27	3,44	3,49	3,60	3,53	3,66	-	-
	E		3,71	3,59	3,69	3,70	3,82	3,70	3,75	-	-
ηsh	A	%	138,30	127,70	134,50	136,70	140,90	138,40	143,60	-	-
	E	%	145,50	140,60	144,70	144,90	149,70	145,20	147,20	-	-
Fans: J											
Cooling capacity with low leaving water temp (UE n° 2016/2281)											
SEER	A	W/W	4,25	4,36	4,32	4,21	4,35	4,47	4,55	4,56	4,58
	E	W/W	4,56	4,64	4,55	4,40	4,45	4,59	4,58	4,62	4,61
ηsc	A	%	167,20	171,40	169,70	165,20	171,10	175,80	179,00	179,50	180,10
	E	%	179,50	182,80	178,80	173,10	174,90	180,60	180,30	181,80	181,50
UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (1)											
Pdesignh	A	kW	188,98	221,78	246,64	276,68	309,44	358,27	395,99	-	-
	E	kW	184,95	215,78	235,92	269,81	305,13	350,22	391,37	-	-
SCOP	A		3,53	3,27	3,44	3,49	3,60	3,53	3,66	-	-
	E		3,71	3,59	3,69	3,70	3,82	3,70	3,75	-	-
ηsh	A	%	138,30	127,70	134,50	136,70	140,90	138,40	143,60	-	-
	E	%	145,50	140,60	144,70	144,90	149,70	145,20	147,20	-	-

(1) Efficiencies for low temperature applications (35 °C)

Size			2206	2406	2606	2806	3006	3206	3406	3606
Fans: °										
Cooling capacity with low leaving water temp (UE n° 2016/2281)										
SEER	A	W/W	4,24	4,25	4,24	4,22	4,24	4,22	4,22	4,23
	E	W/W	4,28	4,28	4,27	4,24	4,27	4,27	4,27	4,23
ηsc	A	%	166,60	166,80	166,80	165,70	166,80	165,90	165,90	166,00
	E	%	168,20	168,00	167,90	166,60	167,70	167,90	168,00	166,30
Fans: J										
Cooling capacity with low leaving water temp (UE n° 2016/2281)										
SEER	A	W/W	4,58	4,59	4,58	4,56	4,58	4,56	4,56	4,56
	E	W/W	4,62	4,62	4,62	4,58	4,61	4,62	4,62	4,57
ηsc	A	%	180,20	180,40	180,40	179,20	180,40	179,40	179,40	179,60
	E	%	181,90	181,70	181,60	180,20	181,30	181,60	181,70	179,80

ELECTRIC DATA

Size			0804	0904	1004	1104	1204	1414	1604	1805	2006
Electric data											
Maximum current (FLA)	A	A	163,0	188,0	205,0	233,0	261,0	303,0	337,0	386,0	427,0
	E	A	170,0	196,0	213,0	241,0	269,0	311,0	352,0	401,0	442,0
Peak current (LRA)	A	A	368,0	431,0	449,0	485,0	513,0	636,0	670,0	638,0	679,0
	E	A	376,0	439,0	456,0	493,0	521,0	644,0	685,0	653,0	694,0

Size			2206	2406	2606	2806	3006	3206	3406	3606
Electric data										
Maximum current (FLA)	A	A	468,0	502,0	550,0	590,0	637,0	677,0	725,0	764,0
	E	A	484,0	518,0	565,0	605,0	653,0	693,0	746,0	786,0
Peak current (LRA)	A	A	801,0	835,0	883,0	923,0	906,0	946,0	994,0	1034,0
	E	A	817,0	851,0	898,0	938,0	922,0	962,0	1015,0	1055,0

GENERAL TECHNICAL DATA

Size			0804	0904	1004	1104	1204	1414	1604	1805	2006
Compressor											
Type	A,E	type					Scroll				
Number	A,E	no.	4	4	4	4	4	4	4	5	6
Circuits	A,E	no.	2	2	2	2	2	2	2	2	2
Refrigerant	A,E	type					R410A				
Potential global heating	A,E	GWP					2088kgCO_2eq				
Refrigerant charge (1)	A	kg	41,1	61,0	61,4	62,7	62,8	83,6	83,6	106,1	107,6
	E	kg	61,0	80,8	81,2	82,9	83,0	103,9	124,1	147,2	149,3
2-pipe system - System side heat exchanger (hot/cold)											
Type	A,E	type					Brazed plate				
Number	A,E	no.	1	1	1	1	1	1	1	1	1
Connections (in/out)	A,E	Type					Grooved joints				
Size (in)	A,E	Ø	3″	3″	3″	3″	3″	4″	4″	4″	4″
Size (out)	A,E	Ø	3″	3″	3″	3″	3″	4″	4″	4″	4″
2-pipe system - Recovery side heat exchanger (domestic hot water)											
Type	A,E	type					Brazed plate				
Number	A,E	no.	2	2	2	2	2	2	2	2	2
Manifold connection (in/out)	A,E	Type					G.s.				
Manifold diameter (in)	A,E	Ø	3″	3″	3″	3″	3″	4″	4″	4″	4″
Manifold diameter (out)	A,E	Ø	3″	3″	3″	3″	3″	4″	4″	4″	4″
4-pipe system - System side heat exchanger (cold side)											
Type	A,E	type					Brazed plate				
Number	A,E	no.	1	1	1	1	1	1	1	1	1
Connections (in/out)	A,E	Type					Grooved joints				
Size (in)	A,E	Ø	3″	3″	3″	3″	3″	4″	4″	4″	4″
Size (out)	A,E	Ø	3″	3″	3″	3″	3″	4″	4″	4″	4″
4-pipe system - Recovery side heat exchanger (hot side)											
Type	A,E	type					Brazed plate				
Number	A,E	no.	2	2	2	2	2	2	2	2	2
Manifold connection (in/out)	A,E	Type					Grooved joints				
Manifold diameter (in)	A,E	Ø	3″	3″	3″	3″	3″	4″	4″	4″	4″
Manifold diameter (out)	A,E	Ø	3″	3″	3″	3″	3″	4″	4″	4″	4″
Fan											
Type	A,E	type					Axial				
Fan motor	A,E	type					On-Off				
Number	A	no.	4	6	6	6	6	8	8	10	10
	E	no.	6	8	8	8	8	10	12	14	14
Air flow rate	A	m^3/h	80000	120000	120000	120000	120000	160000	160000	200000	200000
	E	m^3/h	80000	110000	110000	110000	110000	130000	160000	180000	180000
Sound data calculated in cooling mode (2)											
Sound power level	A	dB(A)	89,5	91,6	91,6	91,6	91,6	93,1	93,1	94,2	94,2
	E	dB(A)	84,6	86,1	86,1	86,1	86,1	87,2	88,2	89,4	89,9

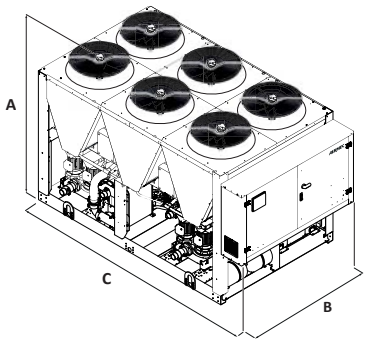
(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

Size			2206	2406	2606	2806	3006	3206	3406	3606
Compressor										
Type	A,E	type				Scroll				
Number	A,E	no.	6	6	6	6	6	6	6	6
Circuits	A,E	no.	2	2	2	2	2	2	2	2
Refrigerant	A,E	type				R410A				
Potential global heating	A,E	GWP				2088kgCO_2eq				
Refrigerant charge (1)	A	kg	129,2	129,2	156,9	161,5	184,8	184,8	207,7	207,7
	E	kg	170,9	170,9	199,9	205,8	229,0	229,0	252,0	252,0
2-pipe system - System side heat exchanger (hot/cold)										
Type	A,E	type				Brazed plate				
Number	A,E	no.	1	1	1	1	1	1	1	1
Connections (in/out)	A,E	Type				Grooved joints				
Size (in)	A,E	Ø	4"	5"	5"	5"	5"	5"	5"	5"
Size (out)	A,E	Ø	4"	5"	5"	5"	5"	5"	5"	5"
2-pipe system - Recovery side heat exchanger (domestic hot water)										
Type	A,E	type				Brazed plate				
Number	A,E	no.	2	2	2	2	2	2	2	2
Manifold connection (in/out)	A,E	Type				G.s.				
Manifold diameter (in)	A,E	Ø	4"	5"	5"	5"	5"	5"	5"	5"
Manifold diameter (out)	A,E	Ø	4"	5"	5"	5"	5"	5"	5"	5"
4-pipe system - System side heat exchanger (cold side)										
Type	A,E	type				Brazed plate				
Number	A,E	no.	1	1	1	1	1	1	1	1
Connections (in/out)	A,E	Type				Grooved joints				
Size (in)	A,E	Ø	4"	5"	5"	5"	5"	5"	5"	5"
Size (out)	A,E	Ø	4"	5"	5"	5"	5"	5"	5"	5"
4-pipe system - Recovery side heat exchanger (hot side)										
Type	A,E	type				Brazed plate				
Number	A,E	no.	2	2	2	2	2	2	2	2
Manifold connection (in/out)	A,E	Type				Grooved joints				
Manifold diameter (in)	A,E	Ø	4"	5"	5"	5"	5"	5"	5"	5"
Manifold diameter (out)	A,E	Ø	4"	5"	5"	5"	5"	5"	5"	5"
Fan										
Type	A,E	type				Axial				
Fan motor	A,E	type				On-Off				
Number	A	no.	12	12	14	14	16	16	18	18
	E	no.	16	16	18	18	20	20	22	22
Air flow rate	A	m^3/h	240000	240000	280000	280000	320000	320000	350000	350000
	E	m^3/h	210000	210000	230000	230000	260000	260000	280000	280000
Sound data calculated in cooling mode (2)										
Sound power level	A	dB(A)	95,1	95,1	95,9	95,9	96,6	96,6	97,2	97,2
	E	dB(A)	91,1	91,6	92,2	92,2	92,7	92,7	93,2	93,2

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

G.s. = Grooved joints

DIMENSIONS



Size			0804	0904	1004	1104	1204	1414	1604	1805	2006
Dimensions and weights											
A	A,E	mm	2450	2450	2450	2450	2450	2450	2450	2450	2450
B	A,E	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200
C	A	mm	2780	3970	3970	3970	3970	4760	4760	5950	6350
	E	mm	3970	4760	4760	4760	4760	5950	7140	8330	8330

Size			2206	2406	2606	2806	3006	3206	3406	3606
Dimensions and weights										
A	A,E	mm	2450	2450	2450	2450	2450	2450	2450	2450
B	A,E	mm	2200	2200	2200	2200	2200	2200	2200	2200
C	A	mm	7140	7140	8330	8330	9520	9520	10710	10710
	E	mm	9520	9520	10710	10710	11900	11900	13090	13090

Size			0804	0904	1004	1104	1204	1414	1604	1805	2006
System type: 2											
Weights											
Empty weight	A	kg	2642	3152	3262	3452	3722	4409	4569	5419	5829
	E	kg	3072	3712	3822	4012	4282	4879	5449	6359	6789
System type: 4											
Weights											
Empty weight	A	kg	2632	3132	3252	3442	3692	4379	4539	5389	5799
	E	kg	3052	3692	3812	4002	4252	4849	5419	6319	6759

Size			2206	2406	2606	2806	3006	3206	3406	3606
System type: 2										
Weights										
Empty weight	A	kg	6479	6756	7436	7566	8356	8426	9076	9156
	E	kg	7469	7736	8356	8486	9186	9256	9916	9996
System type: 4										
Weights										
Empty weight	A	kg	6449	6716	7376	7506	8296	8366	8976	9056
	E	kg	7429	7706	8296	8426	9116	9196	9816	9896

The weights are for standard units with plate heat exchangers and no hydronic kit.

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CPS

Multifunction unit with multiple temperature level capability

Cooling capacity 164 ÷ 491 kW
Heating capacity 176 ÷ 505 kW

- **Multipurpose 6 pipes plug and play system**
- **Simultaneous and independent production of chilled water, medium temperature hot water and high temperature hot water (also suitable for domestic use)**
- **Uses heat recovery for simultaneous cooling and heating**



DESCRIPTION

The multi-purpose 6-pipe units CPS are designed for residential buildings and accommodation facilities that require the simultaneous availability of heating and cooling for the rooms, along with high-temperature water (up to 73°C on the machine outlet) for heating needs and/or DHW production.
Each single service (cooling, medium-temperature heating, high-temperature hot water) can be supplied independently of the request for the others.
The versatile functions, extended operating limits and simplified installation of these units mean that they can also be used in a variety of different industrial processes.
CPS the ideal solution for both new installations and upgrading existing systems.

FEATURES

Operating field

Possibility to produce water up to 73°C, using mainly free-heating for cooling requests.

2 dual circuit units

Created by combining and optimising, in a single system, an NRP series 4-pipe multifunction air-water unit (with scroll compressors and R410A refrigerant) **for the production of chilled water and medium temperature hot water on the heating/cooling circuit side,** and a WWB series water-water heat pump (with scroll compressors and R134a refrigerant) **for the production of domestic hot water (DHW).**

Constructional characteristics of unit

CPS units can be installed and operated even in locations with limit space, offering significant time savings in terms of both system planning and installation, while tried-and-tested, optimised management logic makes it possible to create plug-and-play systems with superior reliability and efficiency.
These units consist of:
4 cooling circuits
— 2 circuits (C1/C2) with R410A gas
— 2 circuits (C2/C3) with R134a gas
3 plate heat exchanger
— 1 Plate heat exchanger for chilled water
— 1 Plate heat exchanger for medium temperature hot water
— 1 Inspectable **stainless steel** plate heat exchanger for high temperature hot water production (DHW)
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

Condensation control temperature

Fitted as standard with a device for electronic condensation control so that the unit can work even with low temperatures, adapting the air flow rate to the actual system request in order to reduce consumption.

Option integrated hydronic kit

To create a solution which offers both cost savings and facilitated installation, these units may be configured with an integrated hydronic kit on the chilled water utility side. A hydronic kit must always be used, however, on the medium temperature water side.
These kits include all the main plumbing components necessary, and are available in a variety of configurations with either a single pump or with a backup pump to offer a choice of different total head values.

Flow switches must be installed on both the cold and medium temperature water utility circuits to protect the heat exchangers. Failure to do so will render the warranty null and void.

CONTROL PCO[5]

Microprocessor adjustment, with 7", touch screen keyboard, which allows to navigate intuitively among the various screens, allowing to modify the operating parameters and graphically view the progress of some variables in real time and the ad adjustment includes complete management of the alarms and their log.
— Possibility to control two units in a Master-Slave configuration
— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.

— The temperature control takes place with the integral proportional logic, based on the water output temperature.
— **Floating HP control:** Allows, with continuous fan modulation, to optimize the operation of the unit in any operating point, ensuring an increase in the energy efficiency at partial load. **ESEER up to +7% with inverter fans**
— **Night Mode:** it is possible to set a silenced operation profile. Perfect for night operation since it guarantees greater acoustic comfort in the evenings, and a high efficiency in the time of greater load.

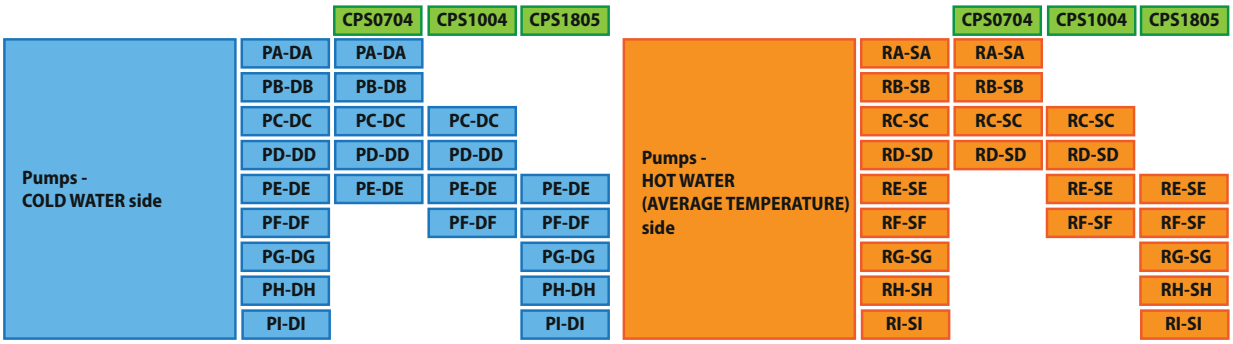
CONFIGURATOR

Field		Description
1,2,3		**CPS**
4,5,6,7		**Size** 0704, 1004, 1805
8		**Coils**
	°	Copper-aluminium
	R	Copper pipes-copper fins
	S	Copper pipes-Tinned copper fins
	V	Copper pieps-Coated aluminium fins
9		**Fans**
	°	Asynchronous + DCPX
	J	Inverter
10		**Power supply**
	°	400V ~ 3 50Hz with magnet circuit breakers
	S	400V ~ 3 50Hz with soft-start
11,12		**Hydronic kit integrated on chilled water utility side**
	00	Without hydronic kit
	DA	Pump A + stand-by pump
	DB	Pump B + stand-by pump
	DC	Pump C + stand-by pump
	DD	Pump D + stand-by pump
	DE	Pump E + stand-by pump
	DF	Pump F + stand-by pump
	DG	Pump G + stand-by pump
	DH	Pump H + stand-by pump
	DI	Pump I + stand-by pump
	PA	Pump A
	PB	Pump B
	PC	Pump C
	PD	Pump D
	PE	Pump E
	PF	Pump F
	PG	Pump G
	PH	Pump H
	PI	Pump I
13,14		**Hydronic kit integrated on medium temperature water utility side**
	RA	Pump A
	RB	Pump B
	RC	Pump C
	RD	Pump D
	RE	Pump E
	RF	Pump F
	RG	Pump G
	RH	Pump H
	RI	Pump I
	SA	Pump A + stand-by pump
	SB	Pump B + stand-by pump
	SC	Pump C + stand-by pump
	SD	Pump D + stand-by pump
	SE	Pump E + stand-by pump
	SF	Pump F + stand-by pump
	SG	Pump G + stand-by pump
	SH	Pump H + stand-by pump
	SI	Pump I + stand-by pump

COMPATIBILITY BETWEEN DIFFERENT HYDRONIC KITS

These kits include all the main plumbing components necessary, and are available in a variety of configurations with either a single pump or with a backup pump to offer a choice of different total head values.

The following table illustrates the compatibility between different unit sizes and the hydronic kits.
All units must be configured with the medium temperature water side hydronic kit.



PERFORMANCE SPECIFICATIONS

		CPS0704°°°00RA	CPS1004°°°00RC	CPS1805°°°00RE
Household system side cooling (1)				
Cooling capacity	kW	163,9	259,2	490,5
Input power	kW	53,2	86,3	165,7
Cooling total input current	A	97,0	128,0	239,0
EER	W/W	3,08	3,00	2,96
Water flow rate system side	l/h	28212	44593	84370
Pressure drop system side	kPa	32	34	49
Medium temperature system heating (2)				
Heating capacity	kW	175,2	271,8	503,5
Input power	kW	55,8	86,5	161,7
Heating total input current	A	104,0	136,0	250,0
COP	W/W	3,14	3,14	3,11
Water flow rate system side	l/h	30521	47339	87653
Useful head system side	kPa	99,0	120,0	113,0
High temperature system side heating (DHW) (3)				
Heating capacity (DHW)	kW	90,7	177,4	251,9
Input power	kW	48,4	85,3	144,3
Heating total input current	A	88,0	134,0	211,0
COP	W/W	1,87	2,08	1,75
Water flow rate domestic hot water side	l/h	7897	15442	21924
Pressure drop domestic hot water side	kPa	30	40	39
Simultaneous operation (cooling + medium temperature heating) (4)				
Cooling capacity	kW	163,3	258,3	466,2
Heating capacity	kW	207,8	330,2	600,6
Input power	kW	48,4	78,7	147,7
Total input current	A	92	136	253
TER	W/W	7,66	7,47	7,22
Water flow rate cold side	l/h	28212	45593	84370
Pressure drop cold side	kPa	32	34	49
Water flow rate hot side	l/h	30521	47339	87653
Useful head system side	kPa	99,0	120,0	113,0
Simultaneous operation (cooling + high temperature DHW production) (5)				
Cooling capacity	kW	160,0	250,0	463,5
Heating capacity (DHW)	kW	90,7	177,4	251,9
Input power	kW	70,7	124,1	217,0
Total input current	A	126	191	333
TER	W/W	3,54	3,45	3,30
Water flow rate cold side	l/h	27536	43003	79720
Pressure drop cold side	kPa	30	31	44
Water flow rate domestic hot water side	l/h	7899	15442	21924
Pressure drop domestic hot water side	kPa	30	40	39
Simultaneous operation (medium temperature heating + high temperature DHW production) (6)				
Heating capacity	kW	101,4	129,5	304,2
Heating capacity (DHW)	kW	90,5	177,0	251,3
Input power	kW	73,7	123,9	215,6
Total input current	A	137	196	341
TER	W/W	2,60	2,47	2,58
Water flow rate hot side	l/h	17696	22604	53038
Useful head system side	kPa	158,0	189,0	256,0
Water flow rate domestic hot water side	l/h	7897	15442	21924
Pressure drop domestic hot water side	kPa	30	40	39
Simultaneous operation (cooling + medium temperature heating + high temperature DHW production) (7)				
Cooling capacity	kW	163,3	258,3	466,2
Heating capacity	kW	134,0	187,9	401,4
Heating capacity (DHW)	kW	90,5	177,0	251,3
Total input power	kW	66,7	116,6	204,1
Total input current	A	125	199	347
TER	W/W	5,81	5,35	5,48
Water flow rate cold side	l/h	28212	44593	84370
Pressure drop cold side	kPa	32	34	49
Water flow rate hot side	l/h	30521	47339	87653
Useful head system side	kPa	99,0	120,0	113,0
Water flow rate domestic hot water side	l/h	7897	15442	21924
Pressure drop domestic hot water side	kPa	30	40	39

(1) Data 14511:2018; System side water heat exchanger 12 °C/7 °C; External air 35 °C
(2) Data 14511:2018; System side water heat exchanger 40 °C/ 45 °C; Outside air 7 °C d.b. / 6 °C w.b.
(3) Data 14511:2018; Heat exchanger - services side (DHW at high temperature) 55°C / 65°C; Outside air 7°C D.B./6°C W.B.
(4) Water exchanger to the total recovery side * / 45 °C; Water to the system side heat exchanger * / 7 °C;
(5) Data 14511:2018; Heat exchanger water (services side) 12°C / 7°C; outside air 35°C; Heat exchanger water (DHW side) 55°C / 65°C
(6) Data 14511:2018; Heat exchanger water (services side) * °C / 45°C; Outside air 7°C D.B./6°C W.B.; Heat exchanger water (DHW side) 55°C / 65°C
(7) Heat exchanger - services side (cold water) * / 7°C; Heat exchanger - services side (hot water at average temperature) * / 45°C; Heat exchanger - services side (hot water at high temperature) 55°C / 65°C

ENERGY DATA

		CPS0704°°°00RA	CPS1004°°°00RC	CPS1805°°°00RE
Cooling capacity with low leaving water temp (UE n° 2016/2281)				
SEER	W/W	-	-	4,56
ηsc	%	-	-	180%
UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (1)				
Pdesignh	kW	150	241	-
SCOP		2,66	2,76	-
ηsh	%	103%	107%	-
UE 813/2013 performance in average ambient conditions (average) - 35 °C - Pdesignh ≤ 400 kW (2)				
Pdesignh	kW	158	246	-
SCOP		3,26	3,44	-
ηsh	%	128%	135%	-

(1) Efficiencies for average temperature applications (55 °C)
(2) Efficiencies for low temperature applications (35 °C)

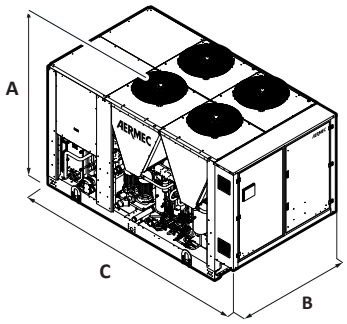
ELECTRIC DATA

		CPS0704°°°00RA	CPS1004°°°00RC	CPS1805°°°00RE
Cooling only mode				
Maximum current (FLA)	A	153,0	220,0	420,0
Peak current (LRA)	A	293,0	459,0	746,0
Medium temperature heating mode operation only				
Maximum current (FLA)	A	153,0	220,0	420,0
Peak current (LRA)	A	293,0	459,0	746,0
High temperature DHW production operating mode only)				
Maximum current (FLA)	A	121,0	203,0	320,0
Peak current (LRA)	A	261	442	645
Simultaneous operation (medium temperature heating + cooling)				
Maximum current (FLA)	A	138,0	197,0	381,0
Peak current (LRA)	A	278	436	707
Simultaneous operation (medium temperature heating + high temperature DHW production)				
Maximum current (FLA)	A	197,0	308,0	549,0
Peak current (LRA)	A	337	547	874
Simultaneous operation (cooling + DHW production operating)				
Maximum current (FLA)	A	189,0	300,0	533,0
Peak current (LRA)	A	329	539	858
Simultaneous operation (cooling + medium temperature heating + high temperature DHW production)				
Maximum current (FLA)	A	181,0	284,0	510,0
Peak current (LRA)	A	321	523	835

GENERAL TECHNICAL DATA

		CPS0704°°°00RA	CPS1004°°°00RC	CPS1805°°°00RE
Compressor - Circuit (C1/C2)				
Type	type		Scroll	
Number	no.	4	4	5
Circuits	no.	2	2	2
Refrigerant	type		R410A	
Refrigerant charge	kg	45,0	61,0	106,0
Thermostatic expansion valve	type		Meccanica	
Compressor - Circuit (C3/C4)				
Type	type		Scroll	
Number	no.	2	2	2
Circuits	no.	2	2	2
Refrigerant	type		R134a	
Refrigerant charge	kg	7,0	15,0	20,0
Thermostatic expansion valve	type		Elettronica	
Utility side heat exchanger (cooling)				
Type	type		Brazed plate	
Number	no.	1	1	1
Connections (in/out)	Type		Grooved joints	
Sizes (in/out)	Ø	2" 1/2	3"	4"
Utility side heat exchanger (medium temperature heating)				
Type	type		Brazed plate	
Number	no.	2	2	2
Manifold connection (in/out)	Type		Grooved joints	
Manifold diameter (in/out)	Ø	2" 1/2	3"	4"
Utility side heat exchanger (high temperature heating)				
Type	type		Brazed plate	
Number	no.	1	1	1
Connections (in/out)	Type		Gas	
Sizes (in/out)	Ø		2" M	
Fan				
Type	type		Axial	
Fan motor	type		Asynchronous with phase cut	
Number	no.	4	6	10
Air flow rate	m^3/h	88000	116500	194100

DIMENSIONS



		CPS0704°°°00RA	CPS1004°°°00RC	CPS1805°°°00RE
Dimensions and weights				
A	mm	2450	2450	2450
B	mm	2200	2200	2200
C	mm	3975	5760	8143

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NXP 0500 - 1650

Water-water multipurpose

Cooling capacity 108 ÷ 502 kW
Heating capacity 122 ÷ 549 kW

- **Units designed for 2 or 4-pipe systems**
- **High efficiency also at partial loads**
- **Simultaneous and independent production of hot and chilled water**



DESCRIPTION
Multi-purpose indoor model designed for applications with 2 or 4-pipe systems. Just one unit is capable of satisfying the yearly hot and cold water demand simultaneously and independently.
The base, the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.

VERSIONS
° Standard
L Standard silenced

FEATURES

Operating field
Work at full load with chilled water production from 4 to 18°C at the evaporator and hot water at the condenser up to 55 °C.
(for more information, refer to the technical documentation).

Dual-circuit unit
The units are dual-circuit, to ensure maximum efficiency both at full load and at partial load.

Exchangers
All standard units have user-side heat exchangers and plate recovery, optimised to take advantage of the excellent heat exchange characteristics of the R410A.

Option integrated hydronic kit
To obtain a solution that offers economic savings and easy installation, these units can be configured with an integrated hydronic kit on both the service side and the recovery side.
The kit contains the main hydraulic components, and is available in various configurations with a single pump or a standby pump too, so the customer can choose the right useful head.

The flow switch is available as an accessory for both the system side and the recovery side, and is compulsory; if it is not installed, the warranty will be considered invalid.

CONTROL PCO[5]
Microprocessor adjustment, with keyboard and LCD display,for easy access on the unit is a menu available in several languages.
— Possibility to control two units in a Master-Slave configuration
— The presence of a programmable timer allows functioning time periods and a possible second set-point to be set.
— The temperature control takes place with the integral proportional logic, based on the water output temperature.

ACCESSORIES
AER485P1: RS-485 interface for supervision systems with MODBUS protocol.
AERBACP: Ethernet communication Interface for protocols Bacnet/IP, Modbus TCP/IP, SNMP
AERNET: The device allows the control, the management and the remote monitoring of a Chiller with a PC, smartphone or tablet using Cloud connection. AERNET works as Master while every unit connected is configured as Slave (max. 6 unit); also, with a simple click is possible to save a log file with all the connected unit datas in the personal terminal for post analysis.
FL: Flow switch.
MULTICHILLER_EVO: Control, switch-on and switch-off system of the single chillers where multiple units are installed in parallel, always ensuring constant flow rate to the evaporators.
PGD1: Allows you to control the unit at a distance.
AVX: Spring anti-vibration supports.

FACTORY FITTED ACCESSORIES
DRE: Electronic device for peak current reduction.
RIF: Power factor correction. Connected in parallel to the motor allowing about 10% reduction of input current.

ACCESSORIES COMPATIBILITY

Model	Ver	0500	0550	0600	0650	0700	0750	0800	0900	1000	1250	1400	1500	1650
AER485P1	°,L	•	•	•	•	•	•	•	•	•	•	•	•	•
AERBACP	°,L	•	•	•	•	•	•	•	•	•	•	•	•	•
AERNET	°,L	•	•	•	•	•	•	•	•	•	•	•	•	•
FL	°,L	•	•	•	•	•	•	•	•	•	•	•	•	•
MULTICHILLER_EVO	°,L	•	•	•	•	•	•	•	•	•	•	•	•	•
PGD1	°,L	•	•	•	•	•	•	•	•	•	•	•	•	•

Antivibration

Version	Integrated hydronic kit, user side	Integrated hydronic kit, recovery side	0500	0550	0600	0650	0700	0750	0800	0900	1000	1250	1400	1500	1650
°	°	°	AVX350	AVX350	AVX351	AVX351	AVX351	AVX351	AVX352	AVX352	AVX353	AVX353	AVX353	AVX354	AVX354
°	°	U,V	AVX357	AVX357	AVX358	AVX358	AVX358	AVX359	AVX360	AVX360	AVX361	AVX361	AVX361	AVX361	AVX361
°	M,N	°,U,V,W,Z	AVX357	AVX357	AVX358	AVX358	AVX358	AVX359	AVX360	AVX360	AVX361	AVX361	AVX361	AVX361	AVX361
°	O,P	U,V	AVX357	AVX357	AVX358	AVX358	AVX358	AVX359	AVX360	AVX360	AVX361	AVX361	AVX361	AVX361	AVX361
°	°	W,Z	AVX357	AVX357	AVX359	AVX359	AVX359	AVX359	AVX363	AVX363	AVX364	AVX364	AVX364	AVX364	AVX364
°	O,P	°,W,Z	AVX357	AVX357	AVX359	AVX359	AVX359	AVX359	AVX363	AVX363	AVX364	AVX364	AVX364	AVX364	AVX364
L	°	°	AVX351	AVX351	AVX359	AVX359	AVX359	AVX356	AVX353	AVX353	AVX353	AVX354	AVX354	AVX354	AVX354
L	°	U,V	AVX358	AVX358	AVX359	AVX359	AVX359	AVX360	AVX360	AVX360	AVX361	AVX361	AVX362	AVX362	AVX362
L	M,N	°,U,V	AVX358	AVX358	AVX359	AVX359	AVX359	AVX360	AVX360	AVX360	AVX361	AVX361	AVX362	AVX362	AVX362
L	°,M,N	W,Z	AVX359	AVX359	AVX359	AVX359	AVX359	AVX363	AVX363	AVX364	AVX364	AVX364	AVX364	AVX364	AVX364
L	O,P	°,U,V,W,Z	AVX359	AVX359	AVX359	AVX359	AVX359	AVX363	AVX363	AVX364	AVX364	AVX364	AVX364	AVX364	AVX364

Device for peak current reduction

Ver	0500	0550	0600	0650	0700	0750	0800	0900	1000	1250	1400	1500	1650
°,L	DRE501 (1)	DRE551 (1)	DRE601 (1)	DRE651 (1)	DRE701 (1)	DRE751 (1)	DRE801 (1)	DRE901 (1)	DRE1001 (1)	DRE1251 (1)	DRE1401 (1)	DRE1401 (1)	DRE1401 (1)

(1) Only for supplies of 400V 3N ~ 50Hz and 400V 3 ~ 50Hz. x 2 or x 3 (if present) indicates the quantity to be ordered.
A grey background indicates the accessory must be assembled in the factory

Power factor correction

Ver	0500	0550	0600	0650	0700	0750	0800	0900	1000	1250	1400	1500	1650
°,L	RIF98	RIF98	RIF95	RIF95	RIF95	RIF95	RIF95	RIF96	RIF97	RIF97	RIF97	RIF97	RIF97

A grey background indicates the accessory must be assembled in the factory

CONFIGURATOR

Field	Description
1,2,3	**NXP**
4,5,6,7	**Size** 0500, 0550, 0600, 0650, 0700, 0750, 0800, 0900, 1000, 1250, 1400, 1500, 1650
8	**Operating field**
°	Standard mechanic thermostatic valve
9	**System type**
2	2-pipe system
4	4-pipe system
10	**Version**
°	Standard
L	Standard silenced
11	**Power supply**
°	400V ~ 3 50Hz with magnet circuit breakers
4	220V ~ 3 50Hz with magnet circuit breakers (1)
5	500V ~ 3 50Hz with magnet circuit breakers (2)
12	**Integrated hydronic kit, user side**
°	Without hydronic kit
M	Single pump low head
N	Pump low head + stand-by pump
O	Single pump high head
P	Pump high head + stand-by pump
13	**Integrated hydronic kit, recovery side**
°	Without hydronic kit
U	Single pump low head
V	Pump low head + stand-by pump
W	Single pump high head
Z	Pump high head + stand-by pump

(1) Only for sizes from 0500 to 0700
(2) Only for sizes from 0800 to 1000

PERFORMANCE SPECIFICATIONS

NXP - 2-pipe system versions °/L

Size		0500	0550	0600	0650	0700	0750	0800	0900	1000	1250	1400	1500	1650
Cooling system side 2-pipe system (1)														
Cooling capacity	kW	108,9	117,0	141,5	157,5	192,7	218,5	252,2	281,0	305,8	345,2	392,3	447,2	502,4
Input power	kW	24,0	26,1	30,9	35,1	42,6	48,9	56,0	62,5	66,3	75,7	85,2	98,4	110,3
Cooling input current	A	47,0	50,0	58,0	65,0	84,0	90,0	92,0	101,0	106,0	135,0	149,0	169,0	188,0
EER	W/W	4,54	4,48	4,58	4,49	4,52	4,47	4,51	4,50	4,61	4,56	4,60	4,55	4,55
Water flow rate source side	l/h	22711	24436	29455	32877	40143	45586	52705	58706	63673	71963	81633	93177	104621
Pressure drop source side	kPa	33	37	41	50	59	69	28	34	26	32	36	45	49
Water flow rate system side	l/h	18734	20124	24349	27108	33155	37599	43386	48338	52596	59364	67464	76904	86389
Pressure drop system side	kPa	19	21	21	25	27	29	20	25	19	23	26	32	34
Heating system side 2-pipe system (2)														
Heating capacity	kW	122,4	131,0	158,2	175,7	210,0	238,7	289,0	320,9	352,6	383,7	433,5	489,5	549,4
Input power	kW	29,6	32,0	38,5	43,3	51,7	59,6	70,9	79,3	84,0	91,7	103,4	118,6	132,1
Heating input current	A	54,0	58,0	68,0	76,0	95,0	103,0	112,0	123,0	130,0	154,0	173,0	196,0	217,0
COP	W/W	4,13	4,09	4,11	4,05	4,06	4,00	4,08	4,05	4,20	4,18	4,19	4,13	4,16
Water flow rate source side	l/h	27209	29066	35169	38937	46642	52841	63935	70917	78660	85555	96778	108934	122632
Pressure drop source side	kPa	47	52	58	69	79	92	41	50	39	45	51	62	67
Water flow rate system side	l/h	21232	22726	27452	30476	36453	41427	50177	55720	61233	66632	75270	84987	95403
Pressure drop system side	kPa	25	27	27	32	32	36	27	33	25	29	32	39	42
Heating domestic hot water side 2-pipe system (3)														
Heating capacity	kW	124,5	133,2	161,0	178,8	213,6	242,8	293,3	325,1	354,8	390,1	439,8	496,5	558,6
Input power	kW	29,2	31,6	37,8	42,6	50,9	58,4	70,0	78,4	83,2	91,1	102,6	117,8	131,6
Heating total input current	A	54,0	57,0	67,0	75,0	95,0	103,0	110,0	122,0	129,0	153,0	171,0	194,0	216,0
COP	W/W	4,26	4,21	4,26	4,20	4,19	4,16	4,19	4,15	4,26	4,28	4,29	4,21	4,24
Water flow rate source side	l/h	27905	29767	36085	39952	47734	54174	65416	72379	79441	87568	98845	111238	125462
Pressure drop source side	kPa	37	42	41	50	53	58	42	50	38	46	52	66	70
Water flow rate domestic hot water side	l/h	21604	23109	27936	31015	37062	42149	50928	56446	61601	67743	76363	86215	96994
Pressure drop domestic hot water side	kPa	23	26	25	30	33	36	26	32	23	28	33	40	43
Simultaneous operation (heating + cooling), 2 pipes (4)														
Cooling capacity	kW	96,2	102,5	124,8	138,9	165,4	190,6	225,7	250,3	282,6	308,1	340,2	392,0	444,9
Recovered heating power	kW	123,3	131,9	160,0	178,4	212,6	244,6	290,8	322,7	360,1	392,6	435,1	500,6	566,0
Input power	kW	28,2	30,5	36,5	40,9	49,0	56,2	67,8	75,5	80,9	88,2	99,2	113,9	126,6
Water flow rate system side	l/h	18734	20124	24349	27108	33155	37599	43386	48338	52596	59364	67464	76904	86389
Pressure drop system side	kPa	19	21	21	25	27	29	20	25	19	23	26	32	34
Water flow rate domestic hot water side	l/h	21604	23109	27936	31015	37062	42149	50928	56446	61601	67743	76363	86215	96994
Pressure drop domestic hot water side	kPa	23	26	25	30	33	36	26	32	23	28	33	40	43

(1) Date 14511:2018; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C; All the units are Eurovent certified
(2) Date 14511:2018; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C
(3) Water exchanger to the total recovery side 40 °C / 45 °C; Water source side 10 °C / 7 °C
(4) Water exchanger to the total recovery side * / 45 °C; Water to the system side heat exchanger * / 7 °C;

NXP - 4-pipe system versions °/L

Size		0500	0550	0600	0650	0700	0750	0800	0900	1000	1250	1400	1500	1650
Cooling system side 4-pipe system (1)														
Cooling capacity	kW	108,9	117,0	141,5	154,5	192,7	218,5	252,2	281,0	305,8	345,2	392,3	447,2	502,4
Input power	kW	24,0	26,1	30,9	35,1	42,6	48,9	56,0	62,5	66,3	75,7	85,2	98,4	110,3
Cooling input current	A	47,0	50,0	58,0	65,0	84,0	90,0	92,0	101,0	106,0	135,0	149,0	169,0	188,0
EER	W/W	4,54	4,48	4,58	4,49	4,52	4,47	4,51	4,50	4,61	4,56	4,60	4,55	4,55
Water flow rate source side	l/h	22711	24436	29455	32877	40143	45586	52705	58706	63673	71963	81633	93177	104621
Pressure drop source side	kPa	33	37	41	50	59	69	28	34	26	32	36	45	49
Water flow rate system side	l/h	18734	20124	24349	27108	33155	37599	43386	48338	52596	59364	67464	76904	86389
Pressure drop system side	kPa	19	21	21	25	27	29	20	25	29	23	26	32	34
Heating system side 4-pipe system (2)														
Heating capacity	kW	124,5	133,2	161,0	178,8	213,6	242,8	293,3	325,1	354,8	390,1	439,8	496,5	588,6
Input power	kW	29,2	31,6	37,8	42,6	50,9	58,4	70,0	78,4	83,2	91,1	102,6	117,8	131,6
Heating total input current	A	54,0	57,0	67,0	75,0	95,0	103,0	110,0	122,0	129,0	153,0	171,0	194,0	216,0
COP	W/W	4,26	4,21	4,26	4,20	4,19	4,16	4,19	4,15	4,26	4,28	4,29	4,21	4,24
Water flow rate source side	l/h	27905	29767	36085	39952	47734	54174	65416	72379	79441	87568	98845	111238	125462
Pressure drop source side	kPa	37	42	41	50	53	58	42	50	38	46	52	66	70
Water flow rate system side	l/h	21604	23109	27935	31015	37062	42149	50928	54446	61601	67743	76363	46215	96994
Pressure drop system side	kPa	23	26	25	30	33	36	26	32	23	28	33	40	43
Simultaneous operation (heating + cooling), 4 pipes (3)														
Cooling capacity	kW	96,2	102,5	124,8	138,9	165,4	190,6	225,7	250,3	282,6	308,1	340,2	392,0	444,9
Recovered heating power	kW	123,3	131,9	160,0	178,4	212,6	244,6	290,8	322,7	360,1	392,6	435,1	500,6	566,0
Input power	kW	28,2	30,5	36,5	40,9	49,0	56,2	67,8	75,5	80,9	88,2	99,2	113,4	126,6
Water flow rate cold side	l/h	18734	20124	24349	27108	33155	37599	43386	48338	52596	59364	67464	76904	86389
Pressure drop cold side	kPa	19	21	21	25	27	29	20	25	19	23	26	32	34
Water flow rate hot side	l/h	21604	23109	27936	31015	37062	42149	50928	56446	61601	67743	76363	86215	96944
Pressure drop hot side	kPa	23	26	25	30	33	36	26	32	23	28	33	40	43

(1) Date 14511:2018; Water user side 12 °C / 7 °C; Water source side 30 °C / 35 °C; All the units are Eurovent certified
(2) Date 14511:2018; Water user side 40 °C / 45 °C; Water source side 10 °C / 7 °C
(3) Water exchanger to the total recovery side * / 45 °C; Water to the system side heat exchanger * / 7 °C;

ENERGY INDICES (REG. 2016/2281 EU)

Size			0500	0550	0600	0650	0700	0750	0800	0900	1000	1250	1400	1500	1650
SEER - 12/7 (EN14825: 2018) (1)															
SEER	°,L	W/W	5,25	5,44	5,52	5,43	5,52	5,39	5,61	5,82	6,09	6,00	6,05	6,43	6,45
Seasonal efficiency	°,L	%	207,0%	214,6%	217,8%	214,2%	217,8%	212,6%	221.4%	229,9%	240,5%	237,1%	239,1%	254,2%	254,9%
SEPR - (EN 14825: 2018) High temperature (2)															
SEPR	°,L	W/W	-	-	-	-	-	-	-	7,08	7,30	7,21	7,23	-	-
UE 813/2013 performance in average ambient conditions (average) - 55 °C - Pdesignh ≤ 400 kW (3)															
Pdesignh	°,L	kW	163	173	212	234	280	318	385	-	-	-	-	-	-
SCOP	°,L		4,78	4,68	4,78	4,65	4,65	4,58	4,73	-	-	-	-	-	-
ηsh	°,L	%	183.0%	179.0%	183.0%	178.0%	178.0%	175.0%	181.0%	-	-	-	-	-	-
Energy index															
TER	°,L	W/W	7,77	7,68	7,80	7,75	7,71	7,75	7,62	7,59	7,94	7,94	7,82	7,87	7,99

(1) Calculation performed with FIXED water flow rate and VARIABLE outlet temperature.
(2) Calculation performed with FIXED water flow rate.
(3) Efficiencies for average temperature applications (55 °C)

ELECTRIC DATA

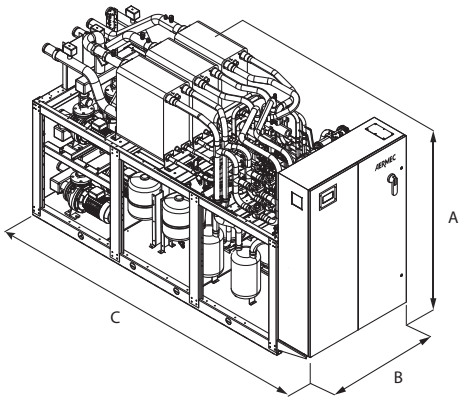
Size			0500	0550	0600	0650	0700	0750	0800	0900	1000	1250	1400	1500	1650
Electric data															
Maximum current (FLA)	°,L	A	71,0	77,0	91,0	102,0	124,0	135,0	163,0	179,0	195,0	208,0	237,0	266,0	295,0
Peak current (LRA)	°,L	A	214,0	220,0	206,0	216,0	267,0	323,0	332,0	340,0	356,0	459,0	488,0	600,0	629,0

GENERAL TECHNICAL DATA

Size			0500	0550	0600	0650	0700	0750	0800	0900	1000	1250	1400	1500	1650
Compressor															
Type	°,L	type							Scroll						
Number	°,L	no.	3	3	4	4	4	4	4	4	4	4	4	4	4
Circuits	°,L	no.	2	2	2	2	2	2	2	2	2	2	2	2	2
Refrigerant	°,L	type							R410A						
2-pipe system - System side heat exchanger (hot/cold)															
Type	°,L	type							Brazed plate						
Number	°,L	no.	1	1	1	1	1	1	1	1	1	1	1	1	1
Connections (in/out)	°,L	Type							Grooved joints						
Sizes (in/out)	°,L	Ø	2″1/2	2″1/2	2″1/2	2″1/2	2″1/2	2″1/2	3″	3″	3″	3″	3″	3″	3″
2-pipe system - Recovery side heat exchanger (domestic hot water)															
Type	°,L	type							Brazed plate						
Number	°,L	no.	1	1	1	1	1	1	1	1	1	1	1	1	1
Connections (in/out)	°,L	Type							Grooved joints						
Sizes (in/out)	°,L	Ø	2″1/2	2″1/2	2″1/2	2″1/2	2″1/2	2″1/2	3″	3″	3″	3″	3″	3″	3″
4-pipe system - System side heat exchanger (cold side)															
Type	°,L	type							Brazed plate						
Number	°,L	no.	1	1	1	1	1	1	1	1	1	1	1	1	1
Connections (in/out)	°,L	Type							Grooved joints						
Sizes (in/out)	°,L	Ø	2″1/2	2″1/2	2″1/2	2″1/2	2″1/2	2″1/2	3″	3″	3″	3″	3″	3″	3″
4-pipe system - Recovery side heat exchanger (hot side)															
Type	°,L	type							Brazed plate						
Number	°,L	no.	1	1	1	1	1	1	1	1	1	1	1	1	1
Connections (in/out)	°,L	Type							Grooved joints						
Sizes (in/out)	°,L	Ø	2″1/2	2″1/2	2″1/2	2″1/2	2″1/2	2″1/2	3″	3″	3″	3″	3″	3″	3″
Sound data calculated in cooling mode (1)															
Sound power level	°	dB(A)	78,0	79,0	79,0	80,0	82,0	86,0	88,0	88,0	88,0	90,0	90,0	92,0	92,0
	L	dB(A)	72,0	73,0	73,0	74,0	76,0	80,0	82,0	82,0	82,0	84,0	84,0	86,0	86,0
Sound pressure level (10 m)	°	dB(A)	46,0	47,0	47,0	48,0	50,0	54,0	56,0	56,0	56,0	58,0	58,0	60,0	60,0
	L	dB(A)	40,0	41,0	41,0	42,0	44,0	48,0	50,0	50,0	50,0	52,0	52,0	54,0	54,0

(1) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS



Size				0500	0550	0600	0650	0700	0750	0800	0900	1000	1250	1400	1500	1650
Dimensions and weights																
A	°	mm		1976	1976	1976	1976	1976	1976	2021	2021	2021	2021	2021	2021	2021
	L	mm		2120	2120	2120	2120	2120	2120	2120	2120	2120	2120	2120	2120	2120
B	°,L	mm		1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250
C	°,L	mm		2600	2600	2600	2600	2600	2600	2600	2600	2600	2600	2600	2600	2600
Dimensions and weights with pump/s																
A	°	mm		1976	1976	1976	1976	1976	1976	2021	2021	2021	2021	2021	2021	2021
	L	mm		2120	2120	2120	2120	2120	2120	2120	2120	2120	2120	2120	2120	2120
B	°,L	mm		1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250	1250
C	°	mm		3452	3452	3452	3452	3452	3452	3452	3452	3750	3750	3750	3750	3750
	L	mm		3452	3452	3452	3452	3452	3750	3750	3750	3750	3750	2600	2600	2600

	Version	Integrated hydronic kit, user side	Integrated hydronic kit, recovery side		0500	0550	0600	0650	0700	0750	0800	0900	1000	1250	1400	1500	1650
Empty weight	°	°	°	kg	990	1000	1110	1130	1180	1380	1680	1700	1890	1960	2060	2100	2270
	°	°	U/V	kg	1230	1240	1360	1380	1450	1690	1960	2060	2310	2380	2500	2540	2720
	°	M/N	°/U/V	kg	1230	1240	1360	1380	1450	1690	1960	2060	2310	2380	2500	2540	2720
	°	°/M/N	W/Z	kg	1340	1350	1490	1500	1600	1880	2110	2300	2560	2630	2770	2810	3010
	°	O/P	°/U/V/W/Z	kg	1340	1350	1490	1500	1600	1880	2110	2300	2560	2630	2770	2810	3010
	L	°	°	kg	1230	1230	1340	1360	1420	1570	1910	1930	2120	2190	2270	2400	2500
	L	°	U/V	kg	1560	1570	1690	1710	1780	2020	2290	2390	2660	2730	2850	2890	3070
	L	M/N	°/U/V	kg	1560	1570	1690	1710	1780	2020	2290	2390	2660	2730	2850	2890	3070
	L	°/M/N	W/Z	kg	1670	1680	1820	1830	1930	2210	2240	2630	2910	2980	3120	3160	3360
	L	O/P	°/U/V/W/Z	kg	1670	1680	1820	1830	1930	2210	2240	2630	2910	2980	3120	3160	3360

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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PRECISION AIR CONDITIONERS

Aermec is well established in the data centre market, with a multiple year experience and prestigious projects aimed at reducing the overall cost of ownership of modern data centres.
This process is achieved by applying state of the art product solutions with a strong focus on integrated design and sophisticated analyses of individual data centre customer requirements, with the aim of achieving a personalised and optimised solution for each and every individual installation site.

PRECISION AIR CONDITIONING

		Air flow rate (m^3/h)	Cool. Cap. (kW)	Heat. Cap. (kW)	Page
P 10-932	Direct expansion (air or water cooled); chilled water	-	7-160	-	804
G 070-1342	Direct expansion (air or water cooled); chilled water	-	50-222	-	809
R 20-361	Direct expansion (air or water cooled); chilled water	-	10-37	-	813

P 10-932

Precision Air Conditioners

Cooling capacity 7 ÷ 160 kW

- **Strict control of room temperature and humidity**
- **High efficiency values**
- **Wide selection of configurations**
- **Reduced ground view clearance**



Last generation control panel



DESCRIPTION

P series precision air conditioning units have design and operational features suitable for rooms where sensible nature heat loads are prevailing.

CONFIGURATIONS

PXO: upwards flow air conditioners with direct expansion with air or water condensation.
PWO: upwards flow air conditioners with chilled water.
PXU: downwards flow air conditioners with direct expansion with air or water condensation.
PWU: downwards airflow air conditioners with chilled water.

FEATURES

The **P** series precision air conditioning units are designed for precision air conditioning of technological rooms characterized by elevated thermal loads to be eliminated, such as computing centres and other applications where high performances and maximum reliability are required.
Precision Air Conditioning units can be customized as per necessities, in order to offer a complete control of temperature, of humidity and of air quality through accessories such as humidifier, after-heating and high efficiency filters.
In order to guarantee the maximum reliability and flexibility, there are available both solutions with double circuit and solution with different cooling mediums:

Two Sources

The Twin Sources system ensures cooling continuity in case of unavailability, for whatever reason, of the primary source: overhead, maintenance, night or seasonal stop or stop for any emergency.
This system includes the assembly inside the air conditioner of a second cooling source, complete with its regulation and completely independent from the primary one.
They only share the aluminium finned pack, allowing both a high thermal exchange efficiency.

Free Cooling

This system employs external air, a renewable energy source, for cooling the Free Cooling water circuit by an external dry cooler.
The Free Cooling circuit works in place of, or along, the mechanical cooling with direct expansion.

STRUCTURE

The structure consists of a steel frame painted with dark grey epoxy powders (RAL7024) guaranteeing a durable finish. Acoustic insulation self-extinguishing panels covered with anti-friction film.

FANS

Centrifugal fans with backward curved blades (plug fans) with EC motor directly coupled to the electronic control to minimize power consumption and noise emissions.

FILTERS

Corrugated baffle filters, not regenerable, self-extinguishing, G4 efficiency class (according to EN 779).
Differential pressure switch (STANDARD) for dirty filter alarm.
The control of filter dirt conditions via Modbus is available as an option.

ELECTRONIC CONTROLLER

The evolved electronic adjustment maximises energy saving and optimizes all operating modes of the units, both direct expansion and chilled water.

— The controller allows to supervise all main components of the unit, with more than 50 different variables that guarantee real time monitoring of all operating cycles.
— The units have a standard RS485 Modbus board, BACnet, LonWorks and SNMP are available as options, for a simple and quick interface with BMS (Building Management System) supervising systems.
— View of all operating parameters in 8 languages.

CHILLED WATER COILS

Only for W configurations
Large surface batteries, positioned in such a way as to optimise airflow and heat transfer, made of refrigerating quality copper tubes with al-

uminium louvers mechanically merged, fitted with motorised 3way valve (2way is also available in the selection process).

COMPRESSORS

Only for X configurations
High efficiency scroll compressor with low power consumption.

ACCESSORIES

Direct expansion

— DC brushless compressors with inverter control
— Electric power supply line for remote condenser
— Electric power supply line with speed adjustment for remote condenser
— Condenser adjustment with 0-10V signal for remote condenser with EC fans
— Water condenser
— Condensate adjustment pressure valve
— "LAC" (Low Ambient Control) valve has the function of bypassing the condenser, injecting warm gas in the liquid piping, to maintain the refrigerant pressure stable. Use is recommended in very cold climates, in case of inverter compressors and in case of oversized condensers with respect to the real necessities of the units.

Chilled water

— Two ways modulating valves
— Inlet and outlet water temperature probes
— "Power Valve" kit: automatic adjustment and balancing valve of the water circuit, which allows to guarantee a constant water flow rate and monitor the efficiency of the unit in real time.

Heating

— Low thermal inertia electric batteries with differentiated stages regulation
— Low thermal inertia electric batteries with modulating regulation
— Water heating batteries with 2 or 3 ways modulating valve (available on request on some models only)

Humidification

— Room humidity probe
— Flow humidity probe
— Submerged electrodes humidifier (also available with low conductivity cylinder)

Water presence detection

— Available as punctual probe or fabric belt (length 5 m) Allows to have an alarm in case water presence,even partial, is detected.

These units in the direct expansion configurations work with R410A refrigerant, which does not damage the ozone layer.
In dual circuit configuration you can control the power output thanks to electronic adjustment that automatically manages the compressors activation depending on the load request.
Electronic expansion valve standard on all sizes.

