





Designed for the future

# What's new?









Already fully compliant to LOT 21 – Tier 2

#### RXYSA-AV1 / AY1

#### p. 35

#### Designed for the future

- > Maximum flexibility allowing installation in rooms down to 10 m<sup>2</sup>
- Top sustainability over the entire lifecycle thanks to low GWP R-32 refrigerant and market-leading real life seasonal efficiency
- > Ergonomic serviceability and handling, thanks to wide access area to easily reach components within low-profile single fan casing
- Best-in-class design versatility with five sound pressure levels down to 39 dB(A) and automatic ESP setting up to 45 Pa allowing ductwork
- No leak check needed as in most applications total refrigerant charge is below 7.4 kgs



## L∞P by Daikin

#### Reuse refrigerant to avoid more than 150,000 kg of virgin gas being produced each year

- > Support the circular economy of refrigerants
- Make a sustainable choice by promoting units with Certified Reclaimed Refrigerant Allocation
- > Has zero impact on F-gas quota, as reclaimed and reused within Europe
- > Is administratively allocated to VRV units produced and sold in Europe

# Madoka



Silver RAL 9006 (metallic) BRC1H519S7



Black RAL 9005 (matte) BRC1H519K7



White RAL9003 (glossy) BRC1H519W7

## Wired remote controller

#### BRC1H52W/S/K

p. 170 With new functionalities

- > New symbollic view display option
- Save field settings and schedules on your phone and upload them to multiple controllers

## Online controller for VRV

#### BRP069C51

#### Intuitive online and voice control

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# > Control your system by voice, via Amazon Alexa or Google Assistant

- > Interfaces with home control systems
- > Available on all new R-32 VRV indoor units















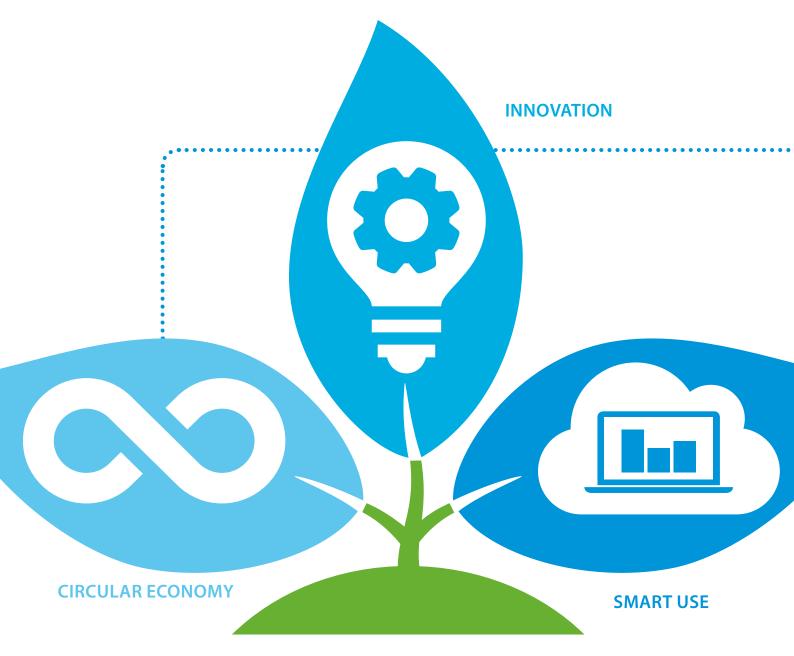
# Maximum flexibility, minimum concern; As it should be.

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# Creating a sustainable future together

Determined to reduce our environmental footprint, we aim to be CO<sub>2</sub>-neutral by 2050. A circular economy, innovation and smart use – these are the stepping stones on our path.

The time to act is now. Join us in creating a sustainable future for HVAC-R.



www.daikin.eu/building-a-circular-economy





Reusing refrigerant, avoiding more than 150,000 kg of virgin gas being produced each year.



Make a positive choice to reduce the environmental impact of your air conditioning systems. Exclusive to Daikin, a substantial amount of reclaimed refrigerant is now used in our units and:

- > Is independently certified as the same quality as virgin refrigerant
- > Has zero impact on F-gas quota, as reclaimed and reused within Europe
- > Is administratively allocated to VRV units produced and sold in Europe
- > Supports the development of a circular economy in our industry



#### Reuse refrigerant and turn waste into an asset

- > Create your own circular economy and reduce costs
- > Portable unit for easy transport
- > Optimum purification

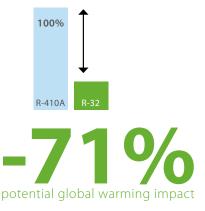




# Striving to become the lowest CO<sup>2</sup> equivalent manufacturer







# Introducing the lower GWP refrigerant R-32 on VRV 5

- > Offer high real-world seasonal efficiencies
- > Variable Refrigerant Temperature for high seasonal efficiency





# Maximise efficiency 24/7 by deploying unique auto cleaning filters

- > Available on the Round flow cassette and concealed ceiling units
- Automatic filter cleaning ensures high efficiencies and low maintenance costs because the filter is always clean

# 10 class unit for well insulated and smaller rooms

> Minimised energy use and maximum comfort as the indoor is adjusted to the room's capacity need





## Control, monitor and optimize 24/7





- > Direct control over your energy use
- > Compare with different sites to track abnormalities



# Factor in experts' advice to continuously optimise system efficiency

 Enable predictive maintenance to ensure optimum operation and uptime



# Stay in control no matter where you are

- > Prevent unneccessary energy use by remote control of your system
- > Intuitve voice control

# reasons why VRV is unique in the market



#### Leader in sustainability

- NEW > VRV 5: Completely new and dedicated R-32 mini VRV design
  - · Less refrigerant charge
  - · Higher efficiency
  - Lower CO<sub>2</sub> equivalent
  - > L∞P by Daikin: the creation of a circular economy of refrigerants
  - Saves over 150,000 kgs of virgin refrigerant being produced every year



#### **Efficiency**

- > Variable Refrigerant Temperature for high seasonal efficiency
- > Round flow cassette and concealed ceiling units with auto cleaning filter
- > The best partner for your BREEAM, LEED or Well project











BLUEVOLUTION



#### Comfort

- > Variable Refrigerant Temperature preventing cold draughts in cooling thanks to high outblow temperatures
- > True continuous heating during defrost
- > Presence and floor sensors direct the air flow away from persons, while ensuring an even temperature distribution
- > Auto cleaning filters to ensure optimum air quality





#### Reliability

- > Refrigerant cooled PCB
- > Most extensive testing before new units leave the factory
- > Widest sales network with all spare parts available in Europe
- > Preventive maintenance via Daikin Cloud Service
- > Auto cleaning filters to further enhance reliability thanks to clean air-filters
- > True technical cooling



#### Design

- > Widest ever range of cassette panels
- Available in white and black
- Sleek designer panel range
- > Daikin Emura, unique iconic design
- > Fully flat cassette, fully integrated in the ceiling



## **Controls**

- NEW > Voice control via Amazon Alexa and Google Assistant through BRP069C51 online controller
  - > Madoka: a sleek wired remote controller with intuitive touch button control
  - > Intelligent Touch manager: A cost-effective mini BMS integrating all Daikin products
  - > Easy integration in third party BMS via BACnet, LonWorks, Modbus, KNX
  - > Dedicated control solutions for applications such as technical cooling, shops, hotels, ...
  - > Daikin Cloud Service for online control, energy monitoring, comparison of multiple sites and predictive maintenance





#### Installation

- > Automatic refrigerant charge and refrigerant containment check
- > Unique 4-way blow ceiling suspended cassette (FXUQ)
- > Plug & play Daikin Air Handling Unit
- > VRV configurator software for the fastest commissioning, configuration and customisation
- > Outdoor unit display for quick on-site settings and detailed error readouts for improved customer support



#### Inventor

- > Market leader of VRV systems since 1982
- > Over 90 years of expertise in heat pump technology
- > Designed for and produced in Europe
- > Innovator setting the market standard with technologies such as Variable Refrigerant Temperature, continuous heating, ...





7-segment display







#### For every application a solution

- > Heat recovery for simultaneous cooling and heating
- > Maximum flexibility for geothermal applications with water-cooled systems
- > Hot and cold climate solutions offering efficient cooling up to 52°C and heating down to -25°C
- > Space saving mini VRV solutions, offering the most compact VRV
- > The invisible VRV, a unique solution when the outdoor unit must be compact and completely invisible
- > Replacement solutions to replace existing systems in the most cost-effective way



# Which VRV

# system offers me the best solution?

## Heat recovery or heat pump? VRV Heat recovery

**Additional** credits for green building certificate

North



Extracted heat is used to deliver free hot water and heating







> Simultaneous heating AND cooling from one

- > "Free" heating and hot water production by
- transferring heat from areas requiring cooling
- > Maximum individual comfort in all areas
- > Technical cooling down to -20°C
- > Running costs of VRV IV heat recovery system can be 30 to 40% lower compared to water fan coil system\*

#### Components:



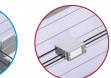
Outdoor unit



Indoor unit



3-pipe refrigerant piping



Single and multi BS boxes: allows the individual switching of indoor units between heating and cooling

## VRV Heat pump

> For either heating **OR** cooling operation from one system

#### **Components:**



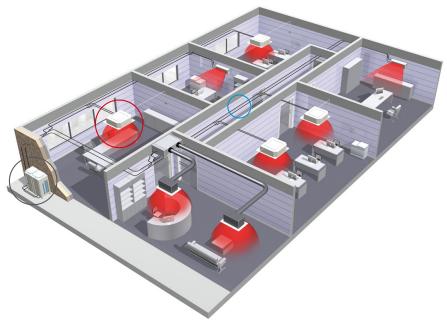
Outdoor unit



Indoor unit



2-pipe refrigerant piping



<sup>\*</sup> According to the Franklin + Andrews construction economics

## Air cooled or water cooled?

#### Air Cooled

- > Fast and easy to install; no need for additional components
- > Low maintenance costs
- > Operation range from 25°C~52°C
- > Can be installed both outdoors and indoors
- > Up to 54HP capacity for one system

#### Components:







Indoor unit



Refrigerant piping



#### Water Cooled

- Suitable for high rise and large buildings because of the nearly unlimited possibilities of water piping
- > Not affected by outdoor temperature/climate
- > Reduce CO<sub>2</sub> emmisions thanks to the use of geothermal energy as a renewable energy source
- > Allows heat recovery in the entire building thanks to the storage of energy in the water circuit
- > Lower refrigerant levels thanks to the limited distance between outdoor and indoor units

#### Components:



Indoor unit



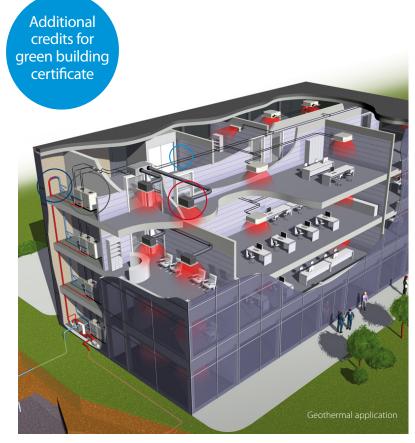
Refrigerant piping



Outdoor unit



(Geothermal) water loop



# VRV total solution

Typically, many buildings today rely on several separate systems for heating, cooling, air curtain heating and hot water. As a result energy is wasted. To provide a much more efficient alternative, VRV technology has been developed into

## a total solution managing up to

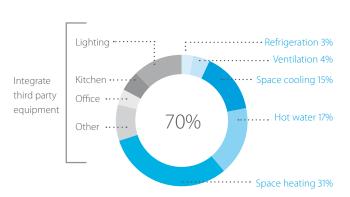
70%

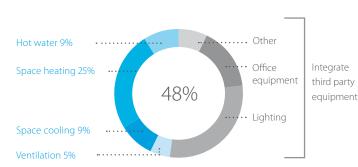
of a buildings energy consumption giving large potential to cost saving.

- → Heating and cooling for year round comfort
- Hot water for efficient production of hot water
- Underfloor heating /cooling for efficient space heating/cooling
- Fresh air ventilation for high quality environments
- Air curtains for optimum air separation
- Controls for maximum operating efficiency
- Cooling for server rooms, telecom shelters, ... via VRV heat recovery or Sky Air units
- Refrigeration via our VRV based refrigeration units

#### Average hotel energy consumption

#### Average office energy consumption





# Offices Efficiency in the workplace

"Leading edge design in harmony with the construction and interior design."

Architect



Hospitality with economy

"With Daikin we could perfectly combine the authenticity of the hotel with the latest technology and comfort."

Owner of a 5-star hotel



"Together with Daikin's technical team we have optimised the design of our HVAC system, reducing investment levels and operational costs. Daikin has offered us access to the most up to date technology."

Retail shop representative

# Residential there is no place like home

"A cost effective, low energy consumption heat pump system for home owners, offering maximum comfort"













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# Unique

# variable refrigerant temperature



# The biggest leap since the inverter compressor

Thanks to its revolutionary variable refrigerant temperature technology (VRT), VRV IV+ continuously adjusts both the inverter compressor speed and the refrigerant temperature in cooling AND heating, providing the necessary capacity to meet the building load with the highest efficiency at all times!

- > Seasonal efficiency increased by 28%
- The first weather accommodating control on the market
- Customer comfort is assured thanks to higher outblow temperatures (preventing cold draughts)

#### How does it work?

#### **VRF** standard

Capacity is controlled only with the variation of the inverter compressor

#### Daikin VRV IV+

Variable Refrigerant Temperature control for energy saving in partial load condition.

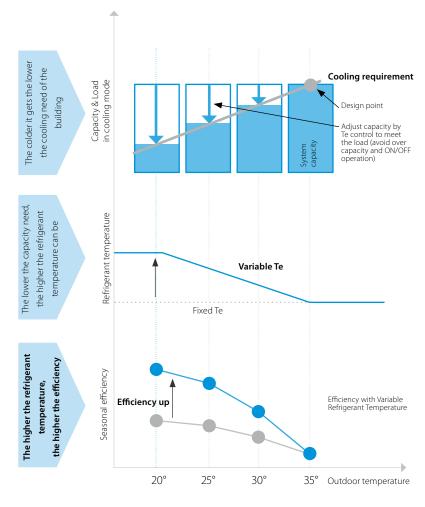
The capacity is controlled by the inverter compressor and variation of the evaporating (Te) and condensing (Tc) temperature of the refrigerant in order to achieve the highest seasonal efficiency.

Evaporating temperature can vary between 3 and 16° which is the widest on the market.



Calculate the benefit of variable refrigerant temperature for your project in our seasonal solutions calculator:

http://extranet.daikineurope.com/en/software/downloads/solutions-seasonal-simulator/default.jsp



## Success story

#### Real test: up to 46% less energy consumed

A field trial was carried out in a shop of a fashion chain in Germany and showed that the innovative Daikin VRV IV delivers dramatically better energy efficiency compared with previous models.

The trial results showed that the new VRV IV system consumed up to 60% less energy than the VRV III system, particularly during cooling. Overall energy savings during heating averaged 20%

#### How effective is the VRV IV<sup>+</sup> heat pump technology?

The trial demonstrated that by using air, an infinitely renewable and free energy source, the VRV IV+ system provides a complete and environmentally sustainable solution for heating, cooling and ventilation in commercial applications. The trial also showed that only by monitoring climate control systems carefully and intelligently businesses can identify and control energy waste.

Contact Daikin for more infomation about monitoring services.

# 8 Different modes to maximise efficiency and comfort

For maximum energy efficiency and customer satisfaction, the outdoor unit needs to adapt the evaporating/condensing temperature at the optimum point for the application.





## How to set the different modes?

Set up the main operation mode
of the system

## Define how the system reacts to changing loads



Step 1	Step 2	
Automatic*  Evaporating AND condensing temperature automatically selected according to ambient temperature  Quick reaction speed Top efficiency	Powerful	Where a quick increase of load is expected such as conference rooms.  Quick reaction speed to changing load has priority, with temporarily colder outblow as a result.
Quick reaction speed	Quick	Same as above but slower response than the powerful mode.
The perfect balance: Achieves top efficiency throughout the year, reacts quickly on the hottest days	Mild *	This mode would be suitable for most office applications and it is the factory set mode.  The perfect balance: Slower reaction speed with top efficiency
<b>High sensible</b> Target Te can be selected between 7°Cto 11°C	Powerful	Gives customer choice for fixing coil temperature which avoids cold draughts. A quick reaction speed to changing load has priority, with temporarily colder outblow as a result.
Quick reaction speed Top efficiency	Quick	Same as above but slower response.
	Mild	The air off temperature remains fairly constant. Suitable for low ceiling rooms.
Year round top efficiency	Eco	Coil temperature would not change due to fluctuating load. Suitable for computer or low ceiling rooms.
<b>Basic</b> Current VRF standard	No submodes	This is how most other VRF systems work and can be used for all general type of applications.

<sup>\*</sup> Factory setting

	VRV III 20HP (2 modules)	VRV IV 18HP (1 module)
Period	March 2012 - February 2013	March 2013 - February 2014
Avg (kWh/Month)	2.797	1.502
Total (KWh)	33.562	18.023
Total (€)	6.041	3.244
Yearly (operation cost/m² (€/m²)	9,9	5,3

46% savings = € 2.797

## Measured data

#### Fashion store Unterhaching (Germany)

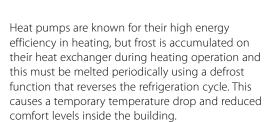
- > Floor space: 607m<sup>2</sup>
- > Energy cost: 0,18 €/kWh
- > System taken into account for consumption:
- VRV IV heat pump with continuous heating
- VIV IV Heat pump with continuous heating
- Round flow cassettes (without auto cleaning panel)
- VAM for ventilation (2x VAM2000)
- Biddle Air curtain.

# Real continuous heating

# during defrost mode

VRV IV<sup>+</sup> continues to provide heating even when in defrost mode, providing an answer to any perceived disadvantages of specifying a heat pump as a monovalent heating system.

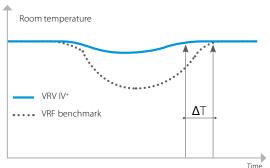
- Continuous indoor comfort ensured by the heat accumulating element and alternate defrost
- > An innovative alternative to traditional heating systems



Defrosting can take over 10 minutes (depending on the size of the system) and occurs mostly between -7 and +7°C when humidity levels in the air are high. Humidity freezes on the coil, resulting firstly in poor performance and eventually low comfort levels. The VRV IV+ has changed the heating paradigm by providing heat even during defrost operation thus diminishing the temperature drop indoors and providing comfort at all times.







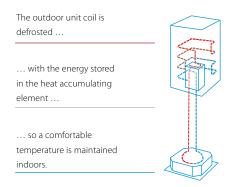
#### How does it work?

#### **UNIQUE** Heat accumulating element

For the VRV IV<sup>+</sup> heat pump single unit systems a unique heat-accumulating element is used. This element, based upon phase change material, provides the energy to defrost the outdoor unit.

#### Alternate defrost

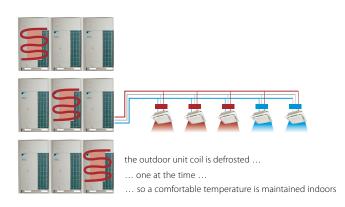
On all our multi unit systems only 1 outdoor coil is defrosted at a time, ensuring continuous comfort during the whole process.



#### Available on:

Heat pump	
RYYQ8-20U	

Water cooled VRV has no defrost cycles



#### Available on:

Heat pump	Heat recovery	Replacement VRV
RYYQ16-54U	REYQ10-54U	RXYQQ16-42U
		RQCEQ280-848P3

# VRV Configurator

Software for simplified commissioning, configuration and customisation

- > Graphical interface
- Manage systems over multiple sites in exactly the same way
- > Retrieve initial settings

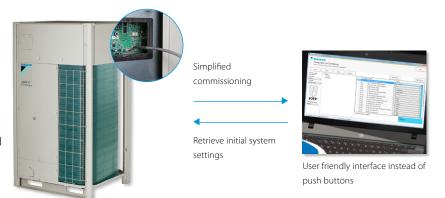




## Configurator software for simplified commissioning

The VRV configurator is an advanced software solution that allows for easy system configuration and commissioning:

- > less time is required on the roof configuring the outdoor unit
- multiple systems at different sites can be managed in exactly the same way, thus offering simplified commissioning for key accounts
- initial settings on the outdoor unit can be easily retrieved.



# 7-segment display

# for quick and accurate error diagnosis

Outdoor unit display for quick on-site settings and easy read out of errors together with the indication of service parameters for checking basic functions.

- > easy-to-read error report
- clear menu indicating quick and easy on-site settings
- indication of basic service parameters to quickly check basic functions: high pressure, low pressure, frequency and operation time history of compressors, temperature of discharge/suction pipe.
- No need to unmount the big front panel of the unit thanks to the service access



#### Available on:

Heat recovery	Heat pump	Replacement VRV
REYQ-U	RYYQ-U	RXYQQ-U
	RXYQ-U	
	RXYSCQ-TV1 (only configurator, no 7 segment display)	
	RXYSQ-T8V/T8Y/TY1 (only configurator, no 7 segment display)	
	SB.RKXYQ-T(8) (only configurator, no 7 segment display)	

# core technologies

**D**/ patents



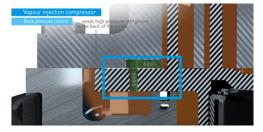
## UNIQUE

# Scroll compressor Back pressure control

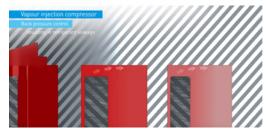
- Pressure port increases pressure below the scroll in low load operation, preventing refrigerant leak from the high to low pressure side
- > Increased partial load efficiency







The back pressure control port sends high pressure refrigerant to the back of the scroll, preventing refrigerant leakage



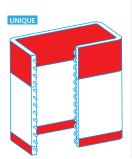
Refrigerant leak at low load with conventional compressor



## Refrigerant-cooled PCB

- Reliable cooling because it is not influenced by ambient air temperature
- Smaller switchbox for smoother air flow through the heat exchanger increasing heat exchange efficiency with 5%

6 patents



# UNIQUE

# 4-sided, 3-row heat exchanger

- > Heat exchange surface up to 50% larger
- > (up to 235m²), leading to 30% more efficiency

10 patents



## UNIQUE

# Predictive Control Function (PCF)

- > Reaching targets faster
- Reaching targets without overshooting, so there is no waste, resulting in improved efficiency

The large number of Daikin systems already in operation and which are monitored by our i-Net software put us in the unique position of being able to analyse this data and develop the predictive control function.

# **UNIQUE**DC fan motor

#### Outer rotor DC motor for higher efficiency

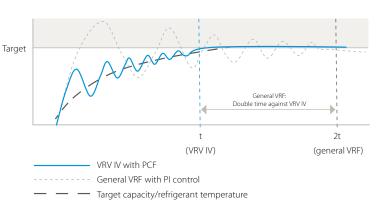
- Larger rotor diameter results in greater force for the same magnetic field, leading to better efficiency
- > Better control, resulting in more fan steps to match the actual capacity

#### Sine wave DC inverter

Optimizing the sine wave curve results in smoother motor rotation and improved motor efficiency.

#### DC fan motor

The use of a DC fan motor offers substantial improvements in operating efficiency compared to conventional AC motors, especially during low speed rotation.



#### **VRV IV: PCF**

Compressor works with predictive data for the control

> result: quick convergence to the target temperature and reduction of waste operation of the compressor

Half time against general VRF

General VRF: Pi control

Compressor works with feedback only for the control

 result: waste operation and longer time before reaching target set point

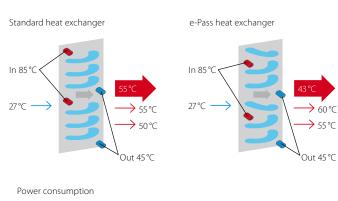
# Conventional motor with inner rotor Daikin outer rotor Rotor Stator Stator Rotor

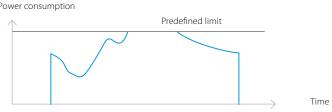
## E-Pass heat exchanger

Optimising the heat exchanger's path layout prevents heat being transferred from the overheated gas section to the sub-cooled liquid section which is a more efficient way to use the heat exchanger.

### I-demand function

Limit maximum power consumption.
The newly introduced current sensor minimizes the difference between the actual power consumption and the predefined power consumption.









VRV benefits	23
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Comfort guaranteed at all times	26
Great design flexibility	28
Fast installation and commissioning Easy servicing	30 30

# Drastically reducing running costs

- + Top reliability
- (+) Up to 6 times greater resistance against corrosion

#### BLUEVOLUTION

## Introducing R-32 refrigerant on VRV

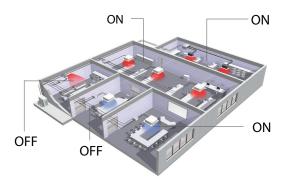
- > Lower Global Warming Potential (GWP): only 1/3rd of R-410A
- Lower refrigerant charge: 10% less compared to R-410A
- > Higher energy efficiency
- Single component refrigerant, easy to handle and recycle



Potential global warming impact

#### Precise zone control

VRV systems have low running costs because it permits each zone to be controlled individually. That is, only those rooms that require air conditioning will be heated or cooled, while the system can be shut down completely in rooms where no air conditioning is required.



## All inverter compressors

All inverter control compressors allow to control the refrigerant volume almost stepless. In this way the capacity perfectly matches the different loads in every room avoiding unnecessary energy use.

Additionally all inverter compressors also allow precise refrigerant temperature control, automatically adapting your VRV to your building and climate requirements, reducing running costs with 28%.

Even more, having no ON/OFF compressors, means total absence of high starting currents, which are being more and more limited by the grid operators and power suppliers.





# Duty Cycling extends operation life

The cyclical start-up sequence of multiple outdoor units systems equalises compressor duty and extends operating life.



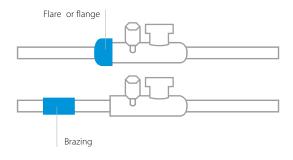
## Sequential Start

Up to 3 outdoor units can be connected to 1 power supply and can be turned on sequentially. This allows the number of breakers and their capacities to remain small and simplifies wiring (for models of 10HP or less).



# Top quality Only brazed connections

All flange and flare connections inside the unit have been replaced by brazing connections to ensure improved refrigerant containment. Also the connection of the outdoor in the main pipe is brazed.



### Anti Corrosion Treatment

Special anti corrosion treatment of the heat exchanger provides 5 to 6 times greater resistance against acid rain and salt corrosion.

The provision of rust proof steel sheet on the underside of the unit gives additional protection.

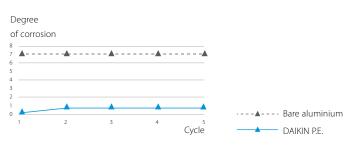
# An anti-corrosion heat exchanger cutaway view Hydrophilic film— Aluminium Corrosion-resistant Acrylic resin

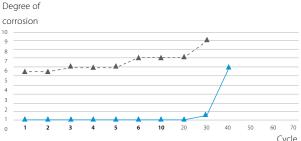
#### Performed tests:

- > VDA Wechseltest
- > Contents of 1 cycle (7 days):
- > 24 hours salt spray test SS DIN 50021
- > 96 hours humidity cycle test KFW DIN 50017
- y 48 hours room temperature & room humidity testing period: 5 cycles

#### Kesternich test (SO2)

- > contents of 1 cycle (48 hours) according to DIN50018 (0.21)
- > testing period : 40 cycles





# Comfort guaranteed

# Smart Control brings comfort

#### Stable room temperature

An electronic expansion valve, using PID (Proportional Integral Derivative) control, continuously adjusts the refrigerant volume in respond to load variations of the indoor units. The VRV system thus maintains comfortable room temperatures at a virtually constant level, without the temperature variations typical of conventional ON/OFF control systems.

Note: The graph shows the data, measured in a test room assuming actual heating load. The thermostat can control stable room temperature at  $\pm~0.5^{\circ}\text{C}$  from set point.

# Stable room temperature Time VRV SERIES (DAIKIN indoor unit (PID controlled)) ON/OFF controlled indoor unit (2.5HP)

#### No more cold draught

Automatic or manual adjustment of refrigerant temperature leads to higher outblow temperatures which avoid the cold draught coming from the indoor unit.

#### Available on all VRV IV units

# Variable Refrigerant Temperature Constant and high air discharge temperature

## Continuous heating

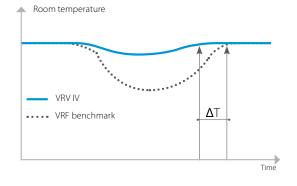
#### **During defrost**

- Indoor comfort not effected via the unique heat accumulating element or alternate defrost
- > The best alternative to traditional heating systems

# Available on REYQ-U, RYYQ-U, RXYQ-U and RXYQQ-U

## Back-up function

In the event of a compressor malfunction another compressor or outdoor unit will take over in order to maintain 8 hour interim capacity, allowing time for maintenance or repair while comfort remains quaranteed.





Coolina

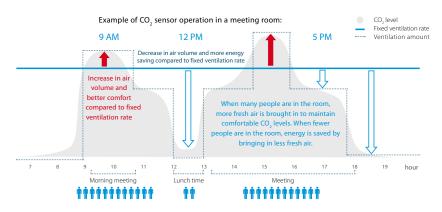
Single outdoor unit with multiple compressors



Multi outdoor unit system

# Prevent energy losses from over-ventilation with CO<sub>2</sub> sensor

Enough fresh air is needed to create an enjoyable environment, but ventilating constantly is leading to energy waste. Therefore an optional CO<sub>2</sub> sensor can be installed which switches off the ventilation system when there is enough fresh air in the room, thus saving energy.



# Low indoor unit operation sound level

Daikin indoor units have very low sound operation levels, **down to 19dB(A)**, making them ideal for sound sensitive area's as hotel bedrooms, etc...

db(A)	Perceived loudness	Sound
0	Treshold of hearing	-
20	Extremely soft	Rustling leaves
40	Very soft	Quiet room
60	Moderately loud	Normal conversation
80	Very loud	City traffic noise
100	Extremely loud	Symphonic orchestra
120	Threshold of feeling	Jet taking off

#### Daikin indoor units:



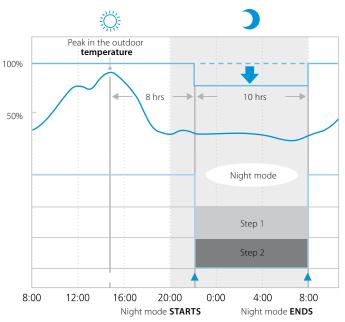


## Night quiet mode

For areas where there are stringent limitations to sound levels, the outdoor unit sound level can be automatically reduced to meet the requirement.

Capacity\* %
Load %
Operation Sound dBA

To manually set set the time for low noise operation you can use the external control adaptor DTA104A61/62/53.



Example for VRV IV heat pump, factory setting.

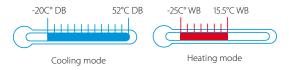
## Great

# design flexibility

## Wide operation range

#### Air cooled

The VRV system can be installed practically anywhere. VRV air cooled outdoor units can cool between -20°C BD and +52°C DB outdoor ambient and can be used as monovalent heating system between -25°C WB and +15.5°C WB.



With the technical cooling function, the operation range in cooling of the heat recovery system is extended from -5°C to -20°C  $^1$ , making it perfect for integrating server rooms.

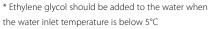
## Flexible piping design

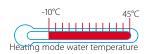
The long piping lengths, high level differences and small refrigerant piping allows for a design with little limitations and leaving maximum space for lettable space.

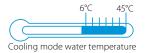
<sup>1</sup> Contact your local dealer for more information and restrictions

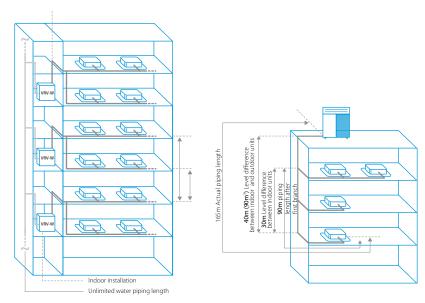
#### Water cooled

Standard water cooled outdoor units operation between 10°C & 45°C for both heating and cooling. In geothermal mode, the operation range is extended to -10°C\* during heating and 6°C during cooling. These units are not influenced by external conditions and function well in extreme climates.









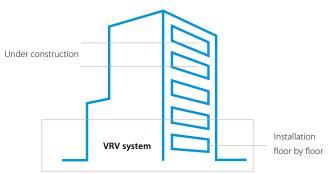
#### VRV IV example

	Air cooled	Water cooled
Total piping length	1000m	500m
Longest length actual (Equivalent)	165m (190m)	165m (190m)
Longest length after first branch	90m¹	40m (90m¹)
Level difference between indoor and outdoor units	90m¹	50m (40m²)
Level difference between indoor units	30m	30m

- $1\ Contact\ your\ local\ dealer\ or\ consult\ technical\ literature\ for\ more\ information\ and\ restrictions$
- 2 In case outdoor unit is located below indoor units

### Phased installation

Installation of the VRV system can be implemented floor by floor, so that sections of the building can be put into use very quickly, or enabling the air conditioning system to be commissioned and operated in stages, rather than on final completion of the project.



#### Indoor installation

#### Air cooled

#### Standard outdoor unit installed indoors

The VRV optimised fan blade shape increases output and reduces pressure loss. Together with the high ESP setting (up to 78.4 Pa), it makes VRV outdoor units ideal for indoor installation using ducts.

#### VRV IV i-series heat pump for indoor installation

The ultimate and unique solution from Daikin is to use the VRV IV i-series. This unit is optimised for indoor installation and is the most flexible solution, without the need for a large technical room to put the outdoor unit and it is complete invisible!

More details on page 62

# 78.4 Pa

#### Water cooled

- Seamless integration in the surrounding architecture as you cannot see the unit
- Highly suited for sound sensitive areas as there is no external operation sound
- Superior efficiency, even in the most extreme outside conditions, especially in geothermal operation



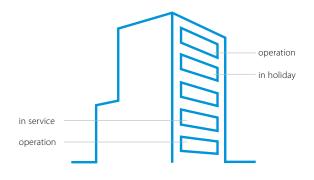
# Multiple tenants, one outdoor unit

The multi tenant function ensures that the entire VRV system does not shut down when the main power supply of an indoor is switched off.

This means that the indoor unit's main power supply can be turned off when a part of the building is closed or is being serviced without affecting the rest of the building.

#### 2 solutions according to the needs:

- Service setting, without additional hardware: for service execution within 24 hours
- PCB option: when tenants leave for a longer period (holiday) and the main power supply is shut down





# No structural reinforcement necessary

Thanks to the vibration-free and sufficient light construction of the outdoor units, floors do not need to be reinforced, reducing the overall cost of the building when compared to a chiller.



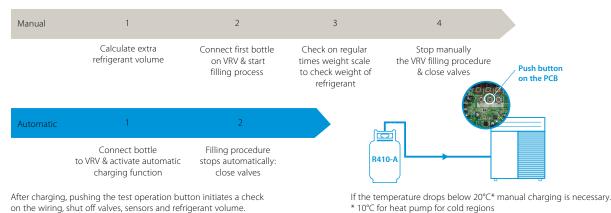
max. 398kg for a 20HP unit

# Fast installation and commissioning

# Easy servicing

## Automatic charging & testing

#### Efficient use of time



10% undercharged up to 25% capacity loss 33% more energy use OPTIMAL CHARGE = OPTIMAL EFFICIENCY Planned installation Real installation 64 m refrigerant piping 76 m refrigerant piping 0.5 ka calculation: 2.7 kg extra refrigerant 2.2 kg extra refrigerant required required in reality

## Compliance to F-gas regulation

#### Remote refrigerant containment check

Perform the refrigerant containment check remotely via intelligent Touch Manager.

When activating the refrigerant containment check, the unit switches into cooling mode and duplicates certain reference conditions based on memory data. The result indicates whether or not refrigerant leakage has occurred.

The refrigerant volume of the complete system is calculated based on the following data:

\* Available on REYQ-U, RYYQ-U, RXYQ-U, RQYQ-P, RXYQQ-U, RQCEQ-P3

- > Outdoor temperature
- Reference system temperatures
- Reference system pressures Refrigerant density
- Types and number of indoor units



Remotely set the time and start the refrigerant containment check when it is most convenient for you.



Connect to customer site via internet or 3G increasing customer satisfaction as there is no disruption to the air conditioning during business hours.



Check the report once the check has been done.

Available on REYQ-U, RYYQ-U, RXYQ-U. Next to remote checking, the function can also be activated on-site via a push button on the PCB.

## VRV configurator software

For simplified commissioning, configuration and customisation

Available on REYQ-U, RYYQ-U, RXYQ-U, RXYSCQ-TV1, RXYSQ-TY8V/T8Y/TY1, SB.RKXYQ-T(8) and RXYQQ-U





User friendly interface instead of push buttons

3 digit 7-segment display

## Compact design

The compact design of the outdoor units is sufficient to allow them to be taken up to the top of a building in a commercial elevator, overcoming site transportation problem, particularly when outdoor units need to be installed on each floor.



# Daikin unified REFNET piping

The unified Daikin REFNET piping system is designed for simple installation.

Compared to regular T-joints, where refrigerant distribution is far from optimal, the Daikin REFNET joints have specifically been designed to optimise refrigerant flow.

Daikin Europe N.V. advises only to use Daikin REFNET piping system.



REFNET joint



REFNET joint



T-joint



REFNET header

# Easy wiring - "Super Wiring" System

#### Simplified wiring

Shared use of wiring between indoor units, outdoor units and centralised remote control

- > Easy retrofit of centralised remote control
- > Impossible to make incorrect connections thanks to non polarity wiring
- > Sheated wire can be used
- > Unique total wiring length up to 2,000 m

#### Cross wiring check

The cross wiring check function warns operatives of connection errors in inter unit wiring and piping.

#### **Auto Address Setting Function**

Allows wiring between indoor and outdoor units, as well as group control wiring of multiple indoor units, to be performed without the bothersome task of manually setting each address.

<sup>\*</sup> auto adress setting fuction is not available for centralized operation





## **BLUEVOLUTION**

# VRV 5

VRV 5	33
Product overview	34
Outdoor units	37
Indoor units	38
Ceiling mounted cassette units FXFA-A - Round flow cassette FXZA-A - Fully flat cassette	38 39 41
Concealed ceiling units Auto cleaning filter for concealed ceiling units FXDA-A - Slim concealed ceiling unit FXSA-A - Concealed ceiling unit with medium ESP	42 42 43 44
Wall mounted units  FXAA-A - Wall mounted unit	45 45

# **VRV** 5 Product overview

#### VRV 5 outdoor unit overview Residential indoor units HRV units VAM 4 5 6 Model **Product name** Lower CO2 equivalent and market-leading flexibilit Air - cooled heat pump > Compact single fan design saves space and is easy to install Market-leading serviceability UNIQUE > Standard total system connection ratio limit: 50 ~ 130% and handling Reduced CO2 equivalent thanks to the use of lower GWP R-32 re-0 0 0\* 0\* RXYSA-AV1 / AY1 frigerant and lower refrigerant charge Offering like-for-like R-410A flexibility 3~

### VRV 5 indoor unit overview



Capacity class (kW)

Type	Model	Pro	duct name	10	15	20 2	25 3	32 4	0 5	0	63	71	80	100	125	140
Ceiling mounted cassette	UNIQUE Round flow cassette	360° air discharge for optimum efficiency and comfort  > Auto cleaning function ensures high efficiency  > Intelligent sensors save energy and maximize comfort  > Flexibility to suit every room layout  > Lowest installation height in the market!  > Widest choice ever in decoration panel designs and colors	FXFA-A			•				•	•		•	•	•	
	UNIQUE Fully flat cassette	Unique design that integrates fully flat into the ceiling  > Perfect integration in standard architectural ceiling tiles  > Blend of iconic design and engineering excellence    Intelligent sensors save energy and maximize comfort  > Small capacity unit developed for small or well-insulated rooms  > Flexibility to suit every room layout	FXZA-A		•	•		•		•						
Concealed ceiling	Slim concealed ceiling unit	Slim design for flexible installation  Compact dimensions enable installation in narrow ceiling voids  Medium external static pressure up to 44Pa  Only grilles are visible  Small capacity unit developted for small of well-insulated rooms  Reduced energy consumption thanks to DC fan motor	FXDA-A	UNIC	QUE R-32	•				•	•					
	Concealed ceiling unit with medium ESP	Slimmest yet most powerfull medium static pressure unit on the market!  > Slimmest unit in class, only 245mm  > Low operating sound level  > Medium external static pressure up to 150Pa facilitates using flexible ducts of varying lengths  > Automatic air flow adjustment function measures the air volume and static pressure and adjusts it towards the nominal air flow, guaranteeing comfort	FXSA-A		•	•					•		•	•	•	•
Wall mounted	Wall mounted unit	For rooms with no false ceilings nor free floor space  > Flat, stylish front panel is more easy to clean  > Small capacity unit developted for small of well-insulated rooms  > Reduced energy consumption thanks to DC fan motor  > The air is comfortably spread up- and downwards thanks to 5 different discharge angles	FXAA-A		•	•					•					
Cooling capacity (kW) <sup>1</sup>			1.1	1.7	2.2 2	.8 3	3.6 4	.5 5	.6 7	7.1 8	3.0	9.0	11.2	14.0	16.0	
Heating capacity (kW) <sup>2</sup>			1.3	1.9	2.5	.2 4	1.0 5	.0 6	5.3	3.0	9.0	10.0	12.5	16.0	18.0	

- $(1) \ Nominal\ cooling\ capacities\ are\ based\ on:\ indoor\ temperature:\ 27^\circ CDB,\ 19^\circ CWB,\ outdoor\ temperature:\ 35^\circ CDB,\ equivalent\ refrigerant\ piping:\ 5m,\ level\ difference:\ 0m,\ property of the property$
- (2) Nominal heating capacities are based on: indoor temperature: 20°CDB, outdoor temperature: 7°CDB, 6°CWB, equivalent refrigerant piping: 5m, level difference: 0m



<sup>\*</sup> For sales availability refer to your local sales representative



#### VRV 5 indoor unit benefit overview Wall Ceiling mounted moun-Concealed ceiling units cassette units ted unit FXFA-A FXZA-A FXDA-A FXSA-A FXAA-A Home leave operation During absence, indoor comfort levels can be maintained Fan only The air conditioner can be used as fan, blowing air without cooling or heating The filter automatically cleans itself. Simplicity of upkeep means optimum Auto cleaning filter energy efficiency and maximum comfort without the need for expensive or (optional) (optional) time-consuming maintenance The presence sensor directs the air away from any person detected in the Floor and presence sensor room. The floor sensor detects the average floor temperature and ensures an even temperature distribution between ceiling and floor When starting to warm up or when the thermostat is off, the air discharge Draught prevention direction is set horizontally and the fan to low speed, to prevent draught. After warming up, air discharge and fan speed are set as desired Daikin indoor units are whisper quiet. Also the outdoor units are guaranteed Whisper quiet not to disturb the quiet of the neightbourhood Auto cooling-heating Automatically selects cooling or heating mode to achieve the set temperature changeover G1(2) (G3 (2) in case of auto cleaning Air filter Removes airborne dust particles to ensure a steady supply of clean air G1(2) G1 (2) panel) Allows humidity levels to be reduced without variations in room temperature Dry programme The air discharge of the indoor unit is specially designed to prevent air being Ceiling soiling prevention blown against the ceiling to prevent ceiling stains Possibility to select automatic vertical moving of the air discharge louvre, for Vertical auto swing uniform air flow and temperature distribution Fan speed steps Multiple fan speeds to select, to optimize comfort levels 3 2 5 + auto Individual louver control via the wired remote controller makes it simple Individual louver control to fix the position of each louver individually, to suit any new room configuration. Optional closure kits are available as well Online Controller Can control and monitor the status of your Daikin heating or air conditioning (BRP069C51) system & time Timer can be set to start and stop operation anytime on a daily or weekly Weekly timer hasis Infrared remote control Infrared remote control with LCD to remotely control your indoor unit • (1) • (1) • (1) • (1) • (1) Wired remote control Wired remote control to remotely control your indoor unit Only connectable to new BRC1H52W/S/K Centralised control Centralised control to to control several indoor units from one single point AUTO Auto-restart The unit restarts automatically at the original settings after power failure Self-diagnosis Simplifies maintenance by indicating system faults or operating anomalies Drain pump kit Facilitates condensation draining from the indoor unit Standard Standard Standard Standard Optional The indoor unit's main power supply can be turned off Multi tenant when leaving the building or for servicing purposes

<sup>(1)</sup> Must be combined with Madoka wired remote controller

<sup>(2)</sup> Filter grade category are an indication, filters are not certified.

# Best-in-class design versatility

## Indoor unit installation in rooms down to 10m<sup>2</sup>!

When using R-32 refrigerant in VRV systems additional measures need to be taken according to the product standard IEC60335-2-40 (Ed.6), in order to use the VRV system to it's full potential.

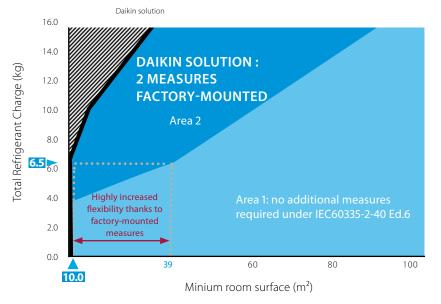
- > The product standard IEC60335-2-40 (Ed.6) specifies all information regarding the total refrigerant amount and minimum room surface, depending on the additional measures taken.
- > Area 1: Application area without any measures
  - Typically split and Sky Air systems fall in this area thanks to very low refrigerant charges.
  - A typical mini VRV installation, with 6.5kgs of refrigerant would require a minimum room surface of 39m² (1)
- > Area 2: Extended application area of VRV 5 including 2 factory-mounted measures.
  - The Daikin way, enabling to use the VRV system to it's full potential, with a minimum room surface down to 10.0m² (1)





**CB CERTIFIED BY SGS CEBEC** 

Overview of application surface in function of applied measures under IEC60335-2-40 (Ed.6), considering units are installed at minimum 1.8m height and above the lowest underground floor.



Reaction time of Daikin VRV 5 system

Application area without any measures

Extended application area of VRV 5

#### UNIQUE IN THE MARKET

•• Refrigerant charge for a typical mini VRV installation with 90~110m pipe length

 $The \ representation \ above \ is \ Daikin's \ interpretation \ of \ IEC60335-2-40 \ (Ed.6) \ and \ has \ no \ intention \ to \ replace \ in \ anyway \ existing \ legislation.$ 

#### Possible measures towards flammability

- > Manufacturers have the choice to implement zero, one or two measures
- > 3 types of measures are allowed:
  - Ventilation (natural or mechanical)
  - Shut-off valves
  - Alarm (local and maybe central)

DAIKIN SOLUTION, UNIQUE IN THE MARKET

#### The most flexible solution by Daikin

- > The most flexible solution: two measures, system integrated
  - No additional costs or calculations needed to implement measures in the field
  - No hassle or additional time needed when installing
  - No risk in errors thanks to Xpress selection software
- > Third party tested and approved





1.100 mm



#### **BLUEVOLUTION**

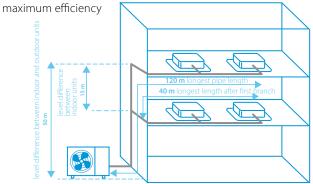
869mm

460 mm

## **VRV 5 S-series**

## Lower CO<sub>2</sub> equivalent and market-leading flexibility

- Reduced CO<sub>2</sub> equivalent thanks to the use of lower GWP R-32 refrigerant and lower refrigerant charge
- Top sustainability over the entire lifecycle, thanks to market leading real-life seasonal efficiency
- > Low-height single fan range
- > Easy to transport thanks to lightweight and compact design
- > Wide access area to easily reach all key components
- > Offering like-for-like R-410A flexibility
- > Specially designed indoor units for R-32, ensuring low sound and



**300 m** total piping length



Access all technical information on RXYSA-AV1 at <u>my.daikin.eu</u> or click here



Reduced CO<sub>2</sub> equivalent



RXYSA-AV/AY1

Like-for-like R-410A installation flexibility



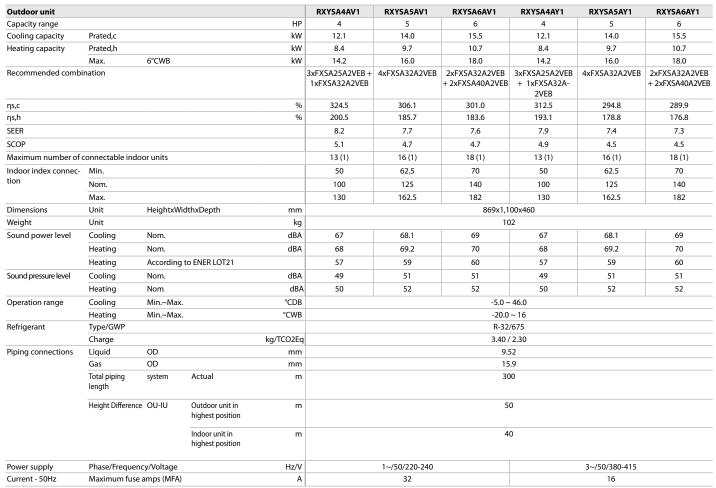
Only

to LOT 21 - Tier 2

Published data with real-life indoor units



Access all technical information on RXYSA-AY1 at <u>my.daikin.eu</u> or click here





# New round flow cassette



- Bigger louvers and new sensor logic further improves equal air distribution in the room
- > Widest ever choice in panels for cassette units, with up to 8 different panels



Black auto cleaning panel



Black designer panel

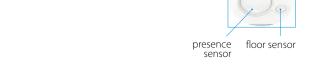


Full white standard panel



White designer panel

Comes with the known benefits: 360° air flow discharge and intelligent sensors



> Auto cleaning panels available in black and white





Auto cleaning filter

Dust can simply be removed using a vacuum cleaner without opening the unit.

\* Available as an option

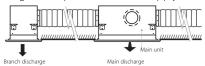


White panel

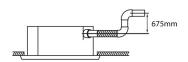
## Round flow cassette

## 360° air discharge for optimum efficiency and comfort

- > Optimised design for R-32 refrigerant
- Optional automatic filter cleaning results in higher efficiency & comfort and lower maintenance costs.
- Two optional intelligent sensors improve energy efficiency and comfort
- > Widest choice ever in decoration panels: Designer, standard and autocleaning panels in white (RAL9010) and black (RAL9005)
- Bigger louvers and unique swing pattern improve equal air distribution
- > Individual louver control: flexibility to suit every room layout without changing the location of the unit!
- > Lowest installation height in the market: 214mm for class 20-63
- > Optional fresh air intake
- > Branch duct discharge allows to optimize air distribution in irregular shaped rooms or to supply air to small adjacent rooms



> Standard drain pump with 675mm lift increases flexibility and installation speed







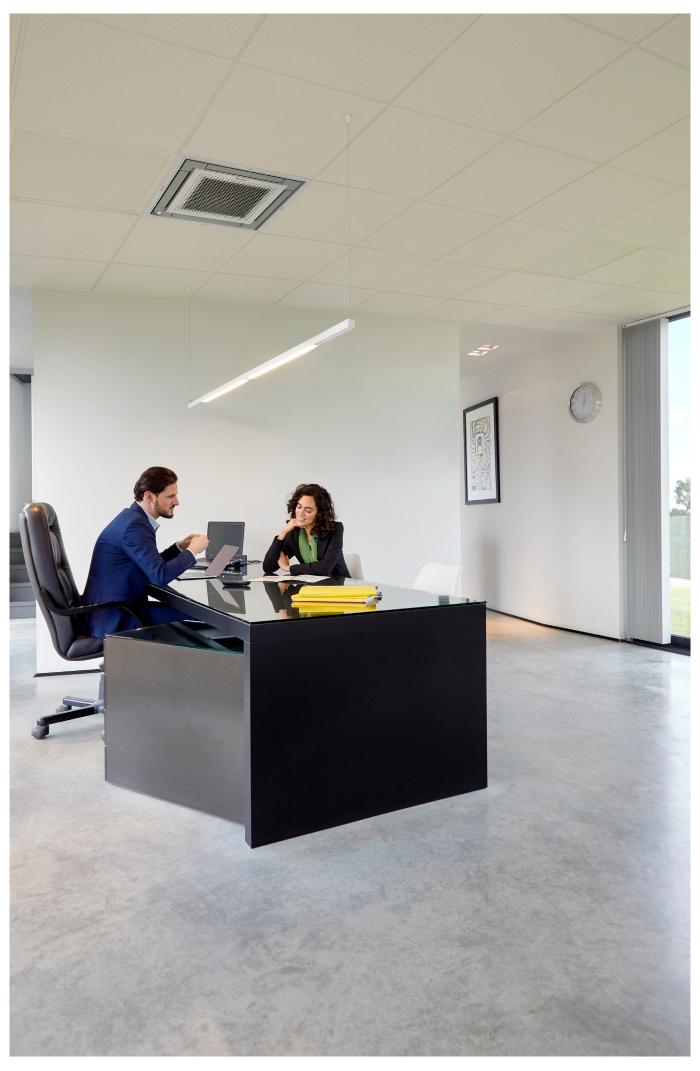
Black panel

Black design panel

White auto cleaning panel

Indoor unit				FXFA	20A	25A	32A	40A	50A	63A	80A	100A	125A			
Cooling capacity	Total capacity	at high fa	an speed	kW	2.20	2.80	3.60	4.50	5.60	7.10	9.00	11.20	14.00			
Heating capacity	Total capacity	at high fa	•	kW	2.50	3.20	4.00	5.00	6.30	8.00	10.00	12.50	16.00			
Power input - 50Hz	Cooling	at high fa		kW			0.04		0.05	0.06	0.09	0.12	0.19			
	Heating	at high fa		kW			0.04		0.05	0.06	0.09	0.12	0.19			
Dimensions	Unit	HeightxV	VidthxDepth	mm				204x840x	x840		246x84	0x840	288x840x840			
Weight	Unit			kg		18		19		21	24	ļ	26			
Casing	Material									Galvanised st	eel plate					
Decoration panel	Model					Sta	ndard	Auto d	leaning	vhite with grey louver panels BYCQ140EGF panels: BYCQ140EP - w	- white / BYCQ140EGI	FB - black	3 - black			
	Dimensions												50x950			
	Weight			kg			Standard panels: 5.5 / Auto cleaning panels: 10.3 / Designer panels: 6.5									
Fan	Air flow rate -	Cooling	At high fan speed	m³/min		12.8		14.8	15.1	16.6	23.3	28.8	33.0			
	50Hz	Heating	At high fan speed	m³/min		12.8		14.8	15.1	16.6	23.3	28.8	33.0			
Air filter	Туре				ĺ					Resin n	et					
Sound power level	Cooling	At high fa	an speed	dBA		49 (4)		51 (4)	)	53 (4)	55 (4)	60 (4)	61 (4)			
Sound pressure level	Cooling	L/ML/M/	MH/H	dBA	31/30/	29/29.5/	28 (4)	33/32/31/30	0/29(4)	35/34/33/32/30(4)	38/36/34/32/30(4)	43/41/37/34/30(4)	45/43/41/39/36(4)			
	Heating	L/ML/M/	MH/H	dBA	31/30/	29/29.5/	28 (4)	33/32/31/30	)/29 (4)	35/34/33/32/30(4)	38/36/34/32/30(4)	43/41/37/34/30(4)	45/43/41/39/36(4)			
Refrigerant	Type/GWP									R-32 / 6	75					
Piping connections	Liquid	OD		mm					6.	35		9.	.52			
	Gas	OD		mm		9.52				12.7		1:	5.9			
	Drain									VP25 (O.D. 32	/ I.D. 25)					
Power supply	Phase/Frequency/Voltage Hz/V 1~/50/60/220-240/220															
Current - 50Hz	Maximum fuse a	amps (MFA)	(1)	Α						6						
Control systems	Infrared remote	control								BRC7FA53	2F (2)					
	Wired remote co	ontrol								BRC1H52V	V/S/K					

(2) Must be combined is higher beautiful and the production on each combination, please refer to the electrical data drawing (3) \$60HAMMENT in please refer to the electrical data drawin





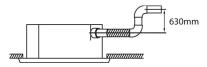
# **Fully flat cassette**

# Unique design in the market that integrates fully flat into the ceiling

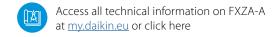
- > Optimised design for R-32 refrigerant
- Fully flat integration in standard architectural ceiling tiles, leaving only 8mm
- Remarkable blend of iconic design and engineering excellence with an elegant finish in white or a combination of silver and white
- > Two optional intelligent sensors improve energy efficiency and comfort
- > 15 class unit especially developed for small or well-insulated rooms, such as hotel bedrooms, small offices, etc.
- > Individual louver control: flexibility to suit every room layout without changing the location of the unit!



- > Optional fresh air intake
- > Standard drain pump with 630mm lift increases flexibility and installation speed



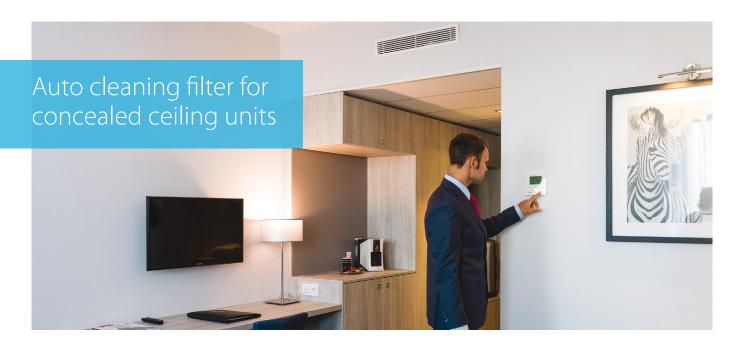




Indoor unit			FXZA	15A	20A	25A	32A	40A	50A
Cooling capacity	Total capacity	At high fan speed	kW	1.70	2.20	2.80	3.60	4.50	5.60
Heating capacity	Total capacity	At high fan speed	kW	1.90	2.50	3.20	4.00	5.00	6.30
Power input - 50Hz	Cooling	At high fan speed	kW		0.043		0.045	0.059	0.092
	Heating	At high fan speed	kW		0.043		0.045	0.059	0.092
Dimensions	Unit	HeightxWidthxDepth	mm			260x5	75x575		
Weight	Unit		kg		15.5		16	5.5	18.5
Casing	Material					Galvanised	steel plate		
Decoration panel	Model					BYFQ60	C4W1W		
	Colour					White	(N9.5)		
	Dimensions	HeightxWidthxDepth	mm			46x62	0x620		
	Weight		kg			2	.8		
Decoration panel 2	Model					BYFQ60	C4W1S		
	Colour					SIL	/ER		
	Dimensions	HeightxWidthxDepth	mm			46x62	0x620		
	Weight		kg			2	.8		
Decoration panel 3	Model					BYFQ60B2W1 + wi	re harness EKRS23		
	Colour					White (R	AL9010)		
	Dimensions	HeightxWidthxDepth	mm			55x70	0x700		
	Weight		kg			2	.7		
Decoration panel 4	Model					BYFQ60B3W1 + wi	re harness EKRS23		
	Colour					WHITE (F	RAL9010)		
	Dimensions	HeightxWidthxDepth	mm			55x70	0x700		
	Weight		kg			2	.7		
Fan	Air flow rate -	Cooling At high fan speed	m³/min	8.5	8.7	9.0	10.0	11.5	14.0
	50Hz	Heating At high fan speed	m³/min	8.5	8.7	9.0	10.0	11.5	14.0
Air filter	Туре					Resi	n net		
Sound power level	Cooling	At high fan speed	dBA	4	.9	50	51	54	60
Sound pressure level	Cooling	Low/medium/high fan speed	dBA	25.5/28.0/31.5	25.5/29.5/32.0	25.5/30.0/33.0	26.0/30.0/33.5	28.0/32.0/37.0	33.0/40.0/43.0
	Heating	Low/medium/high fan speed	dBA	25.5/28.0/31.5	25.5/29.5/32.0	25.5/30.0/33.0	26.0/30.0/33.5	28.0/32.0/37.0	33.0/40.0/43.0
Refrigerant	Type/GWP					R-32	/ 675		
Piping connections	Liquid	OD	mm			6.	35		
. •	Gas	OD	mm		9.	52		1:	2.7
	Drain					VP20 (I.D. 2	20/O.D. 26)		
Power supply	Phase/Frequenc	v/Voltage	Hz/V			1~/50/60/2	20-240/220		
Current - 50Hz	Maximum fuse a	, ,	Α				5		
Control systems	Infrared remote			BRC7E	B530W (standard i	oanel) / BRC7F530V	V (white panel) / Bi	RC7F530S (grev pa	nel) (1)
	Wired remote co			2.1072		BRC1H5		(3) pu	- , ( · )

Dimensions do not include control box

Must be combined with Madoka wired remote controller



The unique automatic cleaning filter achieves higher efficiency and comfort with lower maintenance costs

## Reduce running costs

> Automatic filter cleaning ensures low maintenance costs because the filter is always clean





## Minimal time required for filter cleaning

- > The dust box can be emptied with a vacuum cleaner for fast and easy cleaning
- > No more dirty ceilings

## Improved indoor air quality

- > Optimum airflow eliminates draft and insulates sound **Superb reliability**
- Prevents clogged filters for seamless operation
   Unique technology
- > Unique and innovative filter technology inspired by the Daikin auto cleaning cassette



## Combination table

	S	plit/	Sky A	ir				VRV			
		FDX	M-F9			F	XDA-	A/FX	DQ-A	3	
	25	35	50	60	15	20	25	32	40	50	63
BAE20A62	•	•			•	•	•	•			
BAE20A82									•	•	
BAE20A102			•	•							•



- 1 Scheduled automatic filter cleaning
- 2 Dust collects in a dust box that's integrated into the unit
- 3 The dust can easily be removed with a vacuum cleaner





UNIQUE

pending

www.youtube.com/DaikinEurope

## **Specifications**

	BAE20A62	BAE20A82	BAE20A102
Heigth (mm)		210	
Width (mm)	830	1,030	1,230
Depth (mm)		188	

#### **BLUEVOLUTION**

# Slim concealed ceiling unit

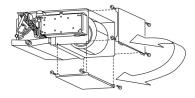
## Slim design for flexible installation

- > Optimised design for R-32 refrigerant
- > 10 class unit especially developed for small or well-insulated rooms, such as hotel bedrooms, small offices, etc.
- Compact dimensions, can easily be mounted in a ceiling void of only 240mm

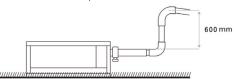
SERIE A (15, 20, 25, 32)



- Medium external static pressure up to 44Pa facilitates unit use with flexible ducts of varying lengths
- > Discretely concealed in the wall: only the suction and discharge grilles are visible
- > Optional auto cleaning filter option ensures maximum efficiency, comfort and reliability by regular filter cleaning
- > Flexible installation, as the air suction direction can be altered from rear to bottom suction



Standard drain pump with 600mm lift increases flexibility and installation speed



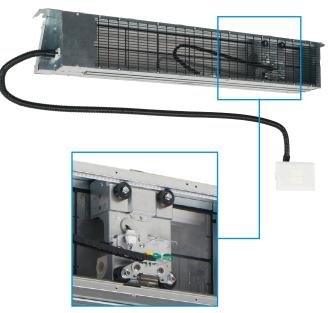




Access all technical information on BAE20A at <u>my.daikin.eu</u> or click here







Auto cleaning filter option

Indoor unit			FXDA	10A	15A	20A	25A	32A	40A	50A	63A					
Cooling capacity	Total capacity	At high fan speed	kW	1.10	1.70	2.20	2.80	3.60	4.50	5.60	7.10					
Heating capacity	Total capacity	At high fan speed	kW	1.30	1.90	2.50	3.20	4.00	5.00	6.30	8.00					
Power input - 50Hz	Cooling	At high fan speed	kW	0.042	0.057		0.068		0.075	0.096	0.107					
	Heating	At high fan speed	kW	0.042	0.057		0.068		0.075	0.096	0.107					
Required ceiling voic	1>		mm				2	40								
Dimensions	Unit	HeightxWidthxDepth	mm			200x750x620			200x9	50x620	200x1,150x620					
Weight	Unit		kg			22.0			26	5.0	29.0					
Casing	Material						Galvani	sed steel								
Fan	Air flow rate - 50Hz	Cooling At high fan speed	m³/min	5.2	6.5		8.0		10.5	12.5	16.5					
	External static pressure - 50Hz	Factory set/High	Pa			10/30.0				10.5 12.5 15/44.0						
Air filter	Type						Removable	/ washable								
Sound power level	Cooling	At high fan speed	dBA	48	50		51		52	53	54					
Sound pressure level	Cooling	Low/Medium/High fan speed	dBA	26 / 28 / 29	27.0/31.0/32.0		27.0/31.0/33.0		28.0/32.0/34.0	29.0/33.0/35.0	30.0/34.0/36.0					
Refrigerant	Type/GWP						R-32	/ 675								
Piping connections	Liquid	OD	mm				6	.35								
	Gas	OD	mm			9.52				12.7						
	Drain						VP20 (I.D.	20/O.D. 26)								
Power supply	Phase/Frequence	y/Voltage	Hz/V				1~/50/60/2	220-240/220								
Current - 50Hz	Maximum fuse a	imps (MFA)	Α					6								
Control systems	Infrared remote	control					BRC4C65 /	BRC4C66 (1)								
	Wired remote co	ontrol					BRC1H	52W/S/K								

<sup>(1)</sup> Must be combined with Madoka wired remote controller.

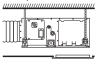
## Concealed ceiling unit with medium ESP

### Slimmest yet most powerful medium static pressure unit on the market

- > Optimised design for R-32 refrigerant
- > Slimmest unit in class, only 245mm (300mm built-in height) and therefore narrow ceiling voids are no longer a challenge



- > Quiet operation: down to 25dBA sound pressure level
- > Medium external static pressure up to 150Pa facilitates using flexible ducts of varying lengths
- > Possibility to change ESP via wired remote control allows optimisation of the supply air volume
- > Discretely concealed in the wall: only the suction and discharge grilles are visible
- > 15 class unit especially developed for small or well-insulated rooms, such as hotel bedrooms, small offices, etc.
- > Optional fresh air intake
- > Flexible installation: air suction direction can be altered from rear to bottom suction and choice between free use or connection to optional suction grilles



For free use into a false



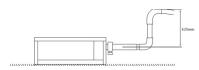
For connecting onto a suction canvas (not supplied by Daikin)



For direct connection to Daikin panel (via EKBYBSD kit)



> Standard built-in drain pump with 625mm lift increases flexibility and installation speed



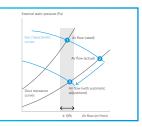
### Automatic Airflow Adjustment function

Automatically selects the most appropriate fan curve to achieve the units' nominal air flow within  $\pm 10\%$ 

After installation the real ducting will frequently differ from the initially calculated air flow resistance \* the real air flow may be much lower or higher than

nominal , leading to a lack of capacity or uncomfortable air temperature

Automatic Airflow Adjustment function will adapt the unit's fan speed to any ducting automatically (10 or more fan curves are available on every model), making installation much faster





## Access all technical information on FXSA-A at my.daikin.eu or click here

Indoor unit				FXSA	15A	20A	25A	32A	40A	50A	63A	80A	100A	125A	140A
Cooling capacity	Total capacity	At high fa	n speed	kW	1.70	2.20	2.80	3.60	4.50	5.60	7.10	9.00	11.20	14.00	16.00
Heating capacity	Total capacity	At high fa	n speed	kW	1.90	2.50	3.20	4.00	5.00	6.30	8.00	10.0	12.5	16.0	18.0
Power input - 50Hz	Cooling	At high fa	n speed	kW		0.0	086		0.147	0.150	0.183	0.209	0.285	0.326	0.382
	Heating	At high fa	n speed	kW		0.0	086		0.147	0.150	0.183	0.209	0.285	0.326	0.382
Dimensions	Unit	HeightxW	/idthxDepth	mm		245x5	50x800		245x7	00x800	245x1,0	000x800	245x1,4	400x800	245x1,550x800
Weight	Unit			kg		23.5		24.0	28.5	29.0	35.5	36.5	46.0	47.0	51.0
Casing	Material								Galva	nised stee	l plate				
Fan	Air flow rate -	Cooling	At high fan speed	m³/min	8.7	9	.0	9.5	15.0	15.2	21.0	23.0	32.0	36.0	39.0
	50Hz	Heating	At high fan speed	m³/min	8.7	9	.0	9.5	15.0	15.2	21.0	23.0	32.0	36.0	39.0
	External static pressure - 50Hz	Factory set/High Pa 30/150									40/	150	50/	/150	
Air filter	Туре									Resin net					
Sound power level	Cooling	At high fa	n speed	dBA		54		55	6	0	59	6	51	6	54
Sound pressure level	Cooling	Low/Med	lium./High	dBA	25.0/28.0/29.5	25.0/28	8.0/30.0	26.0/29.0/31.0	29.0/32	2.0/35.0	27.0/30.0/33.0	29.0/32.0/35.0	31.0/34.0/36.0	33.0/36.0/39.0	34.0/38.0/41.5
	Heating	Low/Med	lium/High	dBA	26.0/29.0/31.5	26.0/29	9.0/32.0	27.0/30.0/33.0	29.0/34	1.0/37.0	28.0/32.0/35.0	30.0/34.0/37.0	31.0/34.0/37.0	33.0/37.0/40.0	34.0/38.5/42.0
Refrigerant	Type/GWP									R-32 / 675	5				
Piping connections	Liquid	OD		mm				6.	35					9.52	
	Gas	OD		mm		9.	52			1	2.7			15.9	
	Drain							VP20	(I.D. 20/O.I	D. 26), drai	n height 62	5 mm			
Power supply	Phase/Frequency	//Voltage		Hz/V					1~/50	/60/220-2	40/220				
Current - 50Hz	Maximum fuse a	mps (MFA)		Α						6					
Control systems	Infrared remote	control							I	3RC4C65 (	1)				
	Wired remote co	ntrol							BF	RC1H52W/	S/K				

<sup>(1)</sup> Must be combined with Madoka wired remote controller.



## Wall mounted unit

## For rooms with no false ceilings nor free floor space

- > Optimised design for R-32 refrigerant
- > Flat, stylish front panel blends easily within any interior décor and is easier to clean
- > Can easily be installed in both new and refurbishment projects
- > The air is comfortably spread up- and downwards thanks to 5 different discharge angles that can be programmed via the remote control
- Maintenance operations can be performed easily from the front of the unit





Indoor unit			FXAA	15A	20A	25A	32A	40A	50A	63A							
Cooling capacity	Total capacity	At high fan speed	kW	1.7	2.2	2.8	3.6	4.5	5.6	7.1							
Heating capacity	Total capacity	At high fan speed	kW	1.9	2.5	3.2	4.0	5.0	6.3	8.0							
Power input - 50Hz	Cooling	At high fan speed	kW	0.	.02	0.	03	0.02	0.03	0.05							
	Heating	At high fan speed	kW		0.03		0.04	0.02	0.04	0.06							
Dimensions	Unit	HeightxWidthxDepth	mm		290x7	95x266			290x1,050x269								
Weight	Unit		kg		1	12			15								
Fan	Air flow rate - 50Hz	Cooling Low/High fan speed	m³/min	7.0/8.4	7.0/9.1	7.0/9.4	7.0/9.8	9.7/12.2	11.5/14.4	13.5/18.3							
Air filter	Туре					1	Washable resin ne	et									
Sound power level	Cooling	At high fan speed	dBA	51.0	52.0	53.0	5:	5.0	58.0	63.0							
Sound pressure level	Cooling	Low/High fan speed	dBA	28.5/32.0	28.5/33.0	28.5/35.0	28.5/37.5	33.5/37.0	35.5/41.0	38.5/46.5							
	Heating	Low/High fan speed	dBA	28.5/33.0	28.5/34.0	28.5/36.0	28.5/38.5	33.5/38.0	35.5/42.0	38.5/47.0							
Refrigerant	Type/GWP						R-32 / 675										
Piping connections	Liquid	OD	mm				6.35										
	Gas	OD	mm		9.	.52			12.7								
	Drain					V	P13 (I.D. 15/O.D. 1	8)									
Power supply	Phase/Frequenc	cy/Voltage	Hz/V				1~/50/220-240										
Current - 50Hz	Maximum fuse a	amps (MFA)	Α				6										
Control systems	Infrared remote	control				BRC7	EA628 / BRC7EA6	529 (1)									
	Wired remote co	ontrol					BRC1H52W/S/K		15 12.2 11.5/14.4 13.5/18.3 58.0 63.0 /37.0 35.5/41.0 38.5/46.5 /38.0 35.5/42.0 38.5/47.0								

(1) Must be combined with Madoka wired remote controller.

\*Note: blue cells contain preliminary data



# VRV IV Outdoor Systems For every application a solution













	VRV 5	VRV IV <sup>+</sup> Heat recovery	VRV IV <sup>+</sup> heat pump (with continuous heating)	VRV IV S-series (compact)	VRV IV i-series	VRV IV C†series	Replacement VRV III Heat recovery	Replacement VRV IV <sup>+</sup> heat pump	VRV IV W <sup>+</sup> series
	RXYSA-AV1 RXYSA-AY1	REYQ-U	RYYQ-U RXYQ-U	RXYSCQ-TV1 RXYSQ-TV9 RXYSQ-TY9 RXYSQ-TY1	SB.RKXYQ-T (8)	RXYLQ-T	RQCEQ-P3	RQYQ-P RXYQQ-U	RWEYQ-T9
Page	37	56	64	72	82	86	92	93	104
BLUEVOLUTION	•	×	×	×	×	×	×	×	×
LCOP BY DAIKIN	×	•	•	RXYSQ-TV9/ TY9 only	•	•	•	RXYQQ-U only	•
Variable Refrigerant Temperature	•	•	•	•	•	•	×	•	•
Continuous heating	×	alternate defrost	RYYQ-U (unique heat accumulating element)	×	×	alternate defrost	alternate defrost	alternate defrost	-
VRV configurator	•	•	•	•	•	•	×	•	•
7 segment display	•	•	•	×	×	•	×	•	•
Automatic refrigerant charge	×	•	•	×	×	•	•	•	×
Refrigerant containment check	Inculding shut off valves in case a leak is detected during operation	•	•	×	×	•	×	×	×
Night quiet mode	•	•	•	•	•	•	•	•	-
Low noise function	•	•	•	•	•	•	•	•	-
Connectable to stylish indoor units (Daikin Emura, Nexura)	×	×	•	• (1)	×	•	×	×	•
Connectable to LT hydrobox for hot water	×	•	•	×	×	•	×	×	•
Connectable to HT hydrobox for hot water	×	•	×	×	×	×	×	×	•
Gas cooled PCB	•	•	•	not available on RXYSQ4,5,6,8TYI	×	•	×	•	×
Reluctance brushless DC compressor	•	•	•	•	×	•	•	•	•
Sine wave DC inverter	•	•	•	•	•	•	•	•	•
DC fan motor	•	•	•	•	•	•	•	•	-
E-pass heat exchanger	•	•	•	•	•	•	•	•	-
I demand function	•	•	•	•	•	•	•	•	×
Manual demand function / power limitation	•	•	•	•	•	•	•	•	•

(1) Either connect VRV or stylish indoor units

# Products overview JRJ IV LOOP (1)

	Model		Product name	4	5	6	8	10	12	13	14 1	16 1	8 2	0 2	2 2	24 :	26 2	28	30
Air cooled - heat recovery	VRV IV heat recovery ADION	Best efficiency & comfort solution  > Fully integrated solution with heat recovery for maximum efficiency  > Covers all thermal needs of a building via a single point of contact: accurate temperature control, ventilation, hot water, air handling units and Biddle air curtains  > "Free" heating and hot water through heat recovery  > The perfect personal comfort for guests/tenants via simultaneous cooling and heating  > Incorporates VRV IV standards & technologies such as  Variable Refrigerant temperature and continuous heating  > Allows technical cooling  > Widest range of BS boxes on the market	REYQ-U <b>VRV IV</b> <sup>†</sup>				•	•	•	•	•					•	•	•	•
	/RV IV heat p with continu heating	Daikin's optimum solution with top comfort Continuous heating during defrost Covers all thermal needs of a building via a single point of contact: accurate temperature control, ventilation, hot water, air handling units and Biddle air curtains Connectable to stylish indoor units (Daikin Emura, Stylish, Perfera) Incorporates VRV IV standards & technologies such as Variable Refrigerant temperature and continuous heating	RYYQ-U VRV IV+				•	•	•		•				•	•	•	•	•
-	VRV IV heat pump without continuous	Daikin's solution for comfort & low energy consumption Covers all thermal needs of a building via a single point of contact: accurate temperature control, ventilation, hot water, air handling units and Biddle air curtains Connectable to stylish indoor units (Daikin Emura, Stylish, Perfera) Incorporates VRV IV standards & technologies such as Variable Refrigerant temperature	RXYQ-U VRV IV*				•	•	•		•				•	•	•	•	•
at pump	VIV-S eries mpact	The most compact VRV  > Compact and lightweight single fan design saves space and is easy to install  > Covers all thermal needs of a building via a single point of contact: accurate temperature control, ventilation, air handling units and Biddle air curtains  > Either connect VRV of stylish indoor units (Daikin Emura, Stylish, Perfera)  > Incorporates VRV IV standards & technologies such as Variable Refrigerant temperature	RXYSCQ-TV1 VRV IV S-series Compact	•	•	• NEW													
Air cooled - heat pump	VRVIV-5 series	Space saving solution without compromising on efficiency  > Space saving trunk design for flexible installation  > Covers all thermal needs of a building via a single point of contact: accurate temperature control, ventilation, air handling units and Biddle air curtains  > Either connect VRV of stylish indoor units (Daikin Emura, Stylish, Perfera)  > Incorporates VRV IV standards & technologies such as Variable Refrigerant temperature	RXYSQ-TV9/ TY9/TY1 VRV IV S-series	/	•	•	•	•	•										
	VRV IVheat Dump for pump for indoor installation	The invisible VRV  > Unique VRV heat pump for indoor installation  > Total flexibility for any shop location and building type as the outdoor unit is invisible and split up in 2 parts  > Incorporates VRV IV standards & technologies such as Variable Refrigerant temperature  > Covers all thermal needs of a building via a single point of contact: accurate temperature control, ventilation and Biddle air curtains	SB.RKXYQ-T(8)  VRV IV i-series		•		•												
	nise Clir	Where heating is priority without compromising on efficiency  > Suitable for single source heating  Extended operation range down to -25°C in heating  > Stable heating capacity without any capacity loss down to -15°C  > Very economical solution as a smaller outdoor unit model can be used compared to the standard series	RXYLQ-T  VRV IV C *series					•	•		•	•				•	•	•	•
lent	atr	Ouick & quality replacement for R-22 and R-407C systems  > Cost-effective and fast replacement through re-use of exisiting piping  > Drastically improve your comfort, efficiency and reliability  > No interuption of daily business while replacing your system  > Replace Daikin and other manufacturers systems safely	RQCEQ-P3					•		•		•		•	•		•	•	•
Replacement	heat pump	Ouick & quality replacement for R-22 and R-407C systems  Cost-effective and fast replacement through re-use of exisiting piping  Drastically improve your comfort, efficiency and reliability  No interruption of daily business while replacing your system  Replace Daikin and other manufacturers systems safely  Incorporates VRV IV standards & technologies such as  Variable Refrigerant temperature	RXYQQ-U VRV IV Q*series		•		•	•	•		•					•	•	•	•
Water cooled	Water cool	Ideal for high rise buildings, using water as heat source	RWEYQ-T9* VRV IV W series				•	•	•		•	•				•	•	•	•

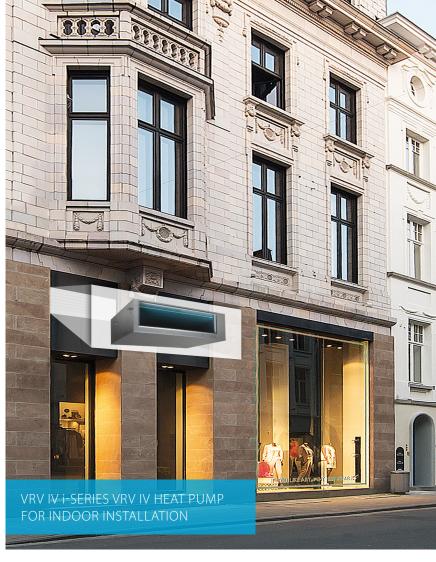
								Caj	oacit	y (HI	P)			VRV indoor units	Residential indoor units	LT Hydrobox HXY-A	HT Hydrobox HXHD-A	HRV units VAM-, VKM-	connection V- + EKEQMCBA	<b>AHU connection</b> EKEXV-+ EKEQFCBA	curtains CYV-DK-	
32	34	36	38	40	42	44	46	48	50	52	5	4 I	Description / Combination	Š	Resid	Ę	Ŧ	-IRV (	AHC XEX	AHC KEX	Air	Remarks
													VRV IV+ Heat Recovery REYQ-T	Ó	x	0	0	O	0	x	o	> Standard total system connection ratio limit: 50 ~ 130%
												-	with only VRV indoor units	<b>√</b>					_			
												H	with LT/HT Hydroboxes	<b>√</b>		<b>√</b>	<b>√</b>	<b>√</b>				Max 32 indoor units, even on 16HP and larger systems
												H	HRV units VAM-, VKM-	<b>√</b>		<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>		<b>√</b>	> Total system connection ratio with HT hydroboxes up to 200% possible
	•	•	•	•	•	•	•	•	•	•		_  -	AHU connection EKEXV + EKEQMCBA	✓				<b>√</b>	<b>✓</b>		✓	<ul> <li>Dedicated systems (with only ventilation units) not allowed – a mix with standard VRV indoor units is allways neccessary</li> </ul>
												-	Biddle air curtain CYV-DK-	·				· /	· /		·	> Total system connection ratio with AHU is 50 ~ 110%
											+	+		Ō	0	0	×	0	0	0	0	> Standard total system connection ratio limit: 50 ~ 130%
												-	VRV IV+ Heat Pump RYYQ-T(8) / RXYQ-T(9)	<u>√</u>	U	U	~	U	U	U	0	· · · · · · · · · · · · · · · · · · ·
											H		with only VRV indoor units	<b>v</b>								200% total system connection ratio possible under special circumstances     Only single-module systems (RYYQ 8~20 T / RXYQ 8~20 T)
•	•		•	•	•	•	•	•	•	•			with residential indoor units	✓	✓			✓				<ul> <li>Max 32 indoor units, even on 16HP, 18HP and 20HP systems</li> <li>Connection ratio: 80 ~ 130%</li> </ul>
ļ									ļ	ļ.,			with LT Hydroboxes	✓		✓		✓				<ul> <li>Max 32 indoor units, even on 16HP and larger systems</li> <li>Contact Daikin in case of multi-module systems (&gt;20HP)</li> </ul>
													HRV units VAM-, VKM-	✓	✓	✓		✓	✓		✓	
													AHU connection EKEXV + EKEQMCBA	✓				✓	✓		✓	> Total system connection ratio with AHU is 50 ~ 110%
				•		•					L		AHU connection EKEXV + EKEQFCBA							✓		7 Total system connection ratio with A To is 30 ** 1000
•			•								ľ		Biddle air curtain CYV-DK-	$\checkmark$				✓	✓		✓	
													<b>VRV IV-S</b> RXYSQ-/RXYSCQ-	0	0	×	×	0	0	×	0	> Standard total system connection ratio limit: 50 ~ 130%
													with VRV indoor units only	✓				✓	✓		✓	
													with residential indoor units only		✓							> With residential indoor: connection ratio limit: 80 ~ 130%
												,	VRV IV i series SB.RKXYQ-T(8)	✓	x	×	x	<b>✓</b>	<b>✓</b>	×	✓	> Standard total system connection ratio limit: 50 ~ 130%
											T		VRV IV-C+ series RXYLQ-T	0	0	0	x	0	0	0	0	> Standard total system connection ratio limit: 70 ~ 130%
													with VRV indoor units only	✓				✓			✓	
•	•	•	•	•	•							$\vdash$	with residential indoor units only		✓							> With residential indoor: connection ratio limit: 80 ~ 130%
												-	with LT hydroboxes	<b>✓</b>		<b>√</b>		<b>√</b>	<b>√</b>			> Max. 32 indoor units, contact Daikin in case of multi-module systems (> 14HP)
												-	AHU connection EKEXV + EKEQMCBA  AHU connection EKEXV + EKEQFCBA	<b>∨</b> ✓				<b>V</b>	V	<b>√</b>	<b>√</b>	> Total system connection ratio is 70~110% > With AHU only connection ration is 90~110%
													VRV III-Q* series Replacement H/R RQCEQ-P3	✓	×	x	×	<b>✓</b>	×	×	×	> Standard total system connection ratio limit: 50 ~ 130%
•	•	•	•	•	•								VRV IV-Q Replacement H/P RXYQQ-T	✓	x	x	x	<b>√</b>	<b>✓</b>	x	✓	> Standard total system connection ratio limit: 50 ~ 130%
											T		<b>VRV IV-W⁺ series Water-cooled VRV</b> RWEYQ-T9	0	0	×	0	0	0	0	0	> Standard total system connection ratio limit: 50 ~ 130%
													with VRV indoor units	<b>√</b>			<b>✓</b>	<b>√</b>	<b>√</b>	<b>√</b>	✓	
													with split indoor units	✓	<b>✓</b>			✓				Only single-module systems (RWEYQ8-14T9)     Max 32 indoor units     Connection ratio: 80 ~ 130%     Only in heat pump version
•	•	•	•	•	•							-	with HT hydrobox	<b>√</b>			<b>✓</b>					only in heat pump version
													AHU connection	✓					✓			<ul> <li>Total system connection ratio with AHU + X indoor is 50 ~ 110%</li> <li>Total system connection ration with AHU only is 90~ 110%</li> </ul>

 $<sup>{</sup>f O}_-$  connection of indoor unit possible, but not neccessarily simultaneously with other allowed indoor units  ${f v}_-$  connection of indoor unit possible even simultaneously with other checked units in the same row  ${f x}_-$  connection of indoor not possible on this outdoor unit system



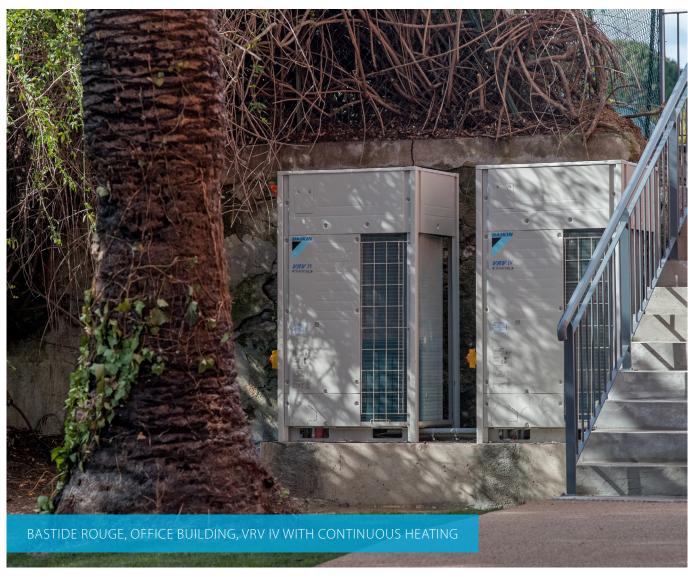






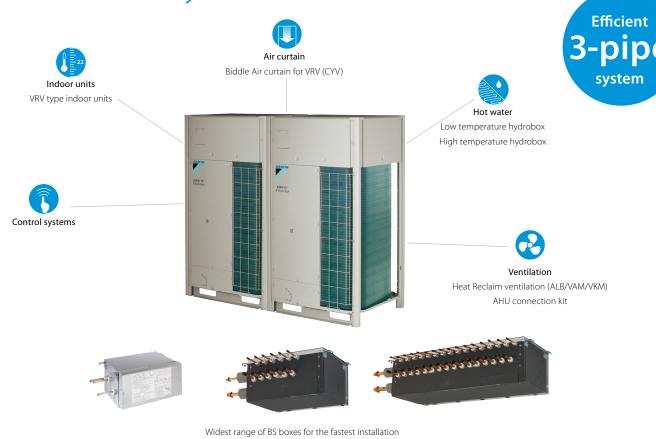






# VRV IV+ heat recovery

Best efficiency and comfort solution





# VRV IV standards:

# Variable refrigerant temperature

Customize your VRV for best seasonal efficiency & comfort

## Continuous heating

The new standard in heating comfort

## VRV configurator

Software for simplified commissioning, configuration and customisation

- > 7 segment display
- > Automatic refrigerant charge
- > Refrigerant containment check
- > Night quiet mode
- > Low noise function
- > Connectable to LT hydrobox for hot water
- > Connectable to HT hydrobox for hot water
- > Full inverter compressors
- > Gas cooled PCB
- > 4 side heat exchanger
- > Reluctance brushless DC compressor
- > Sine wave DC inverter
- > DC fan motor
- > E-pass heat exchanger
- > I demand function
- > Manual demand function





# Innovation in detail

# L∞P by Daikin

Make a positive choice and reuse refrigerant to avoid more than 150,000 kg of virgin gas being produced each year.

Insprired to help?

Find out more about Daikin's initiatives to build a circular economy of refrigerants: <a href="www.daikin.eu/building-a-circular-economy">www.daikin.eu/building-a-circular-economy</a>



# "Free" heat and hot water production

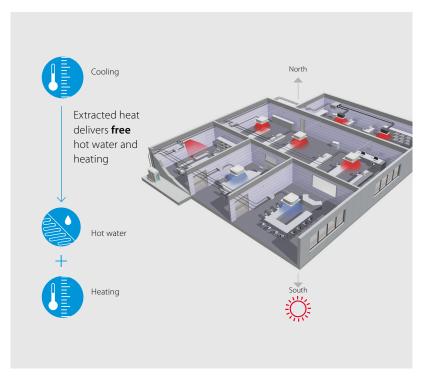
An integrated heat recovery system reuses heat from offices, server rooms, to warm other areas or create hot water.

## Maximum comfort

A VRV heat-recovery system allows simultaneous cooling and heating.

For hotel owners, this means a perfect environment for guests as they can freely choose between cooling or heating.

For offices, it means a perfect working indoor climate for both north and south-facing offices.

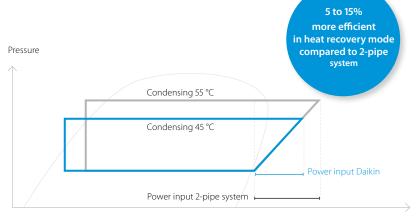


# Advantages of 3-pipe technology

### More "free" heat

Daikin 3-pipe technology needs less energy to recover heat, meaning significantly higher efficiency during heat recovery mode. Our system can recover heat at a low condensing temperature because it has dedicated gas, liquid and discharge pipes.

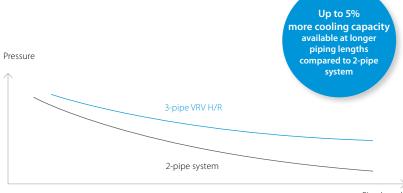
In a 2-pipe system, gas and liquid travel as a mixture so the condensing temperature needs to be higher in order to separate the mixed gas and liquid refrigerant. The higher condensing temperature means more energy is used to recover heat resulting in lower efficiency.



Enthalpy

## Lower pressure drop means more efficiency

- Smooth refrigerant flow in 3-pipe system thanks to 2 smaller gas pipes results in higher energy efficiency
- Disturbed refrigerant flow in large gas pipe on
   2-pipe system results in bigger pressure drop



### Pipe length

# Maximum design flexibility and installation speed

- > Quickly and flexibly design your system with a unique range of single and multi BS boxes.
- A wide variety of compact and lightweight multi BS boxes greatly reduces installation time.
- > Free combination of single and multi BS boxes

#### Single port



BS1Q 10,16,25A

#### Multi port: 4 - 6 - 8 - 10 - 12 - 16







BS 6, 8 Q14 A



BS 10, 12 Q14 A



BS 16 Q14 A

# Fully redesigned BS boxes

# Maximum design flexibility and installation speed

- > Quickly and flexibly design your system with a unique range of single and multi BS boxes.
- > A wide variety of compact and lightweight multi BS boxes greatly reduces installation time.
- > Free combination of single and multi BS boxes

## Single port

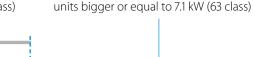
- > Unique to the market
- > Compact and light to install
- > No drain piping needed
- > Ideal for remote rooms
- > Technical cooling function
- > Connect up to 250 class unit (28 kW)
- > Allows multi-tenant applications

## Multi port: 4 - 6 - 8 - 10 - 12 - 16

- > Up to 55% smaller and 41% lighter than previous range
- > Faster installation thanks to a reduced number of brazing points and wiring
- > All indoor units connectable to one BS box
- > Fewer inspection ports needed
- > Up to 16 kW capacity available per port
- > Connect up to 250 class unit (28kW) by combining 2 ports
- > No limit on unused ports, permitting phased installation
- > Allows multi-tenant applications

## Faster installation thanks to open connection

> No need to cut the pipe before brazing – for indoor units smaller or equal to 5.6 kW (50 class)



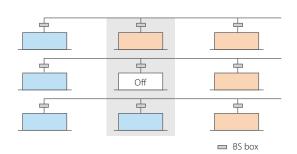
> Cut and braze the pipe – for indoor





# Maximum comfort at all times

With the VRV BS box, any indoor unit not being used to switch between heating and cooling maintains the constant desired temperature. This is because our heat recovery system does not need to equalise pressure over the entire system after a change-over.



## **VRV IV+ heat recovery**

## Best efficiency & comfort solution

- > Fully integrated solution with heat recovery for maximum efficiency with COPs of up to 8!
- Covers all thermal needs of a building via a single point of contact: accurate temperature control, ventilation, hot water, air handling units and Biddle air curtains
- » "Free" heating and hot water production provided by transferring heat from areas requiring cooling to areas requiring heating or hot water
- > The perfect personal comfort for guests/tenants via simultaneous cooling and heating
- > Incorporates VRV IV standards & technologies: Variable Refrigerant Temperature, continuous heating, VRV configurator, 7 segment display and full inverter compressors, 4-side heat exchanger, refrigerant cooled PCB, new DC fan motor
- > Outdoor unit display for quick on-site settings and easy read out of errors together with the indication of service parameters for checking basic functions.

- Free combination of outdoor units to meet installation space or efficiency requirements
- Wide piping flexibility: 30m indoor height difference, maximum piping length: 190m, total piping length: 1,000m
- > Possibility to extend the operation range in cooling down to -20°C for technical cooling operation such as server rooms
- > Contains all standard VRV features



Published data with real-life indoor units

Access all technical information on REYQ-U at my.daikin.eu or click here

		REYQ	8U		10U	121	J	14U	1	6U	18U		20U
		HP	8		10	12		14		16	18		20
Prated,c		kW	22.4		28.0	33.5	5	40.0	4	5.0	50.4		52.0
Prated,h		kW	13.7		16.0	18.4	4	20.6	2	3.2	27.9		31.0
Max.	6°CWB	kW	25.0		31.5	37.5	5	45.0	5	0.0	56.5		63.0
		%	286.1		264.8	257	.0	255.8	24	43.1	250.6		246.7
		%	165.1		169.7	183	.8	168.3	16	57.5	172.5		162.7
			7.2		6.7		6.5			5.2	6.3		6.2
			4.2		4.3	4.7	,		4.3		4.4		4.1
connectable	indoor units							64					
Min.			100.0		125.0	150	.0	175.0	20	0.00	225.0		250.0
Nom.								-					
Max.			260.0		325.0	390	.0	455.0	52	20.0	585.0		650.0
Unit	HeightxWidthxDepth	mm		1.68	35x930x76	5				1.685x1.2	40x765		
Unit				,					314	,,,,,,		317	
Cooling	Nom.	dBA	78.0		79.1	83.	4	80.9	8	5.6	83.8		87.9
	Nom.	dBA		57.0		61./	0	60.0	6	3.0	62.0		65.0
	Min.~Max.	°CDB						-5.0~43.0					
	Min.~Max.	°CWB						-20.0~15.5					
							R						
		ka/TCO2Fa	9.7/20	2	9.8/20.5	9.9/2				11.8/2	4.6		
	OD							12.7				15.9	
			19.1		22.2				2	8.6			
						19.1							28.6
Total piping	System Actual	m						1,000					
	uency/Voltage	Hz/V					31	l~/50/380-4	115				
		Α	20		25		32			40			50
n + Module		REYQ	10U	13U	16U	18U	20U	22U	24U	26U	28U	30U	32U
Outdoor un	nit module 1		REM	Q5U		REYQ8U		REYQ10U	REYQ8U		REYQ12U		REYQ16L
Outdoor un	nit module 2		REMQ5U	REY	Q8U	REYQ10U	REY	Q12U	REYQ16U	REYQ14U	REYQ16U	REYQ18U	REYQ16L
		HP	10	13	16	18	20	22	24	26	28	30	32
Prated,c		LAA	28.0	36.4	440								
		KVV	20.0	30.4	44.8	50.4	55.9	61.5	67.4	73.5	78.5	83.9	90.0
Prated,h		kW	16.0	21.7	23.2	50.4 27.9	31.0	34.4	67.4 36.9	73.5 37.1	78.5 39.7	83.9 44.4	90.0
Prated,h Max.	6°CWB												
	6°CWB	kW	16.0 32.0	21.7	23.2	27.9	31.0	34.4	36.9	37.1	39.7	44.4	46.4
	6°CWB	kW kW	16.0	21.7 41.0	23.2 50.0	27.9 56.5	31.0 62.5	34.4 69.0	36.9 75.0	37.1 82.5	39.7 87.5	44.4 94.0	46.4 100.0
	6°CWB	kW kW %	16.0 32.0 275.1	21.7 41.0 301.3	23.2 50.0 288.6	27.9 56.5 272.9	31.0 62.5 266.0	34.4 69.0 260.4	36.9 75.0 257.7 167.6	37.1 82.5 257.5	39.7 87.5 251.9	44.4 94.0 266.8	46.4 100.0 243.1
	6°CWB	kW kW %	16.0 32.0 275.1 158.8	21.7 41.0 301.3 160.6	23.2 50.0 288.6 168.2 7.3	27.9 56.5 272.9 167.9	31.0 62.5 266.0 175.7 6.7	34.4 69.0 260.4 178.5	36.9 75.0 257.7 167.6	37.1 82.5 257.5 175.5	39.7 87.5 251.9 174.8	44.4 94.0 266.8 179.4	46.4 100.0 243.1 169.1
		kW kW %	16.0 32.0 275.1 158.8 7.0	21.7 41.0 301.3 160.6 7.6	23.2 50.0 288.6 168.2 7.3	27.9 56.5 272.9 167.9 6.9	31.0 62.5 266.0 175.7 6.7	34.4 69.0 260.4 178.5 6.6	36.9 75.0 257.7 167.6	37.1 82.5 257.5 175.5	39.7 87.5 251.9 174.8 6.4	44.4 94.0 266.8 179.4 6.7	46.4 100.0 243.1 169.1 6.2
Max.		kW kW %	16.0 32.0 275.1 158.8 7.0	21.7 41.0 301.3 160.6 7.6	23.2 50.0 288.6 168.2 7.3	27.9 56.5 272.9 167.9 6.9	31.0 62.5 266.0 175.7 6.7	34.4 69.0 260.4 178.5 6.6	36.9 75.0 257.7 167.6	37.1 82.5 257.5 175.5	39.7 87.5 251.9 174.8 6.4	44.4 94.0 266.8 179.4 6.7	46.4 100.0 243.1 169.1 6.2
Max.		kW kW %	16.0 32.0 275.1 158.8 7.0 4.0	21.7 41.0 301.3 160.6 7.6 4.1	23.2 50.0 288.6 168.2 7.3	27.9 56.5 272.9 167.9 6.9	31.0 62.5 266.0 175.7 6.7	34.4 69.0 260.4 178.5 6.6	36.9 75.0 257.7 167.6 6 4.3	37.1 82.5 257.5 175.5 .5 4.5	39.7 87.5 251.9 174.8 6.4 4.4	44.4 94.0 266.8 179.4 6.7 4.6	46.4 100.0 243.1 169.1 6.2 4.3
Max.		kW kW %	16.0 32.0 275.1 158.8 7.0 4.0	21.7 41.0 301.3 160.6 7.6 4.1	23.2 50.0 288.6 168.2 7.3	27.9 56.5 272.9 167.9 6.9	31.0 62.5 266.0 175.7 6.7	34.4 69.0 260.4 178.5 6.6 1.5 64 275.0	36.9 75.0 257.7 167.6 6 4.3	37.1 82.5 257.5 175.5 .5 4.5	39.7 87.5 251.9 174.8 6.4 4.4	44.4 94.0 266.8 179.4 6.7 4.6	46.4 100.0 243.1 169.1 6.2 4.3
Max.  connectable Min. Nom.		kW kW %	16.0 32.0 275.1 158.8 7.0 4.0	21.7 41.0 301.3 160.6 7.6 4.1	23.2 50.0 288.6 168.2 7.3 200.0	27.9 56.5 272.9 167.9 6.9 1.3	31.0 62.5 266.0 175.7 6.7 4 250.0	34.4 69.0 260.4 178.5 6.6 1.5 64 275.0	36.9 75.0 257.7 167.6 6 4.3	37.1 82.5 257.5 175.5 .5 4.5	39.7 87.5 251.9 174.8 6.4 4.4 350.0	44.4 94.0 266.8 179.4 6.7 4.6	46.4 100.0 243.1 169.1 6.2 4.3
Max.  connectable Min. Nom. Max.	indoor units	kW kW %	16.0 32.0 275.1 158.8 7.0 4.0 125.0	21.7 41.0 301.3 160.6 7.6 4.1	23.2 50.0 288.6 168.2 7.3 200.0	27.9 56.5 272.9 167.9 6.9 1.3	31.0 62.5 266.0 175.7 6.7 4 250.0	34.4 69.0 260.4 178.5 6.6 1.5 64 275.0	36.9 75.0 257.7 167.6 6 4.3	37.1 82.5 257.5 175.5 .5 4.5	39.7 87.5 251.9 174.8 6.4 4.4 350.0	44.4 94.0 266.8 179.4 6.7 4.6 375.0	46.4 100.0 243.1 169.1 6.2 4.3
connectable Min. Nom. Max. Liquid Gas	indoor units	kW kW % %	16.0 32.0 275.1 158.8 7.0 4.0 125.0 325.0 9.52	21.7 41.0 301.3 160.6 7.6 4.1 163.0 423.0	23.2 50.0 288.6 168.2 7.3 200.0 520.0	27.9 56.5 272.9 167.9 6.9 1.3 225.0	31.0 62.5 266.0 175.7 6.7 4 250.0	34.4 69.0 260.4 178.5 6.6 1.5 64 275.0	36.9 75.0 257.7 167.6 6 4.3	37.1 82.5 257.5 175.5 .5 4.5	39.7 87.5 251.9 174.8 6.4 4.4 350.0	44.4 94.0 266.8 179.4 6.7 4.6 375.0	46.4 100.0 243.1 169.1 6.2 4.3
Max.  connectable Min. Nom. Max. Liquid Gas HP/LP gas Total piping	oD OD OD	kW kW % %	16.0 32.0 275.1 158.8 7.0 4.0 125.0 325.0 9.52 22.2	21.7 41.0 301.3 160.6 7.6 4.1 163.0 423.0	23.2 50.0 288.6 168.2 7.3 200.0 520.0	27.9 56.5 272.9 167.9 6.9 1.3 225.0 585.0 28.6	31.0 62.5 266.0 175.7 6.7 4 250.0	34.4 69.0 260.4 178.5 6.6 1.5 64 275.0	36.9 75.0 257.7 167.6 6 4.3	37.1 82.5 257.5 175.5 .5 4.5 325.0 845.0	39.7 87.5 251.9 174.8 6.4 4.4 350.0	44.4 94.0 266.8 179.4 6.7 4.6 375.0	46.4 100.0 243.1 169.1 6.2 4.3
connectable Min. Nom. Max. Liquid Gas HP/LP gas Total piping length	oD OD OD	kW kW % % mm mm	16.0 32.0 275.1 158.8 7.0 4.0 125.0 325.0 9.52 22.2	21.7 41.0 301.3 160.6 7.6 4.1 163.0 423.0	23.2 50.0 288.6 168.2 7.3 200.0 520.0 2.7	27.9 56.5 272.9 167.9 6.9 1.3 225.0 585.0 28.6	31.0 62.5 266.0 175.7 6.7 4 250.0	34.4 69.0 260.4 178.5 6.6 1.5 64 275.0	36.9 75.0 257.7 167.6 6 4.3 300.0	37.1 82.5 257.5 175.5 .5 4.5 325.0 845.0	39.7 87.5 251.9 174.8 6.4 4.4 350.0 910.0	44.4 94.0 266.8 179.4 6.7 4.6 375.0	46.4 100.0 243.1 169.1 6.2 4.3
	connectable Min. Nom. Max. Unit Unit Cooling Cooling Heating Type/GWP Charge Liquid Gas HP/LP gas Total piping length Phase/Freq Maximum f n + Module Outdoor ur Outdoor ur	Prated,h Max. 6°CWB  connectable indoor units Min. Nom. Max. Unit HeightxWidthxDepth Unit Cooling Nom. Cooling Nom. Cooling MinMax. Heating MinMax. Type/GWP Charge Liquid OD Gas OD HP/LP gas OD Total piping System Actual length Phase/Frequency/Voltage Maximum fuse amps (MFA)  n + Module Outdoor unit module 1 Outdoor unit module 2	Prated,c kW Prated,c kW Prated,h kW Max. 6°CWB kW Max. 6°CWB kW %6  connectable indoor units Min. Nom. Max. Unit HeightxWidthxDepth mm Unit kg Cooling Nom. dBA Cooling Nom. dBA Cooling Nom. dBA Cooling Min.~Max. °CDB Heating Min.~Max. °CDB Type/GWP Charge kg/TCDEq Liquid OD mm Gas OD mm Gas OD mm Total piping System Actual melength Phase/Frequency/Voltage Hz/V Maximum fuse amps (MFA) An+Module REYQ Outdoor unit module 1 Outdoor unit module 2	HP	HP   8	HP	HP	HP	HP	HP	HP	HP   8	HP









<b>Outdoor unit System</b>	+ Module			REYQ	34U	36U	38U	40U	42U	44U	46U	48U	50U	52U	54U
System	Outdoor un	nit module 1			REY	Q16U	REYQ8U	REY	Q10U	REYQ12U	REYQ14U		REYQ16U		REYQ18
•	Outdoor un	nit module 2			REYQ18U	REYQ20U	REYC	12U			REYQ16U			REY	Q18U
	Outdoor un	nit module 3				-	REYC	18U		REYO	Q16U			REYQ18U	
Capacity range				HP	34	36	38	40	42	44	46	48	50	52	54
Cooling capacity	Prated,c			kW	95.4	97.0	106.3	111.9	118.0	123.5	130.0	135.0	140.4	145.8	151.2
Heating capacity	Prated,h			kW	51.1	54.2	58.1	58.9	60.9	62.9	67.0	69.6	74.3	79.0	83.7
• . ,	Max.	6°CWB		kW	106.5	113.0	119.0	125.5	131.5	137.5	145.0	150.0	156.5	163.0	169.5
ηs,c				%	259.2	255.3	269.2	259.6	250.2	249.3	246.8	243.1	254.4	265.7	275.2
ηs,h				%	172.0	166.3	176.0	176.1	167.8	171.9	168.8	168.5	170.3	171.7	173.3
SEER					6.6	6.5	6.8	6.6	6	5.3	6.	2	6.4	6.7	7.0
SCOP					4.4	4.2	4.	5	4.3	4.4		4.3		4	1.4
Maximum number of	connectable	indoor units								64					
Indoor index connec-	Min.				425.0	450.0	475.0	500.0	525.0	550.0	575.0	600.0	625.0	650.0	675.0
tion	Nom.									-					
	Max.				1,105.0	1,170.0	1,235.0	1,300.0	1,365.0	1,430.0	1,495.0	1,560.0	1,625.0	1,690.0	1,755.0
Piping connections	Liquid	OD		mm						19.1					
. 3	Gas	OD		mm	34.9					4	1.3				
	HP/LP gas	OD		mm	2	8.6					34.9				
	Total piping	System	Actual	m						1,000					
	length	•													
Power supply	Phase/Freq	uency/Volta	ge	Hz/V					31	N~/50/380-4	115				
Current - 50Hz	Maximum f	use amps (M	FA)	Α	8	30			100				12	25	
Outdoor unit modul	•			REMO						5U					
Dimensions	Unit	HeightxWi	dthyDonth	mm					1	.685x930x7	65				
Weight	Unit	Heightawh	ишкоерш	kg					· · · · · ·	230	03				
Fan	External static	Max.		Pa						78					
Tall	pressure	IVIAX.		га						70					
Sound power level	Cooling	Nom.		dBA						78.0					
Sound pressure level	Cooling	Nom.		dBA						57.0					
Operation range	Cooling	Min.~Max.		°CDB						-5.0~43.0					
operation range	Heating	Min.~Max.		°CWB						-20.0~45.0					
Refrigerant	Type/GWP	WIIII IVIGA.		CVVD					P	-410A/2,08					
nemgerant	Charge			kg/TCO2Eq					N	9.7/20.2					
Power supply		uency/Volta	70	Hz/V					21	9.7/20.2 N~/50/380-4	115				
Current - 50Hz		use amps (M		<u>пz/v</u> А					31	20	+13				
Actual number of connectal					l restriction for	the system (50	0% ≤ CR ≤ 120°	%)		20					

# Individual branch selector for VRV IV heat recovery

- › Unique range of single and multi BS boxes for flexible and fast design
- > Compact & light to install
- > Ideal for remote rooms as no drain piping is needed
- Allows integration of server rooms into the heat recovery solution thanks to technical cooling function
- > Connect up to 250 class unit (28kW)
- > UNIQUE Faster installation thanks to open port connection
- > Allows multi tenant applications
- > Connectable to REYQ-T, RQCEQ-P3 and RWEYQ-T9 heat recovery units





Indoor unit				BS	1Q10A	1Q16A	1Q25A
Power input	Cooling	Nom.		kW		0.005	
	Heating	Nom.		kW		0.005	
Maximum number o	f connectable indo	or units			6	8	3
Maximum capacity is	ndex of connectable	e indoor units			15 < x ≤ 100	100 <x≤160< td=""><td>160<x≤250< td=""></x≤250<></td></x≤160<>	160 <x≤250< td=""></x≤250<>
Dimensions	Unit	HeightxWio	dthxDepth	mm		207x388x326	
Weight	Unit			kg	1	2	15
Casing	Material					Galvanised steel plate	
Piping connections	Outdoor unit	Liquid	OD	mm		9.5	
		Gas	OD	mm	15	5.9	22.2
		Discharge gas	OD	mm	12	2.7	19.1
	Indoor unit	Liquid	OD	mm		9.5	
		Gas	OD	mm	15	5.9	22.2
Sound absorbing the	ermal insulation				Foan	ned polyurethane Flame-resistant needl	e felt
Power supply	Phase					1~	
	Frequency			Hz		50	
	Voltage			V		220-240	
	Maximum fuse a	mps (MFA)		Α		15	

# Multi branch selector for VRV IV heat recovery

- > Unique range of single and multi BS boxes for flexible and fast design
- > Major reduction in installation time thanks to wide range, compact size and light weight multi BS boxes
- > Up to 70% smaller and 66% lighter than previous series
- Faster installation thanks to a reduced number of brazing points and wiring
- > All indoor units connectable to one BS box
- > Less inspection ports needed compared to installing single BS
- > Up to 16kW capacity available per port
- > Connect up to 250 class unit (28kW) by combining 2 ports
- > No limit on unused ports allowing phased installation
- > **UNIQUE** Faster installation thanks to open port connection
- > **UNIQUE** Refrigerant filters for high reliability
- > Allows multi tenant applications
- > Connectable to REYQ-T, RQCEQ-P3 and RWEYQ-T9 heat recovery units

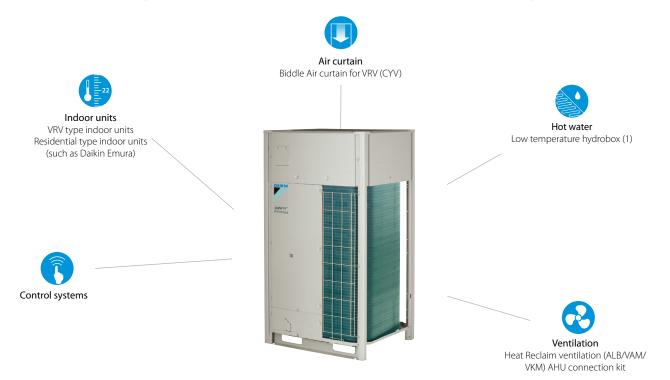




Indoor unit				BS	4Q14AV1B	6Q14AV1B	8Q14AV1B	10Q14AV1B	12Q14AV1B	16Q14AV1B		
Power input	Cooling	Nom.		kW	0.043	0.064	0.086	0.107	0.129	0.172		
	Heating	Nom.		kW	0.043	0.064	0.086	0.107	0.129	0.172		
Maximum number of	f connectable indo	or units			20							
Maximum number o	f connectable indo	or units per bra	nch			5						
Number of branches				ĺ	4	6	8	10	12	16		
Maximum capacity ir	ndex of connectabl	e indoor units			400	600		7	50			
Maximum capacity ir	ndex of connectabl	e indoor units p	er branch	ĺ			14	40				
Dimensions	Unit	HeightxWi	dthxDepth	mm	298x370x430	298x5	80x430	298x8	298x820x430			
Weight	Unit			kg	17	24	26	35	38	50		
Casing	Material						Galvanised	steel plate				
Piping connections	Outdoor unit	Liquid OD		mm	9.5	12.7	12.7 / 15.9	15.9	15.9 / 19.1	19.1		
		Gas	OD	mm	1 22.2 / 19.1 28.6 / 22.2 28.6		28.6	/ 34.9	34.9			
		Discharge gas	OD	mm	19.1 / 15.9	19.1 / 22.2	19.1 / 22.2 / 28.6		28.6			
	Indoor unit	Liquid	OD	mm			9.5 /	6.4				
		Gas	OD	mm			15.9	/ 12.7				
	Drain						VP20 (I.D. 2	20/O.D. 26)				
Sound absorbing the	ermal insulation						Urethane foam, p	olyethylene foam				
Power supply	Phase				1~							
	Frequency			Hz			5	0				
_	Voltage			V	220-440							
	Maximum fuse a	ximum fuse amps (MFA)					1	5				

# VRV IV+ heat pump

# Daikin's optimum solution with top comfort





# VRV IV standards:

# Variable refrigerant temperature

Customize your VRV for best seasonal efficiency & comfort

## Continuous heating

The new standard in heating comfort

# VRV configurator

Software for simplified commissioning, configuration and customisation

- > 7 segment display
- > Automatic refrigerant charge
- > Refrigerant containment check
- > Night quiet mode
- > Low noise function
- > Connectable to stylish indoor units (Only for single modules)
- > Connectable to LT hydrobox (1)
- > Full inverter compressors
- > Gas cooled PCB
- > 4 side heat exchanger
- > Reluctance brushless DC compressor
- > Sine wave DC inverter
- > DC fan motor
- > E-pass heat exchanger
- > I demand function
- > Manual demand function

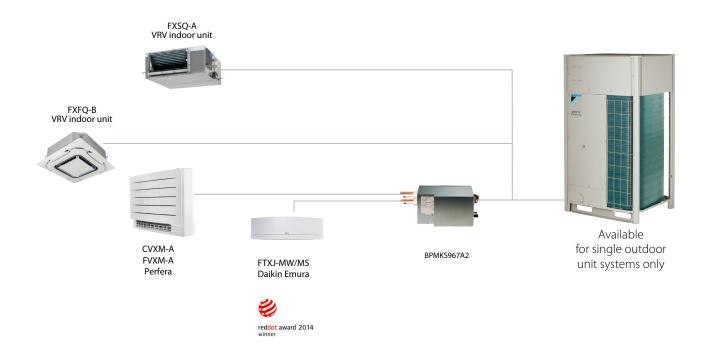
(1) Special order unit needed to connect LT hydroboxes with multi outdoor unit systems For detailed explanation of these functions refer to vrv iv technologies tab



# Wide range of indoor units

Freely combine VRV indoor units with stylish indoor units (Daikin Emura, Perfera floor or stylish, ...)





## Connectable stylish indoor units

		20 CLASS	25 CLASS	35 CLASS	42 CLASS	50 CLASS	60 CLASS
Daikin Emura - Wall mounted unit	FTXJ-MW/MS	•	•	•		•	
Stylish - Wall mounted unit	FTXA-AW/BS/BB/BT	•	•	•	•	•	
Perfera - Floor standing unit	CVXM-A/FVXM-A	•	•	•		•	•
Floor standing unit	FVXM-F		•	•		•	

# VRV IV

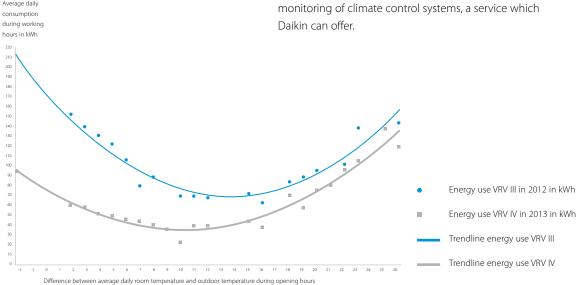
# proven in practice: 40% more efficient

A field trial at a German fashion chain store demonstrated how the innovative features of VRV IV have improved energy efficiency dramatically over previous models.

# Results: up to 60% less energy consumed

The results of the trial showed that the new VRV IV system consumed much less energy, particularly when cooling, compared with the VRV III system – in some cases up to 60% less. When heating, savings were an average of 20%.

The Unterhaching trial demonstrates how VRV IV heat pump technology uses a renewable energy source – air - to provide a complete and environmentally sustainable solution for heating, cooling, and ventilation in commercial environments. The trial also shows that businesses can only identify and control energy wastage through careful and intelligent monitoring of climate control systems, a service which Daikin can offer.



	VRV III 20HP (2 modules)	VRV IV 18HP (1 module)
Period	March 2012 - February 2013	March 2013 - February 2014
Avg (kWh/Month)	2.797	1.502
Total (KWh)	33.562	18.023
Total (€)	6.041	3.244
Yearly (operation cost/m² (€/m²)	9,9	5,3
	46% saving	gs = € 2.797

## Measured data

## Fashion store Unterhaching (Germany)

- > Floor space: 607m<sup>2</sup>
- > Energy cost: 0,18 €/kWh
- > System taken into account for consumption:
- VRV IV heat pump with continuous heating
- Round flow cassettes (without auto cleaning panel)
- VAM for ventilation (2x VAM2000)
- Biddle Air curtain.



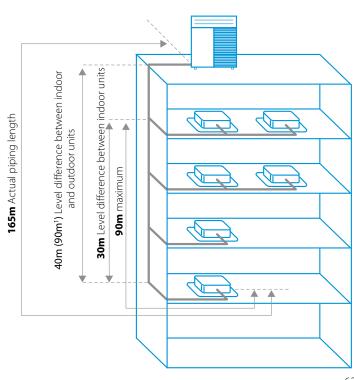
## Free combination of outdoor units

Freely combine outdoor units to optimise for small footprint, continuous heating, highest efficiency or any other combination

# Flexible piping design

Total piping length	1000m
Longest length actual (Equivalent)	165m (190m)
Longest length after first branch	90m¹
Level difference between indoor and outdoor units	90m¹
Level difference between indoor units	30m

<sup>1</sup> Contact your local dealer for more information and restrictions



<sup>2</sup> in case outdoor unit is located below indoor units

# **VRV IV+ heat pump**

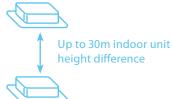
## Daikin's optimum solution with top comfort

- Covers all thermal needs of a building via a single point of contact: accurate temperature control, ventilation, hot water, air handling units and Biddle air curtains
- > Wide range of indoor units: possibility to combine VRV with stylish indoor units (Daikin Emura, Perfera floor or stylish, ...)
- > Incorporates VRV IV standards & technologies: Variable Refrigerant Temperature, continuous heating, VRV configurator, 7 segment display and full inverter compressors, 4-side heat exchanger, refrigerant cooled PCB, new DC fan motor

Access all technical information on RXYQ-U

at my.daikin.eu or click here

- Outdoor unit display for quick on-site settings and easy read out of errors together with the indication of service parameters for checking basic functions.
- Free combination of outdoor units to meet installation space or efficiency requirements
- > Available as heating only by irreversible field setting
- > Contains all standard VRV features





Already fully compliant to LOT 21 - Tier 2

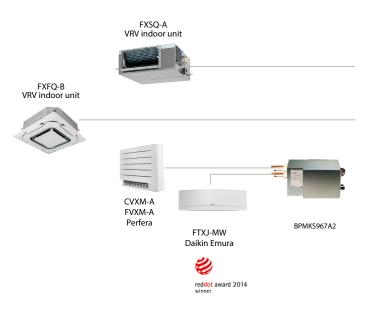




Outdoor unit				RYYQ/RXYQ	8U	1	0U	12U	14U	16U		18U	20U
Capacity range				HP	8		10	12	14	16		18	20
Cooling capacity	Prated,c			kW	22.4	2	28.0	33.5	40.0	45.0		50.4	52.0
Heating capacity	Prated,h			kW	13.7	1	6.0	18.4	20.6	23.2		27.9	31.0
	Max.	6°CWB		kW	25.0	3	31.5	37.5	45.0	50.0		56.5	63.0
Recommended comb	ination				4 x FXFQ50A	VEB 4 x FXI	Q63AVEB	6 x FXFQ50AVEB	1 x FXFQ50AVEE + 5 x FXFQ63AVEE				2 x FXFQ50AVEE + 6 x FXFQ63AVEE
ης,ς				%	302.4	2	67.6	247.8	250.7	236.5		238.3	233.7
ηs,h				%	167.9		68.2	161.4	155.4	157.8		63.1	156.6
SEER				,-	7.6	_	6.8		5.3		6.0		5.9
SCOP						4.3		4.1		4.0		4.2	4.0
Maximum number of	connectable in	door units							64 (1)				
Indoor index connec-	Min.				100.0	1	25.0	150.0	175.0	200.0	) 2	225.0	250.0
tion	Nom.								-				
	Max.				260.0	3	25.0	390.0	455.0	520.0	) 5	85.0	650.0
Dimensions	Unit	HeightxWidthx	Depth	mm		1,685>	930x765			1,6	85x1,240x7	65	
Weight	Unit		·	kg		252 (RYYQ	/ 198 (RX	(YQ)	319 (RYYQ	) / 275 (RXYC	2) 3	78 (RYYQ) /	308 (RXYQ)
Sound power level	Cooling	Nom.		dBA	78.0	7	79.1	83.4	80.9	85.6		83.8	87.9
Sound pressure level	Cooling	Nom.		dBA		57.0		61.0	60.0	63.0		62.0	65.0
Operation range	Cooling	Min.~Max.		°CDB					-5.0~43.0				
	Heating	Min.~Max.		°CWB					-20.0~15.5				
Refrigerant	Type/GWP								R-410A/2,087.	5			
	Charge			kg/TCO2Eq	5.9/12.3	6.0	/12.5	6.3/13.2	10.3/21.5	10.4/21	.7 11	.7/24.4	11.8/24.6
Piping connections	Liquid	OD		mm		9.52			12.7			15.	9
	Gas	OD		mm	19.1	1	22.2			28.6			
	Total piping length	System Ad	tual	m					1,000				
Power supply	Phase/Freque	ncy/Voltage		Hz/V					3N~/50/380-41	5			
Current - 50Hz	Maximum fus	e amps (MFA)		Α	20		25	:	32		40		50
Outdoor unit System	1			RYYQ/RXYQ	22U	24U	26		30U	32U	34U	36U	38U
System	Outdoor unit				10	8		12			16		8
	Outdoor unit				12	16	14	16	18	16	18	20	10
	Outdoor unit	module 3							-				20
Capacity range				HP	22	24	26		30	32	34	36	38
Cooling capacity	Prated,c			kW	61.5	67.4	73.		83.9	90.0	95.4	97.0	102.4
Heating capacity	Prated,h			kW	34.4	36.9	39.		46.3	46.4	51.1	54.2	60.7
	Max.	6°CWB		kW	69.0	75.0	82.		94.0	100.0	106.5	113.0	119.5
Recommended comb	ination				6 x FXFQ50AVEB	4 x FXFQ50AVE				8 x FXFQ63AVEB	3 x FXFQ50AVEB	2 x FXFQ50AVE	
					+4xFXFQ63AVEB	+4xFXFQ63AVE +2xFXFQ80AVE		63AVEB + 4 x FXFQ63AVI + 2 x FXFQ80AV		+4xFXFQ80AVEB	+9xFXFQ63AVEB +2xFXFQ80AVEB	+ 10 x FXFQ63AV + 2 x FXFQ80AV	
ηs,c				%	274.5	269.9	264	.2 257.8	256.8	251.7	253.3	250.8	272.4
ηs,h				%	171.2	167.0	164	.6 166.0	169.8	163.1	166.2	162.4	167.5
SEER					6.9	6.8	6.7	7	6.5	6	.4	6.3	6.9
SCOP					4.4	4.3		4.2	4.3	4	.2	4.1	4.3
Maximum number of	connectable in	door units							64 (1)				
Indoor index connec-					275.0	300.0	325	.0 350.0	375.0	400.0	425.0	450.0	475.0
tion	Nom.								-				
	Max.				715.0	780.0	845	.0 910.0	975.0	1,040.0	1,105.0	1,170.0	1,235.0
Piping connections	Liquid	OD		mm 15.9 19.1									
	Gas	OD		mm 28.6 34.9					41.3				
	Total piping length	System	Actual	m 1,000									
	Phase/Freque	neu/Maltaga		Hz/V	Hz/V 3N~/50/380-415 A 63 80 100								
Power supply Current - 50Hz	Maximum fus			A			63		5.1 7507500 11				100









## Connectable stylish indoor units

		20 CLASS	25 CLASS	35 CLASS	42 CLASS	50 CLASS	60 CLASS
Daikin Emura - Wall mounted unit	FTXJ-MW/MS	•	•	•		•	
Stylish - Wall mounted unit	FTXA-AW/BS/BB/BT	•	•	•	•	•	
Perfera - Floor standing unit	CVXM-A/FVXM-A	•	•	•		•	•
Floor standing unit	FVXM-F		•	•		•	

BPMKS box needed to connect RA indoors to VRV IV

<b>Outdoor unit System</b>				RYYQ/RXYQ	40U	42U	44U	46U	48U	50U	52U	54U
System	Outdoor un	it module 1			1	0	12	14		16		18
	Outdoor un	it module 2			12			16			1	8
	Outdoor un	it module 3			18		1	6			18	
Capacity range				HP	40	42	44	46	48	50	52	54
Cooling capacity	Prated,c			kW	111.9	118.0	123.5	130.0	135.0	140.4	145.8	151.2
Heating capacity	Prated,h			kW	62.3	62.4	64.8	67.0	69.6	74.3	79.0	83.7
	Max.	6°CWB		kW	125.5	131.5	137.5	145.0	150.0	156.5	163.0	169.5
Recommended combi	nation				9 x FXFQ50AVEB	12 x FXFQ63AVEB	6 x FXFQ50AVEB	1 x FXFQ50AVEB	12 x FXFQ63AVEB	3 x FXFQ50AVEB	6 x FXFQ50AVEB	9 x FXFQ50AVEB
					+ 9 x FXFQ63AVEB	+ 4 x FXFQ80AVEB	+8 x FXFQ63AVEB	+ 13 x FXFQ63AVEB	+ 6 x FXFQ80AVEB	+ 13 x FXFQ63AVEB	+ 14 x FXFQ63AVEB	+ 15 x FXFQ63AVEB
							+4 x FXFQ80AVEB	+4 x FXFQ80AVEB		+4xFXFQ80AVEB	+ 2 x FXFQ80AVEB	
ηs,c				%	263.5	261.2	255.9	254.9	251.7	252.8	253.7	254.1
ηs,h				%	170.0	165.5	164.5	162.0	162.8	165.2	167.2	169.4
SEER					6.7	6.6	6.5			6.4		
SCOP					4.3	4	.2	4	.1	4.2	4	.3
Maximum number of o	onnectable inde	oor units						64	(1)			
Indoor index connection	n Min.				500.0	525.0	550.0	575.0	600.0	625.0	650.0	675.0
	Nom.						,		_			
	Max.				1,300.0	1,365.0	1,430.0	1,495.0	1,560.0	1,625.0	1,690.0	1,755.0
Piping connections	Liquid	OD		mm			,	19	9.1			
. •	Gas	OD		mm				41	1.3			
	Total piping length	System	Actual	m				1,0	000			
Power supply	Phase/Frequ	iency/Voltage	2	Hz/V				3N~/50/	380-415			
Current - 50Hz	Maximum fu	use amps (MF/	A)	А		10	00			1.	25	
Outdoor unit module combinations	tdoor unit module for continuous heating RYMQ			8U	10U	12U	14	U	16U	18U	20U	
Dimensions Unit HeightxWidthxDepth mm				1,685x930x7	65	1,685x1,240x765						
Weight	Unit			ka		198			275		308	

combinations	RYMQ	8U	10U	12U	14U	16U	18U	20U		
Dimensions	Unit	HeightxWidthxDepth	mm		1,685x930x765			1,685x1,	240x765	
Weight	Unit		kg 198 275 308							08
Fan	External static pressure	Max.	Pa				78			
Sound power level	Cooling	Nom.	dBA	78.0	79.1	83.4	80.9	85.6	83.8	87.9
Sound pressure level	Cooling	Nom.	dBA	57.0 61.0			60.0	63.0	62.0	65.0
Operation range	Cooling	Min.~Max.	°CDB	-5.0~43.0						
	Heating	Min.~Max.	°CWB	-20.0~15.5						
Refrigerant	Type/GWP						R-410A/2,087.5			
	Charge		kg/TCO2Eq	5.9/12.3	6.0/12.5	6.3/13.2	10.3/21.5	11.3/23.6	11.7/24.4	11.8/24.6
Power supply	Phase/Frequen	cy/Voltage	Hz/V	3N~/50/380-415						
Current - 50Hz	Maximum fuse amps (MFA)			20	25	3	32	4	0	50

# VRV IV S-series heat pump

# The most compact VRV

Most compact unit on the market 823mm high & 94kg





(such as Daikin Emura)

Indoor units
VRV type indoor units
Residential type indoor units



**Air curtain**Biddle Air curtain for VRV (CYV)



Ventilation
Heat Reclaim ventilation
ALB/VAM/VKM AHU
connection kit



NEW 6HP model



RXYSQ4,5,6TV9/TY9



RXYSQ8, 10, 12TY1



# VRV IV standards:

## Variable refrigerant temperature

Customize your VRV for best seasonal efficiency & comfort

## VRV configurator

Software for simplified commissioning, configuration and customisation

- > Refrigerant containment check
- > Night quiet mode
- > Low noise function
- > Connectable to stylish indoor units
- > Full inverter compressors
- > Refrigerant cooled PCB (not available on RXYSQ4,5,6,8 TY9/TY1)
- > Reluctance brushless DC compressor
- > Sine wave DC inverter
- > DC fan motor
- > E-pass heat exchanger
- > I demand function
- > Manual demand function

For detailed explanation of these functions refer to vrv iv technologies tab

# Widest range of front blow units on the market



# Lowest height on the market

## Ideal for roof installations

> The low height mini VRV can be hidden in many places where a twin fan unit cannot due to its height.

## Ideal to install below a window on a Balcony

Daikin VRV IV S-series compact can be installed discretely on a balcony thanks to it's compact dimensions, offering you air conditioning while being almost unnoticeable.



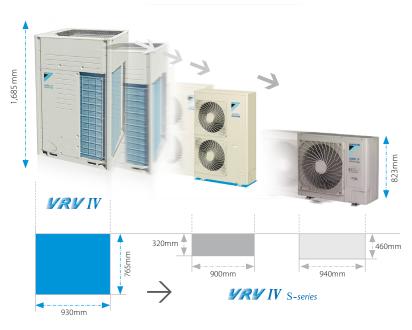
Unnoticeable for parapet installation

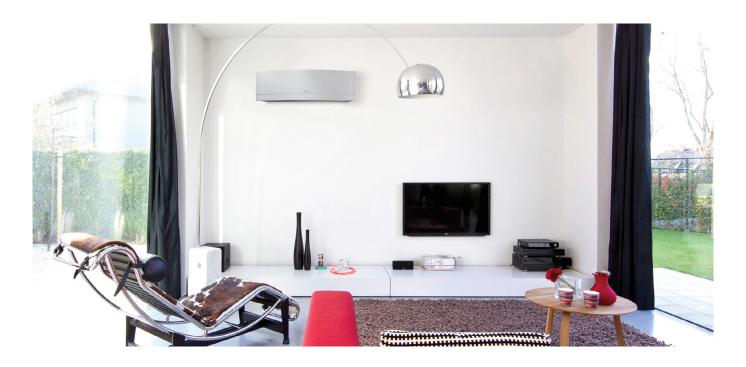


Low height make the unit invisible from inside and unnoticeable from the outside

# Space saving design

The VRV S-series is slimmer and more compact, resulting in significant savings in installation space.





# Wide range of indoor units

Connect VRV units...



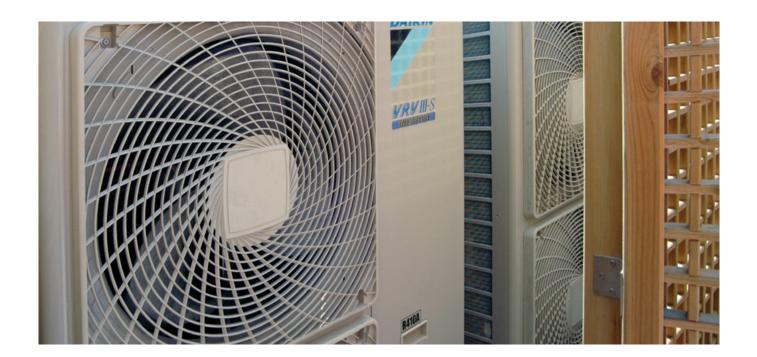
## Connectable stylish indoor units

		15 CLASS	20 CLASS	25 CLASS	35 CLASS	42 CLASS	50 CLASS	60 CLASS	71 CLASS
Round flow cassette	FCAG-B				•		•	•	•
Fully flat cassette	FFA-A9			•	•		•	•	
Slim concealed ceiling unit	FDXM-F9			•	•		•	•	
Concealed ceiling unit with inverter driven fan	FBA-A(9)			•	•		•	•	
Daikin Emura - Wall mounted unit	FTXJ-MW/MS		•	•	•		•		
Stylish - Wall mounted unit	FTXA-AW/BS/BB/BT		•	•	•	•	•		
Perfera - Wall mounted unit	CTXM-N / FTXM-N	•	•	•	•	•	•	•	•
Ceiling suspended unit	FHA-A(9)				•		•	•	
Perfera - Floor standing unit	CVXM-A/FVXM-A		•	•	•		•	•	
Floor standing unit	FVXM-F			•	•		•		
Concealed floorstanding unit	FNA-A9			•	•		•	•	

For more info about Daikins stylish indoor units, please check our indoor unit-portfolio

 $<sup>\</sup>ensuremath{^{\star}}\xspace$  VRV indoor units and stylish indoor units cannot be combined.

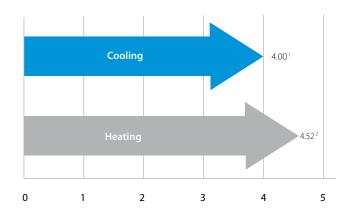
 $<sup>\</sup>mbox{\ensuremath{^{\star}}}\mbox{\ensuremath{^{\top}}}\mbo$ 



# High COP values

A major feature of VRV IV S-series is its exceptional energy efficiency. The system achieves high COPs during both cooling and heating operation by the use of refined components and functions.

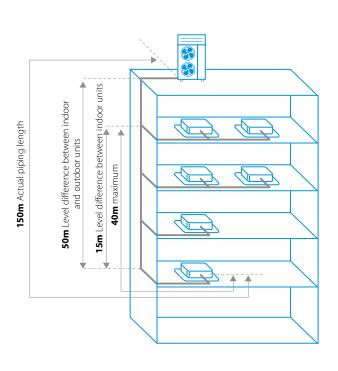
- Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB, outdoor temperature: 35°C, equivalent refrigerant piping: 5m, level difference: 0m.
- Nominal heating capacities are based on: indoor temperature: 20°CDB, outdoor temperature: 7°CDB, 6°CWB, equivalent refrigerant piping: 5m, level difference: 0m



## Flexible piping design

	VRV indoors connected	Stylish indoors connected
Total piping length	300m	140m
Longest length actual	120m (4-8HP)/ 150m (10-12HP)	
Minimum length between outdoor unit and first branch	-	5m
Minimum piping length between BP and indoor unit	-	2m
Maximum piping length between BP and indoor unit	-	15m
Longest length after first branch	40m	40m
Level difference between indoor and outdoor units	50m (40m <sup>1</sup> )	30m
Level difference between indoor units	15m	15m

<sup>&</sup>lt;sup>1</sup> Outdoor unit in lowest position

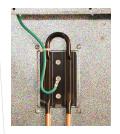


# VRV IV S-series

# technologies

# Super aero grille

The spiral shaped ribs are aligned with the direction of discharge flow in order to minimise turbulence and reduce noise.



# Refrigerantcooled PCB

- Reliable cooling because it is not influenced by ambient air temperature
- Smaller switchbox for smoother air flow through the heat exchanger increasing heat exchange efficiency with 5%

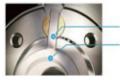








Air streams are smoothed around V-cut and reduces air flow loss



Vane fixed to rotor Rotor

## Compressor

Swing type > no oil separator Vane & rotor are unified resulting in:

- > Reduced noise level
- > Longer compressor life
- Higher efficiency thanks to the absence of internal refrigerant leakage between high and low pressure side

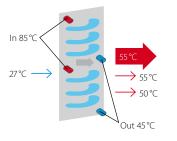
# E-Pass heat exchanger

Optimising the heat exchanger's path layout prevents heat being transferred from the overheated gas section to the sub-cooled liquid section which is a more efficient way to use the heat exchanger.

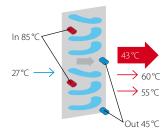
## I-demand function

Limit maximum power consumption.
The newly introduced current sensor minimizes the difference between the actual power consumption and the predefined power consumption.

#### Standard heat exchanger

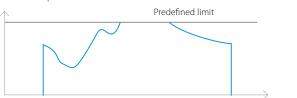


#### e-Pass heat exchanger



Time

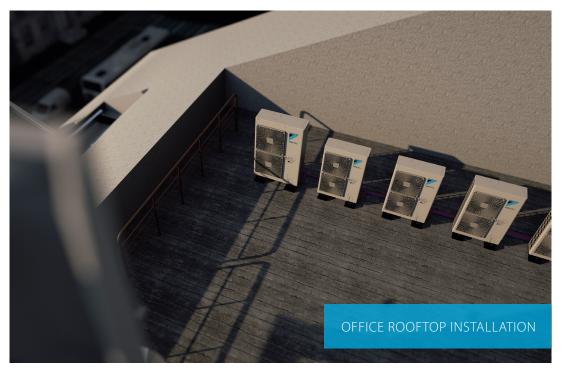
#### Power consumption















# VRV IV S-series compact heat pump

## The most compact VRV

- > Compact & lightweight single fan design makes the unit almost
- Covers all thermal needs of a building via a single point of contact: accurate temperature control, ventilation, air handling units and Biddle air cutains
- > Wide range of indoor units: either connect VRV or stylish indoor units such as Daikin Emura, Perfera floor or stylish, ...
- > Incorporates VRV IV standards & technologies: Variable Refrigerant Temperature and full inverter compressors
- > Possibility to limit peak power consumption between 30 and 80%, for example during periods with high power demand
- > Night quiet mode reduces sound pressure with up to 8dBa
- > Contains all standard VRV features



Published data with real-life indoor units

## Connectable stylish indoor units

		15 CLASS	20 CLASS	25 CLASS	35 CLASS	42 CLASS	50 CLASS	60 CLASS	71 CLASS
Round flow cassette	FCAG-B				•		•	•	•
Fully flat cassette	FFA-A9			•	•		•	•	
Slim concealed ceiling unit	FDXM-F9			•	•		•	•	
Concealed ceiling unit with inverter driven fan	FBA-A(9)			•	•		•	•	
Daikin Emura - Wall mounted unit	FTXJ-MW/MS		•	•	•		•		
Stylish - Wall mounted unit	FTXA-AW/BS/BB/BT		•	•	•	•	•		
Perfera - Wall mounted unit	CTXM-N / FTXM-N	•	•	•	•	•	•	•	•
Ceiling suspended unit	FHA-A(9)				•		•	•	
Perfera - Floor standing unit	CVXM-A/FVXM-A		•	•	•		•	•	
Floor standing unit	FVXM-F			•	•		•		
Concealed floorstanding unit	FNA-A9			•	•		•	•	



Access all technical information on RXYSCQ-TV1 at my.daikin.eu or click here

							NEW
Outdoor unit				RXYSCQ	4TV1	5TV1	6TV1
Capacity range				HP	4	5	6
Cooling capacity	Prated,c			kW	12.1	14.0	15.5
Heating capacity	Prated,h			kW	8.4	9.7	10.7
	Max.	6°CWB		kW	14.2	16.0	18.0
Recommended combination					3 x FXSQ25A2VEB + 1 x FXSQ32A2VEB	4 x FXSQ32A2VEB	2 x FXSQ32A2VEB + 2 x FXSQ40A2VEB
ηs,c				%	322.8	303.4	281.3
ηs,h				%	182.3	185.1	186.0
SEER					8.1	7.7	7.1
SCOP					4.6		4.7
Maximum number of connectable indoor units					64		
Indoor index connection	Min.				50.0	62.5	70.0
	Nom.				-		
	Max.				130.0	162.5	182.0
Dimensions	Unit HeightxWidthxDepth			mm	823x940x460		
Weight	Unit			kg	89		
Sound power level	Cooling	Nom.		dBA	68.0	69.0	70.0
Sound pressure level	Cooling	Nom.		dBA	51.0	52.0	53.0
Operation range	Cooling Min.~Max. °CDB			°CDB	-5.0~46.0		
	Heating Min.~Max. °CWI			°CWB	-20.0~15.5		
Refrigerant	Type/GWP				R-410A/2,087.5		
	Charge kg/TC02Eq			kg/TCO2Eq	3.7/7.7		
Piping connections	Liquid OD		mm	9.52			
	Gas	OD		mm	15.9		19.1
	Total piping System Actual m length		300				
Power supply	Phase/Frequency/Voltage			Hz/V	1~/50/220-240		
Current - 50Hz	Maximum fuse amps (MFA)			А	32		





# **VRV IV S-series heat pump**

#### Space saving solution without compromising on efficiency

- > Space saving trunk design for flexible installation
- > Covers all thermal needs of a building via a single point of contact: accurate temperature control, ventilation, air handling units and Biddle air cutains
- > Wide range of indoor units: either connect VRV or stylish indoor units such as Daikin Emura, Perfera floor or stylish, ...
- Wide range of units (4 to 12HP) suitable for projects up to 200m<sup>2</sup> with space limitations
- > Incorporates VRV IV standards & technologies: Variable Refrigerant Temperature and full inverter compressors
- > Possibility to limit peak power consumption between 30 and 80%, for example during periods with high power demand
- > Contains all standard VRV features





Published data with real-life indoor units

#### Connectable stylish indoor units

		15 CLASS	20 CLASS	25 CLASS	35 CLASS	42 CLASS	50 CLASS	60 CLASS	71 CLASS
Round flow cassette	FCAG-B				•		•	•	•
Fully flat cassette	FFA-A9			•	•		•	•	
Slim concealed ceiling unit	FDXM-F9			•	•		•	•	
Concealed ceiling unit with inverter driven fan	FBA-A(9)			•	•		•	•	
Daikin Emura - Wall mounted unit	FTXJ-MW/MS		•	•	•		•		
Stylish - Wall mounted unit	FTXA-AW/BS/BB/BT		•	•	•	•	•		
Perfera - Wall mounted unit	CTXM-N / FTXM-N	•	•	•	•	•	•	•	•
Ceiling suspended unit	FHA-A(9)				•		•	•	
Perfera - Floor standing unit	CVXM-A/FVXM-A		•	•	•		•	•	
Floor standing unit	FVXM-F			•	•		•		
Concealed floorstanding unit	FNA-A9			•	•		•	•	



Access all technical information on RXYSQ-TV9 at my.daikin.eu or click here

Outdoor unit		RXYS	Q/RXYSQ/RXYSQ	4TV9	5TV9	6TV9	4TY9	5TY9	6TY9	8TY1	10TY1	12TY1		
Capacity range			HP	4	5	6	4	5	6	8	10	12		
Cooling capacity	Prated,c		kW	12.1	14.0	15.5	12.1	14.0	15.5	22.4	28.0	33.5		
Heating capacity	Prated,h		kW	8.0	9.2	10.2	8.0	9.2	10.2	14.9	19.6	23.5		
	Max.	6°CWB	kW	14.2	16.0	18.0	14.2	16.0	18.0	25.0	31.5	37.5		
ηs,c			%	278.9	270.1	278.0	269.2	260.5	268.3	247.3	247.4	256.5		
ηs,h			%	171.6	182.9	192.8	154.4	164.5	174.1	165.8	162.4	169.6		
SEER			i	7.0	6.8	7.0	6.8	6.6	6.8	6	.3	6.5		
SCOP			İ	4.4	4.6	4.9	3.9	4.2	4.4	4.2	4.1	4.3		
Maximum number of	connectable	indoor units						64		'				
Indoor index connec-	Min.			50.0	62.5	70.0	50.0	62.5	70.0	100.0	125.0	150.0		
tion	Nom.							-		'				
	Max.		İ	130.0	162.5	182.0	130.0	162.5	182.0	260.0	325.0	390.0		
Dimensions	Unit	HeightxWidthxDepth	mm			1,345x9	900x320			1,430x940x320	1,615x9	940x460		
Weight	Unit		kg			1	04			144	175	180		
Sound power level	Cooling	Nom.	dBA	68.0	69.0	70.0	68.0	69.0	70.0	73.0	74.0	76.0		
Sound pressure level	Cooling	Nom.	dBA	50.0	5	1.0	50.0	5	1.0	55	5.0	57.0		
Operation range	Cooling	Min.~Max.	°CDB			-5.0	~46.0				-5.0~52.0			
	Heating	Min.~Max.	°CWB					-20.0~15.5		'				
Refrigerant	Type/GWP		i				F	R-410A/2,087.	.5					
	Charge		kg/TCO2Eq			3.6	/7.5			5.5/11.5	7.0/14.6	8.0/16.7		
Piping connections	Liquid	OD	mm				9.	52		'		12.7		
	Gas	OD	mm	15	5.9	19.1	15	5.9	1	9.1	22.2	25.4		
	Total piping length	System Actual	m	m 300										
Power supply	Phase/Freq	uency/Voltage	Hz/V	Hz/V 1N~/50/220-240 3N~/50/380-415										
Current - 50Hz	Maximum f	use amps (MFA)	A		32			16		A 32 16 25				

# VRV IV i-series heat pump

for indoor installation







**Ventilation** Heat Reclaim ventilation (ALB/VAM/ VKM) AHU connection kit



# VRV IV standards:

# Variable refrigerant temperature

Customize your VRV for best seasonal efficiency & comfort

# VRV configurator

Software for simplified commissioning, configuration and customisation

- > Night quiet mode
- > Full inverter compressors
- > Low noise function
- > Sine wave DC inverter
- > DC fan motor
- > E-pass heat exchanger
- > I demand function
- > Manual demand function

For detailed explanation of these functions refer to VRV iv technologies tab

## Invisible

- > Consider a wider range of properties because outdoor installation is not a factor
- Open for business sooner because getting building permits is simplified
- > Seamless integration into the surroundings as only the grille is visible
- > No need for a roof installation or back alley installation







### Quiet

- > Highly suited to densely populated areas such as city centres thanks to their low operating sound
- > Dedicated modes reduce sound further to comply with inner-city noise regulations



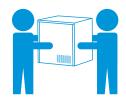
Heat exchanger sound not louder than a normal conversation



Compressor sound not louder than a refrigerator

# Lightweight parts

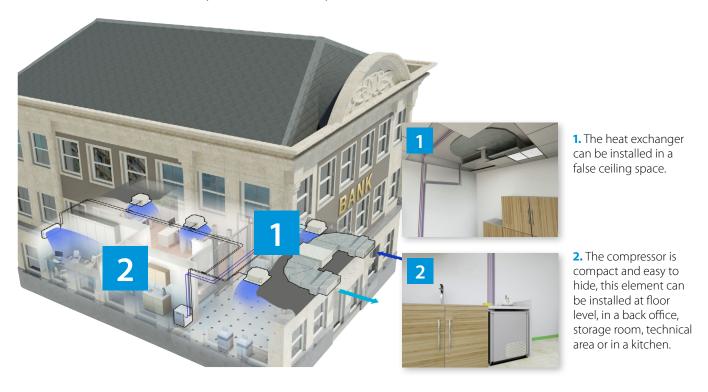




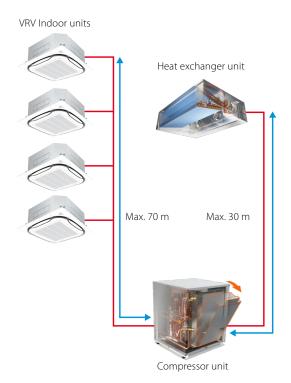
# Unique split outdoor unit for indoor installation

Compact and easy to hide, the compressor can be installed at floor level, in a back office, storage room, technical area or in a kitchen, while the heat exchanger can be installed in a false ceiling space. This means that the air conditioning system is completely invisible and does not take up expensive commercial floor space.