Mechanicals and structural

— Condensate discharge pump
— Condensation and humidifier drain pump
— Flow overpressure dampers
— Motorised damper on suction
— M5 (EU5) efficiency air filter on air supply
— Flow plenum with adjustable grills.
— Sub-base plenum with front grids.
— **Plenum Free Cooling:** available for direct expansion and downward flow versions, complete with motorised dampers and the external air temperature probe. Used to perform **direct Free Cooling** taking advantage of external air and will work in place of or supporting the direct expansion mechanical cooling.
— Height adjustable support for raised floor installation
— Grilled panels for front flow
— Closed panels for downwards air intake
— Panels with "sandwich" counter-panels (available on request on some models only)
— Panels with increased soundproof upholstery (available on request on some models only)

Electrical

— The unit has a standard power supply 400V ~ 3N 50Hz. The following voltages are available as an alternative: 400V ~ 3N 60Hz, 230V ~ 3 60Hz, 380V ~ 3N 60Hz
— Electric power supply line without neutral
— "Basic" version automatic transfer switch (ATS)
— Advanced" version automatic transfer switch (ATS)

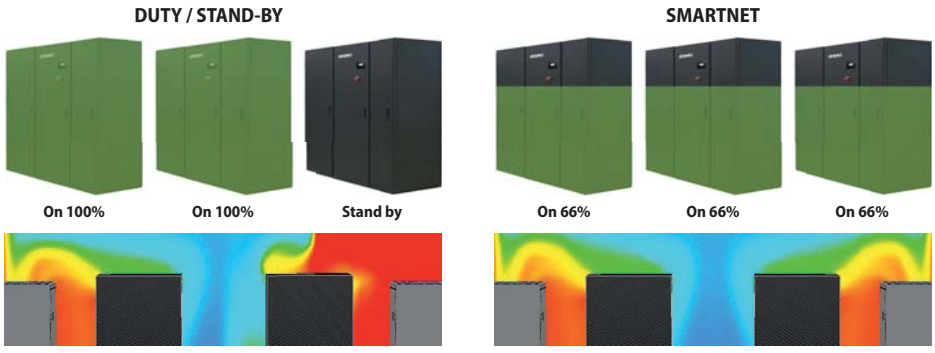
Regulation

— Constant flow rate ventilation adjustment
— Constant pressure ventilation adjustment
— Local area network configuration and cable
— User terminal for remote installation

■ *For further details refer to the technical documentation or to the selection program.*

SMARTNET

The innovative **SMARTNET** system revolutionises the local area network concept.
This system, using the modulation capabilities of its components, allows dividing the workload across all units in the local area network.
Compared to the Duty Stand-by (n+1 o n+n) redundancy system, where the backup units were stopped waiting for a problem to arise, **the SMARTNET system allows to maintain the units connected on the network always active** with various advantages:
— greater efficiency of the units with partial loads;
— optimal air distribution, eliminating the risk of environment hotspots;
— internal system redundancy,



TECHNICAL DATA

PXO: upwards airflow - direct expansion with air or water condensation

		PXO 071	PXO 141	PXO 211	PXO 251	PXO 321	PXO 322	PXO 361	PXO 422	PXO 461	PXO 512	PXO 662	PXO 852	PXO 932
Cooling performances (1)														
Total cooling capacity	kW	8,2	14,7	21,0	26,1	35,2	33,8	38,1	43,7	48,1	54,8	67,3	84,4	94,9
Sensible cooling capacity	kW	7,9	12,9	21,0	25,2	35,2	33,8	38,1	43,7	46,8	52,2	66,2	73,7	86,3
EER (2)	W/W	3,83	3,40	3,30	3,25	3,13	3,34	3,57	3,47	3,63	3,45	3,26	3,27	3,64
Fans														
Type	type	Plug-fan EC inverter												
Air flow rate	m^3/h	2200	3200	7000	7000	12000	12000	14000	14000	14000	14000	18000	18000	21000
Refrigerant circuit														
Number	no.	1	1	1	1	1	2	1	2	1	2	2	2	2
Sound data														
Sound pressure (3)	dB(A)	51	59	56	57	67	67	58	58	58	59	61	61	61
Possible configurations														
Free Cooling		-	-	-	-	Yes	-	-	-	Yes	-	Yes	Yes	-
Two Sources		-	-	Yes	-	Yes	-	-	-	Yes	Yes	Yes	Yes	Yes
Electric data														
Power supply		400V ~ 3N 50Hz												

(1) Condensation temperature 45 °C; incoming air 24 °C / 45 % u.r.; external static pressure: 30Pa. Stated performances do not take into account the heat generated by the fans which must be added to the heat load of the system.
(2) EER: Energy Efficiency Ratio; total cooling capacity / input power to the compressors + the power of fans (excluding air condensers).
(3) Sound pressure: stated data 2m away, in free field according to UNI EN ISO 3744:2010

PWO: upwards airflow - with chilled water

		PWO 10	PWO 20	PWO 30	PWO 50	PWO 60	PWO 70	PWO 80	PWO 110	PWO 160	PWO 220
Cooling performances (1)											
Total cooling capacity	kW	9,9	17,2	30,0	41,0	52,8	63,1	65,5	80,0	110,0	160,0
Sensible cooling capacity	kW	9,3	14,9	27,8	36,2	47,4	54,2	61,8	73,0	99,7	146,0
EER (2)	W/W	38,26	29,13	30,00	24,54	22,75	24,17	24,79	24,17	29,33	21,17
Fans											
Type	type	Plug-fan EC inverter									
Air flow rate	m^3/h	2200	3200	7000	8000	12000	12000	16000	18000	24000	36000
Refrigerant circuit											
Number	no.	1	1	1	1	1	1	1	1	1	1
Sound data											
Sound pressure (3)	dB(A)	51	59	56	60	67	68	61	62	62	65
Possible configurations											
Free Cooling		-	-	-	-	-	-	-	-	-	-
Two Sources		-	-	-	Yes	-	-	-	Yes	Yes	-
Electric data											
Power supply		400V ~ 3N 50Hz									

(1) Incoming air 24 °C / 45 % r.h.; water 7 °C / 12 °C; external static pressure: 30 Pa. Stated performances do not take into account the heat generated by the fans which must be added to the heat load of the system.
(2) EER: Energy Efficiency Ratio; total cooling capacity / input power to the compressors + the power of fans (excluding air condensers).
(3) Sound pressure: stated data 2m away, in free field according to UNI EN ISO 3744:2010

PXU: downwards airflow - direct expansion with air or water condensation

		PXU 071	PXU 141	PXU 211	PXU 251	PXU 321	PXU 322	PXU 361	PXU 422	PXU 461	PXU 512	PXU 662	PXU 852	PXU 932
Cooling performances (1)														
Total cooling capacity	kW	8,2	14,7	21,0	26,1	35,2	33,8	38,1	43,7	48,1	54,8	67,3	84,4	94,9
Sensible cooling capacity	kW	7,9	12,9	21,0	25,2	35,2	33,8	38,1	43,7	46,8	52,2	66,2	73,7	86,3
EER (2)	W/W	3,74	3,29	3,24	3,21	3,09	3,29	3,50	3,41	3,57	3,14	3,15	3,18	3,59
Fans														
Type	type	Plug-fan EC inverter												
Air flow rate	m^3/h	2200	3200	7000	7000	12000	12000	14000	14000	14000	14000	18000	18000	21000
Refrigerant circuit														
Number	no.	1	1	1	1	1	2	1	2	1	2	2	2	2
Sound data														
Sound pressure (3)	dB(A)	51	57	62	62	67	68	59	59	59	59	63	63	62
Possible configurations														
Free Cooling		-	-	-	-	Yes	-	-	-	Yes	-	Yes	Yes	-
Two Sources		-	-	Yes	-	Yes	-	-	-	Yes	Yes	Yes	Yes	Yes
Electric data														
Power supply		400V ~ 3N 50Hz												

(1) Condensation temperature 45 °C; incoming air 24 °C / 45 % u.r.; external static pressure: 30Pa. Stated performances do not take into account the heat generated by the fans which must be added to the heat load of the system.
(2) EER: Energy Efficiency Ratio; total cooling capacity / input power to the compressors + the power of fans (excluding air condensers).
(3) Sound pressure: stated data 2m away, in free field according to UNI EN ISO 3744:2010

PWU: downwards airflow - with chilled water

		PWU 10	PWU 20	PWU 30	PWU 50	PWU 60	PWU 70	PWU 80	PWU 110	PWU 160	PWU 220
Cooling performances (1)											
Total cooling capacity	kW	10,2	18,1	32,4	43,6	52,8	63,1	67,4	93,4	142,1	186,9
Sensible cooling capacity	kW	9,2	15,5	29,8	38,1	47,4	54,2	62,5	80,7	122,9	161,3
EER (2)	W/W	32,09	23,54	27,03	30,91	21,28	22,77	23,21	19,80	24,39	19,80
Fans											
Type	type	Plug-fan EC inverter									
Air flow rate	m^3/h	2200	3200	7400	8200	12000	12000	15400	17000	26000	34000
Refrigerant circuit											
Number	no.	1	1	1	1	1	1	1	1	1	1
Sound data											
Sound pressure (3)	dB(A)	51	60	57	62	68	68	62	63	63	66
Possible configurations											
Free Cooling		-	-	-	-	-	-	-	-	-	-
Two Sources		-	-	-	Yes	-	-	-	Yes	Yes	-
Electric data											
Power supply		400V ~ 3N 50Hz									

(1) Incoming air 24 °C / 45 % r.h.; water 7 °C / 12 °C; external static pressure: 30 Pa. Stated performances do not take into account the heat generated by the fans which must be added to the heat load of the system.
(2) EER: Energy Efficiency Ratio; total cooling capacity / input power to the compressors + the power of fans (excluding air condensers).
(3) Sound pressure: stated data 2m away, in free field according to UNI EN ISO 3744:2010

UPWARDS FLOW CONFIGURATIONS



Standard version with frontal air intake and upwards flow.



Version with front air intake and frontal air flow with distribution plenum with grid.



Version with air intake from the bottom, stand for raised floor, blind front panel and upflow air supply.

DOWNWARDS FLOW CONFIGURATIONS



Standard version with upwards suction and downwards airflow, with sub-base for raised flooring.

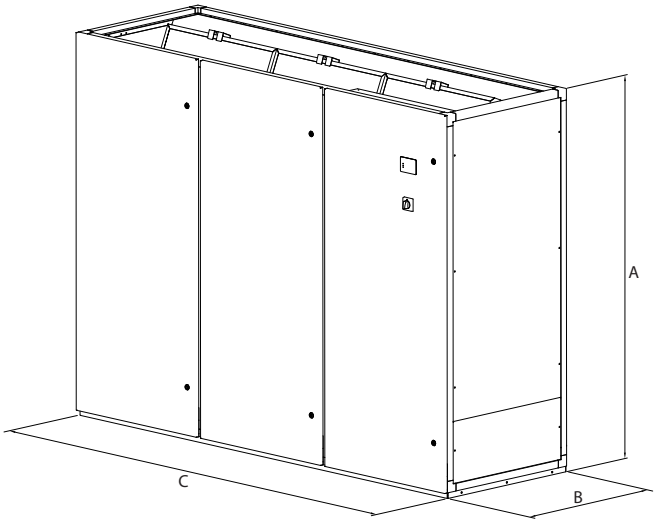


Version with upwards suction with frontal air flow with grilled plenum distribution.



Version with upwards suction with frontal air flow with grilled front panel.

DIMENSIONS



		PXO 071	PXO 141	PXO 211	PXO 251	PXO 321	PXO 322	PXO 361	PXO 422	PXO 461	PXO 512	PXO 662	PXO 852	PXO 932
Dimensions and weights														
A	mm	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990
B	mm	600	600	880	880	850	850	880	880	880	880	880	880	880
C	mm	750	750	860	860	1410	1410	1750	1750	1750	1750	2300	2300	2640
Empty weight	kg	180	210	270	270	365	390	440	450	450	500	640	660	860

		PWO 10	PWO 20	PWO 30	PWO 50	PWO 60	PWO 70	PWO 80	PWO 110	PWO 160	PWO 220
Dimensions and weights											
A	mm	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990
B	mm	600	600	880	880	850	850	880	880	880	880
C	mm	750	750	860	860	1410	1410	1750	1750	2640	3495
Empty weight	kg	155	160	220	240	240	260	340	360	540	700

		PXU 071	PXU 141	PXU 211	PXU 251	PXU 321	PXU 322	PXU 361	PXU 422	PXU 461	PXU 512	PXU 662	PXU 852	PXU 932
Dimensions and weights														
A	mm	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990
B	mm	600	600	880	880	850	850	880	880	880	880	880	880	880
C	mm	750	750	860	860	1410	1410	1750	1750	1750	1750	2300	2300	2640
Empty weight	kg	180	210	270	270	365	390	440	450	450	500	640	660	860

		PWU 10	PWU 20	PWU 30	PWU 50	PWU 60	PWU 70	PWU 80	PWU 110	PWU 160	PWU 220
Dimensions and weights											
A	mm	1990	1990	1990	1990	1990	1990	1990	1990	1990	1990
B	mm	600	600	880	880	850	850	880	880	880	880
C	mm	750	750	860	860	1410	1410	1750	1750	2640	3495
Empty weight	kg	155	160	220	240	240	260	340	360	540	700

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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www.aermec.com

G 070-1342

Precision Air Conditioners

Cooling capacity 50 ÷ 222 kW

- **Separate ventilating section for installation under raised floor**
- **Reduced energy consumption of fans**
- **High ratio between supplied cooling capacity and footprint**
- **Optimised distribution of air in the raised floor**



Last generation control panel



DESCRIPTION
Precision air conditioners of the series **G** their construction and operating features are suitable to meet the design criteria of last generation Data Centers.

CONFIGURATIONS
GXU: downwards flow air conditioners with direct expansion with air or water condensation.
GWU: downwards flow air conditioners with chilled water.
For the configuration **W** there is also the version **XH (Extra Height)**. By increasing the height, performance can be enhanced thanks to the larger coil.

FEATURES
Precision air conditioners of the series **G** they are designed for air-conditioning of utility rooms for high power density applications.
In these applications, the structures are characterised by technical floors as high as 1000 mm, creating ample space below to house the flow fans.
The fans are supplied inside a sub-base supplied separately, without increasing the size of the unit, thus optimising the available space with considerable advantages:
— The enlarged coils with ample heat exchange surface enhance performance with less energy consumption.
— Greater filtering surface reducing pressure drops so that less maintenance is needed as they get less dirty.
— Horizontal flow of fans in sub-base with lower pressure drops.

STRUCTURE
The structure consists of a steel frame painted with dark grey epoxy powders (RAL7024) guaranteeing a durable finish. Acoustic insulation self-extinguishing panels covered with anti-friction film.
The ventilating sub-base is supplied separately and must be electrically connected at the worksite or on-site.

FANS
Centrifugal fans with backward curved blades (plug fans) with EC motor directly coupled to the electronic control to minimize power consumption and noise emissions.

FILTERS
Corrugated baffle filters, not regenerable, self-extinguishing, G4 efficiency class (according to EN 779).
Differential pressure switch (STANDARD) for dirty filter alarm.
The control of filter dirt conditions via Modbus is available as an option.

ELECTRONIC CONTROLLER
The evolved electronic adjustment maximises energy saving and optimizes all operating modes of the units, both direct expansion and chilled water.
— The controller allows to supervise all main components of the unit, with more than 50 different variables that guarantee real time monitoring of all operating cycles.
— The units have a standard RS485 Modbus board, BACnet, LonWorks and SNMP are available as options, for a simple and quick interface with BMS (Building Management System) supervising systems.
— View of all operating parameters in 8 languages.

CHILLED WATER COILS
Only for W configurations
Large surface coils, positioned in such a way as to optimise airflow and heat transfer, made of copper tubes with aluminium louvers mechanically merged, fitted with 2-way modulating valve (3-way is also available in the selection process).

COMPRESSORS
Only for X configurations
High efficiency scroll compressor with low power consumption.
These units in the direct expansion configurations work with R410A refrigerant, which does not damage the ozone layer.

The dual circuit configuration controls the power output thanks to electronic adjustment that automatically manages the compressors activation depending on the load request.

Electronic expansion valve standard on all sizes.

ACCESSORIES

Direct expansion

— DC brushless compressors with inverter control
— Electric power supply line for remote condenser
— Electric power supply line with speed adjustment for remote condenser
— Condenser adjustment with 0-10V signal for remote condenser with EC fans
— Water condenser
— Condensate adjustment pressure valve
— "LAC" (Low Ambient Control) valve has the function of bypassing the condenser, injecting warm gas in the liquid piping, to maintain the refrigerant pressure stable. Use is recommended in very cold climates, in case of inverter compressors and in case of oversized condensers with respect to the real necessities of the units.

Chilled water

— Three-way modulating valves
— Inlet and outlet water temperature probes
— "Power Valve" kit: automatic adjustment and balancing valve of the water circuit, which allows to guarantee a constant water flow rate and monitor the efficiency of the unit in real time.

Heating

— Low thermal inertia electric batteries with differentiated stages regulation

Humidification

— Room humidity probe
— Flow humidity probe
— Submerged electrodes humidifier (also available with low conductivity cylinder)

Water presence detection

— Available as punctual probe or fabric belt (length 5 m) Allows to have an alarm in case water presence,even partial, is detected.

Mechanicals and structural

— Condensate discharge pump
— Condensation and humidifier drain pump
— Motorised damper on suction
— M5 (EU5) efficiency air filter on air supply
— Ventilated plenum with panelling for front or rear flow
— Ventilated plenum with panelling for downflow (installation above raised floor)
— Panels with "sandwich" counter-panels (available on request on some models only)
— Panels with increased soundproof upholstery (available on request on some models only)

Electrical

— The unit has a standard power supply 400V ~ 3N 50Hz. The following voltages are available as an alternative: 400V ~ 3N 60Hz, 460V ~ 3 60Hz, 380V ~ 3N 60Hz
— Electric power supply line without neutral
— "Basic" version automatic transfer switch (ATS)
— Advanced" version automatic transfer switch (ATS)

Regulation

— Constant flow rate ventilation adjustment
— Constant pressure ventilation adjustment
— Local area network configuration and cable
— User terminal for remote installation

For further details refer to the technical documentation or to the selection program.

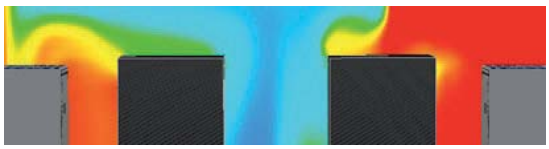
SMARTNET

The innovative **SMARTNET** system revolutionises the local area network concept.
This system, using the modulation capabilities of its components, allows dividing the workload across all units in the local area network.
Compared to the Duty Stand-by (n+1 o n+n) redundancy system, where the backup units were stopped waiting for a problem to arise, **the SMARTNET system allows to maintain the units connected on the network always active** with various advantages:
— greater efficiency of the units with partial loads;
— optimal air distribution, eliminating the risk of environment hotspots;
— internal system redundancy,

DUTY / STAND-BY



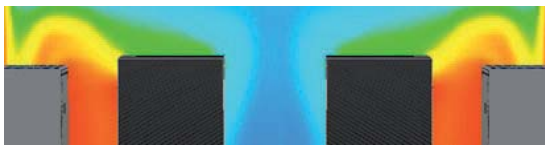
On 100% **On 100%** **Stand by**



SMARTNET



On 66% **On 66%** **On 66%**



TECHNICAL DATA

GXU: downwards airflow - direct expansion with air or water condensation

		GXU 932	GXU 1342
Cooling performances (1)			
Total cooling capacity	kW	91,2	130,5
Sensible cooling capacity	kW	77,5	121,2
EER (2)	W/W	3,61	3,83
Fans			
Type	type	Plug-fan EC inverter	
Air flow rate	m^3/h	18000	31500
Refrigerant circuit			
Number	no.	2	2
Sound data			
Sound pressure (3)	dB(A)	56	61
Electric data			
Power supply		400V ~ 3N 50Hz	

(1) Condensation temperature 45 °C; incoming air 24 °C / 45 % u.r.; external static pressure: 30Pa. Stated performances do not take into account the heat generated by the fans which must be added to the heat load of the system.
(2) EER: Energy Efficiency Ratio; total cooling capacity / input power to the compressors + the power of fans (excluding air condensers).
(3) Sound pressure: stated data 2m away, in free field according to UNI EN ISO 3744:2010

GWU: downwards airflow - with chilled water

		GWU 070	GWU 150	GWU 230	GWU 300
Cooling performances (1)					
Total cooling capacity	kW	50,0	98,1	153,1	190,0
Sensible cooling capacity	kW	427,0	83,6	130,4	172,3
EER (2)	W/W	43,50	46,92	52,78	40,20
Fans					
Type	type	Plug-fan EC inverter			
Air flow rate	m^3/h	9000	18000	28000	40000
Refrigerant circuit					
Number	no.	2	2	2	2
Sound data					
Sound pressure (3)	dB(A)	55	56	58	60
Electric data					
Power supply		400V ~ 3N 50Hz			

(1) Incoming air 24 °C / 45 % r.h.; water 7 °C / 12 °C; external static pressure: 30 Pa. Stated performances do not take into account the heat generated by the fans which must be added to the heat load of the system.
(2) EER: Energy Efficiency Ratio; total cooling capacity / input power to the compressors + the power of fans (excluding air condensers).
(3) Sound pressure: stated data 2m away, in free field according to UNI EN ISO 3744:2010

		GWU 150 XH	GWU 230 XH
Cooling performances (1)			
Total cooling capacity	kW	128,5	222,9
Sensible cooling capacity	kW	109,9	184,1
EER (2)	W/W	44,16	46,53
Fans			
Type	type	Plug-fan EC inverter	
Air flow rate	m^3/h	24000	36000
Refrigerant circuit			
Number	no.	2	2
Sound data			
Sound pressure (3)	dB(A)	61	63
Electric data			
Power supply		400V ~ 3N 50Hz	

(1) Incoming air 24 °C / 45 % r.h.; water 7 °C / 12 °C; external static pressure: 30 Pa. Stated performances do not take into account the heat generated by the fans which must be added to the heat load of the system.
(2) EER: Energy Efficiency Ratio; total cooling capacity / input power to the compressors + the power of fans (excluding air condensers).
(3) Sound pressure: stated data 2m away, in free field according to UNI EN ISO 3744:2010

DOWNWARDS FLOW CONFIGURATIONS



Standard execution for perimeter installation inside Data Centres: the height of the raised flooring must be minimum 550 mm.



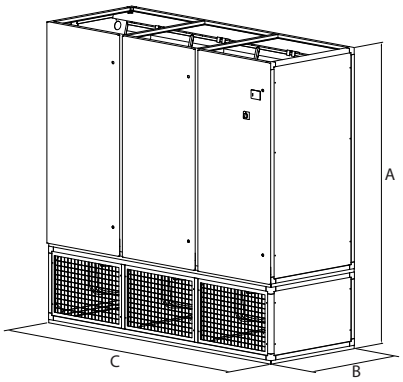
Execution for perimeter installation inside Data Centre. In this case, the sub-base side closure panels must be installed above the flooring. It is in any case essential to make sure that the height of the ceiling allows good air intake.



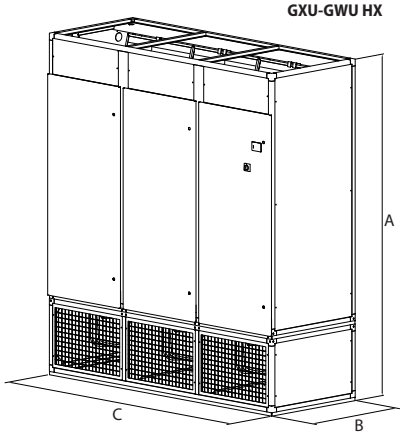
Execution for installation outside Data Centre, without raised flooring and rear delivery. In this case, the sub-base side closure panels and rear delivery grilles. Installation of the plenum with the rear return system is optional, if there is no channelling system.

DIMENSIONS

GXU-GWU



GXU-GWU HX



		GXU 932	GXU 1342
Dimensions and weights			
A	mm	1990	1990
B	mm	921	921
C	mm	2390	3290
Empty weight	kg	870	1000

		GWU 070	GWU 150	GWU 150 XH	GWU 230	GWU 230 XH	GWU 300
Dimensions and weights							
A	mm	1990	1990	2350	1990	2350	1990
B	mm	921	921	1050	921	1050	921
C	mm	1320	1840	1840	2740	2740	4020
Empty weight	kg	400	620	640	930	950	1250

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R 20-361

Precision Air Conditioners

Cooling capacity 10 ÷ 37 kW

- **"In row" installation between the server lines**
- **Horizontal air flow to offer an effective localised cooling**
- **Rear and front accessibility for simplified maintenance**
- **Front and side air flow**



Last generation control panel

DESCRIPTION

Precision air conditioners of the R **Series** have construction features and sizes so that they can be installed next to the servers of the Data Center.

CONFIGURATIONS

RXA: air conditioners with delivery downwards and direct expansion with air or water condensation.
RXU: air conditioners with air delivery horizontal with cooled water.
Both configurations are available in compact version with reduced depth.

FEATURES

Precision air conditioners in the **R** series are designed and built to have the same dimensions as the racks, rear intake from the warm corridor and front delivery towards the cold corridor.

Two Sources

The Twin Sources system ensures cooling continuity in case of unavailability, for whatever reason, of the primary source: overhead, maintenance, night or seasonal stop or stop for any emergency.
This system includes the assembly inside the air conditioner of a second cooling source, complete with its regulation and completely independent from the primary one.
They only share the aluminium finned pack, allowing both a high thermal exchange efficiency.

Free Cooling

This system employs external air, a renewable energy source, for cooling the Free Cooling water circuit by an external dry cooler.
The Free Cooling circuit works in place of, or along, the mechanical cooling with direct expansion.

STRUCTURE

The structure consists of a steel frame painted with dark grey epoxy powders (RAL7024) guaranteeing a durable finish. Acoustic insulation self-extinguishing panels covered with anti-friction film.

FANS

Centrifugal fans with backward curved blades (plug fans) with EC motor directly coupled to the electronic control to minimize power consumption and noise emissions.

FILTERS

Corrugated baffle filters, not regenerable, self-extinguishing, G4 efficiency class (according to EN 779).
Differential pressure switch (STANDARD) for dirty filter alarm.
The control of filter dirt conditions via Modbus is available as an option.

ELECTRONIC CONTROLLER

The evolved electronic adjustment maximises energy saving and optimizes all operating modes of the units, both direct expansion and chilled water.

— The controller allows to supervise all main components of the unit, with more than 50 different variables that guarantee real time monitoring of all operating cycles.
— The units have a standard RS485 Modbus board, BACnet, LonWorks and SNMP are available as options, for a simple and quick interface with BMS (Building Management System) supervising systems.
— View of all operating parameters in 8 languages.

CHILLED WATER COILS

Only for U configurations.
Large surface batteries, positioned in such a way as to optimise airflow and heat transfer, made of refrigerating quality copper tubes with aluminium louvers mechanically merged, fitted with motorised 3way valve (2way is also available in the selection process).

COMPRESSORS

Only for A configurations
Single circuit configurations with DC brushless compressor with inverter, which allows to optimise the provided power guaranteeing a low electrical absorption.
These units work with R410A refrigerant, which does not damage the ozone layer.

Electronic expansion valve standard on all sizes.

ACCESSORIES

Direct expansion

— Electric power supply line for remote condenser
— Electric power supply line with speed adjustment for remote condenser
— Condenser adjustment with 0-10V signal for remote condenser with EC fans
— Water condenser
— Condensate adjustment pressure valve
— "LAC" (Low Ambient Control) valve has the function of bypassing the condenser, injecting warm gas in the liquid piping, to maintain the refrigerant pressure stable. Use is recommended in very cold climates, in case of inverter compressors and in case of oversized condensers with respect to the real necessities of the units.

Chilled water

— Two ways modulating valves
— Inlet and outlet water temperature probes
— "Power Valve" kit: automatic adjustment and balancing valve of the water circuit, which allows to guarantee a constant water flow rate and monitor the efficiency of the unit in real time.

Heating

— Single stage electric coils with low thermal inertia.

Humidification

— Room humidity probe
— Flow humidity probe
— Submerged electrodes humidifier (also available with low conductivity cylinder)

Water presence detection

— Available as punctual probe or fabric belt (length 5 m) Allows to have an alarm in case water presence,even partial, is detected.

Mechanicals and structural

— Condensate discharge pump
— M5 (EU5) efficiency air filter on air supply
— Closed front panel for side flow
— Closed side panels for front flow
— Wheels for movement

Electrical

— The unit has a standard power supply 400V ~ 3N 50Hz. The following voltages are available as an alternative: 400V ~ 3N 60Hz, 230V ~ 3 60Hz, 380V ~ 3N 60Hz
— Electric power supply line without neutral
— "Basic" version automatic transfer switch (ATS)
— Advanced" version automatic transfer switch (ATS)

Regulation

— Constant flow rate ventilation adjustment
— Constant pressure ventilation adjustment
— Local area network configuration and cable
— User terminal for remote installation

For further details refer to the technical documentation or to the selection program.

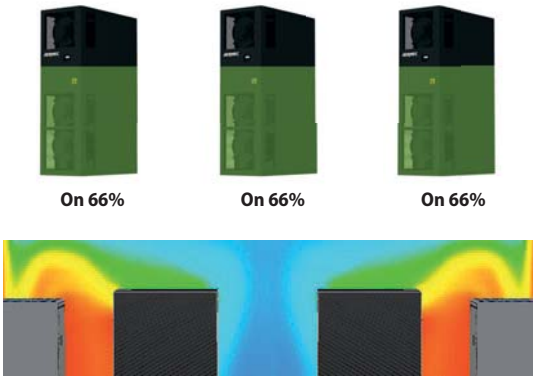
SMARTNET

The innovative **SMARTNET** system revolutionises the local area network concept.
This system, using the modulation capabilities of its components, allows dividing the workload across all units in the local area network.
Compared to the Duty Stand-by (n+1 o n+n) redundancy system, where the backup units were stopped waiting for a problem to arise, **the SMARTNET system allows to maintain the units connected on the network always active** with various advantages:
— greater efficiency of the units with partial loads;
— optimal air distribution, eliminating the risk of environment hot-spots;
— internal system redundancy,

DUTY / STAND-BY



SMARTNET



TECHNICAL DATA

RXA: horizontal air delivery - direct expansion with air or water condensation

		RXA 121	RXA 201	RXA 231	RXA 361
Cooling performances (1)					
Total cooling capacity	kW	9,6	19,3	20,8	32,5
Sensible cooling capacity	kW	9,6	15,1	17,2	26,3
EER (2)	W/W	3,14	3,09	3,36	3,43
Fans					
Type	type		Plug-fan EC inverter		
Air flow rate	m^3/h	3200	3600	6000	6600
Refrigerant circuit					
Number	no.	1	1	1	1
Sound data					
Sound pressure (3)	dB(A)	51	54	54	57
Possible configurations					
Free Cooling		-	-	Yes	-
Two Sources		-	-	Yes	-
Electric data					
Power supply			400V ~ 3N 50Hz		

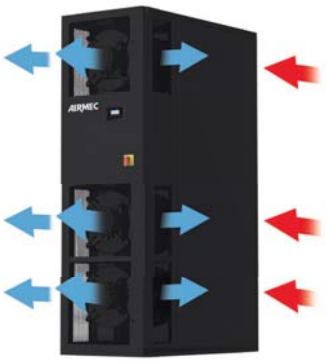
(1) Condensation temperature 45 °C; incoming air 24 °C / 45 % u.r.; external static pressure: 30Pa. Stated performances do not take into account the heat generated by the fans which must be added to the heat load of the system.
(2) EER: Energy Efficiency Ratio; total cooling capacity / input power to the compressors + the power of fans (excluding air condensers).
(3) Sound pressure: stated data 2m away, in free field according to UNI EN ISO 3744:2010

RXU: horizontal air delivery - cooled water

		RXU 20	RXU 40
Cooling performances (1)			
Total cooling capacity	kW	24,9	37,8
Sensible cooling capacity	kW	22,2	33,9
EER (2)	W/W	22,81	27,78
Fans			
Type	type	Plug-fan EC inverter	
Air flow rate	m^3/h	5600	9000
Refrigerant circuit			
Number	no.	1	1
Sound data			
Sound pressure (3)	dB(A)	54	62
Possible configurations			
Free Cooling		-	-
Two Sources		-	Yes
Electric data			
Power supply		400V ~ 3N 50Hz	

(1) Incoming air 24 °C / 45 % r.h.; water 7 °C / 12 °C; external static pressure: 30 Pa. Stated performances do not take into account the heat generated by the fans which must be added to the heat load of the system.
(2) EER: Energy Efficiency Ratio; total cooling capacity / input power to the compressors + the power of fans (excluding air condensers).
(3) Sound pressure: stated data 2m away, in free field according to UNI EN ISO 3744:2010

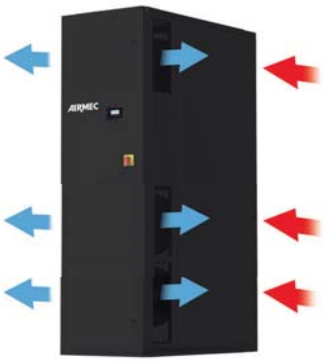
HORIZONTAL FLOW CONFIGURATIONS



Standard execution
for "In-row" installation
with front and side air delivery
(RXA 121-201, RXU 20).



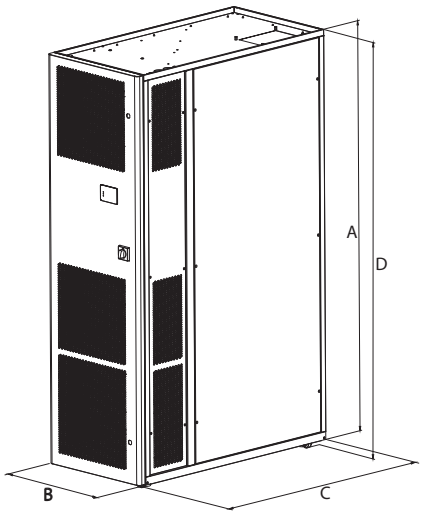
Execution for "In-row" installation
with only front air delivery
(RXA 231-361, RXU 40).



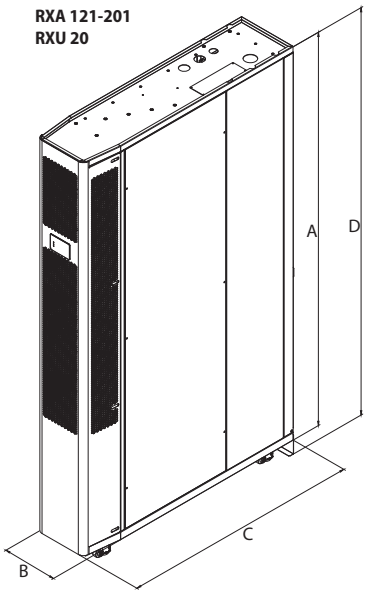
Execution for "In-row" installation
with only side air delivery
(RXA 231-361, RXU 40).

DIMENSIONS

RXA 231-361
RXU 40



RXA 121-201
RXU 20



		RXA 121	RXA 201	RXA 231	RXA 361
Dimensions and weights					
A	mm	1975	1975	1985	1985
B	mm	300	300	600	600
C	mm	1200	1200	1222	1222
D	mm	200	215	215	215
Empty weight	kg	2045	2045	2015	2015

		RXU 20	RXU 40
Dimensions and weights			
A	mm	1975	1985
B	mm	300	600
C	mm	1200	1222
D	mm	2045	2015
Empty weight	kg	120	190

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ROOM AIR CONDITIONERS

A complete range of units designed to meet all climate control requirements:
Aermec the answer to air conditioning.
A vast choice not only in terms of models but also alternatives and possibilities: state-of-the-art technology such as the inverter that optimises performance at all times according to the set temperature to achieve maximum energy saving; versatile installation options to solve all problems of space.
Quality design and materials, cooling and heating power suited to cover all requirements both in the residential and commercial sector, exclusive elegant design complete the range features, ranking Aermec among the leaders on the market.

ROOM AIR CONDITIONERS

			Air flow rate (m^3/h)	Cool. Cap. (kW)	Heat. Cap. (kW)	Page
	Monobloc					
	FK	Monobloc window	-	2,7-3,6	-	820
	CMP (COMPACT)	Monobloc without outdoor unit	-	2,35	2,36	823
	PSL	Portable air conditioner	-	2,6-3,4	2,3-2,7	826
	Monosplit					
new	**SPG**	Monosplit	-	2,5-6,2	2,8-6,5	829
new	**SGE**	Monosplit	-	2,77-5,86	2,93-6,00	834
	SMG	Universal	-	2,7-3,5	3,2-4,0	838
new	**SCG**	Monosplit	-	7,2-12,5	7,9-13,5	843
	CKG	Monosplit	-	2,7-6,6	2,9-6,8	847
	LCG	Monosplit	-	3,5-16,0	4,0-17,0	852
	MVAS	Monosplit high head duct	-	22,4-28,0	24,0-30,0	862
	Multisplit					
	MLG	Multisplit	-	4,1-12,0	4,4-13,0	865
new	**MPG**	Multisplit	-	4,1-8,0	4,4-9.5	882

FK

Monobloc window

Cooling capacity 2,7 ÷ 3,6 kW

- **New R32 ecological refrigerant gas.**
- **Flush-mounting installation on the window.**
- **Plug & Play.**



A

DESCRIPTION

The packed air-conditioners of the FK range, for flush-mounting window installation, are ideal for use in commercial contexts such as shops, hotels, offices, laboratories and prefabricated garages.

FEATURES



Inner and outer side

— Remote control and holder standard supply with each unit.
— Fans with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Clean filter signal function.
— Timer for programming switch-off and switch-on.
— Auxiliary emergency command integrated into the unit.
— Indoor unit front panel with LED display and indicator lights.
— Inner side 3-speed fan, to meet every possible need.
— **Auto** function for a continuous speed variation.
— **Sleep** night time function well-being program.
— DC inverter rotary compressor.

General features

— New R32 ecological refrigerant gas with low GWP.
— Monobloc **Plug & Play** unit equipped with power supply with schuko plug.
— Operating mode: cooling, dehumidification and fan only.
— Condensate discharge tub included.
— Particularly quiet operation.
— Microproccessor control.
— Auto-restart function.
— Self-diagnosis function.

INSTALLATION TYPE



PERFORMANCE SPECIFICATIONS

		FK260	FK360
Nominal cooling performances			
Cooling capacity (1)	kW	2,70	3,65
Cooling input power (1)	kW	0,78	1,03
EER (2)	W/W	3,45	3,54
Moisture removed	l/h	1,0	1,6
Maximum cooling performances			
Cooling input current	A	3,5	4,6
Seasonal efficiency			
SEER	W/W	5,20	5,40
Efficiency energy class (3)		A	A
Pdesignc	kW	2,7	3,7
Annual power consumption	kWh/annum	182	240

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.
(3) Data in accordance with Delegated Regulation (EU) No. 626/2011.

GENERAL DATA

		FK260	FK360
Electric data			
Rated power input (1)	kW	1,1	1,3
Rated current input (1)	A	5,5	6,5
Power supply			
Power supply		220-240V ~ 50Hz	220-240V ~ 50Hz

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

INNER SIDE

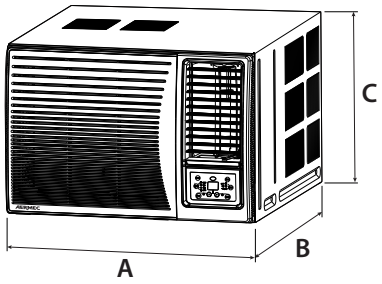
		FK260	FK360
Inner side			
Type of fan	Type	Inverter centrifugal	Inverter centrifugal
Inner side air flow rate			
Maximum	m^3/h	400	480
Average	m^3/h	360	430
Minimum	m^3/h	320	380
Inner side sound pressure			
Maximum	dB(A)	50,0	50,0
Average	dB(A)	48,0	48,0
Minimum	dB(A)	46,0	46,0
Inner side sound power			
Maximum	dB(A)	59,0	59,0
Average	dB(A)	57,0	57,0
Minimum	dB(A)	55,0	55,0

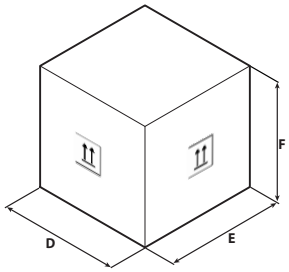
OUTER SIDE

		FK260	FK360
Outer side			
Type of fan	Type	Inverter axial	Inverter axial
Outer side air flow rate			
Maximum	m^3/h	800	1200
Outer side sound power			
Maximum	dB(A)	65,0	65,0
Average	dB(A)	63,0	63,0
Minimum	dB(A)	61,0	61,0
Outer side sound pressure			
Maximum	dB(A)	56,0	56,0
Average	dB(A)	54,0	54,0
Minimum	dB(A)	52,0	52,0
Compressor			
Type	type	Inverter rotary	Inverter rotary
Compressor			
Refrigerant	type	R32	R32
Refrigerant charge (1)	kg	0,5	0,6
Compressor			
Potential global heating	GWP	675kgCO_2eq	675kgCO_2eq
Equivalent CO_2	t	0,34	0,43
Outer side			
Protection rating		IPX4	IPX4

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

DIMENSIONS AND WEIGHTS





Carton Box Example

		FK260	FK360
Dimensions and weights			
A	mm	560	660
B	mm	710	700
C	mm	375	428
D	mm	623	739
E	mm	806	793
F	mm	425	505
Net weight	kg	43,00	50,00
Weight for transport	kg	47,00	54,00

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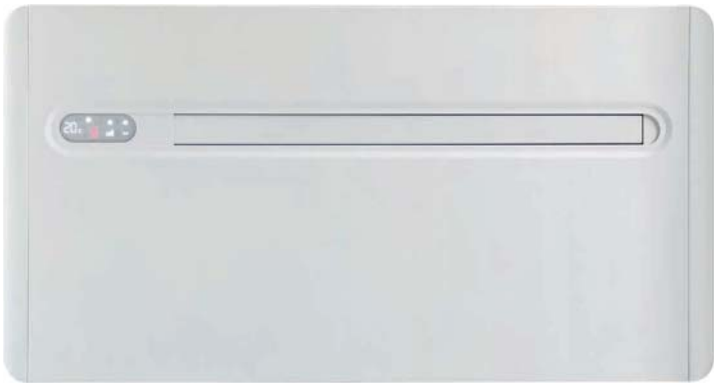
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CMP

Monobloc without outdoor unit

Cooling capacity 2,35 kW
Heating capacity 2,36 kW

- **Two holes, no outdoor units.**
- **Modern design to blend with all furnishing styles.**
- **Extremely thin, with a depth of just 165 mm.**



A+ A

DESCRIPTION

The air-conditioners of the CMP range are of the single-block type and are ideal for heating, cooling, dehumidification or ventilation only, whether in the home or the office.
The absence of an outdoor unit permits installation in all those cases where architectural restraints prevent the positioning of a split air-conditioner.
The unit boasts a compressor and a fan with inverter technology.

FEATURES

Unit

Indoor unit designed for installation on internal walls.
— No need for an outdoor unit just make two 162 mm holes in the outer wall so the air-conditioner can exchange heat with the external environment.
— Folding grilles included.
— On-board control panel with display and soft-touch keys.
— Included remote control.
Cooling operation with outside temperatures up to 35 °C.
Heating operation with outdoor temperatures down to 7 °C.







Folding grilles

With two folding grilles which, activated by the inlet and outlet air, open when the machine is working and close when the machine is switched off.
In this way they guarantee enhanced indoor comfort, less dust, noise and pollution, reduced maintenance and are even less visible from the outside.

Control panel

The on-board control panel with display and soft-touch keys allows you to set the required temperature set-point easily and accurately.
The "heating" function is deactivated by a simple intervention on the control panel: the device then works in "cooling only" mode, without requiring the condensate discharge tube.
The air delivery fin is easily orientated by means of the relative key.

Remote control

Handy remote control that's not too bulky.
Fitted with a practical magnet so it can be fixed to the unit.
All the control panel functions are available via the remote control too.

GENERAL FEATURES

— Condensate drip tray constantly pre-heated in the winter during heat pump operation, without any risk of the water freezing.
— Operating mode: cooling, dehumidification and fan only.
— Particularly quiet operation.
— Microproccessor control.

ACCESSORIES AS STANDARD

— Condensate drip.
— Two folding grilles.
— Remote control.

PERFORMANCE SPECIFICATIONS

		CMP23I
Nominal cooling performances		
Cooling capacity (1)	kW	2,35
Cooling input power (1)	kW	0,73
EER (2)	W/W	3,22
Maximum cooling performances		
Cooling capacity	kW	3,10
Nominal cooling performances		
Moisture removed	l/h	1,1
Seasonal efficiency		
Efficiency energy class (3)		A+
Annual power consumption	kWh/annum	425
Nominal heating performances		
Heating capacity (4)	kW	2,36
Heating input power (4)	kW	0,72
COP (2)	W/W	3,28
Maximum heating performances		
Heating capacity	kW	3,05
Seasonal efficiency (temperate climate)		
Efficiency energy class (3)		A

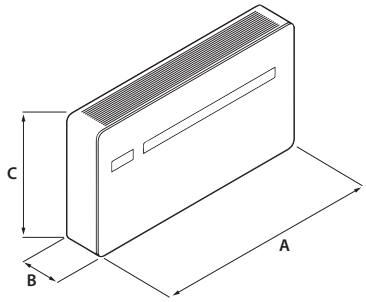
(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.
(3) Data in accordance with Delegated Regulation (EU) No. 626/2011.
(4) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.

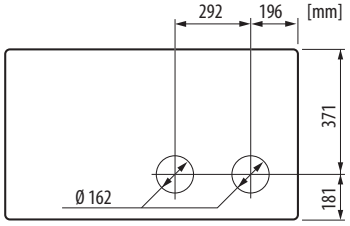
GENERAL DATA

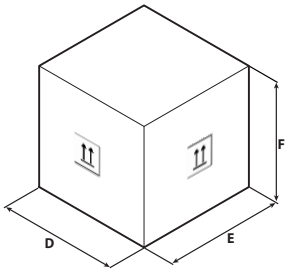
		CMP23I
Fan		
Type	type	Inverter centrifugal
Number	no.	1
Inner side air flow rate		
Maximum	m^3/h	400
Average	m^3/h	320
Minimum	m^3/h	270
Outer side air flow rate		
Maximum	m^3/h	480
Average	m^3/h	390
Minimum	m^3/h	340
Compressor		
Number	no.	1
Refrigerant	type	R410A
Refrigerant charge (1)	kg	0,6
Potential global heating	GWP	2088kgCO_2eq
Sound data calculated in cooling mode (2)		
Sound power level	dB(A)	58,0
Sound pressure level (1,5 m)	dB(A)	46,0

(1) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.
(2) Sound power calculated on the basis of measurements made in accordance with UNI EN ISO 9614-2, as required for Eurovent certification. Sound pressure (cold functioning) measured in free field, 10m away from the unit external surface (in compliance with UNI EN ISO 3744).

DIMENSIONS AND WEIGHTS







Carton Box Example

		CMP23I
Dimensions and weights		
A	mm	1030
B	mm	170
C	mm	555
D	mm	1100
E	mm	260
F	mm	660
Net weight	kg	48,00
Weight for transport	kg	49,00

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PSL

Portable air conditioner

Cooling capacity 2,6 ÷ 3,4 kW
Heating capacity 2,3 ÷ 2,7 kW

- **New R290 natural refrigerant gas.**
- **Reversible heat pump.**
- **Compact, manoeuvrable and silent.**
- **Modern design to blend with all furnishing styles.**
- **Special coil with fin blue coating.**



A A+

DESCRIPTION

PSL portable air conditioner, ideal for heating, cooling, dehumidification or ventilation only both at home and at the office.
Adapts to any kind of decor, thanks to its compact and elegant design; it is mounted on wheels and can be used in multiple rooms, and is easily transportable and installable.
Equipped with a specific tank to collect the moisture removed from the environment during cooling, heating or dehumidification.
The on-board control panel with display, allows to easily and precisely set the desired temperature set-points.

FEATURES



Operation

The cooled, heated and/or dehumidified air exits the front grille and directed vertically by movable louvers. The air to be treated is drawn through filters from the rear. The hot air is expelled through a hose that is attached by means of a special flange on the rear of the portable air conditioner unit. The air filters are easy to remove and wash.

Special blue fin coil

Unlike normal batteries, this special blue epoxy coating is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



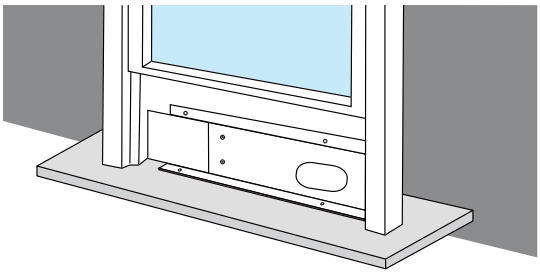
GENERAL FEATURES

— Remote control standard supply with each indoor unit.
— New R290 natural refrigerant gas.
— Operating mode: cooling, heating, dehumidification, automatic and fan only.
— Regenerable air filter easy to remove and clean.
— Particularly quiet operation.
— Timer for programming switch-off and switch-on.
— Indoor unit front panel with LED display and indicator lights.
— 3-speed fan, to meet every possible need.
— **Auto** function for a continuous speed variation.
— **Turbo** function to attain the desired temperature as quickly as possible.
— **Sleep** night time function well-being program.
— **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.
— Auto-restart function.

ACCESSORIES AS STANDARD

— Hot air expulsion hose with special joints and collectors.
— Condensate discharge hose, discharge tap and relative fixing accessories.
— Window kit and protection mesh to connect the hot air expulsion hose.
— Cap for the wall and connection for the hot air expulsion hose.
— Remote control.

WINDOW KIT



FLEXIBLE PIPE

		PSL250	PSL350
Flexible pipe			
Minimum length	mm	270	270
Maximum length	mm	1500	1500

PERFORMANCE SPECIFICATIONS

		PSL250	PSL350
Nominal cooling performances			
Cooling capacity (1)	kW	2,60	3,40
EER (2)	W/W	3,10	2,60
Seasonal efficiency			
Efficiency energy class (3)		A	A
Nominal heating performances			
Heating capacity (4)	kW	2,30	2,70
COP (2)	W/W	3,10	2,80
Seasonal efficiency (temperate climate)			
Efficiency energy class (3)		A+	A+

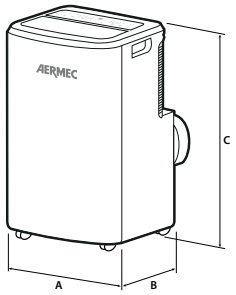
(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.
(3) Data in accordance with Delegated Regulation (EU) No. 626/2011.
(4) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.

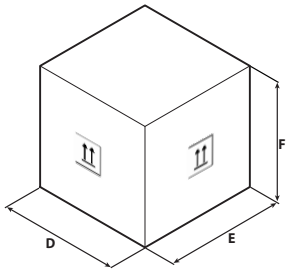
GENERAL DATA

		PSL250	PSL350
Electric data			
Rated power input (1)	kW	1,0	1,5
Rated current input (1)	A	4,6	8,0
Fan			
Type	type	Centrifugal on/off	Centrifugal on/off
Air flow rate			
Maximum	m^3/h	390	390
Average	m^3/h	360	360
Minimum	m^3/h	330	330
Sound power			
Maximum	dB(A)	64,0	64,0
Average	dB(A)	63,5	63,5
Minimum	dB(A)	63,0	63,0
Sound pressure (2)			
Maximum	dB(A)	35,0	35,0
Average	dB(A)	33,0	33,0
Minimum	dB(A)	31,0	31,0
Compressor			
Type	type	Rotary on/off	Rotary on/off
Number	no.	1	1
Refrigerant	type	R290	R290
Refrigerant charge (3)	kg	0,2	0,2
Power supply cable			
Type of power supply cable	Type	3G1,0 mm^2/L= 2,85 m/Schuko plug	3G1,0 mm2/L= 2,85 m/Schuko plug
Power supply			
Power supply		220-240V ~ 50Hz	220-240V ~ 50Hz
Indoor unit			
Condensate discharge diameter	mm	13,5	13,5

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.
(2) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.
(3) The load indicated in the table is an estimated and preliminary value. The final value of the refrigerant load is indicated on the unit's technical label. For further information contact the office.

DIMENSIONS AND WEIGHTS





Carton Box Example

		PSL250	PSL350
Dimensions and weights			
A	mm	476	476
B	mm	385	385
C	mm	710	710
D	mm	545	545
E	mm	435	435
F	mm	885	885
Net weight	kg	33,00	34,00
Weight for transport	kg	38,00	39,00

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SPG

Monosplit

Cooling capacity 2,5 ÷ 6,2 kW
Heating capacity 2,8 ÷ 6,5 kW

- **New R32 ecological refrigerant gas.**
- **Wi-fi control using the relative accessory.**
- **Modern design to blend with all furnishing styles.**
- **Special coil with fin blue coating.**
- **Indoor units compatible with multisplit systems.**



A++ A+

DESCRIPTION

The monosplit air conditioners of the SPG range are combined with SP-G_W (Wall) indoor units for wall installation.
Universal indoor units: some indoor units can be combined with both multisplit outdoor units of the series MPG and monosplit outdoor units of the series SPG:

SPG	SPG250W	SPG350W	SPG500W	SPG700W
Universal indoor units compatible with MPG multisplit system	•	•	•	•

The outdoor unit features a compressor with DC inverter technology and electric heater to ensure proper winter operation and prevent ice formation on the coil.

FEATURES



Indoor unit

Wall indoor unit designed to be installed on indoor walls.
— Every indoor unit comes with a remote control and a remote control holder.
— Fan with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Timer for programming switch-off and switch-on.
— Auxiliary emergency command integrated into the unit.
— Indoor unit front panel with LED display and indicator lights.
— 3-speed fan, to meet every possible need.
— **Auto** function for a continuous speed variation.
— **Turbo** function to attain the desired temperature as quickly as possible.
— **Sleep** night time function well-being program.
— **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
— **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
— **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.

Outdoor unit

Monosplit air conditioner.
Reversible air/air heat pump with DC inverter technology.
— Fitted with a electrical anti-freeze heater (in unit base) to avoid the formation of ice and encourage the drainage of condensate during heating operation.
— Compressor and fan with DC inverter technology.

X-fan function

This self-cleaning system foresees that the fan of the indoor unit continues its operation for a few minutes after the unit is turned off, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.



Smart APP Ewpe

Using the specific **accessory**, the system offers wi-fi control thanks to the app for iOS and Android devices (available free on Apple Store and Google Play). The system can be controlled from a distance directly on your smartphone or tablet, or via Cloud with the aid of a wireless router connected to the Internet.



Special blue fin coil

Unlike normal batteries, this special blue epoxy coating is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



General features

— New R32 ecological refrigerant gas with low GWP.
— Operating mode: cooling, heating, dehumidification, automatic and fan only.
— Particularly quiet operation.
— Microproccessor control.
— Auto-restart function.
— Self-diagnosis function.
— Air filter easily removed and cleaned.
— Easy installation and maintenance.

ACCESSORIES

CC2: Centralised control with 7" touchscreen display for managing several indoor units within a number of multisplit systems. The centralised control has an integrated external contact. For more information, refer to the specific documentation. *

WRCA: Wired panel with liquid crystal display and soft-touch buttons. This accessory can be used to control not only the traditional system functions but also a weekly timer with a maximum of 8 daily time bands.

*** The CC2 centralised control can manage up to 36 SPG system.**

DCK: Remote Contact Kit. This accessory allows you to switch the system on and off using an external contact.

WIFIKIT: Plug & Play module to be installed in the indoor unit for Wi-Fi control.









ACCESSORIES COMPATIBILITY

Accessory	SPG500W	SPG700W
CC2 (1)	•	•
WRCA (1)	•	•

(1) Auto-restart function.

Accessory	SPG250W	SPG350W	SPG500W	SPG700W
DCK			•	•
WIFIKIT	•	•	•	•

PERFORMANCE SPECIFICATIONS

Indoor unit		SPG250W	SPG350W	SPG500W	SPG700W
Outdoor unit		**SPG250**	**SPG350**	**SPG500**	**SPG700**
Nominal cooling performances					
Cooling capacity (1)	kW	2,50	3,20	4,60	6,20
Cooling input power (1)	kW	0,72	0,99	1,36	1,77
EER (2)	W/W	3,47	3,23	3,39	3,50
Moisture removed	l/h	0,6	1,4	1,8	1,8
Minimum cooling performances					
Cooling capacity	kW	0,50	0,90	1,00	1,60
Cooling input power	kW	0,15	0,22	0,42	0,45
Maximum cooling performances					
Cooling capacity	kW	3,25	3,60	5,30	6,90
Cooling input power	kW	1,30	1,30	1,80	2,20
Cooling input current	A	3,2	4,4	5,9	7,9
Seasonal efficiency					
Annual power consumption	kWh/annum	135	184	251	319
SEER	W/W	6,50	6,10	6,40	6,80
Efficiency energy class (3)		A++	A++	A++	A++
Nominal heating performances					
Heating capacity (4)	kW	2,80	3,40	5,20	6,50
Heating input power (4)	kW	0,75	0,91	1,34	1,65
COP (2)	W/W	3,73	3,71	3,88	3,95
Minimum heating performances					
Heating capacity	kW	0,50	0,90	1,00	1,30
Heating input power	kW	0,14	0,22	0,42	0,45
Maximum heating performances					
Heating capacity	kW	3,50	4,00	5,65	7,91
Heating input power	kW	1,50	1,50	1,90	2,20
Heating input current	A	3,2	4,0	5,8	7,3
Seasonal efficiency (temperate climate)					
Annual power consumption	kWh/annum	875	945	1295	1645
Efficiency energy class (3)		A+	A+	A+	A+
SCOP		4,00	4,00	4,00	4,00

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.
(3) Data in accordance with Delegated Regulation (EU) No. 626/2011.
(4) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.

INDOOR UNIT DATA

		SPG250W	SPG350W	SPG500W	SPG700W
Indoor unit					
Type of fan	Type		Inverter centrifugal		
Air flow rate					
Turbo	m^3/h	500	590	850	1100
Maximum	m^3/h	470	520	800	950
Average	m^3/h	390	400	700	750
Minimum	m^3/h	270	320	600	650
Sound power					
Turbo	dB(A)	55,0	56,0	54,0	61,0
Maximum	dB(A)	48,0	49,0	52,0	58,0
Average	dB(A)	44,0	45,0	48,0	52,0
Minimum	dB(A)	34,0	38,0	44,0	49,0
Sound pressure (1 m) (1)					
Turbo	dB(A)	38,0	41,0	44,0	47,0
Maximum	dB(A)	36,0	37,0	42,0	44,0
Average	dB(A)	32,0	33,0	38,0	38,0
Minimum	dB(A)	22,0	26,0	34,0	35,0
Indoor unit					
Condensate discharge diameter	mm	16,0	16,0	16,0	16,0
Power supply					
Indoor unit power supply			220-240V ~ 50Hz		

(1) Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source.

OUTDOOR UNIT DATA

		SPG250	SPG350	SPG500	SPG700
Outdoor unit					
Type of fan	Type		Inverter axial		
Air flow rate					
Maximum	m^3/h	1950	1950	1950	2800
Sound power					
Maximum	dB(A)	62,0	64,0	63,0	67,0
Sound pressure (1 m) (1)					
Maximum	dB(A)	51,0	51,0	55,0	58,0
Compressor					
Type	type		Inverter rotary		
Refrigerant	type		R32		
Refrigerant charge	kg	0,50	0,55	0,75	1,30
Potential global heating	GWP		675kgCO_2eq		
Equivalent CO_2	t	0,34	0,37	0,51	0,88
Outdoor unit					
Condensate discharge diameter	mm	16,0	16,0	16,0	16,0

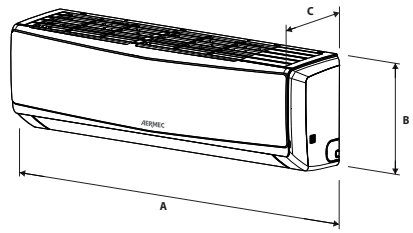
(1) Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source.

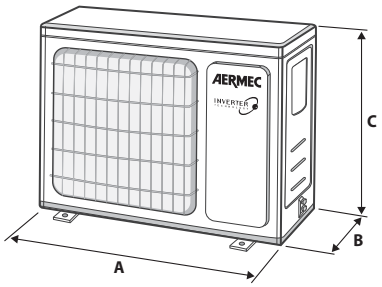
GENERAL DATA

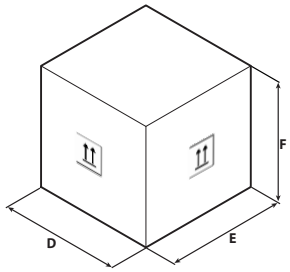
Indoor unit		**SPG250W**	**SPG350W**	**SPG500W**	**SPG700W**
Outdoor unit		**SPG250**	**SPG350**	**SPG500**	**SPG700**
Electric data					
Rated power input (1)	kW	1,5	1,5	1,9	2,2
Rated current input (1)	A	7,5	7,5	9,0	10,0
Refrigeration pipework					
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	12,7 (1/2")
Refrigerant to be added	g/m	16	16	16	16
Maximum refrigerant tube length	m	15	15	25	25
Maximum refrigerant line level difference	m	10,0	10,0	10,0	10,0
Power supply					
Power supply		220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

DIMENSIONS AND WEIGHTS







Carton Box Example

		SPG250W	SPG350W	SPG500W	SPG700W
Indoor unit					
A	mm	696	770	972	1081
B	mm	251	251	300	325
C	mm	190	190	225	248
D	mm	747	822	1022	1137
E	mm	324	324	374	407
F	mm	262	262	299	334
Net weight	kg	7,50	8,50	13,50	16,50
Weight for transport	kg	9,00	10,00	16,00	19,50

		SPG250	SPG350	SPG500	SPG700
Outdoor unit					
A	mm	732	732	732	873
B	mm	330	330	330	376
C	mm	550	550	555	555
D	mm	792	792	794	951
E	mm	393	393	376	431
F	mm	615	615	615	620
Net weight	kg	25,00	25,00	27,00	37,00
Weight for transport	kg	28,00	28,00	29,00	40,00

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SGE

Monosplit

Cooling capacity 2,8 ÷ 5,9 kW
Heating capacity 2,9 ÷ 6,0 kW

- **New R32 ecological refrigerant gas.**
- **Air Purifiers (Cold Plasma).**
- **Possibility of Wi-Fi control.**
- **Innovative design sleek curved lines.**
- **Special coil with fin golden coating.**



DESCRIPTION

The monosplit air conditioners of the SGE range are combined with SGE_W (Wall) indoor units for wall installation.
The external unit boasts a compressor with inverter technology.