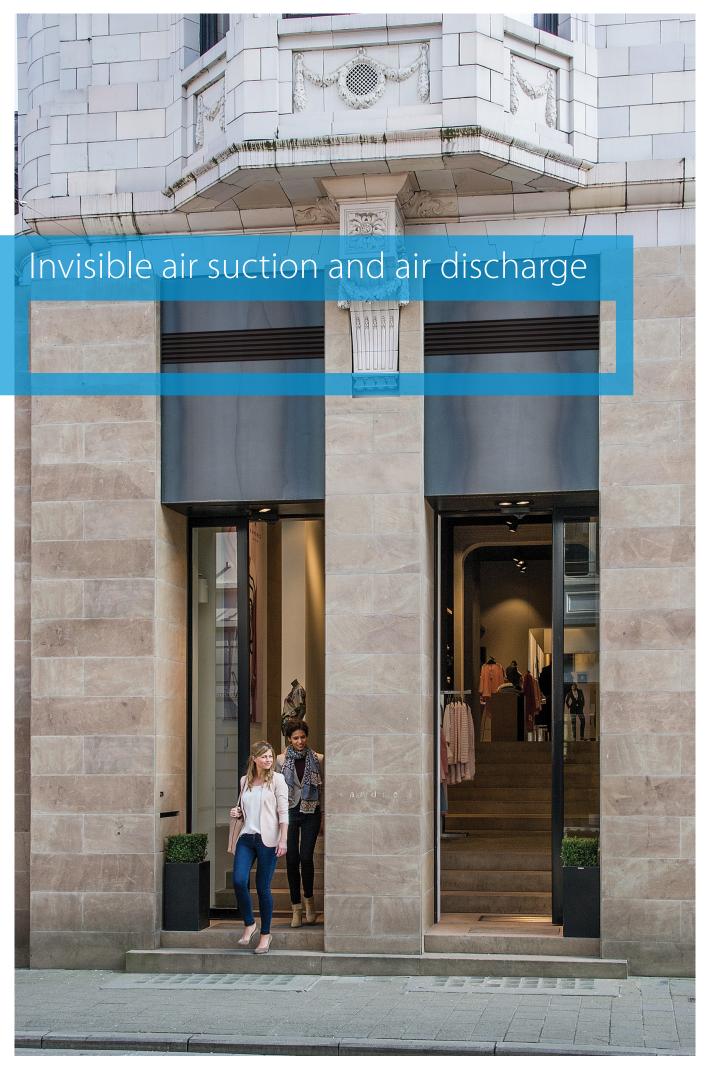
# Unrivalled flexibility thanks to the fact that the outdoor unit is split into two parts



This means that the air conditioning system is completely invisible and does not take up expensive commercial floor space.



Max. total piping length: 140m (5HP) / 300m (8HP)



# The problem solver

# for many installation issues

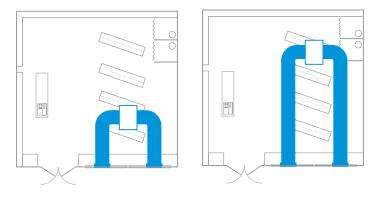
# Example 1 High flexibilty

# The other way around: install the modules where if fits your customer, not where it is the best fit for the outdoor unit

If there is no flat roof or backgarden available for installation of the outdoor unit, VRV IV i-series offers the solution.

The suction and exhaust can be installed at the façade or at the rear of the building as the inverter fans allows ESP to be adjusted to the length of the ductwork

The compressor module can be installed up to 30 m from the heat exchanger unit in a storage room, ....



Flexible installation thanks to inverter fans



#### Example 2

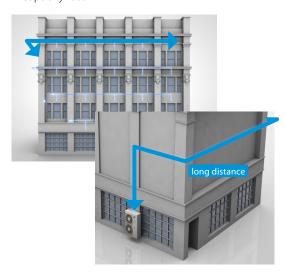
# Shorter pipe runs to the indoor units reduces installation costs compared to rooftop or back alley installation

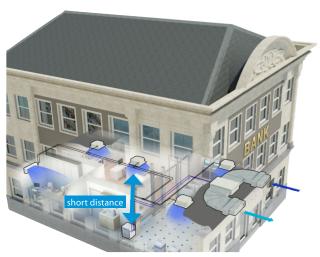
# Back alley or rooftop needs very long piping lengths

- > Long installation time
- > Additional cost
- > Capacity loss

# VRV IV i-series can be installed close to the indoor units

- > Quicker installation
- > Lower cost
- > No capacity loss





#### Example 3

# No need for bulky and expensive sound countermeasures

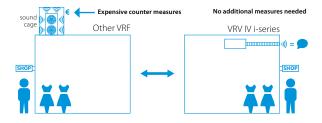
# To comply with city regulation countermeasures are needed for standard units

- Expensive sound cages might be needed to reduce sound (standard outdoor unit sound = 50~60 dBA)
- > Inside installation using expensive floor space

# Reduced floor space Other VRF VRV IV i-series technical aera stock kitchen

# With VRV IV i-series you easily comply with city regulation without additional measures

- Operation sound 47 dBA for 5HP model (flexible to install in corridor, shop area, ...) or lower with attenuator
- No floor space is used as units can be installed in false ceiling, against the wall, ...



# Patented V-shape heat exchanger

for best surface to volume ratio





# Compressor unit with rotating switchbox

Flexible and easy to install





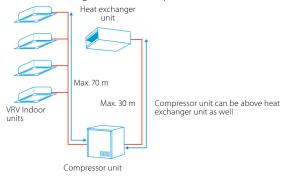
# VRV IV heat pump for indoor installation

#### The invisible VRV

> Unique VRV heat pump for indoor installation



> Unrivalled flexibility because the unit is split up into two elements: the heat exchanger and the compressor



- > Highly suited to densely populated areas thanks to the low operation sound and seamless integration into surrounding architecture as only the grille is visible
- > Incorporates VRV IV standards & technologies: Variable Refrigerant Temperature, VRV configurator and full inverter compressors



- > Covers all thermal needs of a building via a single point of contact: accurate temperature control, ventilation, air handling units and Biddle air cutains
- > Lightweight units (max. 105kg) can be installed by two people
- > Unique V-shape heat exchanger results in compact dimensions (h/e unit only 400mm high) allowing false ceiling installation, while ensuring top efficiency
- > Super efficient centrifugal fans (over 50% efficiency increase compared to sirocco fan)
- Small footprint compressor unit (760 x 554 mm) maximizing useable floor space
- > Contains all standard VRV features



Published data with



Access all technical information on SB-RKXYQ-T at my.daikin.eu or click here



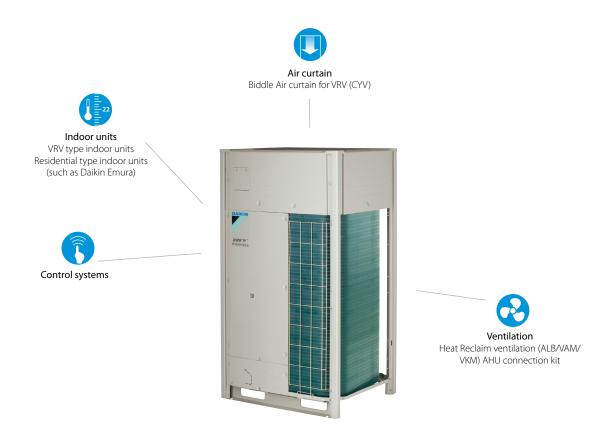
Access all technical information on SB-RKXYQ-T(8) at my.daikin.eu or click here

System			SB.	RKXYQ	5T8	8T
System	Heat exchanger unit				RDXYQ5T8	RDXYQ8T
	Compressor unit			Î	RKXYQ5T8	RKXYQ8T
Capacity range				HP	5	8
Cooling capacity	Prated,c			kW	14.0	22.4
Heating capacity	Prated,h			kW	10.4	12.9
	Max.	6°CWB		kW	16.0	25.0
Recommended comb	ination				4 x FXSQ32A2VEB	4 x FXMQ50P7VEB
ηs,c				%	200.1	191.1
ηs,h				%	149.3	140.9
SEER					5.1	4.9
SCOP					3.8	3.6
Maximum number of	connectable indoor unit	S			10	17
Indoor index connec-	Min.				62.5	100.0
tion	Nom.				-	-
	Max.				162.5	260.0
Piping connections	Liquid	OD		mm	-	-
	Gas	OD		mm	-	-
	Between Compressor	Liquid	OD	mm	12	2.7
	module (CM) and heat	Gas	OD	mm	19.1	22.2
	exchanger module (HM)					
	Between Compressor	Liquid	OD	mm	9	
	module (CM) and indoor	Gas	OD	mm	15.9	19.1
	units (IU)					
	Total piping length	System	Actual	m	140	300

				Heat exchange	r module - RDXYQ	Compressor module - RKXYQ		
Outdoor unit modu	le			5T8	8T	5T8	8T	
Dimensions	Unit	HeightxWidthxDepth	mm	397x1,	456x1,044	701x600x554	701x760x554	
Weight	Unit		kg	95	103	79	105	
Fan	Air flow rate	Cooling Nom.	m³/min	55	100	-		
Sound power level	Cooling	Nom.	dBA	77.0	81	60.0	64	
Sound pressure level	Cooling	Nom.	dBA	47.0	54	47.0	48	
Refrigerant	Type/GWP			R-4	110A/-	R-410A/2	2,087.5	
	Charge		kg/TCO2Eq		-/-	2.00/4.20	4.00/8.35	
Power supply	Phase/Frequency/	Voltage	Hz/V	1N~/5	0/220-240	3N~/50/3	880-415	
Current - 50Hz	Maximum fuse am	nps (MFA)	А		10	16	20	

# VRV IV C+ series

# Where heating is priority without compromising on efficiency





# VRV IV standards:

# Variable refrigerant temperature

Customize your VRV for best seasonal efficiency & comfort

# VRV configurator

Software for simplified commissioning, configuration and customisation

- > 7 segment display
- > Automatic refrigerant charge
- > Refrigerant containment check
- > Night quiet mode
- > Low noise function
- > Connectable to stylish indoor units (Only for single modules)
- > Full inverter compressors
- > Gas cooled PCB
- > 4 side heat exchanger
- > Reluctance brushless DC compressor
- > Sine wave DC inverter
- > DC fan motor
- > E-pass heat exchanger
- > I demand function
- > Manual demand function







## RXYLQ-T

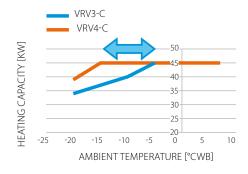


# Where heating is priority without compromising on efficiency



#### High heating capacity at low ambient temperatures

> Stable heating capacity available down to -15°C WB!



# \*\*\*

#### High partial load efficiency

- New vapour injection scroll compressor optimised for low load
   UNIQUE back-pressure control: Pressure port increases
   pressure below the scroll in low load operation, preventing refrigerant leak
   and increasing efficiency
- UNIQUE Injection structure with check valve: Prevents volume backflow during low load operation typically occuring with standard vapour injection compressors
- > Variable Refrigerant Temperature adjusts refrigerant temperature to match the load





#### High reliability down to -25°C WB

Hot gas bypass prevents ice buildup at the b of the heat exchanger





#### High seasonal efficiency

#### > Measured with indoor units for real applications!

> ALL information for indoor units used available on our eco-design website: Already fully compliant https://energylabel.daikin.eu/eu/en\_US/lot21.html





#### The known VRV IV standards

- ☑ Variable Refrigerant Temperature
- ✓ VRV configurator

#### **Total solution**



Daikin Emura Wall mounted unit



Biddle air curtain



Air handling unit for ventilation



Perfera Floor standing unit



Intelligent Manager



Low temperature hydrobox



Fully flat cassette

# VRV heat pump optimised for heating

# Where heating is priority without compromising on efficiency

- Specifically developed for heating operation in low ambient conditions, making it suitable for single source heating
- > Stable heating capacity down to -15°C, thanks to vapour injection compressor
- > Extended operation range down to -25°C in heating
- High reliability in severe conditions, thanks to hot gas bypass circuit in the heat exchanger
- > 15% increased heating capacity at high relative humidity (2°CDB/1°CWB and RH=83%) vs previous model
- Shorter defrost and heat up time, compared to standard VRV heat pump
- > Very economical solution as a smaller outdoor unit model can be used compared to the standard series

- Covers all thermal needs of a building via a single point of contact: accurate temperature control, ventilation, air handling units and Biddle air cutains
- > Wide range of indoor units: possibility to combine VRV with stylish indoor units (Daikin Emura, Perfera floor or stylish, ...)
- > Incorporates VRV IV standards & technologies: Variable Refrigerant Temperature, VRV configurator, 7 segment display and full inverter compressors, 4-side heat exchanger, refrigerant cooled PCB, new DC fan motor, ...
- Free combination of outdoor units to meet installation space or efficiency requirements
- Wide piping flexibility: 30m indoor height difference, maximum piping length: 190m, total piping length: 500m
- Less installation time and smaller footprint compared to previous model thanks to removal of function unit



Already fully compliant to LOT 21 - Tier 2

Published data with real-life indoor units

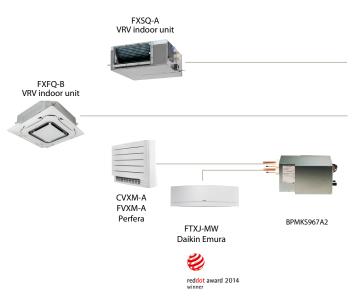


Access all technical information on RXYLQ-T at my.daikin.eu or click here

Outdoor unit			RXYLQ		10T		12T		14T			
Capacity range			HP		10		12		14			
Cooling capacity	Prated,c		kW		28		33.5		40			
Heating capacity	Prated,h		kW		31.5		37.5		45			
	Max.	6°CWB	kW		31.50		37.50		45.00			
Recommended comb	oination			4 x FXI	MQ63P7VEB	(	5 x FXMQ50P7VE	3 1)	FXMQ50P7VEB + 5	x FXMQ63P7VEB		
ηs,c			%		251.4		274.4		270.1			
ηs,h			%		144.3		137.6		137.1			
SEER					6.36		6.93		6.83			
SCOP					3.68		3.51		3.5			
Maximum number of	connectable	indoor units					64 (1)					
Indoor index connec-	Min.				175		210		245			
tion	Nom.				250		300		350			
	Max.				325		390		455			
Dimensions	Unit	HeightxWidthxDe	pth mm				1,685x1,240x765					
Weight	Unit		kg				302					
Sound power level	Cooling	Nom.	dBA		77		81		81			
Sound pressure level	Cooling	Nom.	dBA		56		59		59			
Operation range	Cooling	Min.~Max.	°CDB			'	-5.0~43.0					
	Heating	Min.~Max.	°CWB				-25.0~16.0					
Refrigerant	Type/GWP						R-410A/2,087.5					
•	Charge		kg/TCO2Eq				11.8/24.6					
Piping connections	Liquid	OD	mm		9.5			12.7				
, 3	Gas	OD	mm		22.2			28.6				
	Total piping length	System Actu	al m			'	500					
Power supply		uency/Voltage	Hz/V				3N~/50/380-415					
Current - 50Hz		use amps (MFA)	Α		25			32				
0.11		·	DVV/I O	4.77	407	22-		247	207			
Outdoor unit	Outdoor un	5 d. L. d	RXYLQ	16T	18T RXYLO10T	20T RXYLO10T	22T RXYLO10T	24T RXYLO12T	26T RXYLO12T	28T RXYLO14T		
System				RXMLQ8T			-					
Cit	Outdoor un	it module 2	HP	RXMLQ8T	RXMLQ8T	RXYLQ10T	RXYLQ12T	RXYLQ12T	RXYLQ14T	RXYLQ14T		
Capacity range								24	26	20		
Cooling capacity	D			16	18	20	22	24	26	28		
Hankin a namanin.	Prated,c		kW	16 44.8	18 50.4	20 56	61.5	24 67	26 73.5	28 80		
Heating capacity	Prated,h	COCIAID	kW kW	44.8	50.4	56	61.5	67	73.5	80		
	Prated,h Max.	6°CWB	kW	44.8 50	50.4	56 63	61.5 - 69	67 75	73.5 82.5	90		
Heating capacity  Recommended comb	Prated,h Max.	6°CWB	kW kW	44.8	50.4	56	61.5	67	73.5	80		
Recommended comb	Prated,h Max.	6°CWB	kW kW	44.8 50 4 x FXMQ63P7VEB	50.4 56.5 3 x FXMQ50P7VEB	56 63 2 x FXMQ50P7VEB	61.5 - 69 6 x FXMQ50P7VEB	75 4 x FXMQ50P7VEB + 4 x FXMQ63P7VEB	73.5 82.5 7 x FXMQ50P7VEB	90 6 x FXMQ50P7VEB + 4 x FXMQ63P7VEB		
Recommended comb	Prated,h Max.	6°CWB	kW kW kW	44.8 50 4 x FXMQ63P7VEB + 2 x FXMQ80P7VEB	50.4 56.5 3 x FXMQ50P7VEB + 5 x FXMQ63P7VEB	63 2 x FXMQ50P7VEB + 6 x FXMQ63P7VEB	61.5 - 69 6 x FXMQ50P7VEB + 4 x FXMQ63P7VEB	75 4 x FXMQ50P7VEB + 4 x FXMQ63P7VEB + 2 x FXMQ80P7VEB	73.5 82.5 7 x FXMQ50P7VEB +5 x FXMQ63P7VEB	90 6 x FXMQ50P7VEB + 4 x FXMQ63P7VEB + 2 x FXMQ80P7VEB		
	Prated,h Max.	6°CWB	kW kW kW	50 4 x FXMQ63P7VEB + 2 x FXMQ80P7VEB 261.8	50.4 56.5 3 x FXMQ50P7VEB + 5 x FXMQ63P7VEB 255.7	63 2 x FXMQ50P7VEB + 6 x FXMQ63P7VEB 251.4	61.5 - 69 6xFXMQ50P7VEB +4xFXMQ63P7VEB	75 4 x FXMQ50P7VEB + 4 x FXMQ63P7VEB + 2 x FXMQ80P7VEB 274.4	73.5 82.5 7 x FXMQ50P7VEB +5 x FXMQ63P7VEB 270.8	90 6 x FXMQ50P7VEB + 4 x FXMQ63P7VEB + 2 x FXMQ80P7VEB 270.1		
Recommended comb	Prated,h Max.	6°CWB	kW kW kW	44.8 50 4xFXMQ63P7VEB +2xFXMQ80P7VEB 261.8 138.0 3.52	50.4 56.5 3 x FXMQ50P7VEB +5 x FXMQ63P7VEB 255.7 140.5 3.59	56 63 2 x FXMQ50P7VEB + 6 x FXMQ63P7VEB 251.4 144.3 3.68	61.5 - 69 6 x FXMQ50P7VEB + 4 x FXMQ63P7VEB 263.0 140.3 3.58	75 4xFXMQS0P7VEB +4xFXMQ63P7VEB +2xFXMQ80P7VEB 274.4 137.6 3.51	73.5  82.5  7×FXMQ50P7VEB +5×FXMQ63P7VEB 270.8 137.1 3.50	90 6 x FXMQ50P7VEB + 4 x FXMQ63P7VEB + 2 x FXMQ80P7VEB 270.1 137.1 3.50		
ns,c ns,h SEER SCOP	Prated,h Max. Dination		kW kW kW	44.8 50 4xFXMQ63P7VEB +2xFXMQ80P7VEB 261.8 138.0	56.5 3 x FXMQ50P7VEB +5 x FXMQ63P7VEB 255.7 140.5	56  63 2 x FXMQ50P7VEB + 6 x FXMQ63P7VEB  251.4 144.3	61.5 - 69 6x FXMQ50P7VEB +4x FXMQ63P7VEB 263.0 140.3 3.58 6.65	75 4xFXMQ50P7VEB +4xFXMQ63P7VEB +2xFXMQ80P7VEB 274.4 137.6	73.5  82.5  7xFXMQ50P7VEB +5xFXMQ63P7VEB  270.8  137.1	90 6 x FXMQ50P7VEB + 4 x FXMQ63P7VEB + 2 x FXMQ80P7VEB 270.1 137.1		
Recommended comb	Prated,h Max. Dination		kW kW kW	44.8 50 4xFXMQ63P7VEB +2xFXMQ80P7VEB 261.8 138.0 3.52	50.4 56.5 3 x FXMQ50P7VEB +5 x FXMQ63P7VEB 255.7 140.5 3.59	56 63 2 x FXMQ50P7VEB + 6 x FXMQ63P7VEB 251.4 144.3 3.68	61.5 - 69 6 x FXMQ50P7VEB + 4 x FXMQ63P7VEB 263.0 140.3 3.58	75 4xFXMQS0P7VEB +4xFXMQ63P7VEB +2xFXMQ80P7VEB 274.4 137.6 3.51	73.5  82.5  7×FXMQ50P7VEB +5×FXMQ63P7VEB 270.8 137.1 3.50	90 6 x FXMQ50P7VEB + 4 x FXMQ63P7VEB + 2 x FXMQ80P7VEB 270.1 137.1 3.50		
Recommended comb	Prated,h Max. Dination		kW kW kW	44.8 50 4xFXMQ63P7VEB +2xFXMQ80P7VEB 261.8 138.0 3.52 6.62	50.4 56.5 3 x FXMQS0P7VEB + 5 x FXMQ63P7VEB 255.7 140.5 3.59 6.47	56  63 2×FXMQ50P7VEB +6×FXMQ63P7VEB  251.4 144.3 3.68 6.36	61.5 - 69 6xFXMQ50P7VEB +4xFXMQ63P7VEB 263.0 140.3 3.58 6.65 64 (1)	75 4xFXMQ50P7VEB +4xFXMQ63P7VEB +2xFXMQ80P7VEB 274.4 137.6 3.51 6.93	73.5  82.5  7 x FXMQ50P7VEB  + 5 x FXMQ63P7VEB  270.8  137.1  3.50  6.84	90 6xFXMQ50P7VEB +4xFXMQ63P7VEB +2xFXMQ80P7VEB 270.1 137.1 3.50 6.83		
ns,c ns,h SEER SCOP Maximum number of Indoor index connec-	Prated,h Max. Dination		kW kW kW	44.8 50 4xFXMQ63P7VEB +2xFXMQ80P7VEB 261.8 138.0 3.52 6.62 280 400	50.4 56.5 3 x FXMQ50P7VEB + 5 x FXMQ63P7VEB 255.7 140.5 3.59 6.47 315 450	56  63 2×FXMQ50P7VEB +6×FXMQ63P7VEB  251.4 144.3 3.68 6.36  350 500	61.5 - 69 6xFXMQ50P7VEB +4xFXMQ63P7VEB 263.0 140.3 3.58 6.65 64 (1) 385 550	67  75  4xFXMQS0P7VEB  4xFXMQS0P7VEB  4xFXMQS0P7VEB  274.4  137.6  3.51  6.93  420  600	73.5  82.5  7 x FXMQ50P7VEB +5 x FXMQ63P7VEB  270.8 137.1 3.50 6.84	80 90 6xFXMQ50P7VEB +4xFXMQ63P7VEB +2xFXMQ80P7VEB 270.1 137.1 3.50 6.83 490 700		
ns.c ns.h SEER SCOP Maximum number of Indoor index connec- tion	Prated,h Max. Dination Connectable Min. Nom. Max.	indoor units	kW kW kW	44.8 50 4xFXMQ63P7VEB +2xFXMQ80P7VEB 261.8 138.0 3.52 6.62 280 400 520	50.4 56.5 3 x FXMQ50P7VEB + 5 x FXMQ63P7VEB 255.7 140.5 3.59 6.47 315 450 585	56  63 2 x FXMQ50P7VEB + 6 x FXMQ63P7VEB 251.4 144.3 3.68 6.36 350 500 650	61.5 - 69 6xFXMQ50P7VEB +4xFXMQ63P7VEB 263.0 140.3 3.58 6.65 64 (1) 385 550 715	67 75 4xFXMQS0P7VEB +4xFXMQs0P7VEB +2xFXMQ80P7VEB 274.4 137.6 3.51 6.93 420 600 780	73.5  82.5  7×FXMQS0P7VEB +5×FXMQ63P7VEB  270.8  137.1  3.50  6.84  455  650  845	80 90 6 x FXMQ50P7VEB + 4 x FXMQ63P7VEB + 2 x FXMQ80P7VEB 270.1 137.1 3.50 6.83 490 700 910		
ns,c ns,h SEER SCOP Maximum number of Indoor index connec-	Prated,h Max. Dination  Connectable Min. Nom. Max. Liquid	indoor units	kW kW kW	44.8 50 4xFXMQ63P7VEB +2xFXMQ80P7VEB 261.8 138.0 3.52 6.62 280 400 520 12.7	50.4  56.5  3 x FXMQS0P7VEB  + 5 x FXMQ63P7VEB  255.7  140.5  3.59  6.47  315  450  588  15.9	56  63 2xFXMQS0P7VEB +6xFXMQ63P7VEB 251.4 144.3 3.68 6.36 350 500 650 15.9	61.5 - 69 6xFXMQ50P7VEB +4xFXMQ63P7VEB 263.0 140.3 3.58 6.65 64 (1) 385 550 715	67  75  4xFXMQS0P7VEB  4xFXMQS0P7VEB  4xFXMQS0P7VEB  274.4  137.6  3.51  6.93  420  600	73.5  82.5  7 x FXMQ50P7VEB  +5 x FXMQ63P7VEB  270.8  137.1  3.50  6.84  455  650  845	80 90 6xFXMQ50P7VEB +4xFXMQ63P7VEB +2xFXMQ80P7VEB 270.1 137.1 3.50 6.83 490 700		
ns.c ns.h SEER SCOP Maximum number of Indoor index connec- tion	Prated,h Max. Dination Connectable Min. Nom. Max. Liquid Gas	indoor units  OD OD	kW kW kW	44.8 50 4xFXMQ63P7VEB +2xFXMQ80P7VEB 261.8 138.0 3.52 6.62 280 400 520	50.4 56.5 3 x FXMQ50P7VEB + 5 x FXMQ63P7VEB 255.7 140.5 3.59 6.47 315 450 585	56  63 2 x FXMQ50P7VEB + 6 x FXMQ63P7VEB 251.4 144.3 3.68 6.36 350 500 650	61.5 - 69 6xFXMQ50P7VEB +4xFXMQ63P7VEB 263.0 140.3 3.58 6.65 64 (1) 385 550 715 15.9 28.6	67 75 4xFXMQS0P7VEB +4xFXMQs0P7VEB +2xFXMQ80P7VEB 274.4 137.6 3.51 6.93 420 600 780	73.5  82.5  7×FXMQS0P7VEB +5×FXMQ63P7VEB  270.8  137.1  3.50  6.84  455  650  845	80 90 6 x FXMQ50P7VEB + 4 x FXMQ63P7VEB + 2 x FXMQ80P7VEB 270.1 137.1 3.50 6.83 490 700 910		
ns.c ns.h SEER SCOP Maximum number of Indoor index connec- tion	Prated,h Max. Dination  Connectable Min. Nom. Max. Liquid Gas Total piping	indoor units	kW kW kW	44.8 50 4xFXMQ63P7VEB +2xFXMQ80P7VEB 261.8 138.0 3.52 6.62 280 400 520 12.7	50.4  56.5  3 x FXMQS0P7VEB  + 5 x FXMQ63P7VEB  255.7  140.5  3.59  6.47  315  450  588  15.9	56  63 2xFXMQS0P7VEB +6xFXMQ63P7VEB 251.4 144.3 3.68 6.36 350 500 650 15.9	61.5 - 69 6xFXMQ50P7VEB +4xFXMQ63P7VEB 263.0 140.3 3.58 6.65 64 (1) 385 550 715	67 75 4xFXMQS0P7VEB +4xFXMQs0P7VEB +2xFXMQ80P7VEB 274.4 137.6 3.51 6.93 420 600 780	73.5  82.5  7 x FXMQ50P7VEB  +5 x FXMQ63P7VEB  270.8  137.1  3.50  6.84  455  650  845	80 90 6 x FXMQ50P7VEB + 4 x FXMQ63P7VEB + 2 x FXMQ80P7VEB 270.1 137.1 3.50 6.83 490 700 910		
ns.c ns.h SEER SCOP Maximum number of Indoor index connec- tion	Prated,h Max. Dination  Connectable Min. Nom. Max. Liquid Gas Total piping length	indoor units  OD OD	kW kW kW	44.8 50 4xFXMQ63P7VEB +2xFXMQ80P7VEB 261.8 138.0 3.52 6.62 280 400 520 12.7	50.4  56.5  3 x FXMQS0P7VEB  + 5 x FXMQ63P7VEB  255.7  140.5  3.59  6.47  315  450  588  15.9	56  63 2 x FXMQ50P7VEB + 6 x FXMQ63P7VEB + 6 x FXMQ63P7VEB 251.4 144.3 3.68 6.36 350 500 650 15.9 28.6	61.5 - 69 6xFXMQ50P7VEB +4xFXMQ63P7VEB 263.0 140.3 3.58 6.65 64 (1) 385 550 715 15.9 28.6	67 75 4xFXMQS0P7VEB +4xFXMQs0P7VEB +2xFXMQ80P7VEB 274.4 137.6 3.51 6.93 420 600 780	73.5  82.5  7 x FXMQ50P7VEB  +5 x FXMQ63P7VEB  270.8  137.1  3.50  6.84  455  650  845	80 90 6 x FXMQ50P7VEB + 4 x FXMQ63P7VEB + 2 x FXMQ80P7VEB 270.1 137.1 3.50 6.83 490 700 910		









### Connectable stylish indoor units

		20 CLASS	25 CLASS	35 CLASS	42 CLASS	50 CLASS	60 CLASS
Daikin Emura - Wall mounted unit	FTXJ-MW/MS	•	•	•		•	
Stylish - Wall mounted unit	FTXA-AW/BS/BB/BT	•	•	•	•	•	
Perfera - Floor standing unit	CVXM-A/FVXM-A	•	•	•		•	•
Floor standing unit	FVXM-F		•	•		•	

BPMKS box needed to connect RA indoors to VRV IV

Outdoor unit			RXYLQ	30T	32T	34T	36T	38T	40T	42T
System	Outdoor un	nit module 1		RXYLQ10T	RXYLQ10T	RXYLQ10T	RXYLQ12T	RXYLQ12T	RXYLQ12T	RXYLQ14T
	Outdoor un	nit module 2		RXYLQ10T	RXYLQ10T	RXYLQ12T	RXYLQ12T	RXYLQ12T	RXYLQ14T	RXYLQ14T
	Outdoor un	nit module 3			RXYLQ12T			RXYLQ14T		
Capacity range			HP	30	32	34	36	38	40	42
Cooling capacity	Prated,c		kW	84	89,5	95	101	107	114	120
Heating capacity	Prated,h		kW				-			
<b>3</b> . ,	Max.	6°CWB	kW	94,5	100,5	106,5	112,5	120	127,5	135
Recommended comb	ination			9 x FXMQ50P7VEB	8 x FXMQ63P7VEB	3 x FXMQ50P7VEB	2 x FXMQ50P7VEB	6 x FXMQ50P7VEB	9 x FXMQ50P7VEB	12 x FXMQ63P7VE
				+ 5 x FXMQ63P7VEB	+ 4 x FXMQ80P7VEB	+ 9 x FXMQ63P7VEB	+ 10 x FXMQ63P7VEB	+ 10 x FXMQ63P7VEB	+ 9 x FXMQ63P7VEB	+ 4 x FXMQ80P7VE
						+ 2 x FXMQ80P7VEB	+ 2 x FXMQ80P7VEB			
ηs,c			%	251.4	259.1	266.8	274.4	271.6	270.3	270.1
ηs,h			%	144.3	141.6	139.2	137.6	137.1	137.1	137.1
SEER				3.86	3.61	3.56	3.51	3.50	3.50	3.50
SCOP				6.36	6.55	6.74	6.93	6.86	6.83	6.83
Maximum number of	connectable	indoor units					64 (1)			
Indoor index connec-	Min.			525	560	595	630	665	700	735
tion	Nom.			750	800	850	900	950	1000	1050
	Max.			975	1040	1105	1170	1235	1300	1365
Piping connections	Liquid	OD	mm	19,1	19,1	19,1	19,1	19,1	19,1	19,1
	Gas	OD	mm	34,9	34,9	34,9	41,3		41,3	
	Total piping length	System Actual	m				500	,		
Power supply	Phase/Freq	uency/Voltage	Hz/V				3N~/50/380-415			
Current - 50Hz	Maximum f	use amps (MFA)	А		8	30			90	
Outdoor unit			RXMLQ				8T			
Dimensions	Unit	HeightxWidthxDepth	mm				1,685x1,240x765			
Weight	Unit		kg				302			
Sound power level	Cooling	Nom.	dBA				75,0			
Sound pressure level	Cooling	Nom.	dBA				55,0			
Operation range	Cooling	Min.~Max.	°CDB				-5.0~43.0			
	Heating	Min.~Max.	°CWB				-25.0~16.0			
Refrigerant	Type/GWP						R-410A/2,087.5			
	Charge		kg/TCO2Eq				11.8/24.6			
Piping connections	Liquid	OD	mm				9.5			
	Gas	OD	mm				19.1			
	Total piping length	System Actual	m				500			
Power supply		uency/Voltage	Hz/V				3N~/50/380-415			
Current - 50Hz	Maximum f	use amps (MFA)	Α				20			



# Replacement VRV

# Quick & quality replacement for R-22 and R-407C systems





# **Air curtain**Biddle Air curtain for VRV (CYV)



# Ventilation Heat Reclaim ventilation (VAM/VKM) AHU connection kit



\_VRV III



Control systems



Heat pump

# Variable refrigerant temperature

Customize your VRV for best seasonal efficiency & comfort

## VRV configurator

Software for simplified commissioning, configuration and customisation

For more information on these features refer to the VRV IV technologies tab

- > 7 segment display
- > Automatic refrigerant charge
- > Night quiet mode
- > Low noise function
- > Full inverter compressors
- > Gas cooled PCB
- > 4 side heat exchanger
- > Reluctance brushless DC compressor
- > Sine wave DC inverter
- > DC fan motor
- > E-pass heat exchanger
- > I demand function
- > Manual demand function

### VRVIII-O

#### Heat pump & Heat recovery

- > Automatic refrigerant charge
- > Night quiet mode
- > Low noise function
- > Full inverter compressors
- > Reluctance brushless DC compressor
- > Sine wave DC inverter
- > DC fan motor
- > E-pass heat exchanger
- > I demand function
- > Manual demand function

# Replacement technology

The quick and quality way of upgrading R-22 and R-407C systems

## These benefits will convince your customer:

## Drastically improve your efficiency, comfort and reliability

#### Avoid loss of business

Replacing now prevents unplanned, lengthy downtime of air conditioning systems. It also avoids loss of business for shops, complaints from guests in hotels, lower working efficiency and loss of tenants in offices.

#### Quick and easy installation

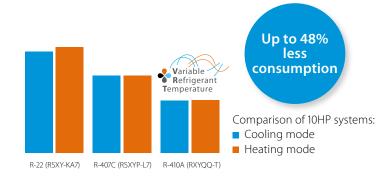
No interruption of daily business while replacing the system thanks to phased-in, fast installation.

#### Smaller footprint, more performance

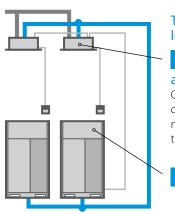
Thanks to a smaller footprint, Daikin outdoor units save space. Also, more indoor units can be connected to the new outdoor unit compared to the old system, allowing to increase capacity.

#### Lower long-term costs

EU Directives prohibit system repairs with R-22 after January 1, 2015. Delaying the required R-22 replacement until an unplanned system breakdown is a losing game. Replacement day will come. Installing a technically advanced system lowers energy consumption and maintenance costs from day one.



## Keep your refrigerant piping



The Daikin low-cost upgrade solution

# Replace indoor units and BS boxes

Contact your local dealer to check compatibility in case you need to keep the indoor units.

Replace outdoor units

#### Your copper pipes will last for multiple generations

- copper pipes used in air conditioning systems tested by Daikin will last over 60 years after installation.
- > Japan/China have replaced with VRV Q-series already 10 years ago

#### Umeda Center Building, Japan

- > original A/C system: 20 years in use
- replacement with VRV Q-series: 2006 - 2009
- > capacity up from 1620HP to 2322HP
- → SHASE renewal award:





# VRV-Q benefits to increase your profit:

## Optimise your business

#### Less installation time

Tackle more projects in less time thanks to faster installation. It is more profitable than replacing the full system with new piping.

#### Lower installation costs

Reducing installation costs enables you to offer customers the most cost-effective solution and improve your competitive edge.

#### Replace non-Daikin systems NON DAIKIN DAIKIN

It is a trouble-free replacement solution for Daikin systems and for systems made by other manufacturers.

#### Easy as one-two-three

A simple solution for replacement technology enables you to handle more projects for more customers in less time and offer them the best price! Everybody wins.

### Compare installation steps

#### **Conventional solution**

- 1 Recover refrigerant
- 2 Remove units
- 3 Remove refrigerant pipes
- 4 Install new piping and wiring
- 5 Install new units
- 6 Leak test
- 7 Vacuum drying
- 8 Refrigerant charging
- 9 Collect contamination
- 10 Test operation

#### **VRV-Q**

- 1 Recover refrigerant
- 2 Remove units

Re-use existing piping and wiring

- 3 Install new units
- 4 Leak test
- 5 Vacuum drying
- 6 Auromatic refrigerant charging, cleaning and testing



Up to 45% shorter installation time

## Automatic refrigerant charge

The unique automatic refrigerant charge eliminates the need to calculate refrigerant volume and ensures that the system will operate perfectly. Not knowing the exact piping lengths because of changes or mistakes in case you didn't do the original installation or replacing a competitor installation no longer poses a problem.

## Automatic pipe cleaning

There is no need to clean inside piping as this is handled automatically by the VRV-Q unit. Finally the test operation is performed automatically to save time.



# One touch convenience:

- Measure and charge refrigerant
- Automatic pipe cleaning
- > Test operation







## Replacement VRV, heat recovery

#### Quick & quality replacement for R-22 and R-407C systems

- Cost effective and fast replacement as only the outdoor and indoor unit needs to be replaced, meaning almost no work has to be carried out inside the building
- Efficiency gains of more than 40% can be realized, thanks to technological developments in heat pump technology and the more efficient R-410A refrigerant
- > Less intrusive and time consuming installation compared to installing a new system, as the refrigerant piping can be maintained
- > Unique automatic refrigerant charge eliminates the need to calculate refrigerant volume and allows safe replacement of competitor replacement
- > Automatic cleaning of refrigerant piping ensures a clean piping network, even when a compressor breakdown has occurred
- > Possibility to add indoor units and increase capacity without changing the refrigerant piping
- Possibility to spread the various stages of repclacement thanks to the modular design of the VRV system
- > Accurate temperature control, fresh air provision, air handling units and Biddle air curtains all integrated in a single system requiring only one single point of contact (RXYQQ-U only)
- > Incorporates VRV IV standards & technologies: Variable Refrigerant
- > Temperature and full inverter compressors (RXYQQ-U only)
- > Free combination of outdoor units to meet installation space or
- efficiency requirements (RXYQQ-U only)





Already fully compliant

to LOT 21 - Tier 2

Published data with real-life indoor units



Access all technical information on RQCEQ-P3 at my.daikin.eu or click here

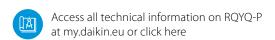
<b>Outdoor unit System</b>	1		RQCEQ	280P3	360P3	460P3	500P3	540P3	636P3	712P3	744P3	816P3	848P3
System	Outdoor un	it module 1		RQEQ140P3	RQEQ180P3	RQEQ	140P3	RQEQ180P3	RQEQ212P3	RQEQ	140P3	RQEQ180P3	RQEQ212P3
	Outdoor un	it module 2		RQEQ140P3	RQEQ180P3	RQEQ140P3	RQEQ	180P3	RQEQ212P3	RQEQ	180P3	RQEQ	212P3
	Outdoor un	it module 3			-		RQEQ180P3	3	RQEQ212P3	RQEQ180P3		RQEQ212P3	3
	Outdoor un	it module 4					-				RQEQ	212P3	
Capacity range			HP	10	13	16	18	20	22	24	26	28	30
Cooling capacity	Prated,c		kW	28.0	36.0	46.0	50.0	54.0	60.0	70.0	72.0	78.0	80.0
Heating capacity	Prated,h		kW	32.0	40.0	52.0	56.0	60.0	67.2	78.4	80.8	87.2	89.6
Recommended comb	ination			4 x FXMQ63P7VEB	4 x FXMQ50P7VEB	4 x FXMQ63P7VEB	4 x FXSQ32A2VEB	12 x FXSQ40A2VEB	3 x FXSQ40A2VEB	4 x FXSQ32A2VEB	4 x FXSQ32A2VEB	7 x FXSQ40A2VEB	4 x FXSQ40A2VI
					+ 2 x FXMQ63P7VEB	+2xFXMQ80P7VEB	+8 x FXSQ40A2VEB		+9 x FXSQ50A2VEB	+9 x FXSQ40A2VEB	+6 x FXSQ40A2VEB	+9 x FXSQ50A2VEB	+ 12 x FXSQ50A2
										+3 x FXSQ50A2VEB	+6 x FXSQ50A2VEB		
ηs,c			%	200	185	191	201	198	186	1:	94	204	187
ηs,h			%	159	157	161	150	148	157	153	1.	55	157
SEER									-				
SCOP									-				
Maximum number of	connectable	indoor units		21	28	34	39	43	47	52	56	60	64
Indoor index connec-	Min.			140	180	230	250	270	318	356	372	408	424
tion	Nom.			280	360	5	00	540	636	712	744	816	848
	Max.			364	468	598	650	702	827	926	967.0	1,061	1,102
Piping connections	Liquid	OD	mm	9.52	1.	2.7		15	5.9			19.1	
	Gas	OD	mm	22.2	25.4			28.6				34.9	
	Total piping length	System Actual	m			,		30	00				
Power supply	Phase/Freq	uency/Voltage	Hz/V					3~/5	0/400				
Current - 50Hz	Maximum f	use amps (MFA)	Α	30	40	50	6	60	70	8	30	9	90
Outdoor unit module	e		RQEQ-P3		140P3			180	0P3			212P3	
Dimensions	Unit	HeightxWidthxDepth	mm					1,680x6	35x765				
Weight	Unit		kg				175					179	
Fan	Air flow rate	Cooling Nom.	m³/min		95					110			
	Туре	•						Prope	ller fan				
Sound power level	Cooling	Nom.	dBA		79			8	3			87	
Sound pressure level	Cooling	Nom.	dBA						-				
Operation range	Cooling	Min.~Max.	°CDB					-5^	-43				
	Heating Min.~Max. °CW							-20~	·15.5				
Refrigerant	Type/GWP							R-410A	/2,087.5				
<b>3</b> · · ·	Charge	kg/TCO2Eq							11.2/23.4				
Power supply	Phase/Frequency/Voltage Hz/												
Current - 50Hz	Maximum f	Α						22.5					





# Replacement VRV, heat pump







Access all technical information on RXYQQ-U at my.daikin.eu or click here

Outdoor unit				RXYQQ/RQYQ-P	140P	8	3U	10U	120		14U	16U	18	U	20U
Capacity range				HP	5		8	10	12		14	16	18	8	20
Cooling capacity	Prated,c			kW	14.0	2	2.4	28.0	33.5		40.0	45.0	50.	.4	52.0
Heating capacity	Prated,h			kW	16.0		3.7	16.0	18.4		20.6	23.2	27		31.0
ricating capacity	Max.	6°CWB		kW			5.0	31.5	37.5		45.0	50.0	56		63.0
Recommended comb		O CWD		N.VV	4 x FXSO32A2\			4 x FXFQ63AVEB	6 x FXFQ50		XFQ50AVEB	4 x FXFQ63AVE			x FXFQ50AVEB
necommended comb	illation				4 X 1 X3Q32X21	4 4 1 11	QJUAVLD	4 X I AI QUJAVLD	U X I XI QJU		FXFO63AVEB	+2xFXFO80AVE			X FXFO63AVEB
											4			4	
ης,ς				%	194		02.4	267.6	247.8		250.7	236.5	238		233.7
ηs,h				%	137		57.9	168.2	161.4		155.4	157.8	163	3.1	156.6
SEER					-	7	7.6	6.8		6.3			6.0		5.9
SCOP					-		4.3		4.1		4.0	0	4.:	2	4.0
Maximum number of	connectable	indoor units			10						64 (1)				
Indoor index connec-	Min.				62.5	10	0.00	125.0	150.0	)	175.0	200.0	225	5.0	250.0
tion	Nom.				125						-				
	Max.				162.5	26	50.0	325.0	390.0	)	455.0	520.0	585	5.0	650.0
Dimensions	Unit	HeightxWio	dthxDepth	mm	1,680x635x76	5	1,	685x930x76	5			1,685>	<1,240x765	5	
Weight	Unit		·	kg	175			198			27	5		308	
Fan	Air flow rate	Cooling	Nom.	m³/min	95						-				
Sound power level	Cooling	Nom.		dBA	79	7	8.0	79.1	83.4		80.9	85.6	83	8	87.9
Sound pressure level	Cooling	Nom.		dBA			57.0		61.0		60.0	63.0	62		65.0
	Cooling	Min.~Max.		°CDB	-5~43		37.0	,	01.0		.0~43.0	05.0	02	.0	05.0
Operation range															
	Heating	Min.~Max.		°CWB	-20~15.5	<u> </u>					0.0~15.5				
Refrigerant	Type/GWP									410A/2,08					
	Charge			kg/TCO2Eq	11.1/23.2	5.9	/12.3	6.0/12.5	6.3/13	.2   10	0.3/21.5	11.3/23.6	11.7/		11.8/24.6
Piping connections	Liquid	OD		mm	9.52		9.52				12.7			15.9	
	Gas	OD		mm	15.9	1	9.1	22.2				28.6			
	Total piping length	System	Actual	m						300					
Power supply		uency/Voltac	ne .	Hz/V	3~/50/380-41					3N~/	50/380-415				
Current - 50Hz		use amps (M		A	15		20	25		32	30,300 113	·	40		50
Current - Joniz	Waxiiiiaiii	use arrips (ivi	ii A)		13			23		32			70		30
<b>Outdoor unit System</b>	ı + Module			RXYQQ	22U	24U	26U	28U	30U	32U	34U	36U	38U	40U	42U
System	Outdoor un	it module 1			RXYQQ10U	RXYQQ8U		RXYQQ12U			RXYQQ16l	J	RXYQQ8U	RXY	QQ10U
	Outdoor un	it module 2			RXYQQ12U	RXYQQ16U	RXYQQ14U	RXYQQ16U	RXYQQ18U	RXYQQ16U	RXYQQ18U	RXYQQ20U	RXYQQ10U	RXYQQ12U	RXYQQ16U
															RXYQQ16U
	Outdoor un	it module 3						-					RXYQQ20U	RXYQQ18U	
Capacity range	Outdoor un	it module 3		HP		24	26	28	30	32	34	36			
Capacity range		it module 3		HP kW	22	24 67.4	26 73.5	28 78.5	30 83.9	32 90.0	34 95.4	36 97.0	38	40	42
Cooling capacity	Prated,c	nit module 3		kW	22 61.5	67.4	73.5	78.5	83.9	90.0	95.4	97.0	38 102.4	40 111.9	42 118.0
	Prated,c Prated,h			kW kW	22 61.5 34.4	67.4 36.9	73.5 39.0	78.5 41.6	83.9 46.3	90.0 46.4	95.4 51.1	97.0 54.2	38 102.4 60.7	40 111.9 62.3	42 118.0 62.4
Cooling capacity Heating capacity	Prated,c Prated,h Max.	eit module 3		kW	22 61.5 34.4 69.0	67.4 36.9 75.0	73.5 39.0 82.5	78.5 41.6 87.5	83.9 46.3 94.0	90.0 46.4 100.0	95.4 51.1 106.5	97.0 54.2 113.0	38 102.4 60.7 119.5	40 111.9 62.3 125.5	42 118.0 62.4 131.5
Cooling capacity	Prated,c Prated,h Max.			kW kW	22 61.5 34.4 69.0 6xFXFQSOAVEB	67.4 36.9 75.0 4xFXFQ50AVEB	73.5 39.0 82.5 7xFXFQ50AVEB	78.5 41.6 87.5 6xFXFQ50AVEB	83.9 46.3 94.0 9xFXFQ50AVEB	90.0 46.4 100.0 8xFXFQ63AVEB	95.4 51.1 106.5 3xFXFQ50AVEB	97.0 54.2 113.0 2xFXFQ50AVEB	38 102.4 60.7 119.5 6xFXFQ50AVEB	40 111.9 62.3 125.5 9xFXFQ50AVEE	42 118.0 62.4 131.5
Cooling capacity Heating capacity	Prated,c Prated,h Max.			kW kW	22 61.5 34.4 69.0	67.4 36.9 75.0 4xFXFQSOAVEB +4xFXFQGAVEB	73.5 39.0 82.5	78.5 41.6 87.5 6xFXFQ50AVEB +4xFXFQ63AVEB	83.9 46.3 94.0	90.0 46.4 100.0	95.4 51.1 106.5 3xFXFQSOAVEB +9xFXFQSAAVEB	97.0 54.2 113.0 2xFXFQ50AVEB +10xFXFQ63AVEB	38 102.4 60.7 119.5	40 111.9 62.3 125.5	42 118.0 62.4 131.5
Cooling capacity Heating capacity	Prated,c Prated,h Max.			kW kW kW	22 61.5 34.4 69.0 6xfxfq5awbb +4xfxfq6awbb	67.4 36.9 75.0 4x FXFQSOAVEB +4x FXFQ63AVEB +2x FXFQ80AVEB	73.5 39.0 82.5 7x FXFQ50AVEB +5x FXFQ63AVEB	78.5 41.6 87.5 6xFXFQ50AVEB +4xFXFQ63AVEB +2xFXFQ80AVEB	83.9 46.3 94.0 9xFXFQSOAVEB +5xFXFQ63AVEB	90.0 46.4 100.0 8xFXFQ63AVEB +4xFXFQ80AVEB	95.4 51.1 106.5 3xFXFQ50AVEB +9xFXFQ63AVEB +2xFXFQ80AVEB	97.0 54.2 113.0 2xFXFQ50AVEB +10xFXFQ63AVEB +2xFXFQ80AVEB	38 102.4 60.7 119.5 6x FXFQ50AVEB +10x FXFQ63AVEB	40 111.9 62.3 125.5 9xFXFQSOAVEE +9xFXFQ63AVE	42 118.0 62.4 131.5 12xFXFQ63AVE +4xFXFQ80AVE
Cooling capacity Heating capacity Recommended comb	Prated,c Prated,h Max.			kW kW kW	22 61.5 34.4 69.0 6xFXFQSOMEB +4xFXFQ63WEB	67.4 36.9 75.0 4x FXFQSOAVEB +4x FXFQGSAVEB +2x FXFQGSAVEB 269.9	73.5 39.0 82.5 7xFXFQSOAVEB +5xFXFQSOAVEE 264.2	78.5 41.6 87.5 6xFXFQ50AVEB +4xFXFQ63AVEB +2xFXFQ80AVEB 257.8	83.9 46.3 94.0 9xFXFQSOAVEB +5xFXFQ63AVEB	90.0 46.4 100.0 8 x F X F Q 63 A V EB + 4 x F X F Q 80 A V EB 251.7	95.4 51.1 106.5 3xFXFQ50AVEB +9xFXFQ63AVEB +2xFXFQ80AVEB 253.3	97.0 54.2 113.0 2x FXFQ50AVEB +10x FXFQ63AVEB +2x FXFQ80AVEB 250.8	38 102.4 60.7 119.5 6xFXFQ50WEB +10xFXFQ63WEB	40 1111.9 62.3 125.5 9xFXFQ50AVEE +9xFXFQ63AVEI	42 118.0 62.4 131.5 12xFXFQGAVE +4xFXFQGAVE
Cooling capacity Heating capacity Recommended comb	Prated,c Prated,h Max.			kW kW kW	22 61.5 34.4 69.0 6xfxfq5awbb +4xfxfq6awbb	67.4 36.9 75.0 4xFXFQ50AVEB +4xFXFQ60AVEB +2xFXFQ80AVEB 269.9 167.0	73.5 39.0 82.5 7xFXFQ50AVEB +5xFXFQ63AVEE 264.2 164.6	78.5 41.6 87.5 6xFXFQSOAVEB 3 +4xFXFQ63AVEB +2xFXFQ80AVEB 257.8 166.0	83.9 46.3 94.0 9xFXFQ50M/EB +5xFXFQ63M/EB 256.8 169.8	90.0 46.4 100.0 8xFXFQ63AVEB +4xFXFQ80AVEB 251.7 163.1	95.4 51.1 106.5 3xFXFQSOAVEB +9xFXFQSOAVEB +2xFXFQSOAVEB 253.3 166.2	97.0 54.2 113.0 2xFXFQ50AVEB +10xFXFQ63AVEB +2xFXFQ80AVEB	38 102.4 60.7 119.5 6xFXFQSOWEB +10xFXFQSAWEB 272.4 167.5	40 111.9 62.3 125.5 9xFXFQSOAVEE +9xFXFQ63AVE	42 118.0 62.4 131.5 12xFXFQ63AVE +4xFXFQ80AVE
Cooling capacity Heating capacity Recommended comb	Prated,c Prated,h Max.			kW kW kW	22 61.5 34.4 69.0 6xFXFQSOMEB +4xFXFQ63WEB	67.4 36.9 75.0 4x FXFQSOAVEB +4x FXFQGSAVEB +2x FXFQGSAVEB 269.9	73.5 39.0 82.5 7xFXFQSOAVEB +5xFXFQSOAVEE 264.2	78.5 41.6 87.5 6xFXFQ50AVEB +4xFXFQ63AVEB +2xFXFQ80AVEB 257.8	83.9 46.3 94.0 9xFXFQ50M/EB +5xFXFQ63M/EB 256.8 169.8	90.0 46.4 100.0 8xFXFQ63AVEB +4xFXFQ80AVEB 251.7 163.1	95.4 51.1 106.5 3xFXFQ50AVEB +9xFXFQ63AVEB +2xFXFQ80AVEB 253.3	97.0 54.2 113.0 2x FXFQ50AVEB +10x FXFQ63AVEB +2x FXFQ80AVEB 250.8	38 102.4 60.7 119.5 6xFXFQ50WEB +10xFXFQ63WEB	40 1111.9 62.3 125.5 9xFXFQSOAVEE +9xFXFQSOAVEE 263.5	42 118.0 62.4 131.5 12xFXFQGAVE +4xFXFQGAVE
Cooling capacity Heating capacity Recommended comb	Prated,c Prated,h Max.			kW kW kW	22 61.5 34.4 69.0 6xFXFQSON/EB +4xFXFQ63N/EB 274.5 171.2	67.4 36.9 75.0 4xFXFQ50AVEB +4xFXFQ60AVEB +2xFXFQ80AVEB 269.9 167.0	73.5 39.0 82.5 7xFXFQ50AVEB +5xFXFQ63AVEE 264.2 164.6 6.7	78.5 41.6 87.5 6xFXFQSOAVEB 3 +4xFXFQ63AVEB +2xFXFQ80AVEB 257.8 166.0	83.9 46.3 94.0 9xFXFQ50M/EB +5xFXFQ63M/EB 256.8 169.8	90.0 46.4 100.0 8 x F X F Q 63 A V EB +4 x F X F Q 80 A V EB 251.7 163.1	95.4 51.1 106.5 3xFXFQSOAVEB +9xFXFQSOAVEB +2xFXFQSOAVEB 253.3 166.2	97.0 54.2 113.0 2xFXFQ50AVEB +10xFXFQ63AVEB +2xFXFQ80AVEB 250.8 162.4	38 102.4 60.7 119.5 6xFXFQSOWEB +10xFXFQSAWEB 272.4 167.5 6.9	40 1111.9 62.3 125.5 9xFXFQSOAVEE +9xFXFQSAME 263.5 170.0	42 118.0 62.4 131.5 12xFXFQGAWE +4xFXFQGAWE 261.2 165.5
Cooling capacity Heating capacity Recommended comb ns,c ns,h SEER	Prated,c Prated,h Max. ination	6°CWB		kW kW kW	22 61.5 34.4 69.0 6xFXFQSONVEB +4xFXFQSONVEB 274.5 171.2 6.9	67.4 36.9 75.0 4xFXFQ50AVEB +4xFXFQ63AVEB +2xFXFQ63AVEB 269.9 167.0 6.8	73.5 39.0 82.5 7xFXFQ50AVEB +5xFXFQ63AVEE 264.2 164.6 6.7	78.5 41.6 87.5 6xFXFQSANEB +4xFXFQSANEB +2xFXFQSANEB 257.8 166.0 6.	83.9 46.3 94.0 9x FXFQ50WEB +5x FXFQ63WEB 256.8 169.8	90.0 46.4 100.0 8 x F X F Q 63 A V EB +4 x F X F Q 80 A V EB 251.7 163.1	95.4 51.1 106.5 3xFXFQ50AVEB +9xFXFQ63AVEB +2xFXFQ60AVEB 253.3 166.2	97.0 54.2 113.0 2xFXFQSONVEB +10xFXFQSONVEB +2xFXFQSONVEB 250.8 162.4 6.3	38 102.4 60.7 119.5 6xFXFQSOWEB +10xFXFQSAWEB 272.4 167.5 6.9	40 1111.9 62.3 125.5 9xFXFQS0AVEE +9xFXFQS3AVE 263.5 170.0 6.7	42 118.0 62.4 131.5 12xFXFQGAWE +4xFXFQGAWE 261.2 165.5 6.6
Cooling capacity Heating capacity  Recommended comb  19.c 19.h SEER SCOP	Prated,c Prated,h Max. ination	6°CWB		kW kW kW	22 61.5 34.4 69.0 6xFXFQSONVEB +4xFXFQSONVEB 274.5 171.2 6.9	67.4 36.9 75.0 4xFXFQ50AVEB +4xFXFQ63AVEB +2xFXFQ63AVEB 269.9 167.0 6.8	73.5 39.0 82.5 7xFXFQ50AVEB +5xFXFQ63AVEE 264.2 164.6 6.7	78.5 41.6 87.5 6xFXFQSANEB +4xFXFQSANEB +2xFXFQSANEB 257.8 166.0 6.	83.9 46.3 94.0 9x FXFQ50WEB +5x FXFQ63WEB 256.8 169.8	90.0 46.4 100.0 8xFXFQ63AVEB +4xFXFQ80AVEB 251.7 163.1	95.4 51.1 106.5 3xFXFQ50AVEB +9xFXFQ63AVEB +2xFXFQ60AVEB 253.3 166.2	97.0 54.2 113.0 2xFXFQSONVEB +10xFXFQSONVEB +2xFXFQSONVEB 250.8 162.4 6.3	38 102.4 60.7 119.5 6xFXFQSOWEB +10xFXFQSAWEB 272.4 167.5 6.9	40 1111.9 62.3 125.5 9xFXFQS0AVEE +9xFXFQS3AVE 263.5 170.0 6.7	42 118.0 62.4 131.5 12xFXFQGAWE +4xFXFQGAWE 261.2 165.5 6.6
Cooling capacity Heating capacity Recommended comb  ns.c ns.h SEER SCOP Maximum number of	Prated,c Prated,h Max. ination  connectable Min.	6°CWB		kW kW kW	22 61.5 34.4 69.0 6xFXFQ50AVEB +4xFXFQ63AVEB 274.5 171.2 6.9 4.4	67.4 36.9 75.0 4xFXFQSONVEB +4xFXFQSONVEB +2xFXFQSONVEB 269.9 167.0 6.8 4.3	73.5 39.0 82.5 7xFXFQS0AVEB +5xFXFQS0AVEB 264.2 164.6 6.7	78.5 41.6 87.5 6x FXFQSOAVEB +4x FXFQSOAVEB +2x FXFQSOAVEB 257.8 166.0 6.4.2	83.9 46.3 94.0 9x FXFQSON/EB +5x FXFQ63N/EB 256.8 169.8 5 4.3	90.0 46.4 100.0 8xFXFQ63AVEB +4xFXFQ60AVEB 251.7 163.1	95.4 51.1 106.5 3xFXFQSOAVEB +9xFXFQSOAVEB +2xFXFQSOAVEB 253.3 166.2 5.4	97.0 54.2 113.0 2xFXFQSOMVEB +10xFXFQSOMVEB +2xFXFQSOMVEB 250.8 162.4 6.3 4.1	38 102.4 60.7 119.5 6xFXFQSOWEB +10xFXFQGAWEB 272.4 167.5 6.9	40 111.9 62.3 125.5 9xfxfqqaMe +9xfxfqqaMe 263.5 170.0 6.7	42 118.0 62.4 131.5 12xFXFQ63AVE +4xFXFQ80AVE 261.2 165.5 6.6 4.2
Cooling capacity Heating capacity Recommended comb  ŋs,c ŋs,h SEER SCOP Maximum number of Indoor index connec-	Prated,c Prated,h Max. ination  connectable Min. Nom.	6°CWB		kW kW kW	22 61.5 34.4 69.0 6x.PATCOMES 4x.PATCOMES 274.5 171.2 6.9 4.4 275.0	67.4 36.9 75.0 4xFXFQSOWEB +4xFXFQSOWEB +2xFXFQSOWEB 269.9 167.0 6.8 4.3	73.5 39.0 82.5 7xFXFQSAMEE +5xFXFQSAMEE 264.2 164.6 6.7	78.5 41.6 87.5 6xFXFQSOAVEB +4xFXFQSOAVEB +2xFXFQSOAVEB 257.8 166.0 6. 4.2	83.9 46.3 94.0 9xFXFQSOM/EB +5xFXFQ63M/EB 256.8 169.8 5 4.3	90.0 46.4 100.0 8xFXFQ63WEB +4xFXFQ80MEB 251.7 163.1 64 400.0	95.4 51.1 106.5 3xFXFQS0AVEB +9xFXFQS0AVEB +2xFXFQS0AVEB 253.3 166.2 5.4 4.2	97.0 54.2 113.0 2x FXFQSOAVEB +10x FXFQSOAVEB +2x FXFQSOAVEB 250.8 162.4 6.3 4.1	38 102.4 60.7 119.5 6xFRCGONEB +10xFRCGANEB 272.4 167.5 6.9 4 475.0	40 111.9 62.3 125.5 9xFXFQSAME +9xFXFQSAME 263.5 170.0 6.7 .3	42 118.0 62.4 131.5 12xFXFQGMM+4xFXFQMME 261.2 165.5 6.6 4.2
Cooling capacity Heating capacity Recommended comb  ns,c ns,h SEER SCOP Maximum number of Indoor index connection	Prated,c Prated,h Max. ination connectable Min. Nom. Max.	6°CWB		kW kW kW	22 61.5 34.4 69.0 6xFIFQSONEB 4xFIFQSONEB 274.5 171.2 6.9 4.4	67.4 36.9 75.0 4x FXFQSON/BB +4x FXFQSON/BB +2x FXFQSON/BB 269.9 167.0 6.8 4.3 300.0	73.5 39.0 82.5 7xFXFQS0AVEB +5xFXFQS0AVEB 264.2 164.6 6.7	78.5 41.6 87.5 6x FXFQSOAVEB +4x FXFQSOAVEB +2x FXFQSOAVEB 257.8 166.0 6.4.2	83.9 46.3 94.0 9x FXFQSON/EB +5x FXFQ63N/EB 256.8 169.8 5 4.3	90.0 46.4 100.0 8xFXFQ63AVEB +4xFXFQ60AVEB 251.7 163.1	95.4 51.1 106.5 3x FAFQSAMEB +9x FAFQSAMEB +2x FAFQSAMEB 253.3 166.2 6.4 1.2	97.0 54.2 113.0 2xFXFQSOMVEB +10xFXFQSOMVEB +2xFXFQSOMVEB 250.8 162.4 6.3 4.1	38 102.4 60.7 119.5 6xFXFQSOWEB +10xFXFQGAWEB 272.4 167.5 6.9	40 111.9 62.3 125.5 9xfxfqqaMe +9xfxfqqaMe 263.5 170.0 6.7	42 118.0 62.4 131.5 12xFXFQGMM+4xFXFQMME 261.2 165.5 6.6 4.2
Cooling capacity Heating capacity Recommended comb  ns,c ns,h SEER SCOP Maximum number of Indoor index connec-	Prated,c Prated,h Max. ination  connectable Min. Nom. Max. Liquid	6°CWB indoor units		kW kW kW	22 61.5 34.4 69.0 6xPFCSOMEB +4xFFCSWEB 274.5 171.2 6.9 4.4 275.0	67.4 36.9 75.0 4x FXFQSON/BB +4x FXFQSON/BB +2x FXFQSON/BB 269.9 167.0 6.8 4.3 300.0	73.5 39.0 82.5 7xFXFQSAMEE +5xFXFQSAMEE 264.2 164.6 6.7	78.5 41.6 87.5 6xFXFQSAVEB +4xFXFQSAVEB +2xFXFQSAVEB +2xFXFQSAVEB -257.8 166.0 6. 4.2	83.9 46.3 94.0 9x.FXFQSOWEB +5x.FXFQSOWEB 256.8 169.8 5 4.3	90.0 46.4 100.0 8xFXFQ63WEB +4xFXFQ80MEB 251.7 163.1 64 400.0	95.4 51.1 106.5 3xFXFQS0AVEB +9xFXFQS0AVEB +2xFXFQS0AVEB 253.3 166.2 5.4 4.2	97.0 54.2 113.0 2x FXFQSOAVEB +10x FXFQSOAVEB +2x FXFQSOAVEB 250.8 162.4 6.3 4.1	38 102.4 60.7 119.5 6xFXFQSOM/EB +10xFXFQSOM/EB 272.4 167.5 6.9 4 475.0	40 111.9 62.3 125.5 9xrxF00aVEE +9xFXF063ME 263.5 170.0 6.7 .3	42 118.0 62.4 131.5 12xFXFQGMM+4xFXFQMME 261.2 165.5 6.6 4.2
Cooling capacity Heating capacity Recommended comb  ns,c ns,h SEER SCOP Maximum number of Indoor index connection	Prated,c Prated,h Max. ination  connectable Min. Nom. Max. Liquid Gas	6°CWB indoor units OD OD		kW kW kW	22 61.5 34.4 69.0 6xFIFQSONEB 4xFIFQSONEB 274.5 171.2 6.9 4.4	67.4 36.9 75.0 4x FXFQSON/BB +4x FXFQSON/BB +2x FXFQSON/BB 269.9 167.0 6.8 4.3 300.0	73.5 39.0 82.5 7xFXFQSAMEE +5xFXFQSAMEE 264.2 164.6 6.7	78.5 41.6 87.5 6xFXFQSOAVEB +4xFXFQSOAVEB +2xFXFQSOAVEB 257.8 166.0 6. 4.2	83.9 46.3 94.0 9x.FXFQSOWEB +5x.FXFQSOWEB 256.8 169.8 5 4.3	90.0 46.4 100.0 8xFXFQ63M/EB +4xFXFQ08M/EB 251.7 163.1 64 400.0 - 1,040.0	95.4 51.1 106.5 3x FAFQSAMEB +9x FAFQSAMEB +2x FAFQSAMEB 253.3 166.2 6.4 1.2	97.0 54.2 113.0 2x FXFQSOAVEB +10x FXFQSOAVEB +2x FXFQSOAVEB 250.8 162.4 6.3 4.1	38 102.4 60.7 119.5 6xFXFQSOM/EB +10xFXFQSOM/EB 272.4 167.5 6.9 4 475.0	40 111.9 62.3 125.5 9xFXFQSAME +9xFXFQSAME 263.5 170.0 6.7 .3	42 118.0 62.4 131.5 12xFXFQGMM+4xFXFQMME 261.2 165.5 6.6 4.2
Cooling capacity Heating capacity Recommended comb  15,c 15,h SEER SCOP Maximum number of Indoor index connection	Prated,c Prated,h Max. ination  connectable Min. Nom. Max. Liquid Gas Total piping	6°CWB indoor units OD OD	Actual	kW kW kW	22 61.5 34.4 69.0 6xPFCSOMEB +4xFFCSWEB 274.5 171.2 6.9 4.4 275.0	67.4 36.9 75.0 4x FXFQSON/BB +4x FXFQSON/BB +2x FXFQSON/BB 269.9 167.0 6.8 4.3 300.0	73.5 39.0 82.5 7xFXFQSAMEE +5xFXFQSAMEE 264.2 164.6 6.7	78.5 41.6 87.5 6xFXFQSAVEB +4xFXFQSAVEB +2xFXFQSAVEB +2xFXFQSAVEB -257.8 166.0 6. 4.2	83.9 46.3 94.0 9x.FXFQSOWEB +5x.FXFQSOWEB 256.8 169.8 5 4.3	90.0 46.4 100.0 8xFXFQ63WEB +4xFXFQ80MEB 251.7 163.1 64 400.0	95.4 51.1 106.5 3x FAFQSAMEB +9x FAFQSAMEB +2x FAFQSAMEB 253.3 166.2 6.4 1.2	97.0 54.2 113.0 2x FXFQSOAVEB +10x FXFQSOAVEB +2x FXFQSOAVEB 250.8 162.4 6.3 4.1	38 102.4 60.7 119.5 6xFXFQSOM/EB +10xFXFQSOM/EB 272.4 167.5 6.9 4 475.0	40 111.9 62.3 125.5 9xrxF00aVEE +9xFXF063ME 263.5 170.0 6.7 .3	42 118.0 62.4 131.5 12xFXFQGMM+4xFXFQMME 261.2 165.5 6.6 4.2
Cooling capacity Heating capacity Recommended comb  ns.c ns.h SEER SCOP Maximum number of Indoor index connection  Piping connections	Prated,c Prated,h Max. ination  connectable Min. Nom. Max. Liquid Gas Total piping length	6°CWB  indoor units  OD OD System	Actual	kW kW kW	22 61.5 34.4 69.0 6xPFCSOMEB +4xFFCSWEB 274.5 171.2 6.9 4.4 275.0	67.4 36.9 75.0 4x FXFQSON/BB +4x FXFQSON/BB +2x FXFQSON/BB 269.9 167.0 6.8 4.3 300.0	73.5 39.0 82.5 7xFXFQSAMEE +5xFXFQSAMEE 264.2 164.6 6.7	78.5 41.6 87.5 6xFXFQSAVEB +4xFXFQSAVEB +2xFXFQSAVEB +2xFXFQSAVEB -257.8 166.0 6. 4.2	83.9 46.3 94.0 9xFPGSOWEB +5xFPGSOWEB 256.8 169.8 5 4.3 375.0	90.0 46.4 100.0 8xFXFGGAVEB 44xFXFGAVEB 251.7 163.1 64 400.0 - 1,040.0	95.4 51.1 106.5 3x FXFORMUS +9x FXFORMUS +2x FXFORMUS 253.3 166.2 6.4 1.2 425.0	97.0 54.2 113.0 2x FXFQSOAVEB +10x FXFQSOAVEB +2x FXFQSOAVEB 250.8 162.4 6.3 4.1	38 102.4 60.7 119.5 6xFXFQSOM/EB +10xFXFQSOM/EB 272.4 167.5 6.9 4 475.0	40 111.9 62.3 125.5 9xrxFQSANE 49xFXFQSANE 263.5 170.0 6.7 .3	42 118.0 62.4 131.5 12xFXFQ6AVE +4xFXFQ6AVE 261.2 165.5 6.6 4.2
Cooling capacity Heating capacity Recommended comb  ns,c ns,h SEER SCOP Maximum number of Indoor index connection	Prated,c Prated,h Max. ination  connectable Min. Nom. Max. Liquid Gas Total piping length Phase/Frequ	6°CWB indoor units OD OD	Actual	kW kW kW	22 61.5 34.4 69.0 6xPFCSOMEB +4xFFCSWEB 274.5 171.2 6.9 4.4 275.0	67.4 36.9 75.0 4x FXFQSON/BB +4x FXFQSON/BB +2x FXFQSON/BB 269.9 167.0 6.8 4.3 300.0	73.5 39.0 82.5 7x FXFOSOAVEB +5x FXFOSOAVEB 264.2 164.6 6.7 325.0	78.5 41.6 87.5 6xFXFQSAVEB +4xFXFQSAVEB +2xFXFQSAVEB +2xFXFQSAVEB -257.8 166.0 6. 4.2	83.9 46.3 94.0 9xFPGSOWEB +5xFPGSOWEB 256.8 169.8 5 4.3 375.0	90.0 46.4 100.0 8xFXFQ63AVEB 44xFXFQ60AVEB 251.7 163.1 64 400.0 - 1,040.0 300	95.4 51.1 106.5 3x FXFORMUS +9x FXFORMUS +2x FXFORMUS 253.3 166.2 6.4 1.2 425.0	97.0 54.2 113.0 2x FXFQSOAVEB +10x FXFQSOAVEB +2x FXFQSOAVEB 250.8 162.4 6.3 4.1	38 102.4 60.7 119.5 6xFXFQSOM/EB +10xFXFQSOM/EB 272.4 167.5 6.9 4 475.0	40 111.9 62.3 125.5 9xrxFQSANE 49xFXFQSANE 263.5 170.0 6.7 .3	42 118.0 62.4 131.5 12xFXFQ6AWE +4xFXFQ8AWE 261.2 165.5 6.6 4.2

# Water cooled VRV IV W+ series

Ideal for high rise buildings, using water as heat source

Unified range for heat pump & heat recovery and standard & geothermal series



Widest range of BS boxes for the fastest installation



# VRV IV standards:

# Variable refrigerant temperature

Customize your VRV for best seasonal efficiency & comfort

## VRV configurator

Software for simplified commissioning, configuration and customisation

For more information on these features refer to the VRV IV technologies tab

- > 7 segment display
- > Full inverter compressors
- > Connectable to stylish indoor units
- > Connectable to LT hydrobox
- > Connectable to HT hydrobox
- > Reluctance brushless DC compressor
- > Sine wave DC inverter
- > Manual demand function





## Welcome a new range of features

#### More flexibility

- > Mixed connection of HT hydroboxes and VRV indoor units
- > Connects to stylish indoor units such as Daikin Emura, Nexura, ... (no mixed connection with other indoors possible)
- > Extension of the range: 8-10-12-14HP, combinable up to 42HP while keeping the most compact casing in the market
- > Extended piping length up 165m (actual)
- > Extended indoor unit height difference to 30m

#### Most compact casing in the market!









8 to 14 HP 1

16 to 28 HP

30 to 42 HP

#### More capacity

> Up to 72% increased capacity (!) per model thanks to new compressor and larger heat exchanger

#### Easier commissioning & customisation

- > 7 segment display
- > 2 analogue input signals allowing external control of
  - ON-OFF (e.g. compressor)
  - Operation mode (cooling / heating)
  - Limit of capacity
  - Error signal

#### Unique zero heat dissipation principle



- No need for ventilation or cooing in the technical room
- > Control heat dissipation to achive maximum efficiency: set target technical room temperature and unit regulates actual heat dissipation

#### **Total solution**



Daikin Emura wall mounted unit



Biddle air curtain



Perfera Floor standing unit



Air handling unit for ventilation



Fully flat cassette



Low temperature hydrobox



Intelligent Manager



High temperature hydrobox

#### Variable Refrigerant Temperature



## With all existing standard functions

# Indoor installation makes unit invisible from the outside

- Seamless integration in the surrounding architecture as you cannot see the unit
- > Highly suited for sound sensitive areas as there is no external operation sound
- Very flexible indoor installation as there is no heat dissipation
- Superior efficiency, even in the most extreme outside conditions, especially in geothermal operation

#### Variable water flow control

- > The variable water flow control option reduces excessive energy use by the circulation pump.
- By controlling a variable water valve, the water flow is reduced when possible, saving energy.
- > Via 0~10 volt

#### Lower refrigerant concentration levels

Water-cooled VRV systems typically have less refrigerant per system making it ideal to comply with the EN378 legislation limiting the amount of refrigerant in hospitals and hotels.