FEATURES

Innovative design

SGE has an elegant and essential design. Its curved lines emphasize a kind of structure with innovative and functional style. The display with working parameters is elegantly integrated in the satin-finish cover and visible only when the unit is on.



Indoor unit

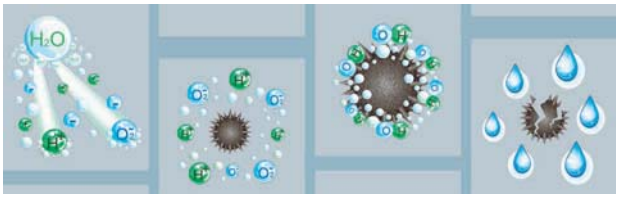
Wall indoor unit designed to be installed on indoor walls.
— Remote control standard supply with each indoor unit.
— Fan with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Timer for programming switch-off and switch-on.
— Auxiliary emergency command integrated into the unit.
— Indoor unit front panel with LED display and indicator lights.
— 3-speed fan, to meet every possible need.
— **Auto** function for a continuous speed variation.
— **Turbo** function to attain the desired temperature as quickly as possible.
— **Sleep** night time function well-being program.
— **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
— **followMe** function for activating the ambient temperature probe inside the remote control, for improved comfort.

Outdoor unit

Monosplit air conditioner.
Reversible air/air heat pump with DC inverter technology.
Compressor and fan with DC inverter technology.

Air Purifiers (Cold Plasma)

Capable of reducing pollutants breaking down their molecules using electric discharges, causing the splitting of the water molecules in the air into positive and negative ions. These ions neutralise the molecules of the gaseous pollutants obtaining products that are normally present in clean air. The device can eliminate 90% of bacteria. The result is clean, ionised air that has no bad odours.



Special golden fin coil

Unlike normal batteries, this special golden epoxy coating silicon free is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



Nethome Plus app

Using the specific **accessory**, the system offers wi-fi control thanks to the app for iOS and Android devices (available free on Apple Store and Google Play). The system can be controlled from a distance directly on your smartphone or tablet, or via Cloud with the aid of a wireless router connected to the Internet.



General features

- New R32 ecological refrigerant gas with low GWP.
- Operating mode: cooling, heating, dehumidification, automatic and fan only.
- Particularly quiet operation.
- Microproccessor control.
- Auto-restart function.
- Self-diagnosis function.
- Air filter easily removed and cleaned.
- Easy installation and maintenance.

ACCESSORIES

WIFIKEY: Plug & Play module to be installed in the indoor unit for Wi-Fi control.

Accessories compatibility

Accessory	SGE250W	SGE350W	SGE500W	SGE700W
WIFIKEY	•	•	•	•

PERFORMANCE SPECIFICATIONS

Indoor unit		SGE250W	SGE350W	SGE500W	SGE700W
Outdoor unit		**SGE250**	**SGE350**	**SGE500**	**SGE700**
Nominal cooling performances					
Cooling capacity (1)	kW	2,77	3,46	5,27	5,86
Cooling input power (1)	kW	0,77	1,06	1,55	1,81
EER (2)	W/W	3,60	3,25	3,40	3,24
Moisture removed	l/h	1,0	1,2	1,8	2,7
Minimum cooling performances					
Cooling capacity	kW	0,91	1,11	3,39	2,08
Cooling input power	kW	0,10	0,13	0,56	0,42
Maximum cooling performances					
Cooling capacity	kW	3,39	4,16	5,83	7,91
Cooling input power	kW	1,24	1,58	2,05	3,15
Cooling input current	A	3,3	4,6	6,7	7,9
Seasonal efficiency					
SEER	W/W	6,30	6,40	7,40	6,80
Efficiency energy class (3)		A++	A++	A++	A++
Annual power consumption	kWh/annum	156	190	247	300
Nominal heating performances					
Heating capacity (4)	kW	2,93	3,57	4,97	6,00
Heating input power (4)	kW	0,73	0,96	1,29	1,61
COP (2)	W/W	4,00	3,71	3,83	3,73
Minimum heating performances					
Heating capacity	kW	0,82	1,08	3,10	1,61
Heating input power	kW	0,12	0,10	0,78	0,30
Maximum heating performances					
Heating capacity	kW	3,37	4,22	5,85	7,91
Heating input power	kW	1,20	1,68	2,00	2,75
Heating input current	A	3,2	4,2	5,6	7,0
Seasonal efficiency (temperate climate)					
SCOP		4,00	4,00	4,00	4,00
Efficiency energy class (3)		A+	A+	A+	A+
Annual power consumption	kWh/annum	910	945	1435	1818
Seasonal efficiency (hot climate)					
SCOP		5,10	5,10	5,10	5,00
Efficiency energy class (3)		A+++	A+++	A+++	A++
Annual power consumption	kWh/annum	714	686	1260	1705

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.
(3) Data in accordance with Delegated Regulation (EU) No. 626/2011.
(4) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.

INDOOR UNIT

		SGE250W	SGE350W	SGE500W	SGE700W
Indoor unit					
Type of fan	Type		Tangential		
Air flow rate					
Maximum	m^3/h	466	540	840	980
Average	m^3/h	360	430	680	817
Minimum	m^3/h	325	314	540	662
Sound power					
Maximum	dB(A)	54,0	55,0	56,0	59,0
Sound pressure (1 m) (1)					
Maximum	dB(A)	38,5	40,5	42,5	45,0
Average	dB(A)	32,0	34,5	36,0	40,5
Minimum	dB(A)	25,0	25,0	26,0	36,0

(1) Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source.

OUTDOOR UNIT

		SGE250	SGE350	SGE500	SGE700
Outdoor unit					
Type of fan	Type	Axial	Axial	Axial	Axial
Air flow rate					
Maximum	m^3/h	1750	1800	2100	3500
Sound power					
Maximum	dB(A)	62,0	63,0	63,0	67,0
Sound pressure (1 m) (1)					
Maximum	dB(A)	55,5	56,0	56,0	59,0
Compressor					
Type	type	Inverter rotary	Inverter rotary	Inverter rotary	Inverter rotary
Refrigerant	type	R32	R32	R32	R32
Refrigerant charge	kg	0,55	0,55	1,08	1,42
Potential global heating	GWP	675kgCO_2eq	675kgCO_2eq	675kgCO_2eq	675kgCO_2eq
Equivalent CO_2	t	0,37	0,37	0,73	0,96

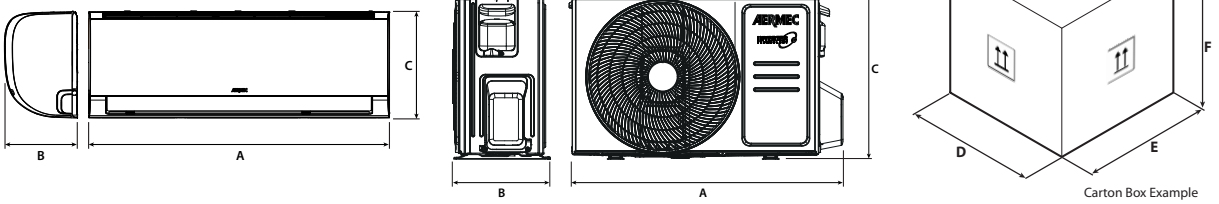
(1) Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source.

GENERAL DATA

Indoor unit		**SGE250W**	**SGE350W**	**SGE500W**	**SGE700W**
Outdoor unit		**SGE250**	**SGE350**	**SGE500**	**SGE700**
Electric data					
Rated power input (1)	kW	2,2	2,2	2,5	3,5
Rated current input (1)	A	10,0	10,0	13,0	15,5
Refrigeration pipework					
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	9,52 (3/8")
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")	9,52 (3/8")	12,7 (1/2")	15,9 (5/8")
Maximum refrigerant tube length	m	25	25	30	50
Maximum refrigerant line level difference	m	10,0	10,0	20,0	25,0
Refrigerant to be added	g/m	12	12	12	24
Power supply					
Power supply		220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

DIMENSIONS AND WEIGHTS



Carton Box Example

		SGE250W	SGE350W	SGE500W	SGE700W
Indoor unit					
A	mm	805	805	957	1040
B	mm	194	194	213	220
C	mm	285	285	302	327
D	mm	870	870	1035	1120
E	mm	270	270	295	405
F	mm	365	365	385	315
Net weight	kg	7,60	7,60	10,00	12,30
Weight for transport	kg	9,70	9,80	13,00	15,80

		SGE250	SGE350	SGE500	SGE700
Outdoor unit					
A	mm	720	720	805	890
B	mm	270	270	330	342
C	mm	495	495	554	673
D	mm	835	835	915	995
E	mm	300	300	370	398
F	mm	540	540	615	740
Net weight	kg	23,20	23,20	32,70	42,90
Weight for transport	kg	25,00	25,00	35,40	45,90

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SMG

Universal

Cooling capacity 2,7 ÷ 3,5 kW
Heating capacity 3,2 ÷ 4,0 kW

- **New R32 ecological refrigerant gas.**
- **Standard Wi-Fi module.**
- **Innovative design sleek curved lines.**
- **Special coil with fin blue coating.**



DESCRIPTION

The monosplit air conditioners of the SMG range are combined with SMG_W (Wall) indoor units for wall installation.
Universal indoor units:
all indoor units can be combined with both multisplit outdoor units of the series MLG and monosplit outdoor units of the series SMG.
The outdoor unit features a compressor with inverter technology, an electronic valve and electric heater to ensure proper winter operation and prevent ice formation on the coil.

FEATURES

Innovative design

SMG has an elegant and essential design. The curved lines form a structure that has an innovative and functional style. The operating parameters display is elegantly integrated in the satin-finish cover. The motorised horizontal and vertical louvers direct the air flow in the desired direction, guaranteeing total comfort in the environment.





Indoor unit

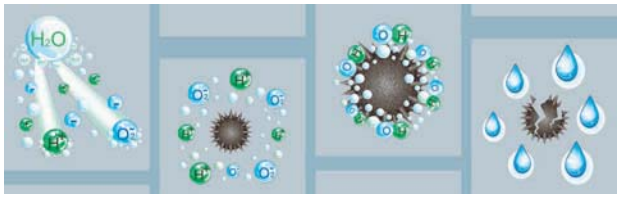
Wall indoor unit designed to be installed on indoor walls.
— Every indoor unit comes with a remote control and a remote control holder.
— Fan with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Timer for programming switch-off and switch-on.
— Auxiliary emergency command integrated into the unit.
— Indoor unit front panel with LED display and indicator lights.
— 3-speed fan, to meet every possible need.
— **Auto** function for a continuous speed variation.
— **Turbo** function to attain the desired temperature as quickly as possible.
— **Sleep** night time function well-being program.
— **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
— **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
— **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.

Outdoor unit

Monosplit air conditioner.
Reversible air/air heat pump with DC inverter technology.
— Fitted with a electrical anti-freeze heater (in unit base) to avoid the formation of ice and encourage the drainage of condensate during heating operation.
— Compressor and fan with DC inverter technology.
— Fitted with an electronic expansion valve.

Air Purifiers (Cold Plasma)

Capable of reducing pollutants breaking down their molecules using electric discharges, causing the splitting of the water molecules in the air into positive and negative ions. These ions neutralise the molecules of the gaseous pollutants obtaining products that are normally present in clean air. The device can eliminate 90% of bacteria. The result is clean, ionised air that has no bad odours.



X-fan function

This self-cleaning system foresees that the fan of the indoor unit continues its operation for a few minutes after the unit is turned off, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.



Smart APP Ewpe

This system is fitted **standard** with a wi-fi module that can be used, along with the app for iOS and Android devices (available free on Apple Store and Google Play), to control the system remotely on your smartphone or tablet, or via Cloud with the aid of a wireless router connected to the Internet.



Special blue fin coil

Unlike normal batteries, this special blue epoxy coating is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



General features

- New R32 ecological refrigerant gas with low GWP.
- Operating mode: cooling, heating, dehumidification, automatic and fan only.
- Particularly quiet operation.
- Microproccessor control.
- Auto-restart function.
- Self-diagnosis function.
- Air filter easily removed and cleaned.
- Easy installation and maintenance.
- **Low cooling function:** cooling with outside temperatures down to -18 °C.
- **Low heating function:** heating with outside temperatures down to -30 °C.

PERFORMANCE SPECIFICATIONS

Indoor unit		SMG270W	SMG350W
Outdoor unit		**SMG270**	**SMG350**
Nominal cooling performances			
Cooling capacity (1)	kW	2,70	3,53
Cooling input power (1)	kW	0,60	0,88
EER (2)	W/W	4,50	4,00
Moisture removed	l/h	0,8	0,8
Minimum cooling performances			
Cooling capacity	kW	0,30	0,30
Cooling input power	kW	0,13	0,13
Maximum cooling performances			
Cooling capacity	kW	4,30	4,80
Cooling input power	kW	1,30	1,80
Cooling input current	A	3,7	5,8
Seasonal efficiency			
SEER	W/W	7,50	7,20
Efficiency energy class (3)		A++	A++
Annual power consumption	kWh/annum	126	170
Pdesignc	kW	2,7	3,5
Nominal heating performances			
Heating capacity (4)	kW	3,20	4,00
Heating input power (4)	kW	0,78	1,00
COP (2)	W/W	4,10	4,00
Minimum heating performances			
Heating capacity	kW	0,60	0,60
Heating input power	kW	0,15	0,15
Maximum heating performances			
Heating capacity	kW	5,90	6,00
Heating input power	kW	2,30	2,40
Heating input current	A	4,4	6,8
Seasonal efficiency (temperate climate)			
SCOP		4,60	4,60
Efficiency energy class (3)		A++	A++
Annual power consumption	kWh/annum	852	913
Pdesignh	kW	2,80	3,00

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.
(3) Data in accordance with Delegated Regulation (EU) No. 626/2011.
(4) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.

INDOOR UNIT

		SMG270W	SMG350W
Indoor unit			
Type of fan	Type	Inverter tangential	
Air flow rate			
Turbo	m^3/h	550	650
Maximum	m^3/h	450	500
Average	m^3/h	330	400
Minimum	m^3/h	250	250
Quiet	m^3/h	220	220
Sound power			
Turbo	dB(A)	58,0	58,0
Maximum	dB(A)	50,0	51,0
Average	dB(A)	42,0	43,0
Minimum	dB(A)	37,0	37,0
Quiet	db(A)	34,0	35,0
Sound pressure (1)			
Turbo	dB(A)	40,0	42,0
Maximum	dB(A)	36,0	37,0
Average	dB(A)	28,0	29,0
Minimum	dB(A)	23,0	23,0
Quiet	db(A)	20,0	21,0

(1) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

OUTDOOR UNIT

		SMG270	SMG350
Outdoor unit			
Type of fan	Type	Inverter axial	
Air flow rate			
Maximum	m^3/h	2400	2400
Sound power			
Maximum	dB(A)	63,0	63,0
Sound pressure (1)			
Maximum	dB(A)	52,0	53,0
Compressor			
Type	type	Inverter rotary	
Refrigerant	type	R32	
Refrigerant charge	kg	0,95	0,90
Potential global heating	GWP	675kgCO_2eq	
Equivalent CO_2	t	0,64	0,61

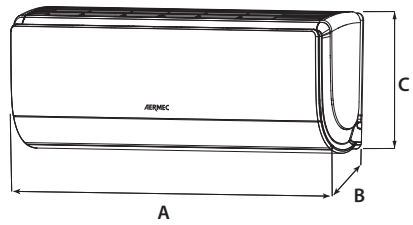
(1) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

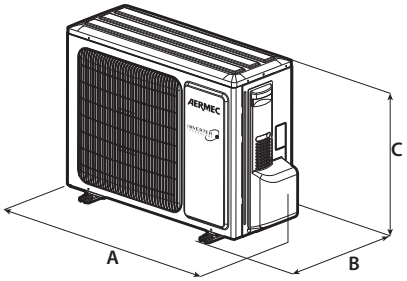
GENERAL DATA

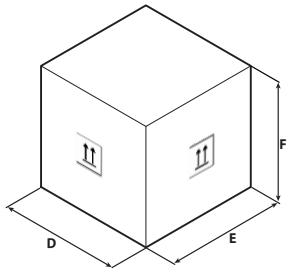
Indoor unit		**SMG270W**	**SMG350W**
Outdoor unit		**SMG270**	**SMG350**
Electric data			
Rated power input (1)	kW	2,3	2,4
Rated current input (1)	A	10,5	10,5
Refrigeration pipework			
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")	6,35 (1/4")
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")	9,52 (3/8")
Maximum refrigerant tube length	m	15	20
Maximum refrigerant line level difference	m	10,0	10,0
Refrigerant to be added	g/m	16	16
Power supply			
Power supply		220-240V ~ 50Hz	220-240V ~ 50Hz

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

DIMENSIONS AND WEIGHTS







Carton Box Example

		SMG270W	SMG350W
Indoor unit			
A	mm	860	860
B	mm	170	170
C	mm	305	305
D	mm	935	935
E	mm	388	388
F	mm	295	295
Net weight	kg	11,50	11,50
Weight for transport	kg	14,00	14,00

		SMG270	SMG350
Outdoor unit			
A	mm	899	899
B	mm	378	378
C	mm	596	596
D	mm	948	948
E	mm	420	420
F	mm	645	645
Net weight	kg	42,00	43,50
Weight for transport	kg	45,00	46,50

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SCG

Monosplit

Cooling capacity 7,2 kW ÷ 12,5 kW
Heating capacity 7,9 kW ÷ 13,5 kW



- **New R32 ecological refrigerant gas.**
- **Standard Wi-Fi module.**
- **Modern design to blend with all furnishing styles.**
- **Easy installation and maintenance.**
- **Ideal for installations in the service sector: hotels, restaurants, offices.**

DESCRIPTION

The monosplit air conditioners of the SCG range are combined with SCG_V (column) indoor units for floor installation.
Thanks to their compact size, ease of installation and modern design, they are suitable for environments such as shops, restaurants, shopping centers, doctor's offices, etc.
The outdoor unit features a compressor with inverter technology, an electronic valve and electric heater to ensure proper winter operation and prevent ice formation on the coil.

FEATURES



Indoor unit

Indoor unit **column** designed to be installed for indoor floor installation.
— Every indoor unit comes with a remote control and a remote control holder.
— Fan with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Timer for programming switch-off and switch-on.
— Auxiliary emergency command integrated into the unit.
— Indoor unit front panel with LED display and indicator lights.
— 3-speed fan, to meet every possible need.
— **Turbo** function to attain the desired temperature as quickly as possible.
— **Sleep** night time function well-being program.
— **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
— **Auto** function for a continuous speed variation.

Outdoor unit

Monosplit air conditioner.
Reversible air/air heat pump with DC inverter technology.
— Fitted with a electrical anti-freeze heater (in unit base) to avoid the formation of ice and encourage the drainage of condensate during heating operation.
— Compressor and fan with DC inverter technology.
— Fitted with an electronic expansion valve.

X-fan function

This self-cleaning system foresees that the fan of the indoor unit continues its operation for a few minutes after the unit is turned off, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.



Smart APP Ewpe

This system is fitted **standard** with a wi-fi module that can be used, along with the app for iOS and Android devices (available free on Apple Store and Google Play), to control the system remotely on your smartphone or tablet, or via Cloud with the aid of a wireless router connected to the Internet.



Special blue fin coil

Unlike normal batteries, this special blue epoxy coating is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



General features

- Operating mode: cooling, heating, dehumidification, automatic and fan only.
- Particularly quiet operation.
- Microproccessor control.
- Auto-restart function.
- Self-diagnosis function.
- Air filter easily removed and cleaned.
- Easy installation and maintenance.

PERFORMANCE SPECIFICATIONS

Indoor unit		SCG700V	SCG1200V	SCG1200VT
Outdoor unit		**SCG700**	**SCG1200**	**SCG1200T**
Nominal cooling performances				
Cooling capacity (1)	kW	7,20	12,50	12,50
Cooling input power (1)	kW	2,05	4,20	3,44
EER (2)	W/W	3,51	2,98	3,63
Moisture removed	l/h	2,0	5,0	5,0
Minimum cooling performances				
Cooling capacity	kW	1,00	3,60	3,60
Cooling input power	kW	0,37	0,36	0,40
Maximum cooling performances				
Cooling capacity	kW	9,00	13,50	13,50
Cooling input power	kW	3,70	5,40	6,60
Cooling input current	A	10,0	19,0	5,4
Seasonal efficiency				
SEER	W/W	6,10	5,60	6,10
Efficiency energy class (3)		A++	-	-
Annual power consumption	kWh/annum	413	-	-
ηsc	%	-	246,00	221,00
Nominal heating performances				
Heating capacity (4)	kW	7,90	13,50	13,50
Heating input power (4)	kW	2,33	4,20	3,30
COP (2)	W/W	3,39	3,21	4,09
Minimum heating performances				
Heating capacity	kW	1,60	2,80	2,80
Heating input power	kW	0,32	0,36	0,50
Maximum heating performances				
Heating capacity	kW	8,80	14,00	14,00
Heating input power	kW	3,90	5,40	6,60
Heating input current	A	11,0	19,0	5,2
Seasonal efficiency (temperate climate)				
SCOP		4,00	3,70	4,00
Efficiency energy class (3)		A+	-	-
Annual power consumption	kWh/annum	2135	-	-
ηsh	%	-	145,00	159,00

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.
(3) Data in accordance with Delegated Regulation (EU) No. 626/2011.
(4) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.

INDOOR UNIT

		SCG700V	SCG1200VT	SCG1200V
Indoor unit				
Type of fan	Type		Centrifugal	
Air flow rate				
Turbo	m^3/h	1250	2400	2000
Maximum	m^3/h	950	2200	1850
Average	m^3/h	850	2000	1700
Minimum	m^3/h	750	1800	1580
Sound power				
Turbo	dB(A)	60,0	68,0	66,0
Maximum	dB(A)	51,0	65,0	64,0
Average	dB(A)	48,0	63,0	62,0
Minimum	dB(A)	45,0	61,0	61,0
Sound pressure (1)				
Turbo	dB(A)	45,0	57,0	53,0
Maximum	dB(A)	41,0	55,0	51,0
Average	dB(A)	38,0	53,0	50,0
Minimum	dB(A)	35,0	51,0	48,0
Power supply				
Indoor unit power supply		220-240V ~ 50Hz	380-415V ~ 3N 50Hz	220-240V ~ 50Hz

(1) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

OUTDOOR UNIT

		SCG700	SCG1200T	SCG1200
Outdoor unit				
Type of fan	Type		Axial	
Air flow rate				
Maximum	m^3/h	3200	6000	6000
Sound power				
Maximum	dB(A)	70,0	75,0	74,0
Sound pressure (1)				
Maximum	dB(A)	61,0	69,0	64,0
Compressor				
Type	type		Inverter rotary	
Refrigerant	type		R32	
Refrigerant charge	kg	1,60	2,60	2,60
Potential global heating	GWP		675kgCO_2eq	
Equivalent CO_2	t	1,08	1,76	1,76
Power supply				
Outdoor unit power supply		220-240V ~ 50Hz	380-415V 3N ~ 50Hz	220-240V ~ 50Hz

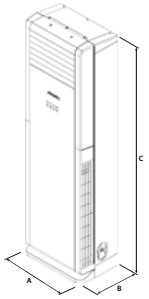
(1) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

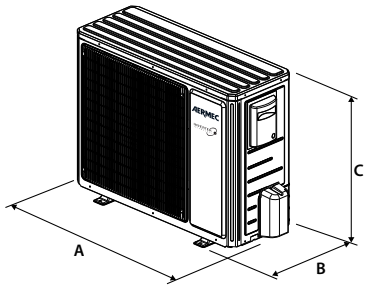
GENERAL DATA

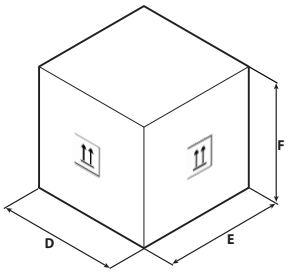
Indoor unit		SCG700V	SCG1200V	SCG1200VT
Outdoor unit		**SCG700**	**SCG1200**	**SCG1200T**
Electric data				
Rated power input (1)	kW	3,9	5,4	6,6
Rated current input (1)	A	18,0	22,0	10,0
Refrigeration pipework				
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")	9,52 (3/8")	9,52 (3/8")
Diameter of refrigerant gas connections	mm (inch)	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")
Maximum refrigerant tube length	m	25	30	30
Maximum refrigerant line level difference	m	10,0	20,0	20,0
Refrigerant to be added	g/m	40	40	40

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.
NB: the quantity of refrigerant gas to be added refers to a line length greater than 5 m.

DIMENSIONS AND WEIGHTS







Carton Box Example

		SCG700V	SCG1200VT	SCG1200V
Indoor unit				
A	mm	507	587	587
B	mm	320	394	394
C	mm	1770	1882	1882
D	mm	623	738	738
E	mm	440	545	545
F	mm	1988	2153	2153
Net weight	kg	38,00	57,00	55,00
Weight for transport	kg	50,00	79,50	77,50

		SCG700	SCG1200T	SCG1200
Outdoor unit				
A	mm	965	1028	1028
B	mm	396	530	530
C	mm	700	822	822
D	mm	1029	1083	1083
E	mm	458	573	573
F	mm	750	973	973
Net weight	kg	53,50	94,00	89,00
Weight for transport	kg	58,00	105,00	100,00

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CKG

Universal

Cooling capacity 2,7 ÷ 6,6 kW
Heating capacity 2,9 ÷ 6,8 kW

- **Standard Wi-Fi module.**
- **New R32 ecological refrigerant gas.**
- **Air Purifiers (Cold Plasma).**
- **Low cooling function: cooling operation with outdoor temperatures down to -15 °C.**
- **Low heating function: heating operation with outdoor temperatures down to -22 °C.**



A++ A+

DESCRIPTION

The monosplit air conditioners of the CKG range are combined with CKG_FS (Console) indoor units with an inverter fan unit, offering twin delivery for optimum air flow control and enhanced environmental comfort.

Universal indoor units:
all indoor units can be combined with both multisplit outdoor units of the series MPG and MLG and monosplit outdoor units of the series CKG.

CKG_FS	CKG260FS	CKG360FS	CKG500FS
Universal indoor units compatible with **MPG** multisplit system	•	•	•
Universal indoor units compatible with **MLG** multisplit system	•	•	

The outdoor unit features a compressor with inverter technology, an electronic valve and electric heater to ensure proper winter operation and prevent ice formation on the coil.

FEATURES



Indoor unit

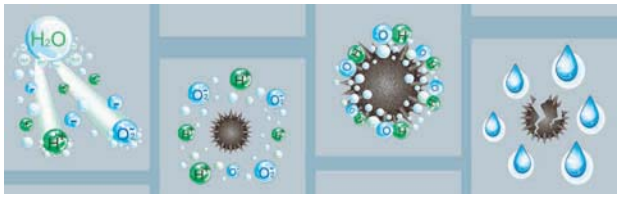
Console indoor unit designed to be installed on indoor floors.
— Every indoor unit comes with a remote control and a remote control holder.
— Fan with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Timer for programming switch-off and switch-on.
— Indoor unit front panel with LED display and indicator lights.
— 5-speed fan, to meet every possible need.
— **Auto** function for a continuous speed variation.
— **Turbo** function to attain the desired temperature as quickly as possible.
— **Sleep** night time function well-being program.
— **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
— **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
— **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.

Outdoor unit

Monosplit air conditioner.
Reversible air/air heat pump with DC inverter technology.
— Fitted with a electrical anti-freeze heater (in unit base) to avoid the formation of ice and encourage the drainage of condensate during heating operation.
— Compressor and fan with DC inverter technology.
— Fitted with an electronic expansion valve.

Air Purifiers (Cold Plasma)

Capable of reducing pollutants breaking down their molecules using electric discharges, causing the splitting of the water molecules in the air into positive and negative ions. These ions neutralise the molecules of the gaseous pollutants obtaining products that are normally present in clean air. The device can eliminate 90% of bacteria. The result is clean, ionised air that has no bad odours.



X-fan function

This self-cleaning system foresees that the fan of the indoor unit continues its operation for a few minutes after the unit is turned off, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.



Smart APP Ewpe

This system is fitted **standard** with a wi-fi module that can be used, along with the app for iOS and Android devices (available free on Apple Store and Google Play), to control the system remotely on your smartphone or tablet, or via Cloud with the aid of a wireless router connected to the Internet.



General features

— New R32 ecological refrigerant gas with low GWP.
— Operating mode: cooling, heating, dehumidification, automatic and fan only.
— Particularly quiet operation.
— Microproccessor control.
— Auto-restart function.
— Self-diagnosis function.
— Air filter easily removed and cleaned.
— Easy installation and maintenance.

ACCESSORIES

CC2: Centralised control with 7" touchscreen display for managing several indoor units within a number of multisplit systems. The centralised control has an integrated external contact. For more information, refer to the specific documentation. *
WRCA: Wired panel with liquid crystal display and soft-touch buttons. This accessory can be used to control not only the traditional system functions but also a weekly timer with a maximum of 8 daily time bands.
*** The CC2 centralised control can manage up to 36 CKG systems.**



Single air delivery



Dual air delivery (default)



Intake



ACCESSORIES COMPATIBILITY

Accessory	CKG260FS	CKG360FS	CKG500FS
CC2	•	•	•
WRCA	•	•	•

The accessory CC2 version 01 is compatible with the indoor units of the CKG_FS series, from version 01.

PERFORMANCE SPECIFICATIONS

Indoor unit		CKG260FS	CKG360FS	CKG500FS
Outdoor unit		**CKG260**	**CKG360**	**CKG500**
Nominal cooling performances				
Cooling capacity (1)	kW	2,70	3,52	5,20
Cooling input power (1)	kW	0,72	1,00	1,55
EER (2)	W/W	3,75	3,52	3,35
Moisture removed	l/h	0,8	1,2	1,8
Minimum cooling performances				
Cooling capacity	kW	0,70	0,80	1,26
Cooling input power	kW	0,17	0,16	0,38
Maximum cooling performances				
Cooling capacity	kW	3,40	4,40	6,60
Cooling input power	kW	1,30	1,50	2,45
Cooling input current	A	3,5	4,5	7,1
Seasonal efficiency				
SEER	W/W	7,20	7,00	6,60
Efficiency energy class (3)		A++	A++	A++
Annual power consumption	kWh/annum	131	175	276
Nominal heating performances				
Heating capacity (4)	kW	2,90	3,80	5,33
Heating input power (4)	kW	0,73	0,96	1,50
COP (2)	W/W	3,97	3,96	3,55
Minimum heating performances				
Heating capacity	kW	0,60	1,10	1,12
Heating input power	kW	0,13	0,17	0,35
Maximum heating performances				
Heating capacity	kW	3,50	4,40	6,80
Heating input power	kW	1,35	1,50	2,50
Heating input current	A	3,6	4,3	6,7
Seasonal efficiency (temperate climate)				
SCOP		4,00	4,10	4,10
Efficiency energy class (3)		A+	A+	A+
Annual power consumption	kWh/annum	910	1093	1750

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.
(3) Data in accordance with Delegated Regulation (EU) No. 626/2011.
(4) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.

INDOOR UNIT

		CKG260FS	CKG360FS	CKG500FS
Indoor unit				
Input power	W	35	40	50
Type of fan	Type		Inverter centrifugal	
Air flow rate				
Turbo	m^3/h	500	600	700
Maximum	m^3/h	430	520	650
Average	m^3/h	370	440	520
Minimum	m^3/h	280	360	410
Sound power				
Turbo	dB(A)	50,0	54,0	57,0
Maximum	dB(A)	48,0	50,0	55,0
Average	dB(A)	44,0	46,0	51,0
Minimum	dB(A)	38,0	39,0	47,0
Sound pressure (1)				
Turbo	dB(A)	39,0	44,0	47,0
Maximum	dB(A)	36,0	40,0	45,0
Average	dB(A)	31,0	36,0	41,0
Minimum	dB(A)	26,0	29,0	37,0
Indoor unit				
Condensate discharge diameter	mm	17,0	17,0	17,0

(1) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

OUTDOOR UNIT

		CKG260	CKG360	CKG500
Outdoor unit				
Type of fan	Type		Inverter axial	
Air flow rate				
Maximum	m^3/h	1600	2200	3200
Sound power				
Maximum	dB(A)	60,0	62,0	65,0
Sound pressure (1)				
Maximum	dB(A)	49,0	52,0	57,0
Compressor				
Type	type		Inverter rotary	
Refrigerant	type		R32	
Refrigerant charge	kg	0,55	0,75	0,95
Potential global heating	GWP		675kgCO_2eq	
Equivalent CO_2	t	0,37	0,51	0,64
Outdoor unit				
Condensate discharge diameter	mm	15,8	15,8	15,8

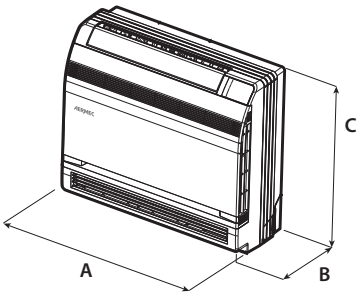
(1) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

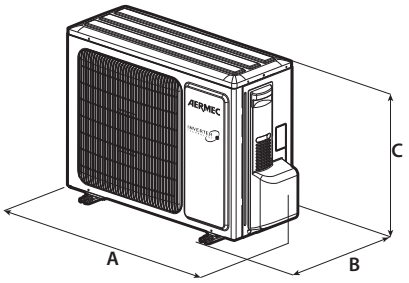
GENERAL DATA

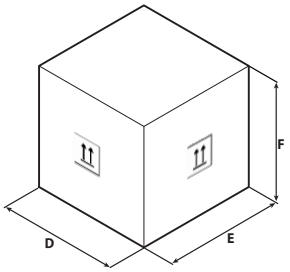
Indoor unit		**CKG260FS**	**CKG360FS**	**CKG500FS**
Outdoor unit		**CKG260**	**CKG360**	**CKG500**
Electric data				
Rated power input (1)	kW	1,4	1,5	2,5
Rated current input (1)	A	6,0	6,7	11,1
Refrigeration pipework				
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")	9,52 (3/8")	12,7 (1/2")
Maximum refrigerant tube length	m	15	20	25
Maximum refrigerant line level difference	m	10,0	10,0	10,0
Refrigerant to be added	g/m	16	16	16
Power supply				
Power supply		220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

DIMENSIONS AND WEIGHTS







Carton Box Example

		CKG260FS	CKG360FS	CKG500FS
Indoor unit				
A	mm	700	700	700
B	mm	215	215	215
C	mm	600	600	600
D	mm	788	788	788
E	mm	283	283	283
F	mm	697	697	697
Net weight	kg	15,50	15,50	15,50
Weight for transport	kg	18,50	18,50	18,50

		CKG260	CKG360	CKG500
Outdoor unit				
A	mm	782	848	965
B	mm	320	320	396
C	mm	540	596	700
D	mm	823	881	1029
E	mm	358	363	458
F	mm	595	645	750
Net weight	kg	27,50	30,50	46,00
Weight for transport	kg	30,00	33,50	50,50

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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LCG

Monosplit

Cooling capacity 3,5 ÷ 16,0 kW
Heating capacity 4,0 ÷ 17,0 kW

LCG_CS / LCG_C



LCG_D



LCG_F



- **New R32 ecological refrigerant gas.**
- **Wi-fi control using the relative accessory.**
- **30% reduction of refrigerant gas compared with the previous range.**
- **1 W of absorption in standby.**
- **SEER up to 7.2.**

DESCRIPTION

The monosplit air conditioners of the LCG range are combined with:
— LCG_D for duct type horizontal installation.
— LCG_CS e LCG_C (Cassette) for false ceiling installation.
— LCG_F (Floor ceiling) wall and/or ceiling installation.
The outdoor unit features a compressor with inverter technology, an electronic valve and electric heater to ensure proper winter operation and prevent ice formation on the coil.

TYPE OF INDOOR UNIT

LCG_D indoor unit

Duct indoor unit, designed for indoor duct type horizontal installation.



— Every indoor unit comes with a remote control and a remote control holder.
— **WRC20** wired panel standard supply with each indoor unit.
— Fan with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Timer for programming switch-off and switch-on.
— 3-speed fan, to meet every possible need.
— **Auto** function for a continuous speed variation.
— **Turbo** function to attain the desired temperature as quickly as possible.
— **Sleep** night time function well-being program.
— **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
— **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
— **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.
— Equipped with condensate drain pump.

LCG_CS indoor unit

Indoor unit **Cassette** of dimensions (570x570 mm) designed to be installed on suspended ceiling indoors.



— Every indoor unit comes with a remote control and a remote control holder.
— Fan with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Timer for programming switch-off and switch-on.
— Auxiliary emergency command integrated into the unit.
— Indoor unit front panel with LED display and indicator lights.
— 3-speed fan, to meet every possible need.
— **Auto** function for a continuous speed variation.
— **Turbo** function to attain the desired temperature as quickly as possible.
— **Sleep** night time function well-being program.
— **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
— **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
— **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.
— Equipped with condensate drain pump.

LCG_C indoor unit

Indoor unit **Cassette** of dimensions (840x840 mm) designed to be installed on suspended ceiling indoors.



— Every indoor unit comes with a remote control and a remote control holder.
— Fan with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Timer for programming switch-off and switch-on.
— Auxiliary emergency command integrated into the unit.
— Indoor unit front panel with LED display and indicator lights.
— 3-speed fan, to meet every possible need.
— **Auto** function for a continuous speed variation.
— **Turbo** function to attain the desired temperature as quickly as possible.
— **Sleep** night time function well-being program.
— **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
— **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
— **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.
— Equipped with condensate drain pump.

LCG_F indoor unit

Indoor unit **Floor ceiling** designed to be installed on the wall or ceiling indoors.



— Every indoor unit comes with a remote control and a remote control holder.
— Fan with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Timer for programming switch-off and switch-on.
— Auxiliary emergency command integrated into the unit.
— Indoor unit front panel with LED display and indicator lights.
— 3-speed fan, to meet every possible need.
— **Auto** function for a continuous speed variation.
— **Turbo** function to attain the desired temperature as quickly as possible.
— **Sleep** night time function well-being program.
— **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
— **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
— **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.

General features

— New R32 ecological refrigerant gas with low GWP.
— Operating mode: cooling, heating, dehumidification, automatic and fan only.
— Particularly quiet operation.
— Microproccessor control.
— Auto-restart function.
— Self-diagnosis function.
— Air filter easily removed and cleaned.
— Easy installation and maintenance.

Low cooling function
cooling operation with outdoor temperatures down to -20 °C.
Low heating function
heating with external temperatures up to -20 °C.

X-fan function

This self-cleaning system foresees that the fan of the indoor unit continues its operation for a few minutes after the unit is turned off, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.



Smart APP Ewpe

Using the specific **accessory**, the system offers wi-fi control thanks to the app for iOS and Android devices (available free on Apple Store and Google Play). The system can be controlled from a distance directly on your smartphone or tablet, or via Cloud with the aid of a wireless router connected to the Internet.



Special blue fin coil

Unlike normal batteries, this special blue epoxy coating is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



TYPE OF OUTDOOR UNIT

Outdoor unit

Multisplit air conditioner.
Reversible air/air heat pump with DC inverter technology.
— Fitted with a electrical anti-freeze heater (in unit base) to avoid the formation of ice and encourage the drainage of condensate during heating operation.
— Compressor and fan with DC inverter technology.
— Fitted with an electronic expansion valve.

ACCESSORIES

CC2: Centralised control with 7" touchscreen display for managing several indoor units within a number of multisplit systems. The centralised control has an integrated external contact. For more information, refer to the specific documentation. *

WRC20: Wired panel with liquid crystal display and soft-touch buttons.

WRC30: Wired panel with liquid crystal display and soft-touch buttons. This accessory can be used to control not only the traditional system functions but also a weekly timer with a maximum of 8 daily time bands.

WRC40: Wired panel with liquid crystal display and soft-touch buttons. This accessory can be used to control not only the traditional system functions but also a weekly timer with a maximum of 8 daily time bands.

For more information about the accessories and their functions (such as the auto-restart function), refer to the specific documentation of the single accessory.

DCG: This accessory makes it possible to remotely control the main functions of the unit via the relay externally with third-party loads that are suitably powered and sized.

ECD: This accessory makes it possible to manage the switching on/off of the indoor units via the ON-OFF device, using the RS485 communication network.

MINIMODBUS20: Thanks to its compact size, this accessory can be easily installed inside the indoor unit. It allows the units to communicate with each other by providing a ModBus RTU serial on RS485 for supervision with external BMS.

WIFIKIT20: Plug & Play module to be installed in the indoor unit for Wi-Fi control.

WIFIKIT30: Plug & Play module to be installed in the indoor unit for Wi-Fi control.

GLG40S: Air supply and flow grid with dimensions (620x620 mm) for cassette internal unit.

GLG40: Air supply and flow grid with dimensions (950x950 mm) for cassette internal unit.

*** The CC2 centralised control can manage up to 36 LCG systems.**



Accessories compatibility

LCG_D

Accessory	LCG350D	LCG500D	LCG700D	LCG850D	LCG1000D	LCG1200D	LCG1400D	LCG1600D
CC2 (1)	•	•	•	•	•	•	•	•
WRC20 (1)	•	•	•	•	•	•	•	•
WRC30 (1)	•	•	•	•	•	•	•	•
WRC40 (1)	•	•	•	•	•	•	•	•

(1) Auto-restart function.
The use of the CC2 centralised control requires the installation of 1 MINIMODBUS20 for each indoor unit installed.
Wired panel WRC20 standard supply.

Accessory	LCG350D	LCG500D	LCG700D	LCG850D	LCG1000D	LCG1200D	LCG1400D	LCG1600D
DCG	•	•	•	•	•	•	•	•
ECD	•	•	•	•	•	•	•	•
MINIMODBUS20 (1)	•	•	•	•	•	•	•	•
WIFIKIT20	•	•	•	•	•	•	•	•
WIFIKIT30	•	•	•	•	•	•	•	•

(1) The units can only be routed using the wired control panel (accessory WRC20, WRC30 or WRC40). For more information about the procedure refer to the user manual.

LCG_CS

Accessory	LCG350CS	LCG500CS
CC2 (1)	•	•
WRC20 (1)	•	•
WRC30 (1)	•	•
WRC40 (1)	•	•

(1) Auto-restart function.
The use of the CC2 centralised control requires the installation of 1 MINIMODBUS20 for each indoor unit installed.

Accessory	LCG350CS	LCG500CS
DCG	•	•
ECD	•	•
MINIMODBUS20 (1)	•	•
WIFIKIT20	•	•
WIFIKIT30	•	•

(1) The units can only be routed using the wired control panel (accessory WRC20, WRC30 or WRC40). For more information about the procedure refer to the user manual.

Accessory	LCG350CS	LCG500CS
GLG40S (1)	•	•

(1) Mandatory accessory.

LCG_C

Accessory	LCG700C	LCG850C	LCG1000C	LCG1200C	LCG1400C	LCG1600C
CC2 (1)	•	•	•	•	•	•
WRC20 (1)	•	•	•	•	•	•
WRC30 (1)	•	•	•	•	•	•
WRC40 (1)	•	•	•	•	•	•

(1) Auto-restart function.
The use of the CC2 centralised control requires the installation of 1 MINIMODBUS20 for each indoor unit installed.

Accessory	LCG700C	LCG850C	LCG1000C	LCG1200C	LCG1400C	LCG1600C
DCG	•	•	•	•	•	•
ECD	•	•	•	•	•	•
MINIMODBUS20 (1)	•	•	•	•	•	•
WIFIKIT20	•	•	•	•	•	•
WIFIKIT30	•	•	•	•	•	•

(1) The units can only be routed using the wired control panel (accessory WRC20, WRC30 or WRC40). For more information about the procedure refer to the user manual.

Accessory	LCG700C	LCG850C	LCG1000C	LCG1200C	LCG1400C	LCG1600C
GLG40 (1)	•	•	•	•	•	•

(1) Mandatory accessory.

LCG_F

Accessory	LCG350F	LCG500F	LCG700F	LCG850F	LCG1000F	LCG1200F	LCG1400F	LCG1600F
CC2 (1)	•	•	•	•	•	•	•	•
WRC20 (1)	•	•	•	•	•	•	•	•
WRC30 (1)	•	•	•	•	•	•	•	•
WRC40 (1)	•	•	•	•	•	•	•	•

(1) Auto-restart function.
The use of the CC2 centralised control requires the installation of 1 MINIMODBUS20 for each indoor unit installed.

Accessory	LCG350F	LCG500F	LCG700F	LCG850F	LCG1000F	LCG1200F	LCG1400F	LCG1600F
DCG	•	•	•	•	•	•	•	•
ECD	•	•	•	•	•	•	•	•
MINIMODBUS20 (1)	•	•	•	•	•	•	•	•
WIFIKIT20	•	•	•	•	•	•	•	•
WIFIKIT30	•	•	•	•	•	•	•	•

(1) The units can only be routed using the wired control panel (accessory WRC20, WRC30 or WRC40). For more information about the procedure refer to the user manual.

OUTDOOR UNIT PERFORMANCE DATA

		LCG350	LCG500	LCG700	LCG850	LCG1000	LCG1000T	LCG1200	LCG1200T	LCG1400	LCG1400T	LCG1600T
Outdoor unit												
Type of fan	Type	Inverter axial	Inverter axial	Inverter axial	Inverter axial	Inverter axial	Inverter axial	Inverter axial	Inverter axial	Inverter axial	Inverter axial	Inverter axial
Air flow rate												
Maximum	m^3/h	3000	3000	3600	4000	5900	5900	5900	5900	5900	5900	6600
Sound power												
Maximum	dB(A)	64,0	65,0	67,0	69,0	70,0	70,0	71,0	71,0	71,0	72,0	72,0
Sound pressure (1)												
Maximum	dB(A)	50,0	50,0	52,0	53,0	55,0	55,0	55,0	56,0	56,0	57,0	57,0
Compressor												
Type	type	Inverter rotary	Inverter rotary	Inverter rotary	Inverter rotary	Inverter rotary	Inverter rotary	Inverter rotary	Inverter rotary	Inverter rotary	Inverter rotary	Inverter rotary
Refrigerant	type	R32	R32	R32	R32	R32	R32	R32	R32	R32	R32	R32
Refrigerant charge	kg	0,80	1,00	1,60	1,80	2,50	2,50	2,70	2,70	2,80	2,80	3,60
Potential global heating	GWP	675kgCO_2eq	675kgCO_2eq	675kgCO_2eq	675kgCO_2eq	675kgCO_2eq	675kgCO_2eq	675kgCO_2eq	675kgCO_2eq	675kgCO_2eq	675kgCO_2eq	675kgCO_2eq
Equivalent CO_2	t	0,53	0,68	1,08	1,22	1,69	1,69	1,79	1,79	1,89	1,89	2,43
Refrigeration pipework												
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")	6,35 (1/4")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")	12,7 (1/2")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")
Maximum refrigerant tube length	m	30	35	50	50	65	65	75	75	75	75	75
Maximum refrigerant line level difference	m	15,0	20,0	25,0	25,0	30,0	30,0	30,0	30,0	30,0	30,0	30,0
Refrigerant to be added	g/m	16	16	40	40	40	40	40	40	40	40	40
Power supply												
Outdoor unit power supply		220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz	220-240V ~ 50Hz	380-415V ~ 3N ~ 50Hz	220-240V ~ 50Hz	380-415V ~ 3N ~ 50Hz	220-240V ~ 50Hz	380-415V ~ 3N ~ 50Hz	380-415V ~ 3N ~ 50Hz

(1) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

INDOOR UNIT PERFORMANCE DATA

LCG_D

Indoor unit		LCG350D	LCG500D	LCG700D	LCG850D	LCG1000D	LCG1000D	LCG1200D	LCG1200D	LCG1400D	LCG1400D	LCG1600D
Outdoor unit		**LCG350**	**LCG500**	**LCG700**	**LCG850**	**LCG1000**	**LCG1000T**	**LCG1200**	**LCG1200T**	**LCG1400**	**LCG1400T**	**LCG1600T**
Nominal cooling performances												
Cooling capacity (1)	kW	3,50	5,00	7,00	8,50	10,00	10,00	12,10	12,10	13,40	13,40	16,00
Cooling input power (1)	kW	0,95	1,55	2,10	2,70	3,20	3,15	4,10	3,80	4,45	4,70	5,45
EER (2)	W/W	3,68	3,23	3,33	3,15	3,12	3,17	2,95	3,18	3,01	2,85	2,94
Moisture removed	l/h	0,9	1,6	2,4	3,2	2,8	2,8	1,7	2,0	3,3	3,6	4,3
Minimum cooling performances												
Cooling capacity	kW	0,90	1,60	2,40	2,40	3,20	3,20	3,60	3,60	6,00	6,00	6,80
Cooling input power	kW	0,20	0,30	0,40	0,50	0,60	0,60	0,70	0,60	0,80	0,80	0,85
Maximum cooling performances												
Cooling capacity	kW	4,00	5,50	8,00	9,00	11,00	11,00	12,80	12,80	14,20	14,20	16,80
Cooling input power	kW	1,35	1,75	3,50	3,95	4,05	4,05	4,85	5,30	5,50	5,95	5,95
Cooling input current	A	4,2	6,3	8,7	12,1	13,9	4,8	17,9	5,3	19,9	7,2	7,7
Seasonal efficiency												
SEER	W/W	6,10	6,10	6,80	6,10	6,10	6,10	5,80	5,80	6,10	5,60	6,10
Efficiency energy class (3)		A++	A++	A++	A++	A++	A++	-	-	-	-	-
Pdesignc	kW	3,5	5,0	7,0	8,5	10,0	10,0	-	-	-	-	-
Annual power consumption	kWh/annum	200	277	357	480	571	577	-	-	-	-	-
Nominal heating performances												
Heating capacity (4)	kW	4,00	5,50	8,00	8,80	12,00	12,00	13,50	13,50	15,50	15,50	17,00
Heating input power (4)	kW	1,05	1,45	2,25	2,55	3,40	3,50	4,10	3,90	4,60	4,45	5,00
COP (2)	W/W	3,81	3,79	3,56	3,45	3,53	3,43	3,29	3,46	3,37	3,48	3,40
Minimum heating performances												
Heating capacity	kW	0,90	1,50	2,20	2,40	3,00	3,00	3,60	3,60	3,90	3,90	4,50
Heating input power	kW	0,20	0,30	0,45	0,50	0,60	0,60	0,70	0,60	0,80	0,80	0,85
Maximum heating performances												
Heating capacity	kW	4,50	6,00	9,00	9,50	13,50	13,50	14,50	14,50	16,00	16,00	17,50
Heating input power	kW	1,35	1,75	3,50	3,95	4,05	4,05	4,85	5,30	5,50	5,95	5,95
Heating input current	A	4,7	6,0	9,5	11,1	15,2	5,6	17,0	5,5	20,4	6,2	7,3
Seasonal efficiency (temperate climate)												
SCOP		4,00	4,00	4,00	4,00	4,00	4,00	-	-	-	-	-
Efficiency energy class (3)		A+	A+	A+	A+	A+	A+	-	-	-	-	-
Pdesignh	kW	3,10	4,20	6,40	7,20	9,00	9,00	-	-	-	-	-
Annual power consumption	kWh/annum	1110	1469	2238	2576	3147	3218	-	-	-	-	-
Electric data												
Rated power input (5)	kW	1,4	1,8	3,5	4,0	4,1	4,7	4,9	5,3	5,5	6,0	6,0
Rated current input (5)	A	6,0	8,0	16,0	18,0	18,5	7,0	22,0	8,0	25,0	9,0	9,0
Refrigeration pipework												
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")	6,35 (1/4")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")	12,7 (1/2")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.
(3) Data in accordance with Delegated Regulation (EU) No. 626/2011.
(4) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(5) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

		LCG350D	LCG500D	LCG700D	LCG850D	LCG1000D	LCG1200D	LCG1400D	LCG1600D
Indoor unit									
Type of fan	Type	Inverter centrifugal							
Air flow rate									
Turbo	m^3/h	650	950	1200	1500	1800	2000	2200	2400
Maximum	m^3/h	600	880	1160	1350	1520	1730	2000	1960
Average	m^3/h	510	820	1090	1130	1380	1570	1730	1670
Minimum	m^3/h	450	700	940	950	1270	1400	1490	1380
High static pressure									
Nominal	Pa	25	25	25	37	37	50	50	50
Minimum	Pa	0	0	0	0	0	0	0	0
Maximum	Pa	50	50	75	75	150	150	150	200
Sound pressure (1)									
Turbo	dB(A)	41,0	43,0	40,0	42,0	46,0	42,0	43,0	44,0
Maximum	dB(A)	38,0	42,0	39,0	40,0	44,0	40,0	41,0	41,0
Average	dB(A)	36,0	39,0	37,0	37,0	42,0	39,0	40,0	39,0
Minimum	dB(A)	34,0	36,0	32,0	35,0	40,0	37,0	38,0	38,0
Indoor unit									
Condensate discharge diameter	mm	26,0	26,0	26,0	26,0	26,0	26,0	26,0	26,0
Power supply									
Indoor unit power supply		220-240V ~ 50Hz							380-415V 3N ~ 50Hz

(1) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

LCG_CS

Indoor unit		LCG350CS	LCG500CS
Outdoor unit		**LCG350**	**LCG500**
Nominal cooling performances			
Cooling capacity (1)	kW	3,50	5,00
Cooling input power (1)	kW	0,95	1,56
EER (2)	W/W	3,50	3,21
Moisture removed	l/h	1,0	1,8
Minimum cooling performances			
Cooling capacity	kW	0,90	1,60
Cooling input power	kW	0,20	0,30
Maximum cooling performances			
Cooling capacity	kW	4,00	5,50
Cooling input power	kW	1,35	1,75
Cooling input current	A	4,5	6,8
Seasonal efficiency			
SEER	W/W	5,90	5,90
Efficiency energy class (3)		A+	A+
Pdesignc	kW	3,5	5,0
Annual power consumption	kWh/annum	213	296
Nominal heating performances			
Heating capacity (4)	kW	4,00	5,50
Heating input power (4)	kW	1,05	1,65
COP (2)	W/W	3,81	3,33
Minimum heating performances			
Heating capacity	kW	0,90	1,50
Heating input power	kW	0,20	0,30
Maximum heating performances			
Heating capacity	kW	4,50	6,00
Heating input power	kW	1,35	1,75
Heating input current	A	4,7	7,2
Seasonal efficiency (temperate climate)			
SCOP		4,00	4,00
Efficiency energy class (3)		A+	A+
Pdesignh	kW	3,10	4,00
Annual power consumption	kWh/annum	1069	1405
Electric data			
Rated power input (5)	kW	1,4	1,8
Rated current input (5)	A	6,0	8,0
Refrigeration pipework			
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")	6,35 (1/4")
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")	12,7 (1/2")

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.
(3) Data in accordance with Delegated Regulation (EU) No. 626/2011.
(4) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(5) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

		LCG350CS	LCG500CS
Indoor unit			
Type of fan	Type	Inverter centrifugal	
Air flow rate			
Turbo	m^3/h	650	700
Maximum	m^3/h	580	580
Average	m^3/h	480	480
Minimum	m^3/h	400	400
Sound pressure (1)			
Turbo	dB(A)	41,0	44,0
Maximum	dB(A)	39,0	39,0
Average	dB(A)	36,0	36,0
Minimum	dB(A)	33,0	33,0
Indoor unit			
Condensate discharge diameter	mm	31,0	31,0
Power supply			
Indoor unit power supply		220-240V ~ 50Hz	

(1) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

LCG_C

Indoor unit		LCG700C	LCG850C	LCG1000C	LCG1000C	LCG1200C	LCG1200C	LCG1400C	LCG1400C	LCG1600C
Outdoor unit		**LCG700**	**LCG850**	**LCG1000**	**LCG1000T**	**LCG1200**	**LCG1200T**	**LCG1400**	**LCG1400T**	**LCG1600T**
Nominal cooling performances										
Cooling capacity (1)	kW	7,00	8,50	10,00	10,00	12,10	12,10	13,40	13,40	14,50
Cooling input power (1)	kW	2,05	2,80	3,15	3,00	4,10	4,05	4,65	4,70	5,20
EER (2)	W/W	3,41	3,04	3,17	3,33	2,95	2,99	2,88	2,85	2,79
Moisture removed	l/h	2,4	2,9	3,5	4,0	4,1	4,0	4,7	4,3	5,3
Minimum cooling performances										
Cooling capacity	kW	2,40	2,40	3,20	3,20	3,60	3,60	6,00	6,00	6,50
Cooling input power	kW	0,40	0,50	0,60	0,60	0,70	0,60	0,80	0,80	0,85
Maximum cooling performances										
Cooling capacity	kW	8,00	9,00	11,00	11,00	12,80	12,80	14,20	14,20	15,00
Cooling input power	kW	3,50	3,95	4,05	4,05	4,85	5,30	5,50	5,95	5,95
Cooling input current	A	8,8	12,7	13,8	5,0	17,5	5,9	20,8	7,2	7,6
Seasonal efficiency										
SEER	W/W	7,20	6,10	6,10	6,10	6,10	6,10	6,10	6,10	6,10
Efficiency energy class (3)		A++	A++	A++	A++	-	-	-	-	-
Pdesignc	kW	7,0	8,5	10,0	10,0	-	-	-	-	-
Annual power consumption	kWh/annum	340	472	566	553	-	-	-	-	-
Nominal heating performances										
Heating capacity (4)	kW	8,00	8,80	12,00	12,00	13,50	13,50	15,50	15,50	17,00
Heating input power (4)	kW	2,20	2,65	3,55	3,40	4,20	4,15	4,35	4,45	4,80
COP (2)	W/W	3,64	3,32	3,38	3,53	3,21	3,25	3,56	3,48	3,54
Minimum heating performances										
Heating capacity	kW	2,20	2,40	3,00	3,00	3,60	3,60	3,90	3,90	4,50
Heating input power	kW	0,45	0,50	0,60	0,60	0,70	0,60	0,80	0,80	0,85
Maximum heating performances										
Heating capacity	kW	9,00	9,50	13,50	13,50	14,50	14,50	16,00	16,00	17,50
Heating input power	kW	3,50	3,95	4,05	4,05	4,85	5,30	5,50	5,95	5,95
Heating input current	A	9,5	11,7	15,7	5,3	18,0	6,1	19,5	6,2	7,2
Seasonal efficiency (temperate climate)										
SCOP		3,90	4,00	4,00	4,00	3,80	3,80	3,60	4,00	3,80
Efficiency energy class (3)		A	A+	A+	A+	-	-	-	-	-
Pdesignh	kW	6,40	7,20	9,00	9,00	-	-	-	-	-
Annual power consumption	kWh/annum	2297	2616	3139	3168	-	-	-	-	-
Electric data										
Rated power input (5)	kW	3,5	4,0	4,1	4,7	4,9	5,3	5,5	6,0	6,0
Rated current input (5)	A	16,0	18,0	18,5	7,0	22,0	8,0	25,0	9,0	9,0
Refrigeration pipework										
Diameter of liquid refrigerant connections	mm (inch)	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")
Diameter of refrigerant gas connections	mm (inch)	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.
(3) Data in accordance with Delegated Regulation (EU) No. 626/2011.
(4) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(5) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

		LCG700C	LCG850C	LCG1000C	LCG1200C	LCG1400C	LCG1600C
Indoor unit							
Type of fan	Type			Inverter centrifugal			
Air flow rate							
Turbo	m^3/h	1100	1400	1500	1800	1900	2000
Maximum	m^3/h	1050	1310	1470	1690	1690	1880
Average	m^3/h	960	1180	1380	1470	1480	1620
Minimum	m^3/h	870	1040	1220	1260	1140	1430
Sound pressure (1)							
Turbo	dB(A)	43,0	49,0	50,0	51,0	52,0	54,0
Maximum	dB(A)	42,0	47,0	48,0	49,0	51,0	52,0
Average	dB(A)	40,0	44,0	46,0	46,0	48,0	50,0
Minimum	dB(A)	39,0	41,0	42,0	42,0	45,0	48,0
Indoor unit							
Condensate discharge diameter	mm	30,0	30,0	30,0	30,0	30,0	30,0
Power supply							
Indoor unit power supply				220-240V ~ 50Hz			380-415V 3N ~ 50Hz

(1) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

LCG_F

Indoor unit		LCG350F	LCG500F	LCG700F	LCG850F	LCG1000F	LCG1000F	LCG1200F	LCG1200F	LCG1400F	LCG1400F	LCG1600F
Outdoor unit		**LCG350**	**LCG500**	**LCG700**	**LCG850**	**LCG1000**	**LCG1000T**	**LCG1200**	**LCG1200T**	**LCG1400**	**LCG1400T**	**LCG1600T**
Nominal cooling performances												
Cooling capacity (1)	kW	3,50	5,00	7,00	8,50	10,00	10,00	12,10	12,10	13,40	13,40	16,00
Cooling input power (1)	kW	0,95	1,55	1,90	2,80	3,30	3,30	3,90	4,05	4,40	4,30	5,40
EER (2)	W/W	3,89	3,23	3,68	3,04	3,03	3,03	3,10	2,99	3,05	3,12	2,96
Moisture removed	l/h	0,5	1,6	1,4	2,6	3,1	3,5	3,3	3,5	3,3	3,4	5,9
Minimum cooling performances												
Cooling capacity	kW	0,90	1,60	2,40	2,40	3,20	3,20	3,60	3,60	6,00	6,00	6,35
Cooling input power	kW	0,20	0,30	0,40	0,50	0,60	0,60	0,70	0,60	0,80	0,80	0,85
Maximum cooling performances												
Cooling capacity	kW	4,00	5,50	8,00	9,00	11,00	11,00	12,80	12,80	14,20	14,20	16,50
Cooling input power	kW	1,35	1,75	3,50	3,95	4,05	4,05	4,85	5,30	5,50	5,95	5,95
Cooling input current	A	4,0	6,5	8,6	12,7	14,5	5,1	15,7	5,9	19,5	6,6	7,7
Seasonal efficiency												
SEER	W/W	6,70	6,10	6,80	6,10	6,10	6,10	6,10	6,10	6,30	6,10	6,10
Efficiency energy class (3)		A++	A++	A++	A++	A++	A++	-	-	-	-	-
Pdesignc	kW	3,5	5,0	7,0	8,5	10,0	10,0	-	-	-	-	-
Annual power consumption	kWh/annum	177	284	359	477	573	561	-	-	-	-	-
Nominal heating performances												
Heating capacity (4)	kW	4,00	5,50	8,00	8,80	12,00	12,00	13,50	13,50	15,50	15,50	17,00
Heating input power (4)	kW	1,05	1,60	2,45	2,65	3,60	3,50	3,95	4,00	4,35	4,40	5,40
COP (2)	W/W	4,21	3,44	3,27	3,32	3,33	3,43	3,42	3,38	3,56	3,52	3,15
Minimum heating performances												
Heating capacity	kW	0,90	1,50	2,20	2,40	3,00	3,00	3,60	3,60	3,90	3,90	4,50
Heating input power	kW	0,20	0,30	0,45	0,50	0,60	0,60	0,70	0,60	0,80	0,80	0,85
Maximum heating performances												
Heating capacity	kW	4,50	6,00	9,00	9,50	13,50	13,50	14,50	14,50	16,00	16,00	17,50
Heating input power	kW	1,35	1,75	3,50	3,95	4,05	4,05	4,85	5,30	5,50	5,95	5,95
Heating input current	A	4,2	6,9	10,5	11,7	15,9	5,6	16,8	6,1	19,4	6,7	7,6
Seasonal efficiency (temperate climate)												
SCOP		4,00	4,00	3,90	4,00	4,00	4,00	3,80	3,80	3,70	4,00	4,00
Efficiency energy class (3)		A+	A+	A+	A+	A+	A+	-	-	-	-	-
Pdesignh	kW	3,10	4,00	6,40	7,20	9,00	9,00	-	-	-	-	-
Annual power consumption	kWh/annum	1040	1394	2295	2577	3149	3146	-	-	-	-	-
Electric data												
Rated power input (5)	kW	1,4	1,8	3,5	4,0	4,1	4,7	4,9	5,3	5,5	6,0	6,0
Rated current input (5)	A	6,0	8,0	16,0	18,0	18,5	7,0	22,0	8,0	25,0	9,0	9,0
Refrigeration pipework												
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")	6,35 (1/4")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")	12,7 (1/2")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")	15,9 (5/8")

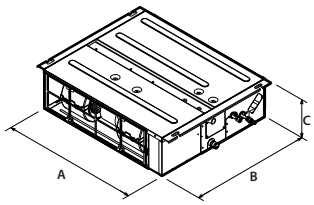
(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.
(3) Data in accordance with Delegated Regulation (EU) No. 626/2011.
(4) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(5) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

		LCG350F	LCG500F	LCG700F	LCG850F	LCG1000F	LCG1200F	LCG1400F	LCG1600F
Indoor unit									
Type of fan	Type	Inverter centrifugal							
Air flow rate									
Turbo	m^3/h	650	850	1300	1500	1600	1800	2100	2300
Maximum	m^3/h	610	800	1220	1380	1500	1700	2000	2200
Average	m^3/h	530	700	1090	1200	1350	1540	1800	1870
Minimum	m^3/h	460	600	940	1020	1260	1400	1480	1590
Sound pressure (1)									
Turbo	dB(A)	39,0	44,0	45,0	49,0	49,0	49,0	52,0	54,0
Maximum	dB(A)	36,0	42,0	44,0	47,0	47,0	47,0	50,0	53,0
Average	dB(A)	32,0	39,0	41,0	43,0	45,0	44,0	48,0	49,0
Minimum	dB(A)	28,0	36,0	38,0	39,0	43,0	42,0	44,0	45,0
Indoor unit									
Condensate discharge diameter	mm	17,0	17,0	17,0	17,0	17,0	17,0	17,0	17,0
Power supply									
Indoor unit power supply		220-240V ~ 50Hz							380-415V 3N ~ 50Hz

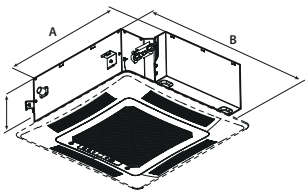
(1) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

INDOOR UNIT WEIGHTS AND DIMENSIONS

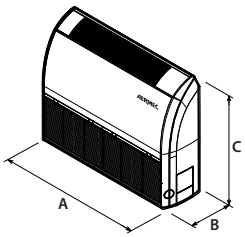
LCG_D

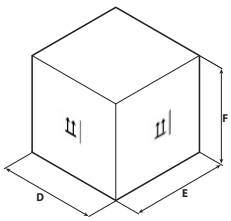


LCG_CS / LCG_C



LCG_F





Carton Box Example

LCG_D

		LCG350D	LCG500D	LCG700D	LCG850D	LCG1000D	LCG1200D	LCG1400D	LCG1600D
Indoor unit									
A	mm	700	1000	1300	1300	1000	1400	1400	1400
B	mm	450	450	450	450	700	700	700	700
C	mm	200	200	220	220	300	300	300	300
D	mm	1008	1308	1628	1628	1205	1601	1601	1678
E	mm	568	568	578	578	813	813	813	808
F	mm	275	275	300	300	360	365	365	365
Net weight	kg	20,00	26,00	31,00	31,00	41,00	50,00	50,00	57,00
Weight for transport	kg	24,00	31,00	36,00	36,00	47,00	56,00	56,00	64,00

LCG_CS

		LCG350CS	LCG500CS
Indoor unit			
A	mm	570	570
B	mm	570	570
C	mm	265	265
D	mm	698	698
E	mm	653	653
F	mm	300	300
Net weight	kg	17,00	17,00
Weight for transport	kg	22,00	22,00

LCG_C

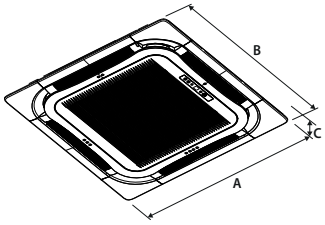
		LCG700C	LCG850C	LCG1000C	LCG1200C	LCG1400C	LCG1600C
Indoor unit							
A	mm	840	840	840	840	840	840
B	mm	840	840	840	840	840	840
C	mm	240	240	240	290	290	290
D	mm	963	963	963	963	963	963
E	mm	963	963	963	963	963	963
F	mm	325	325	325	379	379	379
Net weight	kg	29,00	29,00	31,00	33,00	36,00	36,00
Weight for transport	kg	36,00	36,00	38,00	41,00	44,00	44,00

LCG_F

		LCG350F	LCG500F	LCG700F	LCG850F	LCG1000F	LCG1200F	LCG1400F	LCG1600F
Indoor unit									
A	mm	870	870	1200	1200	1200	1570	1570	1570
B	mm	235	235	235	235	235	235	235	235
C	mm	665	665	665	665	665	665	665	665
D	mm	1033	1033	1033	1033	1363	1729	1729	1729
E	mm	300	300	300	300	300	300	300	300
F	mm	770	770	770	770	770	770	770	770
Net weight	kg	25,00	26,00	31,00	31,00	32,00	40,00	42,00	42,00
Weight for transport	kg	30,00	31,00	37,00	37,00	38,00	47,00	49,00	49,00

Grid dimensions and weights

GLG40S / GLG40



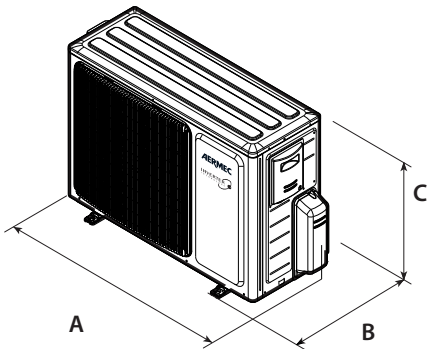
GLG40 - GLG40S

		GLG40S	GLG40
Indoor unit			
A	mm	620	950
B	mm	620	950
C	mm	48	52
D	mm	701	1033
E	mm	701	1038
F	mm	125	112
Net weight	kg	3,00	6,00
Weight for transport	kg	5,00	10,00

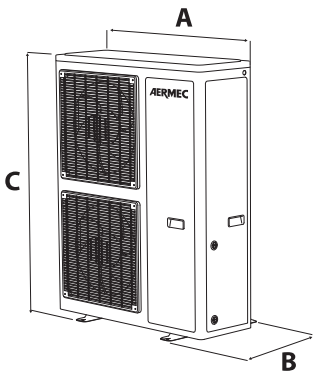
Mandatory accessory to be provided when ordering.

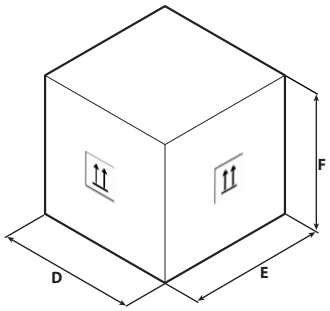
OUTDOOR UNIT WEIGHTS AND DIMENSIONS

LCG350 - LCG500 - LCG700 - LCG850
LCG1000 - LCG1000T - LCG1200
LCG1200T LCG1400 - LCG1400T



LCG1600T





Carton Box Example

		LCG350	LCG500	LCG700	LCG850	LCG1000	LCG1000T	LCG1200	LCG1200T	LCG1400	LCG1400T	LCG1600T
Outdoor unit												
A	mm	818	818	892	920	940	940	940	940	940	940	900
B	mm	302	302	340	370	460	460	460	460	460	460	340
C	mm	596	596	698	790	820	820	820	820	820	820	1345
D	mm	948	948	1029	1083	1073	1073	1073	1073	1073	1073	1033
E	mm	420	420	458	488	563	563	563	563	563	563	443
F	mm	645	645	750	855	835	835	835	835	835	835	1395
Net weight	kg	37,00	39,00	53,00	60,00	83,00	89,00	91,00	95,00	95,00	99,00	112,00
Weight for transport	kg	40,00	42,00	57,00	65,00	95,00	101,00	103,00	107,00	107,00	111,00	122,00

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MVAS

Monosplit high head duct

Cooling capacity 22,4 ÷ 28,0 kW
Heating capacity 24,0 ÷ 30,0 kW

- **Suitable for long-distance channels.**
- **Effective static pressure that can reach 150 Pa.**
- **Special coil with fin golden coating.**



DESCRIPTION

The monosplit air conditioners of the MVAS range are combined with MVA_DH monosplit (high head duct) indoor units for duct type horizontal installation.
The outdoor unit features a compressor with inverter technology, an electronic valve and electric heater to ensure proper winter operation and prevent ice formation on the coil.

FEATURES



Indoor unit

High head duct indoor unit, designed for indoor duct type horizontal installation.

— Every indoor unit comes with a remote control and a remote control holder.
— **WRC** wired panel standard supply with each indoor unit.
— Fan with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Timer for programming switch-off and switch-on.
— Auxiliary emergency command integrated into the unit.
— 5-speed fan, to meet every possible need.
— **Auto** function for a continuous speed variation.
— **Turbo** function to attain the desired temperature as quickly as possible.
— **Sleep** night time function well-being program.
— **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
— **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
— **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.

Outdoor unit

Monosplit air conditioner.
Reversible air/air heat pump with DC inverter technology.

— Fitted with a electrical anti-freeze heater (in unit base) to avoid the formation of ice and encourage the drainage of condensate during heating operation.
— Compressor and fan with DC inverter technology.
— Fitted with an electronic expansion valve.

X-fan function

This self-cleaning system foresees that the fan of the indoor unit continues its operation for a few minutes after the unit is turned off, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.



Special golden fin coil

Unlike normal batteries, this special golden epoxy coating silicon free is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



General features

- Operating mode: cooling, heating, dehumidification, automatic and fan only.
- Particularly quiet operation.
- Microproccessor control.
- Auto-restart function.
- Self-diagnosis function.
- Air filter easily removed and cleaned.
- Easy installation and maintenance.

ACCESSORIES

BACNETGW: This accessory allows you to manage up to 16 MVA systems (with a maximum of 255 indoor units), with a Bacnet serial for supervision with an external BMS.

MODBUSGW: This accessory allows you to manage up to 16 MVA systems (with a maximum of 128 indoor units), with a ModBus RTU serial on RS485 for supervision with an external BMS.

USBDC: The kit includes a converter (from CanBus to ModBus) and the VRF debugger software. IT is designed to meet the requirements of after sales services and qualified technicians who need to carry out control and debugging procedures on the MVA ranges.

WRC: Wired panel with liquid crystal display and soft-touch buttons.

WRC1: Simplified wired panel with liquid crystal display and soft-touch buttons with built-in external contact. This panel is particularly suitable for hotel applications.

For more information about the accessories and their functions (such as the auto-restart function), refer to the specific documentation of the single accessory.



PERFORMANCE SPECIFICATIONS

Indoor unit		MVA2240DH	MVA2800DH
Outdoor unit		**MVAS2242T**	**MVAS2802T**
Nominal cooling performances			
Cooling capacity (1)	kW	22,40	28,00
Cooling input power (1)	kW	6,12	7,78
Cooling input current	A	10,9	13,9
EER (2)	W/W	3,66	3,60
Nominal heating performances			
Heating capacity (3)	kW	24,00	30,00
Heating input power (3)	kW	4,90	6,12
Heating input current	A	8,8	10,9
COP (2)	W/W	4,90	4,90

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.
(3) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.

INDOOR UNIT

		MVA2240DH	MVA2800DH
Indoor unit			
Type of fan	Type	Inverter centrifugal	Inverter centrifugal
Air flow rate			
Maximum	m^3/h	4000	4400
High static pressure			
Nominal	Pa	150	150
Sound power			
Maximum	dB(A)	64,0	65,0
Average	dB(A)	62,0	62,0
Minimum	dB(A)	59,0	60,0
Sound pressure (1)			
Maximum	dB(A)	54,0	55,0
Average	dB(A)	52,0	52,0
Minimum	dB(A)	49,0	50,0
Indoor unit			
Condensate discharge diameter	mm	30,0	30,0

(1) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

OUTDOOR UNIT

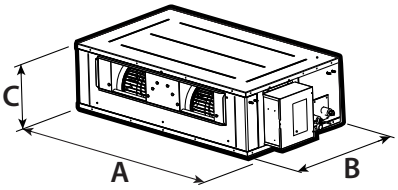
		MVAS2242T	MVAS2802T
Outdoor unit			
Type of fan	Type	Inverter axial	Inverter axial
Sound power			
Maximum	dB(A)	74,0	74,0
Compressor			
Type	type	Inverter rotary	Inverter rotary
Refrigerant	type	R410A	R410A
Potential global heating	GWP	2088kgCO_2eq	2088kgCO_2eq

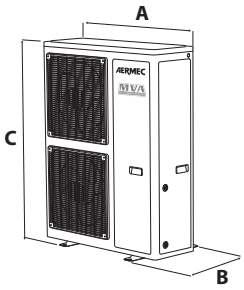
GENERAL DATA

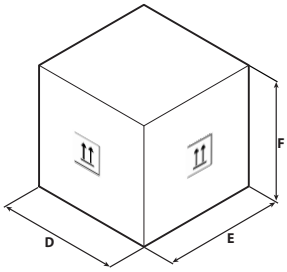
Indoor unit		**MVA2240DH**	**MVA2800DH**
Outdoor unit		**MVAS2242T**	**MVAS2802T**
Electric data			
Rated power input (1)	kW	9,6	12,5
Refrigeration pipework			
Type refrigerant connections	Type	To be soldered	To be soldered
Diameter of liquid refrigerant connections	mm (inch)	19,05 (3/4")	22,2 (7/8")
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")	9,52 (3/8")
Power supply			
Power supply		380-415V ~ 3N ~ 50Hz	380-415V ~ 3N ~ 50Hz

(1) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.
NB: the quantity of refrigerant gas to be added refers to a line length greater than 5 m.

DIMENSIONS AND WEIGHTS







Carton Box Example

		MVA2240DH	MVA2800DH
Indoor unit			
A	mm	1483	1686
B	mm	791	870
C	mm	385	450
D	mm	1758	1788
E	mm	883	988
F	mm	470	580
Net weight	kg	82,00	105,00
Weight for transport	kg	104,00	140,00

		MVAS2242T	MVAS2802T
Outdoor unit			
A	mm	940	940
B	mm	1430	1615
C	mm	320	460
D	mm	1038	1038
E	mm	1580	1765
F	mm	438	578
Net weight	kg	133,00	166,00
Weight for transport	kg	144,00	183,00

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www.aermec.com

MLG

Multisplit

Cooling capacity 4,1 ÷ 12,0 kW
Heating capacity 4,4 ÷ 13,0 kW

- **New R32 ecological refrigerant gas.**
- **Wi-fi control using the relative accessory.**
- **Modern design to blend with all furnishing styles.**
- **Special coil with fin blue coating.**



DESCRIPTION

The multisplit air conditioners of the MLG range are combined with:
— SMG_W (Wall) for wall installation.
— SLG_W (Wall) for wall installation.
— CKG_FS (Console) for wall installation.
— MLG_D to be installed horizontally indoors.
— MLG_CS e MLG_C (Cassette) for false ceiling installation.
— MLG_F (Floor ceiling) wall and/or ceiling installation.
— MLG_FS (Console) for wall installation.
The outdoor unit features a compressor with inverter technology, an electronic valve and electric heater to ensure proper winter operation and prevent ice formation on the coil.

TYPE OF INDOOR UNIT

SMG_W indoor unit

Wall indoor unit designed to be installed on indoor walls.
Universal indoor units: all indoor units can be combined with both multisplit outdoor units of the series MLG and monosplit outdoor units of the series SMG.



— Every indoor unit comes with a remote control and a remote control holder.
— Fan with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Timer for programming switch-off and switch-on.
— Auxiliary emergency command integrated into the unit.
— Indoor unit front panel with LED display and indicator lights.
— 3-speed fan, to meet every possible need.
— **Auto** function for a continuous speed variation.
— **Turbo** function to attain the desired temperature as quickly as possible.
— **Sleep** night time function well-being program.
— **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
— **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
— **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.
— Air Purifiers (Cold Plasma) is able to reduce pollutants.
— Standard Wi-Fi module.

Smart APP Ewpe

The system is equipped standard with the Wi-Fi module; using this module and the app for iOS and Android devices (available free on Apple Store and Google Play, the system can be directly controlled from a distance on your smartphone or tablet. Remote control is possible via Cloud, using a wireless router connected to the Internet.

Air Purifiers (Cold Plasma)

Capable of reducing pollutants breaking down their molecules using electric discharges, causing the splitting of the water molecules in the air into positive and negative ions. These ions neutralise the molecules of the gaseous pollutants obtaining products that are normally present in clean air. The device can eliminate 90% of bacteria. The result is clean, ionised air that has no bad odours.

SLG_W indoor unit

Wall indoor unit designed to be installed on indoor walls.
Universal indoor units: some indoor units can be combined with both multisplit outdoor units of the series MLG and monosplit outdoor units of the series SLG:

SLG	SLG200W	SLG250W	SLG350W	SLG500W	SLG700W
Universal indoor units compatible with MLG multisplit system		•	•	•	•
Multisplit indoor units	•				



— Every indoor unit comes with a remote control and a remote control holder.
— Fan with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Timer for programming switch-off and switch-on.
— Auxiliary emergency command integrated into the unit.
— Indoor unit front panel with LED display and indicator lights.
— 3-speed fan, to meet every possible need.
— **Auto** function for a continuous speed variation.
— **Turbo** function to attain the desired temperature as quickly as possible.
— **Sleep** night time function well-being program.
— **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
— **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
— **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.
— Possibility of Wi-Fi control.

Smart APP Ewpe

Using the specific **accessory**, the system offers wi-fi control thanks to the app for iOS and Android devices (available free on Apple Store and Google Play). The system can be controlled from a distance directly on your smartphone or tablet, or via Cloud with the aid of a wireless router connected to the Internet.

CKG_FS indoor unit

Console indoor unit designed to be installed on indoor floors.
Universal indoor units: some indoor units can be combined with both multisplit outdoor units of the series MLG and monosplit outdoor units of the series CKG:

CKG_FS	CKG260FS	CKG360FS	CKG500FS
Universal indoor units compatible with MLG multisplit system	•	•	



— Every indoor unit comes with a remote control and a remote control holder.
— Fan with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Timer for programming switch-off and switch-on.
— Indoor unit front panel with LED display and indicator lights.
— 5-speed fan, to meet every possible need.
— **Auto** function for a continuous speed variation.
— **Turbo** function to attain the desired temperature as quickly as possible.
— **Sleep** night time function well-being program.
— **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
— **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
— **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.
— Air Purifiers (Cold Plasma) is able to reduce pollutants.
— Standard Wi-Fi module.

Single air delivery



Dual air delivery (default)



Intake



Smart APP Ewpe

The system is equipped standard with the Wi-Fi module; using this module and the app for iOS and Android devices (available free on Apple Store and Google Play, the system can be directly controlled from a distance on your smartphone or tablet. Remote control is possible via Cloud, using a wireless router connected to the Internet.

Air Purifiers (Cold Plasma)

Capable of reducing pollutants breaking down their molecules using electric discharges, causing the splitting of the water molecules in the air into positive and negative ions. These ions neutralise the molecules of the gaseous pollutants obtaining products that are normally present in clean air. The device can eliminate 90% of bacteria. The result is clean, ionised air that has no bad odours.

MLG_D indoor unit

Indoor unit designed to be fitted horizontally on indoor walls.



— Every indoor unit comes with a remote control and a remote control holder.
— **WRCA** wired panel standard supply with each indoor unit.
— Fan with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Timer for programming switch-off and switch-on.
— 3-speed fan, to meet every possible need.
— **Auto** function for a continuous speed variation.
— **Turbo** function to attain the desired temperature as quickly as possible.
— **Sleep** night time function well-being program.
— **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
— **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
— **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.
— Equipped with condensate drain pump.

MLG_CS indoor unit

Indoor unit **Cassette** of dimensions (600x600 mm) designed to be installed on suspended ceiling indoors.



— Every indoor unit comes with a remote control and a remote control holder.
— Fan with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Timer for programming switch-off and switch-on.
— Auxiliary emergency command integrated into the unit.
— Indoor unit front panel with LED display and indicator lights.
— 3-speed fan, to meet every possible need.
— **Auto** function for a continuous speed variation.
— **Turbo** function to attain the desired temperature as quickly as possible.
— **Sleep** night time function well-being program.
— **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
— **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
— **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.
— Equipped with condensate drain pump.

MLG_C indoor unit

Indoor unit **Cassette** of dimensions (840x840 mm) designed to be installed on suspended ceiling indoors.



— Every indoor unit comes with a remote control and a remote control holder.
— Fan with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Timer for programming switch-off and switch-on.
— Auxiliary emergency command integrated into the unit.
— Indoor unit front panel with LED display and indicator lights.
— 3-speed fan, to meet every possible need.
— **Auto** function for a continuous speed variation.
— **Turbo** function to attain the desired temperature as quickly as possible.
— **Sleep** night time function well-being program.
— **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
— **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
— **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.
— Equipped with condensate drain pump.

MLG_F indoor unit

Indoor unit **Floor ceiling** designed to be installed on the wall or ceiling indoors.



— Every indoor unit comes with a remote control and a remote control holder.
— Fan with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Timer for programming switch-off and switch-on.
— Auxiliary emergency command integrated into the unit.
— Indoor unit front panel with LED display and indicator lights.
— 3-speed fan, to meet every possible need.
— **Auto** function for a continuous speed variation.
— **Turbo** function to attain the desired temperature as quickly as possible.
— **Sleep** night time function well-being program.
— **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
— **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
— **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.

MLG_FS indoor unit

A **Console** indoor unit designed to be installed on indoor floors.



— Every indoor unit comes with a remote control and a remote control holder.
— Fan with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Timer for programming switch-off and switch-on.
— Auxiliary emergency command integrated into the unit.
— Indoor unit front panel with LED display and indicator lights.
— 5-speed fan, to meet every possible need.
— **Auto** function for a continuous speed variation.
— **Turbo** function to attain the desired temperature as quickly as possible.
— **Sleep** night time function well-being program.
— **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
— **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
— **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.
— Air Purifiers (Cold Plasma) is able to reduce pollutants.
— Standard Wi-Fi module.

Single air delivery



Dual air delivery (default)



Intake



General features

— New R32 ecological refrigerant gas with low GWP.
— Operating mode: cooling, heating, dehumidification, automatic and fan only.
— Particularly quiet operation.
— Microproccessor control.
— Auto-restart function.
— Self-diagnosis function.
— Air filter easily removed and cleaned.
— Systems with multi-line refrigerant connections, where every indoor unit is connected directly to the outdoor unit via dedicated refrigerant lines.
— Easy installation and maintenance.

Low cooling function

cooling operation with outdoor temperatures down to -15 °C.

Low heating function

heating with external temperatures up to:

Models	Temperature up to -20 °C	Temperature up to -22 °C
MLG420		•
MLG520		•
MLG630		•
MLG730		•
MLG840		•
MLG1040	•	
MLG1250	•	

X-fan function

This self-cleaning system foresees that the fan of the indoor unit continues its operation for a few minutes after the unit is turned off, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.



Smart APP Ewpe

Using the specific **accessory**, the system offers wi-fi control thanks to the app for iOS and Android devices (available free on Apple Store and Google Play). The system can be controlled from a distance directly on your smartphone or tablet, or via Cloud with the aid of a wireless router connected to the Internet.



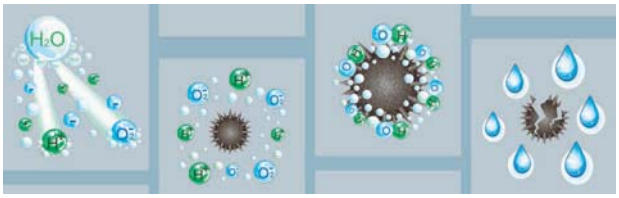
Special blue fin coil

Unlike normal batteries, this special blue epoxy coating is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



Air Purifiers (Cold Plasma)

Capable of reducing pollutants breaking down their molecules using electric discharges, causing the splitting of the water molecules in the air into positive and negative ions. These ions neutralise the molecules of the gaseous pollutants obtaining products that are normally present in clean air. The device can eliminate 90% of bacteria. The result is clean, ionised air that has no bad odours.



SUPPLIED COMPONENTS FOR INDOOR UNITS

Models	SMG_W	SLG_W	CKG_FS	MLG_D	MLG_CS	MLG_C	MLG_F	MLG_FS
Remote control	•	•	•	•	•	•	•	•
Remote control holder	•	•	•	•	•	•	•	•
WRCA wired panel				•				
Air Purifiers (Cold Plasma)	•		•					•
Condensate discharge pump				•	•	•		
Wi-Fi module	•		•					•

TYPE OF OUTDOOR UNIT

Outdoor unit

Multisplit air conditioner.
Reversible air/air heat pump with DC inverter technology.

Types:

— **Dualsplit**: outdoor units MLG420 and MLG520 can be combined with 1 or 2 indoor units.
— **Trialsplit**: outdoor units MLG630 and MLG730 can be combined with 2 or 3 indoor units.
— **Quadrisplit**: outdoor units MLG840 and MLG1040 can be combined with 2, 3 or 4 indoor units.
— **Pentasplit**: outdoor unit MLG1250 can be combined with 2, 3, 4 or 5 indoor units.

Main features:

— Fitted with a electrical anti-freeze heater (in unit base) to avoid the formation of ice and encourage the drainage of condensate during heating operation.
— Compressor and fan with DC inverter technology.
— Fitted with an electronic expansion valve.

ACCESSORIES

CC2: Centralised control with 7" touchscreen display for managing several indoor units within a number of multisplit systems. The centralised control has an integrated external contact. For more information, refer to the specific documentation. *
WRCA: Wired panel with liquid crystal display and soft-touch buttons. This accessory can be used to control not only the traditional system functions but also a weekly timer with a maximum of 8 daily time bands.
For more information about the accessories and their functions (such as the auto-restart function), refer to the specific documentation of the single accessory.
DCK: Remote Contact Kit. This accessory allows you to switch the system on and off using an external contact.
WIFIKIT: Plug & Play module to be installed in the indoor unit for Wi-Fi control.
WIFIKIT10: Plug & Play module to be installed in the indoor unit for Wi-Fi control.
The accessories WRCA and WIFIKIT / WIFIKIT10 are compatible with one another and can therefore be connected to the same indoor unit simultaneously.
GL40S: Air supply and flow grid with dimensions (600x600 mm) for cassette internal unit.
GL40: Air supply and flow grid with dimensions (840x840 mm) for cassette internal unit.
*** The CC2 centralised control can manage up to 36 MLG systems.**



ACCESSORIES COMPATIBILITY

SLG_W

Accessory	SLG200W	SLG250W	SLG350W	SLG500W	SLG700W
CC2 (1)	•	•	•	•	•
WRCA (1)	•	•	•	•	•

(1) Auto-restart function.

Accessory	SLG200W	SLG250W	SLG350W	SLG500W	SLG700W
DCK	•	•	•	•	•
WIFIKIT				•	•
WIFIKIT10	•	•	•		

CKG_FS

Accessory	CKG260FS	CKG360FS
CC2 (1)	•	•
WRCA (1)	•	•

(1) Auto-restart function.

MLG_FS

Accessory	MLG500FS
CC2 (1)	•
WRCA (1)	•

(1) Auto-restart function.

MLG_D

Accessory	MLG250D	MLG350D	MLG500D	MLG600D	MLG700D
CC2 (1)	•	•	•	•	•

(1) Auto-restart function.
The WRCA accessory is supplied with the MLG_D indoor units.

MLG_CS

Accessory	MLG350CS	MLG500CS
CC2 (1)	•	•
WRCA (1)	•	•

(1) Auto-restart function.

Accessory	MLG350CS	MLG500CS
DCK	•	•

Accessory	MLG350CS	MLG500CS
GL40S (1)	•	•

(1) Mandatory accessory.

MLG_C

Accessory	MLG700C
CC2 (1)	•
WRCA (1)	•

(1) Auto-restart function.

Accessory	MLG700C
DCK	•

Accessory	MLG700C
GL40 (1)	•

(1) Mandatory accessory.

MLG_F

Accessory	MLG250F	MLG350F	MLG500F	MLG700F
CC2 (1)	•	•	•	•
WRCA (1)	•	•	•	•

(1) Auto-restart function.

INDOOR UNIT VERSIONS AVAILABLE

Nominal cooling capacity in kBTU/h	Indoor units								
7		SLG200W							
9	SMG270W	SLG250W	CKG260FS	MLG250D			MLG250F		
12	SMG350W	SLG350W	CKG360FS	MLG350D	MLG350CS		MLG350F		
18		SLG500W		MLG500D	MLG500CS		MLG500F	MLG500FS	
21				MLG600D					
24		SLG700W		MLG700D		MLG700C	MLG700F		

ALLOWED COMBINATIONS OF INDOOR UNITS

Trialsplit, quadrisplit, pentasplit: it is mandatory to install at least 2 indoor units for correct functioning of the system.

For further information, please refer to the technical documentation on the website www.aermec.com

MLG420 (14kBTU/h)		MLG520 (18kBTU/h)		MLG630 (21kBTU/h)		MLG730 (24kBTU/h)		MLG840 (28kBTU/h)			MLG1040 (36kBTU/h)			MLG1250 (42kBTU/h)			
N° Indoor units																	
1	2	1	2	2	3	2	3	2	3	4	2	3	4	2	3	4	5
7	7+7	9	7+7	7+7	7+7+7	7+7	7+7+7	7+7	7+7+7	7+7+7+7	7+12	7+7+7	7+7+7+7	7+18	7+7+7	7+7+7+7	7+7+7+7+7
9	7+9	12	7+9	7+9	7+7+9	7+9	7+7+9	7+9	7+7+9	7+7+7+9	7+18	7+7+9	7+7+7+9	7+21	7+7+9	7+7+7+9	7+7+7+7+9
12	7+12		7+12	7+12	7+7+12	7+12	7+7+12	7+12	7+7+12	7+7+7+12	7+21	7+7+12	7+7+7+12	7+24	7+7+12	7+7+7+12	7+7+7+7+12
	9+9		9+9	7+18	7+9+9	7+18	7+7+18	7+18	7+7+18	7+7+7+18	7+24	7+7+18	7+7+7+18	9+12	7+7+18	7+7+7+18	7+7+7+7+18
	9+12		9+12	9+9	7+9+12	9+9	7+9+9	9+9	7+9+9	7+7+9+9	9+9	7+7+21	7+7+7+21	9+18	7+7+21	7+7+7+21	7+7+7+7+21
			12+12	9+12	7+12+12	9+12	7+9+12	9+12	7+9+12	7+7+9+12	9+12	7+7+24	7+7+7+24	9+21	7+7+24	7+7+7+24	7+7+7+7+24
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							9+9+18		9+9+12	7+9+12+12	12+18	7+9+24	7+7+9+24	12+24	7+9+24	7+7+9+24	7+7+7+9+24
							9+12+12		9+9+18	9+9+9+9	12+21	7+12+12	7+7+12+12	18+18	7+12+12	7+7+12+12	7+7+7+12+12
							12+12+12		9+12+12	9+9+9+12	12+24	7+12+18	7+7+12+18	18+21	7+12+18	7+7+12+18	7+7+7+12+18
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OUTDOOR UNIT PERFORMANCE DATA

		MLG420	MLG520	MLG630	MLG730	MLG840	MLG1040	MLG1250
Nominal cooling performances								
Cooling capacity (1)	kW	4,10	5,20	6,10	7,10	8,00	10,50	12,00
Cooling input power (1)	kW	1,20	1,45	1,74	1,95	2,30	3,10	3,45
EER (2)	W/W	3,42	3,59	3,51	3,64	3,48	3,39	3,48
Minimum cooling performances								
Cooling capacity	kW	2,05	2,14	2,20	2,29	2,29	2,60	2,60
Cooling input power	kW	0,55	0,55	0,95	1,10	1,20	1,60	2,40
Maximum cooling performances								
Cooling capacity	kW	4,40	5,80	7,33	8,50	10,26	12,00	13,00
Cooling input power	kW	1,40	1,56	2,39	2,87	3,58	4,00	4,00
Cooling input current	A	5,3	6,4	7,7	8,7	10,2	14,0	16,0
Seasonal efficiency								
SEER	W/W	6,10	6,10	6,10	6,10	6,10	6,10	6,10
Efficiency energy class (3)					A++			
Pdesignc	kW	4,1	5,2	6,1	7,1	8,0	10,5	12,0
Annual power consumption	kWh/annum	235	298	350	407	459	602	689
Nominal heating performances								
Heating capacity (4)	kW	4,40	5,40	6,50	8,50	9,50	12,00	13,00
Heating input power (4)	kW	1,02	1,30	1,60	2,20	2,65	3,20	3,50
COP (2)	W/W	4,31	4,15	4,06	3,86	3,58	3,75	3,71
Minimum heating performances								
Heating capacity	kW	2,49	2,58	3,61	3,66	3,66	2,60	2,60
Heating input power	kW	0,60	0,78	0,78	0,98	1,00	1,71	2,24
Maximum heating performances								
Heating capacity	kW	5,42	5,92	8,50	8,79	10,26	13,50	14,50
Heating input power	kW	1,78	1,78	2,87	2,87	2,87	4,00	4,00
Heating input current	A	4,5	5,8	7,1	9,8	11,8	13,0	15,0
Seasonal efficiency (temperate climate)								
SCOP		4,00	4,00	4,00	4,00	4,00	4,00	4,00
Efficiency energy class (3)					A+			
Pdesignh	kW	3,8	3,8	6,1	6,1	7,2	10,5	11,8
Annual power consumption	kWh/annum	1330	1330	2135	2135	2520	3675	4130
Outdoor unit								
Type of fan	Type				Inverter axial			
Air flow rate								
Maximum	m^3/h	2600	2600	3200	4000	4000	7200	7200
Sound power								
Maximum	dB(A)	65,0	65,0	68,0	68,0	68,0	70,0	70,0
Sound pressure (5)								
Maximum	dB(A)	55,0	55,0	58,0	58,0	58,0	60,0	60,0
Compressor								
Type	type				Rotatativo inverter			
Compressor								
Refrigerant	type				R32			
Compressor								
Refrigerant charge	kg	1,1	1,1	1,6	1,8	2,0	2,8	2,8
Potential global heating	GWP				675kgCO_2eq			
Equivalent CO_2	t	0,71	0,71	1,08	1,22	1,35	1,86	1,86
Electric data								
Rated power input (6)	kW	1,8	1,9	2,9	2,9	3,6	4,0	4,0
Rated current input (6)	A	7,9	8,3	12,7	12,7	15,9	20,0	20,0
Refrigeration pipework								
Maximum refrigerant tube length	m	20	20	60	60	70	75	75
Maximum single cooling line length	m	10	10	20	20	20	25	25
Maximum unit (indoor/external) cooling line level difference in height	m	5,0	5,0	10,0	10,0	10,0	7,5	7,5
Maximum (indoor/outdoor) cooling line level difference	m	5,0	5,0	10,0	10,0	10,0	15,0	15,0
Power supply								
Outdoor unit power supply					220-240V ~ 50Hz			

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.
(3) Data in accordance with Delegated Regulation (EU) No. 626/2011.
(4) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(5) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.
(6) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.
All technical data refer to the respective allowed combinations of indoor units.

INDOOR UNIT PERFORMANCE DATA

SMG_W

		SMG270W	SMG350W
Nominal cooling performances			
Cooling capacity (1)	kW	2,70	3,53
Moisture removed	l/h	0,8	0,8
Nominal heating performances			
Heating capacity (2)	kW	3,20	4,00
Indoor unit			
Type of fan	Type	Inverter tangential	
Air flow rate			
Minimum	m^3/h	250	250
Maximum	m^3/h	450	500
Sound power			
Minimum	dB(A)	37,0	37,0
Maximum	dB(A)	50,0	51,0
Sound pressure (3)			
Minimum	dB(A)	23,0	23,0
Maximum	dB(A)	36,0	37,0
Power supply			
Indoor unit power supply		220-240V ~ 50Hz	

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(3) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

SLG_W

		SLG200W	SLG250W	SLG350W	SLG500W	SLG700W
Nominal heating performances						
Heating capacity (1)	kW	2,60	2,80	3,50	5,20	6,45
Nominal cooling performances						
Cooling capacity (2)	kW	2,10	2,70	3,20	4,60	6,16
Moisture removed	l/h	0,6	0,8	1,4	1,8	1,8
Indoor unit						
Type of fan	Type			Inverter tangential		
Air flow rate						
Minimum	m^3/h	330	290	290	520	520
Maximum	m^3/h	490	460	480	720	720
Sound power						
Minimum	dB(A)	38,0	35,0	38,0	44,0	44,0
Maximum	dB(A)	46,0	46,0	47,0	54,0	54,0
Sound pressure (3)						
Minimum	dB(A)	28,0	24,0	28,0	34,0	34,0
Maximum	dB(A)	36,0	35,0	37,0	45,0	44,0
Indoor unit						
Condensate discharge diameter	mm	16,0	16,0	16,0	16,0	16,0
Power supply						
Indoor unit power supply				220-240V ~ 50Hz		

(1) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(2) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(3) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

CKG_FS

		CKG260FS	CKG360FS
Nominal cooling performances			
Cooling capacity (1)	kW	2,70	3,50
Moisture removed	l/h	0,8	1,2
Nominal heating performances			
Heating capacity (2)	kW	2,90	3,80
Indoor unit			
Type of fan	Type	Inverter centrifugal	
Air flow rate			
Minimum	m^3/h	280	360
Maximum	m^3/h	430	520
Sound power			
Minimum	dB(A)	38,0	39,0
Maximum	dB(A)	48,0	50,0
Sound pressure (3)			
Minimum	dB(A)	26,0	29,0
Maximum	dB(A)	36,0	40,0
Indoor unit			
Condensate discharge diameter	mm	17,0	17,0
Power supply			
Indoor unit power supply		220-240V ~ 50Hz	

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(3) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

MLG_FS

		MLG500FS
Nominal cooling performances		
Cooling capacity (1)	kW	5,20
Moisture removed	l/h	3,8
Nominal heating performances		
Heating capacity (2)	kW	5,33
Electric data		
Rated power input (3)	W	50
Indoor unit		
Type of fan	Type	Inverter centrifugal
Air flow rate		
Minimum	m^3/h	320
Maximum	m^3/h	650
Sound power		
Minimum	dB(A)	45,0
Maximum	dB(A)	55,0
Sound pressure (4)		
Minimum	dB(A)	35,0
Maximum	dB(A)	45,0
Indoor unit		
Condensate discharge diameter	mm	28,0
Power supply		
Indoor unit power supply		220-240V ~ 50Hz

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(3) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.
(4) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

MLG_D

		MLG250D	MLG350D	MLG500D	MLG600D	MLG700D
Nominal cooling performances						
Cooling capacity (1)	kW	2,50	3,50	5,00	6,00	7,10
Moisture removed	l/h	0,8	1,4	1,8	2,0	2,5
Nominal heating performances						
Heating capacity (2)	kW	2,80	3,85	5,50	6,60	8,00
Electric data						
Rated power input (3)	W	75	85	110	110	110
Indoor unit						
Type of fan	Type			Inverter centrifugal		
Air flow rate						
Minimum	m^3/h	280	300	500	550	550
Maximum	m^3/h	450	550	700	1000	1000
Sound power						
Minimum	dB(A)	41,0	42,0	43,0	44,0	44,0
Maximum	dB(A)	47,0	49,0	51,0	52,0	52,0
Sound pressure (4)						
Minimum	dB(A)	31,0	32,0	33,0	34,0	34,0
Maximum	dB(A)	37,0	39,0	41,0	42,0	42,0
Indoor unit						
Condensate discharge diameter	mm	26,0	26,0	26,0	26,0	26,0
Power supply						
Indoor unit power supply				220-240V ~ 50Hz		

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(3) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.
(4) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

MLG_CS

		MLG350CS	MLG500CS
Nominal cooling performances			
Cooling capacity (1)	kW	3,50	4,50
Moisture removed	l/h	1,4	1,8
Nominal heating performances			
Heating capacity (2)	kW	4,00	5,00
Electric data			
Rated power input (3)	W	30	40
Indoor unit			
Type of fan	Type	Inverter centrifugal	
Air flow rate			
Minimum	m^3/h	450	450
Maximum	m^3/h	560	670
Sound power			
Minimum	dB(A)	45,0	46,0
Maximum	dB(A)	52,0	56,0
Sound pressure (4)			
Minimum	dB(A)	34,0	35,0
Maximum	dB(A)	41,0	45,0
Indoor unit			
Condensate discharge diameter	mm	25,0	25,0
Power supply			
Indoor unit power supply		220-240V ~ 50Hz	

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(3) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.
(4) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

MLG_C

		MLG700C
Nominal cooling performances		
Cooling capacity (1)	kW	7,10
Moisture removed	l/h	2,5
Nominal heating performances		
Heating capacity (2)	kW	8,00
Electric data		
Rated power input (3)	W	60
Indoor unit		
Type of fan	Type	Inverter centrifugal
Air flow rate		
Minimum	m^3/h	880
Maximum	m^3/h	1220
Sound power		
Minimum	dB(A)	47,0
Maximum	dB(A)	56,0
Sound pressure (4)		
Minimum	dB(A)	36,0
Maximum	dB(A)	45,0
Indoor unit		
Condensate discharge diameter	mm	25,0
Power supply		
Indoor unit power supply		220-240V ~ 50Hz

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(3) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.
(4) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

MLG_F

		MLG250F	MLG350F	MLG500F	MLG700F
Nominal cooling performances					
Cooling capacity (1)	kW	2,60	3,50	4,50	7,10
Moisture removed	l/h	0,8	1,4	1,8	2,5
Nominal heating performances					
Heating capacity (2)	kW	2,70	4,00	5,00	8,00
Electric data					
Rated power input (3)	W	38	38	38	60
Indoor unit					
Type of fan	Type		Inverter centrifugal		
Air flow rate					
Minimum	m^3/h	420	420	410	720
Maximum	m^3/h	610	610	590	870
Sound power					
Minimum	dB(A)	40,0	40,0	40,0	41,0
Maximum	dB(A)	49,0	49,0	49,0	52,0
Sound pressure (4)					
Minimum	dB(A)	26,0	26,0	26,0	27,0
Maximum	dB(A)	35,0	35,0	35,0	35,0
Indoor unit					
Condensate discharge diameter	mm	17,0	17,0	17,0	17,0
Power supply					
Indoor unit power supply			220-240V ~ 50Hz		

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(3) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.
(4) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

ADAPTERS SUPPLIED WITH THE OUTDOOR UNIT

Models	MLG420	MLG520	MLG630	MLG730	MLG840	MLG1040	MLG1250	Connections mm (inch)	
								Outdoor unit	Indoor unit
Quantity	1	1	2	2	2			9,52mm (3/8")	12,7mm (1/2")
						2	2	6,35mm (1/4")	9,52mm (3/8")
						2	3	12,7mm (1/2")	15,9mm (5/8")
						4	4	9,52mm (3/8")	12,7mm (1/2")

For further information, please refer to the technical documentation on the website www.aermec.com

INDOOR UNIT COOLING FITTINGS

SMG_W

		SMG270W	SMG350W
Refrigeration pipework			
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")	6,35 (1/4")
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")	9,52 (3/8")

SLG_W

		SLG200W	SLG250W	SLG350W	SLG500W	SLG700W
Refrigeration pipework						
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	15,9 (5/8")

CKG_FS

		CKG260FS	CKG360FS
Refrigeration pipework			
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")	6,35 (1/4")
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")	9,52 (3/8")

MLG_FS

		MLG500FS
Refrigeration pipework		
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")
Diameter of refrigerant gas connections	mm (inch)	12,7 (1/2")

MLG_D

		MLG250D	MLG350D	MLG500D	MLG600D	MLG700D
Refrigeration pipework						
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	9,52 (3/8")	9,52 (3/8")
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")	9,52 (3/8")	12,7 (1/2")	15,9 (5/8")	15,9 (5/8")

MLG_CS

		MLG350CS	MLG500CS
Refrigeration pipework			
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")	6,35 (1/4")
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")	12,7 (1/2")

MLG_C

		MLG700C
Refrigeration pipework		
Diameter of liquid refrigerant connections	mm (inch)	9,52 (3/8")
Diameter of refrigerant gas connections	mm (inch)	15,9 (5/8")

MLG_F

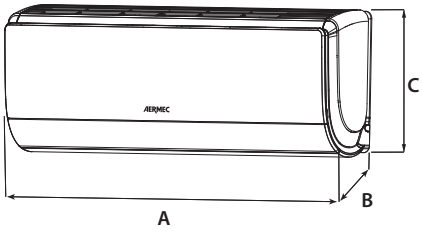
		MLG250F	MLG350F	MLG500F	MLG700F
Refrigeration pipework					
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4)	6,35 (1/4)	6,35 (1/4)	9,52 (3/8)
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8)	12,7 (1/2)	12,7 (1/2)	15,9 (5/8)

OUTDOOR UNIT COOLING FITTINGS

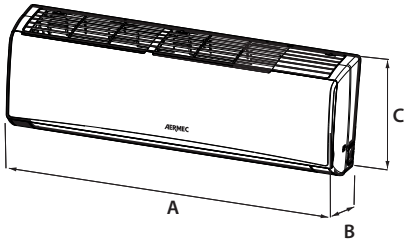
Models			MLG420	MLG520	MLG630	MLG730	MLG840	MLG1040	MLG1250
			14kBtu/h	18kBtu/h	21kBtu/h	24kBtu/h	28kBtu/h	36kBtu/h	42kBtu/h
Liquid connections	A	mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
	B	mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
	C	mm (inch)			6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
	D	mm (inch)					6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
	E	mm (inch)							6,35 (1/4")
Gas connections	A	mm (inch)	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")
	B	mm (inch)	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")
	C	mm (inch)			9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")
	D	mm (inch)					9,52 (3/8")	9,52 (3/8")	9,52 (3/8")
	E	mm (inch)							9,52 (3/8")

INDOOR UNIT WEIGHTS AND DIMENSIONS

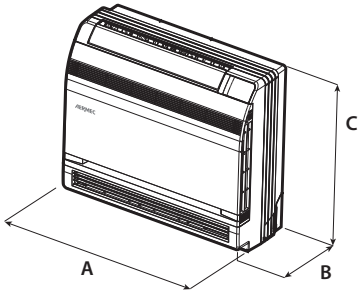
SMG_W



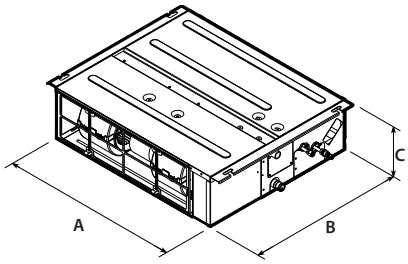
SLG_W



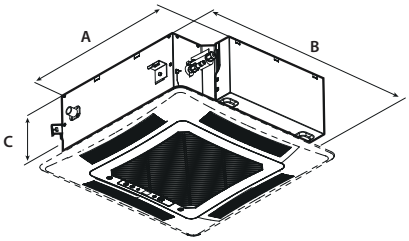
CKG_FS



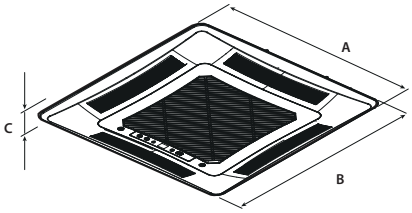
MLG_D



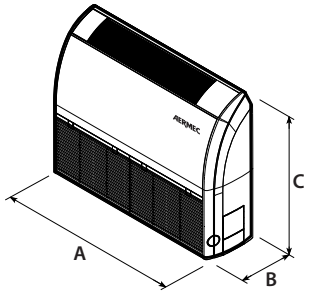
MLG_CS / MLG_C



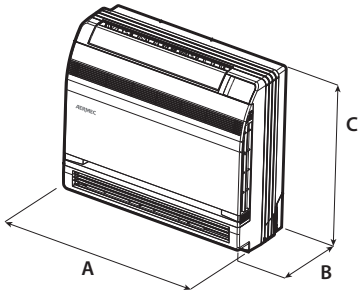
GL40S / GL40

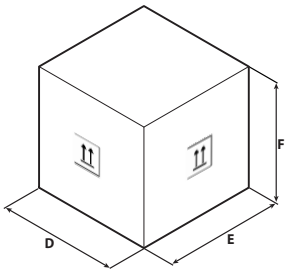


MLG_F



MLG_FS





Carton Box Example

SMG_W

		SMG270W	SMG350W
Indoor unit			
A	mm	860	860
B	mm	170	170
C	mm	305	305
D	mm	935	935
E	mm	388	388
F	mm	295	295
Net weight	kg	11,50	11,50
Weight for transport	kg	14,00	14,00

SLG_W

		SLG200W	SLG250W	SLG350W	SLG500W	SLG700W
Indoor unit						
A	mm	790	790	790	970	970
B	mm	200	200	200	224	224
C	mm	275	275	275	300	300
D	mm	866	866	866	1041	1041
E	mm	271	271	271	320	320
F	mm	367	367	367	383	383
Net weight	kg	9,00	9,00	9,00	14,00	14,00
Weight for transport	kg	11,00	11,00	11,00	17,00	17,00

CKG_FS

		CKG260FS	CKG360FS
Indoor unit			
A	mm	700	700
B	mm	215	215
C	mm	600	600
D	mm	788	788
E	mm	283	283
F	mm	697	697
Net weight	kg	15,50	15,50
Weight for transport	kg	18,50	18,50

MLG_FS

		MLG500FS
Indoor unit		
A	mm	700
B	mm	215
C	mm	600
D	mm	788
E	mm	283
F	mm	697
Net weight	kg	16,00
Weight for transport	kg	19,00

MLG_D

		MLG250D	MLG350D	MLG500D	MLG600D	MLG700D
Indoor unit						
A	mm	700	700	900	1100	1100
B	mm	615	615	615	615	615
C	mm	200	200	200	200	200
D	mm	893	893	1123	1323	1323
E	mm	743	743	743	743	743
F	mm	305	305	305	305	305
Net weight	kg	21,00	22,00	26,00	30,00	30,00
Weight for transport	kg	26,00	28,00	32,00	40,00	40,00

MLG_CS

		MLG350CS	MLG500CS
Indoor unit			
A	mm	666	666
B	mm	596	596
C	mm	240	240
D	mm	778	778
E	mm	738	738
F	mm	300	300
Net weight	kg	20,00	20,00
Weight for transport	kg	24,00	24,00

MLG_C

		MLG700C
Indoor unit		
A	mm	840
B	mm	840
C	mm	240
D	mm	963
E	mm	963
F	mm	325
Net weight	kg	26,00
Weight for transport	kg	32,00

GL40S / GL40

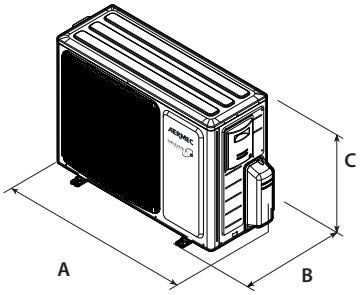
		GL40	GL40S
Indoor unit			
A	mm	950	670
B	mm	950	670
C	mm	60	50
D	mm	1038	763
E	mm	1033	763
F	mm	133	105
Net weight	kg	7,00	4,00
Weight for transport	kg	11,00	5,00

Mandatory accessory to be provided when ordering.