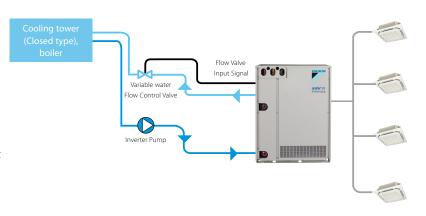
#### The refrigerant levels remain limited thanks to:

- > limited distance between outdoor and indoor unit
- modularity: enabling small systems per floor instead of one big system. Thanks to the water circuit heat recovery is still possible in the entire building

# Maximum design flexibility and installation speed

Quickly and flexibly design your system with a unique range of single and multi BS boxes. A wide variety of compact and lightweight multi BS boxes greatly reduces installation time. Free combination of single and multi BS boxes

# Unified range for heat pump & heat recovery and standard & geothermal series



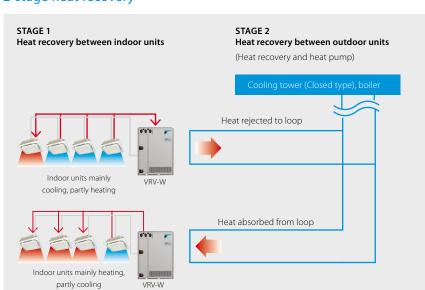
#### Single port

#### Multi port: 4 – 6 – 8 – 10 – 12 – 16

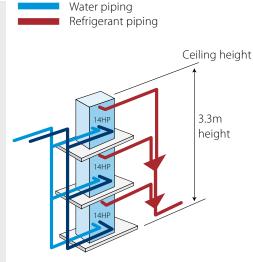


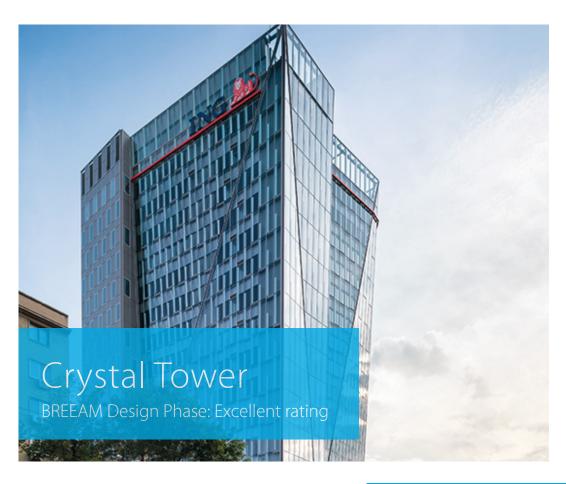


#### 2-stage heat recovery



#### Stacked configuration







# A great and well-known example of a Daikin Total Solution leading to high energy-efficient HVAC consumption

- > A combination of VRV, Sky Air and Applied systems ensuring all offices and common areas are fully air conditioned.
- > Water-cooled VRV as the main contributor to total HVAC energy efficiency due to its two-stage heat recovery system.
- > Flexibility: individual thermal control and comfort with VRV on each floor and space.
- > Problem-free connection between Daikin units and the LonWorks BMS system ensures the building's total energy consumption is properly monitored and controlled.

#### Location

48 Lancu de Hunedoara Boulevard Bucharest Romania

#### **Building details**

Built-up area: 24,728 m<sup>2</sup>
Total usable area: 20,020 m<sup>2</sup>
Floors: 4 basements, 15 floors, technical floor
Building height: 72 m
Office space per level: approx. 1,000 m<sup>2</sup>

#### **Daikin systems installed**

- > 67 x VRV water-cooled units
- → 2 x VRV outdoor heat pump units
- > 289 VRV indoor units (265 ducts, 24 x cassettes)
- > 5 x Sky Air with Roundflow Cassette
- > 4 x air-cooled water chillers
- > 11 x DMS504B51 (LonWorks gateway

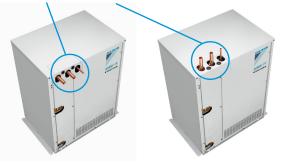
#### **Awards**

- > Green Building of the Year 2012 (ROGBC)
- Environmental Social & Sustainability award (ESSA)

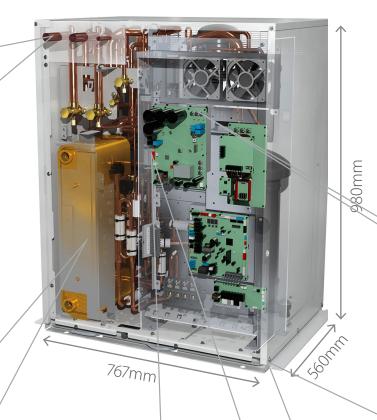
# Innovations

# for maximum flexibility and ease of installation

Horizontal or vertical piping connection



Highly improved efficiency thanks to enlarged heat exchanger



## Easy access to components

Easy front plate removal



Rotating switchbox

step 1

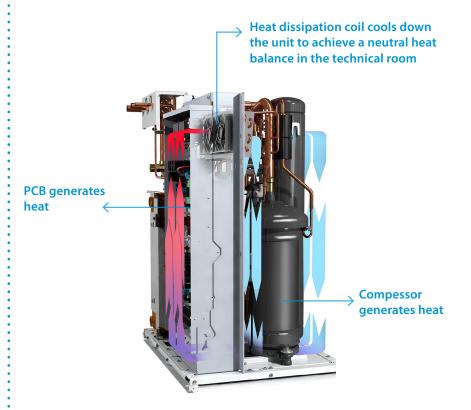
step 2

# Zero heat dissipation principle

No need for ventilation or cooling of the technical room



> Enhancing installation flexibility and reliability of parts



# Minimal technical room space required.

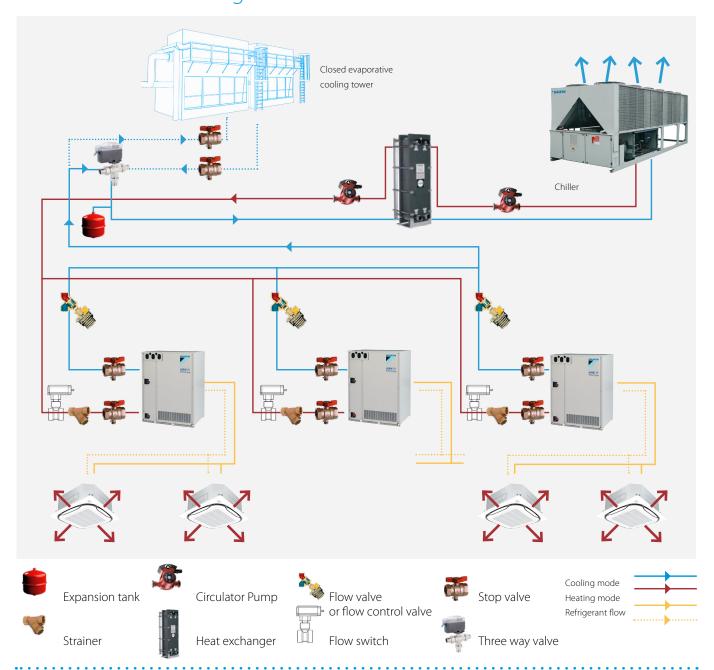
780



# Application

# example

Closed evaporative cooling tower used for cooling, Chiller used for heating



#### **Benefits of this setup**

- Chiller is only used when cooling tower capacity is not enough and/or when cooling and heating load of VRV is unbalanced → very energy efficient installation
- > In case the chiller is operating, a renewable heat source (air) is used, contributing to BREEAM score.
- > It is possible to downsize the cooling tower, making the installation more compact

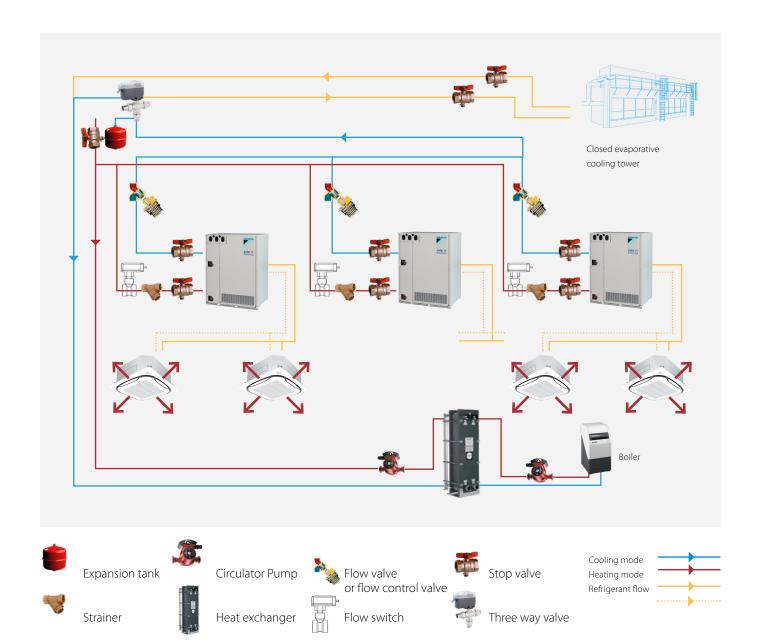
#### When to use?

- > When there is anyway a chiller used for other purposes in the building
- > When space for outdoor installation is limited
- > Efficiency / green building certification schemes oriented projects

# Application

# example

# Dry cooler used for cooling, boiler used for heating



#### Benefits of this setup

- Simple, cost efficient. Good option to use VRV technology in high-rise building
- > Does not make any special demand to the building/project/installation location
- > Provides high efficiency as for hotel application it is usual to have simultaneous cooling and heating load.
- > Heat recovery process in the water loop often allows the water temperature to stay within acceptable range even without using drycooler and boiler.

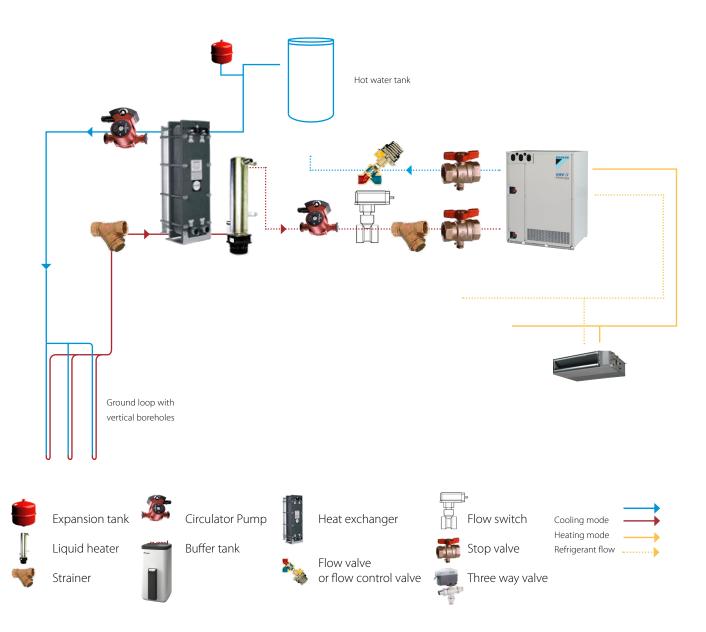
#### When to use?

 > For high-rise buildings or other places where VRV Water Cooled is preferable because of installation conditions

# Application

# example

# Geothermal operation



#### Benefits of this setup

- > Very energy efficient
- Ground loop can be in service for a very long time, so future equipment upgrades/replacements are easy
- Vertical boreholes provide more stable water temperature (= Constant high efficiency) and do not occupy a lot of ground

#### When to use?

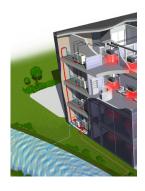
- > When the soil is suitable for geothermal loops and there is availability of geothermal installation expertise locally
- For the projects with high requirements to energy efficiency, green building certification oriented

# Ground loop

# Examples

## Open system

Uses water from a well or surface water (river, lake). The water is pumped back to a second well or surface water



#### **Conditions:**

- > At 20 m depth water has a constant temperature of 10°C through the year
- > Surface water cools down to 5°C during winter
- Can be the most economical type of geothermal system
- Constant ground water temperature has positive impact on heat pump efficiency
- Risk to damage system components because of water quality → a secondary loop might be required to protect the heat exchanger
- Water should be tested for acidity, mineral content, organic content and corosiveness:
- In many areas open systems are prohibited due to environmental concerns

# Closed system

Uses water pipes that are buried in the ground and exchange heat with the ground



#### **Vertical system conditions**

- > Typical depth: 30-140 m. Below 15 m, the temperature of the ground is constant around
- ✓ Less surface space required
- √ Very constant ground temperature
- × Expensive due to drilling cost

#### For smaller applications also horizontal loops can be used



#### Horizontal loop system

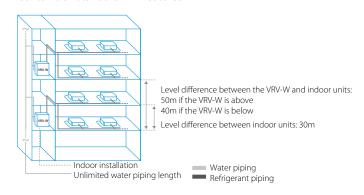
- > Typical trench depth: 1 2 m. The ground temperature varies, but always above 5°C (Exception: in cold areas)
- Slinky loop: the plastic geothermal loop pipe is coiled in overlapped circles and flattened (Installed where there is not enough space for closed horizontal)
- ✓ Installation is easier and less expensive than vertical closed loops.
- Mainly for small applications as the property land should be large enough
- You cannot plant trees or build constructions over the land containing the loop.
- **x** Glycol is needed to prevent freezing of the water.

### VRV IV water cooled+ series

#### Ideal for high rise buildings, using water as heat source

- Environmental conscious solution: reduced CO<sub>2</sub> emmisions thanks to the use of geothermal energy as a renewable energy source and typical lower refrigerant levels making it ideal to comply with FN378
- > Covers all thermal needs of a building via a single point of contact: accurate temperature control, ventilation, air handling units, Biddle air curtains and hot water
- > Unique zero heat dissipation principle obviates the need for ventilation or cooling in the technical room, maximising installation flexibility
- > Wide range of indoor units: possibility to combine VRV with stylish indoor units (Daikin Emura, Perfera floor or stylish, ...)
- > Incorporates VRV IV standards & technologies: Variable Refrigerant Temperature, VRV configurator, 7-segment display and full inverter compressors
- > Developed for easy installation and servicing: choice between top or front connection for refrigerant piping and rotating switch box for easy access to serviceable parts
- > Compact & lightweight design can be stacked for maximum space saving: 42HP can be installed in less than 0,5m² floorspace
- 2-stage heat recovery: first stage between indoor units, second stage between outdoor units thanks to the storage of energy in the water circuit
- > Unified model for heat pump and heat recovery version and geothermal and standard operation

- > Variable Water Flow control option increases flexibility and control
- > 2 analogue input signals allowing external control of ON-OFF, operation mode, error signal, ...
- > Contains all standard VRV features





Already fully compliar to LOT 21 - Tier 2

## Published data with real-life indoor units

#### Connectable stylish indoor units

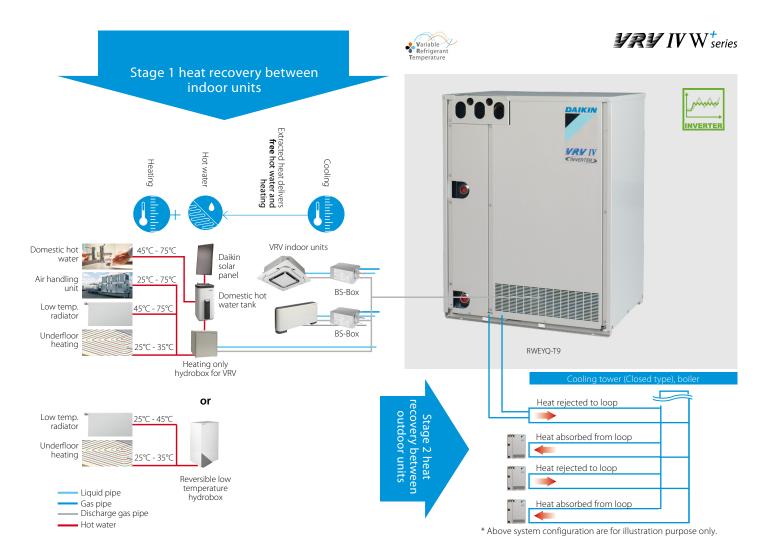
		20 CLASS	25 CLASS	35 CLASS	42 CLASS	50 CLASS	60 CLASS
Daikin Emura - Wall mounted unit	FTXJ-MW/MS	•	•	•		•	
Stylish - Wall mounted unit	FTXA-AW/BS/BB/BT	•	•	•	•	•	
Perfera - Floor standing unit	CVXM-A/FVXM-A	•	•	•		•	•
Floor standing unit	FVXM-F		•	•		•	

BPMKS box needed to connect RA indoors to VRV IV (RYYQ / RXYQ)



# Access all technical information on RWEYQ-T9 at my.daikin.eu or click here

Outdoor unit				RWEYO	8T9	10T9	12T9	14T9	
Capacity range				HP	8	10	1219	14	
Cooling capacity	Prated.c			kW	22.4	28.0	33.5	40.0	
Heating capacity	Prated,h			kW	25.0	31.5	37.5	45.0	
ricuting cupacity	Max.	6°CWB		kW	25.0	31.5	37.5	45.0	
Recommended com		0 011.5			4 x FXMO50P7VEB	4 x FXMO63P7VEB	6 x FXMO50P7VEB	1 x FXMO50P7VEB + 5 x FXMO63P7V	
ηs,c				%	326.8	307.8	359.0	330.7	
ηs,h				%	524.3	465.9	436.0	397.1	
SEER					8.4	7.9	9.2	8.5	
SCOP					13.3	11.8	11.1	10.1	
Maximum number o	f connectable indo	oor units				64	(1)		
Indoor index	Min.				100.0	125.0	150.0	175.0	
connection	Nom.						-		
	Max.				300.0	375.0	450.0	525.0	
Dimensions	Unit	HeightxWi	dthxDepth	mm		980x70	57x560		
Weight	Unit			kg	19	95		197	
Sound power level	Cooling	Nom.		dBA	65.0	71.0	72.0	74.0	
Sound pressure level	Cooling	Nom.		dBA	48.0	50.0	56.0	58.0	
Operation range	Inlet water tempe-	Cooling	Min.~Max.	°CDB		10-	~45		
	rature	Heating	Min.~Max.	°CWB		10-	~45		
	Temperature around casing	Max.		°CDB		4	0		
	Humidity around casing	Cooling~Heating	Max.	%		80-	~80		
Refrigerant	Type/GWP					R-410A	/2,087.5		
-	Charge			kg/TCO2Eq	7.9/	16.5	9.0	5/20.0	
Piping connections	Liquid	OD		mm	9.	52		12.7	
	Gas	OD		mm	19.1 (2)	22.2 (2)	28	3.6 (2)	
	HP/LP gas	OD		mm	15.9 (3) / 19.1 (4)	19.1 (3) / 22.2 (4)	19.1 (3) / 28.6 (4)	22.2 (3) / 28.6 (4)	
	Drain	Size				14mm OD	/ 10mm ID		
	Water	Inlet/Outlet	Size			ISO 228-G1 1/4 B	/ISO 228-G1 1/4 B		
	Total piping length	System	Actual	m		50	500		
Power supply	Phase/Frequency	y/Voltage		Hz/V		3N~/50/	380-415		
Current - 50Hz	Maximum fuse a	mps (MFA)		Α	2	0		25	



<b>Outdoor unit Syste</b>	m		RWEYQ	16T9	18T9	20T9	22T9	24T9	26T9	28T9	
System	Outdoor unit me	odule 1		RWE	YQ8T	RWE	′Q10T	RWE	/Q12T	RWEYQ14T	
•	Outdoor unit me	odule 2		RWEYQ8T	RWE	/Q10T	RWE	Q12T	RWE	YQ14T	
Capacity range			HP	16	18	20	22	24	26	28	
Cooling capacity	Prated,c		kW	44.8	50.4	56.0	61.5	67.0	73.5	80.0	
Heating capacity	Prated,h		kW	50.0	56.5	62.5	69.0	75.0	82.5	90.0	
. ,	Max.	6°CWB	kW	50.0	56.5	62.5	69.0	75.0	82.5	90.0	
ηs,c			%	307.6	308.7	298.1	311.3	342.6	322.5	306.1	
ηs,h			%	459.2	491.1	466.8	447.9	434.5	406.9	387.9	
SEER				7	.9	7.7	8.0	8.8	8.3	7.9	
SCOP				11.7	12.5	11.9	11.4	11.1	10.4	9.9	
Recommended com	bination			4 x FXMQ63P7VEB	6 x FXMQ50P7VEB	4 x FXMQ50P7VEB	8 x FXMQ63P7VEB	12 x FXMQ50P7VEB	7 x FXMQ50P7VEB	2 x FXMQ50P7VE	
				+ 2 x FXMQ80P7VEB	+4 x FXMQ63P7VEB	+4 x FXMQ63P7VEB			+ 5 x FXMQ63P7VEB	+ 10 x FXMQ63P7VE	
Maximum number o	of connectable ind	oor units					64 (1)				
Indoor index	Min.			200.0	225.0	250.0	275.0	300.0	325.0	350.0	
connection	Nom.						-				
	Max.			600.0	675.0	750.0	825.0	900.0	975.0	1,050.0	
Piping connections	Liquid	OD	mm	12.7		15	5.9		19	9.1	
	Gas	OD	mm		28.6	6 (2)			34.9 (2)		
	HP/LP gas	OD	mm	22.2 (3)	/ 28.6 (4)	28.6 (3) / 28.6 (4)	28.6 (3) / 28.6 (4)		28.6 (3) / 34.9 (4)	)	
	Total piping length	System	Actual m				500				
Power supply	Phase/Frequenc	y/Voltage	Hz/V	Ì			3N~/50/380-415	5			
Current - 50Hz	Maximum fuse a	mps (MFA)	A	3	2	35	4	40 50			

Power supply	Phase/Frequency	//voitage	HZ/V	3N~/50/380-415							
Current - 50Hz	Maximum fuse amps (MFA)			32 35			40 50				
Outdoor unit System RWEYQ			30T9	32T9	34T9	36T9	38T9	40T9	42T9		
System	Outdoor unit mo	dule 1		RWEYQ10T			RWEYQ12T			RWEYQ14T	
	Outdoor unit mo	dule 2		RWEYQ10T		RWEYQ12T		RWEYQ14T		/Q14T	
	Outdoor unit mo	dule 3		RWEYQ10T RWEYQ12T			RWEYQ14T				
Capacity range			HP	30	32	34	36	38	40	42	
Cooling capacity	Prated,c		kW	84.0	89.5	95.0	100.5	107.0	113.5	120.0	
Heating capacity	Prated,h		kW	94.5	100.5	106.5	112.5	120.0	127.5	135.0	
	Max.	6°CWB	kW	94.5	100.5	106.5	112.5	120.0	127.5	135.0	
Recommended combination			12 x FXMQ63P7VEB		12 x FXMQ50P7VEB + 4 x FXMQ63P7VEB		13 x FXMQ50P7VEB + 5 x FXMQ63P7VEB	8 x FXMQ50P7VEB + 10 x FXMQ63P7VEB	3 x FXMQ50P7VEB 15 x FXMQ63P7VEB		
ης,ς			%	308.3	318.2	342.5	352.3	338.8	341.4	332.9	
ηs,h			%	467.2	456.1	447.0	438.5	419.4	404.4	391.2	
SEER			7.9	8.2	8.8	9.0	8.7 8.5		8.5		
SCOP				11.9	11.6	11.4	11.2	10.7	10.3	10.0	
Maximum number of connectable indoor units				64 (1)							
Indoor index	Min.			375.0	400.0	425.0	450.0	475.0	500.0	525.0	
connection	Nom.			-							
	Max.			1,125.0	1,200.0	1,275.0	1,350.0	1,425.0	1,500.0	1,575.0	
Piping connections	Liquid OD		mm	19.1 (2)							
	Gas OD		mm	34.9			41.3				
	HP/LP gas OD		mm	28.6 (3) / 34.9 (4)			41.3 (3) / 34.9 (4)				
	Total piping length System		Actual m	500							
Power supply	Phase/Frequency	//Voltage	Hz/V		3N~/50/380-415						
Current - 50Hz	Maximum fuse amps (MFA) A			50	50 63 80				30		

<sup>(1)</sup> Actual number of connectable indoor units depends on the indoor unit type (VRV indoor, Hydrobox, RA indoor, etc.) and the connection ratio restriction for the system (50% <= CR <= 130%) | (2) In case of heat pump system, gas pipe is not used (3) In case of heat recovery system (4) In case of heat pump system, gas pipe is not used (3) In case of heat recovery system (4) In case of heat pump system, gas pipe is not used (3) In case of heat pump system, gas pipe is not used

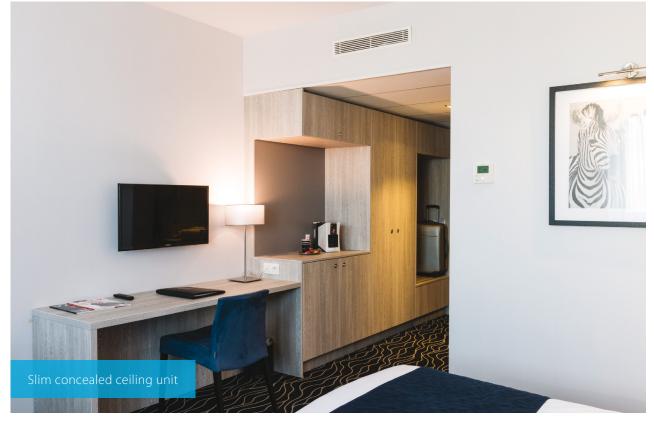


# A lindoor units

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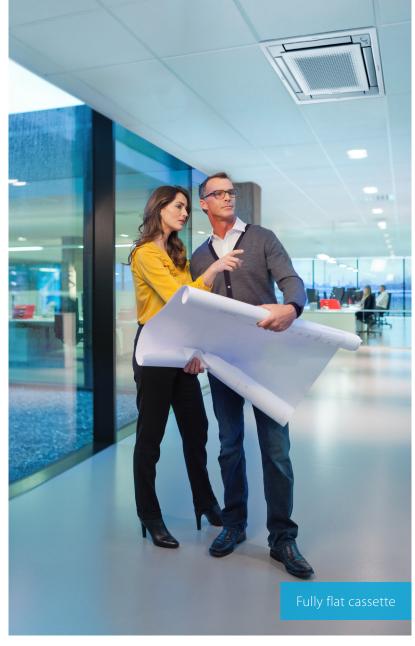












### Products overview **JRJ IV**

Capacity class (kW)

	Model	P	roduct name	15	20	25	32	40	50	63	/1	80	100	125	140 2	200	250
	UNIQUE Round flow cassette	360° air discharge for optimum efficiency and comfort  > Auto cleaning function ensures high efficiency  > Intelligent sensors save energy and maximize comfort  > Flexibility to suit every room layout  > Lowest installation height in the market!  > Widest choice ever in decoration panel designs and colors	FXFQ-B		•	•	•	•	•	•		•	•	•			
Ceiling mounted cassette	UNIQUE Fully flat cassette	Unique design that integrates fully flat into the ceiling  Perfect integration in standard architectural ceiling tiles  Blend of iconic design and engineering excellence  Intelligent sensors save energy and maximize comfort  Small capacity unit developed for small or well-insulated rooms  Flexibility to suit every room layout	FXZQ-A	>	•	•	•	•	•								
Celling mor	2-way blow ceiling mounted cassette	Thin, lightweight design installs easily in narrow ceiling spaces  > Depth of all units is 620mm, ideal for narrow ceiling spaces  > Flexibility to suit every room layout  > Reduced energy consumption thanks to DC fan motor  > The flaps close entirely when the unit is not operating  > Optimum comfort with automatic air flow adjustment to the required load	FXCQ-A		•	•	•	•	•	•		•		•			
	Ceiling mounted corner cassette	1-way blow unit for corner installation Compact dimensions enable installation in narrow ceiling voids Flexible installation thanks to different air discharge options	FXKQ-MA	1		•	•	•		•							
	Slim concealed ceiling unit	Slim design for flexible installation  Compact dimensions enable installation in narrow ceiling voids  Medium external static pressure up to 44Pa  Only grilles are visible  Small capacity unit developted for small of well-insulated rooms  Reduced energy consumption thanks to DC fan motor	FXDQ-A3		•	•	•	•	•	•			ito cli lter o			Mi	lult
רסוורבמובת רבוווות	Concealed ceiling unit with medium ESP	Slimmest yet most powerfull medium static pressure unit on the market!  > Slimmest unit in class, only 245mm  > Low operating sound leve!  > Medium external static pressure up to 150Pa facilitates using flexible ducts of varying lengths  > Automatic air flow adjustment function measures the air volume and static pressure and adjusts it towards the nominal air flow, guaranteeing comfort	FXSQ-A			•	•	•	•	•		•	•	•	•	Mu	lult
	Concealed ceiling unit with high ESP	ESP up to 200, ideal for large sized spaces  Optimum comfort guaranteed no matter the length of ductwork or type of grilles, thanks to automatic air flow adjustment  Reduced energy consumption thanks to DC fan motor  Flexible installation as the air suction direction can be altered from rear to bottom suction	FXMQ-P7						•	•		•	•	•			
	Concealed ceiling unit with high ESP	ESP up to 270, ideal for extra large sized spaces  > Only grilles are visible > Large capacity unit: up to 31.5 kW heating capacity	FXMQ-MB													•	•
	Wall mounted unit	For rooms with no false ceilings nor free floor space  > Flat, stylish front panel is more easy to clean  > Small capacity unit developted for small of well-insulated rooms  > Reduced energy consumption thanks to DC fan motor  > The air is comfortably spread up- and downwards thanks to 5 different discharge angles	FXAQ-A	3.1	•	•	•	•	•	•							
ceiiiig saspeilaea	Ceiling suspended unit	For wide rooms with no false ceilings nor free floor space  > Ideal for comfortable air flow in wide rooms thanks to Coanda effect > Rooms with ceilings up to 3.8m can be heated or cooled very easily! > Can easily be installed in both new and refurbishment projects > Can even be mounted in corners or narrow spaces without any problem > Reduced energy consumption thanks to DC fan motor	FXHQ-A				•			•			•				
,	UNIQUE 4-way blow ceiling suspended unit	Unique Daikin unit for high rooms with no false ceilings nor free floor space  Rooms with ceilings up to 3.5m can be heated up or cooled down very easily!  Can easily be installed in both new and refurbishment projects  Flexibility to suit every room layout  Reduced energy consumption thanks to DC fan motor	FXUQ-A								•		•				
5	Floor standing unit	For perimeter zone air conditioning  > Can be installed in front of glass walls or free standing as both the front and the back are finished  > Ideal for installation beneath a window  > Requires very little installation space  > Wall mounted installation facilitates cleaning beneath the unit	FXLQ-P		•	•	•	•	•	•							
5	Concealed floor	Ideal for installation in offices, hotels and residential applications  > Discretely concealed in the wall, leaving only the suction and discharge grilles visible  > Can even be installed underneath a window	FXNQ-A		•	•	•	•	•	•							
) 	standing unit	Requires very little installation space as the depth is only 200mm     High ESP allows flexible installation															

<sup>(1)</sup> Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB, outdoor temperature: 35°CDB, equivalent refrigerant piping: 5m, level difference: 0m

 $<sup>(2) \</sup> Nominal \ heating \ capacities \ are \ based \ on: indoor \ temperature: 20^{\circ}CDB, outdoor \ temperature: 7^{\circ}CDB, 6^{\circ}CWB, equivalent \ refrigerant \ piping: 5m, level \ difference: 0m \ difference:$ 

Connectable outdoor unit

## Products overview Stylish indoor units

Depending on the application, Split and Sky Air indoor units can be connected to our VRV IV and VRV IV S-series outdoor units. Refer to the autdoor unit portfolio for combination restriction

outdoor	<b>unit portfolio</b> for combinat	ion restriction	S.					,	Capacit	y class	(kW)	7-n	Q-U	RXYSCQ-TV1³ RXYSQ-TV9³ RXYSQ-TY9/TY1³	RWEYQ-T94	-Q-T
Туре	Model	Product name		15	20	25	35	42	50	60	71	RYYQ-U	RXYQ-U	RXY:	RWE	RXYLQ-T
	Round flow cassette (incl. auto-cleaning function')	FCAG-B					•		•	•				<b>✓</b>		
Ceiling mounted cassette	Fully flat cassette	FFA-A9				•	•		•	•				✓		
Concealed	Slim concealed ceiling unit	FDXM-F9				•	•		•	•				<b>√</b>		
ceiling	Concealed ceiling unit with inverter-driven fan	FBA-A(9)					•		•	•		to clea		<b>✓</b>		
	Daikin Emura Wall mounted unit reddot award 2014 winner	FTXJ-MW/MS			•	•	•		•			<b>√</b>	<b>√</b>	<b>✓</b>	~	<b>✓</b>
Wall mounted	Stylish Wall mounted unit	FTXA-AW/ BS/BB/BT			•	•	•	•	•			<b>✓</b>	<b>✓</b>	<b>✓</b>	~	<b>✓</b>
	Perfera Wall mounted unit	CTXM-N FTXM-N		•	•	•	•	•	•	•	•			<b>✓</b>		
Ceiling suspended	Ceiling suspended unit	FHA-A(9)					•		•	•	•			<b>✓</b>		
	Perfera Floor standing unit	CVXM-A FVXM-A	THE PROPERTY OF THE PARTY OF TH		•	•	•		•	•		<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	✓
Floor standing	Floor standing unit	FVXM-F	MANAGEMENT OF THE PARTY OF THE			•	•		•			~	<b>✓</b>	<b>√</b>	~	<b>✓</b>
	Concealed floor standing unit	FNA-A9				•	•		•	•				✓		

Decoration panel BYCQ140DG9 or BYCQ140DGF9 + BRC1E\* or BRC1H\* needed

 $<sup>^{\</sup>rm 2}$  To connect stylish indoor units a BPMKS unit is needed

<sup>&</sup>lt;sup>3</sup> A mix of RA indoor units and VRV indoor units is not allowed.

<sup>&</sup>lt;sup>4</sup> Only in heat pump operation

# Benefits overview **JRJ IV**

		Home leave operation	During absence, indoor comfort levels can be maintained
are	S	Fan only	The air conditioner can be used as fan, blowing air without cooling or heating
We care	*	Auto cleaning filter	The filter automatically cleans itself. Simplicity of upkeep means optimum energy efficiency and maximum comfort without the need for expensive or time-consuming maintenance
	)))       	Floor and presence sensor	The presence sensor directs the air away from any person detected in the room. The floor sensor detects the average floor temperature and ensures an even temperature distribution between ceiling and floor
٠	2 1	Draught prevention	When starting to warm up or when the thermostat is off, the air discharge direction is set horizontally and the fan to low speed, to prevent draught. After warming up, air discharge and fan speed are set as desired
Comfort		Whisper quiet	Daikin indoor units are whisper quiet. Also the outdoor units are guaranteed not to disturb the quiet of the neightbourhood
_	[A]	Auto cooling-heating changeover	Automatically selects cooling or heating mode to achieve the set temperature
٠ ـ			
Air treatment		Air filter	Removes airborne dust particles to ensure a steady supply of clean air
Air tre			,
Humidity	<b>Ø Ø</b> DRY	Dry programme	Allows humidity levels to be reduced without variations in room temperature
-			
-			The air discharge of the indoor unit is specially designed to prevent air being blown against the ceiling to prevent
	<b>▼</b>	Ceiling soiling prevention	ceiling stains
Air flow	8	Vertical auto swing	Possibility to select automatic vertical moving of the air discharge louvre, for uniform air flow and temperature distribution
Air	S	Fan speed steps	Multiple fan speeds to select, to optimize comfort levels
	×	Individual flap control	Individual flap control via the wired remote controller makes it simple to fix the position of each flap individually, to suit any new room configuration. Optional closure kits are available as well
jer	24/7	Weekly timer	Timer can be set to start and stop operation anytime on a daily or weekly basis
note control & timer		Infrared remote control	Infrared remote control with LCD to remotely control your indoor unit
contro		Wired remote control	Wired remote control to remotely control your indoor unit
		Centralised control	Centralised control to to control several indoor units from one single point
Rei		Multi zoning	Allows up to 6 individual climate zones with one indoor unit
us	AUTO 7	Auto-restart	The unit restarts automatically at the original settings after power failure
untcio		Self-diagnosis	Simplifies maintenance by indicating system faults or operating anomalies
Other funtcions	% <b>3</b>	Drain pump kit	Facilitates condensation draining from the indoor unit
_		Multi tenant	The indoor unit's main power supply can be turned off when leaving the building or for servicing purposes

Ce	eiling mounte	d cassette un	its		Concealed	ceiling units		Wall mounted unit	Ceiling susp	ended units	Floor star	nding units
FXFQ-B	FXZQ-A	FXCQ-A	FXKQ-MA	FXDQ-A3	FXSQ-A	FXMQ-P7	FXMQ-MB	FXAQ-A	FXHQ-A	FXUQ-A	FXNQ-A	FXLQ-P
•	•	•	•	•	•	•	•	•	•	•	•	•
•	•	•	•	•	•	•	•	•	•	•	•	•
•				•								
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•	•	•	•	•	•	•	•	•	•	•	•	•
G1* (G3* in case of auto cle- aning panel)	G1*	•	G1*	•	G1*	•	G1* F8* (optional)	•	G1*	G1*	G1*	G1*
•	•	•	•	•	•	•	•	•	•	•	•	•
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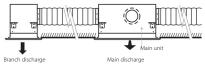
 $<sup>\</sup>ensuremath{^{*}}$  Filter grade category are an indication, filters are not certified.



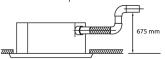
#### Round flow cassette

#### 360° air discharge for optimum efficiency and comfort

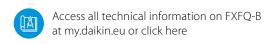
- > Automatic filter cleaning results in higher efficiency & comfort and lower maintenance costs.
- > Two optional intelligent sensors improve energy efficiency and
- Widest choice ever in decoration panels: Designer, standard and autocleaning panels in white (RAL9010) and black (RAL9005)
- > Bigger flaps and unique swing pattern improve equal air distribution
- > Individual flap control: flexibility to suit every room layout without changing the location of the unit!
- $\,{}^{\backprime}$  Lowest installation height in the market: 214mm for class 20-63
- > Optional fresh air intake
- > Branch duct discharge allows to optimize air distribution in irregular shaped rooms or to supply air to small adjacent rooms



> Standard drain pump with 675mm lift increases flexibility and installation speed







Indoor unit				FXFQ	20B	25B	32B	40B	50B	63B	80B	100B	125B
Cooling capacity	Total capacity	Nom.		kW	2.20	2.80	3.60	4.50	5.60	7.10	9.00	11.20	14.00
Heating capacity	Total capacity	Nom.		kW	2.5	3.2	4.0	5.0	6.3	8.0	10.0	12.5	16.0
Power input - 50Hz	Cooling	Nom.		kW		0.	.04		0.05	0.06	0.09	0.12	0.19
	Heating	Nom.		kW		0.	.04		0.05	0.06	0.09	0.11	0.18
Dimensions	Unit	HeightxWi	idthxDepth	mm			204x8	40x840			246x8	40x840	288x840x840
Weight	Unit			kg		19		20	2	21	2	24	26
Casing	Material							Galv	anised steel	plate			
Decoration panel	Model				Sta	indard panels	Auto cleanin	white with gr ng panels BYCO r panels: BYCO	Q140EGF - wł	nite / BYCQ14	DEGFB - black		lack
	Dimensions	HeightxW	idthxDepth	mm	Sta	andard panel	s: 50x950x95	0 / Auto clean	ing panels: 13	30x950x950 /	Designer par	nels: 50x950x9	950
	Weight			kg		St	tandard pane	ls: 5.4 / Auto c	leaning pane	ls: 10.3 / Desi	gner panels:	5.4	
Fan	Air flow rate -	Cooling	Low/High	m³/min		8.8/12.5		9.5/13.6	10.5/15.0	10.5/16.5	12.4/22.8	12.4/26.5	19.9/33.0
	50Hz	Heating	Low/High	m³/min		8.8/12.5		9.5/13.6	10.5/15.0	10.5/16.5	12.4/22.8	12.4/26.5	19.9/33.0
Air filter	Type								Resin net				
Sound power level	Cooling	High		dBA		49		5	51	53	55	60	61
Sound pressure level	Cooling	Low/Nom.	/High	dBA		28.0/29.0/31.	0	29.0/3	1.0/33.0	30.0/33.0/35.0	30.0/34.0/38.0	30.0/37.0/43.0	36.0/41.0/45.0
	Heating	Low/Nom	./High	dBA		28.0/29.0/31.	0	29.0/3	1.0/33.0	30.0/33.0/35.0	30.0/34.0/38.0	30.0/37.0/43.0	36.0/41.0/45.0
Refrigerant	Type/GWP							F	R-410A/2,087.	.5			
Piping connections	Liquid	OD		mm			6.35				9.	.52	
	Gas	OD		mm			12.70				15	.90	
	Drain							VP2	5 (O.D. 32 / I.E	). 25)			
Power supply	Phase/Frequenc	y/Voltage		Hz/V				1~/5	0/60/220-240	0/220			
Current - 50Hz	Maximum fuse a	amps (MFA)		Α					16				
Control systems	Infrared remote	control					BRC7FA5	32F / BRC7FA	532FB / BRC7	FB532F / BRC	7FB532FB		
	Wired remote co	ontrol					BRC	1H519W7/S7	/K7 / BRC1E5	3A/B/C / BRC1	D52		

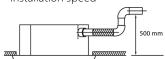
#### **Fully flat cassette**

#### Unique design in the market that integrates fully flat into the ceiling

- Fully flat integration in standard architectural ceiling tiles, leaving only 8mm
- Remarkable blend of iconic design and engineering excellence with an elegant finish in white or a combination of silver and white
- > Two optional intelligent sensors improve energy efficiency and comfort
- > 15 class unit especially developed for small or well-insulated rooms, such as hotel bedrooms, small offices, etc.
- > Individual flap control: flexibility to suit every room layout without changing the location of the unit!



- > Optional fresh air intake
- > Standard drain pump with 630mm lift increases flexibility and installation speed







Access all technical information on FXZQ-A at my.daikin.eu or click here

Indoor unit			FXZQ	15A	20A	25A	32A	40A	50A
Cooling capacity	Total capacity	Nom.	kW	1.70	2.20	2.80	3.60	4.50	5.60
Heating capacity	Total capacity	Nom.	kW	1.90	2.50	3.20	4.00	5.00	6.30
Power input - 50Hz	Cooling	Nom.	kW		0.043		0.045	0.059	0.092
	Heating	Nom.	kW		0.036		0.038	0.053	0.086
Dimensions	Unit	HeightxWidthxDept	h mm			260x5	75x575		,
Weight	Unit		kg		15.5		16	5.5	18.5
Casing	Material					Galvanised	steel plate		,
Decoration panel	Model		i			BYFQ60	C2W1W		
	Colour					White	(N9.5)		
	Dimensions	HeightxWidthxDept	h mm			46x62	0x620		
	Weight		kg			2	.8		
Decoration panel 2	Model					BYFQ60	C2W1S		
	Colour					SIL	VER		
	Dimensions	HeightxWidthxDept	h mm			46x62	0x620		
	Weight		kg			2	.8		
Decoration panel 3	Model					BYFQ6	0B2W1		
	Colour					White (F	RAL9010)		
	Dimensions	HeightxWidthxDept	h mm			55x70	0x700		
	Weight		kg			2	.7		
Decoration panel 4	Model					BYFQ6	0B3W1		
	Colour					WHITE (F	RAL9010)		
	Dimensions	HeightxWidthxDept	h mm			55x70	0x700		
	Weight		kg			2	.7		
Fan	Air flow rate -	Cooling Low/Higl	n m³/min	6.5/8.5	6.5/8.7	6.5/9.0	7.0/10.0	8.0/11.5	10.0/14.5
	50Hz	Heating Low/Higl	n m³/min	6.5/8.5	6.5/8.7	6.5/9.0	7.0/10.0	8.0/11.5	10.0/14.5
Air filter	Туре					Resi	n net		
Sound power level	Cooling	High	dBA	4	19	50	51	54	60
Sound pressure level	Cooling	Low/Nom./High	dBA	25.5/28.0/31.5	25.5/29.5/32.0	25.5/30.0/33.0	26.0/30.0/33.5	28.0/32.0/37.0	33.0/40.0/43.0
	Heating	Low/Nom./High	dBA	25.5/28.0/31.5	25.5/29.5/32.0	25.5/30.0/33.0	26.0/30.0/33.5	28.0/32.0/37.0	33.0/40.0/43.0
Refrigerant	Type/GWP					R-410A	/2,087.5		
Piping connections	Liquid	OD	mm			6.	35		
	Gas	OD	mm			12	2.7		
	Drain					VP20 (I.D.	20/O.D. 26)		
Power supply	Phase/Frequenc	y/Voltage	Hz/V			1~/50/60/2	20-240/220		
Current - 50Hz	Maximum fuse a	mps (MFA)	А			1	6		
Control systems	Infrared remote	control		В	RC7EB530W (standa	rd panel) / BRC7F530	OW (white panel) / B	RC7F530S (grey pan	el)
	Wired remote co	ontrol			BRC	1H519W7/S7/K7 / B	RC1E53A/B/C / BRC1	D52	

# 2-way blow ceiling mounted cassette

#### Thin, lightweight design installs easily in narrow corridors

- > Depth of all units is 620mm, ideal for narrow spaces
- > Individual flap control: flexibility to suit every room layout without changing the location of the unit!



- Stylish unit blends easily with any interior. The flaps close entirely when the unit is not operating and there are no air intake grilles visible
- > Fresh air intake integrated in the same system thus reducing installation cost as no additional ventilation device is required

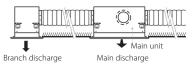
Fresh air intake opening in casing



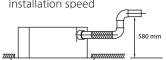
- \* Brings in up to 10% of fresh air into the room
- > Optimum comfort guaranteed with automatic air flow adjustment to the required load
- > Maintenance operations can be performed by removing the front panel



> Branch duct discharge allows to optimize air distribution in irregular shaped rooms or to supply air to small adjacent rooms



> Standard drain pump with 580mm lift increases flexibility and installation speed



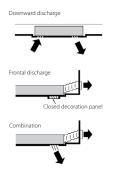


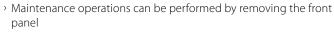
Indoor unit			FXCQ	20A	25A	32A	40A	50A	63A	80A	125A
Cooling capacity	Total capacity	Nom.	kW	2.2	2.8	3.6	4.5	5.6	7.1	9.0	14.0
Heating capacity	Total capacity	Nom.	kW	2.5	3.2	4.0	5.0	6.3	8.0	10.0	16.0
Power input - 50Hz	Cooling	Nom.	kW	0.031	0.0	39	0.041	0.059	0.063	0.090	0.149
	Heating	Nom.	kW	0.028	0.0	35	0.037	0.056	0.060	0.086	0.146
Dimensions	Unit	HeightxWidthxDepth	mm		305x7	75x620		305x9	90x620	305x1,4	145x620
Weight	Unit		kg		1	9		22	25	33	38
Casing	Material						Galvanised	steel plate			
Decoration panel	Model				BYBCQ	40HW1		BYBCQ	63HW1	BYBCQ1	125HW1
	Colour						Fresh white	(6.5Y 9.5/0.5)			
	Dimensions	HeightxWidthxDepth	mm		55x1,0	70x700		55x1,2	85x700	55x1,7	40x700
	Weight		kg		1	0		1	1	1	3
Fan	Air flow rate - 50Hz	Cooling Low/High	m³/min	7.5/10.5	8/1	1.5	8.5/12	10.5/15	11.5/16	18.5/26	22.5/32
Air filter	Type						Resin net with I	mold resistance	2		
Sound power level	Cooling	Nom./High	dBA	46/48	47/50	48/50	49/52	51/53	53/55	54/58	58/62
Sound pressure level	Cooling	Low/Nom./High	dBA	28.0/30.0/32.0	29.0/31.0/34.0	30.0/32.0/34.0	31.0/33.0/36.0	31.0/35.0/37.0	32.0/37.0/39.0	33.0/38.0/42.0	38.0/42.0/46.0
	Heating	Low/Nom./High	dBA	28.0/30.0/32.0	29.0/31.0/34.0	30.0/32.0/34.0	31.0/33.0/36.0	31.0/35.0/37.0	32.0/37.0/39.0	33.0/38.0/42.0	38.0/42.0/46.0
Refrigerant	Type/GWP						R-410A	/2,087.5			
Piping connections	Liquid	OD	mm			6.35				9.52	
	Gas	OD	mm			12.7				15.9	
	Drain						VP25 (O.D.	32 / I.D. 25)			
Power supply	Phase/Frequency	y/Voltage	Hz/V				1~/50/2	220-240			
Current - 50Hz	Maximum fuse a	mps (MFA)	Α				1	6			
Control systems	Infrared remote	control					BRC	7C52			
	Wired remote co	ntrol				BRC1H51	9W7/S7/K7 / BI	RC1E53A/B/C/	BRC1D52		

#### Ceiling mounted corner cassette

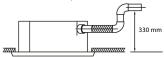
#### 1-way blow unit for corner installation

- > Compact dimensions, can easily be mounted in a narrow ceiling void (only 220mm ceiling space required, 195 with panel spacer, available as accessory)
- > Optimum air flow conditions are created by either downward air discharge or frontal air discharge (via optional grille) or a combination of both













Indoor unit			FXKQ	25MA	32MA	40MA	63MA
Cooling capacity	Total capacity	Nom.	kW	2.8	3.6	4.5	7.10
Heating capacity	Total capacity	Nom.	kW	3.2	4.0	5.0	8.00
Power input - 50Hz	Cooling	Nom.	kW	0.0	066	0.076	0.105
	Heating	Nom.	kW	0.0	)46	0.056	0.085
Dimensions	Unit	HeightxWidthxDepth	mm		215x1,110x710		215x1,310x710
Weight	Unit		kg		31		34
Casing	Material				Galvanised	steel plate	
Decoration panel	Model				BYK45FJW1		BYK71FJW1
	Colour				Wł	nite	
	Dimensions	HeightxWidthxDepth	mm		70x1,240x800		70x1,440x800
	Weight		kg		8.5		9.5
Fan	Air flow rate - 50Hz	Cooling Low/High	m³/min	9/	11	10/13	15/18
Air filter	Туре				Resin net with	mold resistance	
Sound power level	Cooling	High	dBA	5	54	56	58
Sound pressure level	Cooling	Low/High	dBA	33.0	/38.0	34.0/40.0	37.0/42.0
Refrigerant	Type/GWP				R-410A	/2,087.5	
Piping connections	Liquid	OD	mm		6.35		9.52
	Gas	OD	mm		12.7		15.9
	Drain				VP25 (O.D.	32 / I.D. 25)	
Power supply	Phase/Frequency	y/Voltage	Hz/V		1~/50/60/2	20-240/220	
Current - 50Hz	Maximum fuse a	mps (MFA)	А		1	5	
Control systems	Infrared remote	control			BRC	4C61	
	Wired remote co	ntrol			BRC1H519W7/S7/K7 / B	RC1E53A/B/C / BRC1D52	



The multi-zoning system is a room-by-room controller. It is fitted with motorised dampers, which immediately adapt using Daikin ducted solutions. This system supports control of up to 8 zones via a centralised thermostat located in the main room and individual thermostats for each of the zones.

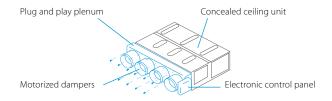
#### **Benefits**

#### **Increased comfort**

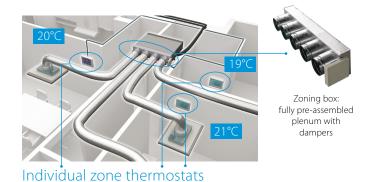
- > Increases comfort levels by allowing more individual zone control
  - Up to 8 individual zones can be served thanks to separate modulating dampers
  - Individual thermostat for room-by-room or zone-by-zone control

#### Easy to install

- > Automatic air flow adjustment according to the demand
- > Easy to install, integrates with the Daikin indoor units and system controls
- > Time saving as plenum comes fully pre-assembled with dampers, and control boards
- > Reduces the amount of refrigerant required in the installation



#### How does it work?



#### Blueface - Airzone Main Thermostat

- Color graphic interface for controlling zones
- > Wired communication



AZCE6BLUEFACECB

#### Airzone Zone Thermostat

- Graphic interface with low-energy e-ink screen for controlling zones
- > Radio communication



AZCE6THINKRB

#### Airzone Zone Thermostat

- Thermostat with buttons for controlling the temperature
- › Radio communication



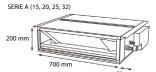
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Compa	tik	oility							S	k	<b>/</b> /	1ii	_												1	1	R	1	1							
					FDX	M-F	9			FE	BA-A	(9)			Α	DEA	-A			FX	DQ-	А3								FX:	Q-A					
Numl motorised dar	ber of npers	Reference	Dimensions H x W x D (mm)	25	35	50	60	35	50	60	71	100	125	140	71	100	125	15	20	25	32	40	50	63	15	20	25	32	40	50	63	71	80	100	125	140
	2	AZEZ6DAIST07XS2	300 x 930 x 454																						•	•	•	•								
	2	AZEZ6DAIST07S2	300 X 930 X 454					•	•																				•	•						
	3	AZEZ6DAIST07XS3	300 x 930 x 454																						•	•	•	•								
	3	AZEZ6DAIST07S3	300 X 930 X 454					•	•																				•	•						
	4	AZEZ6DAIST07S4	300 x 930 x 454					•	•																				•	•						
Standard Ceiling	*	AZEZ6DAIST07M4	300 x 1,140 x 454							•	•				•																•		•			
Void	5	AZEZ6DAIST07M5	300 x 1.425 x 454							•	•				•																•		•			
	5	AZEZ6DAIST07L5	300 X 1,423 X 434									•	•	•		•	•																	•	•	
	6	AZEZ6DAIST07M6	300 x 1.638 x 454							•	•				•																•		•			
	0	AZEZ6DAIST07L6	300 X 1,636 X 434									•	•	•		•	•																	•	•	
	7	AZEZ6DAIST07L7	515 x 1,425 x 454									•	•	•		•	•																	•	•	
		AZEZ6DAIST07XL7	313 X 1,423 X 434																																	•
	8	AZEZ6DAIST07L8	515 x 1.425 x 454									•	•	•		•	•																	•	•	
		AZEZ6DAIST07XL8	313 X 1,423 X 434																																	•
Compact Ceiling	2	AZEZ6DAISL01S2	210 x 720 x 444	•	•													•	•	•	•															
Void	3	AZEZ6DAISL01S3	210 x 720 x 444	•	•													•	•	•	•															
0000	4	AZEZ6DAISL01M4	210 x 930 x 444																			•	•													
	5	AZEZ6DAISL01L5	210 x 1,140 x 444			•	•																	•												

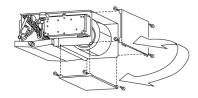
#### Slim concealed ceiling unit

#### Slim design for flexible installation

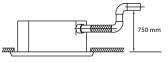
> Compact dimensions, can easily be mounted in a ceiling void of only 240mm



- Medium external static pressure up to 44Pa facilitates unit use with flexible ducts of varying lengths
- > Discretely concealed in the wall: only the suction and discharge grilles are visible
- > 15 class unit especially developed for small or well-insulated rooms, such as hotel bedrooms, small offices, etc.
- > Auto cleaning filter option ensures maximum efficiency, comfort and reliability by regular filter cleaning
- > Multi zoning kit allows multiple individually-controlled climate zones to be served by one indoor unit
- > Flexible installation, as the air suction direction can be altered from rear to bottom suction

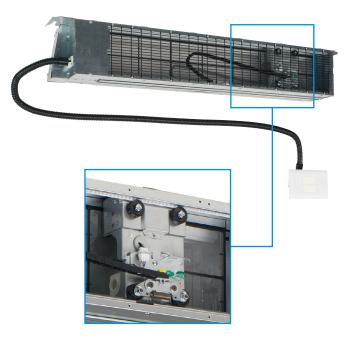


> Standard drain pump with 750mm lift increases flexibility and installation speed



- Access all technical information on FXDQ-A3 at my.daikin.eu or click here
- Access all technical information on BAE20A at my.daikin.eu or click here
- More information on multi zoning kit in the controls chapter





Auto cleaning filter option

		FXDQ	15A3	20A3	25A3	32A3	40A3	50A3	63A3
Total capacity	Nom.	kW	1.70	2.20	2.80	3.60	4.50	5.60	7.10
Total capacity	Nom.	kW	1.90	2.50	3.20	4.00	5.00	6.30	8.00
Cooling	Nom.	kW		0.0	071		0.078	0.099	0.110
Heating	Nom.	kW		0.0	068		0.075	0.096	0.107
>		mm				240			
Unit	HeightxWidthxDepth	mm		200x7	50x620		200x9	50x620	200x1,150x620
Unit		kg		22	2.0		20	5.0	29.0
Material						Galvanised stee	I		
Air flow rate - 50Hz	Cooling Low/High	m³/min	6.4/7.5		6.4/8.0		8.5/10.5	10.0/12.5	13.0/16.5
External static pressure - 50Hz	Nom./High	Pa		10/	30.0			15/44.0	
Туре					Re	movable / washa	able		
Cooling	High	dBA	50		51		52	53	54
Cooling	Low/Nom./High	dBA	27.0/31.0/32.0		27.0/31.0/33.0		28.0/32.0/34.0	29.0/33.0/35.0	30.0/34.0/36.0
Type/GWP						R-410A/2,087.5			
Liquid	OD	mm			6.	35			9.52
Gas	OD	mm			1:	2.7			15.9
Drain					V	P20 (I.D. 20/O.D. 2	26)		
Phase/Frequency	y/Voltage	Hz/V			1~	/50/60/220-240/	220		
Maximum fuse a	mps (MFA)	Α				16			
Infrared remote	control				В	RC4C65 / BRC4C	66		
Wired remote co	ntrol				BRC1H519W7/	S7/K7 / BRC1E53	A/B/C/ BRC1D52		
	Total capacity Cooling Heating > Unit Unit Material Air flow rate - 50Hz External static pressure - 50Hz Type Cooling Cooling Type/GWP Liquid Gas Drain Phase/Frequency Maximum fuse a Infrared remote	Total capacity Nom.  Cooling Nom.  Heating Nom.	Total capacity	Total capacity	Total capacity	Total capacity	Total capacity	Total capacity	Total capacity

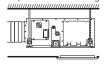
# Concealed ceiling unit with medium ESP

#### Slimmest yet most powerful medium static pressure unit on the market

> Slimmest unit in class, only 245mm (300mm built-in height) and therefore narrow ceiling voids are no longer a challenge



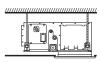
- > Quiet operation: down to 25dBA sound pressure level
- Medium external static pressure up to 150Pa facilitates using flexible ducts of varying lengths
- Possibility to change ESP via wired remote control allows optimisation of the supply air volume
- Discretely concealed in the wall: only the suction and discharge grilles are visible
- > 15 class unit especially developed for small or well-insulated rooms, such as hotel bedrooms, small offices, etc.
- > Multi zoning kit allows multiple individually-controlled climate zones to be served by one indoor unit
- > Optional fresh air intake
- Flexible installation: air suction direction can be altered from rear to bottom suction and choice between free use or connection to optional suction grilles



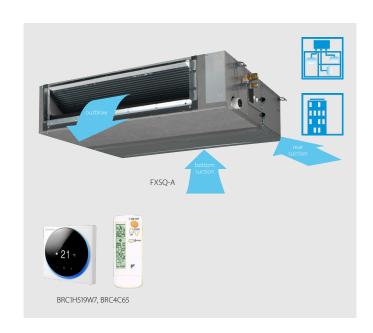
For free use into a false ceiling



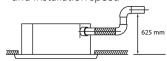
suction canvas (not supplied by Daikin)



For direct connection to Daikin panel (via EKBYBSD kit)



> Standard built-in drain pump with 625mm lift increases flexibility and installation speed



#### Automatic Airflow Adjustment function

Automatically selects the most appropriate fan curve to achieve the units' nominal air flow within  $\pm 10\%$ 

#### Why?

After installation the real ducting will frequently differ from the initially calculated air flow resistance \* the real air flow may be much lower or higher than nominal, leading to a lack of capacity or uncomfortable air temperature

Automatic Airflow Adjustment function will adapt the unit's fan speed to any ducting automatically (10 or more fan curves are available on every model), making installation much faster





Access all technical information on FXSQ-A at my.daikin.eu or click here



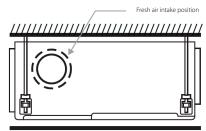
More information on multi zoning kit in the controls chapter

Indoor unit				FXSQ	15A	20A	25A	32A	40A	50A	63A	80A	100A	125A	140A
Cooling capacity	Total capacity	Nom.		kW	1.70	2.20	2.80	3.60	4.50	5.60	7.10	9.00	11.20	14.00	16.00
Heating capacity	Total capacity	Nom.		kW	1.90	2.50	3.20	4.00	5.00	6.30	8.00	10.0	12.5	16.0	18.0
Power input - 50Hz	Cooling	Nom.		kW		0.090		0.096	0.151	0.154	0.188	0.213	0.290	0.331	0.386
	Heating	Nom.		kW		0.086		0.092	0.147	0.150	0.183	0.209	0.285	0.326	0.382
Dimensions	Unit	HeightxW	VidthxDepth	mm		245x55	50x800		245x7	00x800	245x1,0	008x000	245x1,4	100x800	245x1,550x800
Weight	Unit			kg		23.5		24.0	28.5	29.0	35.5	36.5	46.0	47.0	51.0
Casing	Material								Galva	nised steel	plate				
Fan	Air flow rate -	Cooling	Low/High	m³/min	6.5/8.7	6.5	/9.0	7.0/9.5	11.0/15.0	11.0/15.2	15.0/21.0	16.0/23.0	23.0/32.0	26.0/36.0	28.0/39.0
	50Hz	Heating	Low/High	m³/min	6.5/8.7	6.5	/9.0	7.0/9.5	11.0/15.0	11.0/15.2	15.0/21.0	16.0/23.0	23.0/32.0	26.0/36.0	28.0/39.0
	External static	Nom./Hig	gh	Pa				30/150				40/	150	50/	150
	pressure - 50Hz														
Air filter	Type									Resin net					
Sound power level	Cooling	High		dBA		54		55	6	60	59	6	1	6	4
Sound pressure level	Cooling	Low/Non	n./High	dBA	25.0/28.0/29.5	25.0/28	3.0/30.0	26.0/29.0/31.0	29.0/32	2.0/35.0	27.0/30.0/33.0	29.0/32.0/35.0	31.0/34.0/36.0	33.0/36.0/39.0	34.0/38.0/41.5
	Heating	Low/Non	n./High	dBA	26.0/29.0/31.5	26.0/29	9.0/32.0	27.0/30.0/33.0	29.0/34	4.0/37.0	28.0/32.0/35.0	30.0/34.0/37.0	31.0/34.0/37.0	33.0/37.0/40.0	34.0/38.5/42.0
Refrigerant	Type/GWP								R-	410A/2,087	7.5				
Piping connections	Liquid	OD		mm			6	.35					9.52		
	Gas	OD		mm			1	2.7					15.9		
	Drain							VP20	(I.D. 20/O.I	D. 26), drair	height 62	5 mm			
Power supply	Phase/Frequency	y/Voltage		Hz/V					1~/50	/60/220-24	10/220				
Current - 50Hz	Maximum fuse a	mps (MFA)		Α						16					
Control systems	Infrared remote	control								BRC4C65					
	Wired remote co	ntrol						BRC1H:	519W7/S7/I	K7 / BRC1E	3A/B/C / B	RC1D52			

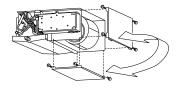
# Concealed ceiling unit with high ESP

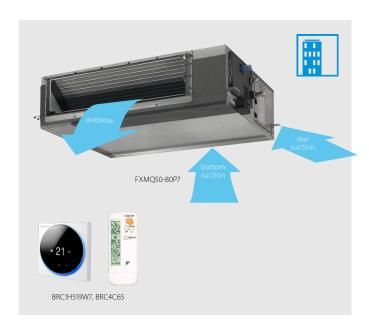
#### Ideal for large sized spaces FXMQ-P7: ESP up to 200 Pa

- Possibility to change ESP via wired remote control allows optimisation of the supply air volume
- High external static pressure up to 200Pa facilitates extensive duct and grille network
- Discretely concealed in the wall: only the suction and discharge grilles are visible
- Fresh air intake integrated in the same system thus reducing installation cost as no additional ventilation device is required Fresh air intake opening in casing

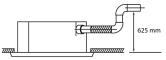


- \* Brings in up to 10% of fresh air into the room
- Flexible installation, as the air suction direction can be altered from rear to bottom suction





> Standard built-in drain pump with 625mm lift increases flexibility and installation speed



#### FXMQ-MB: ESP up to 270 Pa

- High external static pressure up to 270Pa facilitates extensive duct and grille network
- > Discretely concealed in the wall: only the suction and discharge grilles are visible
- > Large capacity unit: up to 31.5 kW heating capacity

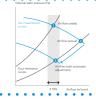
#### Automatic Airflow Adjustment function

Automatically selects the most appropriate fan curve to achieve the units' nominal air flow within  $\pm 10\%$ 

#### Why?

After installation the real ducting will frequently differ from the initially calculated air flow resistance \* the real air flow may be much lower or higher than nominal, leading to a lack of capacity or uncomfortable air temperature

Automatic Airflow Adjustment function will adapt the unit's fan speed to any ducting automatically (10 or more fan curves are available on every model), making installation much faster





#### Access all technical information on FXMQ-P7 at my.daikin.eu or click here



#### Access all technical information on FXMQ-MB at my.daikin.eu or click here

Indoor unit				FXMQ	50P7	63P7	80P7	100P7	125P7	200MB	250MB
Cooling capacity	Total capacity	Nom.		kW	5.6	7.1	9.0	11.2	14.0	22.4	28.0
	Nom.			kW				-			
Heating capacity	Total capacity	Nom.		kW	6.3	8.0	10.0	12.5	16.0	25.0	31.5
	Nom.			kW				-			
Power input - 50Hz	Cooling	Nom.		kW	0.110	0.120	0.171	0.176	0.241	0.895	1.185
	Heating	Nom.		kW	0.098	0.108	0.159	0.164	0.229	0.895	1.185
Required ceiling void	>			mm			350			-	
Dimensions	Unit	HeightxV	VidthxDepth	mm		300x1,000x700		300x1,4	100x700	470x1,38	80x1,100
Weight	Unit			kg		35		4	16	13	32
Casing	Material						Gal	vanised steel pl	ate		
Decoration panel	Model					BYBS71DJW1		BYBS12	25DJW1	-	
	Colour						White (10Y9/0.5)			-	
	Dimensions	HeightxV	VidthxDepth	mm		55x1,100x500		55x1,5	00x500	-X-	X-
	Weight			kg		4.5		6	.5	-	
Fan	Air flow rate -	Cooling	Low/High	m³/min	15.0/18.0	16.0/19.5	20.0/25.0	23.0/32.0	28.0/39.0	50/58	62/72
	50Hz	Heating	Low/High	m³/min	15.0/18.0	16.0/19.5	20.0/25.0	23.0/32.0	28.0/39.0	-/	-
	External static pressure - 50Hz	Nom./Hig	gh	Pa			100/200			160/270	170/270
Air filter	Туре						Resin net			-	
Sound power level	Cooling	Nom./Hig	gh	dBA	-/61	-/64	-/67	-/65	-/70	75/	76
Sound pressure level	Cooling	Low/High	n	dBA	37/41	38/42	39/	43	40/44	45/	48
	Heating	Low/High	h	dBA	37/41	38/42	39/	43	40/44	-/	'-
Refrigerant	Type/GWP						R-410A/-			R-410A/	2,087.5
Piping connections	Liquid	OD		mm	6.35			9.	52		
	Gas	OD		mm	12.7		15	.9		19.1	22.2
	Drain					VF	<sup>2</sup> 25 (I.D. 25/O.D. 3	2)		PS	1B
Power supply	Phase/Frequence	y/Voltage		Hz/V		1~,	/50/60/220-240/2	220		1~/50/2	20-240
Current - 50Hz	Maximum fuse a	mps (MFA	)	A				16			
Control systems	Infrared remote	control						BRC4C65			
	Wired remote co	ntrol					BRC1H519W7/S7	7/K7 / BRC1E53	A/B/C / BRC1D52		



#### Wall mounted unit

#### For rooms with no false ceilings nor free floor space

- > Flat, stylish front panel blends easily within any interior décor and is easier to clean
- > Can easily be installed in both new and refurbishment projects
- > The air is comfortably spread up- and downwards thanks to 5 different discharge angles that can be programmed via the remote control
- > Maintenance operations can be performed easily from the front of the unit





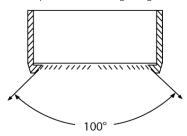
Access all technical information on FXAQ-A at my.daikin.eu or click here

Indoor unit				FXAQ	15A	20A	25A	32A	40A	50A	63A
Cooling capacity	Total capacity	Nom.		kW	1.7	2.2	2.8	3.6	4.5	5.6	7.1
Heating capacity	Total capacity	Nom.		kW	1.9	2.5	3.2	4.0	5.0	6.3	8.0
Power input - 50Hz	Cooling	Nom.		kW	0.	02	0.	03	0.02	0.03	0.05
	Heating	Nom.		kW		0.03		0.04	0.02	0.04	0.06
Dimensions	Unit	HeightxWi	dthxDepth	mm		290x7	95x266			290x1,050x269	
Weight	Unit			kg		1	12			15	
Fan	Air flow rate - 50Hz	Cooling	Low/High	m³/min	7.0/8.4	7.0/9.1	7.0/9.4	7.0/9.8	9.7/12.2	11.5/14.4	13.5/18.3
Air filter	Type				Washable resin net						
Sound power level	Cooling	High		dBA	51.0	52.0	53.0	55	5.0	58.0	63.0
Sound pressure level	Cooling	Low/High		dBA	28.5/32.0	28.5/33.0	28.5/35.0	28.5/37.5	33.5/37.0	35.5/41.0	38.5/46.5
	Heating	Low/High		dBA	28.5/33.0	28.5/34.0	28.5/36.0	28.5/38.5	33.5/38.0	35.5/42.0	38.5/47.0
Refrigerant	Type/GWP							R-410A/2,087.5			
Piping connections	Liquid	OD		mm			6.	35			9.52
	Gas	OD		mm			1:	2.7			15.9
	Drain						V	P13 (I.D. 15/O.D. 1	(8)		
Power supply	Phase/Frequenc	y/Voltage		Hz/V	V 1~/50/220-240						
Current - 50Hz	Maximum fuse a	amps (MFA)		А				16			
Control systems Infrared remote control				BRC7EA628 / BRC7EA629							
	Wired remote control			BRC1H519W7/S7/K7 / BRC1E53A/B/C / BRC1D52							

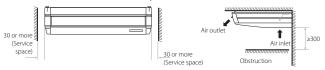
#### Ceiling suspended unit

#### For wide rooms with no false ceilings nor free floor space

> Ideal for comfortable air flow in wide rooms thanks to Coanda effect: up to 100° discharge angle



- > Even rooms with ceilings up to 3.8m can be heated up or cooled down very easily without capacity loss
- > Can easily be installed in both new and refurbishment projects
- > Can easily be mounted in corners and narrow spaces, as it only needs 30mm lateral service space



 Fresh air intake integrated in the same system thus reducing installation cost as no additional ventilation device is required Fresh air intake opening in casing



- \* Brings in up to 10% of fresh air into the room
- Reduced energy consumption thanks to specially developed DC fan motor and drain pump
- Stylish unit blends easily with any interior. The flaps close entirely when the unit is not operating and there are no air intake grilles visible





#### Access all technical information on FXHQ-A at my.daikin.eu or click here

Indoor unit				FXHQ	32A	63A	100A		
Cooling capacity	Total capacity	Nom.		kW	3.6	7.1	11.2		
Heating capacity	Total capacity	Nom.		kW	4.0	8.0	12.5		
Power input - 50Hz	Cooling	Nom.		kW	0.107	0.111	0.237		
	Heating	Nom.		kW	0.107	0.111	0.237		
Dimensions	Unit	HeightxV	VidthxDepth	mm	235x960x690	235x1,270x690	235x1,590x690		
Weight	Unit			kg	24	33	39		
Casing	Material	nterial				Resin			
Fan	Air flow rate -	Cooling	Low/High	m³/min	10.0/14.0	14.0/20.0	19.0/29.5		
	50Hz	Heating	Low/High	m³/min	10.0/14.0	14.0/20.0	19.0/29.5		
Air filter	Туре					Resin net with mold resistance			
Sound power level	Cooling	Nom./Hig	gh	dBA	52/54	53/55	55/62		
Sound pressure level	Cooling	Low/Non	n./High	dBA	31.0/34.0/36.0	34.0/35.0/37.0	34.0/37.0/44.0		
	Heating	Low/Non	n./High	dBA	31.0/34.0/36.0	34.0/35.0/37.0	34.0/37.0/44.0		
Refrigerant	Type/GWP					R-410A/2,087.5			
Piping connections	Liquid	OD		mm	6.35	9.5	52		
	Gas	OD		mm	12.7	15	.9		
	Drain					VP20 (I.D. 20/O.D. 26)			
Power supply	Phase/Frequenc	y/Voltage		Hz/V	1~/50/220-240				
Current - 50Hz	Maximum fuse a	amps (MFA)		Α	A 16				
Control systems	Infrared remote	control			BRC7GA53-9				
Wired remote		l remote control			BRC1H519W7/S7/K7 / BRC1E53A/B/C / BRC1D52				

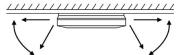
# 4-way blow ceiling suspended unit

#### Unique Daikin unit for high rooms with no false ceilings nor free floor space

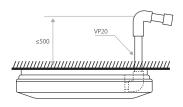
- Even rooms with ceilings up to 3.5m can be heated up or cooled down very easily without capacity loss
- > Can easily be installed in both new and refurbishment projects
- > Individual flap control: flexibility to suit every room layout without changing the location of the unit!