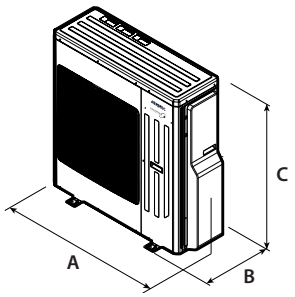
MLG_F

		MLG250F	MLG350F	MLG500F	MLG700F
Indoor unit					
A	mm	870	870	870	1200
B	mm	235	235	235	235
C	mm	665	665	665	665
D	mm	1033	1033	1033	1363
E	mm	300	300	300	300
F	mm	770	770	770	770
Net weight	kg	25,00	25,00	26,00	33,00
Weight for transport	kg	30,00	30,00	31,00	40,00

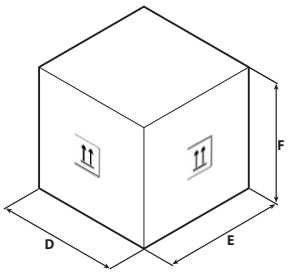
OUTDOOR UNIT WEIGHTS AND DIMENSIONS



MLG420 - MLG520 - MLG630
MLG730 - MLG840



MLG1040 - MLG1250



Carton Box Example

MLG

		MLG420	MLG520	MLG630	MLG730	MLG840	MLG1040	MLG1250
Outdoor unit								
A	mm	899	899	963	1001	1001	1098	1098
B	mm	378	378	396	427	427	440	440
C	mm	596	596	700	790	790	1106	1106
D	mm	948	948	1029	1083	1083	1158	1158
E	mm	420	420	458	488	488	483	483
F	mm	645	645	750	855	855	1235	1235
Net weight	kg	43,00	43,00	55,00	68,00	69,00	90,00	90,00
Weight for transport	kg	46,00	46,00	60,00	73,00	74,00	98,00	98,00

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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MPG

Multisplit

Cooling capacity 4,1 ÷ 8,0 kW
Heating capacity 4,4 ÷ 9,5 kW

- **New R32 ecological refrigerant gas.**
- **Wi-fi control using the relative accessory.**
- **Modern design to blend with all furnishing styles.**
- **Wide choice of indoor units available.**
- **Special coil with fin blue coating.**

MPG_CS / MPG_C



SPG_W



MPG_D / MPG_DH



CKG_FS



MLG_F



DESCRIPTION

The multisplit air conditioners of the MPG range are combined with:
— **SPG_W Wall**, for wall installation.
— **CKG_FS Console**, for wall installation.
— **MLG_F Floor ceiling**, for wall and/or ceiling installation.
— **MPG_CS** and **MPG_C Cassette**, for false ceiling installation.
— **MPG_D** and **MPG_DH Duct**, for duct type horizontal installation.
Outdoor units equipped with base electric resistance to avoid the possible formation of ice and facilitate the disposal of condensate during heating operation, compressor and fan with DC inverter technology and electronic expansion valve.

TYPE OF INDOOR UNIT

SPG_W indoor unit

Wall indoor unit designed to be installed on indoor walls.
Universal indoor units: some indoor units can be combined with both multisplit outdoor units of the series MPG and monosplit outdoor units of the series SPG:

SPG	SPG200W	SPG250W	SPG350W	SPG500W	SPG700W
Universal indoor units compatible with MPG multisplit system		•	•	•	•
Multisplit indoor units	•				







— Every indoor unit comes with a remote control and a remote control holder.
— Fan with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Timer for programming switch-off and switch-on.
— Auxiliary emergency command integrated into the unit.
— Indoor unit front panel with LED display and indicator lights.
— 3-speed fan, to meet every possible need.
— **Auto** function for a continuous speed variation.
— **Turbo** function to attain the desired temperature as quickly as possible.
— **Sleep** night time function well-being program.
— **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
— **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
— **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.

Smart APP Ewpe

Using the specific **accessory**, the system offers wi-fi control thanks to the app for iOS and Android devices (available free on Apple Store and Google Play), the system can be directly controlled from a distance on your smartphone or tablet. Remote control is possible via Cloud, using a wireless router connected to the Internet.

CKG_FS indoor unit

Console indoor unit designed to be installed on indoor floors.
Universal indoor units: all indoor units can be combined with both multisplit outdoor units of the series MPG and monosplit outdoor units of the series CKG.



— Every indoor unit comes with a remote control and a remote control holder.
— Fan with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Timer for programming switch-off and switch-on.
— Indoor unit front panel with LED display and indicator lights.
— 5-speed fan, to meet every possible need.
— **Auto** function for a continuous speed variation.
— **Turbo** function to attain the desired temperature as quickly as possible.
— **Sleep** night time function well-being program.
— **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
— **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
— **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.
— Air Purifiers (Cold Plasma) is able to reduce pollutants.
— Standard Wi-Fi module.

Single air delivery



Dual air delivery (default)



Intake



Smart APP Ewpe

The system is equipped standard with the Wi-Fi module; using this module and the app for iOS and Android devices (available free on Apple Store and Google Play, the system can be directly controlled from a distance on your smartphone or tablet. Remote control is possible via Cloud, using a wireless router connected to the Internet.

Air Purifiers (Cold Plasma)

Capable of reducing pollutants breaking down their molecules using electric discharges, causing the splitting of the water molecules in the air into positive and negative ions. These ions neutralise the molecules of the gaseous pollutants obtaining products that are normally present in clean air. The device can eliminate 90% of bacteria. The result is clean, ionised air that has no bad odours.

MLG_F indoor unit

Indoor unit **floor ceiling** designed to be installed on the wall or ceiling indoors.



— Every indoor unit comes with a remote control and a remote control holder.
— Fan with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Timer for programming switch-off and switch-on.
— Auxiliary emergency command integrated into the unit.
— Indoor unit front panel with LED display and indicator lights.
— 3-speed fan, to meet every possible need.
— **Auto** function for a continuous speed variation.
— **Turbo** function to attain the desired temperature as quickly as possible.
— **Sleep** night time function well-being program.
— **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
— **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
— **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.

MPG_CS indoor unit

Indoor unit **cassette** of dimensions (570x570 mm) designed to be installed on suspended ceiling indoors.



— Every indoor unit comes with a remote control and a remote control holder.
— Fan with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Timer for programming switch-off and switch-on.
— Auxiliary emergency command integrated into the unit.
— Indoor unit front panel with LED display and indicator lights.
— 7-speed fan, to meet every possible need.
— **Auto** function for a continuous speed variation.
— **Turbo** function to attain the desired temperature as quickly as possible.
— **Sleep** night time function well-being program.
— **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
— **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
— **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.
— Equipped with condensate drain pump.

MPG_C indoor unit

Indoor unit **cassette** of dimensions (840x840 mm) designed to be installed on suspended ceiling indoors.



— Every indoor unit comes with a remote control and a remote control holder.
— Fan with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Timer for programming switch-off and switch-on.
— Auxiliary emergency command integrated into the unit.
— Indoor unit front panel with LED display and indicator lights.
— 7-speed fan, to meet every possible need.
— **Auto** function for a continuous speed variation.
— **Turbo** function to attain the desired temperature as quickly as possible.
— **Sleep** night time function well-being program.
— **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
— **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
— **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.
— Equipped with condensate drain pump.

MPG_D indoor unit

Duct indoor unit designed for indoor duct type installation.



— Every indoor unit comes with a remote control and a remote control holder.
— **WRCB** wired panel standard supply with each indoor unit.
— Fan with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Timer for programming switch-off and switch-on.
— 7-speed fan, to meet every possible need.
— **Auto** function for a continuous speed variation.
— **Turbo** function to attain the desired temperature as quickly as possible.
— **Sleep** night time function well-being program.
— **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
— **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
— **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.
— Equipped with condensate drain pump.

MPG_DH indoor unit

Duct indoor unit designed for indoor duct type installation.



— Every indoor unit comes with a remote control and a remote control holder.
— **WRCB** wired panel standard supply with each indoor unit.
— Fan with DC inverter technology.
— Regenerable air filter easy to remove and clean.
— Timer for programming switch-off and switch-on.
— 7-speed fan, to meet every possible need.
— **Auto** function for a continuous speed variation.
— **Turbo** function to attain the desired temperature as quickly as possible.
— **Sleep** night time function well-being program.
— **X-fan** prolonged ventilation function, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.
— **Anti-freeze** function that allows you to keep an inside minimum temperature of 8 °C in winter.
— **iFeel** function for activating the ambient temperature probe inside the remote control, for improved comfort.
— Equipped with condensate drain pump.

General features

— New R32 ecological refrigerant gas with low GWP.
— Operating mode: cooling, heating, dehumidification, automatic and fan only.
— Particularly quiet operation.
— Microproccessor control.
— **Auto-restart** function.
— **Self-diagnosis** function.
— Air filter easily removed and cleaned.
— Systems with multi-line refrigerant connections, where every indoor unit is connected directly to the outdoor unit via dedicated refrigerant lines.
— Easy installation and maintenance.

X-fan function

This self-cleaning system foresees that the fan of the indoor unit continues its operation for a few minutes after the unit is turned off, in order to perfectly dry the coil and avoid the formation and proliferation of pathogens.



Smart APP Ewpe

Using the specific **accessory**, the system offers wi-fi control thanks to the app for iOS and Android devices (available free on Apple Store and Google Play). The system can be controlled from a distance directly on your smartphone or tablet, or via Cloud with the aid of a wireless router connected to the Internet.



Special blue fin coil

Unlike normal batteries, this special blue epoxy coating is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



Supplied components for indoor units

Models	SPG_W	CKG_FS	MLG_F	MPG_CS	MPG_C	MPG_D	MPG_DH
Remote control	•	•	•	•	•	•	•
Remote control holder	•	•	•	•	•	•	•
WRCB wired panel WRCB with integrated Wi-Fi module						•	•
Air Purifiers (Cold Plasma)		•					
Wi-Fi module		•					
Condensate discharge pump				•	•	•	•

TYPE OF OUTDOOR UNIT

MPG outdoor unit

Multisplit air conditioner.
Reversible air/air heat pump with DC inverter technology.

Types:

— **Dualsplit**: outdoor units MPG420 and MPG520 can be combined with 1 or 2 indoor units.
— **Trialsplit**: outdoor units MPG630 and MPG730 can be combined with 2 or 3 indoor units.
— **Quadrisplit**: outdoor unit MPG840 can be combined with 2, 3 or 4 indoor units.

Main features:

— Fitted with a electrical anti-freeze heater (in unit base) to avoid the formation of ice and encourage the drainage of condensate during heating operation.
— Compressor and fan with DC inverter technology.
— Fitted with an electronic expansion valve.

ACCESSORIES

CC2: Centralised control with 7" touchscreen display for managing several indoor units within a number of multisplit systems. The centralised control has an integrated external contact. For more information, refer to the specific documentation. *
WRCA: Wired panel with liquid crystal display and soft-touch buttons. This accessory can be used to control not only the traditional system functions but also a weekly timer with a maximum of 8 daily time bands.
WRCB: Wired panel with liquid crystal display and soft-touch buttons, equipped with an integrated wi-fi module for remote control of the unit (via the dedicated EWPE Smart App).
For more information about the accessories and their functions (such as the auto-restart function), refer to the specific documentation of the single accessory.

DCK: Remote Contact Kit. This accessory allows you to switch the system on and off using an external contact.
WIFIKIT: Plug & Play module to be installed in the indoor unit for Wi-Fi control.
The accessories WRCA and WIFIKIT are compatible with one another and can therefore be connected to the same indoor unit simultaneously.
GLG40S: Air supply and flow grid with dimensions (620x620 mm) for cassette internal unit.
GLG40: Air supply and flow grid with dimensions (950x950 mm) for cassette internal unit.
*** The CC2 centralised control can manage up to 36 MPG systems.**



ACCESSORIES COMPATIBILITY

SPG_W

Accessory	SPG500W	SPG700W
CC2 (1)	•	•
WRCA (1)	•	•

(1) Auto-restart function.

Accessory	SPG200W	SPG250W	SPG350W	SPG500W	SPG700W
DCK				•	•
WIFIKIT	•	•	•	•	•

CKG_FS

Accessory	CKG260FS	CKG360FS	CKG500FS
CC2 (1)	•	•	•
WRCA (1)	•	•	•

(1) Auto-restart function.

MLG_F

Accessory	MLG250F	MLG350F	MLG500F	MLG700F
CC2 (1)	•	•	•	•
WRCA (1)	•	•	•	•
WRCB (1)	•	•	•	•

(1) Auto-restart function.

Accessory	MLG250F	MLG350F	MLG500F	MLG700F
DCK	•	•	•	•

MPG_CS

Accessory	MPG350CS	MPG500CS
CC2 (1)	•	•
WRCA (1)	•	•
WRCB (1)	•	•

(1) Auto-restart function.

Accessory	MPG350CS	MPG500CS
GLG40S (1)	•	•

(1) Mandatory accessory.

MPG_C

Accessory	MPG700C
CC2 (1)	•
WRCA (1)	•
WRCB (1)	•

(1) Auto-restart function.

Accessory	MPG700C
GLG40 (1)	•

(1) Mandatory accessory.

MPG_D

Accessory	MPG250D	MPG350D	MPG500D	MPG700D
CC2 (1)	•	•	•	•
WRCA (1)	•	•	•	•
WRCB (1)	•	•	•	•

(1) Auto-restart function.
WRCB wired panel standard supply.

MPG_DH

Accessory	MPG250DH	MPG350DH	MPG500DH	MPG700DH
CC2 (1)	•	•	•	•
WRCA (1)	•	•	•	•
WRCB (1)	•	•	•	•

(1) Auto-restart function.
WRCB wired panel standard supply.

INDOOR UNIT VERSIONS AVAILABLE

Nominal cooling capacity in kBTU/h	Indoor units						
7	**SPG200W**						
9	**SPG250W**	**CKG260FS**	**MLG250F**			**MPG250D**	**MPG250DH**
12	**SPG350W**	**CKG360FS**	**MLG350F**	**MPG350CS**		**MPG350D**	**MPG350DH**
18	**SPG500W**	**CKG500FS**	**MLG500F**	**MPG500CS**		**MPG500D**	**MPG500DH**
24	**SPG700W**		**MLG700F**		**MPG700C**	**MPG700D**	**MPG700DH**

ALLOWED COMBINATIONS OF INDOOR UNITS

For trialsplit and quadrisplit the installation of at least 2 indoor units is mandatory for the correct operation of the system.

For further information, please refer to the technical documentation on the website www.aermec.com

MPG420 (14kBTU/h)		MPG520 (18kBTU/h)		MPG630 (21kBTU/h)	
No. indoor unit					
1	2	1	2	2	3
7	**7+7**	9	7+7	7+7	**7+7+7**
9	7+9	12	7+9	7+9	7+7+9
12	7+12		7+12	7+12	7+7+12
	9+9		**9+9**	7+18	7+9+9
	9+12		9+12	9+9	7+9+12
			12+12	9+12	7+12+12
				9+18	9+9+9
				12+12	9+9+12
				12+18	

MPG730 (24kBTU/h)		MPG840 (28kBTU/h)		
No. indoor unit				
2	3	2	3	4
7+7	7+7+7	7+7	7+7+7	**7+7+7+7**
7+9	7+7+9	7+9	7+7+9	7+7+7+9
7+12	7+7+12	7+12	7+7+12	7+7+7+12
7+18	7+7+18	7+18	7+7+18	7+7+7+18
9+9	**7+9+9**	9+9	7+9+9	7+7+9+9
9+12	7+9+12	9+12	7+9+12	7+7+9+12
9+18	7+9+18	9+18	7+9+18	7+7+9+18
12+12	7+12+12	12+12	7+12+12	7+7+12+12
12+18	9+9+9	12+18	7+12+18	7+9+9+9
18+18	9+9+12	18+18	9+9+9	7+9+9+12
	9+9+18		9+9+12	7+9+12+12
	9+12+12		9+9+18	9+9+9+9
	12+12+12		9+12+12	9+9+9+12
			9+12+18	9+9+12+12
			12+12+12	
			12+12+18	

Reference combinations

OUTDOOR UNIT PERFORMANCE DATA

		MPG420	MPG520	MPG630	MPG730	MPG840
Nominal cooling performances						
Cooling capacity (1)	kW	4,10	5,30	6,10	7,10	8,00
Cooling input power (1)	kW	1,10	1,48	1,48	1,88	2,12
EER (2)	W/W	3,73	3,58	4,12	3,78	3,77
Minimum cooling performances						
Cooling capacity	kW	2,05	2,14	2,20	2,30	2,30
Cooling input power	kW	0,20	0,30	0,40	0,60	0,80
Maximum cooling performances						
Cooling capacity	kW	5,00	5,80	8,30	9,20	11,00
Cooling input power	kW	2,20	2,50	2,90	3,40	3,60
Seasonal efficiency						
SEER	W/W	6,70	6,50	6,90	6,50	6,10
Annual power consumption	kWh/annum	214	285	309	382	459
Efficiency energy class (3)				A++		
Nominal heating performances						
Heating capacity (4)	kW	4,40	5,65	6,50	8,60	9,50
Heating input power (4)	kW	0,97	1,25	1,43	2,23	2,20
COP (2)	W/W	4,54	4,52	4,55	3,86	4,32
Minimum heating performances						
Heating capacity	kW	2,49	2,58	3,60	3,65	3,65
Heating input power	kW	0,30	0,40	0,40	0,60	0,70
Maximum heating performances						
Heating capacity	kW	5,40	6,50	8,50	9,20	10,25
Heating input power	kW	2,25	2,50	2,90	3,00	3,60
Seasonal efficiency (temperate climate)						
SCOP		4,00	4,00	3,80	3,80	4,00
Annual power consumption	kWh/annum	1295	1435	2247	2247	2345
Efficiency energy class (3)		A+		A		A+
Outdoor unit						
Type of fan	Type			Inverter axial		
Air flow rate						
Maximum	m^3/h	2300	2300	3800	3800	3800
Sound power						
Maximum	dB(A)	62,0	64,0	68,0	68,0	68,0
Sound pressure (1 m) (5)						
Maximum	dB(A)	52,0	54,0	58,0	58,0	58,0
Compressor						
Type	type			Inverter rotary		
Refrigerant	type			R32		
Refrigerant charge	kg	0,75	0,90	1,60	1,70	1,80
Potential global heating	GWP			675kgCO_2eq		
Equivalent CO_2	t	0,51	0,61	1,08	1,15	1,22
Electric data						
Rated power input (6)	kW	2,3	2,5	2,9	3,4	3,6
Rated current input (6)	A	10,0	11,0	12,9	15,0	16,0
Refrigeration pipework						
Maximum refrigerant tube length	m	40	40	60	60	70
Maximum single cooling line length	m	20	20	20	20	20
Maximum unit (indoor/external) cooling line level difference in height	m	15,0	15,0	15,0	15,0	15,0
Maximum (indoor/outdoor) cooling line level difference	m	15,0	15,0	15,0	15,0	15,0
Refrigerant to be added	g/m	20	20	20	20	20
Diameter of liquid refrigerant connections	mm (inch)			6,35 (1/4")		
Diameter of refrigerant gas connections	mm (inch)			9,52 (3/8")		
Power supply						
Outdoor unit power supply				220-240V ~ 50Hz		

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.
(3) Data in accordance with Delegated Regulation (EU) No. 626/2011.
(4) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(5) Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source.
(6) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.
All technical data refer to the respective reference combinations of the indoor units.

INDOOR UNIT PERFORMANCE DATA

SPG_W

		SPG200W	SPG250W	SPG350W	SPG500W	SPG700W
Nominal cooling performances						
Cooling capacity (1)	kW	2,20	2,50	3,20	4,60	6,20
Moisture removed	l/h	0,6	0,6	1,4	1,8	1,8
Nominal heating performances						
Heating capacity (2)	kW	2,40	2,80	3,40	5,20	6,50
Indoor unit						
Type of fan	Type			Inverter centrifugal		
Input power	W	13	13	23	38	38
Air flow rate						
Minimum	m^3/h	250	270	320	600	650
Average	m^3/h	420	390	400	700	750
Maximum	m^3/h	470	470	520	800	950
Turbo	m^3/h	500	500	590	850	1100
Sound power						
Minimum	dB(A)	34,0	34,0	38,0	44,0	49,0
Average	dB(A)	45,0	44,0	45,0	48,0	52,0
Maximum	dB(A)	49,0	48,0	49,0	52,0	58,0
Turbo	dB(A)	55,0	55,0	56,0	54,0	61,0
Sound pressure (1 m) (3)						
Minimum	dB(A)	22,0	22,0	26,0	34,0	35,0
Average	dB(A)	33,0	32,0	33,0	38,0	38,0
Maximum	dB(A)	36,0	36,0	37,0	42,0	44,0
Turbo	dB(A)	39,0	38,0	41,0	44,0	47,0
Indoor unit						
Condensate discharge diameter	mm	16,0	16,0	16,0	16,0	16,0
Power supply						
Indoor unit power supply				220-240V ~ 50Hz		

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(3) Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source.
Sound power calculated in free field, in accordance with UNI EN ISO 3744.

CKG_FS

		CKG260FS	CKG360FS	CKG500FS
Nominal cooling performances				
Cooling capacity (1)	kW	2,70	3,50	5,20
Moisture removed	l/h	0,8	1,2	1,8
Nominal heating performances				
Heating capacity (2)	kW	2,90	3,80	5,33
Indoor unit				
Type of fan	Type		Inverter centrifugal	
Input power	W	35	40	50
Air flow rate				
Minimum	m^3/h	280	360	410
Average	m^3/h	370	440	520
Maximum	m^3/h	430	520	650
Turbo	m^3/h	500	600	700
Sound power				
Minimum	dB(A)	38,0	39,0	47,0
Average	dB(A)	44,0	46,0	51,0
Maximum	dB(A)	48,0	50,0	55,0
Turbo	dB(A)	50,0	54,0	57,0
Sound pressure (3)				
Minimum	dB(A)	26,0	29,0	37,0
Average	dB(A)	31,0	36,0	41,0
Maximum	dB(A)	36,0	40,0	45,0
Turbo	dB(A)	39,0	44,0	47,0
Indoor unit				
Condensate discharge diameter	mm	17,0	17,0	17,0
Power supply				
Indoor unit power supply			220-240V ~ 50Hz	

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(3) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.
Sound power calculated in free field, in accordance with UNI EN ISO 3744.

MLG_F

		MLG250F	MLG350F	MLG500F	MLG700F
Nominal cooling performances					
Cooling capacity (1)	kW	2,60	3,50	4,50	7,10
Moisture removed	l/h	0,8	1,4	1,8	2,5
Nominal heating performances					
Heating capacity (2)	kW	2,70	4,00	5,00	8,00
Electric data					
Rated power input (3)	W	38	38	38	60
Indoor unit					
Type of fan	Type		Inverter centrifugal		
Input power	W	38	38	38	60
Air flow rate					
Minimum	m^3/h	420	420	410	720
Average	m^3/h	540	540	520	800
Maximum	m^3/h	610	610	590	870
Turbo	m^3/h	700	700	680	950
Sound power					
Minimum	dB(A)	40,0	40,0	40,0	41,0
Average	dB(A)	44,0	44,0	44,0	45,0
Maximum	dB(A)	49,0	49,0	49,0	52,0
Turbo	dB(A)	52,0	52,0	52,0	52,0
Sound pressure (4)					
Minimum	dB(A)	26,0	26,0	26,0	27,0
Average	dB(A)	30,0	30,0	30,0	31,0
Maximum	dB(A)	35,0	35,0	35,0	35,0
Turbo	dB(A)	38,0	38,0	38,0	38,0
Indoor unit					
Condensate discharge diameter	mm	17,0	17,0	17,0	17,0
Power supply					
Indoor unit power supply			220-240V ~ 50Hz		

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(3) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.
(4) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.
Sound power calculated in free field, in accordance with UNI EN ISO 3744.

MPG_CS

		MPG350CS	MPG500CS
Nominal cooling performances			
Cooling capacity (1)	kW	3,50	5,00
Moisture removed	l/h	1,4	1,8
Nominal heating performances			
Heating capacity (2)	kW	4,00	5,50
Indoor unit			
Type of fan	Type	Inverter centrifugal	
Input power	W	30	35
Air flow rate			
Minimum	m^3/h	380	380
Average	m^3/h	450	450
Maximum	m^3/h	540	540
Turbo	m^3/h	560	650
Sound power			
Minimum	dB(A)	46,0	46,0
Average	dB(A)	50,0	50,0
Maximum	dB(A)	55,0	55,0
Turbo	dB(A)	57,0	59,0
Sound pressure (1 m) (3)			
Turbo	dB(A)	41,0	43,0
Minimum	dB(A)	30,0	30,0
Average	dB(A)	34,0	34,0
Maximum	dB(A)	39,0	39,0
Indoor unit			
Condensate discharge diameter	mm	25,0	25,0
Power supply			
Indoor unit power supply		220-240V ~ 50Hz	

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(3) Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source.
Sound power calculated in free field, in accordance with UNI EN ISO 3744.

MPG_C

		MPG700C
Nominal cooling performances		
Cooling capacity (1)	kW	7,00
Moisture removed	l/h	2,5
Nominal heating performances		
Heating capacity (2)	kW	8,00
Indoor unit		
Type of fan	Type	Inverter centrifugal
Input power	W	50
Air flow rate		
Minimum	m^3/h	830
Average	m^3/h	910
Maximum	m^3/h	1050
Turbo	m^3/h	1100
Sound pressure (1 m) (3)		
Turbo	dB(A)	44,0
Minimum	dB(A)	38,0
Average	dB(A)	40,0
Maximum	dB(A)	43,0
Sound power		
Minimum	dB(A)	57,0
Average	dB(A)	59,0
Maximum	dB(A)	61,0
Turbo	dB(A)	62,0
Indoor unit		
Condensate discharge diameter	mm	25,0
Power supply		
Indoor unit power supply		220-240V ~ 50Hz

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(3) Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source.
Sound power calculated in free field, in accordance with UNI EN ISO 3744.

MPG_D

		MPG250D	MPG350D	MPG500D	MPG700D
Nominal cooling performances					
Cooling capacity (1)	kW	2,65	3,50	5,00	7,00
Moisture removed	l/h	0,8	1,4	1,8	2,5
Nominal heating performances					
Heating capacity (2)	kW	2,80	4,00	5,50	8,00
Indoor unit					
Type of fan	Type		Inverter centrifugal		
Input power	W	70	80	80	200
Air flow rate					
Minimum	m^3/h	220	300	420	900
Average	m^3/h	340	420	610	1000
Maximum	m^3/h	450	540	720	1200
Turbo	m^3/h	560	600	800	1300
Sound pressure (1 m) (3)					
Turbo	dB(A)	32,0	36,0	36,0	46,0
Minimum	dB(A)	22,0	27,0	25,0	36,0
Average	dB(A)	22,0	27,0	25,0	36,0
Maximum	dB(A)	28,0	34,0	31,0	42,0
Sound power					
Minimum	dB(A)	37,0	42,0	40,0	51,0
Average	dB(A)	40,0	46,0	43,0	55,0
Maximum	dB(A)	43,0	49,0	46,0	57,0
Turbo	dB(A)	47,0	51,0	51,0	61,0
Indoor unit					
Condensate discharge diameter	mm	26,0	26,0	26,0	26,0
Power supply					
Indoor unit power supply			220-240V ~ 50Hz		

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(3) Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source.
Sound power calculated in free field, in accordance with UNI EN ISO 3744.

MPG_DH

		MPG250DH	MPG350DH	MPG500DH	MPG700DH
Nominal cooling performances					
Cooling capacity (1)	kW	2,65	3,50	5,00	7,00
Moisture removed	l/h	0,8	1,4	1,8	2,5
Nominal heating performances					
Heating capacity (2)	kW	2,80	4,00	5,50	8,00
Indoor unit					
Type of fan	Type	Inverter centrifugal			
Input power	W	50	50	75	80
High static pressure					
Maximum	Pa	60	60	60	125
Air flow rate					
Minimum	m^3/h	550	410	750	900
Average	m^3/h	610	480	790	1000
Maximum	m^3/h	670	560	840	1200
Turbo	m^3/h	700	650	880	1500
Sound pressure (1 m) (3)					
Turbo	dB(A)	41,0	39,0	41,0	45,0
Minimum	dB(A)	35,0	33,0	37,0	36,0
Average	dB(A)	37,0	35,0	38,0	38,0
Maximum	dB(A)	39,0	37,0	39,0	40,0
Sound power					
Minimum	dB(A)	51,0	49,0	53,0	53,0
Average	dB(A)	53,0	51,0	54,0	55,0
Maximum	dB(A)	55,0	53,0	55,0	57,0
Turbo	dB(A)	57,0	55,0	57,0	62,0
Indoor unit					
Condensate discharge diameter	mm	26,0	26,0	26,0	26,0
Power supply					
Indoor unit power supply		220-240V ~ 50Hz			

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(3) Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source.
Sound power calculated in free field, in accordance with UNI EN ISO 3744.

INDOOR UNIT COOLING FITTINGS

SPG_W

		SPG200W	SPG250W	SPG350W	SPG500W	SPG700W
Refrigeration pipework						
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	12,7 (1/2")

CKG_FS

		CKG260FS	CKG360FS	CKG500FS
Refrigeration pipework				
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")	9,52 (3/8")	12,7 (1/2")

MLG_F

		MLG250F	MLG350F	MLG500F	MLG700F
Refrigeration pipework					
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4)	6,35 (1/4)	6,35 (1/4)	9,52 (3/8)
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8)	12,7 (1/2)	12,7 (1/2)	15,9 (5/8)

MPG_CS

		MPG350CS	MPG500CS
Refrigeration pipework			
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")	6,35 (1/4")
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")	12,7 (1/2")

MPG_C

		MPG700C
Refrigeration pipework		
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")
Diameter of refrigerant gas connections	mm (inch)	15,9 (5/8")

MPG_D

		MPG250D	MPG350D	MPG500D	MPG700D
Refrigeration pipework					
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")	9,52 (3/8")	12,7 (1/2")	15,9 (5/8")

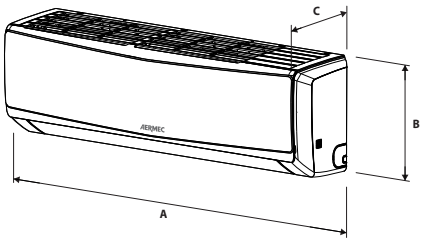
MPG_DH

		MPG250DH	MPG350DH	MPG500DH	MPG700DH
Refrigeration pipework					
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")	9,52 (3/8")	12,7 (1/2")	15,9 (5/8")

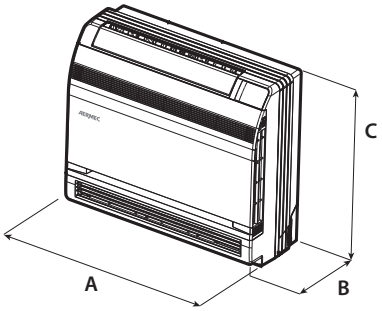
OUTDOOR UNIT COOLING FITTINGS

Models			MPG420	MPG520	MPG630	MPG730	MPG840
			14kBtu/h	18kBtu/h	21kBtu/h	24kBtu/h	28kBtu/h
Liquid connections	A	mm (inch)	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")
	B	mm (inch)	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")	9,52 (3/8")
	C	mm (inch)			9,52 (3/8")	9,52 (3/8")	9,52 (3/8")
	D	mm (inch)					9,52 (3/8")
Gas connections	A	mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
	B	mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
	C	mm (inch)			6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
	D	mm (inch)					6,35 (1/4")

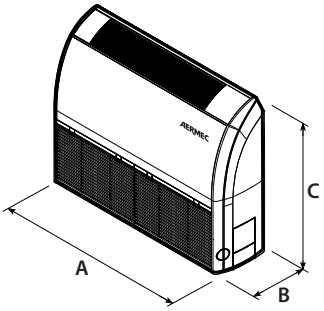
INDOOR UNIT WEIGHTS AND DIMENSIONS



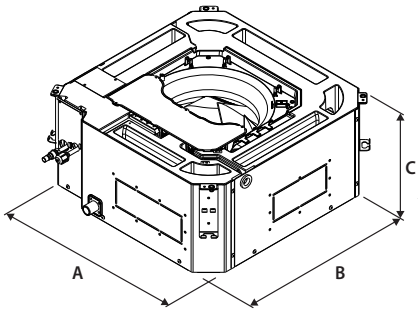
SPG_W



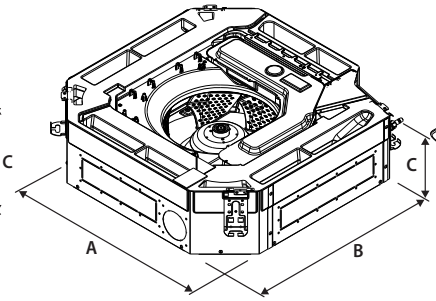
CKG_FS



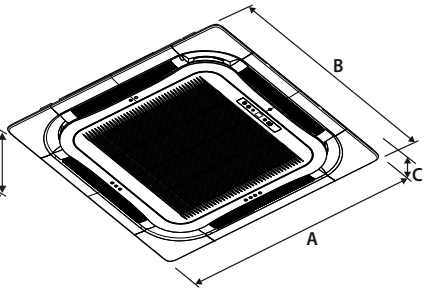
MLG_F



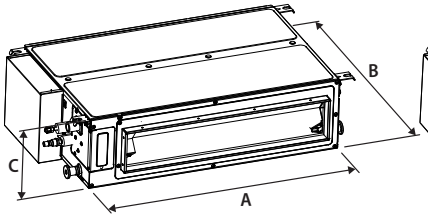
MPG_CS



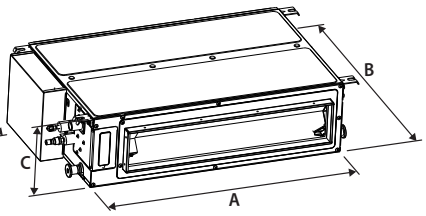
MPG_C



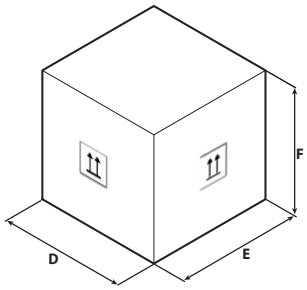
GLG40S / GLG40



MPG_D



MPG_DH



Carton Box Example

SPG_W

		SPG200W	SPG250W	SPG350W	SPG500W	SPG700W
Indoor unit						
A	mm	696	696	770	972	1081
B	mm	251	251	251	300	325
C	mm	190	190	190	225	248
D	mm	747	747	822	1022	1137
E	mm	324	324	324	374	407
F	mm	262	262	262	299	334
Net weight	kg	7,50	7,50	8,50	13,50	16,50
Weight for transport	kg	9,00	9,00	10,00	16,00	19,50

CKG_FS

		CKG260FS	CKG360FS	CKG500FS
Indoor unit				
A	mm	700	700	700
B	mm	215	215	215
C	mm	600	600	600
D	mm	788	788	788
E	mm	283	283	283
F	mm	697	697	697
Net weight	kg	15,50	15,50	15,50
Weight for transport	kg	18,50	18,50	18,50

MLG_F

		MLG250F	MLG350F	MLG500F	MLG700F
Indoor unit					
A	mm	870	870	870	1200
B	mm	235	235	235	235
C	mm	665	665	665	665
D	mm	1033	1033	1033	1363
E	mm	300	300	300	300
F	mm	770	770	770	770
Net weight	kg	25,00	25,00	26,00	33,00
Weight for transport	kg	30,00	30,00	31,00	40,00

MPG_CS

		MPG350CS	MPG500CS
Indoor unit			
A	mm	570	570
B	mm	570	570
C	mm	265	265
D	mm	698	698
E	mm	653	653
F	mm	295	295
Net weight	kg	17,00	17,00
Weight for transport	kg	22,00	22,00

MPG_C

		MPG700C
Indoor unit		
A	mm	840
B	mm	840
C	mm	240
D	mm	963
E	mm	963
F	mm	325
Net weight	kg	29,00
Weight for transport	kg	36,00

GLG40S / GLG40

		GLG40S	GLG40
Indoor unit			
A	mm	620	950
B	mm	620	950
C	mm	48	52
D	mm	701	1033
E	mm	701	1038
F	mm	125	112
Net weight	kg	3,00	6,00
Weight for transport	kg	5,00	10,00

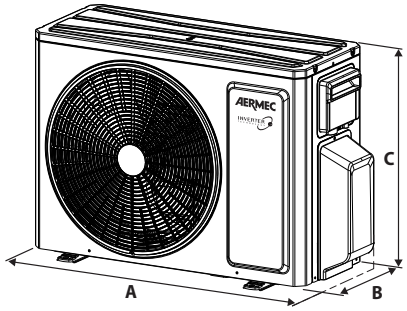
MPG_D

		MPG250D	MPG350D	MPG500D	MPG700D
Indoor unit					
A	mm	710	710	1010	900
B	mm	450	450	450	655
C	mm	200	200	200	260
D	mm	1008	1008	1308	1115
E	mm	568	568	568	772
F	mm	275	275	275	320
Net weight	kg	18,50	19,00	25,00	31,00
Weight for transport	kg	22,50	23,00	30,00	36,00

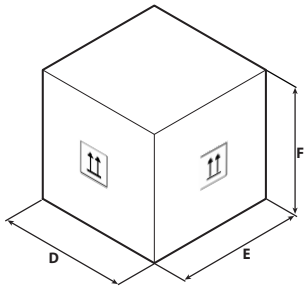
MPG_DH

		MPG250DH	MPG350DH	MPG500DH	MPG700DH
Indoor unit					
A	mm	710	710	1010	900
B	mm	450	450	450	655
C	mm	200	200	200	260
D	mm	1008	1008	1308	1115
E	mm	568	568	568	772
F	mm	275	275	275	320
Net weight	kg	18,50	19,00	25,00	31,00
Weight for transport	kg	22,50	23,00	30,00	36,00

OUTDOOR UNIT WEIGHTS AND DIMENSIONS



MPG



Carton Box Example

MPG

		MPG420	MPG520	MPG630	MPG730	MPG840
Outdoor unit						
A	mm	822	822	964	964	964
B	mm	352	352	402	402	402
C	mm	555	555	660	660	660
D	mm	872	872	1032	1032	1032
E	mm	398	398	456	456	456
F	mm	620	620	737	737	737
Net weight	kg	30,00	32,00	47,50	47,50	51,00
Weight for transport	kg	32,50	34,50	52,00	52,00	55,50

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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VRF SYSTEM

The VRFs are the direct expansion systems, with variable refrigerant flow.
Unlike the Multisplits, which are characterised by a set flow of refrigerant, these systems allow users to adjust the amount of refrigerant in circulation, according to the actual load required by the indoor units in use.
They range of 12kW to 276 kW thanks to their modular configuration, and are available in a heat pump version with heat recovery and domestic hot water production.
These systems guarantee excellent energy efficiency, avoiding wasting energy pointlessly, and are amazingly quiet during operation.

VRF SYSTEM

		Air flow rate (m³/h)	Cool. Cap. (kW)	Heat. Cap. (kW)	Page
MVA	Direct expansion variable refrigerant flow system VRF	-	12,1-246,0	14,0-276,0	900

MVA

Direct expansion variable refrigerant flow system VRF

Cooling capacity 12,1 ÷ 246,0 kW
Heating capacity 14,0 ÷ 276,0 kW

- **Units prepared for installations with two or three pipes.**
- **The correct balance between cost, efficiency and space.**
- **Wide choice of indoor units available.**
- **Up to 80 connectible indoor units.**



DESCRIPTION

The VRF air conditioners from the MVA range are combined with indoor units:
— MVA_WL - **Wall.**
— MVA_D - **Horizontal duct.**
— MVA_DH - **Horizontal duct, high head.**
— MVA_DV - **Vertical duct.**
— MVA_CS and MVA_C - **8-way cassette .**
— MVA_CB - **4-way cassette .**
— MVA_C1 - **1-way cassette .**
— MVA_F - **Floor ceiling.**
— MVA_FS - **Console.**
— MVA_V - **Column.**
— MVA_ERV - **Heat recovery unit.**

TYPE OF INDOOR UNIT

MVA_WL

Wall indoor unit designed to be installed on indoor walls.
— Modern design to blend with all furnishing styles.
— Distributed air jet: air outlet louvers with horizontal and vertical adjustment facility.
— Anti-freeze function that allows a minimum temperature of 8 °C to be maintained in the environment during the winter period.

MVA_D

Duct indoor unit designed for indoor duct type installation.
MVA_D - Horizontal duct.
— Wired panel standard supply.
— Low noise levels.
— Easy installation in small assembly spaces, thanks to the limited dimensions.
— Useful static pressure up to 80 Pa.

MVA_DH

Duct indoor unit designed for indoor duct type installation.
MVA_DH - Horizontal duct, high head.
— Wired panel standard supply.
— Unit without cover, designed for duct type horizontal installation.
— Useful static pressure up to 200 Pa.

MVA_DV

Duct indoor unit designed for indoor vertical installation.
MVA_DV - Vertical duct.
— Wired panel standard supply.
— Unit without cover, designed for installation in wall recesses.
— Useful static pressure up to 60 Pa.

MVA_CS / MVA_C

8-way cassette indoor unit designed to be installed on false ceilings indoors.
MVA_CS - Cassette 570x570.
Mandatory accessory GLG40S.
MVA_C - Cassette 840x840.
Mandatory accessory GLG40.
— Wired panel standard supply.
— Condensate discharge pump as standard.
— Guarantees even air distribution, for optimum comfort.

MVA_CB

4-way cassette indoor unit designed to be installed on false ceilings indoors.
MVA_CB - Cassette 910x910.
Mandatory accessory GL40B.
— Wired panel standard supply.
— Condensate discharge pump as standard.
— Guarantees even air distribution, for optimum comfort.

MVA_C1

1-way cassette indoor unit designed to be installed on false ceilings indoors.

MVA_C1 - Cassette 987x385.
Mandatory accessory GLC1.

— Wired panel standard supply.
— Condensate discharge pump as standard.
— Compact size and minimum dimensions.

MVA_F

Floor ceiling indoor unit to be installed on walls or ceiling.

— Low noise levels.
— Anti-freeze function.
— Flexible installation for any environment.

MVA_FS

Console indoor unit designed to be installed on the floor.

— Anti-freeze function.
— 5-speed fan, to meet every possible need.
— Two delivery vents for optimal control of the air flow.

MVA_V

Column indoor unit designed to be installed in large sized rooms.

— Easy installation and maintenance.
— Speed in reaching the defined set point in the shortest time possible.
— Ideal for installations in the service sector: hotels, restaurants, offices.

General features

— Operating mode: cooling, heating, dehumidification, automatic and fan only.
— Total capacity connected to the outdoor units between 50% and 135% of the rated capacity of the selected configuration.
— Indoor unit fitted standard with an electronic expansion valve.
— **WRC** wired panel standard supply with each indoor unit.
— Every indoor unit comes with a remote control and a remote control holder.
— Automatic unit adjustment function.
— Particularly quiet operation.
— Microproccessor control.
— Auto-restart function.
— Self-diagnosis function.
— Easy installation and maintenance.

TYPE OF INDOOR UNIT - HEAT RECOVERY

MVA_ERV



Heat recovery units designed for duct-type horizontal installation indoors. Fitted with a cross-flow enthalpic heat recovery unit with recovery efficiency higher than 70%. The heat exchanger allows energy to be transferred from the exhaust air to the fresh air, avoiding any direct mixing of the air flows.
This range of heat recovery units ensures constantly clean and filtered fresh air, a constant air flow rate, and rooms with comfortable temperature and humidity levels, ensuring reduced energy consumption in every application.
The device is also equipped with a direct expansion coil to allow the air flow delivered into the room to give off or absorb heat. This means that the unit not only guarantees correct air renewal, but also helps cool or heat the rooms and avoid air currents with a marked temperature difference in relation to the room temperature, to ensure optimum comfort for the occupants.

Operating mode

Every indoor unit comes with a wired panel. The wired panel can be used to set the standard cooling, heating, dehumidification and ventilation-only modes, plus the following operating modes.

— **Bypass with free cooling and night-time free cooling operation**: night-time free cooling operation reduces the thermal load in the rooms, taking advantage merely of the outside temperature difference and therefore boosting energy savings for the following day thanks to free night-time cooling.
— **Control of different inlet and outlet air flow rates**: known as "positive pressure operating mode" when the inlet air flow rate is higher than the recovery one, or "negative pressure operating mode" in the opposite situation.

Mixed connection indoor units + MVA_ERV

In case of mixed systems, i.e. consisting of indoor units of the MVA and units, MVA_ERVto guarantee the proper operation of the system, the nominal cooling powers of the indoor units is between 50% and 100% of the nominal cooling power of the system of external units and that the sum of the installed nominal power of the MVA_ERV units does not exceed 30% of the power of the external units system.
The MVA_ERV units are not compatible with MVAM_HR systems.

Connections with MVA_ERV units only

In case of systems made up only by units, MVA_ERV to guarantee the proper operation of the system, check that the sum of the nominal cooling powers of the indoor units is between 50% and 100% of the nominal cooling power of the external units system.
The MVA_ERV units are not compatible with MVAM_HR systems.

General features

— Wired panel standard supply with each indoor unit.
— Particularly quiet operation.
— Centrifugal fans with 5-speed brushless DC motor.
— Units fitted with an electronic expansion valve as standard.
— Filters with G4 efficiency level on inlet and outlet air.
— Alarm signal for filter cleaning.
— Timer for programming unit switch-on and switch-off.
— Incorporated electrical panel with electronic card to control the ventilation and free cooling functions.
— Easy installation and maintenance.

TYPE OF OUTDOOR UNIT

MVA_S

Standard multisplit VRF air conditioners.
Reversible air/air heat pump with DC inverter technology.

— From 1 to 16 connectible indoor units.
— Total maximum length of the refrigerant lines up to 300 m.
— The sizes MVAS1201S - MVAS1401S - MVAS1601S and MVAS1201T - MVAS1401T - MVAS1601T, are fitted with a base electric resistor to avoid possible formation of ice and encourage the disposal of the condensate during the heating operation.
— Compressor and fan with DC inverter technology.
— Fitted with an electronic expansion valve.

MVA_M

Module multisplit VRF ambient air conditioner for 2-pipe systems.
Reversible air/air heat pump with DC inverter technology.

— From 1 to 80 connectible indoor units.
— Total maximum length of the refrigerant lines up to 1000 m.
— Modular system with base modules that can be combined together, up to a maximum of 4, for a total of 33 recommended combinations.
— Compressor and fan with DC inverter technology.
— Fitted with an electronic expansion valve.
— Optimised management of the compressor operating time with partial loads.
— Emergency operation, in the event of problems with the compressors or fans, allows operation of the system with a reduced number of compressors and/or fans for a limited time.
— Channelled air delivery from 0 Pa (default) to 82 Pa of effective static head set via dip switches.
— **For cooling line connections, refer to refnet joints in the accessories section.**

MVA_MHR

Module multisplit VRF ambient air conditioner for 3-pipe systems.
Reversible air/air heat pump with DC inverter technology.

— From 1 to 80 connectible indoor units.
— Total maximum length of the refrigerant lines up to 1000 m.
— Modular system with base modules that can be combined together, up to a maximum of 4, for a total of 24 recommended combinations.
— Compressor and fan with DC inverter technology.
— Fitted with an electronic expansion valve.
— A system that permits managing the heating and cooling modes in an independent and simultaneous manner.
— Possibility of managing hot or cold modes independently and simultaneously. MVA_MHR 3-pipe outdoor units must be interfaced with two dual pipe MVA series Indoor units using the exchange module (MEB) available with one, two, four or eight branches. **MEB: mandatory accessory for 3-pipe systems.**

Special golden fin coil

Unlike normal batteries, this special golden epoxy coating silicon free is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



General features

— Operating mode: cooling, heating, dehumidification, automatic and fan only.
— Refrigerant connections with braze welded Y and F joints (mandatory accessories).
— Compressor and fan with DC inverter technology.
— Particularly quiet operation.
— Microproccessor control.
— Auto-restart function.
— Self-diagnosis function.
— Easy installation and maintenance.
— Serial communication in CanBus protocol.

ACCESSORIES

CC2: Centralised control with 7" touchscreen display for managing several indoor units within a number of multisplit systems. The centralised control has an integrated external contact. For more information, refer to the specific documentation. *

MVASZC: Simplified centralised control (4,3" touch screen display), which can be used to manage up to 32 Indoor Units distributed across a maximum of 16 Systems.

WRC: Wired panel with liquid crystal display and soft-touch buttons.

WRC1: Simplified wired panel with liquid crystal display and soft-touch buttons with built-in external contact. This panel is particularly suitable for hotel applications.

*** The CC2 centralised control can manage up to 255 indoor units distributed over a maximum of 16 MVA systems.**

For more information about the accessories and their functions (such as the auto-restart function), refer to the specific documentation of the single accessory.

AHUKIT: Kit comprised of a box that contains the thermal expansion valve(s) complete with wiring and their control module, with pre-wired probes, a wall-mounted control panel with external contact. The kit is intended to be combined with the direct expansion cooling and/or heating coil (using R410A) of an air treatment unit. The latter is not supplied as an MVA component, but is functionally connected to an MVA system and is suitably sized. AHUKIT, and the and the air treatment unit connected to it, treat the recirculated and/or fresh air that falls within the operating limits, regulating the recirculation/expulsion air temperature.

BACNETGW: This accessory allows you to manage up to 16 MVA systems (with a maximum of 255 indoor units), with a Bacnet serial for supervision with an external BMS.

MINIMODBUS10: Thanks to its smaller size, this accessory can be easily installed in the outdoor unit. It allows you to manage up to 16 MVA systems (with a maximum of 255 indoor units), with a ModBus RTU serial on RSA485 for supervision with an external BMS.

MODBUSGW: This accessory allows you to manage up to 16 MVA systems (with a maximum of 128 indoor units), with a ModBus RTU serial on RS485 for supervision with an external BMS.

MODBUSGW10: This accessory allows you to manage up to 16 MVA systems (with a maximum of 128 indoor units), with a ModBus RTU serial on RS485 for supervision with an external BMS.

MVAGW: This accessory allows you to manage up to 16 MVA systems (with a maximum of 255 total indoor units), making available a serial in ModBus RTU protocol on RS485, ModBus TCP or BACnet / IP for supervision with an external BMS.

USBDC: The kit includes a converter (from CanBus to ModBus) and the VRF debugger software. IT is designed to meet the requirements of after sales services and qualified technicians who need to carry out control and debugging procedures on the MVA ranges.

Accessories mandatory

Air delivery and recovery grille for indoor **Cassette** type units.

Grille model	Indoor unit model				8 WAY	4 WAY	1 WAY	Dimensions LxHxW (mm)	Weight Kg
	MVA_CS	MVA_C	MVA_CB	MVA_C1					
GLG40S	•	-	-	-	•	-	-	620x620x47,5	3,0
GLG40	-	•	-	-	•	-	-	950x950x52	6,0
GL40B	-	-	•	-	-	•	-	1040x1040x65	8,0
GLC1	-	-	-	•	-	-	•	1200x460x55	4,2

Joints refnet

Connection between modular outdoor units.

The modules are easy to install and link together from the cooling point of view, thanks to the connections with dedicated refnet joints. Modularity is the fundamental characteristic of these systems as it also allows high-capacity systems to be created in a quick, simple way.

Y-joints for cooling connection between 2 Outdoor Units in Modular Systems. **A modular system made up of n. base modules requires n-1 Y-joints.**

Mandatory accessory for modular systems.

MVAM 2-pipe system	MVAMHR 3-pipe system	MVAM 2-pipe system	MVAMHR 3-pipe system
Outdoor unit	Outdoor unit	Indoor units	Indoor unit - MEB
RNYM01	RNYMHR10	RNY11	RNY11
	RNYMHR20		
AHUKIT	Outdoor units - MEB	RNY12	RNY12
RNYAHU	RNYHR10	RNY21	
	RNYHR20	RNY31	
	RNYHR30	RNY41	
	RNYHR40	RNF14	
	RNYHR50	RNF18	
	RNYHR60	RNF18B	
	RNYHR70		

MVA_M 2-pipe system

RNYM01

Accessory comprising 2 Y-joints, one for the liquid line and one for the discharge line.

MVA_HR 3-pipe system

RNYMHR

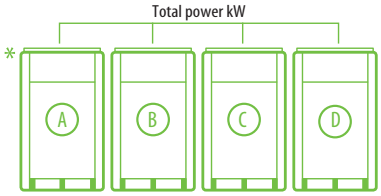
Accessory comprising 3 Y-joints - one for the liquid line and two for the gas lines (one high pressure and the other low pressure).

Code	Type	Connection between modular outdoor units Sum of powers (kW)	
		≥	≤
RNYMHR10	Y	50,40	96,00
RNYMHR20	Y	96,00	-

REFNET

No. of kits needed:

Total Modules (A+B+C+D)* No.	Sum of powers (kW)	REFNET	No. of kits needed
1	50,40 <	-	-
2	≥ 50,40 - 96,00 ≤	RNYMHR10	1
3	≥ 50,40 - 96,00 ≤	RNYMHR10	2
3	> 96,00	RNYMHR20	2
4	> 96,00	RNYMHR20	3



Connection between modular outdoor units and MEB - Exchange module

RNYHR

Accessory for connecting outdoor units with the MEB exchange module. Comprises three Y-joints one for the liquid line and two for the gas lines (one high pressure and the other low pressure).

Code	Type	Connection between modular outdoor units Sum of powers (kW)	
		≥	≤
RNYHR10	Y	-	5,00
RNYHR20	Y	5,00	22,40
RNYHR30	Y	22,40	28,00
RNYHR40	Y	28,00	68,00
RNYHR50	Y	68,00	96,00
RNYHR60	Y	96,00	135,00
RNYHR70	Y	135,00	-

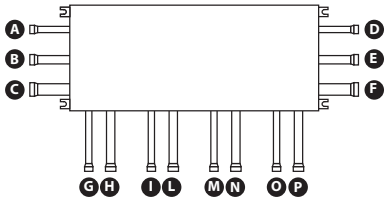
MEB

Exchange module with one, two, four or eight branches (each single branch can manage heating or cooling mode independently of the others, but simultaneously) for interfacing MVA_M and MVAMHR 3-pipe outdoor units with the MVA 2-pipe indoor units.

Code	Branches	Maximum manageable cooling capacity (per single branch)	Total power managed by the MEB	Connectible indoor units
	no.	(kW)	(kW)	Max. no.
MEB11	1	14,20	-	6
MEB21	2	14,20	-	6
MEB41	4	14,20	45,00 ≤	6
MEB81	8	14,20	68,00 ≤	6

In order to connect indoor units with a capacity higher than 14kW, two branches must be used that are joined into one using suitable dip-switch settings on the distribution box.

MEB exchange module



Refrigerant connection	Description
A	Liquid (left side)
B	Gas high pressure (left side)
C	Gas low pressure (left side)
D	Liquid (right side)
E	Gas high pressure (right side)
F	Gas low pressure (right side)
G	Liquid (branch 1)
H	Gas (branch 1)
I	Liquid (branch 2)
L	Gas (branch 2)
M	Liquid (branch 3)
N	Gas (branch 3)
O	Liquid (branch 4)
P	Gas (branch 4)

Connection between indoor units

RNY

Accessory comprising 2 Y-joints, one for the liquid line and one for the discharge line.

RNF

Accessory made up of two F-joints, one for the liquid line and one for the discharge line.

Code	System type		Type of joint	Total power downline (kW)		Maximum 1-way connectible power	Connectible indoor units
	2-pipe	3-pipe		>	≤	(kW)	No.
RNY11	•	•	Y	-	20,00	-	-
RNY12	•	•	Y	20,00	30,00	-	-
RNY21	•		Y	30,00	70,00	-	-
RNY31	•		Y	70,00	135,00	-	-
RNY41	•		Y	135,00	-	-	-
RNF14	•		F	-	40,00	16,00	from 2 to 4
RNF18	•		F	-	68,00	16,00	from 4 to 8
RNF18B	•		F	68,00	-	16,00	from 4 to 8

ADVANTAGES FOR VRF SYSTEMS: MVA

Compact design

Thanks to the reduced dimensions and compact design of these units, they are easy to move at the job site. All the models can in fact be transported easily right up to the roof, even using a lift.



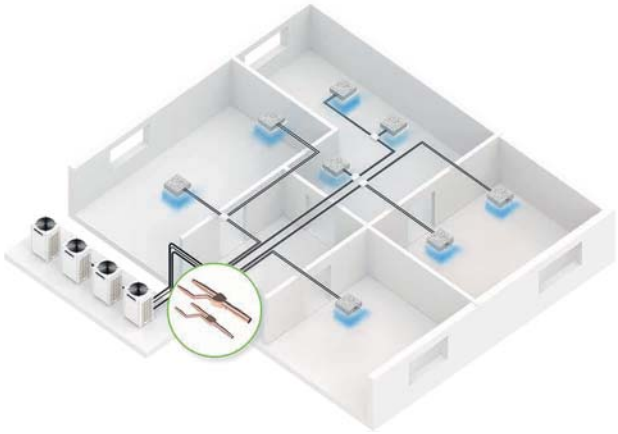
VRF systems - 2-pipe heat pump

Customise your VRF system

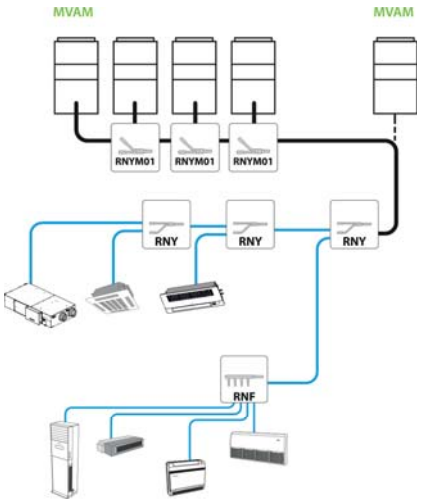
To guarantee greater seasonal efficiency and maximum comfort with the variable refrigerant function.

Continuous comfort

Continuous heating or cooling of the rooms is what makes the VRF system a valid alternative to hydronic systems.



Example of a 2-pipe system



When dimensioning the cooling lines, exclusively refer to the technical manual.

A modular system made up of n base modules requires n-1 Y-joints.

MVAS - MVAM

— 2-pipe system.
— Cooling or heating mode. (The image shows an example of a system in cooling mode)
— Maximum total length of cooling lines: **MVAS**: 300 m, **MVAM**: 1000 m

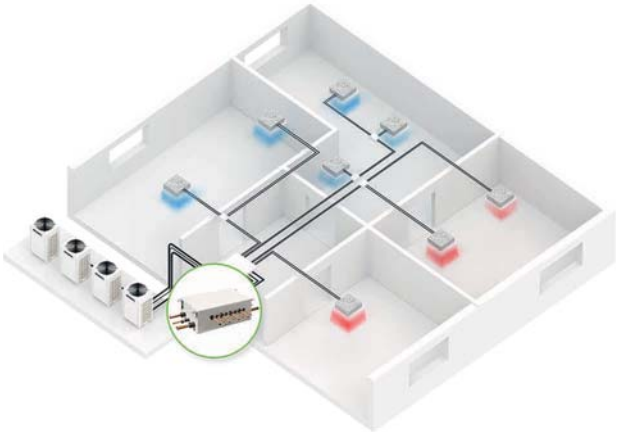
VRF systems - 3-pipe heat pump

The MVAMHR VRF heat recovery system heats and cools at the same time with one single circuit

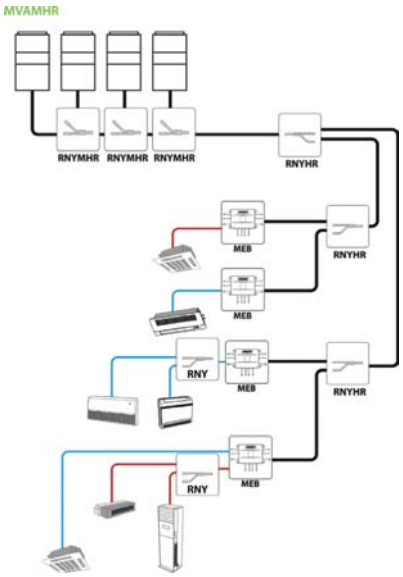
MVAMHR recovers the heat produced during cooling and uses it to heat certain rooms cost-free, maximising energy efficiency and reducing energy costs.

Continuous comfort

Simultaneous heating and cooling of the rooms is what makes the VRF system a valid alternative to hydronic systems.



Example of a 3-pipe system



When dimensioning the cooling lines, exclusively refer to the technical manual.

A modular system made up of n base modules requires n-1 Y-joints.

MVAMHR

— 3-pipe system.
— Simultaneous cold and hot operation.
— Total maximum length of the refrigerant lines: **MVAMHR**: 1000 m

CONFIGURATIONS

MVA_S combinations

MVA_S connectable units

MVAS	Nominal cooling capacity (kW)	Min. no. of indoor units	Max. no. of indoor units
1201S	12,10	2	7
1401S	14,00	2	8
1601S	16,00	2	9
1201T	12,10	2	7
1401T	14,00	2	8
1601T	16,00	2	9
2242T	22,40	1	13
2802T	28,00	1	17
3351T	33,50	2	20

MVA_S outdoor unit with single duct type indoor unit

MVA_S	Nominal cooling capacity (kW)	No. indoor units	Compatible indoor unit
2242T	22,40	1	MVA2240DH
2802T	28,00	1	MVA2800DH

MVA_M combinations

MVAM permitted configurations

	Nominal cooling capacity	MVA_M combination				Connectible indoor units	
		Module				Number	
	(kW)	(A)	(B)	(C)	(D)	MINIMUM (1)	MAXIMUM (2)
Base Module	22,40	2241T	-	-	-	1	13
	28,00	2801T	-	-	-	1	16
	33,50	3351T	-	-	-	1	19
	40,00	4001T	-	-	-	1	23
	45,00	4501T	-	-	-	1	26
	50,40	5041T	-	-	-	1	29
	56,00	5601T	-	-	-	1	33
	61,50	6151T	-	-	-	2	36
Combinations	68,00	2801T	4001T	-	-	2	39
	73,00	2801T	4501T	-	-	2	43
	78,40	2801T	5041T	-	-	2	46
	84,00	2801T	5601T	-	-	2	50
	89,50	2801T	6151T	-	-	2	53
	95,00	3351T	6151T	-	-	2	56
	101,50	4001T	6151T	-	-	2	59
	106,50	4501T	6151T	-	-	2	63
	111,90	5041T	6151T	-	-	3	64
	117,50	5601T	6151T	-	-	3	64
	123,00	6151T	6151T	-	-	3	64
	129,00	2801T	4501T	5601T	-	3	64
	134,50	2801T	4501T	6151T	-	3	64
	140,00	3351T	4501T	6151T	-	3	66
	145,50	2801T	5601T	6151T	-	3	69
	151,00	2801T	6151T	6151T	-	3	71
	156,50	3351T	6151T	6151T	-	3	74
	163,00	4001T	6151T	6151T	-	3	77
	168,00	4501T	6151T	6151T	-	4	80
	173,40	5041T	6151T	6151T	-	4	80
	179,00	5601T	6151T	6151T	-	4	80
	184,50	6151T	6151T	6151T	-	4	80
	190,50	2801T	4501T	5601T	6151T	4	80
	195,90	2801T	5041T	5601T	6151T	4	80
	201,50	2801T	5601T	5601T	6151T	4	80
	207,00	2801T	5601T	6151T	6151T	4	80
	212,50	2801T	6151T	6151T	6151T	4	80
	218,00	3351T	6151T	6151T	6151T	4	80
	224,50	4001T	6151T	6151T	6151T	5	80
	229,50	4501T	6151T	6151T	6151T	5	80
	234,90	5041T	6151T	6151T	6151T	5	80
	240,50	5601T	6151T	6151T	6151T	5	80
	246,00	6151T	6151T	6151T	6151T	5	80

MVA_M permitted configurations

Nominal cooling capacity	MVA_M combination				Connectible indoor units	
	Module				Number	
(kW)	(A)	(B)	(C)	(D)	MINIMUM (1)	MAXIMUM (2)
50,40	2241T	2801T	-	-	1	29
56,00	2801T	2801T	-	-	1	33
61,50	2801T	3351T	-	-	2	36
78,50	3351T	4501T	-	-	2	46
85,00	4001T	4501T	-	-	2	50
90,00	4501T	4501T	-	-	2	53
96,00	2801T	2801T	4001T	-	2	56
101,00	2801T	2801T	4501T	-	2	59
106,50	2801T	3351T	4501T	-	3	63
113,00	2801T	4001T	4501T	-	3	64
118,00	2801T	4501T	4501T	-	3	64
123,50	3351T	4501T	4501T	-	3	64
130,00	4001T	4501T	4501T	-	3	64
135,00	4501T	4501T	4501T	-	3	64
141,00	2801T	2801T	4001T	4501T	3	66
146,00	2801T	2801T	4501T	4501T	3	69
151,50	2801T	3351T	4501T	4501T	3	71
158,00	2801T	4001T	4501T	4501T	3	74
163,00	2801T	4501T	4501T	4501T	3	77
168,50	3351T	4501T	4501T	4501T	4	80
175,00	4001T	4501T	4501T	4501T	4	80
180,00	4501T	4501T	4501T	4501T	4	80

MVA_MHR recommended configurations

	Nominal cooling capacity	MVA_MHR combination				Connectible indoor units	
		Module				Number	
	(kW)	(A)	(B)	(C)	(D)	MINIMUM (1)	MAXIMUM (2)
Base Module	22,40	2241T	-	-	-	1	13
	28,00	2801T	-	-	-	1	16
	33,50	3351T	-	-	-	1	19
	40,00	4001T	-	-	-	1	23
	45,00	4501T	-	-	-	1	26
Combinations	50,40	2241T	2801T	-	-	1	29
	56,00	2801T	2801T	-	-	1	33
	61,50	2801T	3351T	-	-	2	36
	68,00	2801T	4001T	-	-	2	39
	73,00	2801T	4501T	-	-	2	43
	78,50	3351T	4501T	-	-	2	46
	85,00	4001T	4501T	-	-	2	50
	90,00	4501T	4501T	-	-	2	53
	96,00	2801T	2801T	4001T	-	2	56
	101,00	2801T	2801T	4501T	-	2	59
	106,50	2801T	3351T	4501T	-	3	63
	113,00	2801T	4001T	4501T	-	3	64
	118,00	2801T	4501T	4501T	-	3	64
	123,50	3351T	4501T	4501T	-	3	64
	130,00	4001T	4501T	4501T	-	3	64
	135,00	4501T	4501T	4501T	-	3	64
	141,00	2801T	2801T	4001T	4501T	3	66
	146,00	2801T	2801T	4501T	4501T	3	69
	151,50	2801T	3351T	4501T	4501T	3	71
	158,00	2801T	4001T	4501T	4501T	3	74
	163,00	2801T	4501T	4501T	4501T	3	77
	168,50	3351T	4501T	4501T	4501T	4	80
	175,00	4001T	4501T	4501T	4501T	4	80
	180,00	4501T	4501T	4501T	4501T	4	80

The sum of powers for indoor units may never be less than 50% of the rated cooling capacity of the outdoor unit (or the sum of units) selected.
The sum of powers for indoor units may never be more than 135% of the rated cooling capacity of the outdoor unit (or the sum of units) selected.

INDOOR UNIT PERFORMANCE DATA

MVA_WL

		MVA220WL	MVA280WL	MVA360WL	MVA450WL	MVA500WL	MVA560WL	MVA630WL	MVA710WL
Nominal cooling performances									
Cooling capacity (1)	kW	2,20	2,80	3,60	4,50	5,00	5,60	6,30	7,10
Nominal heating performances									
Heating capacity (2)	kW	2,50	3,20	4,00	5,00	5,60	6,30	7,10	7,50
Electric data									
Rated power input (3)	W	20	20	25	35	35	50	50	65
Fan									
Type	type	Inverter tangential							
Air flow rate									
Minimum	m^3/h	300	300	320	500	501	650	650	650
Average	m^3/h	440	440	460	580	580	850	850	850
Maximum	m^3/h	500	500	630	850	850	1100	1100	1200
Sound power									
Minimum	dB(A)	40,0	41,0	41,0	47,0	47,0	47,0	48,0	47,0
Average	dB(A)	43,0	43,0	45,0	50,0	50,0	51,0	51,0	51,0
Maximum	dB(A)	45,0	45,0	48,0	53,0	53,0	53,0	53,0	54,0
Sound pressure (4)									
Minimum	dB(A)	30,0	30,0	31,0	37,0	37,0	37,0	37,0	37,0
Average	dB(A)	33,0	33,0	35,0	40,0	40,0	41,0	41,0	41,0
Maximum	dB(A)	35,0	35,0	38,0	43,0	43,0	43,0	43,0	44,0
Refrigeration pipework									
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")						9,52 (3/8")	
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")			12,7 (1/2")			15,9 (5/8")	
Power supply									
Indoor unit power supply		220-240V ~ 50Hz							
Indoor unit									
Condensate discharge diameter	mm	20,0	20,0	20,0	20,0	20,0	20,0	20,0	20,0

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(3) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.
(4) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

MVA_D

		MVA221D	MVA251D	MVA281D	MVA321D	MVA361D	MVA401D	MVA451D	MVA501D	MVA561D
Nominal cooling performances										
Cooling capacity (1)	kW	2,20	2,50	2,80	3,20	3,60	4,00	4,50	5,00	5,60
Nominal heating performances										
Heating capacity (2)	kW	2,50	2,80	3,20	3,60	4,00	4,50	5,00	5,60	6,30
Electric data										
Rated power input (3)	W	78	78	78	78	78	78	78	117	117
Fan										
Type	type	Inverter centrifugal								
Air flow rate										
Minimum	m^3/h	200	200	200	300	300	400	400	550	550
Average	m^3/h	350	350	350	400	400	550	550	700	700
Maximum	m^3/h	450	450	450	550	550	750	750	850	850
High static pressure										
Nominal	Pa	15	15	15	15	15	15	15	15	15
Minimum	Pa	0	0	0	0	0	0	0	0	0
Maximum	Pa	30	30	30	30	30	30	30	30	30
Sound power										
Minimum	dB(A)	32,0	32,0	32,0	35,0	35,0	37,0	37,0	39,0	39,0
Average	dB(A)	35,0	35,0	35,0	37,0	37,0	39,0	39,0	41,0	41,0
Maximum	dB(A)	40,0	40,0	40,0	41,0	41,0	43,0	43,0	45,0	45,0
Sound pressure (4)										
Minimum	dB(A)	22,0	22,0	22,0	25,0	25,0	27,0	27,0	29,0	29,0
Average	dB(A)	25,0	25,0	25,0	27,0	27,0	29,0	29,0	31,0	31,0
Maximum	dB(A)	30,0	30,0	30,0	31,0	31,0	33,0	33,0	35,0	35,0
Refrigeration pipework										
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")								9,52 (3/8")
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")					12,7 (1/2")			15,9 (5/8")
Power supply										
Indoor unit power supply		220-240V ~ 50Hz								
Indoor unit										
Condensate discharge diameter	mm	25,0	25,0	25,0	25,0	25,0	25,0	25,0	25,0	25,0

		MVA631D	MVA711D	MVA801D	MVA901D	MVA1001D	MVA1121D	MVA1251D	MVA1401D
Nominal cooling performances									
Cooling capacity (1)	kW	6,30	7,10	8,00	9,00	10,00	11,20	12,50	14,00
Nominal heating performances									
Heating capacity (2)	kW	7,10	8,00	9,00	10,00	11,20	12,50	14,00	16,00
Electric data									
Rated power input (3)	W	117	154	110	130	130	130	170	170
Fan									
Type	type	Inverter centrifugal							
Air flow rate									
Minimum	m^3/h	550	650	900	900	1000	1100	1400	1400
Average	m^3/h	700	850	1100	1250	1350	1500	1700	1700
Maximum	m^3/h	850	1100	1250	1500	1500	1700	2000	2000
High static pressure									
Nominal	Pa	15	15	50	50	50	50	50	50
Minimum	Pa	0	0	0	0	0	0	0	0
Maximum	Pa	30	50	80	80	80	80	80	80
Sound power									
Minimum	dB(A)	39,0	40,0	46,0	47,0	47,0	47,0	52,0	52,0
Average	dB(A)	41,0	42,0	49,0	51,0	51,0	51,0	55,0	55,0
Maximum	dB(A)	45,0	47,0	52,0	55,0	55,0	55,0	57,0	57,0
Sound pressure (4)									
Minimum	dB(A)	29,0	30,0	31,0	32,0	32,0	32,0	37,0	37,0
Average	dB(A)	31,0	32,0	34,0	36,0	36,0	36,0	40,0	40,0
Maximum	dB(A)	35,0	37,0	37,0	40,0	40,0	40,0	42,0	42,0
Refrigeration pipework									
Diameter of liquid refrigerant connections	mm (inch)	9,52 (3/8")							
Diameter of refrigerant gas connections	mm (inch)	15,9 (5/8")							
Power supply									
Indoor unit power supply		220-240V ~ 50Hz							
Indoor unit									
Condensate discharge diameter	mm	25,0	25,0	25,0	25,0	25,0	25,0	25,0	25,0

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(3) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.
(4) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

MVA_DH

		MVA221DH	MVA251DH	MVA281DH	MVA321DH	MVA361DH	MVA401DH
Nominal cooling performances							
Cooling capacity (1)	kW	2,20	2,50	2,80	3,20	3,60	4,00
Nominal heating performances							
Heating capacity (2)	kW	2,50	2,80	3,20	3,60	4,00	4,50
Electric data							
Rated power input (3)	W	55	55	55	65	65	85
Fan							
Type	type	Inverter centrifugal					
Air flow rate							
Minimum	m^3/h	400	400	400	420	420	600
Average	m^3/h	480	480	480	500	500	700
Maximum	m^3/h	550	550	550	600	600	850
High static pressure							
Nominal	Pa	60	60	60	60	60	60
Minimum	Pa	0	0	0	0	0	0
Maximum	Pa	150	150	150	150	150	150
Sound power							
Minimum	dB(A)	41,0	41,0	41,0	42,0	42,0	44,0
Average	dB(A)	43,0	43,0	43,0	44,0	44,0	47,0
Maximum	dB(A)	45,0	45,0	45,0	46,0	46,0	50,0
Sound pressure (4)							
Minimum	dB(A)	31,0	31,0	31,0	32,0	32,0	34,0
Average	dB(A)	33,0	33,0	33,0	34,0	34,0	37,0
Maximum	dB(A)	35,0	35,0	35,0	36,0	36,0	40,0
Refrigeration pipework							
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")					
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")				12,7 (1/2")	
Power supply							
Indoor unit power supply		220-240V ~ 50Hz					
Indoor unit							
Condensate discharge diameter	mm	25,0	25,0	25,0	25,0	25,0	25,0

		MVA451DH	MVA501DH	MVA561DH	MVA631DH	MVA711DH	MVA801DH
Nominal cooling performances							
Cooling capacity (1)	kW	4,50	5,00	5,60	6,30	7,10	8,00
Nominal heating performances							
Heating capacity (2)	kW	5,00	5,60	6,30	7,10	8,00	9,00
Electric data							
Rated power input (3)	W	85	85	90	90	100	100
Fan							
Type	type	Inverter centrifugal					
Air flow rate							
Minimum	m^3/h	600	600	700	700	950	950
Average	m^3/h	700	700	800	800	1050	1050
Maximum	m^3/h	850	850	1000	1000	1250	1250
High static pressure							
Nominal	Pa	60	60	90	90	90	90
Minimum	Pa	0	0	0	0	0	0
Maximum	Pa	150	150	200	200	200	200
Sound power							
Minimum	dB(A)	44,0	44,0	45,0	45,0	45,0	45,0
Average	dB(A)	47,0	47,0	48,0	48,0	49,0	49,0
Maximum	dB(A)	50,0	50,0	52,0	52,0	53,0	53,0
Sound pressure (4)							
Minimum	dB(A)	34,0	34,0	35,0	35,0	35,0	35,0
Average	dB(A)	37,0	37,0	38,0	38,0	39,0	39,0
Maximum	dB(A)	40,0	40,0	42,0	42,0	43,0	43,0
Refrigeration pipework							
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")			9,52 (3/8")		
Diameter of refrigerant gas connections	mm (inch)	12,7 (1/2")			15,9 (5/8")		
Power supply							
Indoor unit power supply		220-240V ~ 50Hz					
Indoor unit							
Condensate discharge diameter	mm	25,0	25,0	25,0	25,0	25,0	25,0

		MVA901DH	MVA1001DH	MVA1121DH	MVA1251DH	MVA1401DH	MVA1601DH
Nominal cooling performances							
Cooling capacity (1)	kW	9,00	10,00	11,20	12,50	14,00	16,00
Nominal heating performances							
Heating capacity (2)	kW	10,00	11,20	12,50	14,00	16,00	18,00
Electric data							
Rated power input (3)	W	140	140	160	160	220	230
Fan							
Type	type	Inverter centrifugal					
Air flow rate							
Minimum	m^3/h	1250	1250	1400	1400	1650	1750
Average	m^3/h	1450	1450	1600	1600	1900	2000
Maximum	m^3/h	1800	1800	2000	2000	2350	2500
High static pressure							
Nominal	Pa	90	90	90	90	90	90
Minimum	Pa	0	0	0	0	0	0
Maximum	Pa	200	200	200	200	200	200
Sound power							
Minimum	dB(A)	48,0	48,0	50,0	50,0	51,0	52,0
Average	dB(A)	51,0	51,0	52,0	52,0	53,0	54,0
Maximum	dB(A)	54,0	54,0	55,0	55,0	56,0	57,0
Sound pressure (4)							
Minimum	dB(A)	38,0	38,0	40,0	40,0	41,0	42,0
Average	dB(A)	41,0	41,0	42,0	42,0	43,0	44,0
Maximum	dB(A)	44,0	44,0	45,0	45,0	46,0	47,0
Refrigeration pipework							
Diameter of liquid refrigerant connections	mm (inch)	9,52 (3/8")					
Diameter of refrigerant gas connections	mm (inch)	15,9 (5/8")					19,05 (3/4")
Power supply							
Indoor unit power supply		220-240V ~ 50Hz					
Indoor unit							
Condensate discharge diameter	mm	25,0	25,0	25,0	25,0	25,0	25,0

		MVA 2240 DH	MVA 2800 DH
Nominal cooling performances			
Cooling capacity (1)	kW	22,40	28,00
Nominal heating performances			
Heating capacity (2)	kW	24,00	30,00
Electric data			
Rated power input (3)	W	960	1250
Fan			
Type	type		
Air flow rate			
Minimum	m^3/h	-	-
Average	m^3/h	-	-
Maximum	m^3/h	4000	4400
High static pressure			
Nominal	Pa	150	150
Minimum	Pa	-	-
Maximum	Pa	-	-
Sound power			
Minimum	dB(A)	59,0	60,0
Average	dB(A)	62,0	62,0
Maximum	dB(A)	64,0	65,0
Sound pressure (4)			
Minimum	dB(A)	49,0	50,0
Average	dB(A)	52,0	52,0
Maximum	dB(A)	54,0	55,0
Refrigeration pipework			
Diameter of liquid refrigerant connections	mm (inch)	19,05 (3/4")	22,2 (7/8")
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")	
Power supply			
Indoor unit power supply		220-240V ~ 50Hz	
Indoor unit			
Condensate discharge diameter	mm	30,0	30,0

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(3) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.
(4) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

MVA_DV

		MVA220DV	MVA280DV	MVA360DV	MVA450DV	MVA560DV	MVA630DV	MVA710DV
Nominal cooling performances								
Cooling capacity (1)	kW	2,20	2,80	3,60	4,50	5,60	6,30	7,10
Nominal heating performances								
Heating capacity (2)	kW	2,50	3,20	4,00	5,00	6,30	7,10	8,00
Electric data								
Rated power input (3)	W	35	35	43	45	80	80	90
Fan								
Type	type				Inverter centrifugal			
Air flow rate								
Minimum	m^3/h	250	250	350	400	600	600	700
Average	m^3/h	350	350	450	500	750	750	900
Maximum	m^3/h	450	450	550	650	900	900	1100
High static pressure								
Nominal	Pa	10	10	10	15	15	15	15
Minimum	Pa	0	0	0	0	0	0	0
Maximum	Pa	40	40	40	60	60	60	60
Sound power								
Minimum	dB(A)	35,0	35,0	38,0	38,0	40,0	40,0	43,0
Average	dB(A)	38,0	38,0	41,0	41,0	43,0	43,0	45,0
Maximum	dB(A)	40,0	40,0	43,0	43,0	45,0	45,0	47,0
Sound pressure (4)								
Minimum	dB(A)	25,0	25,0	28,0	28,0	30,0	30,0	33,0
Average	dB(A)	28,0	28,0	31,0	31,0	33,0	33,0	35,0
Maximum	dB(A)	30,0	30,0	33,0	33,0	35,0	35,0	37,0
Refrigeration pipework								
Diameter of liquid refrigerant connections	mm (inch)			6,35 (1/4")			9,52 (3/8")	
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")			12,7 (1/2")		15,9 (5/8")	
Power supply								
Indoor unit power supply					220-240V ~ 50Hz			
Indoor unit								
Condensate discharge diameter	mm	25,0	25,0	25,0	25,0	25,0	25,0	25,0

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(3) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.
(4) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

MVA_CS

		MVA151CS	MVA181CS	MVA221CS	MVA281CS	MVA361CS	MVA451CS	MVA501CS	MVA561CS
Nominal cooling performances									
Cooling capacity (1)	kW	1,50	1,80	2,20	2,80	3,60	4,50	5,00	5,60
Nominal heating performances									
Heating capacity (2)	kW	1,80	2,20	2,50	3,20	4,00	5,00	5,60	6,30
Electric data									
Rated power input (3)	W	30	30	30	30	30	45	45	45
Fan									
Type	type	Inverter centrifugal							
Air flow rate									
Minimum	m^3/h	370	370	370	420	480	560	560	560
Average	m^3/h	420	420	460	480	550	650	650	650
Maximum	m^3/h	460	460	500	570	620	730	730	730
Sound power									
Minimum	dB(A)	43,0	43,0	43,0	46,0	49,0	57,0	47,0	57,0
Average	dB(A)	48,0	48,0	49,0	51,0	53,0	59,0	59,0	59,0
Maximum	dB(A)	51,0	51,0	54,0	54,0	56,0	61,0	61,0	61,0
Sound pressure (4)									
Minimum	dB(A)	25,0	25,0	25,0	28,0	31,0	39,0	39,0	39,0
Average	dB(A)	30,0	30,0	31,0	33,0	35,0	41,0	41,0	41,0
Maximum	dB(A)	33,0	33,0	36,0	36,0	38,0	43,0	43,0	43,0
Refrigeration pipework									
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")				6,35 (1/4")			9,52 (3/8")
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")		9,52 (3/8")			12,7 (1/2")		15,9 (5/8")
Power supply									
Indoor unit power supply		220-240V ~ 50Hz							
Indoor unit									
Condensate discharge diameter	mm	25,0	25,0	25,0	25,0	25,0	25,0	25,0	25,0

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(3) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.
(4) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

MVA_C

		MVA221C	MVA281C	MVA361C	MVA451C	MVA501C	MVA561C	MVA631C
Nominal cooling performances								
Cooling capacity (1)	kW	2,20	2,80	3,60	4,50	5,00	5,60	6,30
Nominal heating performances								
Heating capacity (2)	kW	2,50	3,20	4,00	5,00	5,60	6,30	7,10
Electric data								
Rated power input (3)	W	26	26	26	26	28	35	60
Fan								
Type	type	Inverter centrifugal						
Air flow rate								
Minimum	m^3/h	600	600	600	600	700	750	850
Average	m^3/h	700	700	700	700	800	850	950
Maximum	m^3/h	800	800	800	800	900	950	1150
Sound power								
Minimum	dB(A)	38,0	38,0	38,0	38,0	39,0	40,0	41,0
Average	dB(A)	40,0	40,0	40,0	40,0	42,0	43,0	44,0
Maximum	dB(A)	43,0	43,0	43,0	44,0	45,0	47,0	47,0
Sound pressure (4)								
Minimum	dB(A)	28,0	28,0	28,0	28,0	29,0	30,0	31,0
Average	dB(A)	30,0	30,0	30,0	30,0	32,0	33,0	34,0
Maximum	dB(A)	33,0	33,0	33,0	34,0	35,0	37,0	37,0
Refrigeration pipework								
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")					9,52 (3/8")	
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")			12,7 (1/2")		15,9 (5/8")	
Power supply								
Indoor unit power supply		220-240V ~ 50Hz						
Indoor unit								
Condensate discharge diameter	mm	25,0	25,0	25,0	25,0	25,0	25,0	25,0

		MVA711C	MVA801C	MVA901C	MVA1001C	MVA1121C	MVA1251C	MVA1401C
Nominal cooling performances								
Cooling capacity (1)	kW	7,10	8,00	9,00	10,00	11,20	12,50	14,00
Nominal heating performances								
Heating capacity (2)	kW	8,00	9,00	10,00	11,20	12,50	14,00	16,00
Electric data								
Rated power input (3)	W	60	85	85	85	115	115	115
Fan								
Type	type				Inverter centrifugal			
Air flow rate								
Minimum	m^3/h	850	900	900	900	1100	1100	1100
Average	m^3/h	950	1000	1000	1000	1300	1300	1300
Maximum	m^3/h	1150	1250	1250	1250	1650	1650	1650
Sound power								
Minimum	dB(A)	41,0	44,0	44,0	44,0	49,0	49,0	49,0
Average	dB(A)	44,0	47,0	47,0	47,0	51,0	51,0	51,0
Maximum	dB(A)	47,0	49,0	49,0	49,0	53,0	53,0	53,0
Sound pressure (4)								
Minimum	dB(A)	31,0	34,0	34,0	34,0	39,0	39,0	39,0
Average	dB(A)	34,0	37,0	37,0	37,0	41,0	41,0	41,0
Maximum	dB(A)	37,0	39,0	39,0	39,0	43,0	43,0	43,0
Refrigeration pipework								
Diameter of liquid refrigerant connections	mm (inch)				9,52 (3/8")			
Diameter of refrigerant gas connections	mm (inch)				15,9 (5/8")			
Power supply								
Indoor unit power supply					220-240V ~ 50Hz			
Indoor unit								
Condensate discharge diameter	mm	25,0	25,0	25,0	25,0	25,0	25,0	25,0

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(3) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.
(4) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

MVA_CB

		MVA1600CB
Nominal cooling performances		
Cooling capacity (1)	kW	16,00
Nominal heating performances		
Heating capacity (2)	kW	17,50
Electric data		
Rated power input (3)	W	130
Fan		
Type	type	Inverter centrifugal
Air flow rate		
Minimum	m^3/h	1400
Average	m^3/h	1700
Maximum	m^3/h	2100
Sound power		
Minimum	dB(A)	52,0
Average	dB(A)	54,0
Maximum	dB(A)	57,0
Sound pressure (4)		
Minimum	dB(A)	42,0
Average	dB(A)	44,0
Maximum	dB(A)	47,0
Refrigeration pipework		
Diameter of liquid refrigerant connections	mm (inch)	9,52 (3/8")
Diameter of refrigerant gas connections	mm (inch)	19,05 (3/4")
Power supply		
Indoor unit power supply		220-240V ~ 50Hz
Indoor unit		
Condensate discharge diameter	mm	25,0

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(3) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.
(4) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

MVA_C1

		MVA220C1	MVA280C1	MVA360C1	MVA450C1	MVA500C1
Nominal cooling performances						
Cooling capacity (1)	kW	2,20	2,80	3,60	4,50	5,00
Nominal heating performances						
Heating capacity (2)	kW	2,50	3,20	4,00	5,00	5,60
Electric data						
Rated power input (3)	W	30	30	30	30	30
Fan						
Type	type			Inverter tangential		
Air flow rate						
Minimum	m^3/h	450	450	450	500	500
Average	m^3/h	500	500	500	600	600
Maximum	m^3/h	600	600	600	830	830
Sound power						
Minimum	dB(A)	38,0	38,0	38,0	40,0	40,0
Average	dB(A)	42,0	42,0	42,0	45,0	45,0
Maximum	dB(A)	46,0	46,0	46,0	50,0	50,0
Sound pressure (4)						
Minimum	dB(A)	28,0	28,0	28,0	30,0	30,0
Average	dB(A)	32,0	32,0	32,0	35,0	35,0
Maximum	dB(A)	36,0	36,0	36,0	40,0	40,0
Refrigeration pipework						
Diameter of liquid refrigerant connections	mm (inch)			6,35 (1/4")		
Diameter of refrigerant gas connections	mm (inch)		9,52 (3/8")		12,7 (1/2")	
Power supply						
Indoor unit power supply				220-240V ~ 50Hz		
Indoor unit						
Condensate discharge diameter	mm	25,0	25,0	25,0	25,0	25,0

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(3) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.
(4) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

MVA_F

		MVA281F	MVA361F	MVA501F	MVA561F	MVA631F	MVA711F	MVA901F	MVA1121F	MVA1251F	MVA1401F
Nominal cooling performances											
Cooling capacity (1)	kW	2,80	3,60	5,00	5,60	6,30	7,10	9,00	11,20	12,50	14,00
Nominal heating performances											
Heating capacity (2)	kW	3,20	4,00	5,60	6,30	7,10	8,00	10,00	12,50	14,00	16,00
Electric data											
Rated power input (3)	W	35	35	55	55	80	80	120	120	120	150
Fan											
Type	type					Inverter centrifugal					
Air flow rate											
Minimum	m^3/h	450	450	600	600	1050	1050	1250	1400	1400	1600
Average	m^3/h	500	500	650	650	1200	1200	1400	1600	1600	1750
Maximum	m^3/h	600	600	750	750	1350	1350	1550	1800	1800	2000
Sound power											
Minimum	dB(A)	45,0	45,0	48,0	48,0	54,0	54,0	54,0	54,0	54,0	55,0
Average	dB(A)	48,0	48,0	51,0	51,0	57,0	57,0	56,0	56,0	56,0	57,0
Maximum	dB(A)	52,0	52,0	54,0	54,0	60,0	60,0	59,0	59,0	59,0	61,0
Sound pressure (4)											
Minimum	dB(A)	29,0	29,0	36,0	36,0	38,0	38,0	41,0	42,0	42,0	43,0
Average	dB(A)	32,0	32,0	39,0	39,0	41,0	41,0	44,0	44,0	44,0	45,0
Maximum	dB(A)	36,0	36,0	42,0	42,0	44,0	44,0	47,0	47,0	47,0	49,0
Refrigeration pipework											
Diameter of liquid refrigerant connections	mm (inch)		6,35 (1/4")					9,52 (3/8")			
Diameter of refrigerant gas connections	mm (inch)	9,52 (3/8")	12,7 (1/2")					15,9 (5/8")			
Power supply											
Indoor unit power supply						220-240V ~ 50Hz					
Power supply 60Hz											
Indoor unit power supply						208-230V ~ 60Hz					
Indoor unit											
Condensate discharge diameter	mm	17,0	17,0	17,0	17,0	17,0	17,0	17,0	17,0	17,0	17,0

		MVA1601F
Nominal cooling performances		
Cooling capacity (1)	kW	16,00
Nominal heating performances		
Heating capacity (2)	kW	18,00
Electric data		
Rated power input (3)	W	175
Fan		
Type	type	Inverter centrifugal
Air flow rate		
Minimum	m^3/h	1650
Average	m^3/h	1850
Maximum	m^3/h	2150
Sound power		
Minimum	dB(A)	57,0
Average	dB(A)	60,0
Maximum	dB(A)	64,0
Sound pressure (4)		
Minimum	dB(A)	45,0
Average	dB(A)	48,0
Maximum	dB(A)	52,0
Refrigeration pipework		
Diameter of liquid refrigerant connections	mm (inch)	9,52 (3/8")
Diameter of refrigerant gas connections	mm (inch)	19,05 (3/4")
Power supply		
Indoor unit power supply		220-240V ~ 50Hz
Power supply 60Hz		
Indoor unit power supply		208-230V ~ 60Hz
Indoor unit		
Condensate discharge diameter	mm	17,0

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(3) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.
(4) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

MVA_FS

		MVA220FS	MVA280FS	MVA360FS	MVA450FS	MVA500FS
Nominal cooling performances						
Cooling capacity (1)	kW	2,20	2,80	3,60	4,50	5,00
Nominal heating performances						
Heating capacity (2)	kW	2,50	3,20	4,00	5,00	5,50
Electric data						
Rated power input (3)	W	15	15	20	40	40
Fan						
Type	type			Inverter centrifugal		
Air flow rate						
Minimum	m^3/h	270	270	310	500	500
Average	m^3/h	320	320	400	600	600
Maximum	m^3/h	400	400	480	680	680
Sound power						
Minimum	dB(A)	37,0	37,0	42,0	49,0	49,0
Average	dB(A)	43,0	43,0	47,0	53,0	53,0
Maximum	dB(A)	48,0	48,0	50,0	56,0	56,0
Sound pressure (4)						
Minimum	dB(A)	27,0	27,0	32,0	39,0	39,0
Average	dB(A)	33,0	33,0	37,0	43,0	43,0
Maximum	dB(A)	38,0	38,0	40,0	46,0	46,0
Refrigeration pipework						
Diameter of liquid refrigerant connections	mm (inch)			6,35 (1/4")		
Diameter of refrigerant gas connections	mm (inch)		9,52 (3/8")		12,7 (1/2")	
Power supply						
Indoor unit power supply				220-240V ~ 50Hz		
Indoor unit						
Condensate discharge diameter	mm	17,2	17,2	17,2	17,2	17,2

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(3) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.
(4) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

MVA_V

		MVA1000V	MVA1400V
Nominal cooling performances			
Cooling capacity (1)	kW	10,00	14,00
Nominal heating performances			
Heating capacity (2)	kW	11,00	15,00
Electric data			
Rated power input (3)	W	200	200
Fan			
Type	type	Inverter centrifugal	
Air flow rate			
Minimum	m^3/h	1400	1400
Average	m^3/h	1600	1600
Maximum	m^3/h	1850	1850
Sound power			
Minimum	dB(A)	56,0	56,0
Average	dB(A)	58,0	58,0
Maximum	dB(A)	60,0	60,0
Sound pressure (4)			
Minimum	dB(A)	46,0	46,0
Average	dB(A)	48,0	48,0
Maximum	dB(A)	50,0	50,0
Refrigeration pipework			
Diameter of liquid refrigerant connections	mm (inch)	9,52 (3/8")	
Diameter of refrigerant gas connections	mm (inch)	15,9 (5/8")	
Power supply			
Indoor unit power supply		220-240V ~ 50Hz	
Indoor unit			
Condensate discharge diameter	mm	31,0	31,0

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(3) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.
(4) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.

MVA_ERV

		MVA500ERV	MVA800ERV	MVA1000ERV
Nominal cooling performances				
Cooling capacity (1)	kW	8,50	12,00	14,50
Cooling capacity of finned pack heat exchanger (2)	kW	3,60	6,30	8,00
Nominal heating performances				
Heating capacity (3)	kW	4,00	10,60	12,00
Heating capacity of finned pack heat exchanger	kW	2,00	8,04	8,40
Heat recovery unit				
Unit type		UVNR	UVNR	UVNR
Thermal efficiency (4)	%	73	74	73
Fans				
Commissioning	type	Speed variator	Speed variator	Speed variator
SFP int	$W/(m^3/s)$	1099,57	1118,00	1059,20
Nominal external pressure Δp (5)	Pa	150	150	150
Type of fan	Type	Centrifugal	Centrifugal	Centrifugal
Nominal air flow rate	m^3/h	500	800	1000
Sound data				
Sound power level	dB(A)	55,0	59,0	62,0
General data				
Rated power input	W	270	440	640
Diameter of liquid refrigerant connections	mm (inch)	6,35 (1/4")	9,52 (3/8")	9,52 (3/8")
Diameter of refrigerant gas connections	mm (inch)	12,7 (1/2")	15,9 (5/8")	15,9 (5/8")
Condensate discharge diameter	mm	26,0	26,0	26,0
Heat recovery unit				
Power supply		220-240V ~ 50/60Hz	220-240V ~ 50/60Hz	220-240V ~ 50/60Hz

(1) Cooling: room air temperature 27 °C d.b. / 19.5 °C w.b.; outside air temperature 35 °C; turbo speed; cooling line length 5 m; indoor and outdoor units at the same height.
(2) Use the finned pack heat exchanger power (cooling) to make the calculation and select the unit.
(3) Heating: room air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; cooling line length 5 m; indoor and outdoor units at the same height.
(4) Thermal efficiency complying with European regulation EU 1253/2014.
(5) Performances referring to clean filters.
The air flow rate is calculated on the basis of the nominal high static pressure at high fan speed. It may vary according to the real installation conditions.
The nominal static pressure is the effective pressure value declared for a standard unit when it leaves the factory. The use of other filters may alter the unit performance values.

2-PIPE SYSTEM OUTDOOR UNIT PERFORMANCE DATA

		MVAS 1201S	MVAS 1201T	MVAS 1401S	MVAS 1401T	MVAS 1601S	MVAS 1601T	MVAS 2242T	MVAS 2802T	MVAS 3351T
Nominal cooling performances										
Cooling capacity	kW	12,10	12,10	14,00	14,00	16,00	16,00	22,40	28,00	33,50
Cooling input power	kW	3,03	3,03	3,59	3,59	4,75	4,75	6,12	7,78	9,57
Cooling input current	A	-	-	-	-	-	-	10,9	13,9	17,1
EER	W/W	3,99	3,99	3,90	3,90	3,37	3,37	3,66	3,60	3,50
Nominal heating performances										
Heating capacity	kW	14,00	14,00	16,50	16,50	18,00	18,00	24,00	30,00	35,00
Heating input power	kW	3,27	3,27	3,95	3,95	4,65	4,65	4,90	6,12	7,14
Heating input current	A	-	-	-	-	-	-	8,8	10,9	12,8
COP	W/W	4,28	4,28	4,18	4,18	3,87	3,87	4,90	4,90	4,90
Fan										
Type	type	Inverter axial								
Number	no.	2	2	2	2	2	2	2	2	2
Air flow rate										
Nominal	m^3/h	6000	6000	6300	6300	6600	6600	8000	11000	11000
Sound pressure										
Nominal	dB(A)	57,0	57,0	58,0	58,0	58,0	58,0	63,0	65,0	65,0
Compressor										
Type	type	Scroll inverter								
Number	no.	1	1	1	1	1	1	1	1	1
Refrigerant	type	R410A								
Refrigerant charge	kg	3,3	3,3	3,3	3,3	3,3	3,3	5,5	7,1	80,0
Electric data										
Rated power input	kW	-	-	-	-	-	-	9,6	12,5	13,7
Rated current input	A	30,4	11,1	33,7	12,0	36,3	12,5	17,2	22,4	24,5
Refrigeration pipework										
Maximum refrigerant tube length	m	300	300	300	300	300	300	300	300	300
Power supply										
Outdoor unit power supply		220-240V ~ 50Hz	380-415V ~ 3N ~ 50Hz	220-240V ~ 50Hz	380-415V ~ 3N ~ 50Hz	220-240V ~ 50Hz	380-415V ~ 3N ~ 50Hz			

		MVAM 2241T	MVAM 2801T	MVAM 3351T	MVAM 4001T	MVAM 4501T	MVAM 5041T	MVAM 5601T	MVAM 6151T
Nominal cooling performances									
Cooling capacity (1)	kW	22,40	28,00	33,50	40,00	45,00	50,40	56,00	61,50
Cooling input power (1)	kW	4,74	6,25	8,40	10,53	12,82	15,75	20,00	29,29
Cooling input current	A	8,5	11,2	15,0	18,8	22,9	28,2	35,8	52,4
EER (2)	W/W	4,73	4,48	3,99	3,80	3,51	3,20	2,80	2,10
Nominal heating performances									
Heating capacity (3)	kW	25,00	31,50	37,50	45,00	50,00	56,50	63,00	69,00
Heating input power (3)	kW	4,81	5,67	7,14	9,51	10,86	14,10	16,60	18,90
Heating input current	A	8,6	10,1	12,8	17,0	19,4	25,2	29,7	33,8
COP (2)	W/W	5,20	5,56	5,25	4,73	4,60	4,01	3,80	3,65
Fan									
Type	type	Inverter axial							
Number	no.	1	1	1	2	2	2	2	2
Air flow rate									
Nominal	m^3/h	11400	11400	14000	14000	16000	16000	16000	16000
Sound pressure (4)									
Nominal	dB(A)	60,0	61,0	63,0	63,0	63,0	63,0	63,0	64,0
Compressor									
Type	type	Scroll inverter							
Number	no.	1	1	1	2	2	2	2	2
Refrigerant	type	R410A							
Refrigerant charge	kg	5,9	9,0	8,2	9,8	10,3	11,3	14,3	14,3
Electric data									
Rated power input (5)	kW	9,0	11,7	13,8	16,1	18,6	25,0	28,0	30,0
Rated current input (5)	A	16,1	20,9	24,6	28,8	33,2	44,7	50,0	53,6
Refrigeration pipework									
Type refrigerant connections	Type	To be soldered							
Diameter of liquid refrigerant connections	mm (inch)	9,52 (3/8")			12,7 (1/2")			15,9 (5/8")	
Diameter of refrigerant gas connections	mm (inch)	19,05 (3/4")	22,2 (7/8")		25,4 (1")			28,6 (1" 1/8)	
Maximum refrigerant tube length	m	1000	1000	1000	1000	1000	1000	1000	1000
Power supply									
Outdoor unit power supply		380-415V ~ 3N ~ 50Hz							

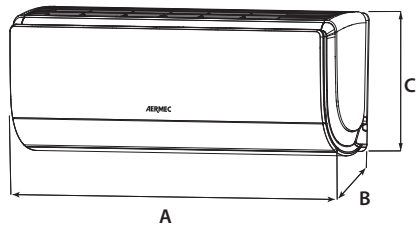
(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.
(3) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(4) Sound pressure measured in semi anechoic chamber at a distance of 1,5 m from the source.
(5) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

3-PIPE SYSTEM OUTDOOR UNIT PERFORMANCE DATA

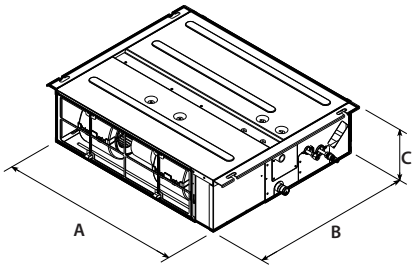
		MVAMHR 2241T	MVAMHR 2801T	MVAMHR 3351T	MVAMHR 4001T	MVAMHR 4501T
Nominal cooling performances						
Cooling capacity (1)	kW	22,40	28,00	33,50	40,00	45,00
Cooling input power (1)	kW	5,48	8,15	8,30	11,90	14,80
Cooling input current	A	9,8	14,6	14,8	21,3	26,5
EER (2)	W/W	4,09	3,44	4,04	3,36	3,04
Nominal heating performances						
Heating capacity (3)	kW	25,00	31,50	37,50	45,00	50,00
Heating input power (3)	kW	5,26	7,30	7,70	10,00	12,70
Heating input current	A	9,4	13,0	13,8	17,9	22,7
COP (2)	W/W	4,75	4,32	4,87	4,50	3,94
Fan						
Type	type	Inverter axial	Inverter axial	Inverter axial	Inverter axial	Inverter axial
Number	no.	1	1	2	2	2
Air flow rate						
Nominal	m^3/h	11400	11400	14000	14000	14000
Sound power						
Nominal	dB(A)	84,0	84,0	80,0	86,0	89,0
Compressor						
Type	type	Scroll inverter	Scroll inverter	Scroll inverter	Scroll inverter	Scroll inverter
Number	no.	1	1	1	2	2
Refrigerant	type	R410A	R410A	R410A	R410A	R410A
Refrigerant charge	kg	6,2	7,1	9,6	11,1	11,6
Electric data						
Rated power input (4)	kW	9,1	11,7	13,8	16,1	18,6
Rated current input (4)	A	16,3	20,9	24,7	28,8	33,2
Refrigeration pipework						
Type refrigerant connections	Type	To be soldered	To be soldered	To be soldered	To be soldered	To be soldered
Diameter of liquid refrigerant connections	mm (inch)	9,52 (3/8")	9,52 (3/8")	12,7 (1/2")	12,7 (1/2")	12,7 (1/2")
Diameter of high pressure refrigerant gas connections	mm (inch)	15,9 (5/8")	19,05 (3/4")	19,05 (3/4")	22,2 (7/8")	22,2 (7/8")
Diameter of low pressure refrigerant gas connections	mm (inch)	19,05 (3/4")	22,2 (7/8")	25,4 (1/1")	25,4 (1/1")	28,6 (1"1/8)
Maximum refrigerant tube length	m	1000	1000	1000	1000	1000
Power supply						
Outdoor unit power supply		380-415V ~ 3N ~ 50Hz	380-415V ~ 3N ~ 50Hz	380-415V ~ 3N ~ 50Hz	380-415V ~ 3N ~ 50Hz	380-415V ~ 3N ~ 50Hz

(1) Cooling (EN 14511 and EN 14825) ambient air temperature 27 °C d.b. / 19 °C w.b.; outside air temperature 35 °C; turbo speed; length of refrigerant lines 5 m.
(2) EER/COP in accordance with the Standard (EN 14511), only declared for the purposes of the tax deductions in force at the time of this publication.
(3) Heating (EN 14511 and EN 14825) ambient air temperature 20 °C d.b.; outside air temperature 7 °C d.b. / 6 °C w.b.; turbo speed; length of refrigerant lines 5 m.
(4) The rated power input (rated current input) is the maximum input electrical power (maximum current input) from the system, in accordance with the Standards EN 60335-1 and EN 60335-2-40.

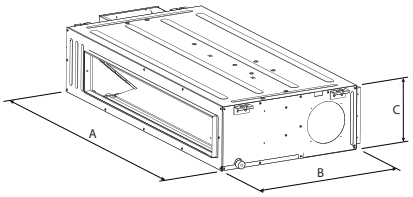
INDOOR UNIT WEIGHTS AND DIMENSIONS



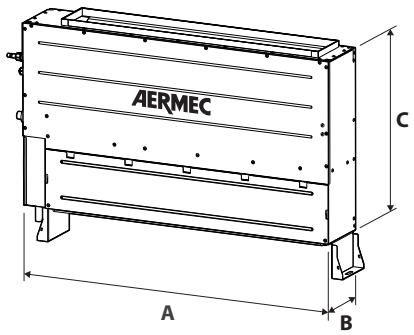
MVA_WL



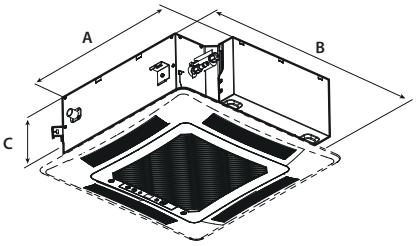
MVA_D



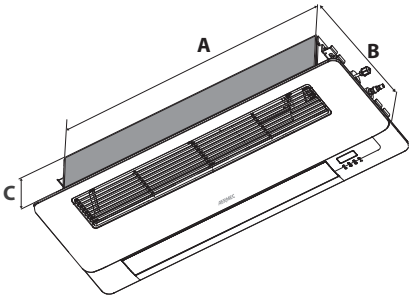
MVA_DH



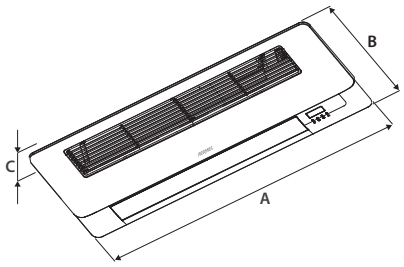
MVA_DV



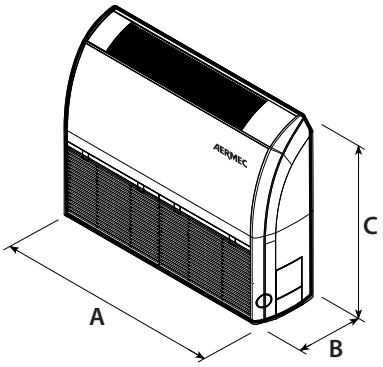
MVA_C / MVA_CS / MVA_CB



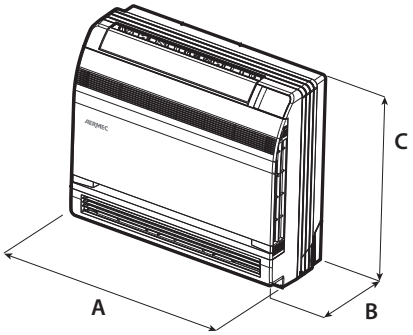
MVA_C1



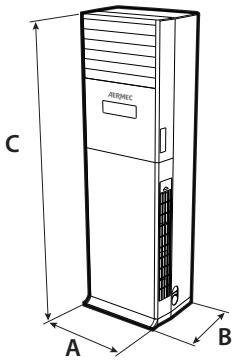
GLC1



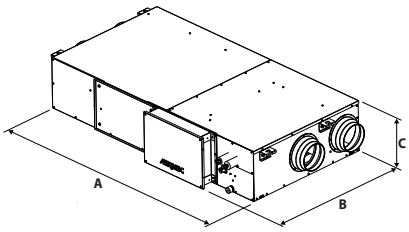
MVA_F



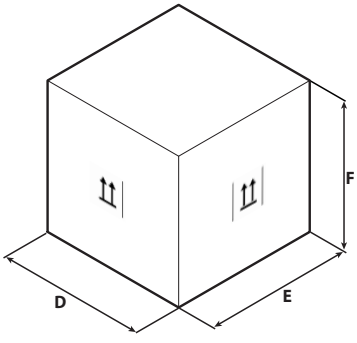
MVA_FS



MVA_V



MVA_ERV



Carton Box Example

MVA_WL

		MVA220WL	MVA280WL	MVA360WL	MVA450WL	MVA500WL	MVA560WL	MVA630WL	MVA710WL
Indoor unit									
A	mm	845	845	845	970	970	1078	1078	1078
B	mm	209	209	209	224	224	246	246	246
C	mm	289	289	289	300	300	325	325	325
D	mm	976	976	976	1096	1096	1203	1203	1203
E	mm	281	281	281	320	320	350	350	350
F	mm	379	379	379	383	383	413	413	413
Net weight	kg	11,00	11,00	11,00	13,00	13,00	16,00	16,00	16,00
Weight for transport	kg	13,00	13,00	13,00	16,00	16,00	19,00	19,00	19,00

MVA_D

		MVA221D	MVA251D	MVA281D	MVA321D	MVA361D	MVA401D	MVA451D	MVA501D	MVA561D
Indoor unit										
A	mm	710	710	710	710	710	1010	1010	1010	1010
B	mm	462	462	462	462	462	462	462	462	462
C	mm	200	200	200	200	200	200	200	200	200
D	mm	1008	1008	1008	1008	1008	1308	1308	1308	1308
E	mm	568	568	568	568	568	568	568	568	568
F	mm	275	275	275	275	275	275	275	275	275
Net weight	kg	19,00	19,00	19,00	19,00	19,00	25,00	25,00	25,00	25,00
Weight for transport	kg	24,00	24,00	24,00	24,00	24,00	31,00	31,00	31,00	31,00

		MVA631D	MVA711D	MVA801D	MVA901D	MVA1001D	MVA1121D	MVA1251D	MVA1401D
Indoor unit									
A	mm	1010	1310	1200	1340	1340	1340	1340	1340
B	mm	462	462	655	655	655	655	655	655
C	mm	200	200	260	260	260	260	260	260
D	mm	1308	1608	1448	1588	1588	1588	1588	1588
E	mm	568	568	858	858	858	858	858	858
F	mm	275	275	315	315	315	315	315	315
Net weight	kg	25,00	31,00	39,00	46,00	46,00	46,00	47,00	47,00
Weight for transport	kg	31,00	38,00	48,00	55,00	55,00	55,00	56,00	56,00

MVA_DH

		MVA221DH	MVA251DH	MVA281DH	MVA321DH	MVA361DH	MVA401DH
Indoor unit							
A	mm	700	700	700	700	700	700
B	mm	700	700	700	700	700	700
C	mm	300	300	300	300	300	300
D	mm	897	897	897	897	897	897
E	mm	808	808	808	808	808	808
F	mm	362	362	362	362	362	362
Net weight	kg	32,00	32,00	32,00	32,00	32,00	34,00
Weight for transport	kg	38,00	38,00	38,00	38,00	38,00	40,00

		MVA451DH	MVA501DH	MVA561DH	MVA631DH	MVA711DH	MVA801DH
Indoor unit							
A	mm	700	700	1000	1000	1000	1000
B	mm	700	700	700	700	700	700
C	mm	300	300	300	300	300	300
D	mm	897	897	1205	1205	1205	1205
E	mm	808	808	813	813	813	813
F	mm	362	362	360	360	360	360
Net weight	kg	34,00	34,00	43,00	43,00	43,00	43,00
Weight for transport	kg	40,00	40,00	49,00	49,00	49,00	49,00

		MVA901DH	MVA1001DH	MVA1121DH	MVA1251DH	MVA1401DH	MVA1601DH
Indoor unit							
A	mm	1400	1400	1400	1400	1400	1400
B	mm	700	700	700	700	700	700
C	mm	300	300	300	300	300	300
D	mm	1601	1601	1601	1601	1678	1678
E	mm	813	813	813	813	808	808
F	mm	365	365	365	365	365	365
Net weight	kg	57,00	57,00	57,00	57,00	57,00	57,00
Weight for transport	kg	64,00	64,00	64,00	64,00	67,00	67,00

		MVA2240DH	MVA2800DH
Indoor unit			
A	mm	1483	1686
B	mm	791	870
C	mm	385	450
D	mm	1758	1788
E	mm	883	988
F	mm	470	580
Net weight	kg	82,00	105,00
Weight for transport	kg	104,00	140,00

MVA_DV

		MVA220DV	MVA280DV	MVA360DV	MVA450DV	MVA560DV	MVA630DV	MVA710DV
Indoor unit								
A	mm	700	700	700	900	1100	1100	1100
B	mm	200	200	200	200	200	200	200
C	mm	615	615	615	615	615	615	615
D	mm	893	893	893	1123	1323	1323	1323
E	mm	305	305	305	305	305	305	305
F	mm	743	743	743	743	743	743	743
Net weight	kg	23,00	23,00	23,00	27,00	32,00	32,00	32,00
Weight for transport	kg	30,00	30,00	30,00	36,00	41,00	41,00	41,00

MVA_CS

		MVA151CS	MVA181CS	MVA221CS	MVA281CS	MVA361CS	MVA451CS	MVA501CS	MVA561CS
Indoor unit									
A	mm	570	570	570	570	570	570	570	570
B	mm	570	570	570	570	570	570	570	570
C	mm	265	265	265	265	265	265	265	265
D	mm	698	698	698	698	698	698	698	698
E	mm	653	653	653	653	653	653	653	653
F	mm	295	295	295	295	295	295	295	295
Net weight	kg	18,00	18,00	18,00	18,00	18,00	18,00	18,00	18,00
Weight for transport	kg	23,00	23,00	23,00	23,00	23,00	23,00	23,00	23,00

MVA_C

		MVA221C	MVA281C	MVA361C	MVA451C	MVA501C	MVA561C	MVA631C
Indoor unit								
A	mm	840	840	840	840	840	840	840
B	mm	840	840	840	840	840	840	840
C	mm	240	240	240	240	240	240	240
D	mm	963	963	963	963	963	963	963
E	mm	963	963	963	963	963	963	963
F	mm	325	325	325	325	325	325	325
Net weight	kg	27,00	27,00	27,00	27,00	28,00	28,00	28,00
Weight for transport	kg	35,00	35,00	35,00	35,00	36,00	36,00	36,00

		MVA711C	MVA801C	MVA901C	MVA1001C	MVA1121C	MVA1251C	MVA1401C
Indoor unit								
A	mm	840	840	840	840	840	840	840
B	mm	840	840	840	840	840	840	840
C	mm	240	240	240	240	290	290	290
D	mm	963	963	963	963	963	963	963
E	mm	963	963	963	963	963	963	963
F	mm	325	325	325	325	375	375	375
Net weight	kg	28,00	29,00	29,00	29,00	33,00	33,00	33,00
Weight for transport	kg	36,00	37,00	37,00	37,00	42,00	42,00	42,00

MVA_CB

		MVA1600CB
Indoor unit		
A	mm	910
B	mm	910
C	mm	290
D	mm	1023
E	mm	993
F	mm	375
Net weight	kg	47,00
Weight for transport	kg	57,00

MVA_C1

		MVA220C1	MVA280C1	MVA360C1	MVA450C1	MVA500C1
Indoor unit						
A	mm	987	987	987	987	987
B	mm	385	385	385	385	385
C	mm	178	178	178	178	178
D	mm	1307	1307	1307	1307	1307
E	mm	501	501	501	501	501
F	mm	310	310	310	310	310
Net weight	kg	20,00	20,00	20,00	21,00	21,00
Weight for transport	kg	27,00	27,00	27,00	29,00	29,00

MVA_F

		MVA280F	MVA281F	MVA360F	MVA361F	MVA500F	MVA501F	MVA561F	MVA630F	MVA631F	MVA710F
Indoor unit											
A	mm	1220	870	1220	870	1220	870	870	1420	1200	1420
B	mm	225	235	225	235	225	235	235	245	235	245
C	mm	700	665	700	665	700	665	665	700	665	700
D	mm	1343	973	1343	973	1343	973	973	1548	1303	1548
E	mm	315	300	315	300	315	300	300	345	300	345
F	mm	823	770	823	770	823	770	770	828	770	828
Net weight	kg	40,00	24,00	40,00	24,00	40,00	25,00	25,00	50,00	32,00	50,00
Weight for transport	kg	49,00	29,00	49,00	29,00	49,00	30,00	30,00	58,00	38,00	58,00

		MVA711F	MVA900F	MVA901F	MVA1120F	MVA1121F	MVA1250F	MVA1251F	MVA1400F	MVA1401F	MVA1601F
Indoor unit											
A	mm	1200	1420	1200	1700	1570	1700	1570	1700	1570	1570
B	mm	235	245	235	245	235	245	235	245	235	235
C	mm	665	700	665	700	665	700	665	700	665	665
D	mm	1303	1548	1303	1828	1669	1828	1669	1828	1669	1669
E	mm	300	345	300	345	300	345	300	345	300	300
F	mm	770	828	770	828	770	828	770	828	770	770
Net weight	kg	32,00	50,00	33,00	60,00	41,00	60,00	41,00	60,00	43,00	43,00
Weight for transport	kg	38,00	58,00	39,00	68,00	48,00	68,00	48,00	68,00	50,00	50,00

MVA_FS

		MVA220FS	MVA280FS	MVA360FS	MVA450FS	MVA500FS
Indoor unit						
A	mm	700	700	700	700	700
B	mm	215	215	215	215	215
C	mm	600	600	600	600	600
D	mm	780	780	780	780	780
E	mm	285	285	285	285	285
F	mm	682	682	682	682	682
Net weight	kg	16,00	16,00	16,00	16,00	16,00
Weight for transport	kg	19,00	19,00	19,00	19,00	19,00

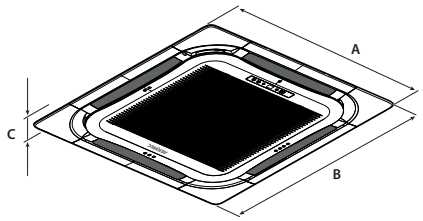
MVA_V

		MVA1000V	MVA1400V
Indoor unit			
A	mm	580	580
B	mm	400	400
C	mm	1870	1870
D	mm	738	738
E	mm	545	545
F	mm	2083	2083
Net weight	kg	54,00	57,00
Weight for transport	kg	74,00	77,00

MVA_ERV

		MVA500ERV	MVA800ERV	MVA1000ERV
Dimensions and weights				
A	mm	1700	1800	1800
B	mm	880	1185	1185
C	mm	340	390	390
D	mm	1988	2110	2110
E	mm	1138	1440	1440
F	mm	535	567	567
Net weight	kg	120,00	158,00	158,00
Weight for transport	kg	175,00	225,00	225,00

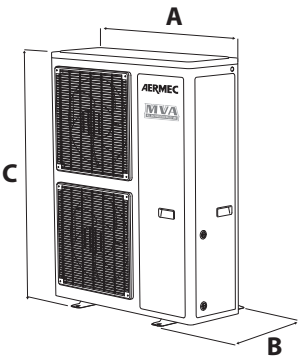
GLC1 / GL40B / GLG40S / GLG40



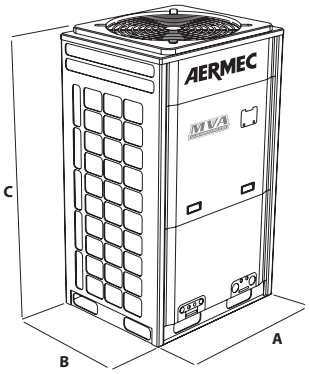
GLG40S / GLG40 / GL40B

		GLC1	GLG40S	GLG40	GL40B
Indoor unit					
A	mm	1200	620	950	1040
B	mm	460	620	950	1040
C	mm	55	48	52	65
D	mm	1265	701	1033	1137
E	mm	536	701	1038	1137
F	mm	118	125	112	140
Net weight	kg	4,00	3,00	6,00	8,00
Weight for transport	kg	6,00	5,00	10,00	12,00

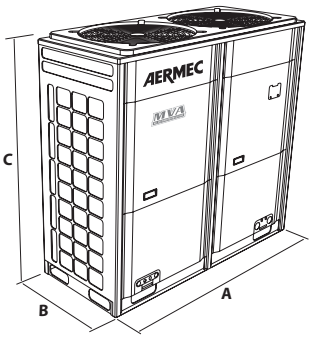
OUTDOOR UNIT WEIGHTS AND DIMENSIONS



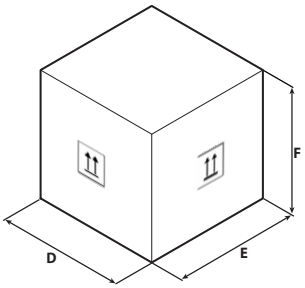
MVA_S



MVA_M



MVA_MHR



Carton Box Example

MVA_S

		MVAS 1201S	MVAS 1201T	MVAS 1401S	MVAS 1401T	MVAS 1601S	MVAS 1601T	MVAS 2242T	MVAS 2802T	MVAS 3351T
Outdoor unit										
A	mm	900	900	900	900	900	900	940	940	940
B	mm	340	340	340	340	340	340	320	460	460
C	mm	1345	1345	1345	1345	1345	1345	1430	1615	1615
D	mm	1408	1048	1408	1048	1408	1048	1038	1038	1038
E	mm	458	458	458	458	458	458	438	578	578
F	mm	1507	1507	1507	1507	1507	1507	1580	1765	1765
Net weight	kg	110,00	120,00	110,00	120,00	110,00	120,00	133,00	166,00	177,00
Weight for transport	kg	123,00	133,00	123,00	133,00	123,00	133,00	144,00	183,00	194,00

MVA_M

		MVAM 2241T	MVAM 2801T	MVAM 3351T	MVAM 4001T	MVAM 4501T	MVAM 5041T	MVAM 5601T	MVAM 6151T
Outdoor unit									
A	mm	930	930	1340	1340	1340	1340	1340	1340
B	mm	765	765	765	765	765	765	765	765
C	mm	1605	1605	1605	1605	1740	1740	1740	1740
D	mm	1010	1010	1420	1420	1420	1420	1420	1420
E	mm	840	840	840	840	840	840	840	840
F	mm	1775	1775	1775	1775	1910	1910	1910	1910
Net weight	kg	225,00	225,00	285,00	360,00	360,00	360,00	385,00	385,00
Weight for transport	kg	235,00	245,00	300,00	375,00	375,00	375,00	400,00	400,00

MVA_MHR

		MVAMHR 2241T	MVAMHR 2801T	MVAMHR 3351T	MVAMHR 4001T	MVAMHR 4501T
Outdoor unit						
A	mm	930	930	1340	1340	1340
B	mm	765	765	765	765	765
C	mm	1605	1605	1605	1605	1605
D	mm	1010	1010	1420	1420	1420
E	mm	840	840	840	840	840
F	mm	1775	1775	1775	1775	1775
Net weight	kg	233,00	233,00	302,00	346,00	346,00
Weight for transport	kg	243,00	243,00	317,00	361,00	361,00

Aermec reserves the right to make any modifications deemed necessary.
All data is subject to change without notice. Aermec does not assume
responsibility or liability for errors or omissions.