- > Stylish unit blends easily with any interior. The flaps close entirely when the unit is not operating and there are no air intake grilles visible
- Optimum comfort guaranteed with automatic air flow adjustment to the required load
- > 5 different discharge angles between 0 and 60°can be programmed via the remote control



> Standard drain pump with 500mm lift increases flexibility and installation speed







Indoor unit				FXUQ	71A	100A
Cooling capacity	Total capacity	Nom.		kW	8.0	11.2
Heating capacity	Total capacity	Nom.		kW	9.0	12.5
Power input - 50Hz	Cooling	Nom.		kW	0.090	0.200
	Heating	Nom.		kW	0.073	0.179
Dimensions	Unit	HeightxW	/idthxDepth	mm	198x95	50x950
Weight	Unit			kg	26	27
Casing	Material				Re	sin
Fan	Air flow rate -	Cooling	Low/High	m³/min	16.0/22.5	21.0/31.0
	50Hz	Heating	Low/High	m³/min	16.0/22.5	21.0/31.0
Air filter	Туре				Resin net with r	nold resistance
Sound power level	Cooling	Nom./Hig	h	dBA	56/58	62/65
Sound pressure level	Cooling	Low/Nom	ı./High	dBA	36.0/38.0/40.0	40.0/44.0/47.0
	Heating	Low/Nom	ı./High	dBA	36.0/38.0/40.0	40.0/44.0/47.0
Refrigerant	Type/GWP				R-410A	2,087.5
Piping connections	Liquid	OD		mm	9.:	52
	Gas	OD		mm	15	.9
	Drain				I.D. 20/	O.D. 26
Power supply	Phase/Frequenc	:y/Voltage		Hz/V	1~/50/60/220	-240/220-230
Current - 50Hz	Maximum fuse a	amps (MFA)		А	1	6
Control systems	Infrared remote	control			BRC	<sup>7</sup> C58
	Wired remote co	ontrol		i	BRC1H519W7/S7/K7 / BI	RC1E53A/B/C / BRC1D52

#### **Concealed floor standing unit**

#### Designed to be concealed in walls

- > Discretely concealed in the wall: only the suction and discharge grilles are visible
- > Requires very little installation space as the depth is only 200mm



- > Its low height (620 mm) enables the unit to fit perfectly beneath a window
- > High ESP allows flexible installation



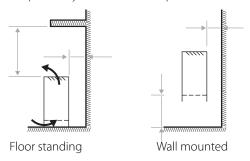


Indoor unit				FXNQ	20A	25A	32A	40A	50A	63A
Cooling capacity	Total capacity	Nom.		kW	2.20	2.80	3.60	4.50	5.60	7.10
Heating capacity	Total capacity	Nom.		kW	2.50	3.20	4.00	5.00	6.30	8.00
Power input - 50Hz	Cooling	Nom.		kW		0.071		0.078	0.099	0.110
	Heating	Nom.		kW		0.068		0.075	0.096	0.107
Dimensions	Unit	HeightxW	/idthxDepth	mm		620 / 720x790x200		620 / 720	)x990x200	620 / 720x1,190x200
Weight	Unit			kg		23.5		2	7.5	32.0
Casing	Material						Galvanise	d steel plate		
Fan	Air flow rate -	Cooling	Low/High	m³/min		6.4/8.0		8.5/10.5	10.0/12.5	13.0/16.5
	50Hz	Heating	Low/High	m³/min		6.4/8.0		8.5/10.5	10.0/12.5	13.0/16.5
	External static pressure - 50Hz	Nom./Hig	h	Pa	10	)/41.0	10/42.0	15/52.0	15/59.0	15/55.0
Air filter	Type						Resi	n net		
Sound power level	Cooling	High		dBA		51		52	53	54
Sound pressure level	Cooling	Low/Nom	ı./High	dBA		27.0/28.5/30.0		28.0/30.0/32.0	29.0/31.0/33.0	32.0/33.0/35.0
	Heating	Low/Nom	ı./High	dBA		27.0/28.5/30.0		28.0/30.0/32.0	29.0/31.0/33.0	32.0/33.0/35.0
Refrigerant	Type/GWP						R-410A	/2,087.5		
Piping connections	Liquid	OD		mm			6.35			9.52
	Gas	OD		mm			12.7			15.9
	Drain				VP20 (I.D.			20/O.D. 26)		
Power supply	Phase/Frequency	y/Voltage		Hz/V			1~/50/60/2	220-240/220		
Current - 50Hz	Maximum fuse a	mps (MFA)		А	16					
Control systems Infrared remote control				BRC4C65						
	Wired remote control				BRC1H519W7/S7/K7 / BRC1E53A/B/C / BRC1D52					

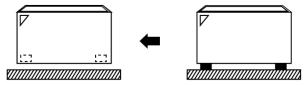
#### Floor standing unit

#### For perimeter zone air conditioning

- > Unit can be installed as free standing model by use of optional back plate
- > Its low height enables the unit to fit perfectly beneath a window
- > Stylish modern casing finished in pure white (RAL9010) and iron grey (RAL7011) blends easily with any interior
- > Requires very little installation space



> Wall mounted installation facilitates cleaning beneath the unit where dust tends to accumulate



> Wired remote control can easily be integrated in the unit





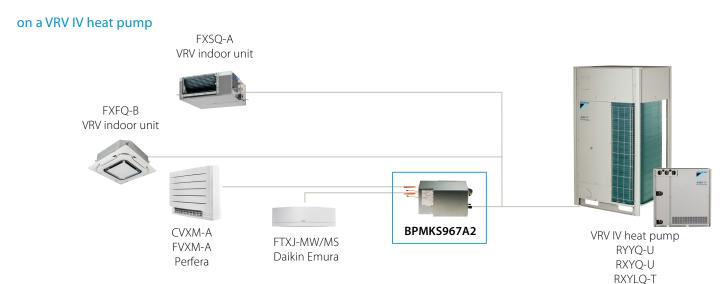
#### Access all technical information on FXLQ-P at my.daikin.eu or click here

Indoor unit			FXLQ	20P	25P	32P	40P	50P	63P	
Cooling capacity	Total capacity	Nom.	kW	2.2	2.8	3.6	4.5	5.6	7.1	
Heating capacity	Total capacity	Nom.	kW	2.5	3.2	4.0	5.0	6.3	8.0	
Power input - 50Hz	Cooling	Nom.	kW	(	0.05	0.	09	0.	11	
	Heating	Nom.	kW	(	0.05	0.	09	0.	11	
Dimensions	Unit	HeightxWidthxDepth	mm	600x1	,000x232	600x1,1	40x232	600x1,4	120x232	
Weight	Unit		kg		27	3	2	3	8	
Fan	Air flow rate - 50Hz	Cooling Low/High	m³/min	6	.0/7	6.0/8	8.5/11	11.0/14	12.0/16	
Air filter	Туре			Resin net						
Sound power level	Cooling	High	dBA	54			57	58	59	
Sound pressure level	Cooling	Low/High	dBA		32/35		33/38	34/39	35/40	
	Heating	Low/High	dBA		32/35		33/38	34/39	35/40	
Refrigerant	Type/GWP					R-410A	/2,087.5	·		
Piping connections	Liquid	OD	mm			6.35			9.52	
	Gas	OD	mm			12.7			15.9	
	Drain					O.D. 21 (Vir	ıyl chloride)			
Power supply	Phase/Freq	uency/Voltage	Hz/V			1~/50/60/2	20-240/220			
Current - 50Hz	Maximum f	use amps (MFA)	А	A 15						
Control systems	Infrared remote control			BRC4C65						
	Wired remote control			BRC1H519W7/S7/K7 / BRC1E53A/B/C / BRC1D52						

## VRV heatpump combined with

# stylish indoor units

Combine VRV indoor units with stylish indoor units



Connect <u>only</u> stylish indoor units to VRV IV S-series or VRV IV W-series outdoor units



<sup>&</sup>gt; \* Special order unit, contact your local sales representative for more information

#### BPMKS967A

#### **Branch provider**

To connect Split and Sky Air indoor units to VRV outdoor units



RWEYO-T9

Branch provider			BPMKS967A2	BPMKS967A2		
Connectable indo	or units		1~2	1~3		
Max. indoor unit o	connectable capacity		14.2 20.8			
Max. connectable	combination		71+71	60+71+71		
Dimensions	Height x Width x Depth	mm	180x29	94x350		
Weight		kg	7	8		

Connectable outdoor unit

## Products overview Stylish indoor units

Depending on the application, Split and Sky Air indoor units can be connected to our VRV IV and VRV IV S-series outdoor units. Refer to the

outdoor	<b>unit portfolio</b> for combinat	ion restriction	S.					,	Capacit	y class	(kW)	7-n	Q-U	RXYSCQ-TV1³ RXYSQ-TV9³ RXYSQ-TY9/TY1³	RWEYQ-T94	-Q-T
Туре	Model	Product name		15	20	25	35	42	50 60 71		71	RYYQ-U	RXYQ-U	RXY:	RWE	RXYLQ-T
	Round flow cassette (incl. auto-cleaning function')	FCAG-B					•		•	•				<b>✓</b>		
Ceiling mounted cassette	Fully flat cassette	FFA-A9				•	•		•	•				✓		
Concealed	Slim concealed ceiling unit	FDXM-F9				•	•		•	•				<b>√</b>		
ceiling	Concealed ceiling unit with inverter-driven fan	FBA-A(9)					•		•	•		to clea		<b>✓</b>		
	Daikin Emura Wall mounted unit reddot award 2014 winner	FTXJ-MW/MS			•	•	•		•			<b>√</b>	<b>√</b>	<b>✓</b>	~	<b>✓</b>
Wall mounted	Stylish Wall mounted unit	FTXA-AW/ BS/BB/BT			•	•	•	•	•			<b>✓</b>	<b>✓</b>	<b>✓</b>	~	<b>✓</b>
	Perfera Wall mounted unit	CTXM-N FTXM-N		•	•	•	•	•	•	•	•			<b>✓</b>		
Ceiling suspended	Ceiling suspended unit	FHA-A(9)					•		•	•	•			<b>✓</b>		
	Perfera Floor standing unit	CVXM-A FVXM-A	THE PROPERTY OF THE PARTY OF TH		•	•	•		•	•		<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>
Floor standing	Floor standing unit	FVXM-F	MANAGEMENT OF THE PARTY OF THE			•	•		•			~	<b>✓</b>	<b>√</b>	~	<b>✓</b>
	Concealed floor standing unit	FNA-A9				•	•		•	•				✓		

Decoration panel BYCQ140DG9 or BYCQ140DGF9 + BRC1E\* or BRC1H\* needed

<sup>&</sup>lt;sup>2</sup> To connect stylish indoor units a BPMKS unit is needed

<sup>&</sup>lt;sup>3</sup> A mix of RA indoor units and VRV indoor units is not allowed.

<sup>&</sup>lt;sup>4</sup> Only in heat pump operation



#### Wall mounted unit

#### Design at its best, delivering superior efficiency and comfort

- > Remarkable blend of iconic design and engineering excellence with an elegant finish in silver and anthracite or in matt crystal
- > Daikin Emura has been awarded with Reddot design award 2014 by an international jury, thanks to its excellent design
- > Designed to perfectly balance technological leadership and the beauty of aerodynamics
- STANDARD > Online controller : control your indoor from any location with an app, via your local network or internet
  - > Whisper quiet in operation: the operating of the unit can hardly be heard. The sound pressure level goes down to 19dBA!



Indoor unit				FTXJ	20MW	20MS	25MW	25MS	35MW	35MS	50MW	50MS
Dimensions	Unit	HeightxW	idthxDepth	mm	303x998x212							
Weight	Unit			kg				12	2.0			
Air filter	Type							Removable	/ washable			
Fan	Air flow rate	Cooling	Silent operation/Low/ Medium/High	m³/min		2.6/4.4/	/6.6 /8.9		2.9/4.8/	7.8 /10.9	3.6/6.8/8	3.9 /10.9
		Heating	Silent operation/Low/ Medium/High	m³/min	3.8/6.3/8	8.4 /10.2	3.8/6.3/8	3.6 /11.0	4.1/6.9/	9.6 /12.4	5.0/8.1/1	0.5 /12.6
Sound power level	Cooling			dBA		5	i4		5	9	6	0
	Heating			dBA		5	i6		5	9	6	0
Sound pressure level	Cooling	Silent ope	ration/Low/High	dBA		19/2	25/38		20/2	6/45	32/3	5/46
	Heating	Silent ope	ration/Low/High	dBA	19/2	8/40	19/2	8/41	20/2	9/45	32/3	5/47
Control systems	Infrared rem	ote contro			ARC466A9							
	Wired remot	te control			-							
Power supply	Phase/Frequency/Voltage Hz/V				1~/50/220-240							

#### Wall mounted unit

#### Most compact design wall mounted unit

- › A compact and functional design suitable for all interiors in a white, black, silver and blackwood coloured elegant finish
- > The Coanda effect optimises the airflow for a comfortable climate. By using specially designed flaps, a more focused airflow allows a better temperature distribution throughout the whole room
- > The intelligent thermal sensor determines the current room temperature and distributes air evenly throughout the room before switching to an airflow pattern that directs warm or cool air to areas that need it



- STANDARD > Online controller: control your indoor from any location with an INCLUDED app, via your local network or internet app, via your local network or internet
  - > Powerful air purification increases indoor air quality with Daikin Flash Streamer technology
  - > Practically inaudible: the unit runs so quietly, you will almost forget it is there.









**DESIGN** 

reddot award 2018

Indoor unit				FTXA	CTXA15 AW/BS/BT/BB	20AW/BS/BT/BB	25AW/BS/BT/BB	35AW/BS/BT/BB	42AW/BS/BT/BB	50AW/BS/	BT/BB	
Dimensions	Unit	Heightx\	WidthxDepth	mm	m 295x798x189							
Weight	Unit			kg			1	2				
Air filter	Type						Removable	/ washable				
Fan	Air flow rate	Cooling	Silent operation/Low/ Medium/High	m³/min	4.6 / 6.1 / 8.2 / 11.0	4.6/6.1/8 /11.0	4.6/6.1/9 /11.5	4.6/6.1/9 /11.9	4.6/7.2/10 /13.1	5.2/7.6/10	/13.5	
		Heating	Silent operation/Low/ Medium/High	m³/min	4.5/6.4/8	3.7 /10.9	4.5/6.4/9.0 /11.1	4.5/6.4/9.0 /11.5	5.2/7.7/10.5 /14.6	5.7/8.2/11.	1 /15.1	
Sound power level	Cooling			dBA		57			60			
Sound pressure level	Cooling	Silent ope	eration/Low/High	dBA	19/2	5/39	19/25/40	19/25/41	21/29/45	24/31/-	46	
	Heating	Silent ope	eration/Low/High	dBA	19/2	5/39	19/25/40	19/25/41	21/29/45	24/31/46	24/33/46	
Control systems	Infrared rem	ote contr	ol		ARC466A58							
	Wired remot	te control					BRC	073				
Power supply	Phase/Frequ	ency/Vol	tage	Hz/V			1~/50/	220-240				

# Floor standing unit with radiant heat panel

Stylish floor standing unit with radiant heat panel for comfortable heat and very low noise

- > The aluminium part of the front panel of the Nexura indoor unit has the capability of warming up, just like a traditional radiator, to add even more comfort on cold days
- > Quiet and discrete, Nexura offers you the best in heating and cooling, in comfort and design
- > The indoor unit distributes air at the sound of a whisper. The noise produced amounts to barely 22dB(A) in cooling and 19dB(A) in radiant heat mode. In comparison, the ambient sound in a quiet room amounts to 40dB(A) on average.
- > Comfortable vertical auto swing ensures draught-free operation and prevents ceiling soiling
- > Online controller (optional): control your indoor from any location with an app, via your local network or internet
- > Can be installed against a wall or recessed
- > Its low height enables the unit to fit perfectly beneath a window





Indoor unit			FVXG	25K	35K	50K					
Dimensions	Unit	HeightxWidthxDepth	mm		600x950x215						
Weight	Unit		kg		22						
Air filter	Туре				Removable / washable / mildew proof						
Fan - Air flow rate	Cooling	High/Low/Silent operation	m³/min	8.9/5.3/4.5	9.1/5.3/4.5	10.6/7.3/6.0					
	Heating	High/Low/Silent operation	m³/min	9.9/5.7/4.7	10.2/5.8/5.0	12.2/7.8/6.8					
Sound power level	Cooling		dBA	5	52	58					
	Heating		dBA	5	53	60					
Sound pressure level	Cooling	High/Low/Silent operation	dBA	38/26/23	39/27/24	44/36/32					
	Heating	High/Low/Silent operation/Radiant heat	dBA	39/26/22/19	40/27/23/19	46/34/30/26					
Control systems	Infrared remo	te control		ARC466A2							
Power supply	Phase / Freque	ency / Voltage	Hz/V	V 1~/50/220-240							

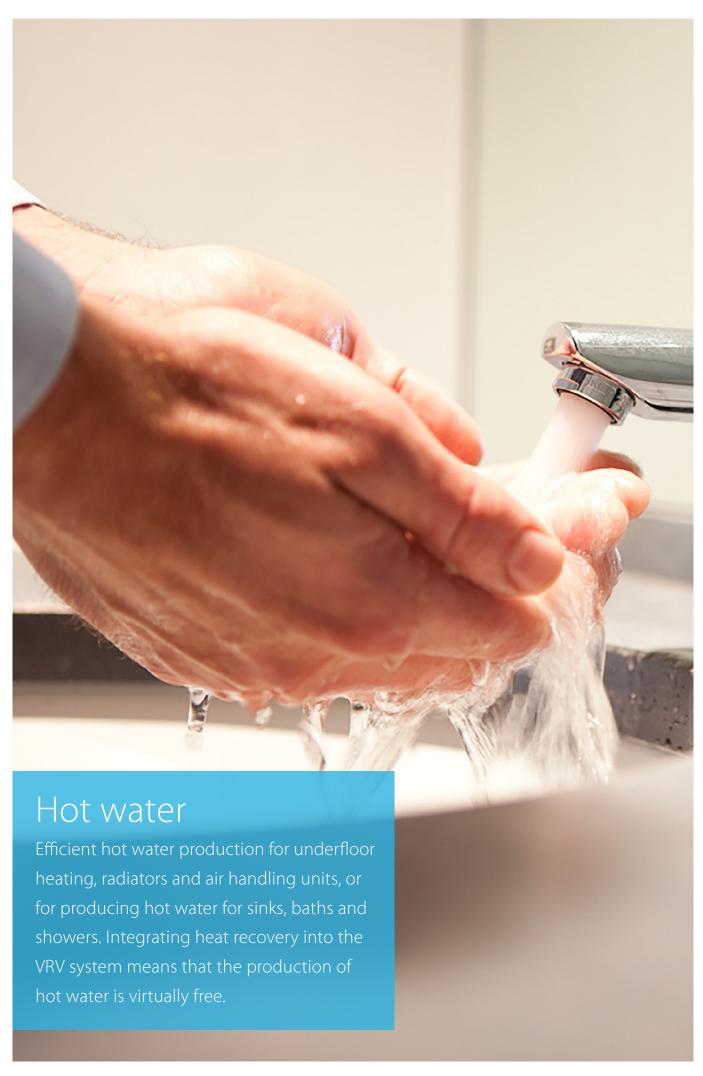
#### Floor standing unit

#### Floor standing unit for optimal heating comfort thanks to dual airflow

- > Its low height enables the unit to fit perfectly beneath a window
- > Can be installed against a wall or recessed
- > Vertical auto swing moves the discharge flaps up and down for efficient air and temperature distribution throughout the room
- > Online controller (optional): control your indoor from any location with an app, via your local network or internet



Indoor unit				FVXM	25F	35F	50F		
Dimensions	Unit	HeightxWi	idthxDepth	mm		600x700x210			
Weight	Unit			kg		14			
Air filter	Туре					Removable / washable			
Fan	Air flow rate	Cooling	Silent operation/Low/ Medium/High	m³/min	4.1/4.8/6.5 /8.2	4.5/4.9/6.7 /8.5	6.6/7.8/8.9 /10.1		
		Heating	Silent operation/Low/ Medium/High	m³/min	4.4/5.0/6.9 /8.8	4.7/5.2/7.3 /9.4	7.1/8.5/10.1 /11.8		
Sound power level	Cooling			dBA		52	57		
	Heating			dBA		52	58		
Sound pressure level	Cooling	Silent oper	ation/Low/High	dBA	23/26/38	24/27/39	32/36/44		
	Heating	Silent oper	ation/Low/High	dBA	23/26/38	24/27/39	32/36/45		
Control systems	Infrared remo	te control				ARC452A1			
	Wired remote	control				-			
Power supply	Phase/Freque	ncy/Voltage	2	Hz/V	z/V 1~/50/220-230-240				



# Hot water

Hot water	135
Low temperature hydrobox	
HXY-A8	136
High temperature hydrobox	
HXHD-A8	137
Accessories for hot water	138

#### Hydrobox range

Capacity class (kW)

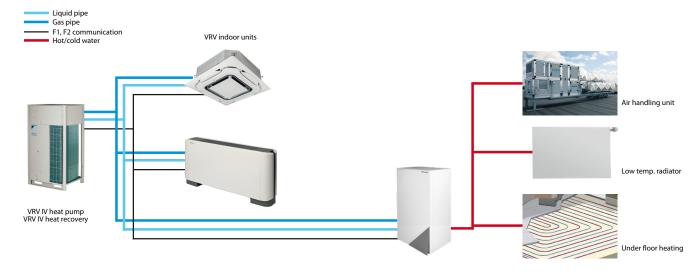
Туре	Product name	Model	80	125	200	Leaving water temperature range
Low temperature hydrobox	НХҮ-А8	For high efficiency space heating and cooling  > Ideal for hot or cold water in underfloor, air handling units, low temperature radiators  > Hot/cold water from 5° to 45°C  > Large operation range (down to -20°C and up to 43°C)  > Fully integrated water-side components save time on system design  > Space saving contemporary wall hung design	•	•		5 °C - 45 °C
High temperature hydrobox	HXHD-A8	For efficient hot water production and space heating  > Ideal for hot water in bathrooms, sinks and for underfloor heating, radiators, air handling units,  > Hot water from 25 to 80°C  > "Free" heating and hot water through heat recovery  > Uses heat pump technology to produce hot water efficiently, providing up to 17% savings compared to a gas boiler  > Possibility to connect thermal solar collectors		•	•	25 °C - 80 °C

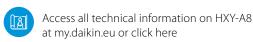
#### Low temperature hydrobox for VRV

#### For high efficiency space heating and cooling

- > Air to water connection to VRV for applications such as underfloor, air handling units, low temperature radiators, ...
- > Leaving water temperature range from 5°C to 45°C without electric heater
- Super wide operating range for hot/cold water production from -20 to +43°C ambient outdoor temperature
- > Saves time on system design as all water-side components are fully integrated with direct control over leaving water temperature
- > Space saving contemporary wall mounted design
- > No gas connection or oil tank needed
- > Connectable to VRV IV heat pump and heat recovery







Indoor Unit			HXY	080A8	125A8
Cooling capacity	Nom.		kW	8.0 (1)	12.5 (1)
Heating capacity	Nom.		kW	9.00 (2)	14.00 (2)
Dimensions	Unit	Height x Width x Depth	mm	890 x 480 x 344	
Weight	Unit		kg	44	
Casing	Colour			White	
	Material			Precoated sheet metal	
Operation range	Cooling	Ambient Min. ~ Max.	°CDB	10 ~ 43	
		Water side Min. ~ Max.	°C	5~20	
	Heating	Ambient Min. ~ Max.	°C	-20 ~ 24	
		Water side Min. ~ Max.	°C	25 ~	45
Refrigerant	Туре			R-41	0A
	GWP			2,087.5	
Refrigerant circuit	Gas side diameter mm		mm	15.9	
	Liquid side diameter mm		mm	9.5	
Water circuit	Piping connections diameter inch		inch	G 1"1/4 (female)	
Power supply	Phase / Frequency / Voltage Hz / V		Hz / V	1~/50/220-240	
Current	Recommended fuses A		А	6~16	

(1) Tamb 35°C - LWE 18°C (DT=5°C) | (2) DB/WB 7°C/6°C - LWC 35°C (DT=5°C)

#### High temperature hydrobox for VRV

#### For efficient hot water production and space heating

- Air to water connection to VRV for applications such as bathrooms, sinks, underfloor heating, radiators and air handling units
- > Leaving water temperature range from 25 to 80°C without electric heater
- » "Free" heating and hot water production provided by transferring heat from areas requiring cooling to areas requiring heating or hot water
- > Uses heat pump technology to produce hot water efficiently, providing up to 17% savings compared to a gas boiler
- Possibility to connect thermal solar collectors to the domestic hot water tank
- > Super wide operating range for hot water production from -20 to +43°C ambient outdoor temperature
- > Saves time on system design as all water-side components are fully integrated with direct control over leaving water temperature
- Various control possibilities with weather dependant set point or thermostat control
- > The indoor unit and domestic hot water tank can be stacked to save space, or installed next to each other, if only limited height is available
- > No gas connection or oil tank needed
- > Connectable to VRV IV heat recovery









Access all technical information on HXHD-A8 at my.daikin.eu or click here

Indoor Unit			HXHD	125A	200A
Heating capacity	Nom.		kW	14.0	22.4
Dimensions	Unit	Height x Width x Depth	mm	705 x 600	x 695
Weight	Unit		kg	92.0	147
Casing	Colour			Metallic o	grey
	Material			Precoated she	eet metal
Sound power level	Nom.		dBA	55.0 (2)	60.0 (2)
Sound pressure level	Nom.		dBA	42.0 (2) / 43.0 (3)	46.0 (2) / 46.0
	Night quiet mode	Level 1	dBA	38 (2)	45 (2)
Operation range	Heating	Ambient Min. ~ Max.	°C	-20.0 ~ 20 / 24 (1)	
		Water side Min. ~ Max.	°C	25 ~ 80	0.0
	Domestic	Ambient Min. ~ Max.	°CDB	-20.0 ~ 4	13.0
	hot water	Water side Min. ~ Max.	°C	45 ~ 7	5
Refrigerant	Type			R-134	a
	GWP			1,430	)
	Charge		kg	2.00	2.60
Water circuit	Piping conr	nections diameter	inch	G 1" (fem	nale)
	Heating water system	Water volume Max. ~ Min.	ı	200 ~ 20	400 ~ 20
Power supply	Phase / Free	quency / Voltage	Hz/V	1~/50/220-240	3~/50/380-415
Current	Recommen	ded fuses	A	20	16

#### **EKHWP-B**

#### Domestic hot water tank

#### Plastic domestic hot water tank with solar support

- > Tank designed for connection with drainback thermal solar system
- > Available in 300 and 500 liters
- > Large hot water storage tank to provide domestic hot water at any time
- Heat loss is reduced to a minimum thanks to the high quality insulation
- > Space heating support possible (500l tank only)



Accessory		I	EKHWP	300B	500B	
Casing	Colour			Traffic white (RAL9016)	/ Dark grey (RAL7011)	
	Material			Impact resistant polypropylene		
Dimensions	Unit	Height	mm	1,650	1,660	
		Width	mm	595	790	
		Depth	mm	615	790	
Weight	Unit	Empty	kg	58	82	
Tank	Water volum	ne	1	294	477	
	Material			Polypr	opylen	
	Maximum w	ater temperature	°C	8	5	
	Insulation	Heat loss	kWh/24h	1.5	1.7	
	Energy effici	ency class			3	
	Standing heat loss W		64	72		
	Storage volu	ime	- 1	294	477	
Heat exchanger	Domestic	Quantity		•		
	hot water	Tube material		Stainless steel (DIN 1.4404)		
		Face area	m <sup>2</sup>	5.600	5.800	
		Internal coil volume	- 1	27.1	28.1	
		Operating pressure	bar		5	
		Average specifc thermal output	W/K	2,790	2,825	
	Charging	Quantity				
		Tube material		Stainless stee	I (DIN 1.4404)	
		Face area	m²	3	4	
		Internal coil volume	- 1	13	18	
		Operating pressure	bar		3	
		Average specifc thermal output	W/K	1,300	1,800	
	Auxiliary so-	Tube material		-	Stainless steel (DIN 1.4404)	
	lar heating	Face area	m <sup>2</sup>	-	1	
		Internal coil volume	- 1	-	4	
		Operating pressure	bar	-	3	
		Average specifc thermal output	W/K	-	280	

#### **EKHWP-PB**

#### Domestic hot water tank

#### Pressureless domestic hot water tank with solar support

- > Tank designed for connection with pressurised thermal solar system
- > Available in 300 and 500 liters
- > Large hot water storage tank to provide domestic hot water at any time
- > Heat loss is reduced to a minimum thanks to the high quality insulation
- > Space heating support possible (500l tank only)



Accessory			EKHWP	300PB	500PB
Casing	Colour	Colour		Traffic white (RALS	9016) / Dark grey (RAL7011)
3	Material				stant polypropylene
Dimensions	Unit	Height	mm	1,650	1,660
		Width	mm	595	790
		Depth	mm	615	790
Weight	Unit	Empty	kg	58	89
Tank	Water volum	ne	Ĭ	294	477
	Material			Po	olypropylen
	Maximum w	ater temperature	°C		85
		Heat loss	kWh/24h	1.5	1.7
	Energy effici	ency class		В	
		Standing heat loss W		64	72
	Storage volume I		1	294	477
Heat exchanger	Domestic	Quantity			1
	hot water	Tube material		Stainless	steel (DIN 1.4404)
		Face area	m²	5.600	5.900
		Internal coil volume	1	27.1	28.1
		Operating pressure	bar		6
		Average specifc thermal output	W/K	2,790	2,825
	Charging	Quantity			1
		Tube material		Stainless	steel (DIN 1.4404)
		Face area	m <sup>2</sup>	3	4
		Internal coil volume	I	13	18
		Operating pressure	bar		3
		Average specifc thermal output	W/K	1,300	1,800
	Pressurised solar	Average specifc thermal output	W/K	390.00	840.00
	Auxiliary so-	Tube material		-	Stainless steel (DIN 1.4404)
	lar heating	Face area	m²	-	1
		Internal coil volume	1	-	4
		Operating pressure	bar	-	3
		Average specifc thermal output	W/K	-	280

#### EKS(V/H)-P

#### **Solar collector**

#### Thermal solar collector for hot water production

- Solar collectors can produce up to 70% of the energy needed for hot water production - a major cost saving
- Horizontal and vertical solar collector for domestic hot water production
- > High efficiency collectors transfer all the short-wave solar radiation into heat as a result of their highly selective coating
- > Easy to install on roof tiles



Accessory		EKSV/EKSH	21P	261	•
Mounting			Vert	tical	Horizontal
Dimensions	Unit HeightxWidthxDepth	mm	1,006x8	5x2,000	2,000x85x1,300
Weight	Unit	kg	33	42	
Volume		I	1.3	1.7	2.1
Surface	Outer	m²	2.01	2.6	)
	Aperture	m²	1.800	2.36	0
	Absorber	m²	1.79	2.3	5
Coating			Micro-the	rm (absorption max. 96%, Emission ca. 59	6 +/-2%)
Absorber			Harp-shaped copper pipe r	register with laser-welded highly selective	coated aluminium plate
Glazing			Sin	gle pane safety glass, transmission +/- 92	%
Allowed roof angle	Min.~Max.	0		15~80	
Operating pressure	Max.	bar		6	
Stand still temperature	Max.	°C		192	
Thermal performance	collector efficiency (ηcol)	%	61		
	Zero loss collector efficiency η0	%	0.781	0.784	
	Heat loss coefficient a1	W/m².K	4.240	4.250	
	Temperature dependence of the heat loss coefficient a2	W/m².K²	0.006	0.007	
	Thermal capacity	kJ/K	4.9	6.5	
Auxiliary	Solpump	w		-	
	Solstandby	w		-	
	Annual auxiliary electricity consumption Qaux	kWh		=	

#### EKSRDS2A/EKSRPS4A

#### **Pump station**

- Save energy and reduce CO<sub>2</sub> emissions with a solar system for domestic hot water production
- > Pump station connectable to unpressurised solar system
- > Pump station and control provide the transfer of solar heat to the domestic hot water tank



Accessory		EKSRPS4A/ER	(SRDS2A	EKSRPS4A	EKSRDS2A	
Mounting				On side of tank	On wall	
Dimensions	Unit	HeightxWidthxDepth	mm	815x142x230	410x314x154	
Weight	Unit		kg	6.4	6	
Operation range	Ambient temperature	Min.~Max.	°C	5~40	0~40	
Operating pressure	Max.		bar	-	6	
Stand still temperature	Max.		°C	85	120	
Thermal performance	collector efficiency	(ηcol)	%	-	- -	
	Zero loss collector	efficiency η0	%		-	
Control	Туре			Digital temperature difference controller with plain text display		
	Power consumptio	n	W	2	5	
Power supply	Phase/Frequency/\	/oltage	Hz/V	1~/50/230	/50/230	
Sensor	Solar panel temperature sensor			Pt1	000	
	Storage tank senso	r		PTC	-	
	Return flow sensor			PTC	-	
	Feed temperature a	and flow sensor		Voltage signal (3.5V DC)	-	
Power supply intake				Indoo	or unit	
Auxiliary	Solpump		W	37.3	23	
	Solstandby		W	2.00	5.00	
	Annual auxiliary electric	city consumption Qaux	kWh	92.1	89	





# Ventilation

Why choose Daikin ventilation	142
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ALB-LBS/RBS - Modular L Smart	146
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Expansion valves & Control boxes	156
Selection procedure	157

# reasons Daikin's ventilation range is unique in the market

#### Market leading controls & connectivity

- > Interlock of ventilation and air conditioning system
  - Control ERV/HRV and air conditioning from the same controller
  - Aligns the operation mode between the systems to save energy
- > Easy integration in the total solution
  - Online control and monitoring via the Daikin Cloud Service
  - Full portfolio integration in the intelligent Touch Manager, Daikin's cost-effective mini BMS
- > User-friendly controller with premium design
  - · Intuitive touch button control



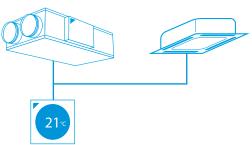












#### Unique installation benefits

- > Integrates seamlessly in the Daikin total solution, ensuring a single point of contact
- > Total fresh air solution with Daikin supplying both the VAM/Modular L Smart and the electrical heater
- > Daikin AHU and condensing unit connect Plug & Play thanks to same pipe diameters, factory mounted controls, expansion valves, etc.







- > Energy recovery of up to 92%, reducing running costs
- > Free nighttime cooling using fresh outside air
- > Inverter driven centrifugal fans
- > ErP compliant



#### 4 Best comfort

- > Wide range of units to control fresh air and humidity
- > Wide range of optional filters to suit the application available up to ePM, 80% (F9)
- Special paper heat exchanger recovers heat and moisture from extract air to warm up and humidify fresh air to comfortable levels (VAM, VKM)



#### 5 Top reliability

- > Most extensive testing before new units leave the factory
- > Widest support network and after sales service
- > All spare parts available in Europe



# Did you know?

CO<sub>2</sub> levels and ventilation rates all have significant, independent impacts on cognitive function:

#### COGNITIVE FUNCTION SCORES ...



+61%

IN GREEN BUILDING CONDITIONS



+ 101%

IN ENHANCED
GREEN BUILDING CONDITIONS

# Widest range of DX integrated ventilation on the market

Daikin offers a variety of solutions from small energy recovery ventilation to large-scale air handling units for the provision of fresh air ventilation to homes, or commercial premises.

#### Ventilation solutions

Daikin offers state-of-the-art ventilation solutions that can easily be integrated into any project:

- > Unique portfolio within DX manufacturers
- > High-quality solutions complying with the highest Daikin quality standards
- > Seamless integration of all products to provide the best indoor climate
- All Daikin products connected to a single controller for complete control
  of the HVAC system.

#### **Energy Recovery Ventilation**

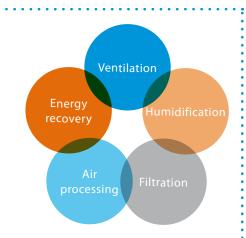
Our energy recovery units **recover sensible energy** (Modular L Pro / Modular L Smart) or **total** (**sensible + latent**) **energy** (VAM/VKM), substantially reducing the load on the air conditioning system up to 40%.

#### Ventilation with DX connection - Control over fresh air temperature

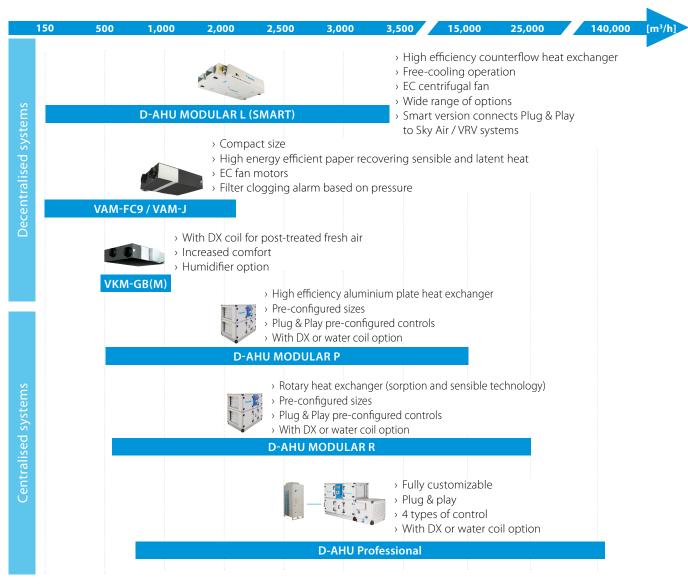
Daikin offers a range of inverter condensing units to be used in combination with Daikin AHUs for ultimate control over the fresh air. There are 4 control possibilities when **combining AHU and Daikin outdoor units** hence offering all the required flexibility for any installation. Indoor units can be combined to the same outdoor unit to reduce the installation costs. For **false-ceiling installations** where space is a constraint, the VKM can fit perfectly to deliver fresh air at a comfortable temperature and it has an optional humidification element.

## Five components of indoor air quality

- > Ventilation: Ensures the provision of fresh air
- > **Energy recovery:** Delivers energy savings by transferring heat and moisture between airflows
- Air processing: Delivers the right supply temperature to decrease the indoor unit load
- > **Humidification:** Ensures relative indoor humidity levels are respected
- > **Filtration:** Separates pollen, dust and pollution odours that are harmful to individuals' health



## Fresh air portfolio



## **Modular L Smart**

## Premium efficiency heat recovery unit

## Highlights

- > Connects Plug&Play into the Sky Air and VRV control network
- > Easy installation and commissioning
- > Internal pre-filter stage (up to ePM1 50% (F7) + ePM1 80% (F9)) making the unit reach highest indoor air quality requirements.
- $\,>\,$  Wide air flow coverage from 150m3/h to 3,450m3/h
- > Exceeding ErP 2018 requirements
- Best choice when compactness is needed (only 280 mm height up to 550 m3/h)
- > 50 mm double skin panel (120 kg/m3) for a maximum sound and thermal insulation

## EC centrifugal fan

- > Maximum ESP available 600 Pa (depending on model sizes and airflow)
- > Inverter driven with IE4 premium efficiency motor
- > High-efficient blade profiling
- > Reduced energy consumption
- > Optimized SFP (Specific Fan Power) for an efficient unit operation

## Heat exchanger

- > Premium quality counter flow plate heat exchanger
- > Up to 93% of the thermal energy recovered
- > High grade aluminum allowing optimum corrosion protection



Right drain connection (ALB-RBS)



Left drain connection (ALB-LBS)

For integration with Applied systems, please refer to the Modular L, in the AHU chapter

## Technical details

D-AHU Modular L Sn	nart	ALB-RBS/LBS	02	03	04	05	06	07	
Airflow		m³/h	300	600	1200	1500	2300	3000	
Heat exchanger thermal efficiency <sup>1</sup>		%	90	91	90	90	92	91	
External static pressure	Nom.	Pa	100	100	100	100	100	100	
Temperature after heat exchanger <sup>1</sup>	Nom.	°C	19,4	19,5	19,4	19,2	19,8	19,5	
Max ESP @ nom. airflow		Pa	400	450	260	270	250	210	
Current	Nom.	А	0,52	1,17	1,91	2,48	3,76	5,39	
Power input	Nom.	kW	0,12	0,27	0,44	0,57	0,87	1,24	
SFPv <sup>2</sup>		kW/m³/s	1,24	1,49	1,28	1,32	1,32	1,46	
ERP compliant			ErP 2018 Compliant						
Electrical supply	Phase	ph	1	1	1	1	1	1	
	Frequency	Hz	50/60	50/60	50/60	50/60	50/60	50/60	
	Voltage	V	220/240 Vac	220/240 Vac	220/240 Vac	220/240 Vac	220/240 Vac	220/240 Vac	
Main unit dimensions	Width	mm	920	1100	1600	1600	2000	2000	
	Height	mm	280	350	415	415	500	500	
	Length	mm	1660	1800	2000	2000	2000	2000	
Rectangular duct flange	Width	mm	250	400	500	500	700	700	
	Height	mm	150	200	300	300	400	400	
Unit Sound Power Level (Lwa)		dB	48	54	57	53	60	57	
Unit Sound Pressure Level <sup>3</sup>		dBA	34	39	41	37	44	41	
Weight unit		kg	125	180	270	280	355	360	

<sup>1.</sup> Winter design condition: Outdoor: -5°C, 90% Indoor: 22°C,50%

<sup>2.</sup> SFPv is a parameter that quantifies the fan efficiency (the lower it is the better will be). This reduces if airflow decreases.

<sup>3.</sup> According to EN3744. Surrounding, Directivity (Q) = 2, @ 1,5m distance

## Electrical heater for Modular L Smart

- > Total solution for fresh air with Daikin supply of both Modular L Smart and electrical heaters
- > Increase comfort in low outdoor temperature thanks to the heated outdoor air
- Integrated electrical heater concept (no additional accessories required)
- > Standard dual flow and temperature sensor
- > Heater only consumes what is required to pre-heat to the desired minimum fresh air temperature; thus saving energy

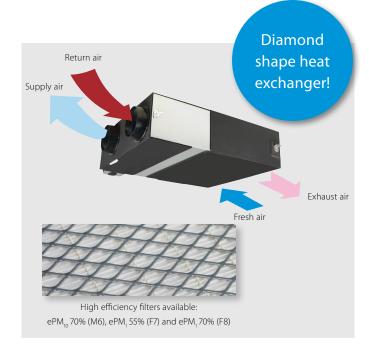


Electrical heater for Modular L Smart (ALD)	02HEFB	03HEFB	05HEFB	07HEFB
Capacity kW	1,5	3	7,5	15
Connectable Modular L Smart size	02	03	04, 05	06, 07
Supply voltage	230\	/,1ph	400V	/,3ph
Output current (maximum) (A)	6,6	13,1	10,9	21,7
Temperature sensor	15k ohms at -20 °C 10k ohms at +10 °C	16k ohms at -20 °C 10k ohms at +10 °C	17k ohms at -20 °C 10k ohms at +10 °C	18k ohms at -20 °C 10k ohms at +10 °C
Temperature control range			- 20 °C to 10 °C	
Control fuse			Mini Circuit Breaker 6 A	
LED indicators			"Yellow = Airflow fault Red = Heat ON"	
Mounting holes			Depends on duct size	
Maximum ambient adjacent to terminal box			30°C (during operation)	
Auto high temperature cutout			75°C Pre-set	
Manual reset high temperature cutout			120°C Pre-set	
Width (mm)	470	620	720	920
Depth (mm)	370	370	370	370
Height (mm)	193	243	343	443

## **Energy recovery ventilation**

## Ventilation with heat recovery as standard

- Thinnest High Efficiency Enthalpy Heat Exchanger in the market (J-series)
- Energy saving ventilation using indoor heating, cooling and moisture recovery
- > Free cooling possible when outdoor temperature is below indoor temperature (eg. during nighttime)
- > Prevent energy losses from over-ventilation while improving indoor air quality with optional CO<sub>2</sub> sensor
- Possibility to change ESP via wired remote control allows optimisation of the supply air volume (J series)
- Can be used as stand alone or integrated in the Sky Air or VRV system
- $\rightarrow$  Wide range of units: air flow rate from 150 up to 2,000 m<sup>3</sup>/h
- Shorter installation time thanks to easy adjustment of nominal air flow rate, so less need for dampers compared with traditional installation
- > No drain piping needed
- > Can operate in over- and under pressure
- > Total solution for fresh air with Daikin supply of both VAM / VKM and electrical heaters





Ventilation				VAM/VAM	150FC9	250FC9	350J	500J	650J	800J	1000J	1500J	2000J
Power input - 50Hz	Heat exchange mode	Nom.	Ultra high/High/Low	kW	0.132/0.111/ 0.058	0.161/0.079/ 0.064	0.097 /0.070 / 0.039	0.164/0.113/ 0.054	0.247 /0.173 / 0.081	0.303 /0.212 / 0.103	0.416 /0.307 / 0.137	0.548 /0.384 / 0.191	0.833 /0.614 0.273
	Bypass mode	Nom.	Ultra high/High/Low	kW	0.132/0.111/ 0.058	0.161/0.079/ 0.064	0.085 /0.061 / 0.031	0.148 /0.100 / 0.045	0.195 /0.131 / 0.059	0.289 /0.194 / 0.086	0.417 /0.300 / 0.119	0.525 /0.350 / 0.156	0.835 /0.600 / 0.239
Temperature exchange efficiency - 50Hz	Ultra high/h	ligh/Low		%	77.0(1)/72.0(2)/ 78.3(1)/72.3(2)/ 82.8(1)/73.2(2)	74.9(1)/69.5(2)/ 76.0(1)/70.0(2)/ 80.1(1)/72.0(2)	85.1 /86.7 / 90.1	80.0 /82.5 / 87.6	84.3 /86.4 / 90.5	82.5 /84.2 / 87.7	79.6 /81.8 / 86.1	83.2 /84.8 / 88.1	79.6 /81.8 / 86.1
Enthalpy exchange efficiency - 50Hz	Cooling	Ultra high/	High/Low	%	60.3 (1)/61.9 (1)/ 67.3 (1)	60.3 (1)/61.2 (1)/ 64.5 (1)	65.2 /67.9/ 74.6	59.2 /61.8 / 69.5	59.2 /63.8 / 73.1	67.7 /70.7 / 76.8	62.6 /66.4 / 74.0	68.9 /71.8 / 77.5	62.6 /66.4 / 74.0
	Heating	Ultra high/	High/Low	%	66.6 (1)/67.9 (1)/ 72.4 (1)	66.6 (1)/67.4 (1)/ 70.7 (1)	75.5 /77.6 / 82.0	69.0 /72.2 / 78.7	73.1 /76.3 / 82.7	72.8 /75.3 / 80.2	68.6 /71.7 / 77.9	73.8 /76.1 / 80.8	68.6 /71.7 / 77.9
Operation mode							Heat	exchange mo	de, bypass m	ode, fresh-up	mode		
Heat exchange system	1						Air to air cr	oss flow total	heat (sensible	e + latent hea	t) exchange		
Heat exchange eleme	nt						9	specially proc	essed non-fla	mmable pape	er		
Dimensions	Unit	HeightxWi	dthxDepth	mm	285x7	76x525	301x1,1	113x886	368x1,354x920	368x1,3	54x1,172	731x1,35	54x1,172
Weight	Unit			kg	24	1.0	46	5.5	61.5	79	9.0	15	57
Casing	Material							Galv	anised steel r	plate			
Fan	Air flow rate - 50Hz	Heat exchange mode	Ultra high/High/ Low	m³/h	150/140/105	250/230/155	350 (1)/ 300 (1)/ 200 (1)	500 (1)/ 425 (1)/ 275 (1)	650 (1)/ 550 (1)/ 350 (1)	800 (1)/ 680 (1)/ 440 (1)	1,000 (1)/ 850 (1)/ 550 (1)	1,500 (1)/ 1,275 (1)/ 825 (1)	2,000 (1)/ 1,700 (1)/ 1,100 (1)
		Bypass mode	Ultra high/High/ Low	m³/h	150/140/105	250/230/155	350 (1)/ 300 (1)/ 200 (1)	500 (1)/ 425 (1)/ 275 (1)	650 (1)/ 550 (1)/ 350 (1)	800 (1)/ 680 (1)/ 440 (1)	1,000 (1)/ 850 (1)/ 550 (1)	1,500 (1)/ 1,275 (1)/ 825 (1)	2,000 (1)/ 1,700 (1)/ 1,100 (1)
	External static pressure - 50Hz	Ultra high/	High/Low	Pa	90 /87/40	70 /63/25			90	(1)/70.0 /50.0	(1)		
Air filter	Туре				Multidirectiona	l fibrous fleeces			Multidirect	ional fibrous	fleeces (G3)		
Sound pressure level - 50Hz	Heat exchange mode	Ultra high/	High/Low	dBA	27.0 /26.0 /20.5	28.0 /26.0 /21.0	34.5 (1)/ 32.0 (1)/ 29.0 (1)	37.5 (1)/ 35.0 (1)/ 30.5 (1)	39.0 (1)/ 36.0 (1)/ 31.0 (1)	39.0 (1)/ 36.0 (1)/ 30.5 (1)	42.0 (1)/ 38.5 (1)/ 32.5 (1)	42.0 (1)/ 39.0 (1)/ 33.5 (1)	45.0 (1)/ 41.5 (1)/ 36.0 (1)
	Bypass mode	Ultra high/	High/Low	dBA	27.0 /26.5 /20.5	28.0 /27.0 /21.0	34.5 (1)/ 32.0 (1)/ 28.0 (1)	38.0 (1)/ 35.0 (1)/ 29.5 (1)	38.0 (1)/ 34.5 (1)/ 30.5 (1)	40.0 (1)/ 36.5 (1)/ 30.5 (1)	42.5 (1)/ 40.0 (1)/ 32.5 (1)	42.0 (1)/ 39.0 (1)/ 32.5 (1)	45.0 (1)/ 41.0 (1)/ 35.0 (1)
Operation range	Around uni	t		°CDB		-			0°C~40	°CDB, 80% RF	d or less		
Connection duct diam	neter			mm	100	150	2	00		250		2x2	250
Power supply	Phase/Freq	uency/Voltag	ge	Hz/V				1~;5	0/60 ; 220-24	0/220			
Current	Maximum f	use amps (M	FA)	Α	15	5.0				16.0			
Specific energy con-	Cold climat	e		kWh/(m².a)	-56.0 (5)	-60.5 (5)				-			
sumption (SEC)	Average clir	nate		kWh/(m².a)	-22.1 (5)	-27.0 (5)				-			
	Warm clima	te		kWh/(m².a)	-0.100 (5)	-5.30 (5)				-			
SEC class					D / See note 5	B / See note 5				-			
Maximum flow rate at	Flow rate			m³/h	130	207				-			
100 Pa ESP	Electric pov	er input		W	129	160				-			
Sound power level (Lv	va)			dB	40	43	51	54	5	i8	61	62	65
Annual electricity con	sumption			kWh/a	18.9 (5)	13.6 (5)				-			
Annual heating saved	Cold climat	e		kWh/a	41.0 (5)	40.6 (5)				-			
-	Average clir	nate		kWh/a	80.2 (5)	79.4 (5)				-			
	Warm clima			kWh/a	18.5 (5)	18.4 (5)							

## **Electrical heater for VAM**

- > Total solution for fresh air with Daikin supply of both VAM and electrical heaters
- > Increased comfort in low outdoor temperature thanks to the heated outdoor air
- Integrated electrical heater concept (no additional accessories required)
- > Standard dual flow and temperature sensor
- > Flexible setting with adjustable setpoint
- > Increased safety with 2 cut-outs: manual & automatic



	GSIEKA	10009	15018	20024	25030	35530 <sup>(1)</sup>
Capacity	kW	0.9	1.8	2.4	3.0	3.0
Duct diameter	mm	100	150	200	250	355
Connectable VAM		VAM150FC9	VAM250FC9	VAM350,500J	VAM650J, VAM800J, VAM1000J	VAM1500J, VAM2000J

				GSIEKA10009	GSIEKA15018	GSIEKA20024	GSIEKA25030	GSIEKA35530		
		Height	mm	171	221	271	321	426		
Dimensions		Depth	mm	100	150	200	250	355		
		Width	mm	370	370	370	370	373		
A4:			m/s			1.5		,		
Minimum air velocity / airflow	1		m³/h	<sup>3</sup> /h 45 100 170 265						
Power supply						1~230 VAC/50Hz				
Nominal current			А	4.1	8.2	10.9	13.1	13.1		
Heating power			kW	0.9	1.8	2.4	3.0	3.0		
Connection duct diameter			mm	100	150	200	250	355		
		Min.	°C			-40°C				
Operation range		Max.	°C	40℃						
		Rel. Humidity	%			90%				
Temperature sensor					10	) kΩ at +25°C / TJ-K10	OK			
Temperature sensor range						- 30°C to 105°C				
Temperature set point range						- 10°C to 50°C				
		flashing every 5	seconds			heater is starting up	)			
	LED1	flashing every	second		air flow	detected, heating a	allowed			
LED indicators	LEDT	OFF			no į	power supply or no	flow			
LED Indicators		ON		problem with	duct temperature	sensor, set point pot	tentiometer or PTC	airflow sensor		
	LED 2	OFF			h	eater is not operation	on			
	LED 2	ON		heater is operating						
Ambient temperature adjacer	nt to controller					0°C to +50°C				
Auto high temperature cut-ou	ıt					50°C				
Manual reset high temperatur	e cut-out					100°C				

## Energy recovery ventilation, humidification and air processing

## Post heating or cooling of fresh air for lower load on the air conditioning system

- > Energy saving ventilation using indoor heating, cooling and moisture recovery
- > Creates a high quality indoor environment by pre conditioning of incoming fresh air
- > Humidification of the fresh air results in comfortable indoor humidity level, even during heating
- > Free cooling possible when outdoor temperature is below indoor temperature (eg. during nighttime)
- > Low energy consumption thanks to DC fan motor
- > Prevent energy losses from over-ventilation while improving indoor air quality with optional CO<sub>2</sub> sensor
- Shorter installation time thanks to easy adjustment of nominal air flow rate, so less need for dampers compared with traditional installation
- > Specially developed heat exchange element with High Efficiency Paper (HEP)
- > Can operate in over- and under pressure



Ventilation			VKM-GB/VK	M-GBM	50GB	80GB	100GB	50GBM	80GBM	100GBM
Power input - 50Hz	Heat exchange	Nom.	Ultra high/	kW	0.270/0.230/	0.330/0.280/	0.410/0.365/	0.270/0.230/	0.330/0.280/	0.410/0.365/
	mode		High/Low		0.170	0.192	0.230	0.170	0.192	0.230
	Bypass mode	Nom.	Ultra high/	kW	0.270/0.230/	0.330/0.280/	0.410/0.365/	0.270/0.230/	0.330/0.280/	0.410/0.365/
			High/Low		0.140	0.192	0.230	0.170	0.192	0.230
Fresh air condition-	Cooling			kW	4.71 / 1.91 / 3.5	7.46 / 2.96 / 5.6	9.12 / 3.52 / 7.0	4.71 / 1.91 / 3.5	7.46 / 2.96 / 5.6	9.12 / 3.52 / 7.0
ing load	Heating			kW	5.58 / 2.38 / 3.5	8.79 / 3.79 / 5.6	10.69 / 4.39 / 7.0	5.58 / 2.38 / 3.5	8.79 / 3.79 / 5.6	10.69 / 4.39 / 7.0
Temperature	Ultra high/High/L	ow		%						
exchange efficiency					76/76/77.5	78/78/79	74/74/76.5	76/76/77.5	78/78/79	74/74/76.5
- 50Hz										
Enthalpy exchange	Cooling	Ultra hig	h/High/Low	%	64/64/67	66/66/68	62/62/66	64/64/67	66/66/68	62/62/66
efficiency - 50Hz	Heating		h/High/Low	%	67/67/69	71/71/73	65/65/69	67/67/69	71/71/73	65/65/69
Operation mode							change mode / Byp	ass mode / Fresh-u		
Heat exchange syster	m						ss flow total heat (s			
Heat exchange eleme							pecially processed r			
Humidifier	System					- '	<b>,</b> '		tural evaporating ty	/pe
Dimensions	Unit	Heightx\	NidthxDepth	mm	387x1,764x832		64x1,214	387x1,764x832		54x1,214
Weight	Unit			kg	94	110	112	100	119	123
Casing	Material							steel plate		
Fan-Air flow rate	Heat exchange mode		h/High/Low	m³/h	500/500/440	750/750/640	950/950/820	500/500/440	750/750/640	950/950/820
- 50Hz	Bypass mode		h/High/Low	m³/h	500/500/440	750/750/640	950/950/820	500/500/440	750/750/640	950/950/820
Fan-External static	Ultra high/High/L	ow		Pa	210/170/140	210/160/110	150/100/70	200/150/120	205/155/105	110/70/60
pressure - 50Hz					210/170/140	210/100/110			203/133/103	110/70/00
Air filter	Type						Multidirectiona			
Sound pressure level			h/High/Low	dBA	39/37/35	41.5/39/37	41/39/36.5	38/36/34	40/37.5/35.5	40/38/35.5
- 50Hz	Bypass mode	Ultra hig	h/High/Low	dBA	40/38/35.5	41.5/39/37	41/39/36.5	39/36/34.5	41/38/36	41/39/35.5
Operation range	Around unit			°CDB				30% RH or less		
	Supply air			°CDB			-15°C~40°CDB,			
	Return air			°CDB			0°C~40°CDB, 8	30% RH or less		
	On coil temperature	Cooling/M	ax./Heating/Min.	°CDB		-15/43			-15/43	
Refrigerant	Control							oansion valve		
	Туре						R-4			
C	GWP				200	2	2,08		2	
Connection duct diar		OD		mm	200	Z:	50	200	2:	00
Piping connections	<u>Liquid</u> Gas	OD		mm			6.			
	Water supply	UD		mm				2.7	6.4	
	Drain			mm		-	PT3/4 exte	rnal throad	0.4	
Power supply	Phase/Frequency	Voltage		Hz/V				220-240		
Current	Maximum fuse an			A			11-730/2			
Carrette	axiiiiaiii iase aii	ps (141171)					'	-		

# Daikin's air handling units solutions

## You will find your match

Why choose Daikin air handling units with a DX connection?



## Simplifying business

The unique total solution approach by Daikin helps businesses to propose better cross-pillar solutions, to increase their success ratio by providing unmatchable product combinations to the end-user and to simplify the life of installers by supplying high-quality products coming from the same manufacturer. Contrary to other manufacturers, Daikin does not use OEM products in its AHU with DX offer. Many competitors are either offering OEM DX outdoor units or OEM AHU which create additional problems when warranties or faults arise. **Having a single interface for your business makes Daikin the right choice.** 

## Complete range of possibilities

Thanks to the **most complete offer in the market**, Daikin has the solution for all types of commercial applications requiring fresh air. Daikin provides ventilation solutions based on AHU from 2,500 m³/h up to 140,000 m³/h either with natural heat recovery or more advanced ventilation solutions where a VRV outdoor unit can be connected to the Daikin AHU for ultimate climate control. The harmonized control, between the VRV outdoor unit and the AHU, offer outstanding reliable operation of the system when connected to an iTM.

## One-stop shop

Daikin is the only global manufacturer in the market **capable of offering a true Plug & Play solution** where Daikin AHUs manufactured by Daikin Applied Europe and certified by Eurovent, offer off-the-shelf compatibility with Daikin's unique VRV outdoor unit range for the best performance in the market.

This unique integration of cross-pillar products under the same umbrella, gives the customer both peace-of-mind and added value when promoting a total solution approach.

## Advantages

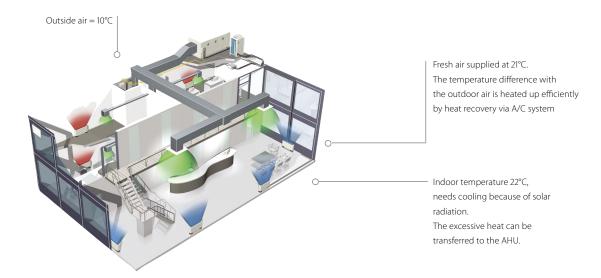
- > Unique manufacturer offering a complete range
- > Plug & Play solution
- Direct iTM compatibility

## Why use VRV and ERQ condensing units for connection to air handling units?

## **High Efficiency**

Daikin heat pumps are renowned for their high energy efficiency. Integrating the AHU with a heat recovery system is even more effective since an office system can frequently be in cooling mode while the outdoor air is too cold to be brought

inside in an unconditioned state. In this case heat from the offices is merely transferred to heat up the cold fresh air.



## Fast response to changing loads resulting in high comfort levels

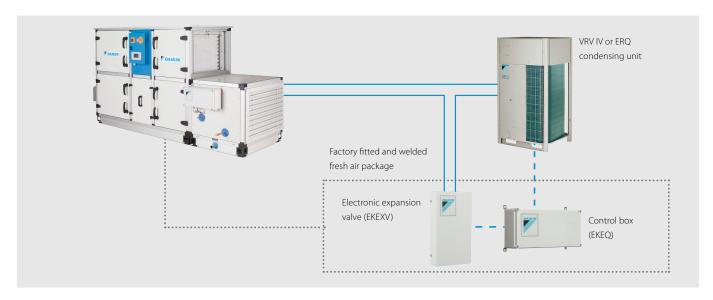
Daikin ERQ and VRV units respond rapidly to fluctuations in supply air temperature, resulting in a steady indoor temperature and resultant high comfort levels for the end user. The ultimate is the VRV range which improves comfort even more by offering continuous heating, also during defrost.

## Easy Design and Installation

The system is easy to design and install since no additional water systems such as boilers, tanks and gas connections etc. are required. This also reduces both the total system investment and running cost.

## Daikin Fresh air package

- $\rightarrow$  Plug & Play connection between VRV/ERQ and the entire D-AHU modular range.
- > Factory fitted and welded DX coil control and expansion valve kits.



## In order to maximise installation flexibility, 4 types of control systems are offered

W control: Off the shelf control of air temperature (discharge temperature, suction temperature, room temperature) via any DDC controller, easy to setup

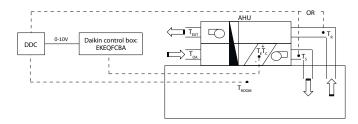
X control: Precise control of air temperature (discharge temperature, suction temperature, room temperature) requiring a preprogrammed DDC controller (for special applications)

Z control: Control of air temperature (suction temperature, room temperature) via Daikin control (no DDC controller needed) Y control: Control of refrigerant (Te/Tc) temperature via Daikin control (no DDC controller needed)

## 1. W control ( $T_s/T_R/T_{ROOM}$ control):

## Air temperature control via DDC controller

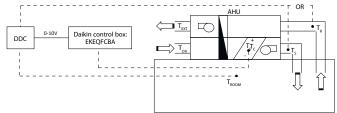
Room temperature is controlled as a function of the air handling unit suction or discharge air (customer selection). The DDC controller is translating the temperature difference between set point and air suction temperature (or air discharge temperature or room temperature) into a proportional 0-10V signal which is transferred to the Daikin control box (EKEQFCBA). This voltage modulates the capacity requirements of the outdoor unit.



## 2. X control ( $T_s/T_R/T_{ROOM}$ control):

## Precise air temperature control via DDC controller

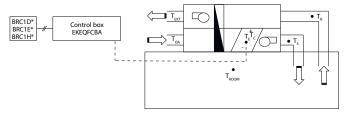
Room temperature is controlled as a function of the air handling unit suction or discharge air (customer selection). The DDC controller is translating the temperature difference between set point and air suction temperature (or air discharge temperature or room temperature) into a reference voltage (0-10V) which is transferred to the Daikin control box (EKEQFCBA). This reference voltage will be used as the main input value for the compressor frequency control.



## 3. Y control ( $T_E/T_C$ control):

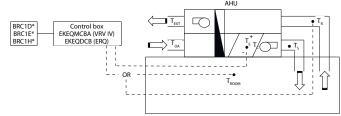
## By fixed evaporating /condensing temperature

A fixed target evaporating or condensing temperature can be set by the customer. In this case, room temperature is only indirectly controlled. A Daikin wired remote control (BRC1\* - optional) have to be connected for initial set-up but not required for operation.



## 4. Z control ( $T_s/T_{ROOM}$ control): Control your AHU just like a VRV indoor unit with up to 100% fresh air

Allows the possibility to control the AHU just like a VRV indoor unit. Meaning temperature control will be focused on return air temperature from the room into the AHU. Requires BRC1\* for operation. The only control that allows the combination of other indoor units to the AHU at the same time.



$T_s = Supply air temperature$	$T_R = Return air temperature$	$T_{OA} = Outdoor air temperature$	$T_{ROOM} = Room air temperature$
$T_{EXT} = Extraction air temperature$	$T_E$ = Evaporating temperature	$T_{c} = Condensing temperature$	

	Option kit	Features
Possibility W		Off-the-shelf DDC controller that requires no pre-configuration
Possibility X	EKEQFCBA	Pre-configured DDC controller required
Possibility Y		Using fixed evaporating temperature, no set point can be set using remote control
Dossibility 7	EKEQDCB	Using Daikin infrared remote control BRC1*
Possibility Z	EKFQMCBA*	Temperature control using air suction temperature or room temperature (via remote sensor)

<sup>\*</sup> EKEQMCB (for 'multi' application)

## **IPI** - for larger capacities (from 8 to 54HP)

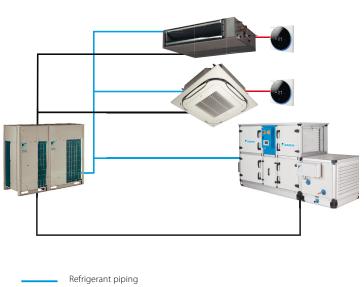
## An advanced solution for both pair and multi application

- > Inverter controlled units
- > Heat recovery, heat pump
- > Control of room temperature via Daikin control
- > Large range of expansion valve kits available
- > BRC1H519W/S/K is used to set the set point temperature (connected to the EKEQMCBA).
- > Connectable to all VRV heat recovery and heat pump systems

## W, X, Y control for VRV IV heat pump

## Z control for all VRV outdoor units





F1-F2

P1-P2



## ERQ - for smaller capacities (from 100 to 250 class)

## A basic fresh air solution for pair application

- > Inverter controlled units
- > Heat pump
- > R-410A
- > Wide range of expansion valve kits available
- > Perfect for the Daikin Modular air handling unit

The "Daikin Fresh Air Package" provides a complete Plug & Play Solution including AHU, ERQ or VRV Condensing Unit and all unit control (EKEQ, EKEX, DDC controller) factory mounted and configured. The easiest solution with only one point of contact.



Ventilation			ERQ	100AV1	125AV1	140AV1
Capacity range			HP	4	5	6
Cooling capacity	Nom.		kW	11.2	14.0	15.5
Heating capacity	Nom.		kW	12.5	16.0	18.0
Power input	Cooling	Nom.	kW	2.81	3.51	4.53
	Heating	Nom.	kW	2.74	3.86	4.57
EER					3.99	3.42
COP				4.56	4.15	3.94
Dimensions	Unit	HeightxWidthxDepth	mm		1,345x900x320	
Veight	Unit		kg		120	
Casing	Material				Painted galvanized steel plate	
an-Air flow rate	Cooling	Nom.	m³/min		106	
	Heating	Nom.	m³/min	102	105	
ound power level	Cooling	Nom.	dBA	66	67	69
Sound pressure level	Cooling	Nom.	dBA	50	51	53
	Heating	Nom.	dBA	52	53	55
peration range	Cooling	Min./Max.	°CDB		-5/46	
	Heating	Min./Max.	°CWB		-20/15.5	
	On coil temperature	Heating/Min./Cooling/Max.	°CDB		10/35	
efrigerant	Туре				R-410A	
	Charge		kg		4.0	
			TCO₂eq		8.4	
	GWP				2,087.5	
	Control				Expansion valve (electronic type)	
piping connections	Liquid	OD	mm		9.52	
. •	Gas	OD	mm		15.9	19.1
	Drain	OD	mm		26x3	
ower supply	Phase/Frequency/	Voltage	Hz/V		1N~/50/220-240	
urrent	Maximum fuse am		Α		32.0	
entilation			ERO	125AW1	200AW1	250AW1
			<b>ERQ</b>	<b>125AW1</b> 5	200AW1 8	<b>250AW1</b>
apacity range	Nom.		HP	5	8	10
apacity range ooling capacity	Nom.		HP kW	5 14.0	8 22.4	10 28.0
Capacity range Cooling capacity Heating capacity	Nom.	Nom.	HP kW kW	5 14.0 16.0	8 22.4 25.0	10 28.0 31.5
apacity range ooling capacity leating capacity	Nom. Cooling	Nom.	HP kW kW	5 14.0 16.0 3.52	8 22.4 25.0 5.22	10 28.0 31.5 7.42
apacity range ooling capacity leating capacity ower input	Nom.	Nom. Nom.	HP kW kW	5 14.0 16.0 3.52 4.00	8 22.4 25.0 5.22 5.56	10 28.0 31.5 7.42 7.70
Capacity range Cooling capacity Heating capacity Cower input	Nom. Cooling		HP kW kW	5 14.0 16.0 3.52 4.00 3.98	8 22.4 25.0 5.22 5.56 4.29	10 28.0 31.5 7.42 7.70 3.77
Capacity range Cooling capacity Heating capacity Ower input EER COP	Nom. Cooling Heating	Nom.	HP kW kW kW	5 14.0 16.0 3.52 4.00 3.98 4.00	8 22.4 25.0 5.22 5.56 4.29 4.50	10 28.0 31.5 7.42 7.70 3.77 4.09
capacity range cooling capacity leating capacity ower input  ER OP Dimensions	Nom. Cooling Heating Unit		HP kW kW kW kW mm	5 14.0 16.0 3.52 4.00 3.98 4.00 1,680x635x765	8 22.4 25.0 5.22 5.56 4.29 4.50 1,680x930:	10 28.0 31.5 7.42 7.70 3.77 4.09
apacity range coling capacity eating capacity ower input  ER OP imensions	Nom. Cooling Heating Unit Unit	Nom.	HP kW kW kW	5 14.0 16.0 3.52 4.00 3.98 4.00	8 22.4 25.0 5.22 5.56 4.29 4.50 1,680x930:	10 28.0 31.5 7.42 7.70 3.77 4.09
capacity range cooling capacity leating capacity leaver input  ER OP Dimensions Veight casing	Nom. Cooling Heating  Unit Unit Material	Nom. HeightxWidthxDepth	HP kW kW kW kW kW kW	5 14.0 16.0 3.52 4.00 3.98 4.00 1,680x635x765	8 22.4 25.0 5.22 5.56 4.29 4.50 1,680x930: 187 Painted galvanized steel plate	10 28.0 31.5 7.42 7.70 3.77 4.09 x765
apacity range cooling capacity leating capacity ower input  ER OP Dimensions Veight lasting	Nom. Cooling Heating  Unit Unit Material Cooling	Nom.  HeightxWidthxDepth  Nom.	HP kW kW kW kW kW kW kW	5 14.0 16.0 3.52 4.00 3.98 4.00 1,680x635x765 159	8 22.4 25.0 5.22 5.56 4.29 4.50 1,680x930: 187 Painted galvanized steel plate 171	10 28.0 31.5 7.42 7.70 3.77 4.09 x765 240
apacity range ooling capacity eating capacity ower input  ER OP imensions /eight asing an-Air flow rate	Nom. Cooling Heating Unit Unit Material Cooling Heating	Nom. HeightxWidthxDepth	HP kW kW kW kW kW mm kg m³/min m³/min	5 14.0 16.0 3.52 4.00 3.98 4.00 1,680x635x765 159 95	8 22.4 25.0 5.22 5.56 4.29 4.50 1,680x930: 187 Painted galvanized steel plate 171 171	10 28.0 31.5 7.42 7.70 3.77 4.09 x765
capacity range cooling capacity leating capacity ower input  ER COP Dimensions Veight casing an-Air flow rate ound power level	Nom. Cooling Heating Unit Unit Unit Material Cooling Heating Nom.	Nom.  HeightxWidthxDepth  Nom.	HP kW kW kW kW mm kg m³/min m³/min dBA	5 14.0 16.0 3.52 4.00 3.98 4.00 1,680x635x765 159 95 95	8 22.4 25.0 5.22 5.56 4.29 4.50 1,680x930: 187 Painted galvanized steel plate 171 171 78	10 28.0 31.5 7.42 7.70 3.77 4.09 x765 240
capacity range cooling capacity leating capacity ower input  ER COP Dimensions Veight asing an-Air flow rate ound power level ound pressure level	Nom. Cooling Heating Unit Unit Material Cooling Heating Nom. Nom.	Nom.  HeightxWidthxDepth  Nom.  Nom.	HP kW kW kW kW kW mm kg m³/min m³/min dBA dBA	5 14.0 16.0 3.52 4.00 3.98 4.00 1,680x635x765 159 95	8 22.4 25.0 5.22 5.56 4.29 4.50 1,680x930: 187 Painted galvanized steel plate 171 171 78 57	10 28.0 31.5 7.42 7.70 3.77 4.09 x765 240
apacity range cooling capacity eating capacity ower input  ER OP imensions leight asing an-Air flow rate ound power level ound pressure level	Nom. Cooling Heating  Unit Unit Material Cooling Heating Nom. Nom. Cooling	Nom. HeightxWidthxDepth  Nom. Nom.  Min./Max.	HP kW kW kW kW kW mm kg m³/min m³/min dBA dBA °CDB	5 14.0 16.0 3.52 4.00 3.98 4.00 1,680x635x765 159 95 95	8 22.4 25.0 5.22 5.56 4.29 4.50 1,680x930: 187 Painted galvanized steel plate 171 171 78 57 -5/43	10 28.0 31.5 7.42 7.70 3.77 4.09 x765 240
capacity range cooling capacity leating capacity ower input  ER COP Dimensions Veight asing an-Air flow rate ound power level ound pressure level	Nom. Cooling Heating  Unit Unit Material Cooling Heating Nom. Nom. Cooling Heating	Nom.  HeightxWidthxDepth  Nom.  Nom.  Min./Max.  Min./Max.	HP kW kW kW kW mm kg m³/min m³/min dBA dBA °CDB	5 14.0 16.0 3.52 4.00 3.98 4.00 1,680x635x765 159 95 95	8 22.4 25.0 5.22 5.56 4.29 4.50 1,680x930: 187 Painted galvanized steel plate 171 171 78 57 -5/43	10 28.0 31.5 7.42 7.70 3.77 4.09 x765 240
capacity range cooling capacity leating	Nom. Cooling Heating Unit Unit Cooling Heating Nom. Nom. Cooling Heating On coil temperature	Nom. HeightxWidthxDepth  Nom. Nom.  Min./Max.	HP kW kW kW kW kW mm kg m³/min m³/min dBA dBA °CDB	5 14.0 16.0 3.52 4.00 3.98 4.00 1,680x635x765 159 95 95	8 22.4 25.0 5.22 5.56 4.29 4.50 1,680x930: 187 Painted galvanized steel plate 171 171 78 57 -5/43 -20/15 10/35	10 28.0 31.5 7.42 7.70 3.77 4.09 x765 240
apacity range pooling capacity peating capacity power input  ER DP Immensions leight asing In-Air flow rate pound power level pund pressure level peration range	Nom. Cooling Heating Unit Unit Material Cooling Heating Nom. Nom. Cooling Heating On coil temperature Type	Nom.  HeightxWidthxDepth  Nom.  Nom.  Min./Max.  Min./Max.	HP kW kW kW kW kW mm kg m³/min m³/min dBA dBA °CDB °CWB	5 14.0 16.0 3.52 4.00 3.98 4.00 1,680x635x765 159 95 95 72	8 22.4 25.0 5.22 5.56 4.29 4.50 1,680x930; 187 Painted galvanized steel plate 171 171 78 57 -5/43 -20/15 10/35 R-410A	10 28.0 31.5 7.42 7.70 3.77 4.09 x765 240 185 185
apacity range cooling capacity leating capacity ower input  ER OP OP OP OP OP OP OP OP OP OP OP OP OP	Nom. Cooling Heating Unit Unit Cooling Heating Nom. Nom. Cooling Heating On coil temperature	Nom.  HeightxWidthxDepth  Nom.  Nom.  Min./Max.  Min./Max.	HP kW kW kW kW kW mm kg m³/min m³/min dBA dBA °CDB °CWB	5 14.0 16.0 3.52 4.00 3.98 4.00 1,680x635x765 159 95 95 72 54	8 22.4 25.0 5.22 5.56 4.29 4.50 1,680x930: 187 Painted galvanized steel plate 171 171 78 57 -5/43 -20/15 10/35 R-410A 7.7	10 28.0 31.5 7.42 7.70 3.77 4.09 x765 240 185 185 58
apacity range ooling capacity eating capacity ower input  ER OP imensions Jeight asning an-Air flow rate ound power level ound pressure level operation range	Nom. Cooling Heating  Unit Unit Gooling Heating Nom. Nom. Cooling Heating On coil temperature Type Charge	Nom.  HeightxWidthxDepth  Nom.  Nom.  Min./Max.  Min./Max.	HP kW kW kW kW kW mm kg m³/min m³/min dBA dBA °CDB °CWB	5 14.0 16.0 3.52 4.00 3.98 4.00 1,680x635x765 159 95 95 72	8 22.4 25.0 5.22 5.56 4.29 4.50 1,680x930: 187 Painted galvanized steel plate 171 171 78 57 -5/43 -20/15 10/35 R-410A 7.7 16.1	10 28.0 31.5 7.42 7.70 3.77 4.09 x765 240 185 185
capacity range cooling capacity leating	Nom. Cooling Heating  Unit Unit Material Cooling Heating Nom. Nom. Cooling Heating On coil temperature Type Charge	Nom.  HeightxWidthxDepth  Nom.  Nom.  Min./Max.  Min./Max.	HP kW kW kW kW kW mm kg m³/min m³/min dBA dBA °CDB °CWB	5 14.0 16.0 3.52 4.00 3.98 4.00 1,680x635x765 159 95 95 72 54	8 22.4 25.0 5.22 5.56 4.29 4.50 1,680x930: 187 Painted galvanized steel plate 171 171 78 57 -5/43 -20/15 10/35 R-410A 7.7 16.1 2,087.5	10 28.0 31.5 7.42 7.70 3.77 4.09 x765 240 185 185 58
Capacity range Cooling capacity deating capacity deating capacity dower input EER COP Dimensions Weight Casing Can-Air flow rate cound power level cound pressure level Departion range	Nom. Cooling Heating Unit Unit Cooling Heating Nom. Nom. Cooling Heating On coil temperature Type Charge GWP Control	Nom.  HeightxWidthxDepth  Nom.  Nom.  Min./Max.  Min./Max.  Heating/Min/Cooling/Max.	HP kW kW kW kW  mm kg  m³/min m³/min dBA dBA °CDB °CWB rCDB	5 14.0 16.0 3.52 4.00 3.98 4.00 1,680x635x765 159 95 95 72 54	8 22.4 25.0 5.22 5.56 4.29 4.50 1,680x930: 187 Painted galvanized steel plate 171 171 78 57 -5/43 -20/15 10/35 R-410A 7.7 16.1 2,087.5 Electronic expansion valve	10 28.0 31.5 7.42 7.70 3.77 4.09 x765 240 185 185 58
Capacity range Cooling capacity Heating capacity Power input EER COP Dimensions Weight Casing Can-Air flow rate Sound power level Cound pressure level Department of the properties of the prope	Nom. Cooling Heating Unit Unit Material Cooling Heating Nom. Nom. Cooling Heating On coil temperature Type Charge GWP Control Liquid	Nom.  HeightxWidthxDepth  Nom.  Nom.  Min/Max.  Min/Max.  Heating/Min/Cooling/Max.	HP kW kW kW kW kW mm kg m³/min m³/min dBA dBA °CDB °CWB °CDB	5 14.0 16.0 3.52 4.00 3.98 4.00 1,680x635x765 159 95 95 72 54	8 22.4 25.0 5.22 5.56 4.29 4.50 1,680x930: 187 Painted galvanized steel plate 171 171 78 57 -5/43 -20/15 10/35 R-410A 7.7 16.1 2,087.5 Electronic expansion valve 9.52	10 28.0 31.5 7.42 7.70 3.77 4.09 x765 240 185 185 58
Ventilation Capacity range Cooling capacity Heating capacity Power input EER COP Dimensions Weight Casing Fan-Air flow rate Sound power level Sound pressure level Operation range Refrigerant	Nom. Cooling Heating Unit Unit Material Cooling Heating Nom. Nom. Cooling Heating On coil temperature Type Charge GWP Control Liquid Gas	Nom.  HeightxWidthxDepth  Nom.  Nom.  Min./Max.  Min./Max. Heating/Min/Cooling/Max.	HP kW kW kW kW kW mm kg m³/min m³/min dBA dBA °CDB °CWB °CDB	5 14.0 16.0 3.52 4.00 3.98 4.00 1,680x635x765 159 95 95 72 54	8 22.4 25.0 5.22 5.56 4.29 4.50 1,680x930: 187 Painted galvanized steel plate 171 171 78 57 -5/43 -20/15 10/35 R-410A 7.7 16.1 2,087.5 Electronic expansion valve 9.52 19.1	10 28.0 31.5 7.42 7.70 3.77 4.09 x765 240 185 185 58
Capacity range Cooling capacity deating capacity deating capacity dower input EER COP Dimensions Weight Casing Can-Air flow rate cound power level cound pressure level Departion range	Nom. Cooling Heating Unit Unit Material Cooling Heating Nom. Nom. Cooling Heating On coil temperature Type Charge GWP Control Liquid	Nom.  HeightxWidthxDepth  Nom.  Nom.  Min./Max.  Min./Max.  Heating/Min/Cooling/Max.  OD  OD  OD  Voltage	HP kW kW kW kW kW mm kg m³/min m³/min dBA dBA °CDB °CWB °CDB	5 14.0 16.0 3.52 4.00 3.98 4.00 1,680x635x765 159 95 95 72 54	8 22.4 25.0 5.22 5.56 4.29 4.50 1,680x930: 187 Painted galvanized steel plate 171 171 78 57 -5/43 -20/15 10/35 R-410A 7.7 16.1 2,087.5 Electronic expansion valve 9.52	10 28.0 31.5 7.42 7.70 3.77 4.09 x765 240 185 185 58

# Integration of ERQ and VRV

## in third party air handling units

## a wide range of expansion valve kits and control boxes Combination table

			Control box						Expansio	n valve kit					Mr I
		EKEQDCB	EKEQFCBA	EKEQMCBA	EKEXV50	EKEXV63	EKEXV80	EKEXV100	EKEXV125	EKEXV140	EKEXV200	EKEXV250	EKEXV400	EKEXV500	Mixed connection with
		Z control	W,X,Y control	Z control	-	-	-	-	-	-	-	-	-	-	VRV indoor units
	ERQ100	Р	Р	-	-	Р	Р	Р	Р	-	-	-	-	-	
1-phase	ERQ125	Р	Р	-	-	Р	Р	Р	Р	Р	-	-	-	-	
	ERQ140	Р	Р	-	-	-	Р	Р	Р	Р	-	-	-	-	Nata a a saible
	ERQ125	Р	Р	-	-	Р	Р	Р	Р	Р	-	-	-	-	Not possible
3-phase	ERQ200	Р	Р	-	-	-	-	Р	Р	Р	Р	Р	-	-	
	ERQ250	Р	Р	-	-	-	-	-	Р	Р	Р	Р	-	-	
VR	V III	-	-	n1	n1	n1	n1	n1	n1	n1	n1	n1	n1	n1	Mandatory
	/ H/P / W-series S-series	-	P (1 -> 3)	n2	n2	n2	n2	n2	n2	n2	n2	n2	n2	n2	Possible (not mandatory)
VRV I VRV IV	V H/R i-series	-	n1	-	n1	n1	n1	n1	n1	n1	n1	n1	n1	n1	Mandatory

- P (pair application): combination depends on the capacity of the air handling unit
   n1 (multi application) Combination of AHUs and VRV DX indoors (mandatory). To determine the exact quantity please refer to the engineering data book.
   n2 (multi application) Combination of AHUs and VRV DX indoors (not mandatory). To determine the exact quantity please refer to the engineering data book.
   Control box EKEQFA can be connected to some types of VRV IV outdoor units (with a maximum of 3 boxes per unit). Do not combine EKEQFA control boxes with VRV DX indoor units, RA indoor units or hydroboxes

## Capacity table

### Cooling

EKEXV Class		ed heat exch capacity (kW	Allowed heat exchanger volume (dm³)			
	Minimum	Standard	Maximum	Minimum	Maximum	
50	5.0	5.6	6.2	1.33	1.65	
63	6.3	7.1	7.8	1.66	2.08	
80	7.9	9.0	9.9	2.09	2.64	
100	10.0	11.2	12.3	2.65	3.30	
125	12.4	14.0	15.4	3.31	4.12	
140	15.5	16.0	17.6	4.13	4.62	
200	17.7	22.4	24.6	4.63	6.60	
250	24.7	28.0	30.8	6.61	8.25	
400	35.4	45.0	49.5	9.26	13.2	
500	49.6	56.0	61.6	13.2	16.5	

Saturated evaporating temperature: 6°C Air temperature: 27°C DB / 19°C WB

### Heating

EKEXV Class		ed heat exch capacity (kW	Allowed heat exchange volume (dm³)			
	Minimum	Standard	Maximum	Minimum	Maximum	
50	5.6	6.3	7.0	1.33	1.65	
63	7.1	8.0	8.8	1.66	2.08	
80	8.9	10.0	11.1	2.09	2.64	
100	11.2	12.5	13.8	2.65	3.30	
125	13.9	16.0	17.3	3.31	4.12	
140	17.4	18.0	19.8	4.13	4.62	
200	19.9	25.0	27.7	4.63	6.60	
250	27.8	31.5	34.7	6.61	8.25	
400	39.8	50.0	55.0	9.26	13.2	
500	55.1	63.0	69.3	13.2	16.5	

Saturated condensing temperature: 46°C Air temperature: 20°C DB

## EKEXV - Expansion valve kit for air handling applications

Ventilation			EKEXV	50	63	80	100	125	140	200	250	400	500			
Dimensions Unit mm					401x215x78											
Weight	Unit		kg		2.9											
Sound pressure level Nom. dBA								4	45							
Operation range	On coil	Heating Min.	°CDB					10	(1)							
	temperatu	re Cooling Max.	°CDB					35	5 (2)							
Refrigerant	Type / GWI	P		R-410A / 2.087,5												
Piping connection	s Liquid	OD	mm	6.35				9.52				12.7	15.9			

(1) The temperature of the air entering the coil in heating mode can be reduced to -5°CDB. Contact your local dealer for more information. (2) 45% Relative humidity.

## EKEQ - Control box for air handling applications

Ventilation		EKEQ	FCBA	DCB	МСВА						
Application			See note	Pair	Multi						
Outdoor unit			ERQ / VRV	ERQ	VRV						
Dimensions	Unit	mm		132x400x200							
Weight	Unit	kg	3.9	3.9 3.6							
Power supply	Phase/Frequency/Voltage	Hz/V		1~/50/230							

The combination of EKEQFCBA and ERQ is in pair application. The EKEQFCBA can be connected to some type of VRV IV outdoor units with a maximum of 3 control boxes. The combination with DX indoor units, hydroboxes, RA outdoor units, ... is not allowed. Refer to the combination table drawing of the outdoor unit for details.

## Pair application selection

- the outdoor unit is connected to ONE COIL (with single circuit or maximum 3 interlaced circuits) using up to 3 control boxes
- > indoor unit combination is not allowed
- > only works with X, W, Y control

## Step 1: Required AHU capacity

An AHU with double flow, heat recovery and 100% fresh air is to be installed in Europe where the outdoor sizing temperature is 35 °CDB and the target supply air temperature for fresh air is 25 °CDB. Load calculations point to a required capacity of 45kW. By checking on the EKEXV capacity table, for cooling operation, 40kW falls within the 400 class valve. Since 40kW is not the nominal capacity, a class adjustment has to be done. 40/45=0,89 and 0,89x400=356. So the capacity class of the expansion valve kit is

## Step 2: Outdoor unit selection

For this AHU, a VRV IV heat pump model with continuous heating is going to be used (RYYQ-T series). For a capacity of 40kW at 35 °CDB, an outdoor of 14HP (RYYQ14T) is selected. The capacity class of the 14 HP outdoor unit is 350.

Total connection ratio of the system is 356/350=102% hence it falls within the range 90-110%.

## Step 3: Control box selection

In this particular case, the control will work with precise air temperature control. Only W or X control allow this. Since the consultant wants to use an "off-the-shelf" DDC module, the EKEQFCBA box with W control allows easy set-up due to pre-set factory values.

## Multi application selection

- the outdoor unit can be connected to MULTIPLE COILS (and their control boxes)
- > indoor units are also connectable but not mandatory
- > only works with Z control

## Step 1: Required AHU capacity

An AHU with double flow, heat recovery and 100% fresh air is to be installed in Europe where the outdoor sizing temperature is 35 °CDB and the target supply air temperature for fresh air is 25 °CDB. On top of this, for this building, 5 round-flow cassette units FXFQ50A will also be connected to this OU.

Load calculations point to a required capacity of 20kW for the AHU and 22,5 kW for the indoor untis.

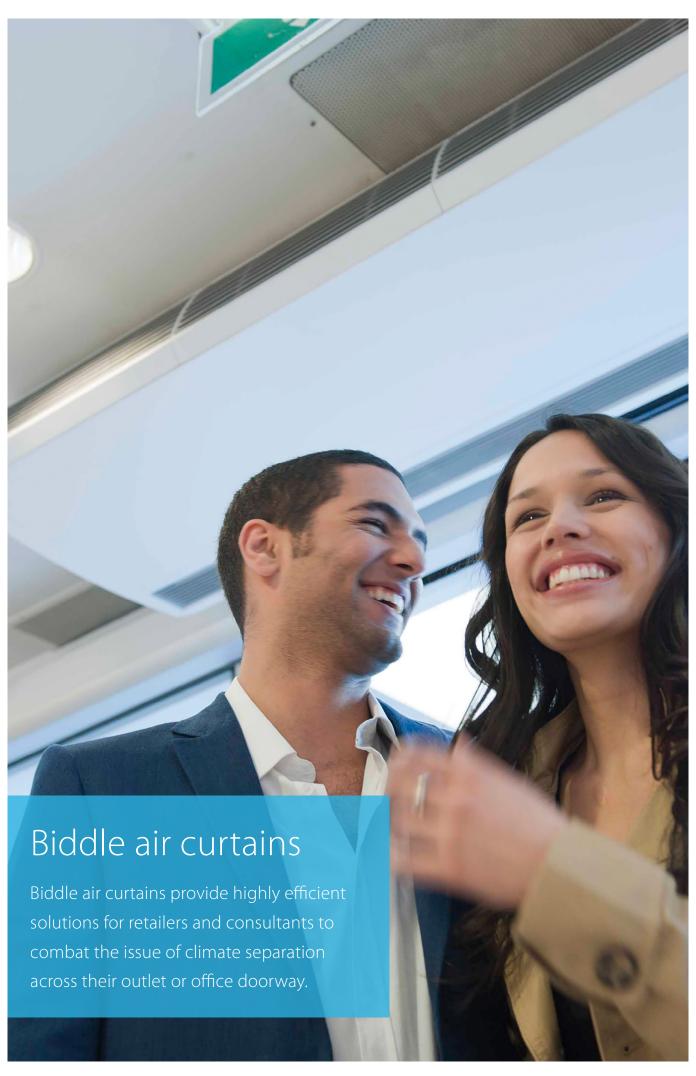
By checking on the EKEXV capacity table, for cooling operation, 20kW falls within the 200 class valve. Since 22,4 kW is the nominal capacity, a class adjustment has to be done. 20/22,4=0,89 and 0,89x200=178. So the capacity class of the expansion valve kit is 178. Total capacity class of the indoor unit system is 178+250=428

## Step 2: Outdoor unit selection

For this system where a AHU is connected with indoor units, it is mandatory to use a heat recovery unit. By consulting the engineering databook for REYQ-T, the total required capacity of 42,5 kW requires a 16HP model REYQ16T. Which will deliver 45kW at the design temperature of 35 °CDB. This unit has a capacity class of 400. Total connection ratio of the system is 428/400=107% hence it falls within the range 50-110%.

## Step 3: Control box selection

In this particular case, the only available control is Z control and the combination of AHU and VRV DX indoor units requires EKEQMCBA control box.



# Biddle air curtains connected to Daikin Heat Pumps

## 'Open Door' Trading

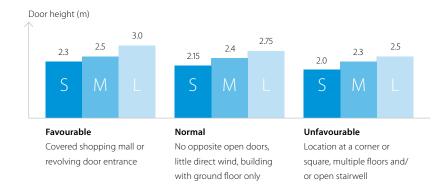
Although the customer-friendly aspects of open door trading are widely appreciated by retail and commercial outlet managers, open doors can also give rise to massive losses in conditioned warm or cold air and hence, energy. Biddle air curtains however, not only preserve indoor temperatures and generate significant savings, they also represent an invitation for customers, to enter a pleasant trading and working environment.

## High efficiency and low CO<sub>2</sub> emission

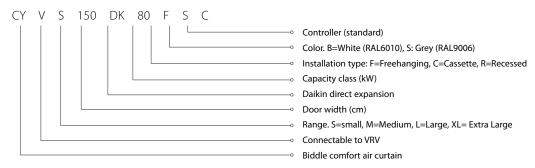
An efficient outdoor/indoor climate separation limits heat loss through the door opening and enhances the efficiency of the air conditioning system.

Combining Biddle air curtains with Daikin heat pumps can lead to savings up to 72% compared to electric air curtains and a paypack period of less than 1.5 years!

## Air curtain size selector



## Biddle comfort air curtian nomenclature



## Portfolio

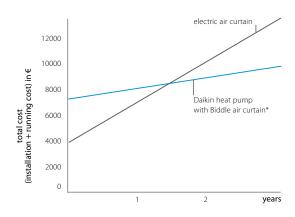
Туре	Product name	
Biddle air curtain free hanging	CYV S/M/L-DK-F	
Biddle air curtain cassette	CYV S/M/L-DK-C	
Biddle air curtain recessed	CYV S/M/L-DK-R	COMP.

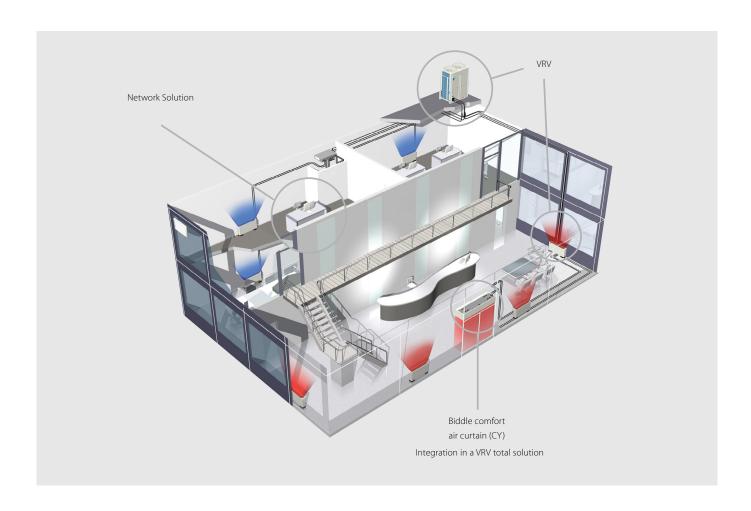
- A payback time of less than 1.5 years compared to electrical air curtains
- > Easy and quick installation
- Maximum energy efficiency thanks to rectifier technology
- > 85% air separation efficiency
- Cassette model (C): mounted into a false ceiling enhancing aesthetics
- > Free-hanging model (F): easy wall mounted installation
- > Recessed model (R): neatly concealed in the ceiling

## Biddle air curtain for VRV

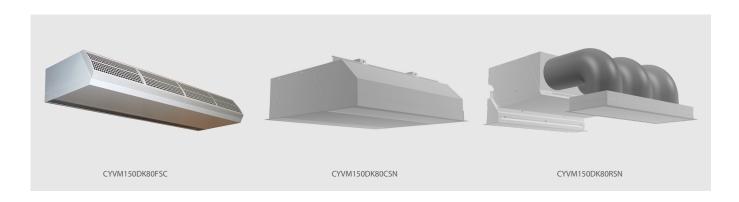
- > Connectable to VRV heat recovery and heat pump
- > VRV is among the first DX systems suitable for connection to air curtains
- > Free-hanging model (F): easy wall mounted installation
- > Cassette model (C): mounted into a false ceiling leaving only the decoration panel visible
- > Recessed model (R): neatly concealed in the ceiling
- Provides virtually free air curtain heating via recovered heat from indoor units in cooling mode (in case of VRV heat recovery)
- Easy and quick to install at reduced costs since no additional water sytems, boilers and gas connections are required
- > PATENTED TECHNOLOGY: Maximum energy efficiency stemming from almost zero down flow turbulence, optimised air flow and the application of advanced discharge rectifier technology
- Around 85% air separation efficiency, greatly reducing both heat loss and required indoor unit heating capacity

## Packtime of less than 1.5 years





<sup>\*</sup> Payback period and gains calculated based upon the following: Air curtain is 9hrs/day – 156 days year (1,404 hrs/year) in use. Annual energy consumption for an electric air curtain: 3,137EUR (COP = 0.95). Typical installation cost: 1,000EUR; Typical equipment cost: 2,793EUR. Annual energy consumption for CYQS200DK100FBN and ERQ100AV: 748EUR (COP 4.00). Typical installation cost: 2,000EUR; Typical equipment cost: 5,150EUR. Calculation based upon electricity cost: 0,1705EUR /kWh



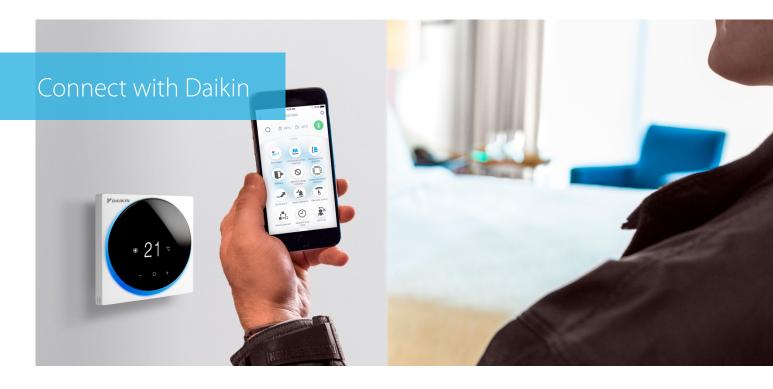


					Sm	all			Medium							
				CYVS100DK80 *BC/*SC	CYVS150DK80 *BC/*SC	CYVS200DK100 *BC/*SC	CYVS250DK140 *BC/*SC	CYVM100DK80 *BC/*SC	CYVM150DK80 *BC/*SC	CYVM200DK100 *BC/*SC	CYVM250DK140 *BC/*SC					
Heating capacity	Speed 3		kW	7.40	9.0	11.6	16.2	9.2	11.0	13.4	19.9					
Power input	Fan only	Nom.	kW	0.23	0.35	0.46	0.58	0.37	0.56	0.75	0.94					
	Heating	Nom.	kW	0.23	0.35	0.46	0.58	0.37	0.56	0.75	0.94					
Delta T	Speed 3		K	19	1	5	16	17	14	13	15					
Casing	Colour			BN: RAL9010 / SN: RAL9006												
Dimensions	Unit	Height F/C/R	mm				270/27	70/270								
		Width F/C/R	mm	1,000/1,000/1,048	1,500/1,500/1,548	2,000/2,000/2,048	2,500/2,500/2,548	1,000/1,000/1,048	1,500/1,500/1,548	2,000/2,000/2,048	2,500/2,500/2,548					
		Depth F/C/R	mm				590/82	21/561								
Required ceiling void	>		mm				42	20								
Door height	Max.		m	2.3 (1) / 2.15 (2) / 2.0 (3)	2.3 (1) / 2.15 (2) / 2.0 (3)	2.3 (1) / 2.15 (2) / 2.0 (3)	2.3 (1) / 2.15 (2) / 2.0 (3)	2.5 (1) / 2.4 (2) / 2.3 (3)	2.5 (1) / 2.4 (2) / 2.3 (3)	2.5 (1) / 2.4 (2) / 2.3 (3)	2.5 (1) / 2.4 (2) / 2.3 (3)					
Door width	Max.		m	1.0	1.5	2.0	2.5	1.0	1.5	2.0	2.5					
Weight	Unit		kg	56	66	83	107	57	73	94	108					
Fan-Air flow rate	Heating	Speed 3	m³/h	1,164	1,746	2,328	2,910	1,605	2,408	3,210	4,013					
Sound pressure level	Heating	Speed 3	dBA	47	49 50 51 50 51 53											
Refrigerant	Type / GWP			R-410A / 2,087.5												
Piping connections	Liquid/OD/Gas/C	D	mm		9.52/16.0		9.52/19.0		9.52/16.0		9.52/19.0					
Required accessories	(should be ordered	l separately)			Daikin w	rired remote co	ontrol (BRC1H5	1(9)W/S/K / BRO	C1E53A/B/C / B	RC1D52)						
Power supply	Voltage		V				23	30								

					La	rge						
				CYVL100DK125*BC/*SC	CYVL150DK200*BC/*SC	CYVL200DK250*BC/*SC	CYVL250DK250*BC/*SC					
Heating capacity	Speed 3		kW	15.6	23.3	29.4	31.1					
Power input	Fan only	Nom.	kW	0.75	1.13	1.50	1.88					
	Heating	Nom.	kW	0.75	1.13	1.50	1.88					
Delta T	Speed 3		K	1	5	14	12					
Casing	Colour				BN: RAL9010	/ SN: RAL9006						
Dimensions	Unit	Height F/C/R	mm		370/3	70/370						
		Width F/C/R	mm	1,000/1,000/1,048	1,500/1,500/1,548	2,000/2,000/2,048	2,500/2,500/2,548					
		Depth F/C/R	mm		774/1,1	05/745						
Required ceiling voice	l >		mm		52	20						
Door height	Max.		m	3.0 (1) / 2.75 (2) / 2.5 (3)	3.0 (1) / 2.75 (2) / 2.5 (3)	3.0 (1) / 2.75 (2) / 2.5 (3)	3.0 (1) / 2.75 (2) / 2.5 (3)					
Door width	Max.		m	1.0	1.5	2.0	2.5					
Weight	Unit		kg	76	100	126	157					
Fan-Air flow rate	Heating	Speed 3	m³/h	3,100	4,650	6,200	7,750					
Sound pressure level	Heating	Speed 3	dBA	53	54	56	57					
Refrigerant	Type / GWP			R-410A / 2,087.5								
Piping connections	Liquid/OD/Gas	s/OD	mm	m 9.52/16.0 9.52/19.0 9.52/22.0								
Required accessories	(should be order	red separately)		Daikin w	vired remote control (BRC1H5	1(9)W/S/K / BRC1E53A/B/C / B	RC1D52)					
Power supply	Voltage		V		2:	30						

<sup>(1)</sup> Favorable conditions: covered shopping mall or revolving door entrance (2) Normal conditions: little direct wind, no opposite open doors, building with ground floor only the conditions of the conditions o

<sup>(3)</sup> Unfavorable conditions: location at a corner or square, multiple floors and/or open stairway



If you are a user or installer it is important you can **interact with our systems** in the easiest way, from **anywhere you are**. For any user our interfaces create **peace of mind** that their system is running in the best possible way.

Depending on the type of user and application Daikin develops controls and cloud services to ensure the best experience.

- > For home owners it means **app control** of their home comfort.
- For hotel owners it means easy and stylish personal control for guests, with an integration in hotel booking software for central control
- For technical managers it means cloud access to all sites, with the possibility to benchmark, optimize performance
- > For installers it means easy transfer of settings during commissioning, remote retrieval of errors and preventive alerts to save time on maintenance or interventions

Our controls enable you to **connect with your customer**, save time, improve your comfort intelligently and reduce energy bills.















## Remote monitoring



# Control Systems









New premium design wired remote control









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## **Control solutions summary**

Daikin offers various control solution adapted to the requirements of even the most demanding commercial application.

- > Basic control solutions for those customers with few requirements and limited budget
- > Integrating control solutions for those customers that would like to integrate Daikin units into their existing BMS system
- Advanced control solutions for those customers that expect Daikin to deliver a mini BMS solution, including advance energy management

Shop		Unit control		Ir	ntegrating con	trol	ol Advanced control					
		21 ×		***	Zemio GR KLIC-DI		Intelligent Controller	India Manager Intelligent Manager				
	BRP069*	BRC1H519W7/ S7/K7	RTD-20	RTD-Net	KLIC-DI	EKMBDXA	DCC601A51	DCM601A51				
	Smartphone control for up to 50 indoor units	1 remote controller for 1 indoor unit (group)	1 gateway for 1 indoor unit (group)		1 gateway for 1 indoor unit	1 gateway for max. 64 indoor unit(s) (groups) & 10 outdoors	1 unit for 32 indoor unit(s) (5)	1 iTM for 64 indoor unit(s) (groups) (1)				
Automatic control of A/C	•	•	•	•	•	•	•	•				
Limit control possibilities for shop staff	•	•	•	•	•	•	•	•				
Create zones within the shop			•				•	•				
Interlock with eg. Alarm, PIR sensor			•				(limited)	•				
Integration into smart home systems	• (7)											
Integrate Daikin units into existing BMS via Modbus				•		•						
Integrate Daikin units into existing BMS via KNX					•							
Integrate Daikin units into existing BMS via HTTP								•				
Monitor energy consumption	• (4)	• (4)					• (2)	•				
Advanced energy management							• (2)	• (6)				
Allows free cooling								•				
Voice control	• (6)											
Integrate Daikin products cross pillars into Daikin BMS								•				
Integrate third party products into Daikin BMS							•	•				
Online control	•						• (2)	• (3)				
Manage multiple sites							• (2)	• (3)				

<sup>(1) 7</sup> iTM plus adapters (DCM601A52) can be added to have 512 indoor groups and 80 outdoor (systems) (2) Via Daikin cloud service (3) Through own IT set-up (not Daikin cloud server) (4) Not available on all indoors (5) Up to 10 DCC601A51 can be combined as a single site on Daikin Cloud Service (6) Only for BRP069C51, connection to Google Assistant and Amazon Alexa; (7) only for BRP069C51, contact your local sales representative for an overview of available services.

Hotel	Unit control	Integratir	rating control Advanced contr								
	Form	1	Zennio sina Nulci di	PMS Interface	Individual of the light of the						
	BRC1H519W7/S7/K7	RTD-HO	KLIC-DI	DCM010A51	DCM601A51						
	1 remote controller for 1 indoor unit (group)	1 gateway for 1 indoor unit (group)	1 gateway for 1 indoor unit	1 interface for up to 2,500 indoor units	1 iTM for 64 indoor unit(s) (groups) (1)						
Hotel guest can control & monitor basic functionalities from his room	•	•	• (3)		•						
Limit control possibilities for hotel guests	•	•	•	•	•						
Interlock with window contact	• (2)	•			•						
Interlock with key-card	• (2)	•			•						
Integrate Daikin units into existing BMS via Modbus		•									
Integrate Daikin units into existing BMS via KNX			•								
Integrate Daikin units into existing BMS via HTTP					•						
Integrate Daikin unit control in hotel booking software				Oracle Opera PMS							
Monitor energy consumption					•						
Advanced energy management					•						
Integrate Daikin products cross pillars into Daikin BMS					•						
Integrate third party products into Daikin BMS					•						
Online control					•						
(1) · 7 iTM plus adapters (DCM601A52) can be added to have 512 indoor groups an	nd 90 outdoor (systems) (3	\\/ia PPD7A51 adaptor (2)	roquiros KNV compatible	o controllor							

Office	Unit control		Advance	d control		
	•21 =			FORM ONE	(本) (本) (本) (本) (本) (本) (本) (本) (本) (本)	Lad Differences Frame
			LonWorks Interface	BACnet Interface	Intelligent Controller	Intelligent Manager
	BRC1H519W7/S7/K7	EKMBDXA	DMS504B51	DMS502A51	DCC601A51	DCM601A51
	1 remote controller for 1 indoor unit (group)	1 gateway for max. 64 indoor unit(s) (groups) & 10 outdoors	1 gateway for 64 indoor unit(s) (groups)	1 gateway for 128 indoor unit(s) (groups), 20 out- doors (2)	1 unit for 32 indoor unit(s) (groups) (5)	1 iTM for 64 indoor unit(s) (groups) (1)
Automatic control of A/C	•	•	•	•	•	•
Centralised control for management		•	•	•	•	•
Local control for office staff	•				• (4)	through Web Remote management
Limit control possibilities for office staff	•	•	•	•	•	•
Integrate Daikin units into existing BMS via Modbus		•				
Integrate Daikin units into existing BMS via HTTP						•
Integrate Daikin units into existing BMS via LonTalk			•			
Integrate Daikin units into existing BMS via BACnet				•		
Energy consumption read out	• (3)					
Monitor energy consumption					• (4)	•
Advanced energy management					• (4)	•
PPD software to distribute used kWh/indoor unit				• (6)		• (7)
Integrate Daikin cross pillar products into Daikin BMS						•
Integrate third party products into Daikin BMS					•	•
Online control					• (4)	•
Manage multiple sites					• (4)	• (5)

(1) 7 iTM plus adapters (DCM601A52) can be added to have 512 indoor groups and 80 outdoor (systems) (2) extension (DAM411B51) needed to have up to 256 indoor unit(s) (groups), 40 outdoors (3) Not available on all indoor units (4) Via Daikin cloud service (5) Through own IT set-up (not Daikin cloud sever) (5) Up to 10 DCC601A51 can be combined as a single site on Daikin Cloud Service (6) via DAM412B51 option (7) via DCM002A51 option

Infrastructure cooling	Unit	Integrating	Advanced
	• 21 =	The state of the s	facility of Manager
	BRC1H519W7/S7/K7	RTD-10	DCM601A51
	1 remote controller for 1 indoor unit (group) (2)	1 gateway for 1 indoor unit (group) Up to 8 gateways can be linked together	1 iTM for 64 indoor unit(s) (groups) (1)
Automatic control of A/C	•	•	•
Back-up operation	•	•	•
Duty rotation	•	•	•
Limit control possibilities in the technical cooling room	•	•	•
If room temperature above max., then show alarm & start standby unit.		•	•
If an error occurs, an alarm will be shown.	•	•	•
If an error occurs, activate an alarm output	Via KRP2/4A option (3)	•	Via WAGO I/O

<sup>(1): 7</sup> iTM plus adapters (DCM601A52) can be added to have 512 indoor groups and 80 outdoor (systems) (2) Infrastructure cooling functions only compatible with indoor units connected to RZQG\*/RZAG\* outdoor units. (3) See option list of indoor unit

## Daikin Online controller



BRP069C51

# Always in control, no matter where you are





The Daikin Online Controller application can control and monitor the status of your system up to 50 split air conditioning units and allows you to: **Monitor:** 

- > The status of your air conditioner system
- > Consult energy consumption graphs (Split only)
  Control:
- > The operation mode, set temperature, fan speed and powerful mode, air direction and filtering (streamer) function (Available functions depending on connected model)
- > Remotely control your system and domestic hot water
- > Zone control: control multiple units at once
- > Voice control via Amazon Alexa or Google Assistant
- Integration in smart home eco systems (contact your local sales representative for connectable systems)

## **Schedule:**

- Schedule the set temperature and operation mode with up to 6 actions per day for 7 days
- > Enable holiday mode
- > View in an intuitive mode
- > Demand control/power limitation (Split only)

## App with intuitive lay-out



Control operation mode, temperature, air purification, fan speed & air direction

## Schedule



Schedule the set temperature, operation mode and fan speed or holiday periods

### Monitor

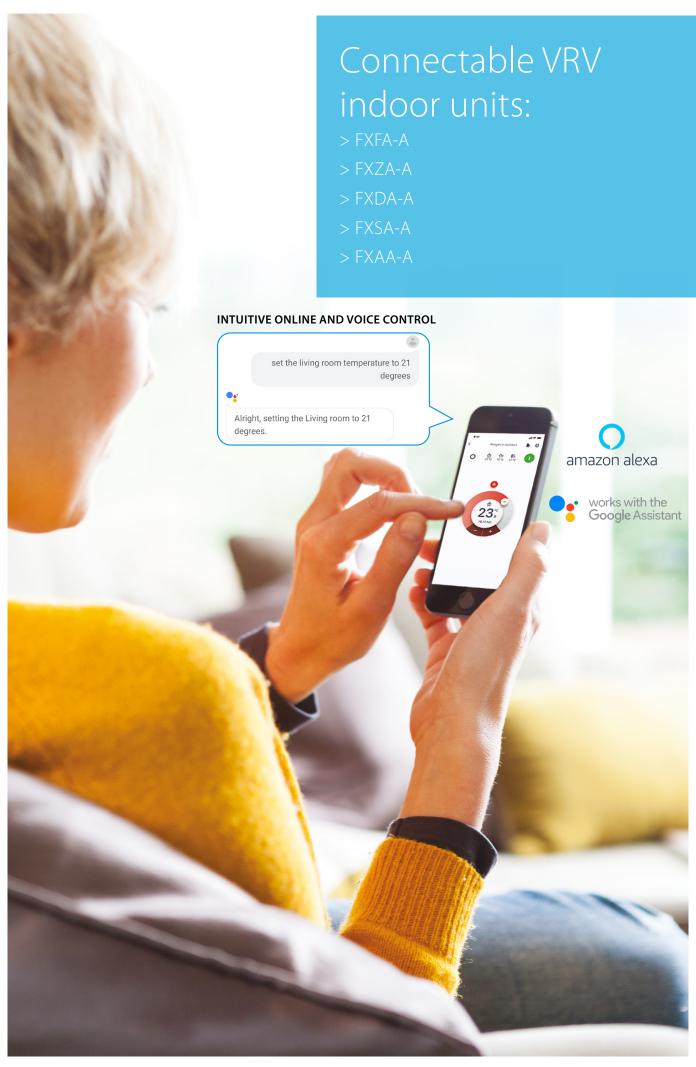


Monitor your energy consumption

## Monitor



Monitor the rooms in your house



Madoka wired remote controller

## Madoka

The beauty of simplicity.







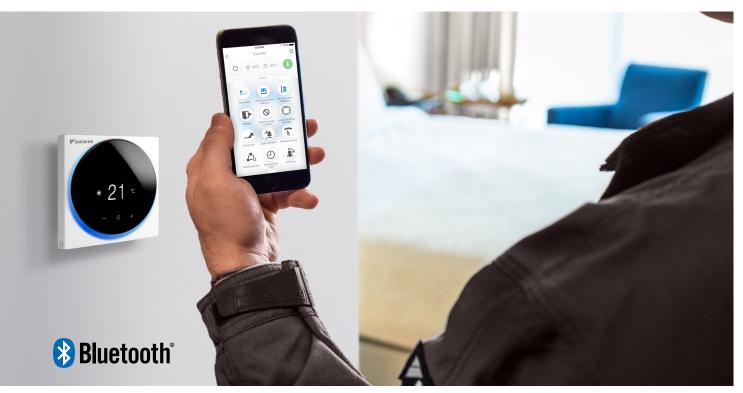
## User-friendly wired remote controller with premium design

Madoka combines refinement and simplicity

- > Sleek and elegant design
- > Intuitive touch-button control
- NEW > Three display options: standard, detailed and new symbolic view
  - > Three colours to match any interior
  - > Compact, measures only 85 x 85 mm
- NEW Advanced settings copy function and commissioning via smartphone







## Madoka Assistant







## Simplifies the advanced settings such as schedule or set point limitation

- ✓ Visual interface simplifies advanced settings such as schedule setting, energy saving activation, setting restrictions, etc.
- NEW Save field settings and schedules on your phone and upload to multiple controllers, saving time and cost
  - ✓ Easy and quick commissioning
  - ✓ Featuring Bluetooth® low energy technology

## Easy setting of schedules



## Advanced user settings



Installer settings



Field settings



## BRC1H519W7 / BRC1H519S7 / BRC1H519K7

## Madoka wired remote controller for Sky Air and VRV



## A complete redesigned controller focussed to enhance user experience

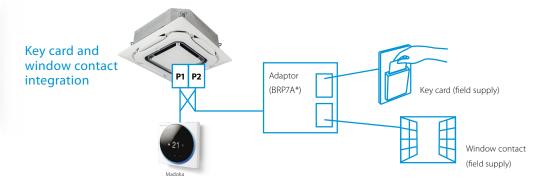
- > Sleek and elegant design
- > Intuitive touch-button control
- > Three display options: standard, detailed and new symbolic view
- > Direct access to basic functions (on/off, set point, mode, target values, fan speed, louvres, filter icon & reset, error & code)
- > Three colours to match any interior
- > Compact, measures only 85 x 85 mm
- > Real time clock with auto update to daylight saving time



## Hotel application features

- > Energy saving through key card, window contact integration and set point limitation (BRP7A\*)
- > Flexible setback function ensures room temperature remains within comfortable limits to ensure quest comfort







## Madoka Assistant: Advanced settings can be easily done via your smartphone

## A range of energy-saving functions that can be selected individually **NEW**

- Temperature range restriction:
   Save on energy by setting the low temperature limit in cooling mode and the high temperature limit in heating mode (1)
- > Setback function
- Adjustable presence detector and floor sensor (available on the Round Flow and Fully Flat Cassettes)
- > Automatic temperature reset
- > Auto off timer

## Kilowatt-hour consumption tracking (2)

The kWh indicator displays indicative power consumption for the last day/month/year.

## Other functions

- NEW > Save field settings and schedules on your phone and upload to multiple controllers, saving time and cost
  - > Up to three independent schedules can be programmed, allowing you to switch easily between them throughout the year (e.g. summer/winter/ mid-season)
  - Menu settings can be individually locked or restricted
  - > The outdoor unit can be set to quiet mode and power consumption limit control by schedule (3)
  - Real-time clock that updates automatically for daylight saving



## Cost-effective solution for infrastructure cooling applications

- > Only in combination with RZAG\* / RZQG\*
- > Duty rotation

After a certain period of time, the operating unit will go into standby and the standby unit will take over, extending the system lifetime. Rotation interval can be set for 6, 12, 24, 72 or 96 hours, as well as weekly.

> Back-up operation: if one unit fails, the other unit will start automatically

(1) Also available in auto cooling/heating changeover mode (2) For Sky Air FBA, FCAG and FCAHG pair combinations only (3) Only available on RZAG\*, RZASG\*, RZQG\*, RZQSG\*

### BRC1E53A/B/C

## User friendly remote control for Sky Air and VRV



Graphical display of indicative electricity consumption (Function available in combination with FBA-A, FCAG and FCAHG)

## A series of energy saving functions that can be individually selected

- > Demand control (1)
- > Temperature range limit
- > Setback function
- Presence & floor sensor connection (available on round flow and fully flat cassette)
- > kWh indication (2)
- > Set temperature auto reset
- > Off timer
- >

## Cost-effective solution for infrastructure cooling applications

Only in combination with Sky Air A-series or Seasonal Smart outdoor unit

### Other functions

- > Up to 3 independent schedules
- > Possibility to individually restrict menu functions
- > Choice of display between symbol or text
- Real time clock with auto update to daylight saving time
- Built-in backup power for clock (up to 48 hours).
   Settings are always kept in case of power loss.
- Supports multiple languages:
   BRC1E53A: English, German, French, Dutch, Spanish,
   Italian, Portuguese
   BRC1E53B: English, Czech, Croatian, Hungarian,
   Romanian, Slovenian, Bulgarian
   BRC1E53C: English, Greek, Russian, Turkish, Polish,
   Slovak, Albanian

(1) Only available on RZAG\*, RZASG\*, RZQSG\*, RZQSG\* I (2) For Sky Air FBA, FCAG and FCAHG pair combinations only

## BRC1D52

## Wired remote control for Sky Air and VRV



BRC1D52

- > Schedule timer: Five day actions can be set
- > Home leave (frost protection): during absence, the indoor temperature can be maintained at a certain level. This function can also switch the unit ON/OFF
- > User friendly HRV function, thanks to the introduction of a button for ventilation mode and fan speed
- > Immediate display of fault location and condition
- > Reduction of maintenance time and costs

## ARC4\*/BRC4\*/BRC7\*

## Infrared remote control





ARC466A1 BRC4\*/BRC7\*

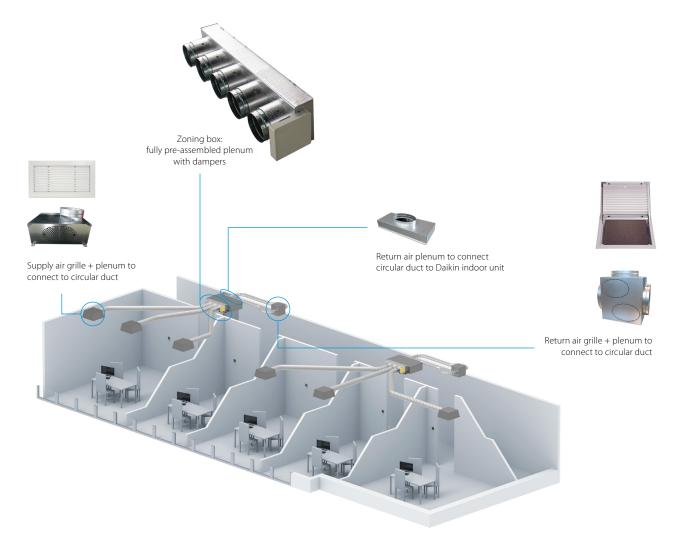
Operation buttons: ON/OFF, timer mode start/stop, timer mode on / off, programme time, temperature setting, air flow direction (1), operating mode, fan speed control, filter sign reset (2), inspection (2)/test indication (2)

Display: Operating mode, battery change, set temperature, air flow direction (1), programmed time, fan speed, inspection/test operation (2)

- 1. Not applicable for FXDQ, FXSQ, FXNQ, FBDQ, FDXM, FBA
- 2. For FX\*\* units only
- 3. For all features of the remote control, refer to the operation manual

## Multi-zone controller

The multi-zoning system is a room-by-room controller. It is fitted with motorised dampers, which immediately adapt using Daikin ducted solutions. This system supports control of up to 8 zones connected to one indoor unit via a centralised thermostat located in the main room and individual thermostats for each of the zones.



## Compatibility

				Sky/Air							<i>YRY</i>																									
				ı	FDX	M-F	9				A-A				Α	DEA	-A			F)	XDQ	-A3								Г	FXSC	)-A				
Numbe motorised damp		Reference	Dimensions H x W x D (mm)	25	35	50	60	35	50	60	71	100	125	140	71	100	125	15	20	25	32	40	50	63	15	20	25	32	40	50	63	71	80	100	125	140
	_	AZEZ6DAIST07XS2	200 - 020 - 454																						•	•	•	•								
	2	AZEZ6DAIST07S2	300 x 930 x 454					•	•																				•	•						
		AZEZ6DAIST07XS3																							•	•	•	•								
	3	AZEZ6DAIST07S3	300 x 930 x 454					•	•									П											•	•						
		AZEZ6DAIST07S4	300 x 930 x 454					•	•																				•	•						
Constant Calling	4	AZEZ6DAIST07M4	300 x 1,140 x 454							•	•				•																•		•			
Standard Ceiling Void		AZEZ6DAIST07M5								•	•				•															П	•		•			
10.0	5	AZEZ6DAIST07L5	300 x 1,425 x 454									•	•	•		•	•																	•	•	
		AZEZ6DAIST07M6								•	•				•			П												П	•		•			
	6	AZEZ6DAIST07L6	300 x 1,638 x 454									•	•	•		•	•	П												П				•	•	
100		AZEZ6DAIST07L7										•	•	•		•	•													П				•	•	
	7	AZEZ6DAIST07XL7	515 x 1,425 x 454													П		П												П						•
		AZEZ6DAIST07L8										•	•	•		•	•																	•	•	
	8	AZEZ6DAIST07XL8	515 x 1,425 x 454															П												П						•
Compact Ceiling	2	AZEZ6DAISL01S2	210 x 720 x 444	•	•											П		•	•	•	•									П	П					
Void	3	AZEZ6DAISL01S3	210 x 720 x 444	•	•													•	•	•	•									П						
	4	AZEZ6DAISL01M4	210 x 930 x 444																			•	•							П						
The state of the s	5	AZEZ6DAISL01L5	210 x 1,140 x 444			•	•																	•												

## Controls

## 3 controller versions are available to choose from: Colour, touch or simplified



AZCE6BLUEFACECB (Wired)

## Blueface - main thermostat

> Intuitive graphical, colour touch screen for controlling multiple zones



AZCE6THINKCB (Wired) AZCE6THINKRB (Wireless)

## Think - zone thermostat

> Graphic touch button with low-energy e-ink screen for controlling single zones



AZCE6LITECB (Wired) AZCE6LITERB (Wireless)

## Lite - zone thermostat

> Simplified thermostat with touch buttons for temperature control





A7X6WSCI OUDDINC (Ethernet) AZX6WSCLOUDDINR (WiFi)

## Webserver for remote control

- > Cloud based remote control of multizoning kit(s)
- > Configruation and control of zones (temperature, operation mode, ...)
- > Access via webportal, or Android/IOS application



A7X6BACNET

## **BACnet gateway**

- > Allows ON/OFF control of each zone
- > Control of temperature for each zone
- > Status indication of operation mode
- > One gateway needed per system

## Grilles and plenums

## Supply air grilles and plenums

RDHV040015BKX

## Wall type supply grille

> With horizontal and vertical adjustable flaps



RRFR050050BTX

## Return air grilles and plenums





RLQV040015BKX

## Ceiling type supply grille

- > With horizontal flaps angled at 15°
- > Vertical flaps can be adjusted manually



## Plenum for return grille

- > To connect 1 up to 4 circular ducts to the return air grille
- > Diameter 250mm



Plenum for supply grille

- > To connect circular ducts to discharge grille
- > Insulated, galvanised steel
- > Diameter 250mm



AZCEZDAPR07\*

## Plenum for return air

- > To connect 1 up to 4 circular ducts to the Daikin concealed ceiling units
- > Diameter 250mm
- > Different sizes (XS, S, M, L, XL) to fit the indoor unit

## Centralised remote controller

Centralised control of the Sky Air and VRV system can be achieved via 3 user friendly compact remote controllers. These controls may be used independently or in combination with:

1 group = several (up to 16) indoor units in combination

1 zone = several groups in combination.

A centralised remote control is ideal for use in tenanted commercial buildings subject to random occupation, enabling indoor units to be classified in groups per tenant (zoning).

The schedule timer programmes the schedule and operation conditions for each tenant and the control can easily be reset according to varying requirements.

## DCS302C51

## Centralised remote control



## Providing individual control of 64 groups (zones) of indoor units.

- > a maximum of 64 groups (128 indoor units, max. 10 outdoor units) can be controlled
- > a maximum of 128 groups (128 indoor units, max. 10 outdoor units) can be controlled via 2 centralised remote controls in separate locations
- > zone control
- > group control
- > malfunction code display
- > maximum wiring length of 1,000m (total: 2,000m)
- > air flow direction and air flow rate of HRV can be controlled
- > expanded timer function

## DST301B51

## Schedule timer



## Enabling 64 groups to be programmed.

- > a maximum of 128 indoor units can be controlled
- > 8 types of weekly schedule
- > a maximum of 48 hours back up power supply
- > a maximum wiring length of 1,000m (total: 2,000m)

## DCS301B51

## Unified ON/OFF control



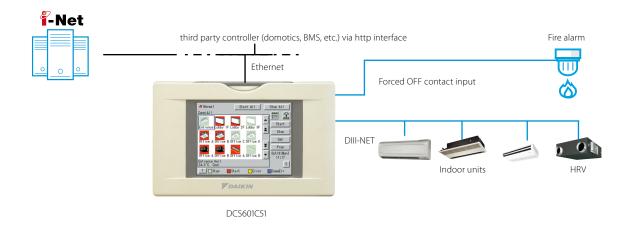
## Providing simultaneous and individual control of 16 groups of indoor units.

- > a maximum of 16 groups (128 indoor units) can be controlled
- > 2 remote controls in separate locations can be used
- > operating status indication (normal operation, alarm)
- > centralised control indication
- > maximum wiring length of 1,000m (total: 2,000m)



### DCS601C51

Detailed & easy monitoring and operation of VRV systems (max. 64 indoor units groups).



## Languages

- > English
- > French
- › German
- > Italian
- > Spanish
- > Dutch
- > Portuguese

## **System layout**

- Up to 64 indoor units can be controlled
- Touch panel (full colour LCD via icon display)

## Control

- Individual control
   (set point, start/stop,
   fan speed)
   (max. 64 groups/indoor units)
- > Set back shedule
- > Enhanced scheduling function (8 schedules, 17 patterns)
- > Flexible grouping in zones
- > Yearly schedule
- > Fire emergency stop control
- > Interlocking control
- Increased HRV monitoring and control function
- Automatic cooling / heating change-over
- > Heating optimization
- > Temperature limit
- Password security: 3 levels (general, administration & service)
- Quick selection and full control
- > Simple navigation

## Monitoring

- Visualisation via Graphical User Interface (GUI)
- Icon colour display change function
- > Indoor units operation mode
- > Indication filter replacement

## **Cost performance**

- > Free cooling function
- > Labour saving
- > Easy installation
- Compact design: limited installation space
- > Overall energy saving

## Open interface

 Communication to any third party controller (domotics, BMS, etc.) is possible via open interface (http option DCS007A51)

## **Connectable to**

- > VRV
- > HRV
- > Sky Air
- > Split (via interface adapter)



DCC601A51

## Advanced

# centralised controller

- Intuitive and user-friendly interface
- Flexible concept for stand alone and multi site applications
- Total solution thanks to integration of 3rd party equipment
- Monitor & control your small commercial building, no matter where you are

## with Cloud connection

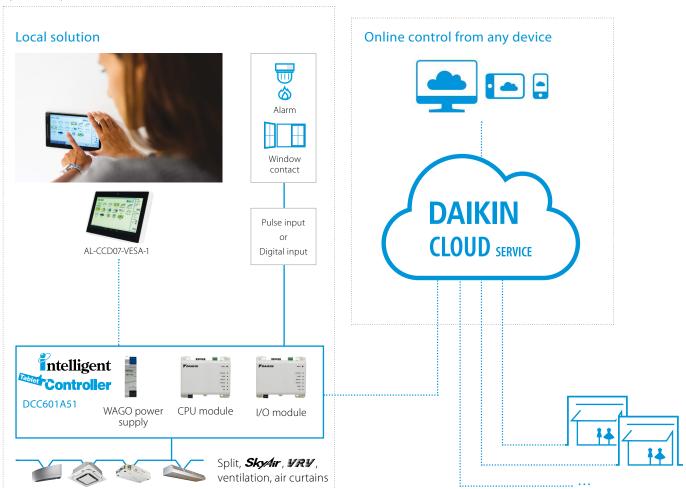
## 2 solutions: Local solution

- > Offline centralised control
- > Stylish optional screen fits any interior

## **Cloud solution**

- > Flexible online control from any device (Laptop, tablet...)
- > Monitor & control one or multiple sites
- > Benchmark the energy consumption of different installations (1)
- > Energy consumption follow-up to comply with local regulations

## System layout



## **Total solution**

- > Total solution thanks to a large integration of Daikin products and 3rd party equipment
- > Connect a wide range of units (Split, Sky Air, VRV, Ventilation, Biddle air curtains)
- > Simply control your entire building centrally
- > Increased customer shopping experience by better management of your shop comfort level

## **Daikin Cloud Services**

- > Control your building no matter where you are
- > Monitor and control multiple sites
- > Installer or technical manager can remotely login to the cloud for first troubleshooting
- Benchmark the energy consumption of different installations (1)
- > Manage & track your energy use

## User friendly touch control

- Stylish Daikin supplied optional screen for local control fits any interior
- > Intuitive and user-friendly interface
- > Full solution with simple control
- > Easy commissioning

## **Flexible**

- > Pulse/digital inputs for 3rd party equipment such as kWh meters, emergency input, window contact, ...
- Modular concept allows your cloud to grow with your business
- > Control up to 32 indoor units per controller and 320 units per site

(1) only available in combination with certain indoor units







## **Functions overview**

		Local solution	Cloud solution
		Local solution	
Languages		Depends on local device	EN, DE, FR, NL, ES, IT, EL, PT, RU, TR, DA, SV, NO, FI, CS, HR, HU, PL, RO, SL, BG, SK
System layout	N° of connectable indoor units	32	32
	Multiple sites control		•
Monitoring & control	Basic control functions (ON/OFF, mode, filter sign, setpoint, fan speed, ventilation mode, room temperature,)	•	•
	Remote control prohibition	•	•
	All devices ON/OFF	•	•
	Zone control		•
	Group control	•	•
	Weekly schedule	•	•
	Yearly schedule		•
	Interlock control	•	•
	Set point limitation		•
	Visualisation of energy use per operation mode		•
Connectable to	DX split, Sky Air, VRV	•	•
Ī	Modular L Smart, VAM, VKM ventilation	•	•
	Air curtains	•	•



## Mini BMS

## with full integration across all product pillars

DCM601A51

## Intelligent Manager

• Price competitive mini BMS

Cross-pillar integration of Daikin products

• Integration of third party equipment

## Download the WAGO selection tool from my.daikin.eu

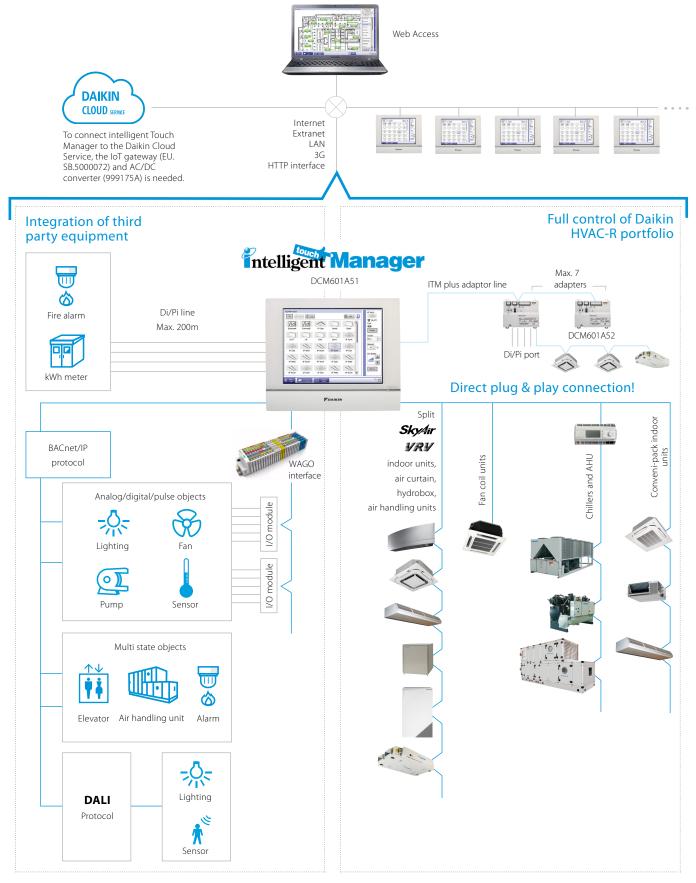
- > Easy selection of WAGO materials
- > Material list creation
- > Time saving
- Includes wiring schemes
- Contains commissioning/preset data for iTN







## System overview



## Intelligent Manager

## User friendliness

- > Intuitive user interface
- Visual lay out view and direct access to indoor unit main funtions
- All functions direct accessible via touch screen or via web interface

## Smart energy management

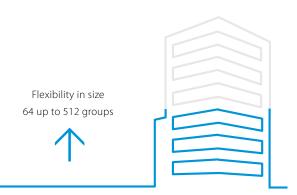
- > Monitoring if energy use is according to plan
- > Helps to detect origins of energy waste
- Powerful schedules guarantee correct operation throughout the year
- Save energy by interlocking A/C operation with other equipment such as heating

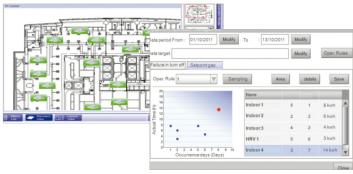
## Flexibility

- > Cross-pillar integration (heating, air conditioning, applied systems, refrigeration, air handling units)
- > BACnet protocol for 3rd party products integration
- > I/O for integration of equipment such as lights, pumps... on WAGO modules
- > Modular concept for small to large applications
- Control up to 512 indoor unit groups via one ITM and combine multiple ITM via web interface

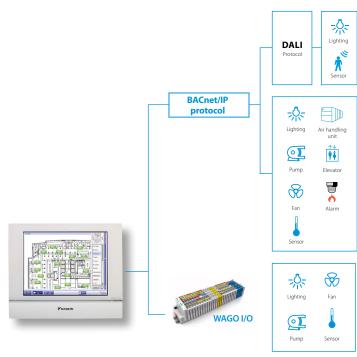
## Easy servicing and commissioning

- Remote refrigerant containment check reducing on site visit
- > Simplified troubleshooting
- Save time on commissioning thanks to the pre-commissioning tool
- > Auto registration of indoor units









# **Functions overview**

#### Languages

- > English
- > French
- → German
- > Italian
- > Spanish
- > Dutch
- > Portuguese

#### Management

- > Web access
- Power Proportional Distribution (option)
- Operational history (malfunctions, ...)
- > Smart energy management
  - monitor if energy use is according to plan
- detect origins of energy waste
- > Setback function
- > Sliding temperature

#### **WAGO Interface**

- Modular integration of 3rd party equipment
- Large variety of input and outputs available. For more details refer to the options list

#### **Open http interface**

 Communication to any third party controller (domotics, BMS, etc.) is possible via http open interface (http option DCM007A51)

# System layout

 Up to 512 unit groups can be controlled (ITM + 7 iTM Plus adapters)

#### Control

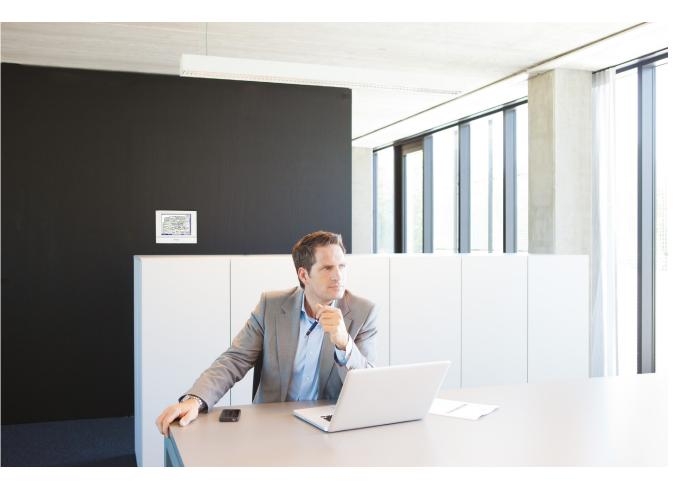
- Individual control (512 groups)
- Schedule setting (Weekly schedule, yearly calender, seasonal schedule)
- > Interlock control
- > Setpoint limitation
- > Temperature limit

#### **DALI** integration

- > Control and monitor the lights
- Easier facility management: receive error signal when light or light controller has a malfunction
- Flexible approach and less wiring needed, compared to classic light scheme
- Easier to make groups and control scenes
- Connection between intelligent Touch Manager and DALI through WAGO BACnet / IP interface

# Connectable to

- DX Split, Sky Air, VRV
- HRV
- Chillers (via MT3-EKCMBACIP controller)
- Daikin AHU (via MT3-EKCMBACIP controller)
- Fan coils
- Daikin Altherma Flex type
- LT and HT hydroboxes
- Biddle Air curtains
- WAGO I/O
- BACnet/IP protocol
- Daikin PMS interface (option DCM010A51)



# Standard protocol interfaces

# Modbus Interface

#### RTD-RA

 Modbus interface for monitoring and control of residential indoor units

#### **RTD-NET**

Modbus interface for monitoring and control of Sky Air, VRV, VAM and VKM

#### RTD-10

- › Advanced integration into BMS of Sky Air, VRV, VAM and VKM through either:
  - Modbus
  - Voltage (0-10V)
  - Resistance
- > Duty/standby function for server rooms

#### RTD-20

- > Advanced control of Sky Air, VRV, VAM/VKM and air curtains
- > Clone or independent zone control
- > Increased comfort with integration of CO<sub>2</sub> sensor for fresh air volume control
- > Save on running costs via
  - pre/post and trade mode
  - set point limitation
  - overall shut down
- PIR sensor for adaptive deadband

# RTD-HO

- Modbus interface for monitoring and control of Sky Air, VRV, VAM and VKM
- > Intelligent hotel room controller

### RTD-W

Modbus interface for monitoring and control of Daikin Altherma Flex Type, VRV HT hydrobox and small inverter chiller



# Overview functions











Main functions	RTD-RA	RTD-NET	RTD-10	RTD-20	RTD-HO	
Dimensions HxWxD mm	80 x 80 x 37,5		100 x100 x 22			
Key card + window contact					R>	
Set back function	₽				R>	
Prohibit or restrict remote control functions (setpoint limitation,)	₽	R	B	₽"	R>	
Modbus (RS485)	₽	R	B	B	R>	
Group control	₽~(1)	R	B	B	R>	
0 - 10 V control			B	B		
Resistance control			B	B		
IT application	B		B			
Heating interlock			B	B		
Output signal (on/defrost, error)			B	₽ ****	R>	
Retail application				B		
Partitioned room control				R		
Air curtain		₽	₽	R		

(1): By combining RTD-RA devices

Control functions	RTD-RA	RTD-NET	RTD-10	RTD-20	RTD-HO
On/Off	M,C	M	M,V,R	M	M*
Set point	M	M	M,V,R	M	M*
Mode	M	M	M,V,R	M	M*
Fan	M	M	M,V,R	M	M*
Louver	M	M	M,V,R	M	M*
HRV Damper control		M	M,V,R	M	
Prohibit/Restrict functions	M	M	M,V,R	M	M*
Forced thermo off	M				

Monitoring functions	RTD-RA	RTD-NET	RTD-10	RTD-20	RTD-HO
On/Off	M	M	M	М	М
Set point	M	M	M	M	M
Mode	M	M	M	M	M
Fan	M	M	M	M	M
Louver	M	M	M	M	M
RC temperature		M	M	M	M
RC mode		M	M	M	M
N° of units		M	M	M	M
Fault	M	M	M	M	M
Fault code	M	M	M	M	M
Return air temperature (Average /Min/Max)	M	M	M	M	M
Filter alarm		M	M	M	M
Termo on	M	M	M	M	M
Defrost		M	M	M	M
Coil In/Out temperature	M	M	M	M	M



Main functions		RTD-W
Dimensions	HxWxD mm	100x100x22
On/off prohibition		₽
Modbus RS485		B
Dry contact control		B
Output signal (operation error)		₽
Space heating / cooling operation		B
Domestic hot water control		B
Smart Grid control		

Control functions	
On/Off Space heating/cooling	M,C
Set point leaving water temperature (heating / cooling)	M,V
Room temperature setpoint	M
Operation mode	M
Domestic Hot water ON	
Domestic Hot Water reheat	M,C
Domestic Hot Water reheat setpoint	
Domestic Hot Water storage	M
Domestic Hot Water Booster setpoint	
Quiet mode	M,C
Veather dependent setpoint enable	M
Veather dependent curve shift	M
ault/pump info relay choice	
Control source prohibition	M

Smart grid mode control	
Prohibit Space heating/cooling	
Prohibit DHW	
Prohibit Electric heaters	
Prohibit All operation	
PV available for storage	
Powerful boost	

On/Off Space heating/cooling	M,C
On/Off Space heating/cooling Set point leaving water temperature (H/C)	M
Room temperature setpoint	M
Operation mode	M
Domestic Hot Water reheat	M
Domestic Hot Water storage	M
Number of units in the group	M
Average leaving water temperature	M
Remocon room temperature	M
ault	M,C
ault code	M
Circulation pump operation	M
Flow rate	
Solar pump operation	
Compressor status	M
Desinfection operation	M
Setback operation	M
Defrost/ start up	M
Hot start	
Booster Heater operation	
B-Way valve status	
Pump running hours accumulated	M
Compressor running hours accumulated	
Actual leaving water temperature	M
Actual return water temperature	M
Actual DHW tank temperature (*)	M
Actual refrigerant temperature	
Actual outdoor temperature	M

- $\begin{array}{ll} M : Modbus \ / \ R : Resistance \ / \ V : Voltage \ / \ C : control \\ ^* : only \ when \ room \ is \ occupied \ / \ ^** : setpoint \ limitation \ / \ (^*) \ if \ available \\ ^{***} : no \ fan \ speed \ control \ on \ the \ CYV \ air \ curtain \ / \ ^{****} : run \ \& \ fault \end{array}$

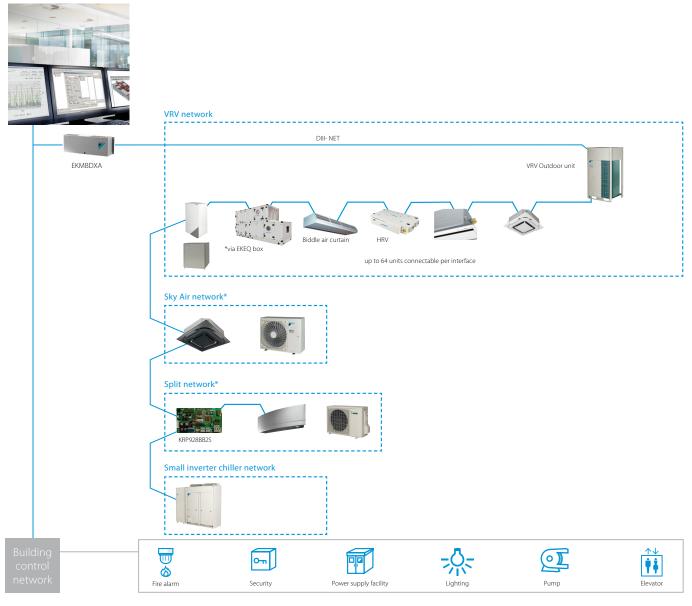
# DIII-net Modbus interface

# **EKMBDXA**

Integrated control system for seamless connection between Split, Sky Air, VRV and small inverter chillers and BMS systems

- > Communication via Modbus RS485 protocol
- > Detailed monitoring and control of the VRV total solution
- > Easy and fast installation via DIII-net protocol
- > As the Daikin DIII-net protocol is being used, only one modbus interface is needed for a group of Daikin systems (up to 10 outdoor units systems).





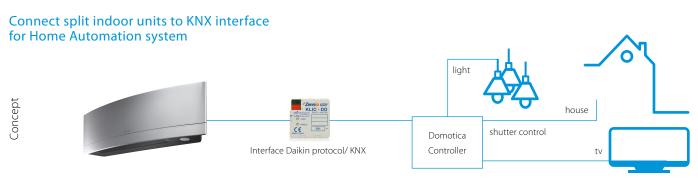
\* Additional centralized controller might be required. For more information contact your local dealer.