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www.aermec.com

COMPLEMENTARY PRODUCTS

Aermec also offers a range of specific solutions that meet a whole host of air conditioning requirements, as well as those relating to installation under particular structural conditions.

COMPLEMENTARY PRODUCTS

			Air flow rate (m^3/h)	Cool. Cap. (kW)	Heat. Cap. (kW)	Page
	Thermal Buffers tank					
	SAF	Thermal Buffer tank kit with instantaneous Domestic Hot Water production	-	-	-	928
	SAP	Buffer tank with capacity from 75 to 3500 litres	-	-	-	930
	Plug&Play hydronic kit					
new	**WST evo**	Hydronic kit plug & play	-	80-1500	-	933
	Cooling towers					
	TRA	Cooling towers	-	-	-	936
	Remote condensers - Dry coolers					
	CSE	Remote condensers	-	3-650	-	938
	CVR	Remote condensers	-	44-500	-	940
	CDR	Remote condensers	-	150-590	-	942
	CGA	Remote condensers	-	240-1500	-	944
	CMV	Remote condensers	-	140-1200	-	946
	WTE	Dry cooler	-	3-500	-	948
	WTR	Dry cooler	-	56-350	-	950
	WDR	Dry cooler	-	90-430	-	952
	WGA	Dry cooler	-	180-1100	-	954
	WMV	Dry cooler	-	100-950	-	956
	Water cooled condensing unit					
	MEC-W	Water-cooled packaged air conditioners	-	11-55	-	958
	FW-R	Water-cooled air conditioner	-	2,9-4,0	4,3-5,2	960
	CWX-CWXM	Water motocondensing unit	-	2,7-7,1	-	962
	Dehumidifier					
	DML	Dehumidifier portable	-	-	-	966
	DMH -DMV	Dehumidifier	-	-	-	969

SAF

Thermal Buffer tank kit with instantaneous Domestic Hot Water production

- **Various versions that make optimum use of the different energy sources**
- **Ease of installation, even in confined spaces**



DESCRIPTION

SAF are the new thermo-buffer for the instantaneous production of domestic hot water (DHW). They integrate both the energy storage element and the heat exchanger, along with the control functions, into a single unit.

The hot water is taken from the water main and heated instantaneously by means of a plate heat exchanger in stainless steel: the separation between the drinking water circuit and the water contained in the accumulator ensures maximum hygiene.

In this way, the benefits of instant production are combined with those associated with buffer production.

These devices are specifically designed and manufactured to be combined with heat pumps but also with traditional or biomass boilers, solar thermal systems and other renewable sources.

VERSIONS

° Standard

S With supplementary energy source management

T Set up for use with supplementary energy source

In addition to these versions, an supplementary heater (accessory) is also provided to respond to increased heating requirements.

FEATURES

— The SAF system is available with a range of thermo-accumulators with different capacities, (200-300-500l), in order to meet a whole host of different DHW requirements;

— The high-efficiency insulation prevents energy losses, to the advantage of the heat exchanger, allowing for significant reductions in running costs;

— The compactness and the new elegant and attractive design mean that it can be installed in restricted spaces, including those indoors.

ACCESSORIES

RX: 500 W armoured resistance, with thermostat and inserted in a dedicated fitting, it can be installed only at the factory.

RXV: 3kW armoured resistance, with thermostat and inserted in a dedicated fitting, it can be installed only at the factory.

VT: Anti-vibration supports.

Accessories compatibility

Heat pump	Sizes	Version		Accessories mandatory				Recommended	
				SAF	MOD485K	MODU485-BL*	VMF-E5	VTV160	KRX-SAF
ANL	021-203	H°-HP		•	•	•	•	•	•
ANLI	101	H°-HP-HX	(1)	•	-	-	-	•	•
ANK	020-150	H°-HP		•	•	•	•	•	•
NRK	090-0150	00-P1-P3		•	•	•	•	•	•
CL	025-200	H°-HP		•	•	•	•	•	•
ANKI	020-080	H°-HX	(1)	•	-	-	-	•	•
WRL	026-161	H°	(1)	•	-	-	-	•	•

* To be installed on board of the heat pump.
(1) Units designed for the management domestic hot water: MOD485K and VMF-E5 accessories not required.
It is recommended not to combine the SAF with units with storage tank.

CONFIGURATOR

Field	Description
1,2,3	**SAF**
4,5,6	**Size** 200, 300, 500
7	**Version**
°	Standard
S	With supplementary energy source management (1)
T	Set up for use with supplementary energy source (1)
8	**Field for future development**
°	...

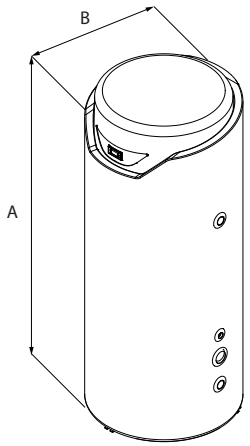
(1) Version "S-T" not available for size 200

PERFORMANCE SPECIFICATIONS

		SAF200	SAF300	SAF300T	SAF300S	SAF500	SAF500T	SAF500S
Power supply								
Power supply					230V~50Hz			
Accumulation inertial								
Storage tank capacity	l	199	290	279		480	465	
Drinking water content	l	0,85	0,85	0,85	0,85	0,85	0,85	0,85
Coil water content	l	-	-	10	10	-	13	13
Maximum operating pressure	bar	6	6	6	6	6	6	6
Losses through dispersion	W	59		68			80	
Energy efficiency class (1)	type				B			
DHW minimum flow rate	l/min	2	2	2	2	2	2	2
DHW maximum flow rate	l/min	35	35	35	35	35	35	35
Maximum operating temperature	°C	95	95	95	95	95	95	95
Electric data								
Minimum input power	W	25	25	25	27	25	25	27
Maximum input power	W	75	75	75	127	75	75	127
Minimum input current	A	0,14	0,14	0,14	0,18	0,14	0,14	0,18
Maximum input current	A	0,53	0,53	0,53	1,05	0,53	0,53	1,05

(1) In accordance with Standard UNI EN 16147:2011 and in accordance with Delegated Regulation 812/2013 and 814/2013

DIMENSIONS



		SAF200	SAF300	SAF300T	SAF300S	SAF500	SAF500T	SAF500S
Dimensions and weights								
A	mm	1315	1690	1690	1690	1740	1740	1740
B	mm	710	710	710	710	850	850	850
Empty weight	kg	75	89	96	101	116	131	136
Weight functioning	kg	275	389	396	401	616	631	636

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SAP

Storage tank

- **Accumulation unit from 75 to 3500 litres**



DESCRIPTION

Accumulation unit - completely assembled pump to be used with a refrigerating unit with hydraulic connections to be made on site by the installer.

FEATURES

— The base the structure and the panels are made of galvanized steel treated with polyester paint RAL 9003.
— Pumps
— Pressure relief valve
— Completely insulated hydraulic circuit
— Pump magnet circuit-breaker protection

Pumps

SAP 0075 - 0150:
5 pump models with water capacity up to 18000 l/h and with prevalence up to 140 kPa are available (max. 2 internally installed pumps).
SAP 0300 - 0500 - 0501 - 0750 - 1000:
8 pump models with water capacity up to 60000 l/h and with prevalence up to 200 kPa are available.
Pumping units with a reserve pump can also be included in these units.
SAP 1500 - 2000 - 3000:
10 pump models with water capacity up to 200000 l/h and with prevalence up to 300 kPa are available.
Pumping units with a reserve pump can also be included in these units.

ACCESSORIES

VT: Anti-vibration supports.
RX - RXV: 500 W armoured resistance, with thermostat and inserted in a dedicated fitting, it can be installed only at the factory.

Accessories compatibility

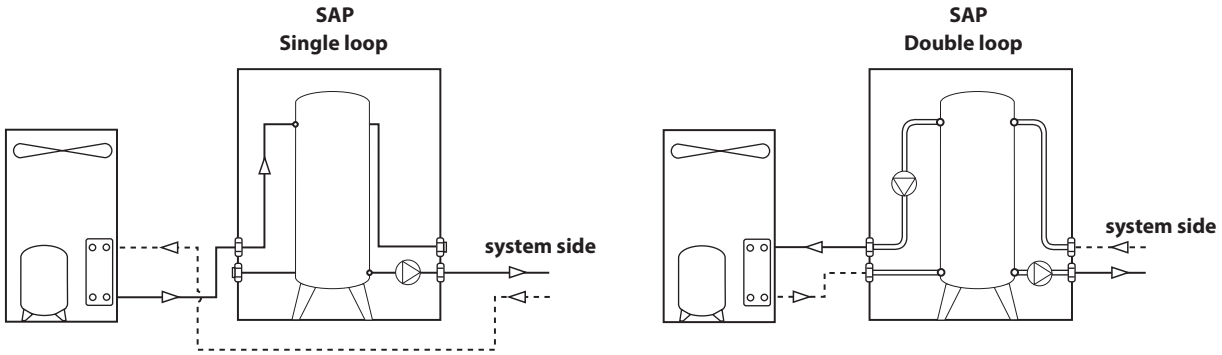
Antivibration

Accessory	SAP0075	SAP0150	SAP0300	SAP0500	SAP0501	SAP0750	SAP1000
VT2			•	•	•	•	•
VT8	•	•					

Resistance

Accessory	SAP0075	SAP0150	SAP0300	SAP0500	SAP0501	SAP0750	SAP1000	SAP1500	SAP2500	SAP3500
RX	•	•	•	•	•	•	•			
RXV								•	•	•

EXAMPLE OF A HYDRAULIC CONNECTION



TECHNICAL DATA

		SAP0075	SAP0150	SAP0300	SAP0500	SAP0501	SAP0750	SAP1000	SAP1500	SAP2500	SAP3500
Accumulation inertial											
Storage tank capacity	l	75	150	300	500	500	750	1000	1500	2500	3500
Pressure relief valve	n°/bar	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/6
Expansion vessel											
Expansion vessel capacity	l	8	12	18	24	24	18	18	24	24	24
Expansion vessel number	no.	1	1	1	1	1	2	2	2	3	3
Hydraulic connections											
Connections (in/out)	Type	F	F	F	F	F	F	F	-	-	-
Sizes (in/out)	Ø	1"1/4	1"1/2	2"	2"1/2	2"1/2	3"	3"	-	-	-

SAP pumps flanges diameter 1500 - 2500 - 3500

			Pump									
SAP	**Flange**		**R**	**T**	**U**	**V**	**X**	**Y**	**W**	**K**	**J**	**I**
1500	PN16UNI2278	Ø	125	125	150	150	150	150	200	200	200	200
2500	PN16UNI2279	Ø	125	125	150	150	150	150	200	200	200	200
3500	PN16UNI2280	Ø	125	125	150	150	150	150	200	200	200	200

PUMP ELECTRIC DATA

		Pump										
		A	**B**	**C**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**
Max absorbed power	W	275	330	614	895	1070	1550	2050	22000	17500	14500	3100
Max absorbed current	A	0,5	0,7	1,1	1,6	1,9	2,8	3,6	43,0	36,4	30,0	5,6
		M	N	P	Q	R	T	U	V	W	X	Y
Max absorbed power	W	4100	1470	2600	5200	4000	5200	5800	8000	11500	9000	11000
Max absorbed current	A	7,2	2,6	4,4	8,8	8,5	11,5	15,5	15,5	22,5	22,5	22,5

PUMP COMBINATIONS

	Pump combinations											
SAP0075	AZ	AE	AF	AZ	BC	BE	BF	BZ	ZC	ZE	ZF	ZZ
SAP0150	AC	AE	AF	AZ	BC	BE	BF	BZ	CC	EC	CF	CZ
	AE	EE	EF	EZ	BF	FE	FF	FZ	ZC	ZE	ZF	ZZ
SAP0300						CS	CZ	ES	EZ	FS	FZ	ZZ
SAP0500				FS	FZ	GS	GZ	HS	HZ	PS	PZ	ZZ
SAP0501				FS	FZ	GS	GZ	HS	HZ	PS	PZ	ZZ
SAP0750				FS	FZ	GS	GZ	HS	HZ	LS	LZ	MS
					MZ	NS	NZ	PS	PZ	QS	QZ	ZZ
SAP1000				LS	LZ	MS	MZ	NS	NZ	QS	QZ	ZZ
SAP1500		IS	IZ	JS	JZ	KS	KZ	RS	RZ	TS	TZ	US
			UZ	VS	VZ	WS	WZ	XS	XZ	YS	YZ	ZZ
SAP2500		IS	IZ	JS	JZ	KS	KZ	RS	RZ	TS	TZ	US
			UZ	VS	VZ	WS	WZ	XS	XZ	YS	YZ	ZZ
SAP3500		IS	IZ	JS	JZ	KS	KZ	RS	RZ	TS	TZ	US
			UZ	VS	VZ	WS	WZ	XS	XZ	YS	YZ	ZZ

The indicated combinations are the only ones foreseen, many capacity/prevalence combinations are available, we invite you to refer to the technical documentation.

A - B: Multi-speed circulators.

L - M - Q: Twin pumping unit.

S: Pumping unit with reserve pump.

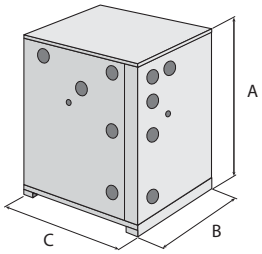
Z: Pump not present.

The first letter of the combination indicates the pump on the primary circuit.

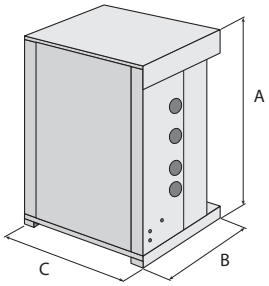
The second letter of the combination indicates the pump on the secondary circuit.

DIMENSIONS

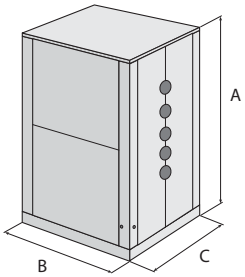
SAP 0075 - 0150



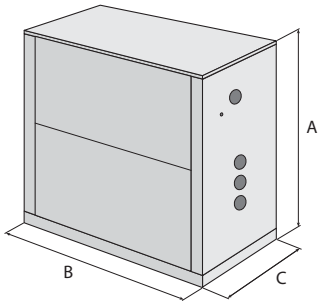
SAP 0300 - 0500



SAP 501 - 0750



SAP 1000 - 1500 - 2500 - 3500



		SAP0075	SAP0150	SAP0300	SAP0500	SAP0501	SAP0750	SAP1000	SAP1500	SAP2500	SAP3500
Dimensions and weights											
A	mm	1000	1000	1650	1650	1968	1968	2049	2049	2049	2049
B	mm	1000	1000	1100	1100	1550	1550	2200	2200	2200	2200
C	mm	700	700	1100	1100	1000	1000	1000	1750	2000	2300
Empty weight	kg	120	120	190	230	310	400	445	560	710	790

The weight of the unit without ZZ pumps.

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WST evo

Plug & play hydronic kit

Cooling capacity 80 ÷ 1500 kW
Water flow rate 17000 ÷ 260000 l/h

- **Hydronic kit containing the main hydraulic components**
- **Facilità di installazione**
- **ideal for industrial systems or data centres, where chilled water is required even during the winter**
- **Partial and total free cooling operation**



DESCRIPTION

Plug & play hydronic kit that includes the main hydronic and regulation components of a hydraulic system.
The WST are designed to facilitate installation in systems where chilled water production is required throughout the year, in combination with a water/water chiller and a dry cooler.
Thanks to Aermec's 20-year experience in critical processes and the special software purposely developed, these units can manage all the components that make up the system:

— The water-cooled chiller;
— The pumps (including the reserve ones, if installed) for both the system side and the source side;
— The speed of the dry cooler fans (in both mechanical operation and free cooling mode);
— The modulating valve for controlling the chiller condensation.

OPERATION

Air-water chiller

When the outside air temperature is higher than the temperature of the system return water, the cooling capacity is provided by the chiller. The WST manages the dry cooler by modulating its fans on the basis of the chiller condensation pressure.

Free-cooling

When the outside air temperature is lower on the other hand, the WST commands free cooling mode which can be mixed (chiller + free cooling) or free cooling only (switching off the chiller) to exploit the water from the dry cooler to cool the system water in the dedicated heat exchanger.

HYDRAULIC COMPONENTS OF THE DRY COOLER SIDE

— Water filter;
— Flow switches;
— Shut-off valve;
— Mixer valves;
— Bypass valve;
— Pumps;
— Butterfly valves (free cooling enabling);
— High-efficiency plate heat exchanger (free cooling);
— Water temperature probes.

HYDRAULIC COMPONENTS OF THE CHILLER SIDE

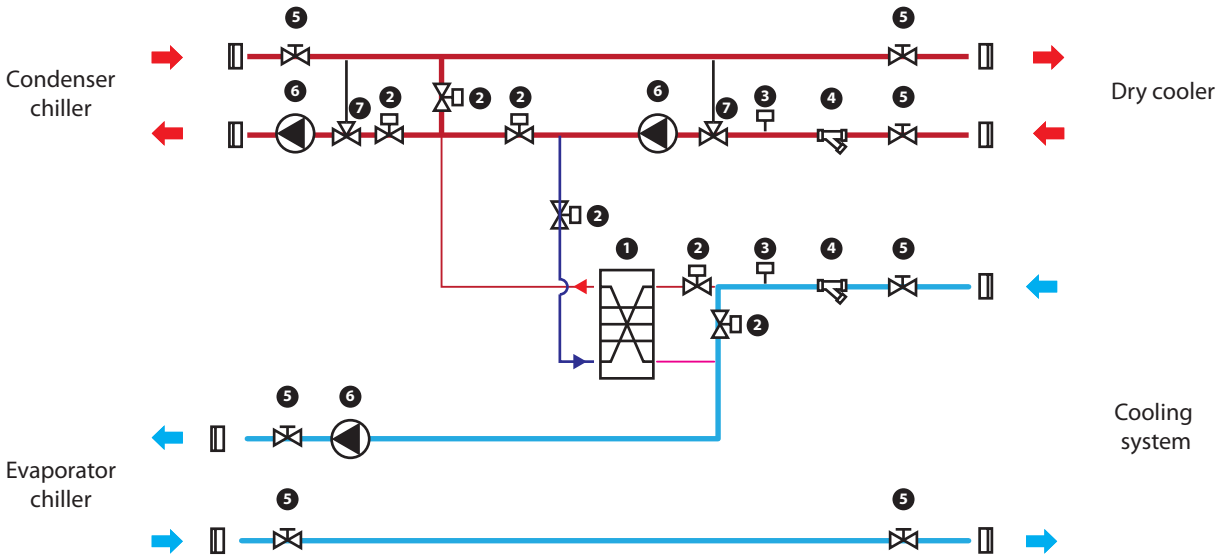
— Water filter;
— Flow switches;
— Shut-off valve;
— Pumps;
— Water temperature probes.

REGULATION

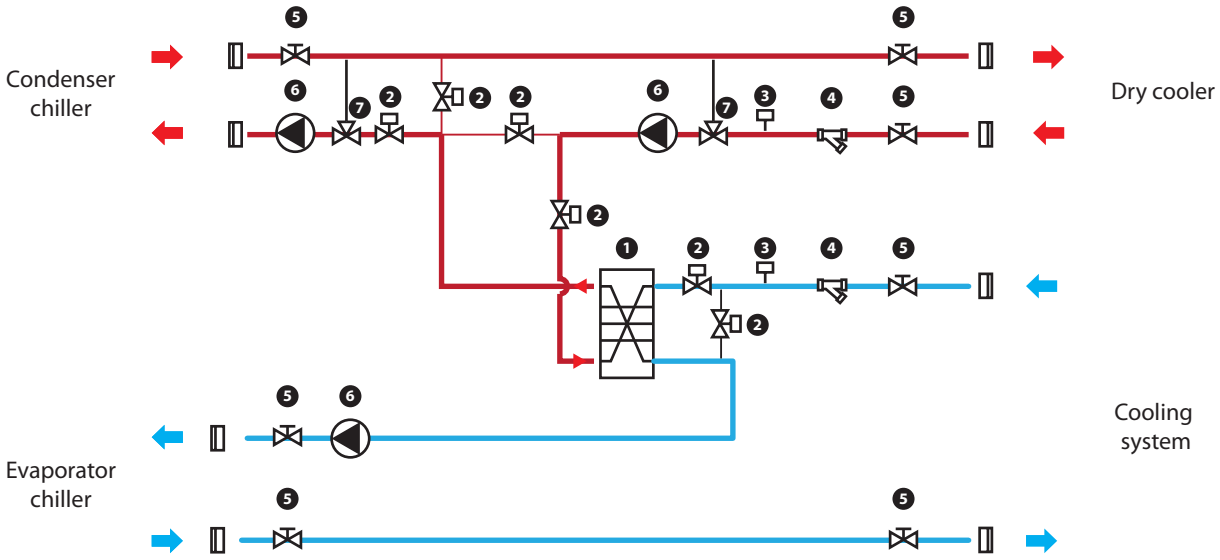
— Electronic microprocessor regulation with MODBUS protocol communication;
— **The AER485P1 accessory is supplied as standard with the WST. This accessory must necessarily be fitted in the chiller, so the units can communicate with each other;**
— Advanced electronics characterised by the continuous monitoring of various working and environmental parameters, so the operating mode (chiller/free cooling) can be switched as and when necessary. This limits the operating costs and ensures greater energy efficiency;
— Dry cooler fan management, to control the condensation pressure (chiller mode) or the recovered output (free cooling mode);
— Management of cold start-up via dry cooler fan modulation and the mixer valve;
— Structure and base in hot-dip galvanised sheet metal coated in epoxy powders RAL 9003.

OPERATING MODE

Mechanical operation (chiller)



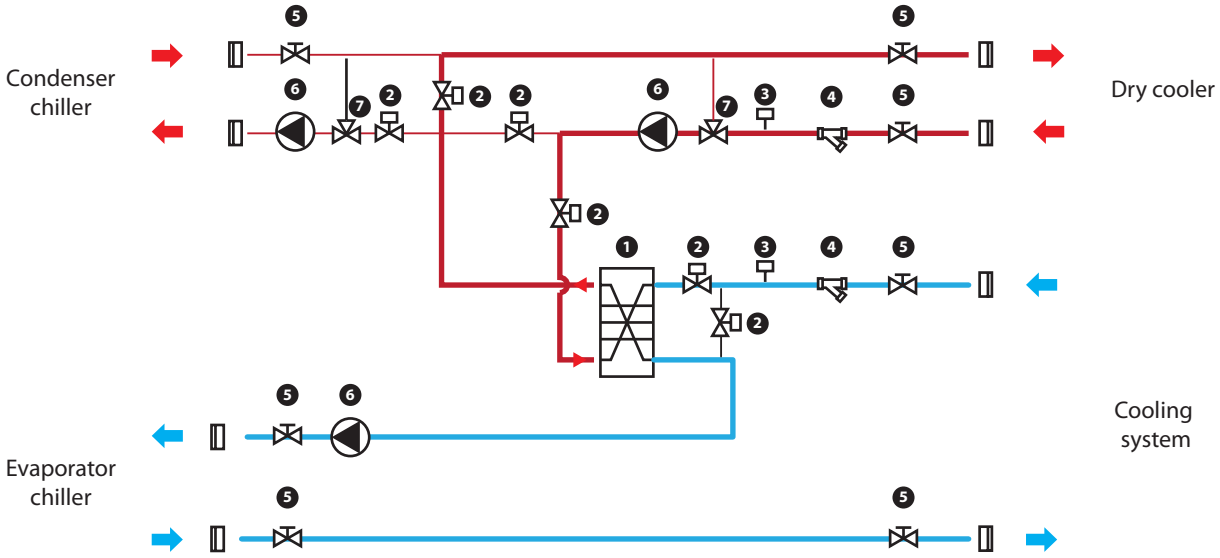
Mixed operation (chiller + free cooling)



Key:

1 Plate heat exchanger
2 2-way butterfly valve
3 Flow switch
4 Water filter
5 Shut-off valve
6 Pump
7 Mixing valve

Operation in free-cooling only



Key:

1 Plate heat exchanger
2 2-way butterfly valve
3 Flow switch
4 Water filter
5 Shut-off valve
6 Pump
7 Mixing valve

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TRA

Cooling towers

Capacities from 49.53 up to 1084.88 kW





FEATURES

- Available in 17 different sizes
- Entirely built of fibre-glass reinforced resin to avoid corrosion problems with surface treatment to withstand ultraviolet rays, heat changes and scuffing caused by bad weather
- Limited to the three largest sizes (TRA 850, 950 and 1100) the bearing structure is made of hot galvanised steel with 22mm thick fibreglass reinforced resin sandwich panels, with support foam material inside. In this way, as well achieving good mechanical strength the sound of the water flowing is muffled. Surface treatment to withstand ultraviolet rays, heat changes and scuffing caused by bad weather.
- Self-bearing structure
- Exchange pack and drip separator made of self-extinguishing PVC
- PVC water distribution pipes with polypropylene nozzles
- Hydrometer (when there is not water flow rate measuring device, this instrument makes possible to have an approximate indication of the flow rate of the water in circulation based on the nozzle load drop)
- Plastic bleed cock
- Axial high efficiency fan with several blades
- Water drip pan, waterproof and water resistant made of fibreglass reinforced polyester resin with multi layer glass material
- Personal protection grill made of AISI 304 on the fan outlet

VERSIONS

- TRA from 50 up to 750 silenced and Inspection window standard
- TRA from 850 up to 1100 standard, TRA from 850 up to 1100 silenced (L) All with inspection door to a crawl Series

ACCESSORIES

- RT: Heater element with regulating thermostat.

	Compatibility of accessories																
TRA	50	70	90	110	130	170	200	240	300	400	500	550	600	750	850	950	1100
RT 11 (1 kW)	•	•	•	•	•												
RT 12 (2 kW)						•	•	•	•								
RT 13 (3 kW)										•	•	•					
RT 15 (5 kW)													•	•	•	•	
RT 17 (7.5 kW)																	•

N.B. = In the case of RT accessories, the number between brackets indicates the capacity of the heater element.
* = All the accessories and/or variants must in all cases be specified when the order is placed.

TECHNICAL DATA

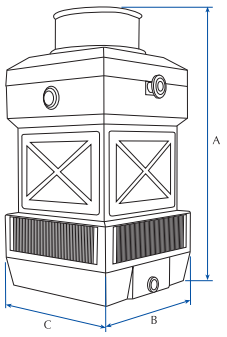
Mod. TRA		50	70	90	110	130	170	200	240	300
Capacity	kW	49,53	69,06	88,60	107,44	125,58	168,14	197,67	242,09	302,33
Air flow rate	m^3/h	4500	4500	8100	8100	8100	12600	12600	18100	18100
Water flow rate	l/h	7100	9900	12700	15400	18000	24100	28330	34700	43300
Pressure drops	kPa	42	32	52	32	42	28	35	23	40
Motor power	kW	0,55	0,75	0,75	0,75	1,1	1,1	1,5	1,5	2,2
Motor poles	n.	4	4	4	4	6	6	6	6	6
Motor poles (double polarity)	n.	4/8	4/8	4/8	4/8	6/12	6/12	6/8	6/8	6/8
Fans	n.	1	1	1	1	1	1	1	1	1
Nozzles	n.	1	1	1	1	1	1	1	4	4
Sound pressure	dB (A)	52	52	54	54	54	54	54	55	55

Mod. TRA		400	500	550	600	750	850	950	1100
Capacity	kW	405,35	488,37	574,19	604,88	767,44	856,74	941,86	1084,88
Air flow rate	m^3/h	28350	28350	36000	45350	45350	58000	58000	67000
Water flow rate	l/h	58100	70000	82300	86700	110000	122800	135000	155500
Pressure drops	kPa	28	40	55	30	48	49	25	32
Motor power	kW	2,2	4	5,5	4	5,5	5,5	5,5	7,5
Motor poles	n.	6	6	6	6	6	8	8	8
Motor poles (double polarity)	n.	6/8	6/12	6/12	6/12	8/16	8/16	8/16	8/16
Fans	n.	1	1	1	1	1	1	1	1
Nozzles	n.	4	4	4	9	9	16	16	16
Sound pressure	dB (A)	57	57	58	61	61	62	62	64
Sound pressure (silenced version)	dB (A)						56	56	57

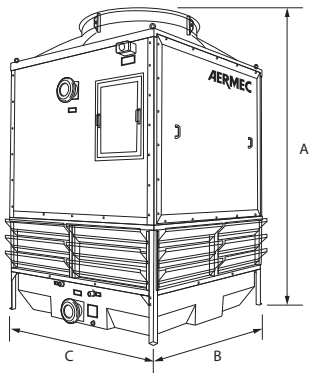
* = Sizes from 50 to 750 are only muted.
Power supply = 3~ 230V 50Hz; 3N~ 400V 50Hz.

Performance values refer to the following conditions:
Sound pressure measured in free field conditions at distance of 10 m with direction factor = 2.
- air inlet temperature 23.5 °C W.B.;
- water inlet temperature 35 °C;
- water outlet temperature 29 °C

DIMENSIONS (MM)



TRA 50-750



TRA 850-1100
TRA 850L-1100L

Mod. TRA		50	70	90	110	130	170	200	240	300	400
Height	A	2110	2110	2595	2595	2595	2800	2800	2860	2860	3140
Width	B	800	800	1000	1000	1000	1200	1200	1400	1400	1740
Depth	C	800	800	1000	1000	1000	1200	1200	1400	1400	1740
Weight	kg	75	75	85	95	95	170	170	210	210	410

Mod. TRA		500	550	600	750	850	850L	950	950L	1100	1100L
Height	A	3140	3380	3450	3450	3650	3900	3650	3900	3650	3900
Width	B	1740	1900	2100	2100	2030	2030	2030	2030	2360	2360
Depth	C	1740	2100	2300	2300	2360	2360	2360	2360	2360	2360
Weight	kg	410	500	555	580	850	850	815	815	915	915

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CSE

Remote condenser

Cooling capacity 3 ÷ 650 kW

- **Simple to use and install**
- **Wide range of powers**
- **Easy to handle and transport**
- **Can be installed both horizontally and vertically**



GENERAL FEATURES

— Simple to use and install;
— Excellent value for money;
— Easy to handle and transport;
— Up to 3 units can be stacked depending on the model (to be requested at time of order);

FEATURES

Structure

— They are designed for outdoor installation and therefore manufactured with technologies and materials that guarantee resistance to atmospheric agents;
— The version with polyurethane resin pre-painted louvers is also available for greater resistance to corrosion in aggressive environments;
— All coils are tested with Helium (He_2) which ensures the absence of leaks;
— The shoulders of the coils are integrated into the structure and designed to avoid any pipe breakage due to vibrations related to transport or functioning;
— Copper collectors with welded connections closed to prevent impurities and moisture from getting into the circuits.

Fans

Latest generation axial fans all compliant with ErP regulation and IP54.
All the machines are supplied with wired and tested fans, the following diameters of fans are available:
— Ø350 Single phase (EC);
— Ø500 single-phase or three-phase (AC with "Y" STAR or "D" TRIANGLE EC electrical connection);
— Ø800 three-phase (AC with "Y" STAR or "D" TRIANGLE EC electrical connection);
— Ø1000 three-phase (AC with "Y" STAR or "D" TRIANGLE EC electrical connection).
There are different noise levels, depending on the fan diameter:
— Standard (B);
— Silenced (S);
— Super silent (E).

CONTROL

The electrical panel with terminal board or with adjustment is always present.
For space reasons, the models with 350 mm diameter fans feature a junction box.
The regulators used are of high efficiency and low consumption, the types of adjustments available are:
— Phase cut for AC fans
— With electronic processor for EC versions

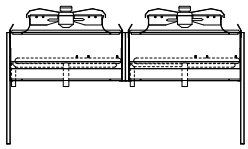
ACCESSORIES

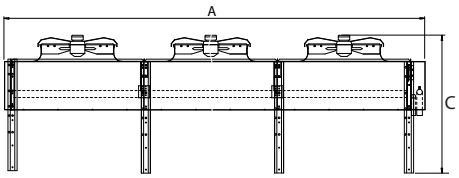
Several accessories are available:
1. Anti-vibration supports;
2. Coil connection kit;
3. Additional disconnectors for each motor;
4. Remote switch-on/switch-off management kit;
5. Resistance kit (if temperature ≤ - 20°C);
6. MODBUS kit (only on units with three-phase connection);
7. Axitop (only for 800 mm diameter fans).

PERFORMANCE SPECIFICATIONS

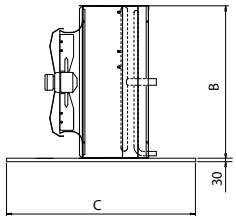
■ *For combinations with the evaporating units contact the headquarters.*

DIMENSIONS

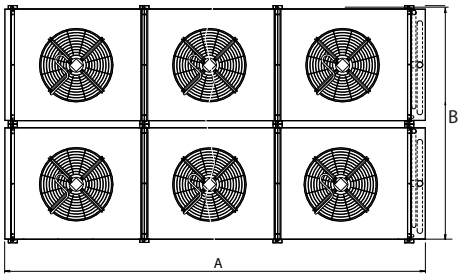




INSTALLAZIONE VERTICALE/VERTICAL INSTALLATION/
SENKRECHTE INSTALLATION/INSTALLATION VERTICALE



modelli / models / Modelle / modèles
da / from / von / de 513 a / to / ab / zu / à 545



CSE fans diameter Ø 350

		CSE 3023	CSE 3024	CSE 3033	CSE 3034
Dimensions and weights					
A	mm	1310	1310	1860	1860
B	mm	620	620	620	620
C	mm	840	840	840	840
Weights					
Empty weight	kg	35	39	48	54

CSE fans diameter Ø 500

		CSE 5013	CSE 5014	CSE 5022	CSE 5023	CSE 5033	CSE 5034	CSE 5043	CSE 5044	CSE 5063	CSE 5064	CSE 5083	CSE 5084
Dimensions and weights													
A	mm	1400	1400	2345	2345	3290	3290	4230	4230	3290	3290	4230	4230
B	mm	833	833	833	833	833	833	833	833	1666	1666	1666	1666
C	mm	1080	1080	1080	1080	1080	1080	1080	1080	1080	1080	1080	1080
Weights													
Empty weight	kg	70	74	107	116	162	175	206	224	324	350	412	448

CSE fans diameter Ø 800

		CSE 8013	CSE 8014	CSE 8023	CSE 8024	CSE 8033	CSE 8034	CSE 8043	CSE 8044	CSE 8063	CSE 8064
Dimensions and weights											
A	mm	1920	1920	3600	3600	5260	5260	3600	3600	5260	5260
B	mm	1240	1240	1240	1240	1240	1240	2390	2390	2390	2390
C	mm	1385	1385	1385	1385	1385	1385	1385	1385	1385	1385
Weights											
Empty weight	kg	169	179	331	356	487	525	642	692	954	1030

CSE fans diameter Ø 1000

		CSE 1013	CSE 1014	CSE 1023	CSE 1024	CSE 1033	CSE 1034	CSE 1043	CSE 1044	CSE 1063	CSE 1064	CSE 1083	CSE 1084
Dimensions and weights													
A	mm	2560	2560	4860	4860	7170	7170	9460	9460	7170	7170	9460	9460
B	mm	1260	1260	1260	1260	1260	1260	1260	1260	2430	2430	2430	2430
C	mm	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Weights													
Empty weight	kg	229	247	429	467	725	772	925	990	1508	1602	1930	2060

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CVR

Remote condenser

Cooling capacity 44 ÷ 500 kW

- **V-Shape model with single row of fans**
- **Wide range of powers**
- **Maximum height clearance 1.6 mt**



GENERAL FEATURES

— V-Shape model with single row of fans;
— Very compact and lowered structure;
— Maximum height clearance 1.6 mt;
— can be transported via container;
— Easy to handle and transport;

FEATURES

Structure

— They are designed for outdoor installation and therefore manufactured with technologies and materials that guarantee resistance to atmospheric agents;
— Coils with compact staggered geometry, copper pipes and corrugated or mechanically expanded aluminium louvers;
— The version with polyurethane resin pre-painted louvers is also available for greater resistance to corrosion in aggressive environments;
— All coils are tested with Helium (He_2) which ensures the absence of leaks;
— The shoulders of the coils are integrated into the structure and designed to avoid any pipe breakage due to vibrations related to transport or functioning;
— Copper collectors with welded connections closed to prevent impurities and moisture from getting into the circuits.
— The electrical panel with terminal board or adjustment is always supplied;
— The regulators used are of high efficiency and low consumption;
— The types of available adjustments are: phase cut for AC fans and with electronic processor for EC fans;
— Adiabatic "Spray System" systems with running water nozzles (cheaper but less efficient);
— Aluminium "Adiabatic Panels" system with closed water management and control system (very efficient system with a 10% maximum amount of evaporated water).

Fans

— Latest generation axial fans all compliant with ErP regulation and IP54;
— All machines are supplied with wired and tested fans;
— Fans diameter ø: 800 mm;
— Fans with a diameter of ø 800 mm are all three-phase (T) and there can be from 2 to 7 per machine;
— Different sound levels: standard (B), silenced (S) or extra-silenced (E);
— The motors can have AC or EC technology;
— For three-phase AC motors it is possible to choose the electrical type of connection: star (Y) or delta (D).

CONTROL

The electrical panel with terminal board or adjustment is always present and can be installed on the collector side (standard) or on the opposite side.
The regulators used are of high efficiency and low consumption.
The types of available adjustments are: phase cut for AC fans and with electronic processor for EC fans.

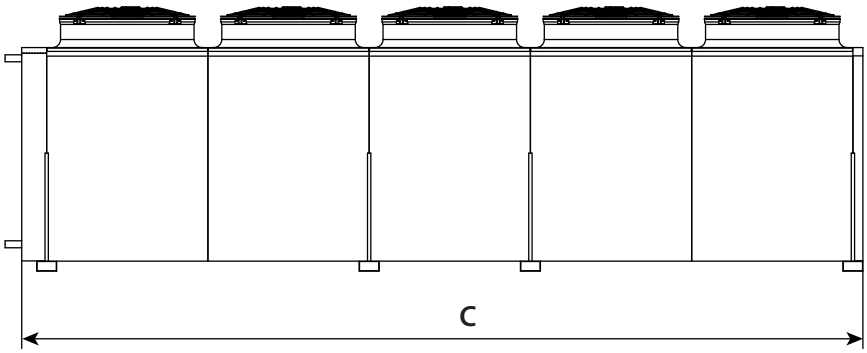
ACCESSORIES

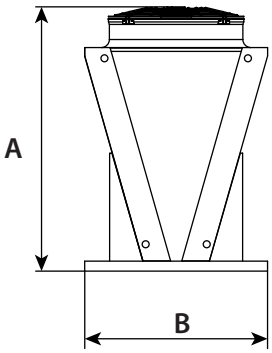
Several accessories are available:
1. Anti-vibration supports;
2. Coil connection kit;
3. Additional disconnectors for each motor;
4. Remote switch-on/switch-off management kit;
5. Resistance kit (if temperature ≤ - 20°C);
6. UV lamp kit (only for adiabatic "Spray System" system);
7. Modbus kit.
8. Axitop

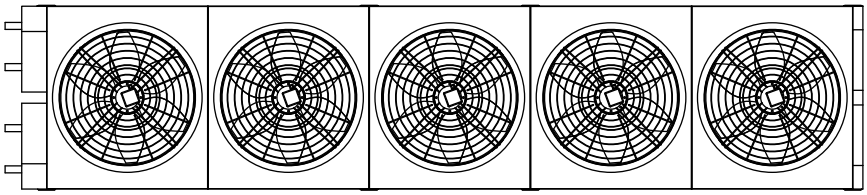
PERFORMANCE SPECIFICATIONS

■ *For combinations with the evaporating units contact the headquarters.*

DIMENSIONS







		CVRX8023	CVRX8024	CVRX8033	CVRX8034	CVRX8043	CVRX8044	CVRX8053	CVRX8054	CVRX8063	CVRX8064	CVRX8073	CVRX8074
Dimensions and weights													
A	mm	1590	1590	1590	1590	1590	1590	1590	1590	1590	1590	1590	1590
B	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
C	mm	2150	2150	3120	3120	4090	4090	5060	5060	6030	6030	7000	7000
Empty weight	kg	356	396	523	583	690	770	856	956	1112	1261	1219	1369

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CDR

Remote condenser

Cooling capacity 150 ÷ 590 kW

- **V-Shape model with double row of fans**
- **Ideal machine to manage two-circuit systems completely independently and precisely**
- **Very solid and reliable structure**
- **Maximum height clearance 2.2 mt**



GENERAL FEATURES

— V-Shape model with double row of fans;
— Very solid and reliable structure;
— Maximum height clearance 2.2 mt;
— can be transported via container;

FEATURES

Structure

— They are designed for outdoor installation and therefore manufactured with technologies and materials that guarantee resistance to atmospheric agents;
— Coils with compact staggered geometry, copper pipes and corrugated or mechanically expanded aluminium louvers;
— The version with polyurethane resin pre-painted louvers is also available for greater resistance to corrosion in aggressive environments;
— All coils are tested with Helium (He_2) which ensures the absence of leaks;
— The shoulders of the coils are integrated into the structure and designed to avoid any pipe breakage due to vibrations related to transport or functioning;
— Copper collectors with welded connections closed to prevent impurities and moisture from getting into the circuits.
— Adiabatic "Spray System" systems with running water nozzles (cheaper but less efficient);
— Aluminium "Adiabatic Panels" system with closed water management and control system (very efficient system with a 10% maximum amount of evaporated water).

Fans

— Latest generation axial fans all compliant with ErP regulation and IP54;
— All machines are supplied with wired and tested fans;
— Fans diameter ø: 800 mm;
— Fans with a diameter of ø 800 mm are all three-phase (T) and there can be from 2 to 7 per machine;
— Different sound levels: standard (B), silenced (S) or extra-silenced (E);
— The motors can have AC or EC technology;
— For three-phase AC motors it is possible to choose the electrical type of connection: star (Y) or delta (D).

CONTROL

— The electrical panel with terminal board or adjustment is always present and can be installed on the collector side (standard) or on the opposite side;
— The regulators used are of high efficiency and low consumption;
— The types of available adjustments are: phase cut for AC fans and with electronic processor for EC fans;
— The two banks can be managed separately with independent electric control board and adjustment (ideal solution for two-circuit systems)

ACCESSORIES

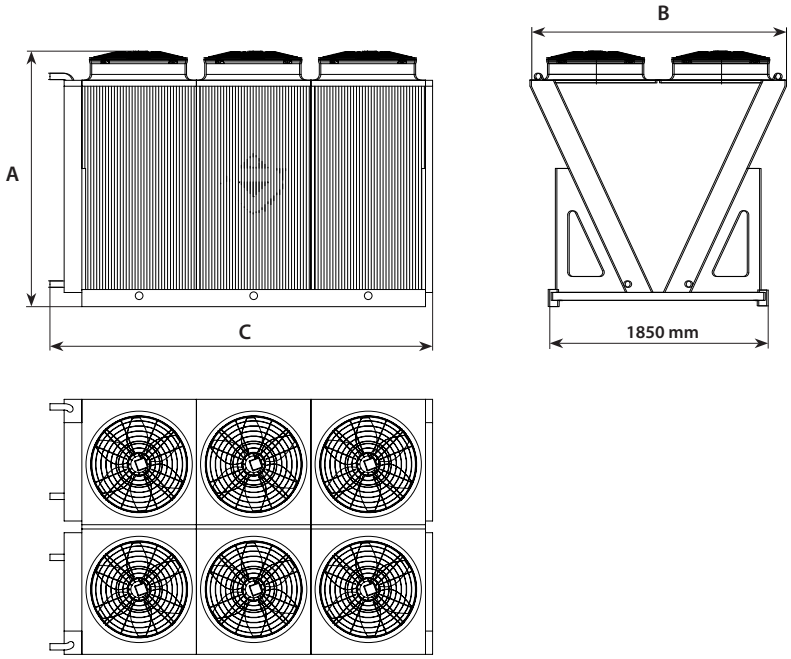
Several accessories are available:

1. Anti-vibration supports;
2. Coil connection kit;
3. Additional disconnectors for each motor;
4. Remote switch-on/switch-off management kit;
5. Resistance kit (if temperature ≤ - 20°C);
6. Modbus kit.
7. Axitop

PERFORMANCE SPECIFICATIONS

■ *For combinations with the evaporating units contact the headquarters.*

DIMENSIONS



		CDRX8043	CDRX8044	CDRX8063	CDRX8064	CDRX8083	CDRX8084	CDRX8103	CDRX8104
Dimensions and weights									
A	mm	2150	2150	2150	2150	2150	2150	2150	2150
B	mm	2160	2160	2160	2160	2160	2160	2160	2160
C	mm	2150	2150	3120	3120	4090	4090	5060	5060
Empty weight	kg	708	750	1064	1130	1394	1476	1736	1839

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CGA

Remote condenser

Cooling capacity 240 ÷ 1500 kW

- **V-Shape model with double row of fans**
- **Ideal machine to manage two-circuit systems completely independently and precisely**
- **Very solid and reliable structure**



GENERAL FEATURES

— V-Shape model with double row of fans;
— Very solid and reliable structure;
— Can be transported in specific containers;

FEATURES

Structure

— They are designed for outdoor installation and therefore manufactured with technologies and materials that guarantee resistance to atmospheric agents;
— Coils with compact staggered geometry, copper pipes and corrugated or mechanically expanded aluminium louvers;
— The version with polyurethane resin pre-painted louvers is also available for greater resistance to corrosion in aggressive environments;
— All coils are tested with Helium (He_2) which ensures the absence of leaks;
— The shoulders of the coils are integrated into the structure and designed to avoid any pipe breakage due to vibrations related to transport or functioning;
— Copper collectors with welded connections closed to prevent impurities and moisture from getting into the circuits.
— Adiabatic "Spray System" systems with running water nozzles (cheaper but less efficient);
— Aluminium "Adiabatic Panels" system with closed water management and control system (very efficient system with a 10% maximum amount of evaporated water).

Fans

— Latest generation axial fans all compliant with ErP regulation and IP54;
— All machines are supplied with wired and tested fans;
— Fans diameter ø: 800 e 1000 (990) mm;
— All fans with three-phase motors (T) there can be from 6 to 16 per machine;
— Different sound levels: standard (B), silenced (S) or extra-silenced (E);
— The motors can have AC or EC technology;
— For three-phase AC motors it is possible to choose the electrical type of connection: star (Y) or delta (D).

CONTROL

— The electrical panel with terminal board or adjustment is always present and can be installed on the collector side (standard) or on the opposite side;
— The regulators used are of high efficiency and low consumption;
— The types of available adjustments are: phase cut for AC fans and with electronic processor for EC fans;
— The two banks can be managed separately with independent electric control board and adjustment (ideal solution for two-circuit systems)

ACCESSORIES

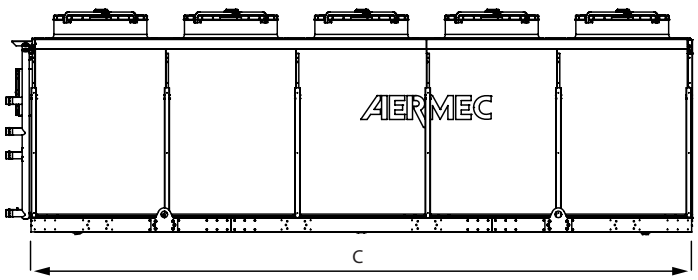
Several accessories are available:

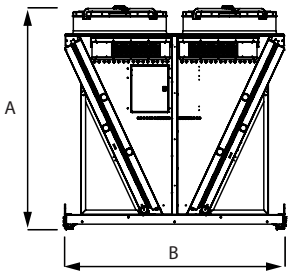
1. Anti-vibration supports;
2. Coil connection kit;
3. Additional disconnectors for each motor;
4. Remote switch-on/switch-off management kit;
5. Resistance kit (if temperature ≤ - 20°C);
6. Modbus kit.
7. Axitop

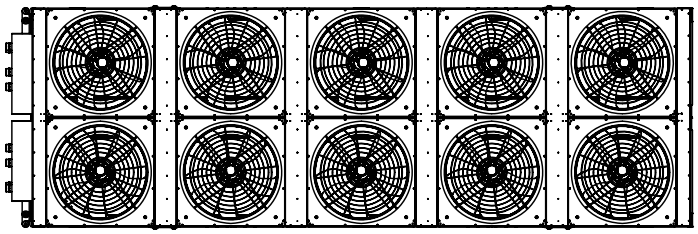
PERFORMANCE SPECIFICATIONS

■ *For combinations with the evaporating units contact the headquarters.*

DIMENSIONS







		CGAX8063	CGAX8064	CGAX8083	CGAX8084	CGAX8103	CGAX8104	CGAX8123	CGAX8124	CGAX8143	CGAX8144	CGAX8163	CGAX8164
Dimensions and weights													
A	mm	2410	2410	2410	2410	2410	2410	2410	2410	2410	2410	2410	2410
B	mm	2448	2448	2448	2448	2448	2448	2448	2448	2448	2448	2448	2448
C	mm	4320	4320	5730	5730	7140	7140	8550	8550	9960	9960	11370	11370
Empty weight	kg	1600	1700	2000	2150	2500	2700	2850	3100	3650	4000	4200	4550

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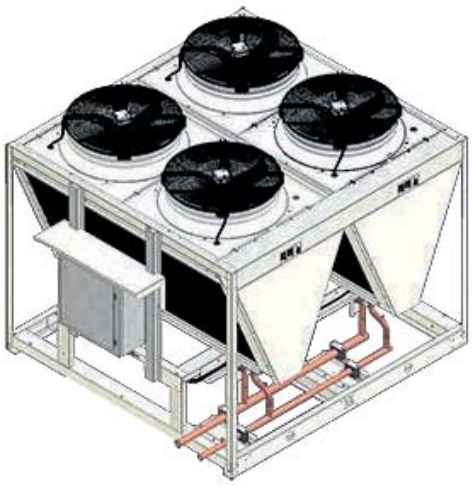
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CMV

Remote condenser

Cooling capacity 140 ÷ 1200 kW

- **Modular machine with base unit composed by 2 "V" modules in series**
- **The power range can be extended by installing more than 5 base units in parallel**
- **Very solid and reliable structure**



GENERAL FEATURES

— Modular machine with base unit composed by 2 "V" modules in series;
— Very solid, compact and reliable structure;
— Maximum height clearance 2.0 mt;
— Can be transported via container (optimisation of transport costs);
— The power range can be extended by installing more than 5 base units in parallel.

FEATURES

Structure

— They are designed for outdoor installation and therefore manufactured with technologies and materials that guarantee resistance to atmospheric agents;
— **High efficiency microchannel coil with low refrigerant content;**
— All coils are tested with Helium (He_2) which ensures the absence of leaks;
— Copper collectors with welded connections closed to prevent impurities and moisture from getting into the circuits;
— Different collector configurations are available in order to manage mono and two-circuit systems (include the "Double circuit kit" for machines with up to 8 motors)
— Each "V" module is composed by two coils and two identical fans which repeat from 2 to a maximum of 10 times.
— Each "V" module can be electrically and hydraulically disconnected from the rest of the machine for maintenance without having to stop the whole system;
— Adiabatic "Spray System" systems with running water nozzles (cheaper but less efficient);
— Aluminium "Adiabatic Panels" system with closed water management and control system (very efficient system with a 10% maximum amount of evaporated water).

Fans

— Latest generation axial fans all compliant with ErP regulation and IP54;
— All machines are supplied with wired and tested fans;
— Available fan diameters ø: 800 mm;
— All fans with three-phase motors (T) there can be from 4 to 20 per individual machine;
— Different sound levels: standard (B), silenced (S) or extra-silenced (E);
— The motors can have AC or EC technology;
— For three-phase AC motors it is possible to choose the electrical type of connection: star (Y) or delta (D).

CONTROL

— The electric control board or with complete adjustment is always supplied and can be installed on both short sides of the machine;
— The regulators used are of high efficiency and low consumption;
— The types of available adjustments are: phase cut for AC fans and with electronic processor for EC fans;
— Possibility to manage two-circuit systems with independent electrical board and adjustment (select the "Double circuit kit" for models up to 8 motors).