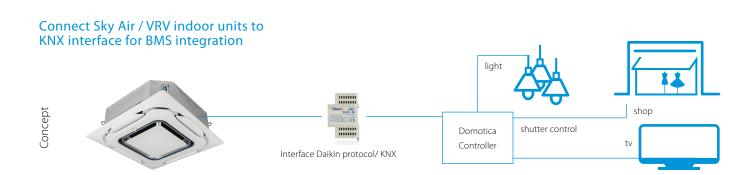
			EKMBDXA7V1		
Maximum number of connectable indoor units			64		
Maximum number of connectable outdoo	or units		10		
Communication	DIII-NET - Remark		DIII-NET (F1F2)		
	Protocol - Remark		2 wire; communication speed: 9600 bps or 19200 bps		
	Protocol - Type		RS485 (modbus)		
	Protocol - Max. Wiring length	m	500		
Dimensions	HeightxWidthxDepth	mm	124x379x87		
Weight	·	kg	2.1		
Ambient temperature - operation	Max.	°C	60		
	Min.	°C	0		
Installation			Indoor installation		
Power supply	Frequency	Hz	50		
	Voltage	V	220-240		

# KNX interface

#### KLIC-DD(3) KLIC-DI

# Integration of Split, Sky Air and VRV in HA/BMS systems





# KNX interface line-up

The integration of Daikin indoor units through the KNX interface allows monitoring and control of several devices, such as lights and shutters, from one central controller. One particularly important feature is the ability to programme a 'scene'

- such as "Home leave" - in which the end-user selects a range of commands to be executed simultaneously once the scenario is selected. For instance in "Home leave", the air conditioner is off, the lights are turned off, the shutters are closed and the alarm is on.

#### KNX interface for KLIC-DD (3) Size 45x45x15mm KLIC-DI Size 90x60x35mm Split Sky Air Basic control On/Off Mode Auto, heat, dry, fan, cool Auto, heat, dry, fan, cool Auto, heat, dry, fan, cool Temperature Fan speed levels 3 or 5 + auto 2 or 3 2 or 3 Stop or movement Swing or fixed positions (5) Swing Stop or movement Advanced functionalities Error management Communication errors, Daikin unit errors Scenes Auto switch off Temperature limitation Initial configuration Master and slave configuration

# PMS Interface

Systems

temperature and A/C

status

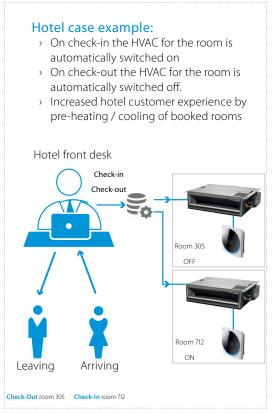
DCM010A51

# Hotel interface connecting Daikin HVAC with Oracle Property Management

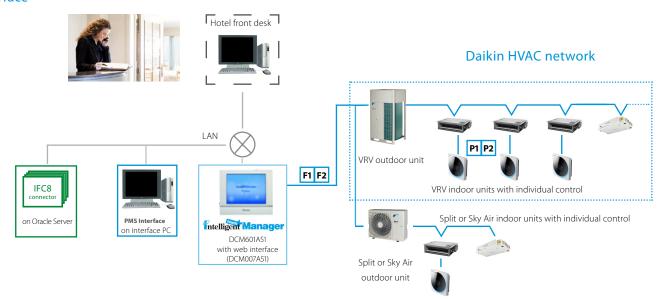


# **Features**

- User-friendly interface for easy front desk support in hotels, conference centers, ...
- Compatible with Oracle Opera PMS (formerly known as Micros Fidelio)
- Automated push of indoor unit settings based on the Opera PMS Check-In and Check-Out commands
- Energy saving thanks to the possibility to limit temperature setpoint
- Up to 5 customized operation profiles based on weather conditions
- Available in 23 languages
- Up to 2,500 units / rooms can be managed



# Simplified configuration of Daikin PMS interface



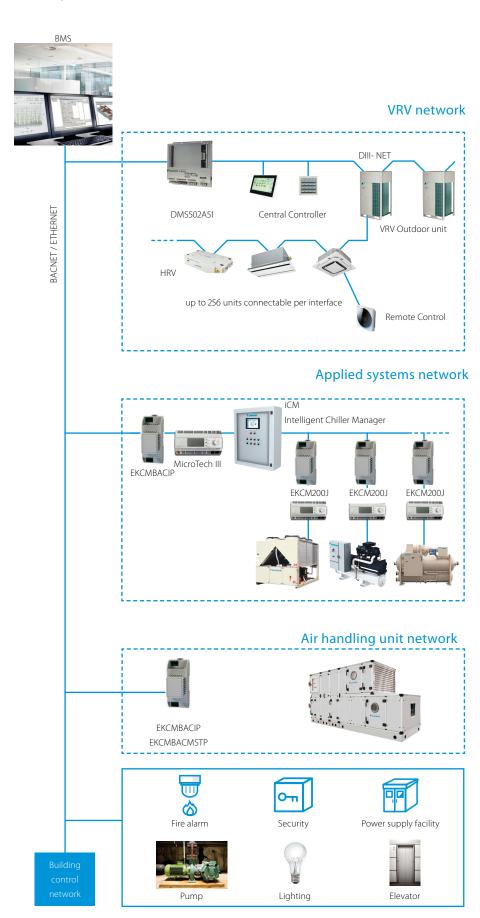
for each type

# **BACnet Interface**

# DMS502A51 / EKACBACMSTP / EKCMBACIP / EKCMBACMSTP

Integrated control system for seamless connection between VRV, applied systems, air handling units and BMS systems

- > Interface for BMS system
- Communication via BACnet protocol (connection via Ethernet)
- > Unlimited site size
- > Easy and fast installation
- PPD data is available on BMS system (only for VRV)

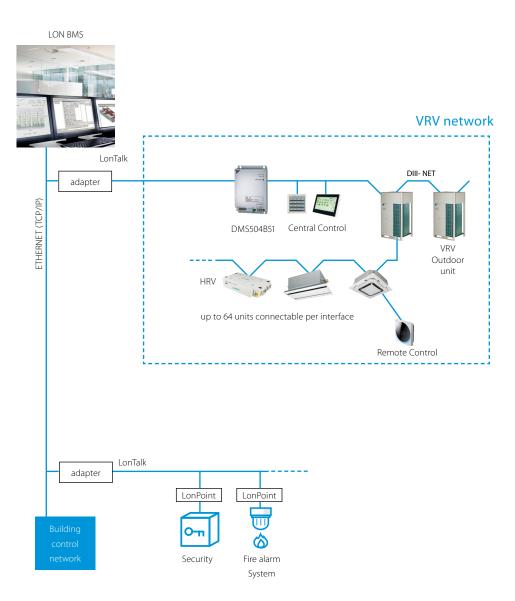


# Standard protocol interfaces

# LonWorks Interface DMS504B51

Open network integration of VRV monitoring and control functions into LonWorks networks

- Interface for Lon connection to LonWorks networks
- Communication via Lon protocol (twisted pair wire)
- > Unlimited sitesize
- > Quick and easy installation



# Daikin Configurator Tool + Software

# **EKPCCAB4**

Simplified commissioning: graphical interface to configure, commission and upload system settings

# Simplified commissioning

The Daikin configurator for Daikin Altherma and VRV is an advanced software solution that allows for easy system configuration and commissioning:

- > Less time is required on the roof configuring the outdoor unit
- Multiple systems at different sites can be managed in exactly the same way, thus offering simplified commissioning for key accounts
- > Initial settings on the outdoor unit can be easily retrieved



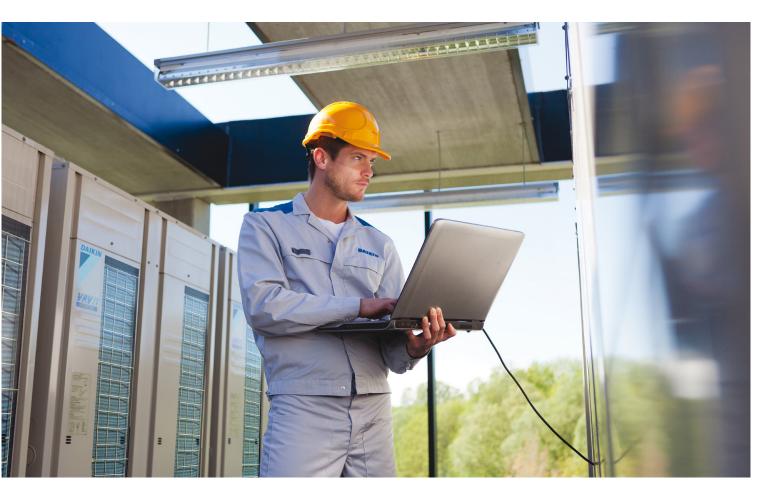




Retrieve initial system settings







# Daikin Cloud Service to achieve optimal operation DAIKIN

Daikin Cloud Service is a cloud-based remote control and monitoring solution for DX systems. Using enhanced control, monitoring and predictive logic, Daikin Cloud Service provides real-time data and support from Daikin experts to help you identify cost-saving opportunities, increase the lifetime of your equipment and reduce the risk of unexpected issues.

Monitor & control\* your system no matter where you are while teaming up with Daikin experts

# Remote control and energy visualisation

# Puts you in the driving seat of your energy management

- ✓ Control and monitor your premises, wherever you are
- ✓ Centralised control and monitoring of all your premises
- ✓ Check errors remotely without having to go on site
- ✓ Visualise energy consumption and reduce energy waste by comparing different premises

#### Multi-site monitoring

DAIKIN
CLOUD SERVICE

Installer/
technical manager

# Remote support and diagnostics

#### Daikin specialist supervision, so you can focus on your core business

- ☑ Early warning of system deviations to maximise system uptime and avoid emergency repairs\*\*
- Service providers have access to operational data so they arrive on site prepared
- ▼ Remote expert assistance in case of errors



# Advice and optimisation

#### Get the best out of your system through expert advice

✓ Periodical analysis and optimisation report by experts

Personalised actions to maximise energy efficiency and comfort

✓ Increased system lifetime as the system runs as it should

Daikin Cloud Service requires a subscription. Contact your local sales representative for more information.

<sup>\*</sup> Remote Control function via Daikin Cloud Service only available for sites with an Intelligent Tablet controller

<sup>\*\*</sup> Only available for VRV systems

Daikin Cloud Service packages	Control and monitoring	Remote support and diagnostics	Advice and optimisation
Remote control, scheduling and interlocking	(DCC601A51 only)	(DCC601A51 only)	✓ (DCC601A51 only)
Energy monitoring	✓	✓	✓
Multi-site benchmark	✓	✓	✓
Alarm history and e-mail notifications**	X	✓	✓
Predictions and e-mail notifications**	X	<b>√</b>	✓
Operational data access	X	✓	✓
Indoor use analysis	X	✓	✓
Outdoor use analysis	X	✓	✓
Remote diagnostic and support from Daikin	X	✓	✓
Periodical analysis and optimisation advice from Daikin	X	X	✓
Can be combined with maintenance programmes: - Technical inspection - Preventive Maintenance Plan - Comprehensive Maintenance Plan	Х	×	<b>√</b>

Packages subject to local availability
Daikin Cloud Service replaces VRV Cloud and i-Net services.

#### Flexible solution

Manage your premises according to your needs, using a local control or remotely via Daikin Cloud Service, or a combination of both.

# Control\*, no matter where you are

Daikin Cloud Service gives you full control of one or more premises wherever you are, using your PC, tablet or smartphone.

# Predictive logic for VRV to prevent breakdowns

The operational data is continuously analysed by Daikin algorithms to predict potential failures and avoid unexpected costs.

# Compatible with:

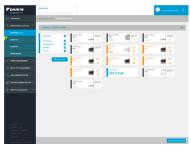
- > Intelligent Tablet Controller (DCC601A51)
- > Intelligent Touch Manager (DCM601A51) + IoT gateway
- > LC8 + IoT gateway



1. Clear dashboard overview



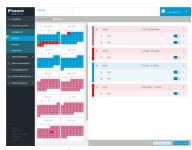
4. Energy management and consumption follow up



2. Monitor and control your system



5. Multi site management



3. Easy setting of schedules

 $<sup>{}^{*}\</sup>operatorname{Remote Control function via Daikin Cloud Service only available for sites with an Intelligent Tablet controller}$ 

<sup>\*\*</sup> Only available for VRV systems

#### Other devices

# Wireless room temperature sensor

# K.RSS

# Flexible and easy installation

- > Accurate temperature measurement thanks to flexible placement of the sensor
- > No need for wiring
- > No need to drill holes
- > Ideal for refurbishment



# Connection diagram Daikin indoor unit PCB (FXSQ example)



# **Specifications**

			Wireless room temperat	ture sensor kit (K.RSS)
			Wireless room temperature receiver	Wireless room temperature sensor
Dimensions		mm	50 x 50	ø 75
Weight		g	40	60
Power supply			16VDC, max. 20 mA	N/A
Battery life			N/A	+/- 3 years
Battery type			N/A	3 Volt Lithium battery
Maximum range		m	10	
Operation range		°C	0~5	50
C	Туре		RF	=
Communication	Frequency	MHz	868	3.3

> Room temperature is sent to the indoor unit every 90 seconds or if the temperature difference is 0.2°C or larger.

# Wired room temperature sensor

# **KRCS\***

- > Accurate temperature measurement, thanks to flexible placement of the sensor
- > specifc model code for each indoor unit can be found in the option tables

# **Specifications**

Dimensions (HxW)	mm	60 x 50
Weight	g	300
Length of branch wiring	m	12



# Adapter PCBs

# Simple solutions for unique requirements Concept and benefits

 Low cost option to satisfy simple control requirements

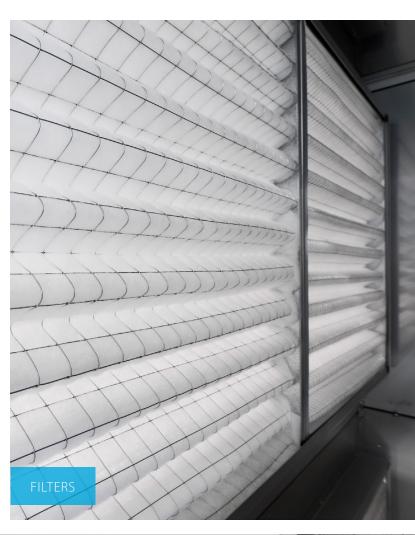
Deployed on	single or multiple uni		Co	nnectable	to:
			Split	Sky Air	VRV
B 12	(E)KRP1B* adapter for wiring	<ul> <li>Facilitates integration of auxiliary heating apparatus, humidifiers, fans, damper</li> <li>Powered by and installed at the indoor unit</li> </ul>		•	•
1	KRP2A*/KRP4A* Wiring adapter for electrical appendices	<ul> <li>Remotely start and stop up to 16 indoor units (1 group) (KRP4A* via P1 P2)</li> <li>Remotely start and stop up to 128 indoor units (64 groups) (KRP2A* via F1 F2)</li> <li>Alarm indication/ fire shut down</li> <li>Remote temperature setpoint adjustment</li> <li>Cannot be used in combination with a central controller</li> </ul>		•	•
	KRP58M3	Low noise and demand control option for RZQ200/250C		•	
100 0 100 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	SB.KRP58M51	Low noise and demand control option for RZQG and RZQSG single phase     Includes mounting plate EKMKSA1		•	
6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	KRP58M51	Low noise and demand control option for RZQG1 and RZQSG 3 phase		•	
	<b>DTA104A*</b> Outdoor Unit External Control Adapter	<ul> <li>Individual or simultaneous control of VRV system operating mode</li> <li>Demand control of individual or multiple systems</li> <li>Low noise option for individual or multiple systems</li> </ul>			•
BRERG	DCS302A52-9 Unification adapter for computerized control	<ul> <li>Enables unified display (operation/malfunction) and unified control (ON/OFF) from BMS system</li> <li>Must be used together with Intelligent Touch Controller or intelligent Touch Manager</li> <li>Cannot be combined with KRP2/4*</li> <li>Can be used for all VRV indoor models</li> </ul>			•
	KRP928* Interface adapter for DIII-net	Allows integration of split units to Daikin central controls	•		
	KRP413* Wiring adapter normal open contact / normal open pulse contact	Switch off auto restart after power failure Indication of operation mode / error Remotely start /stop Remotely change operation mode Remotely change fan speed	•		
	KRP980* Adapter for split units without an S21 port	<ul> <li>Connect a wired remote control</li> <li>Connect to Daikin central controls</li> <li>Allow external contact</li> </ul>	•		

Some adapters require an installation box, refer to the option lists for more information

# Accessories

EKRORO		<ul> <li>External ON/OFF or forced off</li> <li>Example: door or window contact</li> </ul>
EKRORO 3		<ul> <li>External ON/OFF or forced off</li> <li>F1/F2 contact</li> <li>Example: door or window contact</li> </ul>
KRC19-26A	E88258(A)	<ul> <li>Mechanical cool/heat selector</li> <li>Allows switching over an entire system between cooling/heating/fan only</li> <li>Connects to the A/B/C terminals of the unit</li> </ul>
BRP2A81		Cool/heat selector PCB     Required to connect KRC19-26A to a VRV IV outdoor unit







# Options

# & accessories

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**R-3**2

	Options & accessories - #### Outdoor	VRV S-series		V	/RV IV Heat Recover	ry			
		RXYSA-AV1/AY1	REYQ 8~12	REYQ 14~20	REMQ5	2-module systems	3-module systems		
	Multi-module connection kit (obligatory) - Connects multiple modules into a single refrigerant system					BHFQ23P907	BHFQ23P1357		
	<b>Extended level difference kit</b> - Allows outdoor unit to be more than 50m above indoor units		Special order unit						
Kits	Central drain pan kit - Installs onto the underside of the outdoor unit and collects drain water from all bottom plate outlets into a single outlet. In cold areas should be heated by a field-supplied heater to prevent drain water from freezing in the drain pan.								
	<b>Heater tape kit</b> - Optional electrical heater to guarantee trouble-free operation in extremely cold and humid climates (one per outdoor unit needed)	EKBPH250D	EKBPH012T7A	EKBPH020T7A	EKBPH012T7A				
	BHGP26A1 Digital pressure gauge kit – displays current condensing and evaporating pressures in the system as Standard, or expansion valve positions and temperature sensor data in a special service mode. Connect to the outdoor unit PCB, for installation in the outdoor unit.		•	•	•	1 kit per system	1 kit per system		
	External control adapter for outdoor unit - Allows to activate Low Noise Operation and three levels of demand control, limiting power consumption via external dry contacts. Connects to the F1/F2 communication line and requires power supply from an indoor unit, BSVQ box, or VRV-WIII outdoor unit.			ndoor unit: exact ac	A53/61/62 dapter type depend equired. See Options				
Adapters	KRC19-26A  Mechanical cool/heat selector – allows to switch an entire Heat Pump system, or one BS-box of a Heat Recovery system between cooling, heating and fan only. Connects to the A-B-C terminals of the outdoor unit / BS-box.	•							
•	Cool/heat selector PCB (required to connect KRC19-26A)	Standard on unit							
	KKSA26A560* Cool/heat selector PCB mounting plate (only required when cool/heat selector PCB and Heater tape kit are combined)								
	KJB111A Installation box for remote cool/heat selector KRC19-26A	•							
	EKCHSC - Cool/heat selector cable		1						
	EKPCCAB4 VRV configurator	•	•	•	•	•	•		
Others	KKSB26B1* Demand PCB mounting plate. Needed to mount Demand PCB for one or more outdoor units.								
0	DTA109A51 DIII-net expander adapter		•	•	•	•	•		
	BPMKS967A2/A3 Branch provider (for connection of 2/3 RA indoor units)		1						
	EKDK04								
	Drain plug kit					1			

			VRV	/ IV S-series
		RXYSCQ-TV1	RXYSQ4-6TV9	RXYSQ4-6TY9
	Multi-module connection kit (obligatory) - Connects multiple modules into a single refrigerant system			
	Extended level difference kit - Allows outdoor unit to be more than 50m above indoor units			
Kits	Central drain pan kit - Installs onto the underside of the outdoor unit and collects drain water from all bottom plate outlets into a single outlet. In cold areas should be heated by a field-supplied heater to prevent drain water from freezing in the drain pan.			
	Heater tape kit - Optional electrical heater to guarantee trouble-free operation in extremely cold and humid climates (one per outdoor unit needed)			
	BHGP26A1 Digital pressure gauge kit – displays current condensing and evaporating pressures in the system as Standard, or expansion valve positions and temperature sensor data in a special service mode. Connect to the outdoor unit PCB, for installation in the outdoor unit.			
	External control adapter for outdoor unit - Allows to activate Low Noise Operation and three levels of demand control, limiting power consumption via external dry contacts.  Connects to the F1/F2 communication line and requires power supply from an indoor unit, BSVQ box, or VRV-WIII outdoor unit.		DTA104A53/61/62 indoor unit: exact adapter type depend See Options & Accessories of indoor un	
Adapters	KRC19-26A  Mechanical cool/heat selector – allows to switch an entire Heat Pump system, or one BS-box of a Heat Recovery system between cooling, heating and fan only. Connects to the A-B-C terminals of the outdoor unit / BS-box.		•	•
	Cool/heat selector PCB (Required to connect KRC19-26A)		EBRP2B	
	KKSA26A560* Cool/heat selector PCB mounting plate (only required when cool/heat selector PCB and Heater tape kit are combined)			
	KJB111A Installation box for remote cool/heat selector KRC19-26A		•	•
	EKCHSC - Cool/heat selector cable (Required to connect KRC19-26A)			•
	EKPCCAB4 VRV configurator	•	•	•
Others	KKSB26B1* Demand PCB mounting plate. Needed to mount Demand PCB for one or more outdoor units.			
J	DTA109A51 DIII-net expander adapter			
	BPMKS967A2/A3 Branch provider (for connection of 2/3 RA indoor units)	•	•	•
_	EKDK04 Drain plug kit		•	•

	V	RV IV with con	tinuous heatin	ıg		VRV IV without continuous heating				VRV IV C+series			
RYYQ8-12	RYYQ14-20	RYMQ8-12	RYMQ14-20	2-module systems	3-module systems	RXYQ8-12	RXYQ14-20	2-module systems	3-module systems	RXYLQ	RXMLQ	2-module systems	3-module systems
				BHFQ22P1007	BHFQ22P1517			BHFQ22P1007	BHFQ22P1517			BHFQ22P1007	BHFQ22P1517
EKBPH012T7A	ЕКВРН020Т7А	EKBPH012T7A	EKBPH020T7A			EKBPH012T7A	EKBPH020T7A						
•	•	•	•	1 kit per system	1 kit per system	•	•	1 kit per system	1 kit per system				
			Fo			or unit: exact a	A53/61/62 dapter type dep quired. See Opt		f indoor unit. ries of indoor un	its			
•	•	•	•	1 kit per system	1 kit per system	•	•	1 kit per system	1 kit per system	•	•	1 kit per system	1 kit per system
RRD2A81	DDD2A01	DDD2 A 01	DDD2A01	BRP2A81	BRP2A81	DDD2A01	DDD2A01	BRP2A81	BRP2A81	DDD2 A 91	DDD2 A 91	BRP2A81	BRP2A81

•	•	•	•	1 kit per system	1 kit per system	•	•	1 kit per system	1 kit per system	•	•	1 kit per system	1 kit per system
BRP2A81	BRP2A81	BRP2A81	BRP2A81	BRP2A81 (1 kit per system)	BRP2A81 (1 kit per system)	BRP2A81	BRP2A81	BRP2A81 (1 kit per system)	BRP2A81 (1 kit per system)	BRP2A81	BRP2A81	BRP2A81 (1 kit per system)	BRP2A81 (1 kit per system)
	•		•	1 kit per system	1 kit per system		•	1 kit per system	1 kit per system				
•	•	•	•	1 kit per system	1 kit per system	•	•	1 kit per system	1 kit per system	•	•	1 kit per system	1 kit per system
•	•	•	•	•	•	•	•	•	•	•	•	•	•
	•		•				•						
•	•	•	•	•	•	•	•	•	•				
•	•					•	•			•	•		

	VRV IV i-series SB.RKXYQ										
RXYSQ8-12TY1	RDXYQ5	RDXYQ8	RKXYQ5	RKXYQ8							
	EKDPHIRDX	EKDPHIRDX									

# DTA104A53/61/62 For installation into an indoor unit: exact adapter type depends on type of indoor unit. See Options & Accessories of indoor units

	See Options & Accessories of indoor units	See Options & Accessories of indoor units										
		•	•									
			BRP2A81									
		•	•									
•		•	•									
•												



			VRV IV-	Q Heat Pump Replacem	ient VRV			
		RQYQ 140P	RXYQQ8-12	RXYQQ14-20	2-module systems	3-module systems		
	Multi-module connection kit (obligatory) Connects multiple modules into a single refrigerant system				BHFQ22P1007	BHFQ22P1517		
v	Central drain pan kit - Installs onto the underside of the outdoor unit and collects drain water from all bottom plate outlets into a single outlet. In cold areas should be heated by a field-supplied heater to prevent drain water from freezing in the drain pan.	KWC26B160						
Kits	Heater tape kit - Optional electrical heater to guarantee trouble-free operation in extremely cold and humid climates (one per outdoor unit needed)		EKBPH012T7A	EKBPH020T7A				
	BHGP26A1 Digital pressure gauge kit – displays current condensing and evaporating pressures in the system as Standard, or expansion valve positions and temperature sensor data in a special service mode. Connect to the outdoor unit PCB, for installation in the outdoor unit.	•	•	•	1 kit per system	1 kit per system		
Adapters	External control adapter for outdoor unit - Allows to activate Low Noise Operation and three levels of demand control, limiting power consumption via external dry contacts. Connects to the F1/F2 communication line and requires power supply from an indoor unit*, BSVQ box, or VRV-WIII outdoor unit.	DTA104A53/61/62 For installation into an indoor unit: exact adapter type depends on type of indoor unit. For 14-20 HP the demand PCB mouting plate is required. See Options & Accessories of indoor units	For installation into an indoor unit: exact adapter type depends on type of indoor unit. For 14-20 HP the demand PCB mouting plate is required. See Options & Accessories of indoor units					
Ada	KRC19-26A  Mechanical cool/heat selector – allows to switch an entire Heat Pump system, or one BS-box of a Heat Recovery system between cooling, heating and fan only.  Connects to the A-B-C terminals of the outdoor unit / BS-box.	•	•	•	1 kit per system	1 kit per system		
	BRP2A81 Cool/heat selector PCB (required to connect KRC19-26A to VRV IV outdoor)		•	•	1 kit per system	1 kit per system		
	KKSA26A560* - Cool/heat selector PCB mounting plate (only required when cool/heat selector PCB and Heater tape kit are combined)			•	1 kit per system	1 kit per system		
	KJB111A Installation box for remote cool/heat selector KRC19-26A	•	•	•	1 kit per system	1 kit per system		
Others	EKPCCAB4 VRV configurator		•	•	•	•		
Oth	KKSB2B61* Demand PCB mounting plate. Needed to mount Demand PCB for one or more outdoor units.			•				
	DTA109A51 DIII-net expander adapter	•	•	•	•	•		

Re	fnets & branch selector boxes		Refne <sup>e</sup>	t Joints			Refnet Headers
		Capacity index < 200	Capacity index 200 ≤ x < 290	Capacity index 290 ≤ x < 640	Capacity index > 640	Capacity index < 290	Capacity index 290 ≤ x < 640
	Metric-size connections for heat pump systems (2-pipe)	KHRQM22M20T	KHRQM22M29T	KHRQM22M64T	KHRQM22M75T	KHRQM22M29H	KHRQM22M64H
lets	Imperial-size connections for heat recovery pump (2-pipe)	KHRQ22M20T	KHRQ22M29T9	KHRQ22M64T	KHRQ22M75T	KHRQ22M29H	KHRQ22M64H
Refnets	Metric-size connections for heat recovery systems (3-pipe)	KHRQM23M20T	KHRQM23M29T	KHRQM23M64T	KHRQM23M75T	KHRQM23M29H	KHRQM23M64H
	Imperial-size connections for heat recovery systems (3-pipe)	KHRQ23M20T	KHRQ23M29T9	KHRQ23M64T	KHRQ23M75T	KHRQ23M29H	KHRQ23M64H
(BS box) (only overy system)	EKBSVQLNP Sound reduction kit (sound insulation)						
boxes at rec	KHFP26A100C Closed pipe kit						
3ranch selector   ion with VRV hea	KHRP26A1250C Joint kit						
Options for Branch s for connection with	Quiet kit					İ	

	VPV III O Hoot Posov	ery Replacement VRV		VRV-W IV Water-cooled VRV							
	VNV III-Q Heat Necov	ery nepiacement vnv			Heat Pump	application	pplication Heat Recovery appli				
RQEQ 140~212	2-module systems	3-module systems	4-module systems	RWEYQ8-14	2-module systems 3-module systems		2-module systems	3-module systems			
	BHFP26P36C	BHFP26P63C	BHFP26P84C		BHFQ22P1007 / BHFQ22P1517 (1)	BHFQ22P1517 (1)	BHFQ23P907 / BHFQ23P1357 (1)	BHFQ23P1357 (1)			
•	1 kit per system	1 kit per system	1 kit per system								

DTA104A53/61/62
Installation in the RWEYQ outdoor unit possible. For installation in indoor units, use appropriate type (DTA104A53/61/62) for particular indoor unit. See Options & Accessories of indoor units

				(for H/P only)	1 kit per system	1 kit per system		
				(for H/P only)	1 kit per system	1 kit per system		
				(for H/P only)	1 kit per system	1 kit per system		
•	•	•	•	•	•	•	•	•
•	•	•	•	•	•	•	•	•

			Heat Recovery	Branch Selector B	oxes (BS-Boxes)		
Capacity index	1-port	4-port	6-port	8-port	10-port	12-port	16-port
> 640	BS1Q-A	BS4Q14AV1B	BS6Q14AV1B	BS8Q14AV1B	BS10Q14AV1B	BS12Q14AV1B	BS16Q14AV1B
KHRQM22M75H							
KHRQ22M75H							
KHRQM23M75H							
KHRQ23M75H							
	•						
		•	•	•	•	•	•
		•	•	•	•	•	•
		KDDN26A4	KDDN26A8	KDDN26A8	KDDN26A12	KDDN26A12	KDDN26A16

			<b>R-32</b> R-410A	<b>R-3</b> 2 <b>R-410A</b>			
		. <i> </i>			Ceiling mo	unted cassette un	its
Opt	ion	s & accessories - <b>IRI</b> indoor	Round flow (800x800)	4-way (600x600)		2-way blow	
			FXFA-A / FXFQ-B	FXZA-A / FXZQ-A	FXCQ 20~40A	FXCQ 50~63A	FXCQ 80 ~125A
-	SI a	Decoration panel (obligatory for cassette units, optional for others, rear panel for FXLQ)	Standard panels: BYCQ140E (white) / BYCQ140EW (full white)(3) / BYCQ140EB (black) Auto cleaning (5)6: BYCQ140EGF (white) / BYCQ140EGF (black) Designer panels: BYCQ140EP (white) / BYCQ140EPB (black)	BYFQ60B3W1 (standard panel) (20)	ВҮВСQ40Н	ВҮВСQ63Н	BYBCQ125H
	raneis	Panel spacer for reducing required installation height		KDBQ44B60 (Standard panel)			
		Sealing kit for 3- or 2-directional air discharge	KDBHQ56B140 (7)	BDBHQ44C60 (white & grey panel)			
		Sensor kit	BRYQ140B (white panels) BRYQ140BB (black panels) BRYQ140C (white designer panel) BRYQ140CB (black designer panel)	BRYQ60A3S (grey)			
	Individual control systems	Infrared remote control (incl. receiver)	BRC7FA532F (white panels) BRC7FA532FB (black panels) BRC7FB532F (white designer panel) BRC7FB532FB (black designer panel)	BRC7F530W (9) (10) (white panel) BRC7F530S (9) (10) (grey panel) BRC7EB530W (9) (10) (standard panel)	BRC7C52	BRC7C52	BRC7C52
•		BRP069C51 - Online controller	•(R-32 model only)	•(R-32 model only)			
-	alvianai	Madoka BRC1H519W7 (White) / BRC1H519S7 (Silver) / BRC1H519K7 (Black) User-friendly wired remote controller with premium design BRC1E53A/B/C - Wired remote control with full-text interface and	R-410A model: BRC1H519W7/S7/K7 R-32 model: BRC1H52W/S/K	R-410A model: BRC1H519W7/S7/K7 R-32 model: BRC1H52W/S/K	•	•	•
	=	back-light	•(18)	•(18)	•	•	•
		BRC1D52 (4) - Standard wired remote control with weekly timer	•(15)(18)	•(18)	•	•	•
-		DCC601A51 - intelligent Tablet Controller	•	•	•	•	•
contr	S	DCS601C51 (12) - intelligent Touch Controller	•	•	•	•	•
İsed	systems	DCS302C51 (12) - Central remote controller	•	•	•	•	•
Centralised control	S.	DCS301B51 (12) (13) - Unified ON/OFF controller	•	•	•	•	•
ŭ		DST301B51 (12) - Schedule timer	•	•	•	•	•
	-	RTD-NET - Modbus interface for monitoring and control	•	•	•	•	•
dard	contr	RTD-10 - Modbus interface for infrastructure cooling	•	•	•	•	•
Stan	dual	RTD-20 - Modbus interface for retail	•	•	•	•	•
em & ces	for individual control	RTD-HO - Modbus interface for hotel	•	•	•	•	•
Systo terfa	fori	KLIC-DI - KNX Interface	•		•		
Building Management System & Standard protocol interfaces		DCM601A51 - intelligent Touch Manager	•	•	•		•
nage	ntrol	EKMBDXA - Modbus interface	•	•	•		
g Mai	for central contr	DCM010A51 - Daikin PMS interface	•		•		
igi	entr	DMS502A51 - BACnet Interface	•	•	•	•	
ma B	for	DMS504B51 - LonWorks Interface			_	-	•
		Replacement long life filter, non-woven type	KAFP551K160	KAFQ441BA60	KAFP531B50	KAFP531B80	KAFP531B160
í	FIITE	Auto cleaning filter	see decoration panel				
Wiring and	sensors	KRCS - External wired temperature sensor	KRCS01-7B R-410A: K.RSS	R-410A model: KRCS01-4 R-32 model: KRCS01-8B R-410A: K.RSS	KRCS01-4	KRCS01-4	KRCS01-4
Wirin	sen	K.RSS - External wireless temperature sensor	R-32: SB.K.RSS_RFC (EKEWTSC-2 + K.RSS)	R-32: SB.K.RSS_FDA (EKEWTSC-1 + K.RSS)	•	•	•
		Adapter with 2 output signals (Compressor / Error, Fan output) Adapter with 4 output signals	KRP1BA58 (2)(7)  EKRP1C12 (2)(7)	R-410A model: KRP1B57 R-32 model: ERP02A50 (2) R-410A model: EKRP1B2	EKRP1B2	EKRP1B2	EKRP1B2
		(Compressor / Error, Fan, Aux. heater, Humidifier output) Adapter for centralised external monitoring/control via dry contacts	KRP4A53 (2)(7)	R-32 model: EKRP1C14 (2) KRP4A53 (2)	KRP4A51 (2)	KRP4A51 (2)	KRP4A51 (2)
	٤	and setpoint control via 0-140 $\Omega$ Adapter for external central monitoring/control	100 (2)(7)	KRP2A52	KRP2A51 (2)	KRP2A51 (2)	KRP2A51 (2)
	Adapters	(controls 1 entire system)  Adapter for keycard and/or window contact connection (2)(11)	BRP7A53	BRP7A53	BRP7A51	BRP7A51	BRP7A51
-	¥	Adapter for multi-tenant applications (24VAC PCB power supply interface)	DTA114A61 (R-410A model only)	DTA114A61 (R-410A model only)			
		External control adapter for outdoor unit (installation on indoor unit) Installation box / Mounting plate for adapter PCBs	KRP1H98A (7)	KRP1BB101	DTA104A61	DTA104A61	DTA104A61
		(For units where there is no space in the switchbox)  Wiring kit for Remote ON/OFF or Forced OFF	KRP1BC101 Standard	KRP1BC101 Standard	KRP1C96 (16) (17)	KRP1C96 (16) (17)	KRP1C96 (16) (17)
		Relay PCB for output signal of refrigerant sensor	R-32 model only: ERP01A51	R-32 model only: ERP01A50 (2)	Standard	Standard	Standard
		Drain pump kit  Multi zoning kit (for detailed model code overview refer to	Standard	Standard	Standard	Standard	Standard
	tners	multizoning argue card in this catalogue)  Fresh air intake kit (direct installation type)	KDDP55C160-1 +	KDDO44XA60			
•	=	rresn an midke kil luneci mstanduon type)		NDDU44XA0U			

KDDP55C160-1 + KDDP55D160-2 (7)(8)

Fresh air intake kit (direct installation type)

Air discharge adapter for round duct

Filter chamber for bottom suction

KDDFP53B50

KDDFP53B80

KDDFP53B160

KDDQ44XA60

Others

<sup>(1)</sup> pump station is necessary for this option
(2) Installation box is necessary for these adapters
(3) The BYCQ140EW has white insulation. Be informed that formation of dirt on white insulation is visibly stronger and that it is consequently not advised to install the BYCQ140EW decoration panel in environments exposed to concentrations of dirt"
(4) Not recommended because of the limitation of the functions

<sup>(5)</sup> To be able to control the BYCQ140EGF(B) the controller BRC1E or BRC1H\* is needed
(6) The BYCQ140EGF(B) is not compatible with Multi and Split Non-Inverter Outdoor units
(7) Option not available in combination with BYCQ140EGF(B)
(8) Both parts of the fresh air intake are needed for each unit

<sup>(9)</sup> Cannot be combined with sensor kit
(10) Independently controllable flaps function not available

			Camaa		4i4a\		
Corner (1-	way blow)	Slim	Conce	aled ceiling units (duc	t units) im ESP		
	•		FXSA15-32A /	FXSA40-50A /	FXSA63-80A /	FXSA100-125A /	FXSA140A/
FXKQ 25~40MA	FXKQ 63MA	FXDA-A / FXDQ-A3	FXSQ15-32A	FXSQ40-50A	FXSQ63-80A	FXSQ100-125A	FXSQ140A
BYK45F	вүк71ғ						
BRC4C61	BRC4C61	BRC4C65	BRC4C65	BRC4C65	BRC4C65	BRC4C65	BRC4C65
		•(R-32 model only)					
		R-410A model: BRC1H519W7/ S7/K7					
•	•		R-32 model: BRC1H52W/S/K				
•	•	•(18)	<b>•</b> (18)	•(18)	•(18)	•(18)	<b>•</b> (18)
•	•	•(18)	•(18)	•(18)	•(18)	•(18)	•(18)
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•	•	•	•	•	•	•	•
•		15-32: BAE20A62 40-50: BAE20A82 63: BAE20A102					•
KRCS01-1	KRCS01-1	R-410A model: KRCS01-4 R-32 model: KRCS01-8B	KRCS01-4	KRCS01-4	KRCS01-4	KRCS01-4	KRCS01-4
•	•	R-410A: K.RSS R-32: SB.K.RSS_FDA (EKEWTSC-1 + K.RSS)	R-410A: K.RSS R-32: SB.K.RSS_RFC (EKEWTSC-2 + K.RSS)	R-410A: K.RSS R-32: SB.K.RSS_RFC (EKEWTSC-2 + K.RSS)	R-410A: K.RSS R-32: SB.K.RSS_RFC (EKEWTSC-2 + K.RSS)	R-410A: K.RSS R-32: SB.K.RSS_RFC (EKEWTSC-2 + K.RSS)	R-410A: K.RSS R-32: SB.K.RSS_RFC (EKEWTSC-2 + K.RSS)
, , , , , , , , , , , , , , , , , , ,	WDF ::	R-410A model: KRP1B56	R-410A model: EKRP1B2(2)				
KRP1B61	KRP1B61	R-32 model: ERP02A50	R-32 model: EKRP1C14				
KRP4A51	KRP4A51	KRP4A54-9	KRP4A52(2)	KRP4A52(2)	KRP4A52(2)	KRP4A52(2)	KRP4A52(2)
KRP2A51	KRP2A51	KRP2A53	KRP2A51(2)	KRP2A51(2)	KRP2A51(2)	KRP2A51(2)	KRP2A51(2)
BRP7A51  DTA104A61	BRP7A51  DTA104A61	BRP7A54 DTA114A61 (R-410A model only) DTA104A53	BRP7A51 DTA114A61 (R-410A model only) DTA104A61	BRP7A51 DTA114A61 (R-410A model only) DTA104A61	BRP7A51 DTA114A61 (R-410A model only) DTA104A61	BRP7A51 DTA114A61 (R-410A model only) DTA104A61	BRP7A51 DTA114A61 (R-410A model only) DTA104A61
		KRP1BB101	KRP1BB101/ KRP1BC101	KRP1BB101/ KRP1BC101	KRP1BB101/ KRP1BC101	KRP1BB101/ KRP1BC101	KRP1BB101/ KRP1BC101
Standard	Standard	R-32 model only: FRP01451	Standard R-32 model only: ERP01A50	Standard	Standard	Standard	Standard
Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
		(R-410A only)	(R-410A only)	(R-410A only)	(R-410A only)	<sub>。</sub> (R-410A only)	(R-410A only)
			KDAP25A36A	KDAP25A56A	KDAP25A71A	KDAP25A140A	

<sup>(11)</sup> Only possible in combination with BRC1H\* / BRC1E\*
(12) When fixing box is required, use KJB212A, KJB311A or KJB411A depending on the size of the controller
(13) Option KEK26-1A (Noise filter) is required when installing DCS301B51
(14) Wire harnass EKEWTSC is necessary
(15) The active airflow circulation function is not available for this controller.
(16) Up to 2 adaptor PCBs can be installed per installation box

<sup>(17)</sup> Only one installation box can be installed per indoor unit
(18) VRV R-32 indoor units cannot be connected to this controller
(19) The BYFQ60C4\* R-32 panels can be connected to R-410A indoor units with wire harness EKRS22
(20) Wire harness EKRS23 is necessary

		Conceal	ed ceiling units (d	uct units)		Ceiling suspe	nded units
		High	h ESP	High ESP		1-way blow	
		FXMQ 50~80	FXMQ 100~125	FXMQ 200~250	FXHQ 32A	FXHQ 63A	FXHQ 71~100A
	Decoration panel						
<u>s</u>	(obligatory for cassette units, optional for others, rear panel for FXLQ)						
Panels	Panel spacer for reducing required installation height						
	Sealing kit for 3- or 2-directional air discharge						
	Sensor kit						
<u> </u>	Infrared remote control including receiver	BRC4C65	BRC4C65	BRC4C65	BRC7GA53-9	BRC7GA53-9	BRC7GA53-9
Individual control systems	Madoka BRC1H519W(7) (White) / BRC1H519S(7) (Silver) / BRC1H519K(7) (Black) User-friendly wired remote controller with premium design	•	•	•	•	•	•
dividu	BRC1E53A/B/C - Wired remote control with full-text interface and back-light	•	•	•	•	•	•
	BRC1D52 (4) - Standard wired remote control with weekly timer	•	•	•	•	•	•
<u>S</u>	DCC601A51 - Intelligent Tablet Controller	•	•	•	•	•	•
cont	DCS601C51 (12) - intelligent Touch Controller	•	•	•	•	•	•
sed	DCS302C51 (12) - Central remote control	•	•	•	•	•	•
Centralised control systems	DCS301B51 (12) (13) - Unified ON/OFF control	•	•	•	•	•	•
	DST301B51 (12) - Schedule timer	•	•	•	•	•	•
t p a	DCM601A51 - Intelligent Touch Manager	•	•	•	•	•	•
Building management system + standard protocol interface	EKMBDXA - DIII-net modbus interface	•	•	•	•	•	•
nana + sta ol int	KLIC-DI - KNX interface	•	•	•	•	•	•
ding ı stem otoc	DMS502A51 - BACnet interface	•	•	•	•	•	•
異なる	DMS504B51 - LowWorks interface	•	•	•	•	•	•
	Replacement long life filter, non-woven type			KAF372M280 (18)	KAFP501A56	KAFP501A80	KAFP501A160
Filters	Auto cleaning filter						
Wiring and sensors	KRCS - External wired temperature sensor	KRCS01-4	KRCS01-4	KRCS01-1	KRCS01-4	KRCS01-4	KRCS01-4
Wiri	K.RSS - External wireless temperature sensor	•	•	•	•	•	•
	Adapter with 2 output signals (Compressor / Error, Fan output)				KRP1B54	KRP1B54	KRP1B54
	Adapter with 4 output signals (Compressor / Error, Fan, Aux. heater, Humidifier output)	EKRP1B2	EKRP1B2	KRP1B61			
	Adapter for centralised external monitoring/control via dry contacts and setpoint control via 0-140 $\Omega$	KRP4A51	KRP4A51	KRP4A51	KRP4A52 (2)	KRP4A52 (2)	KRP4A52 (2)
Adapters	Adapter for external central monitoring/control (controls 1 entire system)	KRP2A51	KRP2A51	KRP2A51	KRP2A62 (2)	KRP2A62 (2)	KRP2A62 (2)
¥	Adapter for keycard and/or window contact connection (2)(11)	BRP7A51	BRP7A51	BRP7A51	BRP7A52	BRP7A52	BRP7A52
	Adapter for multi-tenant applications (24VAC PCB power supply interface)	DTA114A61	DTA114A61				
	External control adapter for outdoor unit (installation on indoor unit)	DTA104A61	DTA104A61	DTA104A61	DTA104A62	DTA104A62	DTA104A62
	Installation box / Mounting plate for adapter PCBs (For units where there is no space in the switchbox)	KRP4A96	KRP4A96		KRP1D93A	KRP1D93A	KRP1D93A
	Wiring kit for Remote ON/OFF or Forced OFF	Standard	Standard	Standard	EKRORO4	EKRORO4	EKRORO4
	Drain pump kit	Standard	Standard	KDU30M250	KDU50P60	KDU50P140	KDU50P140
Others	Multi zoning kit (for detailed model code overview refer to multizoning argue card in this catalogue)						
흄	Fresh air intake kit (direct installation type)				KDDQ50A140	KDDQ50A140	KDDQ50A140
	Air discharge adapter for round duct	KDAJ25K71	KDAJ25K140				W.FR-1144
	Filter chamber for bottom suction				KHFP5M35	KHFP5N63	KHFP5N160



- (1) pump station is necessary for this option (2) Installation box is necessary for these adapters
- (3) The BYCQI40EW has white insulation. Be informed that formation of dirt on white insulation is visibly stronger and that it is consequently not advised to install the BYCQI40E decoration panel in environments exposed to concentrations of dirt"

- (4) Not recommended because of the limitation of the functions
  (5) To be able to control the BYCQ140EGF(B) the controller BRC1E is needed
  (6) The BYCQ140EGF(B) is not compatible with Multi and Split Non-Inverter Outdoor units
- (7) Option not available in combination with BYCQ140EGF(B) (8) Both parts of the fresh air intake are needed for each unit
- (9) Cannot be combined with sensor kit (10) Independently controllable flaps function not available
- (10) Independently Controllable haps function flot available
  (11) Only possible in combination with BRC1H\* / BRC1E\*
  (12) When fixing box is required, use KJB212A, KJB311A or KJB411A depending on the size of the controller
  (13) Option KEK26-1A (Noise filter) is required when installing DCS301B51
  (14) Wire harnass EKEWTSC is necessary
  (15) The active airflow circulation function is not available for this controller.

- (16) Up to 2 adaptor PCBs can be installed per installation box (17) Only one installation box can be installed per indoor unit (18) Filter chamber KDJ3705L280 is necessary for this option

	Wall mounted units		Floor star	Floor standing units				
4-way blow		Concealed		Free-standing				
FXUQ-A	FXAQ-A	FXNQ-A	FXLQ 20~25	FXLQ 32~40	FXLQ 50~63			
			EKRDP25A	EKRDP40A	EKRDP63A			
HP49B140 + KDBTP49B140								
	DDC7FAC20	DDC4C65	DDCAGGE	PDC4CCF	DDC4CCE			
BRC7C58	BRC7EA628	BRC4C65	BRC4C65	BRC4C65	BRC4C65			
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KAFP551K160								
KRCS01-4	KRCS01-1B	KRSC01-4	KRCS01-1	KRCS01-1	KRCS01-1			
•	• (14)	•	•	•	•			
	KRP1B56	KRP1B56	KRP1B61	KRP1B61	KRP1B61			
KRP4A53 (2)	KRP4AA51 (2)	KRP4A54-9	KRP4A51	KRP4A51	KRP4A51			
	KRP2A51 / KRP2A61(2)	KRP2A53	KRP2A51	KRP2A51	KRP2A51			
BRP7A53		BRP7A51	BRP7A51	BRP7A51	BRP7A51			
	DTA114A61	DTA114A61	EKMTAC	EKMTAC	EKMTAC			
	DTA104A51 / DTA104A61							
KRP1B97	KRP4AA93 (16)(17)							
EKRORO5	Standard	Standard	Standard	Standard	Standard			
	K-KDU572EVE							
	K-KD03/2LVL							

	HXY080-125A8	HXHD125-200A8
Drain pan	EKHBDPCA2	-
Digital I/O PCB	EKRP1HBAA	-
Demand PCB - Required to connect room thermostat	EKRP1AHTA	-
Remote user interface (remocon) - Same controller as supplied with cascade unit		
can be mounted parallel or on other location. If 2 controllers are installed, the	EKRUAHTB	-
installer needs to select 1 master & 1 slave		
Back-up heater	EKBUHAA6(W1/V3)	-
Wired room thermostat - Requires demand PCB EKRP1AHTA	EKRTWA	-
Wireless room thermostat - Requires demand PCB EKRP1AHTA	EKRTR1	-
Remote sensor for room thermostat - Requires demand PCB EKRP1AHTA	EKRTETS	-
Domestic hot water tank - standard		EKHTS200AC
(stacked on top of hydrobox)	-	EKHTS260AC
Domestic hot water tank - with possibility for solar connection	-	EKHWP500B
Solar collector (1)	-	EKSV26P (vertical) EKSH26P (horizontal)
Pump station	-	EKSRPS

		Heat Red	covery Ventilat	ion - Modular	L (Smart)			
						VAM	VAM	VAM
		ALB02LBS/RBS	ALB03LBS/RBS	ALB04,05LBS/ RBS	ALB06,07LBS/ RBS	VAM 150FC9	VAM 250FC9	VAM 350J
s	BRC301B61	•	•	•	•	•	•	•
sten	VAM wired remote control  Madoka							
ontrol sy	BRC1H519W7 (White) / BRC1H519S7 (Silver) / BRC1H519K7 (Black) User-friendly wired remote controller with premium design	•	•	•	•	•	•	•
Individual control systems	BRC1E53A/B/C Wired remote control with full-text interface and back-light	•	•	•	•	•	•	•
<u>Ĕ</u>	BRC1D52 Standard wired remote control with weekly timer	•	•	•	•	•	•	•
_	DCC601A51 intelligent Tablet Controller	•	•	•	•	•	•	•
ontro	DCS601C51 intelligent Touch Controller	•	•	•	•	•	•	•
sed co	DCS302C51 Central remote control	•	•	•	•	•	•	•
Centralised control systems	DCS301B51	•		•	•	•	•	•
ē	Unified ON/OFF control DST301B51	•	•	•	•	•	•	•
70 40	Schedule timer DCM601A51							
Building Management System & Standard protocol interface	intelligent Touch Manager EKMBDXA	•	•	•	•	•	•	•
ildin agem & Sta ol inte	Modbus interface DMS502A51	•	•	•	•	•	•	•
Bu Man item otoce	BACnet Interface	•	•	•	•	•	•	•
Ş, g	DMS504B51 LonWorks Interface	•	•	•	•	•	•	•
	Coarse 55% (G4)	ALF02G4A	ALF03G4A	ALF05G4A	ALF07G4A			
	ePM <sub>10</sub> 75% (M5)	ALF02M5A	ALF03M5A	ALF05M5A	ALF07M5A			
	ePM <sub>10</sub> 70% (M6)							EKAFVJ50F6
	ePM, 50% (F7)	ALF02F7A	ALF03F7A	ALF05F7A	ALF07F7A			
Filters	ePM <sub>1</sub> 55% (F7)							EKAFVJ50F7
_	ePM <sub>1</sub> 70% (F8)							EKAFVJ50F8
	ePM, 80% (F9)	ALF02F9A	ALF03F9A	ALF05F9A	ALF07F9A			
	High efficiency filter							
	Replacement air filter							
ical	Rail	ALA02RLA	ALA03RLA	ALA05RLA	ALA07RLA			
Mechanical accessories	Rectangular to round duct transition	ALA02RCA	ALA03RC	ALA05RCA	ALA07RCA			
	Separate plenum							
CO <sub>2</sub> sensor		BRYMA200	BRYMA200	BRYMA200	BRYMA200			BRYMA65
Electrical h		ALD02HEFB	ALD03HEFB	ALD05HEFB	ALD07HEFB	GSIEKA10009	GSIEKA15018	GSIEKA20024
	<b>00mm depth </b>   Wiring adapter for external monitoring/control	ALS0290A	ALS0390A	ALS0590A	ALS0790A			
Electrical accessories	(controls 1 entire system)					KRP2A51	KRP2A51	KRP2A51 (2)
ccess	Adapter PCB for humidifier					KRP50-2	KRP50-2	KRP1C4 (5)
Gal ac	Adapter PCB for third party heater					BRP4A50	BRP4A50	BRP4A50A (4)
ectri	External wired temperature sensor							
<u></u>	Adapter PCB Mounting plate							

- Notes (1) Do not connect the system to DIII-net devices LONWorks interface, BACnet interface, ...; (intelligent Touch Manager, EKMBDXA are allowed)
- (2) Installation box KRP1BA101 needed
- (3) Adapter PCB mounting plate needed, applicable model can be found in the table above
- (4) 3rd party heater and 3rd party humidifier cannot be combined
- (5) Installation box KRP50-2A90 needed
- (6) Contains 1 plenum and can be used for half side of the unit (up to 4 plenums can be used on 1 unit)
- (7) Available only with optional plenum

Energy re	covery ventila	tion - VAM				Energy re	covery ventila	tion VKM	Air han	dling unit appl	ications
VAM 500J	VAM 650J	VAM 800J	VAM 1000J	VAM 1500J	VAM 2000J	VKM 50GB (M)	VKM 80GB (M)	VKM 100GB (M)	EKEQ FCBA (1)	EKEQ DCB (1)	EKEQ MCBA (1)
•	•	•	•	•	•						
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EKAFVJ50F6	EKAFVJ65F6	EKAFVJ100F6	EKAFVJ100F6	EKAFVJ100F6 x2	EKAFVJ100F6 x2						
EKAFVJ50F7	EKAFVJ65F7	EKAFVJ100F7	EKAFVJ100F7	EKAFVJ100F7x2	EKAFVJ100F7x2						
EKAFVJ50F8	EKAFVJ65F8	EKAFVJ100F8	EKAFVJ100F8	EKAFVJ100F8 x2	EKAFVJ100F8 x2						
						KAF242H80M	KAF242H100M	KAF242H100M			
						KAF241H80M	KAF241H100M	KAF241H100M			
BRYMA65	BRYMA65	BRYMA100	BRYMA100	EKPLEN200 (6) BRYMA200	EKPLEN200 (6) BRYMA200	BRYMA65	BRYMA100	BRYMA200			
GSIEKA20024	GSIEKA25030	GSIEKA25030	GSIEKA25030		35530 (7)	3	SAMPAGO	5			
KRP2A51 (2)	KRP2A51 (2)	KRP2A51 (2)	KRP2A51 (2)	KRP2A51 (2)	KRP2A51 (2)	BRP4A50A (4)	BRP4A50A (4)	BRP4A50A (4)			
KRP1C4 (5)	KRP1C4 (3/5)	KRP1C4 (5)	KRP1C4 (5)	KRP1C4 (3/5)	KRP1C4 (3/5)	BRP4A50A (4)	BRP4A50A (4)	BRP4A50A (4)			
BRP4A50A (4)	BRP4A50A (3/4)	BRP4A50A (4)	BRP4A50A (4)	BRP4A50A (3/4)	BRP4A50A (3/4)	BRP4A50A (4)	BRP4A50A (4)	BRP4A50A (4)		WDG	
	EKMP65VAM			EKMI	PVAM					KRCS01-1	

# Individual and centralised controls

	BRC1D*	BRC1E*	BRC1H*	DCS301B51	DST301B51	DCS302C51	DCS601C51
Madoka Assistant app for advanced settings			•				
Electical box KJB111A	•	•	•				
Electical box KJB212A(A) (1)	•	•		•	•		
Electical box KJB311A(A)						•	
Electical box KJB411AA							•

# Intelligent Tablet Controller - DCC601A51

		Intelligent Controller			
		Options for local control	Daikin Cloud Service options	Software	
Wired screen for local control	AL-CCD07-VESA-1	•	-	_	
Control and monitoring package		-	•	-	
Remote support and diagnostics package		-	•	_	
Advise and optimisation package		-	•	-	
Commissioning tool		-	-	•	
Software update tool		-	-	•	

Daikin Cloud Service requires a subscription. Contact your local sales representative for more information

# Standard protocol interfaces - DMS502A51

		BACnet Interface
DIII-net expansion board (2 ports), connects up to 128 additional indoor units	DAM411B51	•
Digital pulse inputs (12) for PPD functionality	DAM412B51	•

# Intelligent Chiller Manager

		Intelligent Manager
Differential Pressure Sensor 4-20 mA 0-160 kPa	EKQDP2M016	•
Differential Pressure Sensor 4-20 mA 0-250 kPa	EKQDP2M020	•
Differential Pressure Sensor 4-20 mA 0-400 kPa	EKQDP2M040	•
Differential Pressure Sensor 4-20 mA 0-600 kPa	EKQDP2M060	•
ModBus RTU communication module	EKCM200J	•
BACnet IP communication module	EKCMBACIP	•

# Intelligent Touch Manager - DCM601A51

		ntelligent Manager	Daikin Cloud Service options (2)
iTM plus adapter – Allows connection of an additional 64 indoor units/groups. Up to 7 adapters can be connected	DCM601A52	•	
iTM PPD software – Allows distribution of used kWh by indoor units connected to the iTM	DCM002A51	•	
iTM HTTP interface - Allows communication to any third party controller via http interface	DCM007A51	•	
iTM Energy navigator – Energy management option	DCM008A51	•	
iTM BACnet Client option – Enables integration of third party devices to the iTM via the BACnet/IP protocol. (This is not a gateway and cannot replace DMS502A51)	DCM009A51	•	
Property Management System (PMS) interface option - Enables to connect to third party PMS systems	DCM010A51	Oracle Opera PMS	
Monitoring package			•
Remote support and diagnostics package			•
Advise and optimisation package			•

# WAGO interface options for intelligent Touch Manager

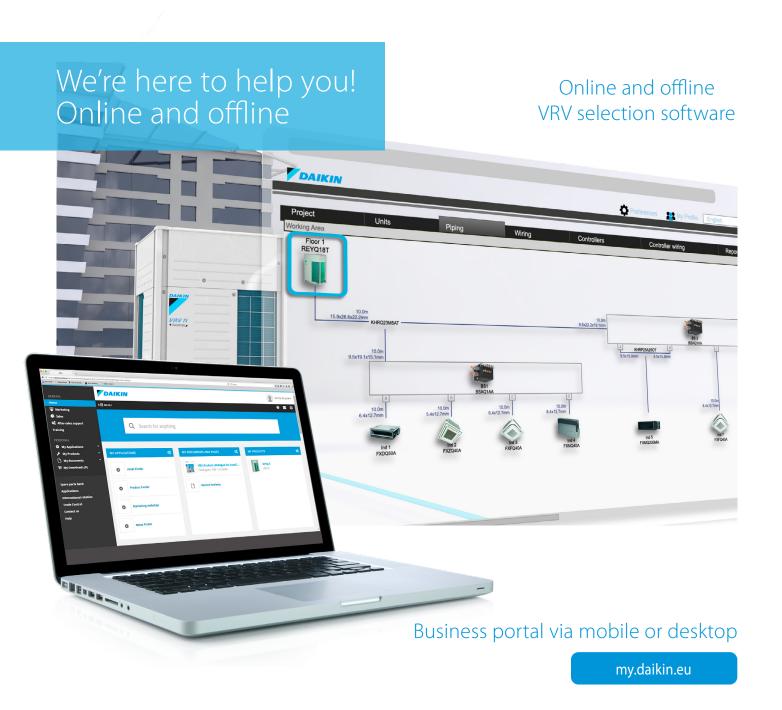
#### Required or optional WAGO base modules

Module type	Model code	Specifications	
24 V DC power supply	787-712	100 to 240 V AC —> 24 V DC, 2.5 A	Required
Communications unit (Bus coupler)	WGDCMCPLR2	RS-485, Max:115.2kbps, not programmable	Required
Connector (1)	750-960		Required
Terminator module	750-600		Required
Power supply module	750-613	IN: 24 V DC, OUT: 5 V DC	Optional

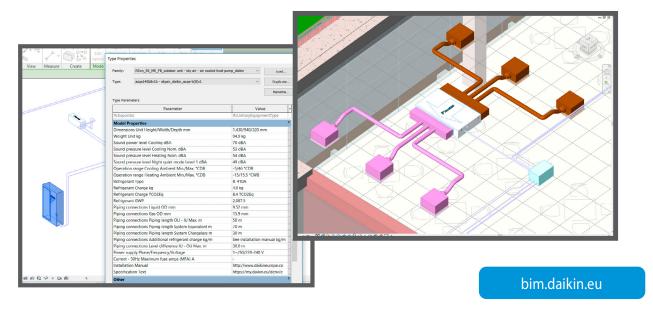
#### Supported WAGO I/0 modules

I/0 module type	Model code	Specifications	N° of contacts
Di	750-400	No-voltage contact input	2
	750-432	Contact rating: 24 V DC / 4.5 mA"	4
	750-430	No-voltage contact input Contact rating: 24 V DC / 2.8 mA	8
Do	750-513/000-001	No-voltage contact output Contact rating: 230 V AC / 30 V DC, 2 A	2
	750-504	No-voltage contact output Contact rating: 24 V DC / 0.5 A	4
Ai	750-454	D. I. A. 22 A 42 IV. I. I	2
	750-455	Rated at 4 to 20 mA: 12-bit resolution	4
	750-479	Rated at -10 to 10 V: 13-bit resolution	2
	750-459	Rated at 0 to 10 V: 12-bit resolution	4
Ao 7:	750-554	Rated at 4 to 20 mA: 12-bit resolution	2
	750-555		4
	750-560	Rated at -10 to 10 V: 10-bit resolution	2
	750-559	Rated at 0 to 10 V: 12-bit resolution	4
Thermistor	750-461/020-000	NTC20K thermistor	2
	750-461	Pt 100/RTD	2
	750-460	Pt 100/RTD	4
	750-461/000-003	Di socci (DTD	2
	750-460/000-003	Pt 1000/RTD	4
	50-461/000-004	Ni 100/RTD	2
	750-461/000-005	N:3000 TV/300/DTD	2
	750-460/000-005	Ni1000 TK6180/RTD	4
Pi	750-638	Minimum pulse width: 1 ms	2

<sup>(1)</sup> This connector must be attached to a communications unit that is connected to the RS485 port (2-pin) of the ITM unit.
(2) To connect intelligent Touch Manager to the Daikin Cloud Service, the IoT gateway (EUSB.5000072) and AC/DC converter (999175A) is needed.



# Full BIM object library available





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Water-to-air heat



VRV5 S-Series VRV 5 Main benefits and specs of VRV 5

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**Focus** topics:



Replacement Technolog Clear installer benefits of VRV replacement technology

208



Infrastructure cooling Clear installer benefits why to choose Daikin for infrastructure cooling

140



F-gas regulation Details on the F-gas regulation and how Daikin is prepared for the future HVAC-R market



**Certified Reclaimed** refrigerant L∞P by Daikin Detailed info on L∞P by Daikin where reclaimed refrigerant is reused

**Product** flyers:



Mini Sky Air RZAG-A mini Skv Air Alpha-series Main benefits and specs of RZAG-A 146



Low height Sky RZAG-N\* Sky Air Alpha-series Main benefits and specs of the low height RZAG-N\* 147



Low height large Sky RZA-D Skv Air Advance-series Main benefits and specs of the low height . RZA-D\* series 148



VRV IV S-series Mini VRV L∞P by Daikin Main benefits and specs of RXYSQ-TV9/TY9 series with reclaimed refrigerant

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Madoka Detailed info on BRC1H\* remote control



RTD modbus interface Detailed info on RTD controls and applications

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Product catalogues:



Sky Air Catalogue Detailed technical information & benefits on Sky Air 100



VRV Catalogue Detailed technical information & benefits of the VRV total solution



Ventilation Detailed info on Ventilation products

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# for your customers

Solutions catalogues:



Commercial Solutions
Daikin offers solutions for commercial applications

100



Green Building Solutions Clear building owner/

investor benefits why to choose Daikin for a green building, with emphasis on BREEAM

216



Maximise your BREEAM score BREEAM categories

Overview of how to score BREEAM points with Daikin

221

Hotel Solutions Clear building owner/investor benefits why to choose Daikin for a hotel

Reference books:



Success Case study Vandervalk hotel case In depth info on the VRV total solution at a Vandervalk hotel

**Product** profiles:



Intelligent Touch Manager Intelligent Touch Manager

302



Intelligent Tablet Controller Detailed benefits of Intelligent Tablet Controller

303



Daikin Cloud Serivce Details on the Daikin

Focus topics:



Replacement technology Clear building owner/investor benefits of replacement technology

15-215

Technical documentation:
Download all technical documentation such as engineering databooks, selection software, installation and operation manuals and service manuals directly from our business portal: my.daikin.eu

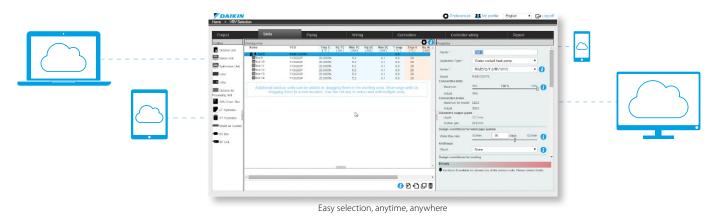
# Supporting tools, software and apps

www.daikineurope.com/ support-and-manuals/ software-downloads

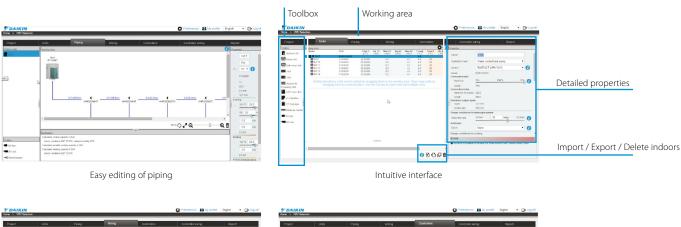
# Web based Xpress selection software

#### Making selection easy, anythime, anywhere

- > Web & cloudbased, access to your projects from anywhere, anyplace...
- > Platform (Windows, Mac, ...) and hardware (laptop, desktop, tablet) independent
- > Re-engineered GUI for maximum easy of use
- > No need to do local installation
- No tool updates required (always latest version available)
- > Possibility to copy / share projects



#### Main functions





Clear wiring overview, easy to make control groups

Clear overview of control groups and central controls

# Other selection software

#### **VRV** Pro

Enables VRV air conditioning systems to be engineered in a precise and economical way, taking into account the complex piping rules. Moreover, it ensures optimum operating cycles and maximum energy efficiency.

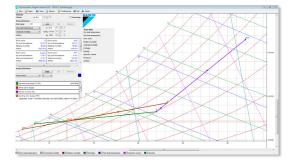
- > Accurate heat load calculation
- > Precize selection based on peak loads
- > Energy consumption indication



#### **Ventilation Xpress**

Selection tool for ventilation devices (VAM, VKM). The selection is based on given supply/extract airflows (including fresh up and given ESP of supply/extract ducting:

- > Determines size of electrical heaters
- > Visualisation of psychrometric chart
- > Visualisation of selected configuration
- > Required field settings mentioned in the report



# Webbased ASTRA selection for air handling units

A powerful tool to select the right Air Handling Units for your needs.

- > 3D interface
- > quick selection procedures
- > new print-out possibilities and report shapes



### WAGO selection tool

The WAGO Selection Tool is specifically designed to select the optimal WAGO I/O system for your needs.

- > Easy selection of WAGO materials
- > Material list creation
- > Time saving
- Includes wiring schemes
- Contains commissioning/preset data for



# Plugins and third-party software tools

# Building Information Modelling (BIM) support

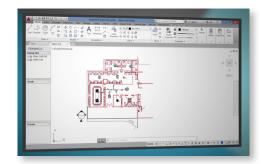
- > BIM improves efficiency of design and build phase
- Daikin is among the first to supply a full library of BIM objects for its VRV products



www.daikin.eu/

#### VRV CAD 2D

- Displays VRV pipe design on a Autocad 2D floorplan
- > Improves project management
- Accurately calculates the pipe dimensions and refnets
- > Determines the outdoor unit size
- > Validates VRV pipe rules
- Accounts for the extra refrigerant charge, including a max room concentration check



http://www. daikineurope. com/autocad/ index.jsp

# Energy simulation and design aid tools

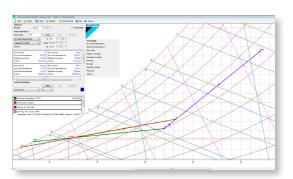
# Seasonal simulator

- The Seasonal Simulator is an innovative software tool that calculates and compares potential seasonal efficiency ratings.
- This user-friendly tool compares various Daikin systems, annual power consumption, CO<sub>2</sub> emissions, and much more, to present an accurate ROI calculation in a matter of minutes.



# Psychrometrics diagram **NEW**

- > The Psychrometrics Diagram Viewer demonstrates the changing properties of moist air.
- > With this tool, users can choose two points with specific conditions, plot them on the diagram and select actions to change the conditions, i.e. heat, cool and mix air.



# Service tools

## Error code app

Quickly know the meaning of fault codes, for each product family and the potential cause

#### **D-Checker**

D-checker is a software application used to record and monitor operation data of Daikin applied, split, Multi-split, Sky-air units, Daikin Altherma LT, ground source heat pump, Hybrid, ZEAS, Conveni-pack & R410A Booster unit

# Bluetooth adaptor **NEW**

Monitoring of Split, Sky Air and VRV data via any bluetooth device

- > No need to access the outdoor unit
- Connects with D-Checker software (for laptops)
- Connects with monitoring app (for tablets or smartphones)

# **VRV Service-Checker**

- Connected via F1/F2 bus to check multiple systems at the same time
- > Connection of external pressure sensors possible





Diagnosis of the Bluetooth system possible:

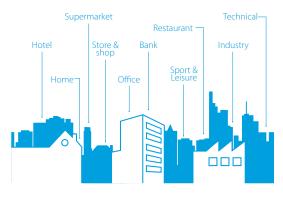


# Online support

#### **Business portal**

- > Experience our new extranet that thinks with you at my.daikin.eu
- > Find information in seconds via a powerful search
- > Customise the options so you see only info relevant for you
- > Access via mobile device or desktop

Find our solution for different applications:



- Get more commercial details on our flagship products via our dedicated minisites
- > See our references

Internet



www.daikineurope.com/references

# my.daikin.eu



# Over 30 years of VRV History



R-22

# 1987

# Introduction the original VRV air conditioning system to Europe, invented by Daikin in 1982

> Up to 6 indoor units connected to 1 outdoor unit



R-407C

# 1998

#### Launch inverter series with R-407C

> Up to 16 indoor units connected to 1 outdoor unit



# 2004

#### Expand to light commercial sector with VRVII-S

- > Available in 4, 5, 6HP capacities
- > 1 system can be installed in up to 9 rooms



# 2008

# Launch of heat pump optimised for heating (VRV III-C)

- > Extended operation down to -25C
- > 2-stage compressor systems

# 

# Introduce VRV heat

> Simultaneous cooling



# 2003

#### Introduce VRVII-- the first R-410A **VRF** system

Available in cooling, heat pump and heat recovery

> 40 units connected to single refrigerant circuit



#### **Extends VRVII inverter** range with water cooled VRV-WIII

> Available in heat pump and heat recovery



# 2006-2007

#### Launch the extensively re-engineered VRVIII

- > Available in cooling, heat pump and heat recovery
- > Automatic charging and testing
- > Up to 64 units connected to 1 system



# 1991

# recovery

and heating



# R-410A









#### 2015

#### Launch of VRV IV S-series

- > Most compact unit in the market
- > Widest range in the market



#### Launch of VRV IV i-series

- > The invisible VRV
- > Unique product concept





### 2019

#### Launch of VRV IV+ series

- > New compressor for increased seasonal efficiency
- > Available in heat recovery, heat pump, optimised for heating and water-cooled versions

#### **BLUEVOLUTION**



#### 2020

#### VRV 5 S-series

- > Completely redesign unit for R-32 refrigerant
- > Easier to handle and more flexible to install then ever!