ACCESSORIES

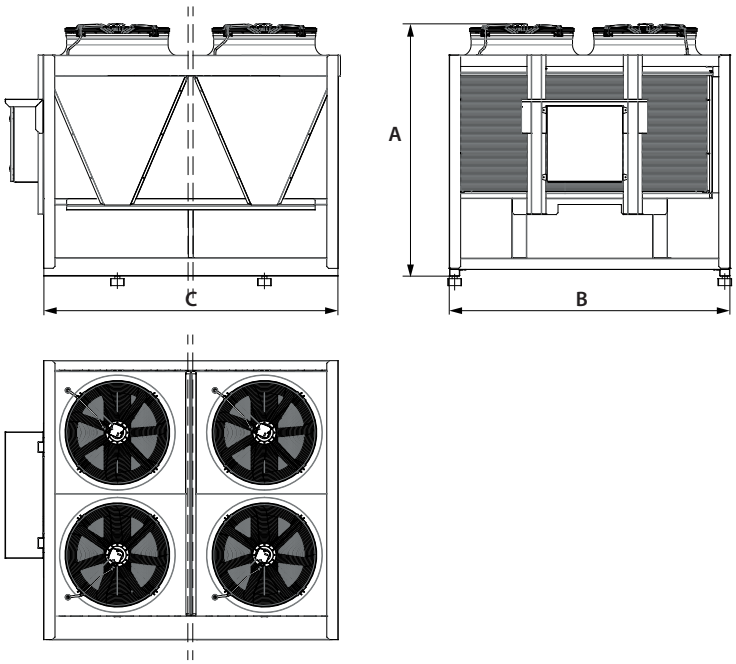
Several accessories are available:

1. Anti-vibration supports;
2. Double circuit kit;
3. Additional disconnectors for each motor;
4. Remote switch-on/switch-off management kit;
5. Resistance kit (if temperature ≤ - 20°C);
6. Modbus kit.
7. Axitop

PERFORMANCE SPECIFICATIONS

■ *For combinations with the evaporating units contact the headquarters.*

DIMENSIONS



		CMV 8041	CMV 8081	CMV 8121	CMV 8161	CMV 8201
Dimensions and weights						
A	mm	2010	2010	2010	2010	2010
B	mm	2220	2220	2220	2220	2220
C	mm	2385	4765	7145	9525	11905
Empty weight	kg	900	1800	2700	3600	4500

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WTE

Dry Cooler

Cooling capacity 3 ÷ 500 kW

- **Simple to use and install**
- **Wide range of powers**
- **Easy to handle and transport**
- **Can be installed both horizontally and vertically**



GENERAL FEATURES

— Simple to use and install;
— Excellent value for money;
— Easy to handle and transport;
— Up to 3 units can be stacked depending on the model (to be requested at time of order);
— Can be installed both horizontally and vertically (models with ø 500 mm and ø 630 mm fans – available on request).

FEATURES

Structure

— They are designed for outdoor installation and therefore manufactured with technologies and materials that guarantee resistance to atmospheric agents;
— Coils with compact staggered geometry, copper pipes and corrugated or mechanically expanded aluminium louvers;
— The version with polyurethane resin pre-painted louvers is also available for greater resistance to corrosion in aggressive environments;
— All coils are tested at a maximum pressure of 16 bar;
— The shoulders of the coils are integrated into the structure and designed to avoid any pipe breakage due to vibrations related to transport or functioning;
— Copper collectors with welded connections closed to prevent impurities and moisture from getting into the circuits.

Fans

Latest generation axial fans all compliant with ErP regulation and IP54.
All the machines are supplied with wired and tested fans, the following diameters of fans are available ø: 350, 500, 630 (three-phase AC motors only), 800, 1000 (990) mm.
Different sound levels can be had for each fan diameter:
— Standard (B);
— Silenced (S);
— Super silent (E).

The motors can have AC or EC technology, for three-phase AC motors it is possible to choose the electrical type of connection: star (Y) or delta (D)

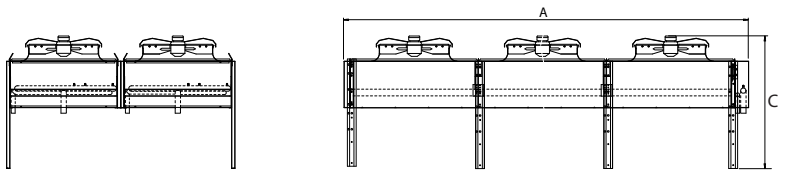
CONTROL

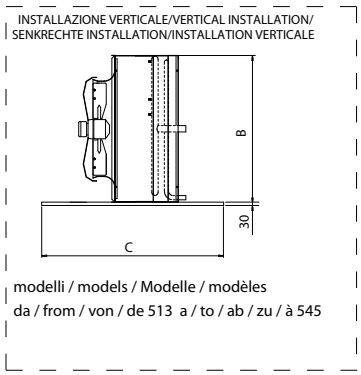
The electrical panel with terminal board or with adjustment is always present.
For space reasons, the models with 350 mm diameter fans feature a junction box.
The regulators used are of high efficiency and low consumption, the types of adjustments available are:
— Phase cut for AC fans
— With electronic processor for EC versions

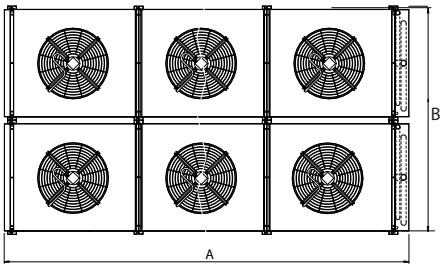
ACCESSORIES

Several accessories are available:
1. Anti-vibration supports;
2. Coil connection kit;
3. Double circuit kit (only for single row machines)
4. Additional disconnectors for each motor;
5. Remote switch-on/switch-off management kit;
6. Resistance kit (if temperature ≤ - 20°C);
7. Modbus kit;
8. Axitop (only for 800 mm diameter fans).

DIMENSIONS







WTE fans diameter Ø 500

		WTE°5013	WTE°5023	WTE°5033	WTE°5043	WTE°5063	WTE°5083
Horizontal installation							
A	mm	1400	2345	3290	4230	3290	4230
B	mm	833	833	833	833	1666	1666
C	mm	1080	1080	1080	1080	1080	1080
Empty weight	kg	72	128	185	289	354	467
Vertical installation							
A	mm	1400	2345	3290	4230	-	-
B	mm	839	839	839	839	-	-
C	mm	870	870	870	870	-	-
Empty weight	kg	72	128	185	289	-	-

WTE fans diameter Ø 800

		WTE°8013	WTE°8023	WTE°8033	WTE°8043	WTE°8063
Horizontal installation						
A	mm	1920	3600	5260	3600	5260
B	mm	1240	1240	1240	2390	2390
C	mm	1385	1385	1385	1385	1385
Empty weight	kg	169	331	487	642	954
Vertical installation						
A	mm	1320	3590	5250	3600	5260
B	mm	1232	1232	1232	2390	2390
C	mm	1061	1061	1061	1560	1560
Empty weight	kg	169	331	487	642	954

WTE fans diameter Ø 1000

		WTE°1014	WTE°1024	WTE°1034	WTE°1044	WTE°1064	WTE°1084
Horizontal installation							
A	mm	2560	4860	7170	9460	7170	9460
B	mm	1260	1260	1260	1260	2430	2430
C	mm	1750	1750	1750	1750	1750	1750
Empty weight	kg	247	467	772	990	1602	2060
Vertical installation							
A	mm	2560	4860	7170	9460	7170	9460
B	mm	1260	1260	1260	1260	2505	2505
C	mm	1075	1750	1750	1750	1560	1560
Empty weight	kg	247	467	772	990	1602	2060

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WTR

Dry Cooler

Cooling capacity 56 ÷ 350 kW

- **V-Shape model with single row of fans**
- **Wide range of powers**
- **Maximum height clearance 1.6 mt**



GENERAL FEATURES

— V-Shape model with single row of fans;
— Very compact and lowered structure;
— Maximum height clearance 1.6 mt;
— can be transported via container;
— Easy to handle and transport;

FEATURES

Structure

— They are designed for outdoor installation and therefore manufactured with technologies and materials that guarantee resistance to atmospheric agents;
— Coils with compact staggered geometry, copper pipes and corrugated or mechanically expanded aluminium louvers;
— The version with polyurethane resin pre-painted louvers is also available for greater resistance to corrosion in aggressive environments;
— All coils are tested at a maximum pressure of 16 bar;
— The shoulders of the coils are integrated into the structure and designed to avoid any pipe breakage due to vibrations related to transport or functioning;
— Copper collectors with threaded brass connections or flanged on request, adequately protected for transport.
— Adiabatic "Spray System" systems with running water nozzles (cheaper but less efficient);
— Aluminium "Adiabatic Panels" system with closed water management and control system (very efficient system with a 10% maximum amount of evaporated water).

Fans

— Latest generation axial fans all compliant with ErP regulation and IP54;
— All machines are supplied with wired and tested fans;
— Fans diameter ø: 800 mm;
— Fans with a diameter of ø 800 mm are all three-phase (T) and there can be from 2 to 7 per machine;
— Different sound levels: standard (B), silenced (S) or extra-silenced (E);
— The motors can have AC or EC technology;
— For three-phase AC motors it is possible to choose the electrical type of connection: star (Y) or delta (D).

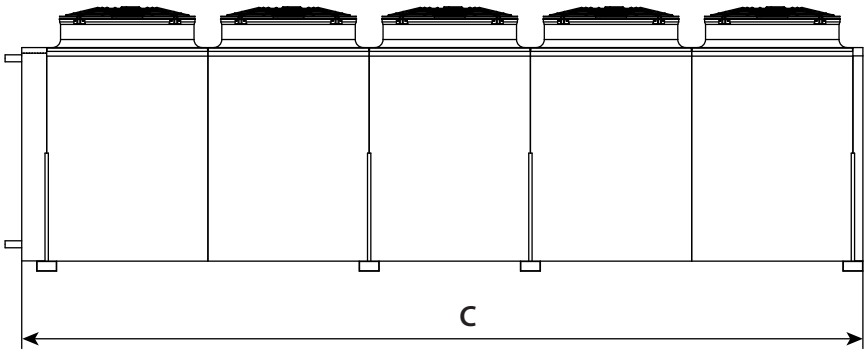
CONTROL

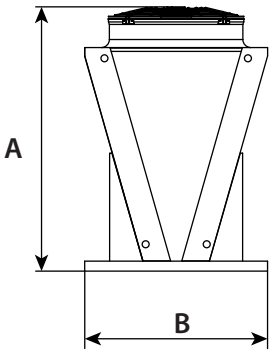
The electrical panel with terminal board or adjustment is always present and can be installed on the collector side (standard) or on the opposite side.
The regulators used are of high efficiency and low consumption.
The types of available adjustments are: phase cut for AC fans and with electronic processor for EC fans.

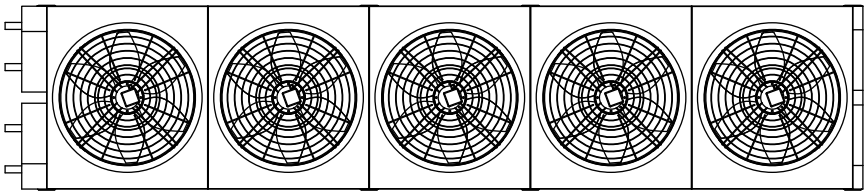
ACCESSORIES

Several accessories are available:
1. Anti-vibration supports;
2. Coil connection kit;
3. Additional disconnectors for each motor;
4. Remote switch-on/switch-off management kit;
5. Resistance kit (if temperature ≤ - 20°C);
6. UV lamp kit (only for adiabatic "Spray System" system);
7. Modbus kit.
8. Axitop

DIMENSIONS







		WTR°8023	WTR°8024	WTR°8033	WTR°8034	WTR°8043	WTR°8044	WTR°8053	WTR°8054	WTR°8063	WTR°8064	WTR°8073	WTR°8074
Dimensions and weights													
A	mm	1590	1590	1590	1590	1590	1590	1590	1590	1590	1590	1590	1590
B	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
C	mm	2150	2150	3120	3120	4090	4090	5060	5060	6030	6030	7000	7000
Empty weight	kg	383	432	563	637	743	841	923	1046	1171	1341	1278	1448

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WDR

Dry Cooler

Cooling capacity 90 ÷ 430 kW

- **V-Shape model with double row of fans**
- **Ideal machine to manage two-circuit systems completely independently and precisely**
- **Very solid and reliable structure**
- **Maximum height clearance 2.2 mt**



GENERAL FEATURES

— V-Shape model with double row of fans;
— Very solid and reliable structure;
— Maximum height clearance 2.2 mt;
— can be transported via container;

FEATURES

Structure

— They are designed for outdoor installation and therefore manufactured with technologies and materials that guarantee resistance to atmospheric agents;
— Coils with compact staggered geometry, copper pipes and corrugated or mechanically expanded aluminium louvers;
— The version with polyurethane resin pre-painted louvers is also available for greater resistance to corrosion in aggressive environments;
— All coils are tested at a maximum pressure of 16 bar;
— The shoulders of the coils are integrated into the structure and designed to avoid any pipe breakage due to vibrations related to transport or functioning;
— Copper collectors with threaded brass connections or flanged on request, adequately protected for transport;
— Adiabatic "Spray System" systems with running water nozzles (cheaper but less efficient);
— Aluminium "Adiabatic Panels" system with closed water management and control system (very efficient system with a 10% maximum amount of evaporated water).

Fans

— Latest generation axial fans all compliant with ErP regulation and IP54;
— All machines are supplied with wired and tested fans;
— Fans diameter ø: 800 mm;
— All fans with three-phase motors (T) there can be from 4 to 10 per machine;
— Different sound levels: standard (B), silenced (S) or extra-silenced (E);
— The motors can have AC or EC technology;
— For three-phase AC motors it is possible to choose the electrical type of connection: star (Y) or delta (D).

CONTROL

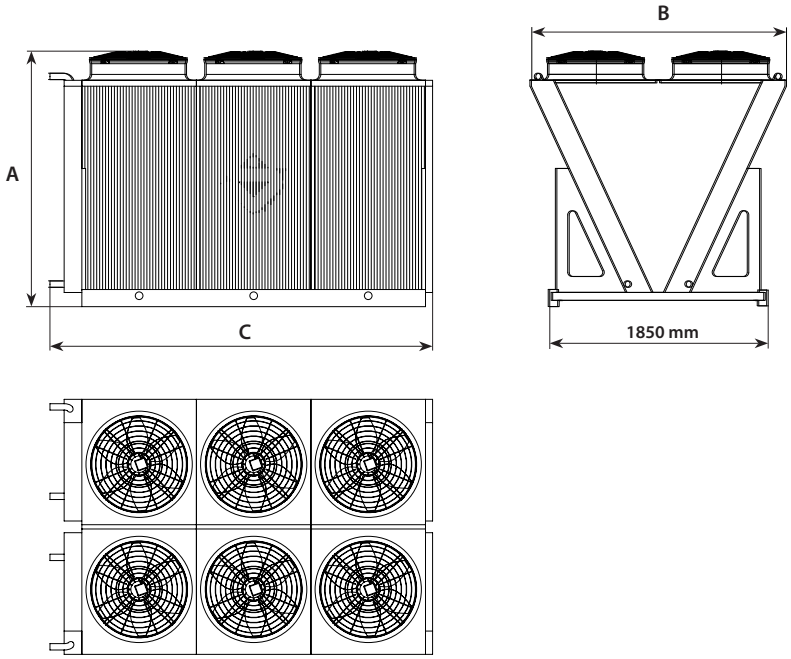
— The electrical panel with terminal board or adjustment is always present and can be installed on the collector side (standard) or on the opposite side;
— The regulators used are of high efficiency and low consumption;
— The types of available adjustments are: phase cut for AC fans and with electronic processor for EC fans;
— The two banks can be managed separately with independent electric control board and adjustment (ideal solution for two-circuit systems)

ACCESSORIES

Several accessories are available:

1. Anti-vibration supports;
2. Coil connection kit;
3. Additional disconnectors for each motor;
4. Remote switch-on/switch-off management kit;
5. Resistance kit (if temperature ≤ - 20°C);
6. UV lamp kit (only for adiabatic "Spray System" system).

DIMENSIONS



		WDR°8043	WDR°8044	WDR°8063	WDR°8064	WDR°8083	WDR°8084	WDR°8103	WDR°8104
Dimensions and weights									
A	mm	2150	2150	2150	2150	2150	2150	2150	2150
B	mm	2160	2160	2160	2160	2160	2160	2160	2160
C	mm	2150	2150	3120	3120	4090	4090	5060	5060
Empty weight	kg	725	798	1098	1216	1425	1571	1776	1958

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WGA

Dry Cooler

Cooling capacity180 ÷ 1100 kW

- **V-Shape model with double row of fans**
- **Ideal machine to manage two-circuit systems completely independently and precisely**
- **Very solid and reliable structure**



GENERAL FEATURES

— V-Shape model with double row of fans;
— Very solid and reliable structure;
— Maximum height clearance 2.5 mt;
— Can be transported in specific containers.

FEATURES

Structure

— They are designed for outdoor installation and therefore manufactured with technologies and materials that guarantee resistance to atmospheric agents;
— Coils with compact staggered geometry, copper pipes and corrugated or mechanically expanded aluminium louvers;
— The version with polyurethane resin pre-painted louvers is also available for greater resistance to corrosion in aggressive environments;
— All coils are tested at a maximum pressure of 16 bar;
— The shoulders of the coils are integrated into the structure and designed to avoid any pipe breakage due to vibrations related to transport or functioning;
— Copper collectors with threaded brass connections or flanged on request, adequately protected for transport;
— Adiabatic "Spray System" systems with running water nozzles (cheaper but less efficient);
— Aluminium "Adiabatic Panels" system with closed water management and control system (very efficient system with a 10% maximum amount of evaporated water).

Fans

— Latest generation axial fans all compliant with ErP regulation and IP54;
— All machines are supplied with wired and tested fans;
— Fans diameter ø: 800 e 1000 (990) mm;
— All fans with three-phase motors (T) there can be from 4 to 10 per machine;
— Different sound levels: standard (B), silenced (S) or extra-silenced (E);
— The motors can have AC or EC technology;
— For three-phase AC motors it is possible to choose the electrical type of connection: star (Y) or delta (D).

CONTROL

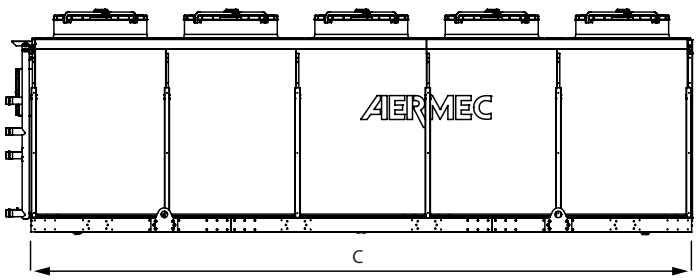
— The electrical panel with terminal board or adjustment is always present and can be installed on the collector side (standard) or on the opposite side;
— The regulators used are of high efficiency and low consumption;
— The types of available adjustments are: phase cut for AC fans and with electronic processor for EC fans;
— The two banks can be managed separately with independent electric control board and adjustment (ideal solution for two-circuit systems)

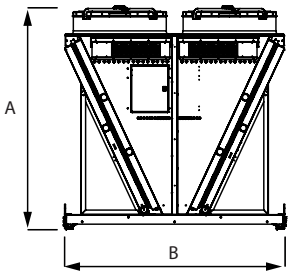
ACCESSORIES

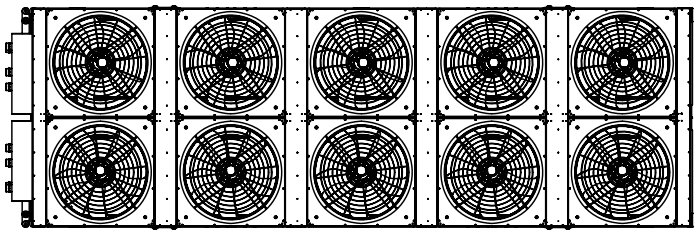
Several accessories are available:

1. Anti-vibration supports;
2. Coil connection kit;
3. Additional disconnectors for each motor;
4. Remote switch-on/switch-off management kit;
5. Resistance kit (if temperature ≤ - 20°C);

DIMENSIONS







		WGA°8063	WGA°8064	WGA°8083	WGA°8084	WGA°8103	WGA°8104	WGA°8123	WGA°8124	WGA°8143	WGA°8144	WGA°8163	WGA°8164
Dimensions and weights													
A	mm	2410	2410	2410	2410	2410	2410	2410	2410	2410	2410	2410	2410
B	mm	2448	2448	2448	2448	2448	2448	2448	2448	2448	2448	2448	2448
C	mm	4320	4320	5730	5730	7140	7140	8550	8550	9960	9960	11370	11370
Empty weight	kg	1600	1700	2000	2150	2500	2700	2850	3100	3650	4000	4200	4550

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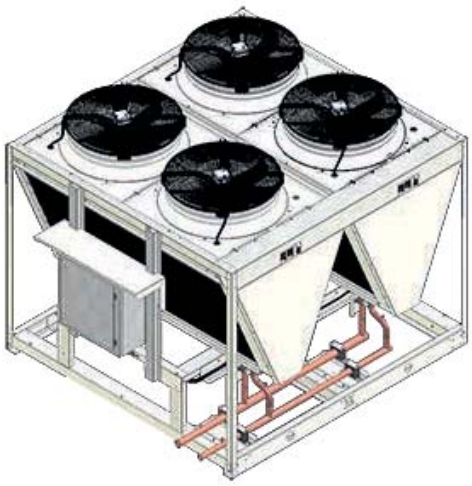
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WMV

Dry Cooler

Cooling capacity 100 ÷ 950 kW

- **Modular machine with base unit composed by 2 "V" modules in series**
- **The power range can be extended by installing more than 5 base units in parallel**
- **Very solid and reliable structure**



GENERAL FEATURES

— Modular machine with base unit composed by 2 "V" modules in series;
— Very solid, compact and reliable structure;
— Maximum height clearance 2.0 mt;
— Can be transported via container (optimisation of transport costs);
— The power range can be extended by installing more than 5 base units in parallel.

FEATURES

Structure

— They are designed for outdoor installation and therefore manufactured with technologies and materials that guarantee resistance to atmospheric agents;
— The version with polyurethane resin pre-painted louvers is also available for greater resistance to corrosion in aggressive environments;
— All coils are tested at a maximum pressure of 16 bar;
— Copper collectors with grooved joint connections (Victaulic);
— Different collector configurations are available in order to manage mono and two-circuit systems (include the "Double circuit kit" for machines with up to 8 motors);
— Each "V" module is composed by two coils and two identical fans which repeat from 2 to a maximum of 10 times.
— Each "V" module can be electrically and hydraulically disconnected from the rest of the machine for maintenance without having to stop the whole system;

Fans

— Latest generation axial fans all compliant with ErP regulation and IP54;
— All machines are supplied with wired and tested fans;
— Available fan diameters ø: 800 mm;
— All fans with three-phase motors (T) there can be from 4 to 20 per individual machine;
— Different sound levels: standard (B), silenced (S) or extra-silenced (E);
— The motors can have AC or EC technology;
— For three-phase AC motors it is possible to choose the electrical type of connection: star (Y) or delta (D).

CONTROL

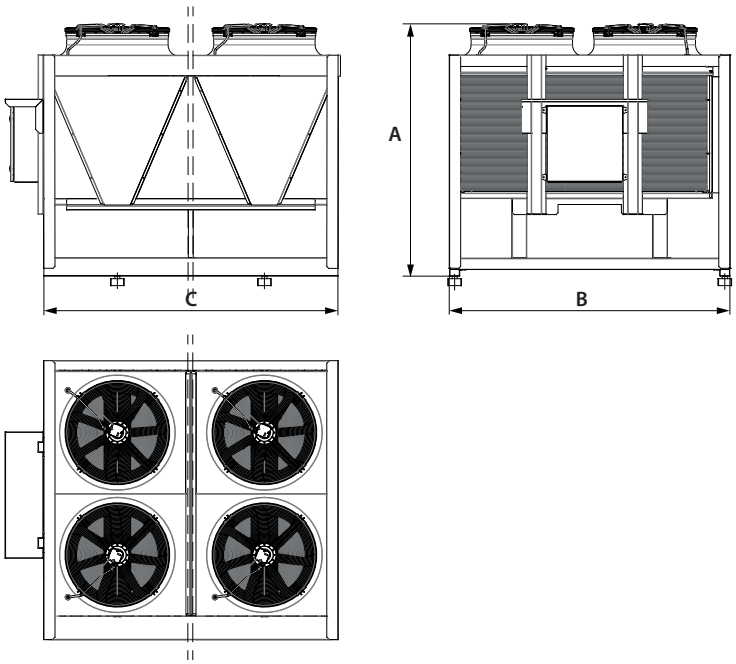
— The electric control board or with complete adjustment is always supplied and can be installed on both short sides of the machine;
— The regulators used are of high efficiency and low consumption;
— The types of available adjustments are: phase cut for AC fans and with electronic processor for EC fans;
— Possibility to manage two-circuit systems with independent electrical board and adjustment (select the "Double circuit kit" for models up to 8 motors).

ACCESSORIES

Several accessories are available:

1. Anti-vibration supports;
2. Double circuit kit;
3. Additional disconnectors for each motor;
4. Remote switch-on/switch-off management kit;
5. Resistance kit (if temperature ≤ - 20°C);
6. Modbus kit.
7. Axitop

DIMENSIONS



		WMV°8043	WMV°8044	WMV°8083	WMV°8084	WMV°8123	WMV°8124	WMV°8163	WMV°8164	WMV°8203	WMV°8204
Dimensions and weights											
A	mm	2010	2010	2010	2010	2010	2010	2010	2010	2010	2010
B	mm	2220	2220	2220	2220	2220	2220	2220	2220	2220	2220
C	mm	2385	2385	4765	4765	7145	7145	9525	9525	11905	11905
Empty weight	kg	1080	1190	2160	2380	3240	3570	4320	4760	5400	5950

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MEC-W

Water-cooled packaged air conditioners With radial fans

Capacities from 11 up to 55 kW



FEATURES

- Available in 5 different sizes
- All versions are supplied for use with R407C
- Metallic protective cabinet with rustproof polyester paint
- Double suction radial fans
- Electric motors with belt transmission
- Four row evaporator coil with copper tubes and aluminium fins
- Washable air filter
- Room thermostat with one or two contacts depending on the model
- Hermetic compressors
- Plate-type condenser
- Water flow control valve driven directly in relation to condensing pressure

ACCESSORIES

- BAS: Hot water coil with three rows of aluminium finned copper tubes.
- PL: Air distribution plenum comprising delivery grille with two rows of adjustable slats and internal lining of sound insulating material.

COMPATIBILITY OF ACCESSORIES

Mod.	307 W	507 W	757 W	1007 W	1507 W
BAS 30	•				
BAS 50		•			
BAS 75			•		
BAS 100				•	
BAS 150					•
BAS 200					
BAS 300					
PL 22	•				
PL 23		•			
PL 26			•		
PL 37				•	
PL 38					•
PL 39					
PL 300					•

TECHNICAL DATA

Mod. MEC		307 W	507 W	757 W	1007 W	1507 W
Cooling capacity	kW	11	18	29	35	55
Input power	kW	3,05	4,45	7,3	8,5	13,7
Water flow rate at 30 °C	l/h	2350	3740	5900	7270	11270
Pressure drops	kPa	38	65	56	65	53
Water consumption at 16 °C*	l/h	620	990	1550	1910	2970
Pressure drops*	kPa	3,5	6,7	5	5,3	5
Heating capacity (accessory BAS)	kW	25,28	46,61	58,01	78,59	113,68
Pressure drops (accessory BAS)	kPa	3,47	4,01	3,97	4,59	5,77
Coil rows	n.	4	4	4	4	4
Nominal air flow rate	m^3/h	2040	3400	5100	6800	10200
e Sound pressure	dB (A)	63	65,5	72,5	69,5	73,5
Motor power	kW	0,375	0,75	1,125	1,5	1,125
Speed	g/m (min.)	840	840	840	620	840
	g/m (max.)	1120	1120	1120	810	1120
Motor pulley diameter	mm (min.)	79	79	79	79	79
	mm (max.)	104	104	104	104	104
Fan pulley diameter	mm	130	130	130	180	130
Air flow rate	m^3/h (min.)	1600	2750	4100	5500	8200
	m^3/h (max.)	2400	4100	6000	8200	12000
Input current	A (230 V)	12,2	15,4	24,2	30,8	46,6
	A (400 V)	6	8,9	13,9	17,8	26,9
Peak current	A (230 V)	98	142	168	157	190
	A (400 V)	48	68	101	77	115

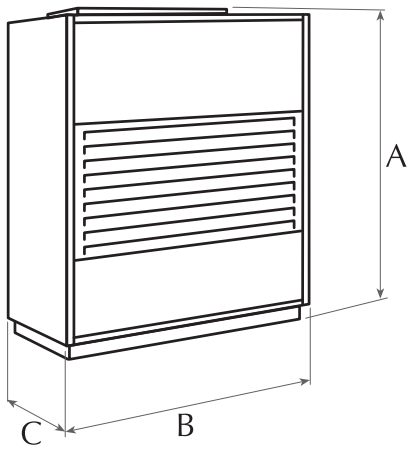
Power supply: 3~ 230V 50Hz; 3N~ 400V 50Hz.

Cooling
- room air temperature 27 °C D.B., 19 °C W.B.;
- condensing temperature 40 °C;
* condensing temperature 35 °C.

Heating
- water inlet temperature 85 °C;
- air intake temperature 15 °C;

Sound pressure measured in an 85 m3 semi-reverberant test chamber with reverberation time Tr = 0.5s..

DIMENSIONS (MM)



Mod.		307 W	507 W	757 W	1007 W	1507 W
Height	A	1290	1410	1680	1700	1745
Width	B	900	1040	1220	1450	1880
Depth	C	494	558	648	723	753
Weight	kg	147	184	273	335	484

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FW-R

Water-cooled air conditioners

Capacities from 2.9 up to 4.0 kW



TL 3
Mandatory accessory



TL3 Receiver board

TL3 wall-mounted receiver

DESCRIPTION

FW-R series integrated system air conditioners are independent appliances designed and built to create and maintain optimum room comfort conditions.
Discreetly and elegantly styled, these remarkably quiet units are ideal for installation in the home or commercial premises.
Equipped with a water-cooled condenser, FW-R appliances perform all typical cooling, dehumidification, ventilation and air filtration functions while offering particular benefits in terms of ease of application and installation.
Suitable also for winter operation when equipped with an electric heater or hot water coil; console air conditioners are able to provide different microclimates within the same room because each appliance can be adjusted independently; low running costs are assured by fast arrival at the required room temperature because of the low thermal inertia of the system; quiet operation and thermal efficiency are also promoted by the heat and sound insulation of the compressor bay.
All appliances are factory assembled and individually tested.

FEATURES

- High efficiency rotary compressor
- Compact size
- Quiet operation
- Automatic temperature adjustment
- Reduced water consumption
- Low electrical power consumption

ACCESSORIES

- TL3 : Mandatory accessory, remote controller, required for the operation of the unit
- BR: Armoured heating element with safety thermostat.
- BVR: Single row hot water coil.

Compatibility of accessories

	FW130R	FW160R
TL 3	•	•
BR 26	•	•
BVR 1	•	•

TECHNICAL DATA

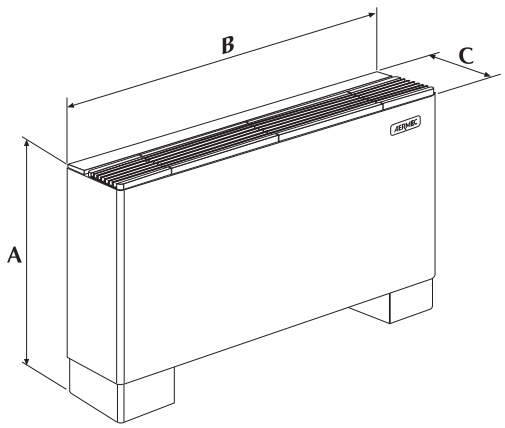
Mod.	FW	130R	160R
Cooling capacity	W (max.)	2900	4000
Energy Efficiency Class		A	A
EER		4.08	4.65
Humidity removed	l/h	1.78	1.78
Input power	W	710	860
Input current	A	3.55	4.02
Heating capacity with water coil (BVR1)	W	4350	5200
Water flow rate (BVR1)	l/h	600	600
Pressure drops (BVR1)	kPa	12,6	12,6
Heating capacity electric coil (BR26)	W	1200	1200
Fans	n.	2	2
Air flow rate	m^3/h (max.)	470	690
	m^3/h (med.)	390	525
	m^3/h (min.)	270	375
Fans speed	g/m (max.)	800	1140
	g/m (med.)	660	885
	g/m (min.)	500	665
Sound pressure	dB (A)	44	47,5
Water consumption at 30-35°C	l/h	586	804
Condenser pressure drops	kPa	22	40
Refrigerant	Tipo / GWP	R410A / 2088kgCO_2eq	
Refrigerant charge	g	750	830
Input nominal power consumption *	W	1120	1500
Nominal imput current *	A	4.97	6.65
Input current	A	18	32
Water connections	ø	1/2"F	1/2"F

Power supply = 230V ~ 50Hz.
Sound pressure measured in an 85 m3 semi-reverberant test chamber with reverberation time Tr = 0.5s
* In accordance with UNI EN-60335
Data declared in accordance with EN-14511

Cooling
- Room air temperature 27°C B.S. ; 19°C B.U.
- Entering water temperature 30°C
- Leaving water temperature 35°C
- Max speed

Heating (BVR1) :
- Room air temperature 20°C
- Entering water temperature 70°C
- Max speed

DIMENSIONS (MM)



		FW 130 R	FW 160 R
Height	A	723	723
Width	B	1121	1121
Depth	C	242	242
Weight	kg	63	67

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CWX-CWXM

Water motocondensing unit functioning only in cooling mode Internal installation

Power from 2.7 to 7.1kW



CWX_W



CWX



CWXM



EXC



IR remote control CWX_W



TL 3 accessory



PF accessory

VERSIONS

CWX condensing unit for cooling only MONOSPLIT
CWXM condensing unit cold only DUALSPLIT

FEATURES

CWX power module

- Available in 4 versions with different potentiality
- The versions are realised using R410A refrigerant gas
- Only cold operation with water condensation
- Outdoor unit with rotary compressor
- Refrigerant lines with flared connections
- Refrigerant lines up to 15m

CWXM power module

- Available in 2 versions with different potentiality
- The versions are realised using R410A refrigerant gas
- Only cold operation with water condensation
- Outdoor unit with rotary compressor
- Refrigerant lines with flared connections
- Refrigerant lines up to 10m

CWX_W indoor unit:

- Wall indoor unit for wall installation with infrared ray remote control supplied;
- Air flow louvers adjustable horizontally and motorised deflecting louvers, which can be activated by remote control to direct the outlet air flow vertically, with fixed (LV) or floating (SW) positions
- Extremely silent functioning
- Microprocessor control
- Programmable switch-on/off timer
- Air filter that can be easily removed and regenerated
- Night time well-being (SLEEP) function
- Functioning mode: cooling, dehumidification, ventilation only)
- Autorestart function after interruption of electricity
- Tangential fan with 3 directly selectable speeds
- Energy saving (ECONO) and fast cooling (TURBO) mode

EXC indoor unit:

- Indoor unit with 3-speed centrifugal fan with the possibility of varying the electric connection to increase the useful static pressure. PF (wired control panel) or TL3 (remote control) mandatory accessories, essential unit functioning
- Functioning mode: cooling, heating (with BV or RX accessories), dehumidification or automatic
- Programmable switch-on/off timer
- Cooling or fast heating (TURBO) mode
- Autorestart function after interruption of electricity
- Wide range of accessories for EXC indoor unit
- Microprocessor control
- Extremely silent functioning
- Air filter that can be easily removed and regenerated

TECHNICAL DATA

Indoor units			CWX250W	CWX350W	CWX500W	CWX700W	CWX350W+ CWX350W	CWX500W+ CWX500W
Power module			CWX250	CWX350	CWX500	CWX700	CWXM520	CWXM720
Cooling capacity		W	2750	3400	5200	6700	4826	7100
Total input power		W	637	778	1330	1860	1279	1780
Total input current		A	2,86	3,56	6,02	9,28	5,8	9,0
EER		W/W	4,32	4,37	3,91	3,60	3,77	3,99
Water flow rate at (in/out) 30°C/35°C		l/h	572	705	1091	1446	1066	1510
Water side pressure drops		kPa	21	32	74	125	68	127
Water flow rate at (in) 15°C		l/h	102	122	225	308	190	255
Refrigerant gas		Tipo/GWP	R410A / 2087,5 kgCO2eq					
Refrigerant gas load		kg	0,65	0,75	0,85	0,97	0,9	1,1
Nominal input power	(1)	W	1500	1500	2300	2650	2300	2650
Humidity removed		l/h	1,08	1,18	1,96	2,38	1,0	1,3
Air flow rate	max	m3/h	445	537	882	1010	537	882
	average	m3/h	428	501	828	935	501	828
	min	m3/h	404	467	776	842	467	776
Sound power (indoor unit)	max	dB(A)	51	51	56	58	51,0	56,0
	average	dB(A)	50	50	55	56	50,0	55,0
	min	dB(A)	49	48	53	54	48,0	53,0

Indoor units			EXC093	EXC123	EXC183	ECX243	EXC123+ EXC123	EXC183+ EXC183
Power module			CWX250	CWX350	CWX500	CWX700	CWXM520	CWXM720
Cooling capacity		W	2700	3500	5250	6700	5380	7100
Total input power		W	656	790	1422	1856	1314	1820
Total input current		A	2,95	3,65	6,44	9,29	6,0	9,1
EER		W/W	4,12	4,43	3,69	3,61	4,09	3,90
Water flow rate at (in/out) 30°C/35°C		l/h	573	715	1140	1455	1172	1510
Water side pressure drops		kPa	21	33	81	126	82	68
Water flow rate at (in) 15°C		l/h	102	125	235	311	200	255
Refrigerant gas		Tipo/GWP	R410A / 2087,5 kgCO2eq					
Refrigerant gas load		kg	0,65	0,75	0,85	0,97	0,9	1,1
Nominal input power	(1)	W	1500	1500	2300	2650	2300	2650
Humidity removed		l/h	1,02	1,31	2,16	2,45	1,0	1,3
Air flow rate	max	m3/h	480	520	950	960	520	950
	average	m3/h	370	400	840	830	400	840
	min	m3/h	280	310	650	610	310	650
Sound power (indoor unit)	max	dB(A)	46	47,5	60	56,5	47,5	60,0
	average	dB(A)	41	43	58,5	53,5	43,0	58,5
	min	dB(A)	37	37,5	55	49,5	37,5	55,0
Heating capacity (water coil)	(2)	W	2640	3040	4670	5690	3040	4670
Water flow rate (water coil)	(2)	l/h	231	266	409	497	266	409
Pressure drops (water coil)	(2)	kPa	14,0	17,0	36,0	12,0	17,0	36,0
Heating capacity (electric resistance)	(2)	W	1300	1650	1950	2200	1650	1950
Input current (electric resistance)	(2)	A	5,7	7,2	8,5	9,6	7,2	8,5

Power module			CWX250	CWX350	CWX500	CWX700	CWXM520	CWXM720
Sound power		dB(A)	52	56	59	59	59,0	59,0
Compressor		type	Rotary	Rotary	Rotary	Rotary	Rotary	Rotary
Refrigerant connections	Φ liquid	inch	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"
	Φ gas	inch	3/8"	1/2"	1/2"	5/8"	1/2"	1/2"
Refrigerant lines	Φ liquid	mm (inch)	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")	6,35 (1/4")
	Φ gas	mm (inch)	9,52 (3/8")	12,7 (1/2")	12,7 (1/2")	15,9 (5/8")	12,7 (1/2")	12,7 (1/2")
	Max pipe Length	m	15	15	15	15	10 + 10	10 + 10
	Max level difference	m	7	7	7	7	5	5
Hydraulic connections		F	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
Electric power supply		V ~ Hz	220-240V ~ 50Hz					

(1) The nominal input power, is the maximum electric input power of the system, in accordance with the Standard EN-60335-1 and EN-60335-2-40

(2) Ambient air 20°C d.b.; Water (in/out) 65°C/55°C; maximum speed

Nominal conditions (Cooling EN-14511):

- Room air temperature 27 °C D.B. ; 19 °C W.B.
- Water temperature (in/out) 30°C / 35 °C
- maximum speed
- pipe length 5m

ACCESSORIES

PF or TL3 mandatory accessories are essential for functioning of the EXC units:

PF: Control panel with electronic room thermostat for wall installation. It is a mandatory accessory as the EXC units are delivered without.

TL3: Infrared remote control with liquid crystal display to control all functions. Kit complete with recessed receiver. It is a mandatory accessory as the EXC units are delivered without.

AMP: Kit for wall/ceiling mounted installation.

BC: Auxiliary condensate drip tray.

BV: Hot water coil with 1 row.

DSC4: Condensate draining device when level differences must be exceeded.

GA: Intake grid with fixed louvers.

GAF: Intake grid with fixed louvers with filter.

GM: Flow grid with adjustable louvers.

MA: Tall protective cabinet.

MU: Universal protective Cabinet.

PA: Galvanised sheet steel intake plenum equipped with plastic flow fittings for circular section ducts.

PC: Steel sheet panel for closing the rear unit side.

PM: Galvanised sheet steel flow plenum, externally insulated, equipped with plastic flow fittings for ducts

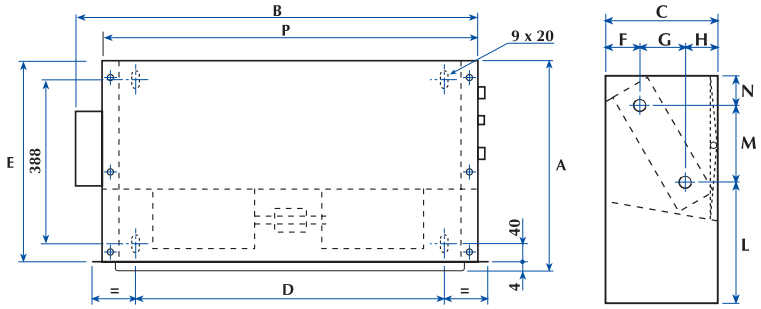
and circular sections.
RD: Straight flow fitting for ducting.
RDA: Straight intake fitting for ducting.
RP: 90° flow fitting for ducting.
RPA: 90° intake fitting for ducting.
RX: Armoured electrical coil with safety thermostat.
SE: External air damper with manual control.
SW3: Probe which enables operation of the unit only with temperature greater than 35 °C.
VCF: Kit composed of 3-way motorised valve and copper pipes and connections.
ZX: Feet for floor assembly for models with MA accessory, or recessed.

			Accessory compatibility			
		Notes	EXC093	EXC123	EXC183	EXC243
TL3		(1)	●	●	●	●
PF		(1)	●	●	●	●
AMP			●	●	●	●
BC	4	(2)	● (4)	● (4)	● (4)	● (4)
	5	(3)	●	●	●	
	6	(3)				●
	8		●	●	●	
	9					●
BV	132		●			
	142			●	●	
	162					●
DSC4			●	●	●	●
GA	32		●			
	42			●	●	
	62					●
GAF	32		●			
	42			●	●	
	62					●
GM	32		●			
	42			●	●	
	62					●
MA	32		●			
	42			●	●	
	62					●
MU	32		●			
	42			●	●	
	62					●
PA	32		●			
	42			●	●	
	62					●
PC	32		●			
	33		●			
	42			●	●	
	43			●	●	
	62					●
PM	32		●			
	42			●	●	
	62					●
RD	32		●			
	42			●	●	
	62					●
RDA	32		●			
	42			●	●	
	62					●
RP	32		●			
	42			●	●	
	62					●
RPA	32		●			
	42			●	●	
	62					●
RX	090		●			
	120			●		
	180				●	
	240					●
SE	30X		●			
	40X			●	●	
	80X					●
SW3			● (5)	● (5)	● (5)	● (5)
VCF	44		●	●	●	
	45					●
ZX	5		●	●	●	
	6					●
	7		●	●	●	
	8					●

(1) it is a mandatory accessory as the LC C units are delivered without.
(2) in combination with MA accessory;
(3) in combination with MU accessory;
(4) the VCF valve and the BC4 tray cannot be installed simultaneously on the same unit;
(5) to be coupled with the BV hot water coil.

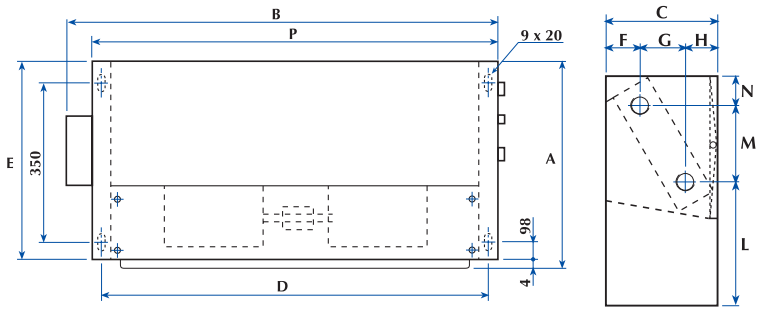
DIMENSIONAL DATA (MM)

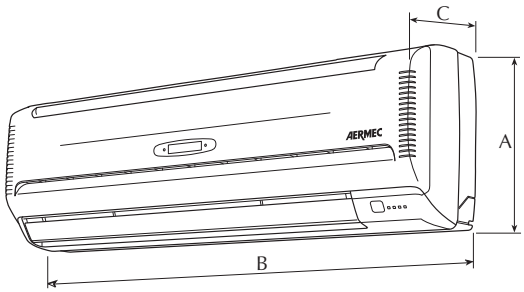
EXC093 - 123 - 183



EXC	093	123	183	243
A	457	457	457	562
B	823	1043	1043	1182
C	216	216	216	216
D	671	891	891	1102
E	453	453	453	558
F	41	41	41	41
G	101	101	101	107
H	74	74	74	68
L	260	260	260	273
M	144	144	144	253
N	49	49	49	32
P	753	973	973	1122
Weight (Kg)	23	26	27	37

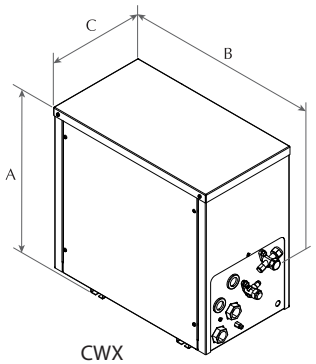
EXC243



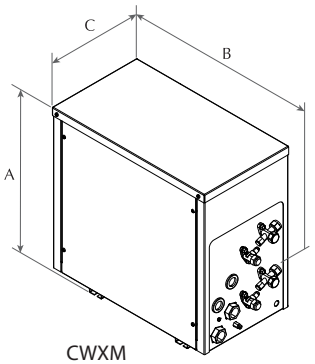


CWX_W

CWX_W		250	350	500	700
Height	A	298	305	360	360
Width	B	880	990	1172	1172
Depth	C	205	210	220	220
Weight	kg	11	12	18,5	20



CWX



CWXM

CWX		250	350	500	700
Height	A	450	450	450	570
Width	B	470	470	470	470
Depth	C	260	260	260	260
Weight	kg	32	35	38	49

CWXM		520	720
Height	A	585	585
Width	B	470	470
Depth	C	260	260
Weight	kg	41	52

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DML

Dehumidifier portable

Dehumidifying capacity 5,8 l/24h ÷ 19,9 l/24h

- **New R290 natural refrigerant gas.**
- **Compact, manoeuvrable and silent.**
- **Modern design to blend with all furnishing styles.**
- **Removes up to 19,9 litres of humidity in 24 hours.**
- **Function for drying clothes quickly.**



DESCRIPTION

The portable dehumidifiers of the DML range are ideal for dehumidifying domestic rooms, cellars, bathrooms and places where clothes are hung out to dry, reducing the humidity to optimum levels to avoid any risk of physical discomfort and damage to the building due to the formation of mould.
They fit in with any type of furnishings thanks to their compact, elegant design, and even have wheels so they can easily be moved from one room to another and installed where needed (plug & play).
Equipped with a specific tray for collecting the humidity removed from the room during operation.
The on-board control panel with led display and indicator lights, allows you to set the required temperature set-point easily and accurately.

FEATURES

Operation

The dehumidifier takes in the excess humidity via the recovery grille and releases humidity-free air, thereby ensuring a healthier, more comfortable environment.
In addition, its functions enable easy control of the humidity level, keeping it constant over time.

Special blue fin coil

Unlike normal batteries, this special blue epoxy coating is able to protect the heat exchanger against rust and corrosion, in areas where the air has a high salt content.



DML 100 - 120

— New R290 natural refrigerant gas.
— On-board control panel with led display and indicator lights.
— Visual display of the humidity setting and that read in the room.
— Relative humidity setting between 80% and 35%.
— Particularly quiet operation.
— Regenerable air filter easy to remove and clean.
— Alarm signal for filter cleaning.
— Alarm signal for condensate discharge tray full or badly positioned.
— Possibility to continuously drain off the condensate without using the tray supplied.
— Self-diagnosis function.
— Auto switch-off function: the unit stops operating when the condensate discharge tray is full or badly positioned, or when it has reached the defined work set-point.
— Auto-restart function.

DML 200

— New R290 natural refrigerant gas.
— On-board control panel with led display and indicator lights.
— Visual display of the humidity setting and that read in the room.
— Relative humidity setting between 80% and 35%.
— Particularly quiet operation.
— Regenerable air filter easy to remove and clean.
— Alarm signal for filter cleaning.
— Alarm signal for condensate discharge tray full or badly positioned.
— Possibility to continuously drain off the condensate without using the tray supplied.
— Self-diagnosis function.
— Auto switch-off function: the unit stops operating when the condensate discharge tray is full or badly positioned, or when it has reached the defined work set-point.
— Auto-restart function.
— Anti-freeze function.
— 3-speed fan, to meet every possible need.
— Timer for programming switch-off and switch-on.

ACCESSORIES AS STANDARD

DML100-120

— Wheels

— Cable fastener clamp

DML200

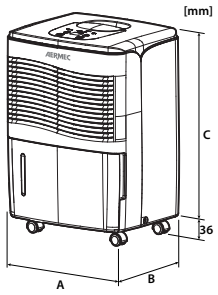
— Condensate discharge coupling

PERFORMANCE SPECIFICATIONS

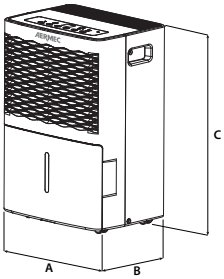
		DML100	DML120	DML200
Nominal performance (1)				
Dehumidifying capacity	l/24h	10,1	12,0	19,9
Input power	W	210	210	340
Input current	A	1,3	1,3	1,6
Nominal performance (Standard EN 810) (2)				
Dehumidifying capacity	l/24h	5,8	6,7	12,0
Electric data				
Rated power input (3)	W	250	250	390
Rated current input (3)	A	1,5	1,5	2,6
Hourly energy consumption	kWh/60min	0,2	0,2	0,3
Compressor				
Type	type	Reciprocating		Rotary
Refrigerant	type		R290	
Refrigerant charge	g	50	60	80
Potential global heating	GWP		3	
Equivalent CO_2	t	0,15	0,18	0,24
Fan				
Type	type		Axial	
Air flow rate				
Nominal	m^3/h	90	90	-
Maximum	m^3/h	-	-	140
Average	m^3/h	-	-	130
Minimum	m^3/h	-	-	120
Sound power				
Nominal	dB(A)	53,0	53,0	-
Maximum	dB(A)	-	-	52,0
Average	dB(A)	-	-	51,0
Minimum	dB(A)	-	-	49,0
Sound pressure (4)				
Nominal	dB(A)	41,0	41,0	-
Maximum	dB(A)	-	-	42,0
Average	dB(A)	-	-	41,0
Minimum	dB(A)	-	-	39,0
Condensate drainage basin				
Capacity	l	1,5	1,5	3,2
Power supply cable				
Type of power supply cable	Type		Schuko	
Power supply				
Power supply			220-240V ~ 50Hz	

(1) Indoor air temperature 30°C D.B. / 27°C W.B.
(2) Indoor air temperature 27°C b.s./21°C b.u. (Tested according to EN 810)
(3) Tested according to EN 60335.
(4) Sound pressure measured in semi anechoic chamber at a distance of 1 m from the source.

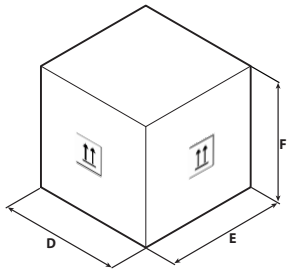
DIMENSIONS AND WEIGHTS



DML100-120



DML200



Carton Box Example

		DML100	DML120	DML200
Dimensions and weights				
A	mm	310	310	340
B	mm	243	243	250
C	mm	400	400	495
D	mm	345	345	421
E	mm	286	286	303
F	mm	437	437	525
Net weight	kg	12,00	12,00	13,00
Weight for transport	kg	13,00	13,00	15,00

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DMH_DMV

Dehumidifiers

Cooling Capacity 2,5kW ÷ 6,2kW
Heating Capacity 2,8kW ÷ 6,2kW



DMH220 / DMH220C
DMH360 / DMH360C



DMV220

- **Better performance compared to traditional dehumidifiers**
- **Reduced consumption**
- **Prevents condensation on the floor surface**

Dehumidifiers are refrigerant cycle machines combined with radiant air-conditioning systems, from which they draw a certain water flow rate to increase the dehumidification efficiency and reduce electricity consumption.
The cooling systems employ chilled water at temperatures between 15°C and 20°C, which is enough to take the rooms to the desired temperature, but not suitable for dehumidification. To lower the latter, you would need water at 7°C, resulting in a reduction in the performance of the water chiller compared to when the water is produced at 15-20°C.
Water-cooled refrigerant cycle dehumidifiers are used to keep the air humidity at optimal values (55-65%) in rooms, with the following benefits compared to other systems:

- They employ the chilled water available in the radiant panel system;
- They are used to process the air without modifying its temperature and, therefore, without affecting the operation of the radiant panels and their adjustment system.

STRUCTURE: The galvanised sheet metal panels, lined on the inside with a soundproofing polyethylene covering.

FILTERING SECTION: Synthetic filtering baffle th. 12 mm made with a galvanised sheet metal frame, efficiency class G3, can be removed from the front.

COOLING CIRCUIT: consisting of a R134a alternative refrigerant compressor, freon filter, expansion capillary, evaporator and condenser with copper pipes and continuous louvered fin louvers, with hydrophilic treatment and aluminium frame (for "-C" cooling versions, water-freon condenser).

HYDRAULIC CIRCUIT: with pre-treatment and post-cooling coils featuring with copper pipes and continuous louvered fin louvers, with hydrophilic treatment and aluminium frame; for "-C" cooling versions, plate water condenser (no post-cooling); stainless steel condensate drip tray extended to the whole treatment.

FAN: double intake centrifugal fan with blades facing forwards, with multi-speed motor directly coupled; 3 different electrical connections available (H/M/L) for the functioning speed; the manufacturer's default setting is medium (M) speed.

ELECTRIC CONTROL BOARD: it includes the recessed electronic board to adjust and control the built-in control panel with a keyboard and LCD display.

ACCESSORIES

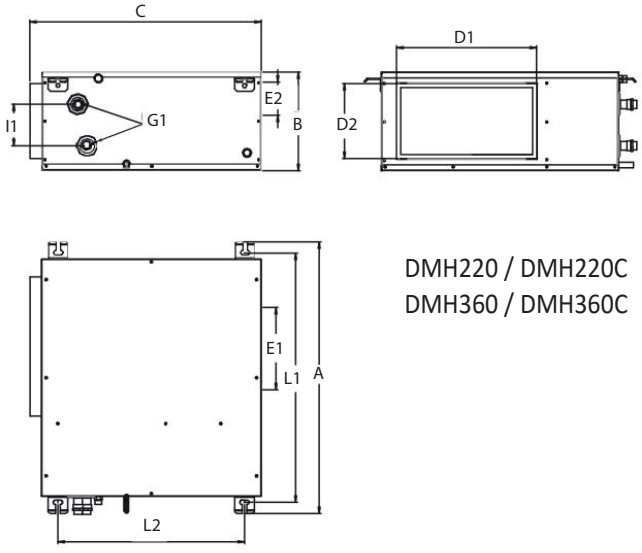
DMUM: ambient humidistat. Wall installation
DMWB: outer casing for vertical model. Vertical installation
DMFP: front panel for outer casing. Vertical installation

TECHNICAL DATA

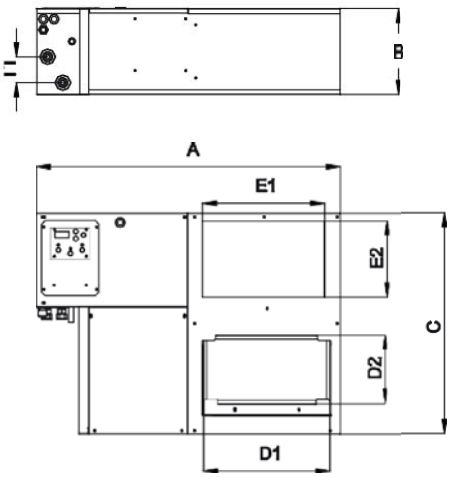
MODEL		DMH 220	DMH 220C	DMH 360	DMH 360C	DMV 220
Condensed humidity	l/24h	22	22	36	36	22
Power at the evaporator	W	1020	1020	1480	1480	1020
Power dissipated with water	W	870	1820	1540	2680	870
Nominal water flow rate	m3/h	0,34	0,39	0,46	0,55	0,34
Water pressure drop	kPa	3	3	10	10	3
Available sensitive power	W	--	840	--	1340	--
Electric power supply	V/ph/Hz			230/1/50		
Total input power	W	350	350	580	580	350
Input current	A	2,0	2,0	3,2	3,2	2,0
FAN						
Type				double intake centrifugal		
Available fan speeds				H / M / L		
Nominal fan setting		M	M	M	M	M
Air flow rate	m^3/h	220	220	360	360	220
Useful static pressure	Pa	20	20	20	20	0
COMPRESSOR						
Type				Reciprocating compressor		
Refrigerant	Tipo / GWP			R134a / 1430kgCO_2eq		
Load amount	g	340	340	400	400	340
OPERATING LIMITS						
Intake air temperature	°C			15 ÷ 32		
Water inlet temperature (dehumidifying mode)	°C			10 ÷ 21		
SOUND LEVEL						
Sound pressure level at 1 m	dB(A)	42	42	47	47	39

The performance refers to the nominal air flow rate under the following conditions:
Ambient air: 26°C BS, UR 65%; Water inlet temperature 15°C .

DIMENSIONS



DMH220 / DMH220C
DMH360 / DMH360C



DMV220

MODEL	DIMENSIONS [mm]											
	A	B	C	D1	D2	E1	E2	I1	L1	L2	G1	[kg]
DMH220 / DMH220C	693	250	623	337	172	210	77	115	635	370	1/2" F	35
DMH360 / DMH360C	793	270	623	437	192	250	95	115	735	370	1/2" F	40
DMV220	850	240	615	337	172	350	215	75 (*)	--	--	1/2" F	40

(*) pre-shearing for hydraulic and electrical connections on the side, rear and bottom panel

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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