Launch total solution concept

> Integrate hot water production

and Biddle air curtains into VRV

> Connectable to Daikin Emura

> 400,000 outdoors units sold

> 2.2 million indoor units sold

2012

2015 2019

#### 2010

#### Launch of replacement VRV (VRVIII-Q)

2011

system

and Nexura

> Upgrade to replace older VRV units using R-22 refrigerant



#### 2012-2014

#### Setting new standards with the launch of VRV IV

- > 28% improved seasonal efficiency
- > Continuous heating on heat pumps
- > Available in heat pump, heat recovery, water-cooled and replacement series





#### 2019

#### Launch of L∞P by Daikin

- > Re-use of existing refrigerant
- > Creating a circular economy of refrigerants



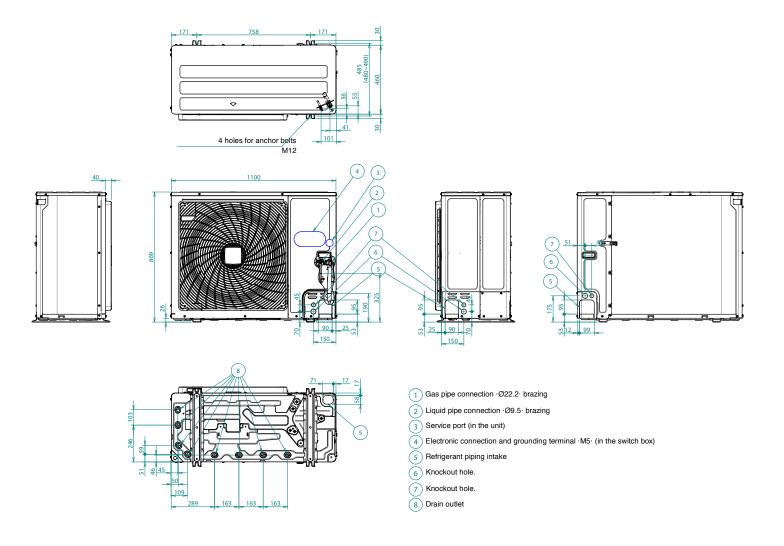


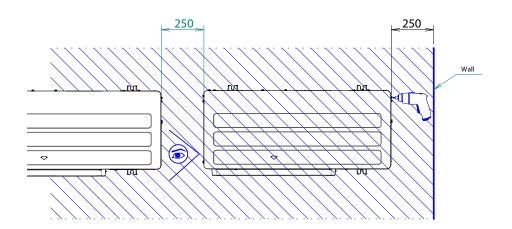
## Technical drawings

<u>Technical drawings</u>	219
Outdoor units	220
Indoor units	246
Hot water	286
Biddle air curtains	291
Ventilation	294



#### RXYSA-AV1/AY1





<sup>•</sup> For optimal serviceability, provide ≥·250·mm of free space.
For more installation and service space guidelines, see drawing ·3D069554·.

Single unit ( ) | Single row of units ( )

#### Suction side

In the illustration below, the service space at the suction side is based on 35°C DB and cooling operation. Foresee more space in the following cases:

- When the suction side temperature regularly exceeds this temperature.
- When the heat load of the outdoor units is expected to regularly exceed the maximum operating capacity.

#### Discharge side

Take refrigerant piping work into account when positioning the units. If your lay out does not match with any of the layouts below, contact your dealer.

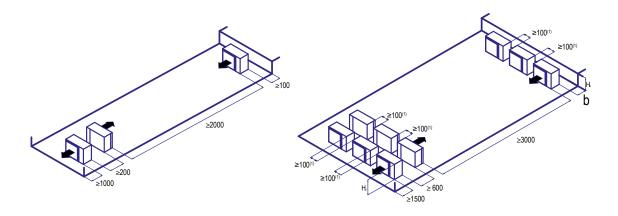
#### Single unit ( Single row of units ( Imple )

			\	<u> </u>							_
	A~E	НЬ	Hd Hu				(mm)				
	A'L	110	Tiu Tiu	а	b	С	d	е	e <sub>B</sub>	e <sub>D</sub>	
	В				≥ 100						
$\mathbf{e}_{D}$	A,B,C			≥ 100(1)	≥ 100	≥ 100					]
	B,E				≥ 100			≥ 1000		≤500	]
	A,B,C,E		-	≥ 150 <sup>(1)</sup>	≥ 150	≥ 150		≥ 1000		≤500	
	D		-				≥ 500				
l e	D,E		-				≥ 500	≥ 1000	≤500		
	B,D	H	ld>Hu		≥ 100		≥ 500				
H <sub>B</sub>	ט,ם	Н	ld≤Hu		≥ 100		≥ 500				
			Hb≤½Hu		≥ 250		≥ 750	≥ 1000	≤500		
H <sub>D</sub> b		Hd>Hu	½Hu>Hb≤Hu		≥ 250		≥ 1000	≥ 1000	≤500		
a la	B,D,E		Hb>Hu				0				] ,
	5,5,5		Hd≤½Hu		≥ 100		≥ 1000	≥ 1000		≤500	] '
		Hd≤Hu	½Hu <hd≤hu< td=""><td></td><td>≥ 200</td><td></td><td>≥ 1000</td><td>≥ 1000</td><td></td><td>≤500</td><td></td></hd≤hu<>		≥ 200		≥ 1000	≥ 1000		≤500	
			Hd>Hu				0				
■ ■ e <sub>B</sub>	A,B,C			≥ 200(1)	≥ 300 ≥	1000					
	A,B,C,E		-	≥ 200(1)	≥ 300	≥ 1000		≥ 1000		≤500	
e <sub>D</sub>	D		-				≥ 1000				
F	D,E		-				≥ 1000	≥ 1000	≤500		
e		H	ld>Hu		≥ 300		≥ 1000				
// <b>C</b>	B,D	Hd≤Hu	Hd≤½Hu		≥ 250		≥ 1500				]
H 2100(1)		i iu =i iu	½Hu <hd≤hu< td=""><td></td><td><del>≥ 300</del></td><td></td><td>≥ 1500</td><td></td><td></td><td></td><td></td></hd≤hu<>		<del>≥ 300</del>		≥ 1500				
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			Hb≤½Hu		≥ 300		≥ 1000	≥ 1000	≤500		
H <sub>D</sub> D d		Hd>Hu	½Hu <hb≤hu< td=""><td></td><td>≥ 300</td><td></td><td>≥ 1250</td><td>≥ 1000</td><td>≤500</td><td></td><td></td></hb≤hu<>		≥ 300		≥ 1250	≥ 1000	≤500		
	B,D,E		Hb>Hu				0				1+2
	, ,		Hd≤½Hu		≥ 250		≥ 1500	≥ 1000		≤500	
		Hd≤Hu	½Hu <hd≤hu< td=""><td></td><td>≥ 300</td><td></td><td>≥ 1500</td><td>≥ 1000</td><td></td><td>≤500</td><td></td></hd≤hu<>		≥ 300		≥ 1500	≥ 1000		≤500	
			Hd>Hu				0				

- (1) For better serviceability, use a distance ≥250 mm
- A,B,C,D Obstacles (walls/baffle plates)
  - E Obstacle (roof)
- a,b,c,d,e Minimum service space between the unit and obstacles A, B, C, D and E
  - Maximum distance between the unit and the edge of obstacle E, in the direction of obstacle B
  - e<sub>D</sub> Maximum distance between the unit and the edge of obstacle E, in the direction of obstacle D
  - Hu Height of the unit
  - Hb,Hd Height of obstacles B and D
    - 1 Seal the bottom of the installation frame to prevent discharged air from flowing back to the suction side through the bottom of the unit.
    - 2 Maximum two units can be installed.
    - Not allowed

## Multiple rows of units (

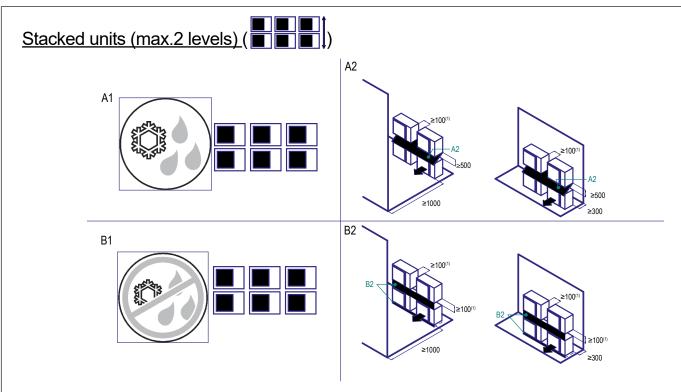
## Multiple rows of units ( )



Hb Hu	b (mm)
Hb≤½Hu	b≥250
½Hu <hb≤hu< td=""><td>b≥ 300</td></hb≤hu<>	b≥ 300
Hb>Hu	0

- (1) For better serviceability, use a distance ≥250 mm
- Not allowed

## 

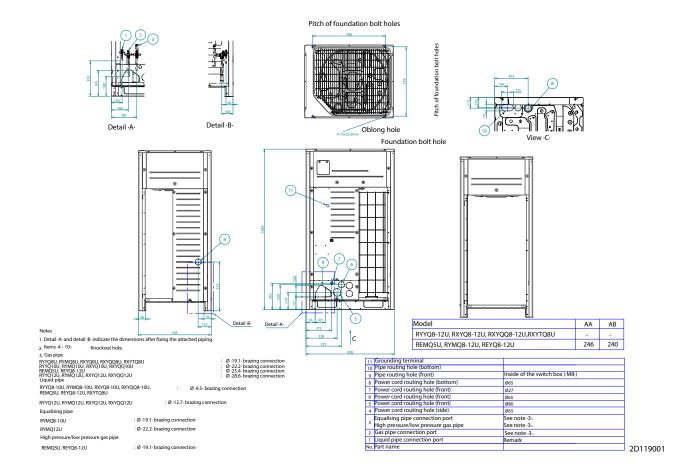


- (1) For better serviceability, use a distance ≥250 mm
- A1=>A2 (A1) If there is danger of drainage dripping and freezing between the upper and lower units...
  - (A2) Then install a roof between the upper and lower units. Install the upper unit high enough above the lower unit to prevent ice buildup at the upper unit's bottom plate.
- B1=>B2 (B1) If there is no danger of drainage dripping and freezing between the upper and lower units...
  - (B2) Then it is not required to install a roof, but seal the gap between the upper and lower units to prevent discharged air from flowing back to the suction side through the bottom of the unit.

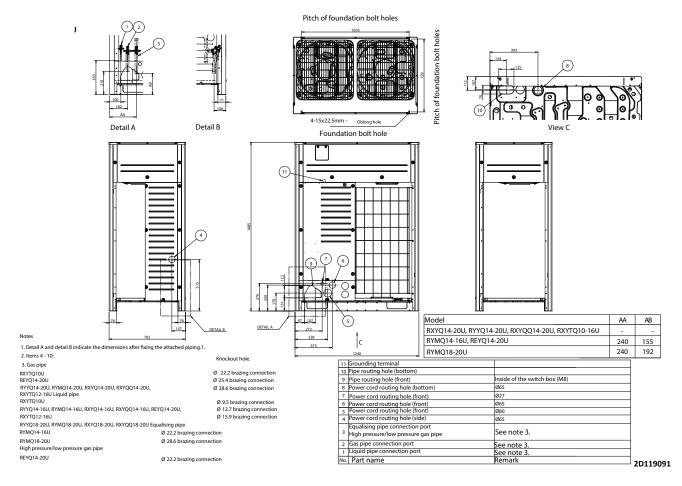
#### REMQ5U / REYQ8-12U / RXYQQ8-12U / RXYQ8-12U / RYYQ8-12U / RYMQ8-12U / RXYTQ8UYF

**VIEW ALL REYQ-U TECHNICAL** 

**DRAWINGS ON MY.DAIKIN.EU** 



#### REYQ14-20U / RXYQQ14-20U / RXYQ14-20U / RYYQ14-20U / RYMQ14-20U / RXYTQ10-16UYF



#### REMQ-U / REYQ-U / RXYQQ-U / RXYQ-U / RYYQ-U / RYMQ-U / RXYTQ-UYF

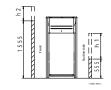
# For installation in rows For centralised group layout Pattern 1 Pattern 1 Pattern 1 Pattern 2 Pattern 2 Pattern 2 Pattern 2 Pattern 3

#### Notes

1. Height of the walls in case of patterns 1 and 2:

Front: 1500mm Suction side: 500mm Side: height unrestricted

The installation space shown on this drawing is based on cooling operation at 35°C (outdoor temperature). When the design outdoor ambient temperature exceeds 35°C or the load exceeds maximum ability of much generation load of heat in all outdoor unit, make sure the suction-side space is broader than the space shown on this drawing.



- 2. If the walls are higher than mentioned above, then additional service space is needed:
- suction side: service space + h1/2
- front side: service space + h2/2
- 3. When installing the units, select the pattern that best fits the available space.

Always keep in mind to leave sufficient space for a person to pass between unit and wall and for the air to circulate freely.

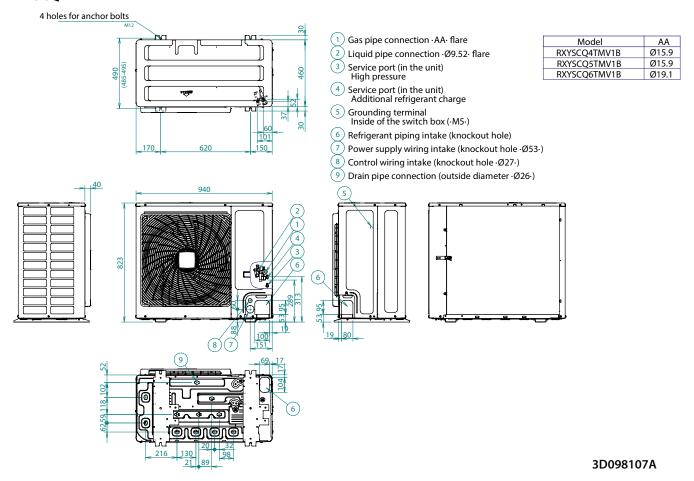
If more units are to be installed than are catered for in the above patterns, your layout should take into account of the possibility of short circuits.

4. Provide sufficient space at the front to connect refrigerant piping (comfortably).

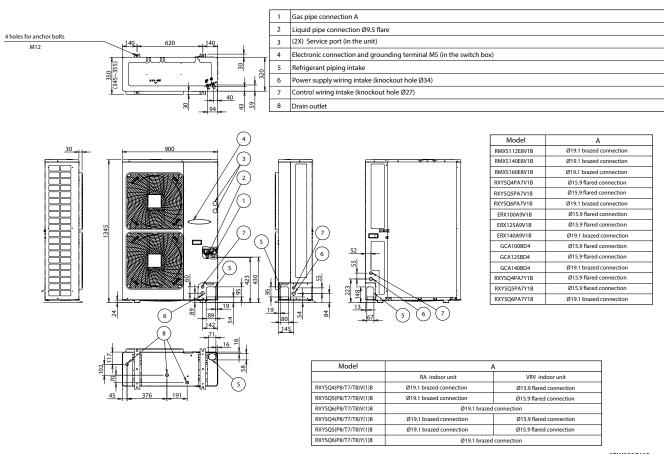
3D118467



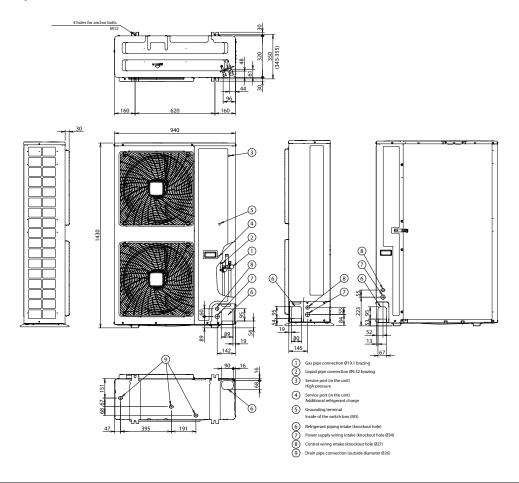
#### **RXYSCQ-TV1**



#### RXYSQ-TV9/TY9

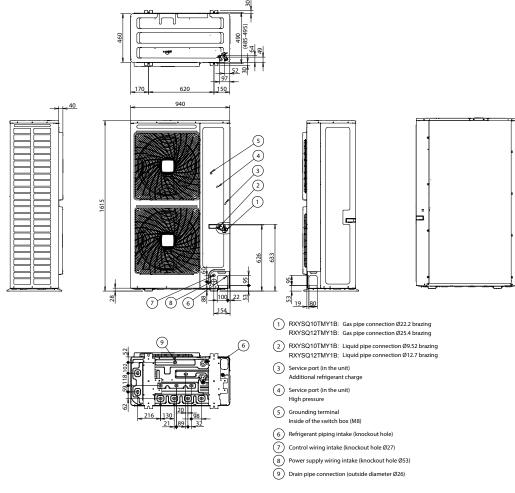


#### RXYSQ8TY1



3D098108

#### RXYSQ10-12TY1



3D098109



#### **RXYSCQ-TV1**

#### **Required instalation space**

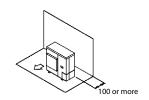
The unit of values is mm.

#### (A) When there are obstacles on suction sides

No obstacle above

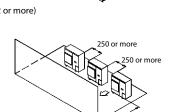
1) Stand-alone installation
Obstacle on the suct Obstacle on the suction side only

Obstacle on both sides



100 or more





500 or more

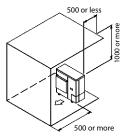
Obstacle above, too

No obstacle above

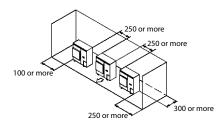
1 Stand-alone installation

(B) When there are obstacles on discharge sides.

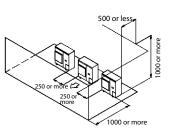
① Stand-alone installation



(2) Series installation (2 or more) Obstacle on both sides



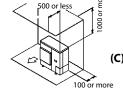
2) Series installation (2 or more)



Obstacle above, too

1) Stand-alone installation

Obstacle on the suction side, too



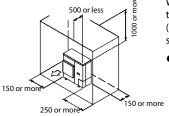
(C) When there are obstacles on both suction and discharge sides.

Pattern 1

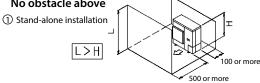
When the obstacles on the discharge side is higher than the unit.

(There is no height limit for obstructions on the intake

Obstacle on the suction side, and both sides

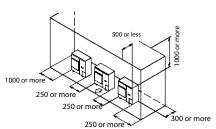


No obstacle above

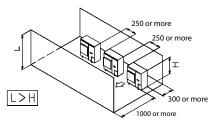


② Series installation (2 or more)

Obstacle on the suction side, and both sides



(2) Series installation (2 or more)



3D089310A

#### VIEW ALL RXYSCQ-TV1 TECHNICAL **DRAWINGS ON MY.DAIKIN.EU**

#### **RXYSCQ-TV1**

#### Obstacle above, too

(1) Stand-alone installation

The relations between H, A and L are as follows.

	0 < L ≦ 1/2 H	750
L≦H	1/2 H < L ≦ H	1000
H < L	Set the stand	as: L ≦ H

Close the bottom of the installation frame to prevent the discharged air from being bypassed.

2 Series installation (2 or more)

The relations between H, A and L are as follows.

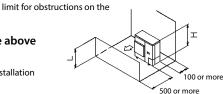
	L	A
L≤H	0 < L ≦ 1/2 H	1000
L = n	1/2 H < L ≦ H	1250
H < L	Set the stand	as: L≦H

Close the bottom of the installation frame to prevent the discharged air from being bypassed. Only two units can be installed for this series.



When the obstacle on the discharge side is lower than the unit:

(There is no height limit for obstructions on the intake side.)



500 or le

250 or more

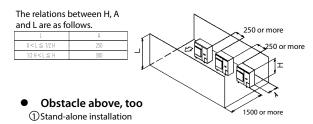
300 or more

1000 or more

#### No obstacle above

① Stand-alone installation

②Series installation (2 or more)



The relations between H, A and L are

	Į.	A	
L≤H	0 < L ≦ 1/2 H	100	500 or less
Lan	1/2 H < L ≦ H	200	
H <l< th=""><td>Set the stand</td><td>das:L≦H</td><td>7 \     \  ĕ</td></l<>	Set the stand	das:L≦H	7 \     \  ĕ
ciose i	he bottom of t	he installation	000 or more

#### ②Series installation

The relations between H. A and L are as follows.

	L	A
I≤H	0 < L ≦ 1/2 H	250
L = n	1/2 H < L ≦ H	300
H < L	Set the stand	as:L≦ H

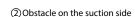
Close the bottom of the installation frame to prevent the discharged air from being bypassed.

Only two units can be installed for this series.

#### (D) Double-decker installation

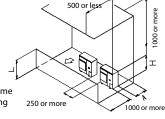
Obstacle on the discharge side Close the gap Z (the gap between the upper an lower outdoor units) to prevent the discharged air from being bypassed.

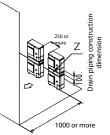
Don not stack more than two units.

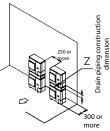


Close the gap Z (the gap between the upper an lower outdoor units) to prevent the discharged air from being

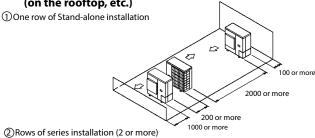
Don not stack more than two units.





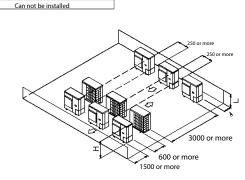


(E) Multiple rows of series installation (on the rooftop, etc.)



The relations between H. A and L are as follows.

The relations between H, A and L are as follo				
	Ĺ	A		
I≤H	0 < L ≦ 1/2 H	250		
LE∃H	1/2 H < L ≦ H	300		
11 21				



3D089310A

500 or more



#### RXYSQ-TV9/TY9

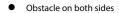
#### **Required instalation space**

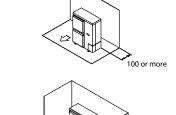
The unit of values is mm.

#### (A) When there are obstacles on suction sides

No obstacle above

- (1) Stand-alone installation
  - Obstacle on the suction side only



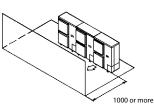


② Series installation (2 or more)

No obstacle above

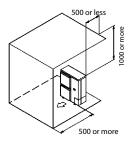
1 Stand-alone installation

(B) When there are obstacles on discharge sides.

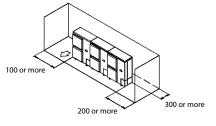


Obstacle above, too

1 Stand-alone installation



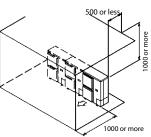
- ② Series installation (2 or more)
- Obstacle on both sides



250 or mor

100 or more

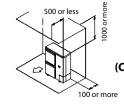
② Series installation (2 or more)



#### Obstacle above, too

- 1) Stand-alone installation
  - Obstacle on the suction side, too

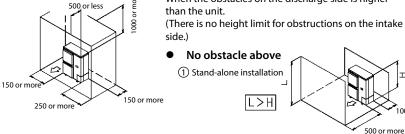
Obstacle on the suction side, and both



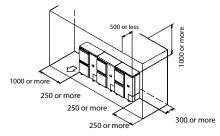
(C) When there are obstacles on both suction and discharge sides.

Pattern 1

When the obstacles on the discharge side is higher than the unit.



- ② Series installation (2 or more)
  - Obstacle on the suction side, and both sides



② Series installation (2 or more) 300 or more L>H

3D045696D

1000 or more

100 or more

250 or more

300 or more

100 or more

500 or more

500 or less

500 or less

#### RXYSQ-TV9/TY9

#### Obstacle above, too

1) Stand-alone installation

The relations between H, A and L are as follows.

	L	A
L≤H	0 < L ≦ 1/2 H	750
L≧n	1/2 H < L ≦ H	1000
H <l< th=""><th>Set the stand</th><th>as:L≦ H</th></l<>	Set the stand	as:L≦ H

Close the bottom of the installation frame to prevent the discharged air from being bypassed.

② Series installation (2 or more)

The relations between H, A and L are as follows.

	L	А
I≤H	0 < L ≦ 1/2 H	1000
r an	1/2 H < L ≦ H	1250
H <l< th=""><th>Set the stand</th><th>as: L ≦ H</th></l<>	Set the stand	as: L ≦ H

Close the bottom of the installation frame to prevent the discharged air from being bypassed. Only two units can be installed for this series.

Pattern 2

When the obstacle on the discharge side is lower than the unit:

(There is no height limit for obstructions on the

intake side.)

#### No obstacle above

1)Stand-alone installation  $\mathsf{L} \leqq \mathsf{H}$ 

② Series installation (2 or more)

The relations between H, A

and L are as follows.		
l	A	
0 < L ≦ 1/2 H	250	
1/2 H < L ≦ H	300	

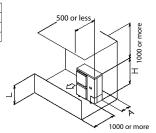
Obstacle above, too

1 Stand-alone installation

The relations between H, A and L are as follow

u3 101		
	L	A
L≤H	0 < L ≦ 1/2 H	100
Lin	1/2 H < L ≦ H	200
H <l< th=""><th>Set the stand</th><th>as:L ≤ H</th></l<>	Set the stand	as:L ≤ H

Close the bottom of the installation frame to prevent the discharged air from being bypassed.



#### 2 Series installation

The relations between H, A and L are as follows.

	L	A
l≤H	0 < L ≦ 1/2 H	250
Lin	1/2 H < L ≦ H	300
H <l< th=""><th>Set the stand</th><th>as:L≦ H</th></l<>	Set the stand	as:L≦ H

Close the bottom of the installation frame to prevent the discharged air from being bypassed. Only two units can be installed for

this series

#### (D) Double-decker installation

1) Obstacle on the discharge side

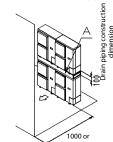
Close the gap A (the gap between the upper an lower outdoor units) to prevent the discharged air from being

Don not stack more than two units.

#### 2) Obstacle on the suction side

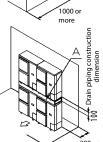
Close the gap A (the gap between the upper an lower outdoor units) to prevent the discharged air from being

Don not stack more than two units.



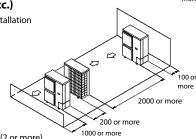
1500 oı

500 or le



#### (E) Multiple rows of series installation (on the rooftop, etc.)

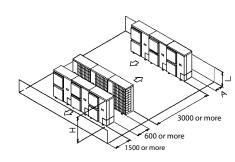
1)One row of Stand-alone installation



(2) Rows of series installation (2 or more)

The relations between H, A and L are as follows.

	l	A
L≦H	0 < L ≦ 1/2 H	250
L = n	1/2 H < L ≦ H	300
H < L	Can not be	installed



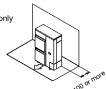
3D045696D

#### **RXYSQ-8TY1**

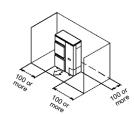
#### Required installation space

The unit of these values is mm.

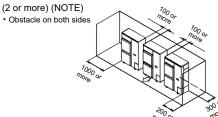
- 1. Where there is an obstacle on the suction side:
  - (a) No obstacle above
    - (1) Stand-alone installation · Obstacle on the suction side only



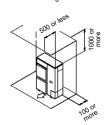
· Obstacle on both sides



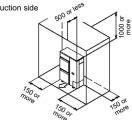
(2) Series installation



- (b) Obstacle above, too
  - (1) Stand-alone installation
    - Obstacle on the suction side, too

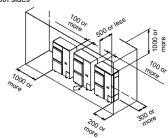


 Obstacle on the suction side and both sides



- (2) Series installation
  - (2 or more) (NOTE)

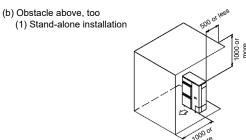
    Obstacle on the suction side
  - and both sides



- 2. Where there is an obstacle on the discharge side:
  - (a) No obstacle above
    - (1) Stand-alone installation



(2)Series installation (2 or more) (NOTE)



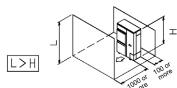
(2) Series installation (2 or more) (NOTE)

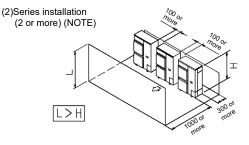
3. Where there are obstacles on both suction and discharge sides:

#### Pattern 1

Where the obstacle on the discharge side is higher than the unit: (There is no height limit for obstructions on the intake side)

- (a) No obstacle above
- (1) Stand-alone installation





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#### NOTE

When install the units in a line, have to leave the distance over 100 mm between the two units.

#### **VIEW ALL RXYSQ-TY1 TECHNICAL DRAWINGS ON MY.DAIKIN.EU**

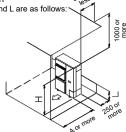
#### **RXYSQ-8TY1**

#### (b) Obstacle above, too

(1) Stand-alone installation
The relations between H, A and L are as follows

$\overline{}$	L	A		
L≤ H	0 < L ≤ 1/2H	1000		
L> II	1/2 H < L≤H 1250			
H <l< td=""><td colspan="4">Set the stand as: L≤H</td></l<>	Set the stand as: L≤H			

Close the bottom of the installation frame to prevent the discharged air from being bypassed.



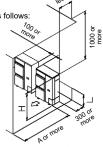
#### (2)Series installation (2 or more) (NOTE)

The relations between H, A and L are as follows

	L	A			
L≤H	0 < L ≤ 1/2 H	1000			
	1/2 H < L ≤ H	1250			
H <l< th=""><th colspan="5">Set the stand as: L ≤ H.</th></l<>	Set the stand as: L ≤ H.				

Close the bottom of the installation frame to prevent the discharged air from being bypassed.

Only two units can be installed for this



#### Pattern 2

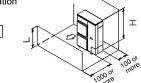
Where the obstacle on the discharge side is lower than

(There is no height limit for obstructions on the intake side)

(a) No obstacle above



L≤H



(2) Series installation (2 or more) (NOTE) The relations between H, A and L are as follows:

L	A	
0 < L ≤ 1/2 H	250	70
1/2 H < L ≤ H	300	nore or
		· · · · · · · · · · · · · · · · · · ·
		70
		100 or
		, , , o <sub>re</sub> ,
		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
		of more
		1500 or me
		13,016

#### (b) Obstacle above, too

(1) Stand-alone installation

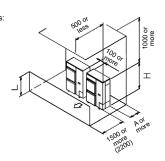
The relations between H, A and L are as follows:

$\overline{}$	L	Α
L≤H	0 < L ≤ 1/2 H	100
	1/2 H < L ≤ H	200
H < L	Set the stan	d as: L≤H.
frame t	the bottom of th to prevent the on to being bypass	lischarged
	listance exceed ; ), then it's no r nd.	

(2) Series installation (NOTE) The relations between H, A and L are as follows:

	L	A		
L≤H	0 < L ≤ 1/2 H	250		
	1/2 H < L ≤ H	300		
H <l< th=""><th colspan="4">Set the stand as: L ≤ H.</th></l<>	Set the stand as: L ≤ H.			

Close the bottom of the installation frame to prevent the discharged air from being bypassed. Only two units can be installed for this series. If the distance exceeds the figure in the ( ), then it's no need to set the stand.



#### 4. Double-decker installation

(a) Obstacle on the discharge side (NOTE). Close the gap A (the gap between the upper and lower outdoor units) to prevent the discharged air from being bypassed.

Do not stack more than two units.

Set the board (field supply) as the detail A between two units to prevent the drainage from frozing.

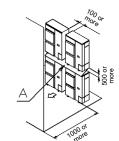
Leave the enough space between the layer one and the board.

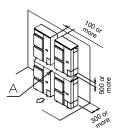
(b) Obstacle on the suction side (NOTE). Close the gap A (the gap between the upper and lower outdoor units) to prevent the discharged air from being bypassed

Do not stack more than two units. Set the board (field supply) as the detail A between two units to prevent the drainage

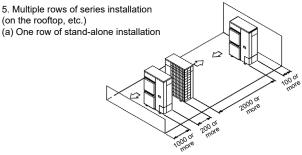
from frozing.

Leave the enough space between the layer one and the board.

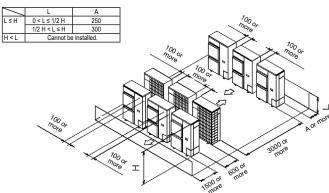




5. Multiple rows of series installation (on the rooftop, etc.)



(b) Rows of series installation (2 or more) The relations between H, A and L are as follows:



When install the units in a line, have to leave the distance over 100 mm between the two units.

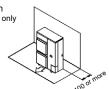
3D068442R



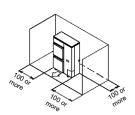
#### RXYSQ10-12TY1

## Required installation space The unit of these values is mm.

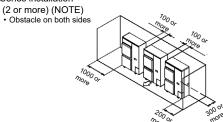
- 1. Where there is an obstacle on the suction side:
  - (a) No obstacle above
    - Stand-alone installation
       Obstacle on the suction side only



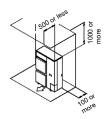
· Obstacle on both sides



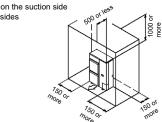
(2)Series installation



- (b) Obstacle above, too
  - (1) Stand-alone installation
    - · Obstacle on the suction side, too



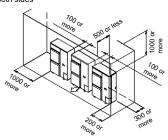
 Obstacle on the suction side and both sides



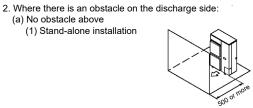
(2)Series installation

(2 or more) (NOTE)

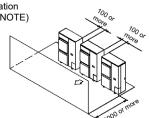
Obstacle on the suction side and both sides



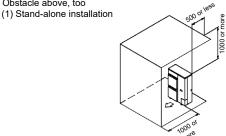
(a) No obstacle above (1) Stand-alone installation



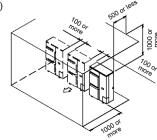
(2)Series installation (2 or more) (NOTE)



(b) Obstacle above, too



(2)Series installation (2 or more) (NOTE)



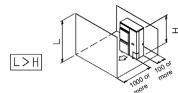
3. Where there are obstacles on both suction and discharge sides:

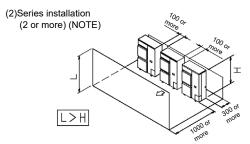
#### Pattern 1

Where the obstacle on the discharge side is higher than the unit: (There is no height limit for obstructions on the intake side)

(a) No obstacle above

(1) Stand-alone installation





3D083122L

#### NOTE

When install the units in a line, have to leave the distance over 100 mm between the two units.

#### **VIEW ALL RXYSQ-TY1 TECHNICAL DRAWINGS ON MY.DAIKIN.EU**

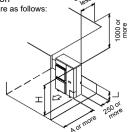
#### RXYSQ10-12TY1

#### (b) Obstacle above, too

(1) Stand-alone installation
The relations between H, A and L are as follows:

$\overline{}$	L	Α		
L≤H	0 < L ≤ 1/2 H	1000		
	1/2 H < L ≤ H	1250		
H <l< th=""><th colspan="4">Set the stand as: L ≤ H.</th></l<>	Set the stand as: L ≤ H.			

Close the bottom of the installation frame to prevent the discharged air from being bypassed.



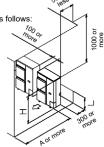
#### (2) Series installation (2 or more) (NOTE)

The relations between H, A and L are as follows

$\overline{}$	L	Α		
L≤H	0 < L ≤ 1/2 H	1000		
	1/2 H < L ≤ H	1250		
H < L	Set the stand as: L ≤ H.			

Close the bottom of the installation frame to prevent the discharged air from being bypassed.

Only two units can be installed for this

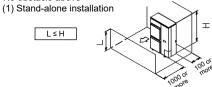


#### Pattern 2

Where the obstacle on the discharge side is lower than

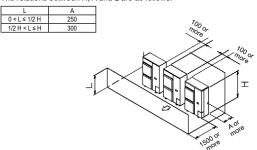
(There is no height limit for obstructions on the intake side)

#### (a) No obstacle above



#### (2) Series installation (2 or more) (NOTE)

The relations between H, A and L are as follows:



#### (b) Obstacle above, too

#### (1) Stand-alone installation

The relations between H, A and L are as follows:

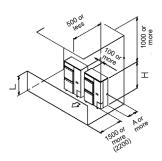
$\overline{}$	L	A			
L≤H	0 < L ≤ 1/2 H	100	_	20 01	_
	1/2 H < L ≤ H	200		500 or 1855	<b>√</b> 1 ₅
H <l< th=""><td>Set the stan</td><td>d as: L≤H.</td><td></td><th></th><td></td></l<>	Set the stan	d as: L≤H.			
rame tair fron	the bottom of the control that the contr	lischarged ed. s the figure		S. C. C. C. C. C. C. C. C. C. C. C. C. C.	A or more

#### (2) Series installation (NOTE)

The relations between H, A and L are as follows:

	L	Α		
L≤H	0 < L ≤ 1/2 H	250		
	1/2 H < L ≤ H	300		
H <l< th=""><th colspan="4">Set the stand as: L ≤ H.</th></l<>	Set the stand as: L ≤ H.			

Close the bottom of the installation frame to prevent the discharged air from being bypass Only two units can be installed for this series. If the distance exceeds the figure in the ( ), then it's no need to set the stand.



#### 4. Double-decker installation

(a) Obstacle on the discharge side (NOTE). Close the gap A (the gap between the upper and lower outdoor units) to prevent the discharged air from being bypassed.

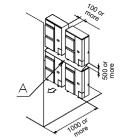
> Do not stack more than two units. Set the board (field supply) as the detail A between two units to prevent the drainage

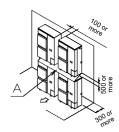
from frozing. Leave the enough space between the layer one and the board.

(b) Obstacle on the suction side (NOTE). Close the gap A (the gap between the upper and lower outdoor units) to prevent the discharged air from being bypassed Do not stack more than two units.

Set the board (field supply) as the detail A between two units to prevent the drainage from frozing.

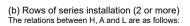
Leave the enough space between the laver one and the board.

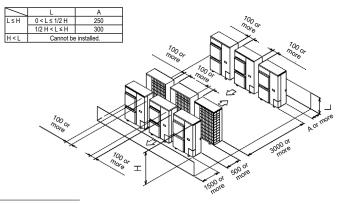




#### 5. Multiple rows of series installation (on the rooftop, etc.)





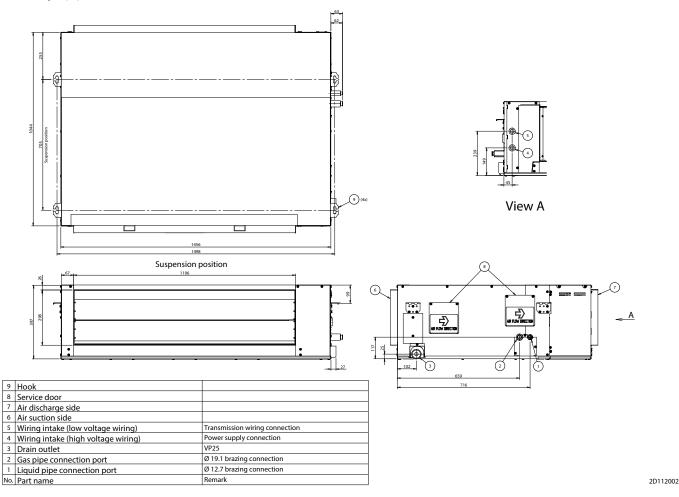


#### NOTE

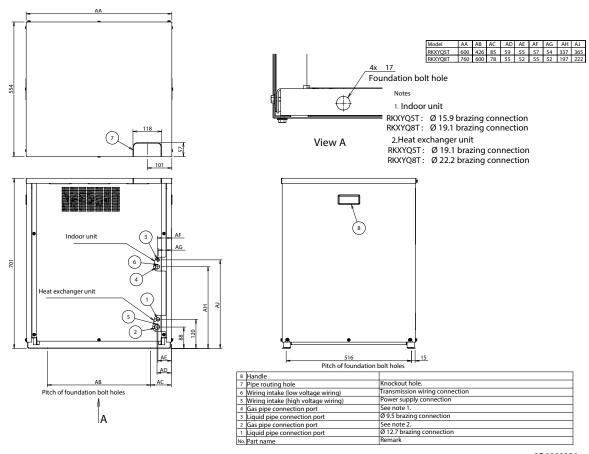
When install the units in a line, have to leave the distance over 100 mm between the two units.

3D083122L

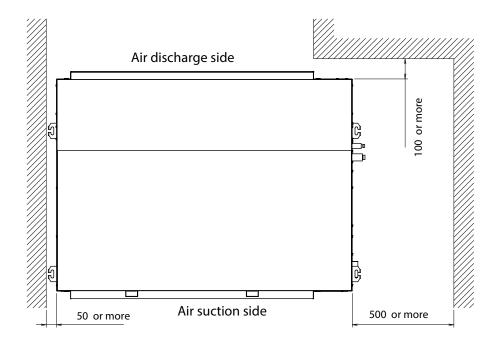
#### RDXYQ-T(8)

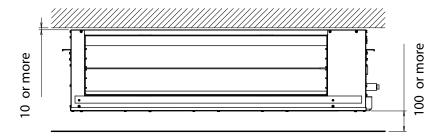


#### RKXYQ-T(8)



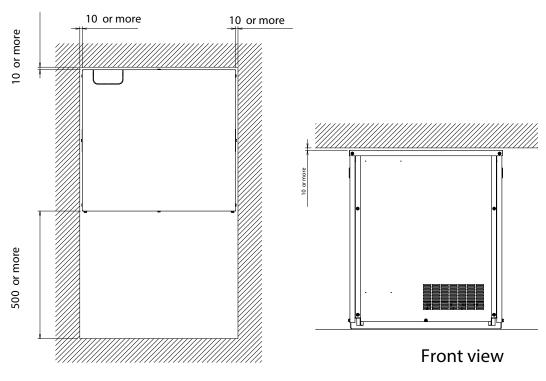
#### RDXYQ-T(8)





3D098834

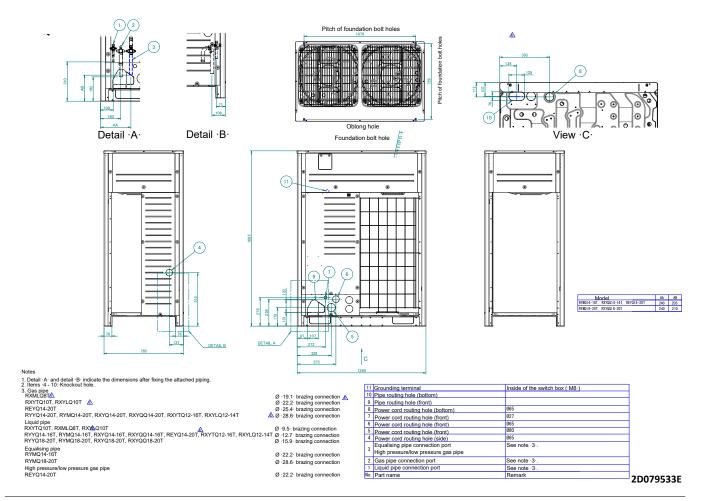
#### RKXYQ-T(8)



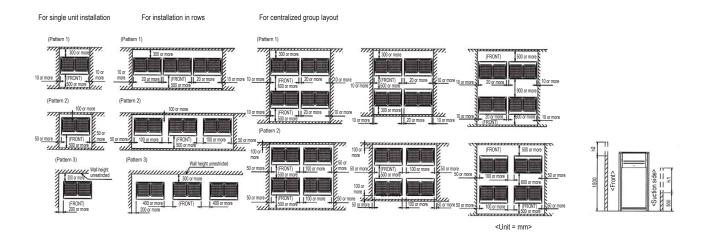
Top view



#### **RXMLQ-T-RXYLQ-T**



#### **RXMLQ-T-RXYLQ-T**





Heights of walls in case of patterns 1 and 2:
 Front: 1500mm
 Suction side: 500mm
 Side: Height unrestricted

Side: Height unrestricted
Installation space as shown on this drawing is based on the cooling operation at 35 degrees outdoor air temperature.
When the design outdoor air temperature exceeds 35 degrees or the load exceeds maximum ability of much generation load of heat in all outdoor unit, take the suction side space more broadly than the space as shown on this drawing.

2. If the above wall heights are exceeded then h2/2 and h1/2 should be added to the front and suction side service spaces respectively as shown in the figure on the right.

3. When installing the units most appropriate pattern should be selected from those shown above in order to obtain the best fit in the space available. Always keep in mind the need to leave enough space for a person to pass between units and wall and also for the air to circulate freely.

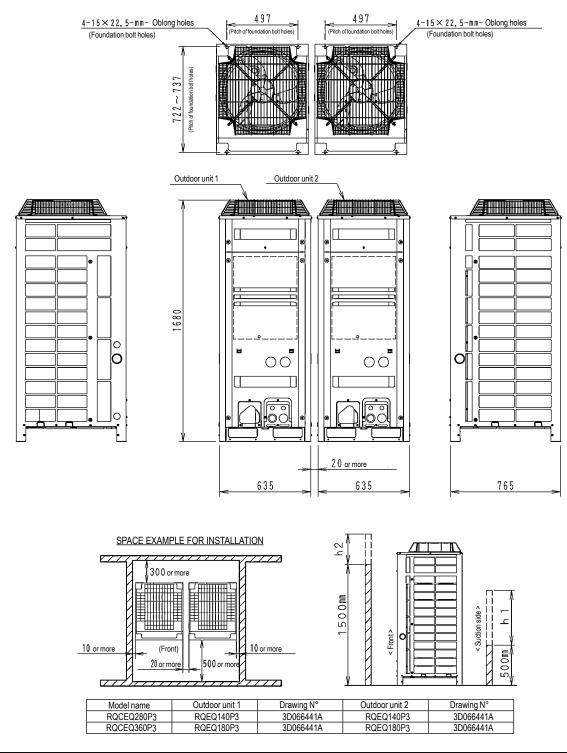
(If more units are to be installed than are catered for in the above patterns your layout should take account of the possibility of short circuits).

4. The units should be installed to leave sufficient space at the front for the on site refrigerant piping work to be carried out comfortably.

30079542

3D079542

#### RQCEQ280-360P3



Unit: mm

#### NOTES

1. Heights of walls Front: 1500mm

Suction side: 500mm

Side: Height unrestricted

The installation space shown in this figure is based on the condition of cooling operation at the outdoor air temperature of 35°C.

The installation space of suction side shown above must be expanded in the following case.

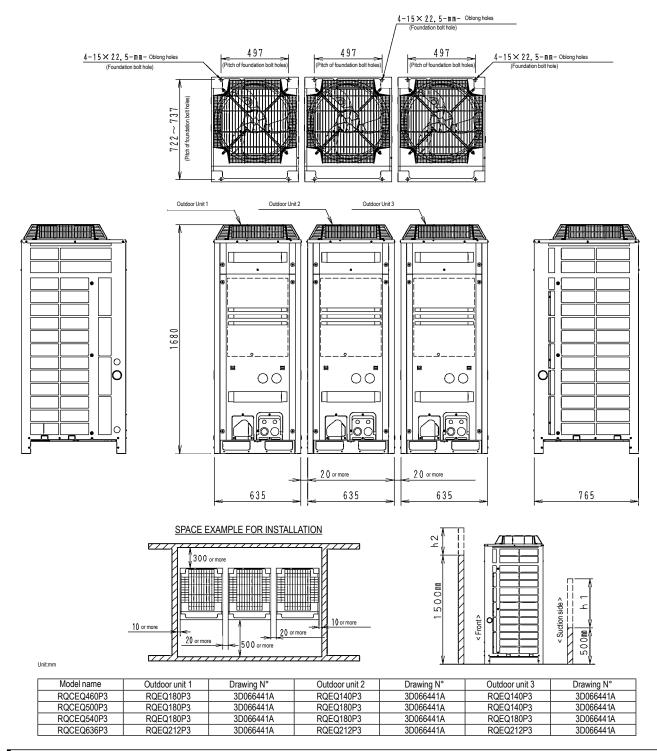
- Design outdoor temperature becomes over 35°C.
- Operating over Max. operating load

(In case of causing a heavy heating load at indoor unit side)

- 2. If the above wall heights are exceeded then h2/2 and h1/2 should be addes tot the front and suction side service spaces respectively as shown in the following figure.
- 3. When installing the units the most appropriate pattern should be selected from those shown above in order to obtain the best fit in the space available alway bearing in mind the need to leave enough room for a person to pass between nuits and wall for the air to circulate freely. (If more units are to be installed than are catered for in the above patterns your layout should take account of the possibility of short circuits.)
- 4. The units should be installed to leave sufficient space at the front for the on site refrigerant piping work to be carried out confortably.

3D066856A

#### RQCEQ460-636P3



#### NOTES

1. Heights of walls

Front: 1500mm

Suction side: 500mm

Side: Height unrestricted

The installation space shown in this figure is based on the condition of cooling operation at the outdoor air temperature of 35°C.

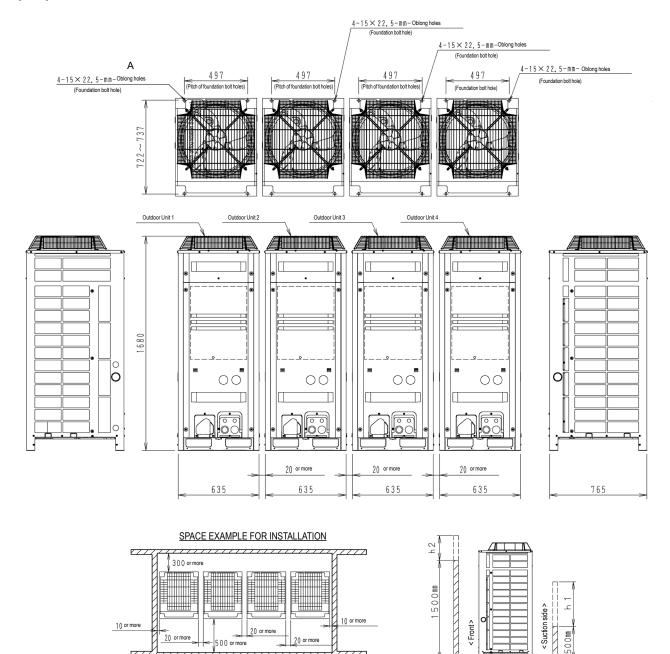
The installation space of suction side shown above must be expanded in the following case.

- Design outdoor temperature becomes over 35°C.
- Operating over Max. operating load
- (In case of causing a heavy heating load at indoor unit side)
- 2. If the above wall heights are exceeded then h2/2 and h1/2 should be addes tot the front and suction side service spaces respectively as shown in the following figure.
- 3. When installing the units the most appropriate pattern should be selected from those shown above in order to obtain the best fit in the space available alway bearing in mind the need to leave enough room for a person to pass between nuits and wall for the air to circulate freely. (If more units are to be installed than are catered for in the above patterns your layout should take account of the possibility of short circuits.)
- 4. The units should be installed to leave sufficient space at the front for the on site refrigerant piping work to be carried out confortably.

3D066860A



#### RQCEQ721-848P3



#### Unit: mm

Model name	Outdoor unit 1	Drawing N°	Outdoor unit 2	Drawing N°	Outdoor unit 3	Drawing N°	Outdoor unit 4	Drawing N°
RQCEQ712P3	RQEQ212P3	3D066441A	RQEQ180P3	3D0664413	RQEQ180PA	3D066441A	RQEQ140P3	3D066441A
RQCEQ744P3	RQEQ212P3	3D066441A	RQEQ212P3	3D0664413	RQEQ180PA	3D066441A	RQEQ140P3	3D066441A
RQCEQ816P3	RQEQ212P3	3D066441A	RQEQ212P3	3D0664413	RQEQ212PA	3D066441A	RQEQ180P3	3D066441A
RQCEQ848P3	RQEQ212P3	3D066441A	RQEQ212P3	3D0664413	RQEQ212PA	3D066441A	RQEQ212P3	3D066441A

#### NOTES

1. Heights of walls

Front: 1500mm

Suction side: 500mm

Side: Height unrestricted

 $The installation space shown in this figure is based on the condition of cooling operation at the outdoor air temperature of 35 ^{\circ}C.$ 

- The installation space of suction side shown above must be expanded in the following case.
- Design outdoor temperature becomes over 35°C.
   Operating over Max. operating load

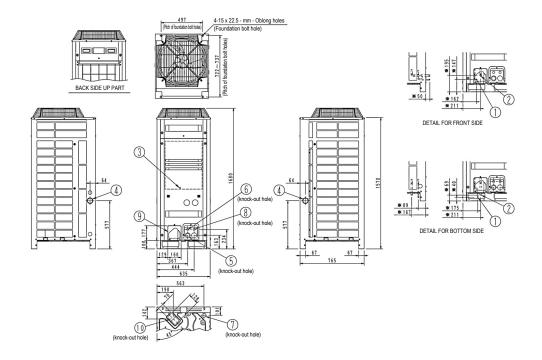
(In case of causing a heavy heating load at indoor unit side)

- 2. If the above wall heights are exceeded then h2/2 and h1/2 should be addes tot the front and suction side service spaces respectively as shown in the following figure.

  3. When installing the units the most appropriate pattern should be selected from those shown above in order to obtain the best fit in the space available alway bearing in mind the need to leave enough room for a person to pass between nuits and wall for the air to circulate freely. (If more units are to be installed than are catered for in the above patterns your layout should take account of the possibility of short circuits.)
- 4. The units should be installed to leave sufficient space at the front for the on site refrigerant piping work to be carried out confortably.

3D066865A

#### RQYQ140P



3D066442

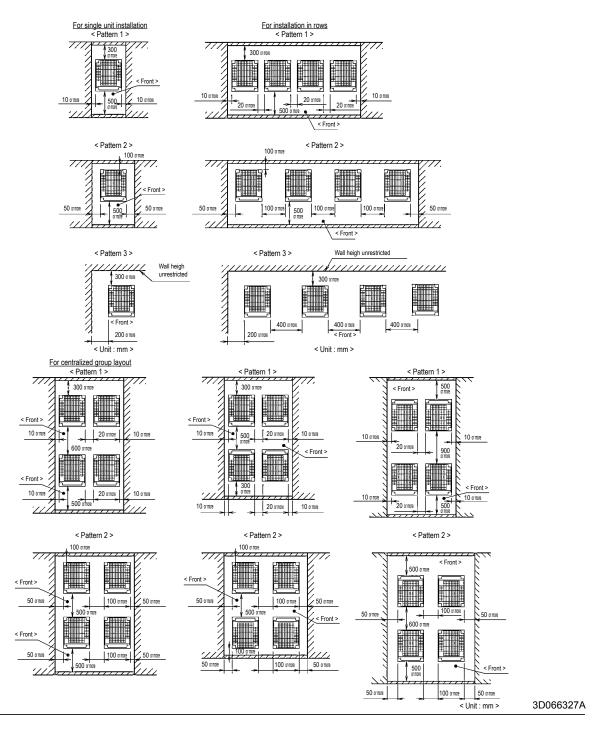
No.	Parts name	Remarks
1	Liquid pipe connection port	ø9.5 Brazing connection
2	Gas pipe connection port	See note 3.
3	Grounding terminal	Inside of switch box (M8)
4	Power cord routing hole (side)	ø62
5	Power cord routing hole (front)	ø45
6	Power cord routing hole (front)	ø27
7	Power cord routing hole (bottom)	ø50
8	Wire routing hole (front)	ø27
9	Pipe routing hole (front)	See note 2.
10	Pipe routing hole (bottom)	See note 2.

#### NOTES

- 1 \* shows the dimensions after fixing the accessory pipes.
- 2. For piping connection method (front and bottom sides) see the installation manual.
- 3 Gas pipe ø15.9 Brazing connection: RQYQ140P

## VIEW ALL RQYQ-P TECHNICAL DRAWINGS ON MY.DAIKIN.EU

#### RQYQ140P



#### NOTES

1. Heights of walls in case of patterns 1 and 2:

Front: 1500 mm

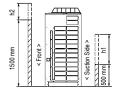
Suction side: 500mm

Side: Height unrestricted.

Installation space to be shown in this drawing is based on the cooling operation at 35 degrees outdoor air temperature.

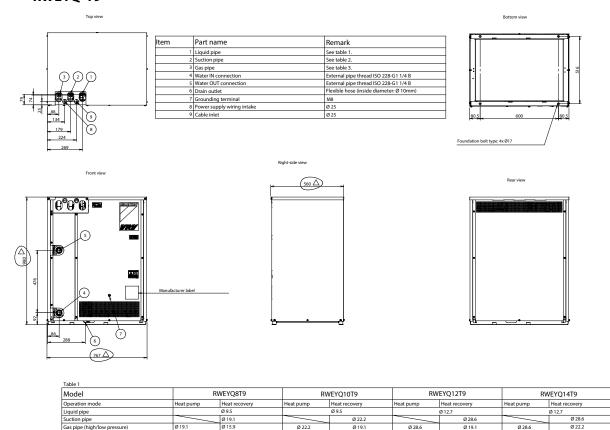
When the design outdoor air temperature exceeds 35 degrees or the load exceeds maximum ability because of much generation load of heat in all outdoor unit, take the suction side space more broadly than the space to be shown in this drawing.

- 2. If the above wall heights are exceeded then h2/2 and h1/2 should be added to the front and suction side service spaces respectively as shown in the figure on the right.
- 3. When installing the units most appropriate pattern should be selected from those shown above in order to obtain the best fit in the space available always bearing in mind the need to leave enough space for a person to pass between units and wall and for the air to circulate freely.
- (If more units are to be installed than are catered for in the above patterns your layout should take account to the possibility of short circuits.)
- 4. The units should be installed to leave sufficient space at the front for the on site refrigerant piping work to be carried out comfortably.





#### **RWEYQ-T9**

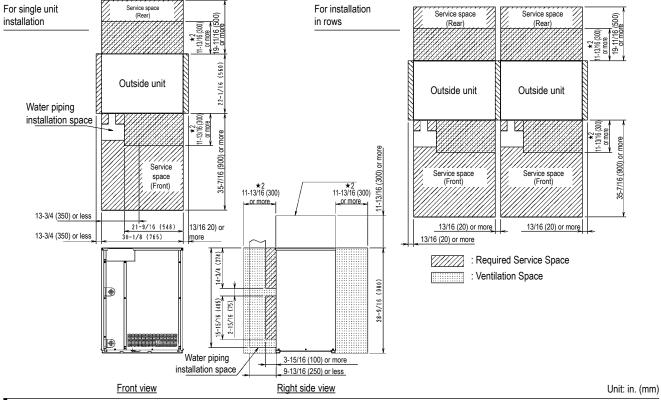


Notes

- The grounding terminal is located in the switch box.
- The pipe connections are brazed connections.

2D108932A

#### **RWEYQ-T9**



#### NOTES

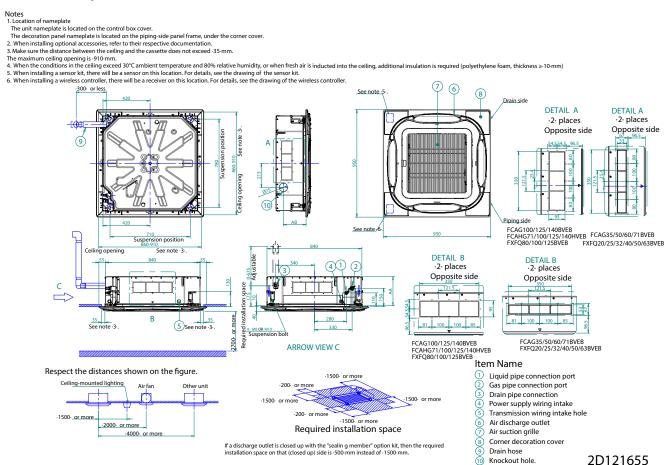
- $\bigstar$  1. This space is necessary when refrigerant piping is connected to the top of the unit.
- ★2. This ventialition space is necessary when heat rejection cancellation (Zero energy sissipation) is not active.

3D109304B





#### **FXFA-A / FXFQ-B WITH STANDARD PANEL**



#### **FXFA-A / FXFQ-B WITH AUTO CLEANING PANEL**

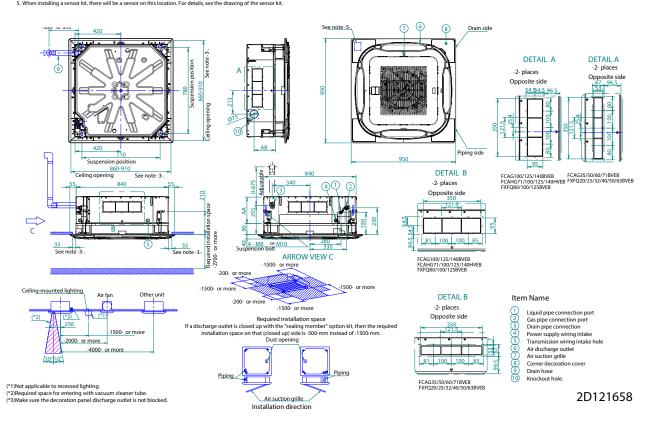
- 1. Location of nameplate
  The unit nameplate is located on the control box cover.
  The decoration panel nameplate is located on the piping-side panel frame, under the corner cover
  2. When installing optional accessories, refer to their respective documentation.
  3. Make sure the distance between the ceiling and the cassette does not exceed 35-mm.

- 3. Make so the distance between the centry and the deserted over the exceeded 30-4 mile.

  The maximum celling opering is §10 mm.

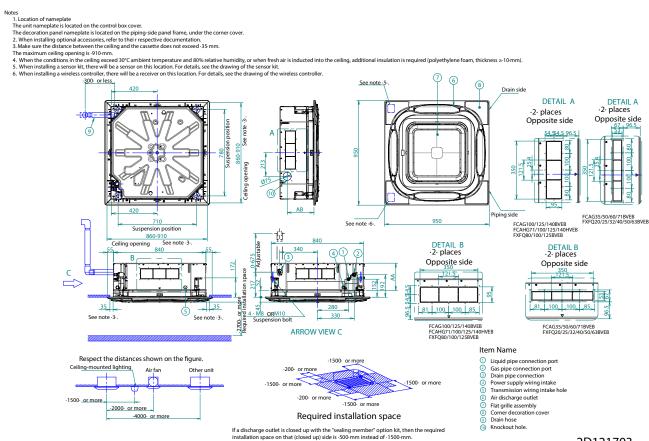
  4. When the conditions in the celling exceede 30°C ambient temperature and 80% relative humidity, or when fresh air is inducted into the celling, additional insulation is required (polyethylene foam, thickness ≥10 mm).

  5. When installing a serior kit, there will be a sensor on this location. For details, see the drawing of the sensor kit.

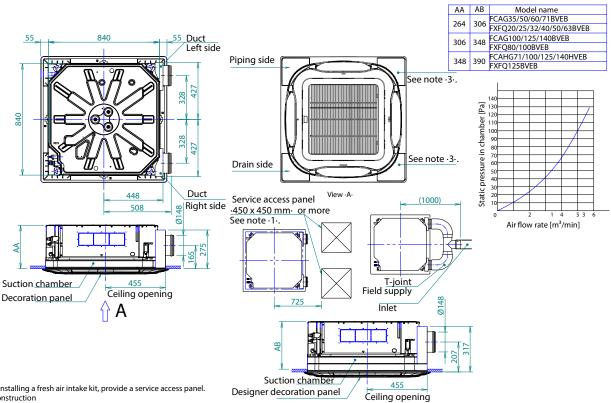




#### **FXFA-A / FXFQ-B WITH DESIGNER PANEL**



#### **FXFA-A / FXFQ-B WITH FRESH AIR INTAKE**



- 1. When installing a fresh air intake kit, provide a service access panel.
- 2. Field construction
- 3. This corner discharge outlet needs to be closed.
- 4. When installing a duct fan, use a wiring adapter to link the duct fan to the fan of the indoor unit.
- 5. The intake air flow rate is recommended to be ≤20% of the air flow rate at high fan speed.

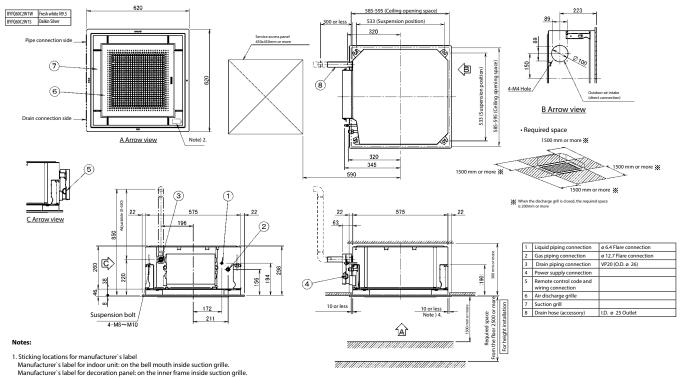
  If the intake air flow rate is too large, the operating sound may increase, and the detection of the indoor unit suction temperature may be affected.
- 6. This indicates the distance between the T-joint inlet and the indoor unit inlet when the T-tube is connected.

3D121741

2D121703



#### **FXZA-A / FXZQ-A NEW PANEL**



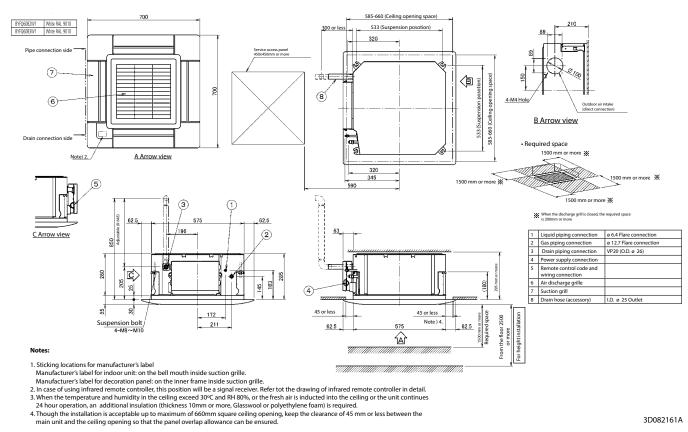
- In case of using infrared remote controller, this position will be a signal receiver. Refer tot the drawing of infrared remote controller in detail.

  3. When the temperature and humidity in the ceiling exceed 30°C and RH 80%, or the fresh air is inducted into the ceiling or the unit continues 24 hour operation, an additional insulation (thickness 10mm or more, Gasswool or polyethylene foam) is required.

  4. Though the installation is acceptable up to maximum of 595mm square ceiling opening, keep the clearance of 10mm or less between the
- main unit and the ceiling opening so that the panel overlap allowance can be ensured.

3D082052

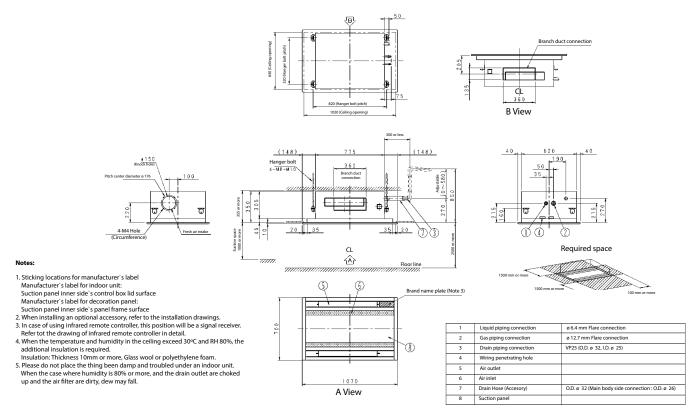
#### **FXZA-A / FXZQ-A OLD PANEL**



3D082161A

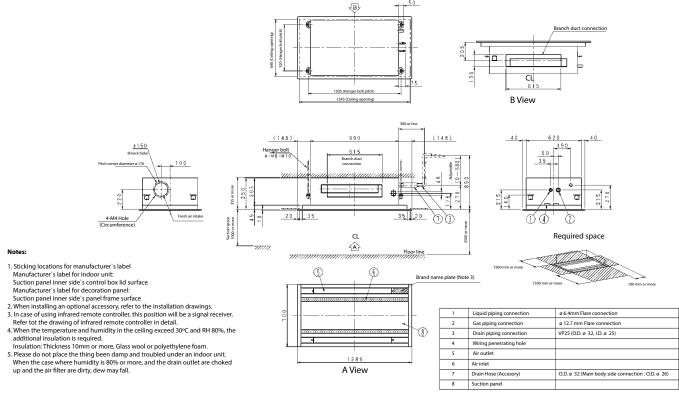
## VIEW ALL FXCQ-A TECHNICAL DRAWINGS ON MY.DAIKIN.EU

#### FXCQ20-40A



3D079628

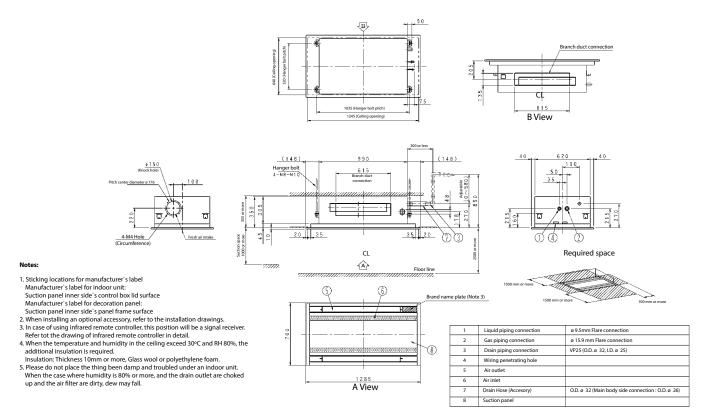
#### FXCQ50A



3D079629

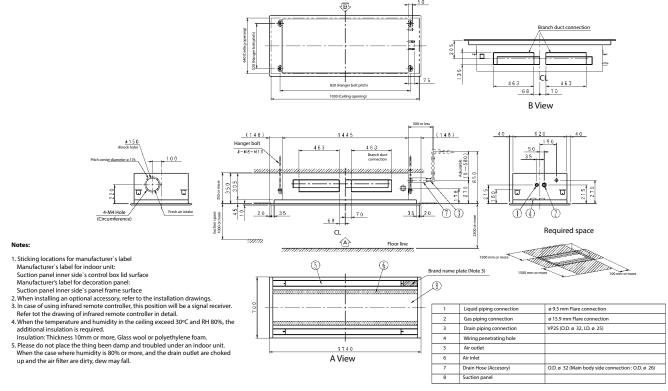


#### FXCQ63A



3D079630

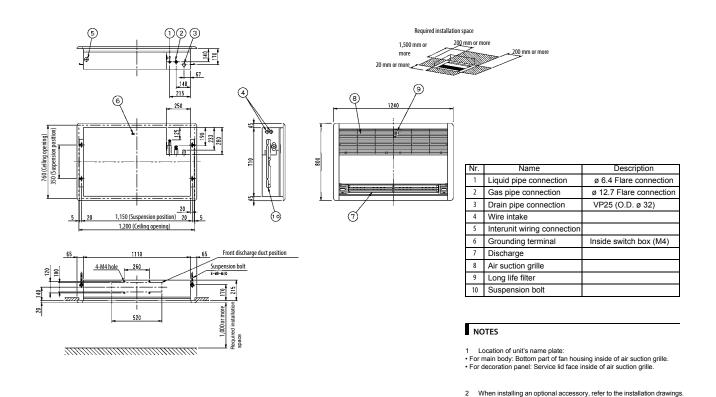
#### FXCQ80-125A



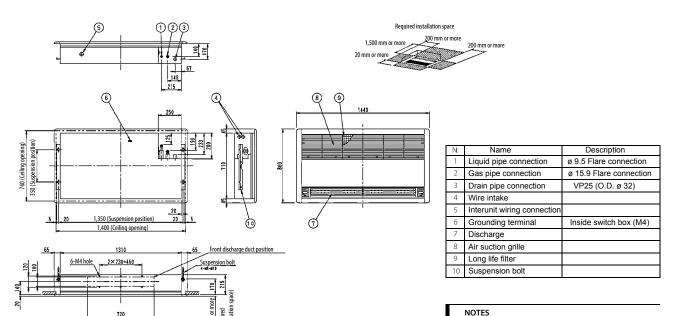
3D079631

#### **VIEW ALL FXKQ-MA TECHNICAL DRAWINGS ON MY.DAIKIN.EU**

#### FXKQ25, 32, 40MA



#### FXKQ63MA



- Location of unit's name plate:

  For main body: Bottom part of fan housing inside of air suction grille.

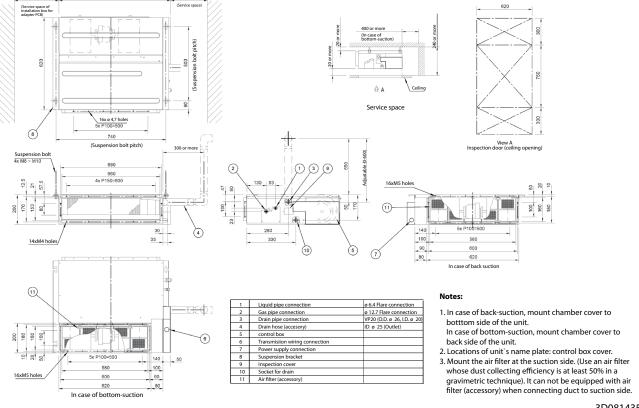
  For decoration panel: Service lid face inside of air suction grille.
- 2 When installing an optional accessory, refer to the installation drawings.

3D038841

3D038840

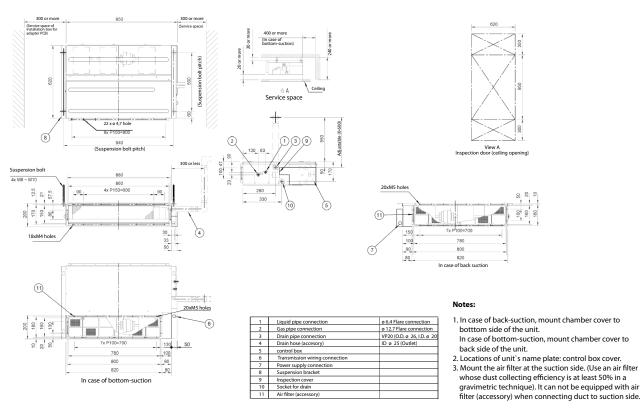


# FXDQ15-32A3 **FXDA15-32A**



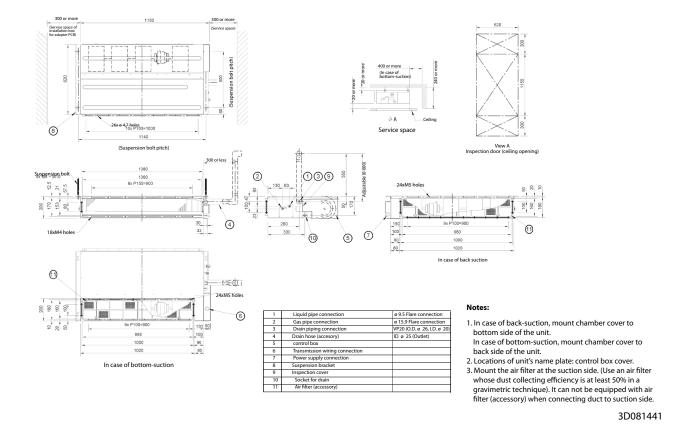
#### 3D081435

# FXDQ40-50A3 **FXDA40-50A**

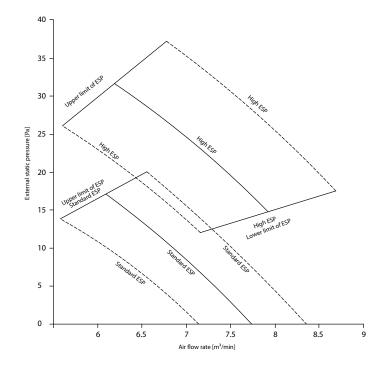


3D081436

# FXDQ63A3 FXDA63A



# FXDQ15A3 FXDA15A

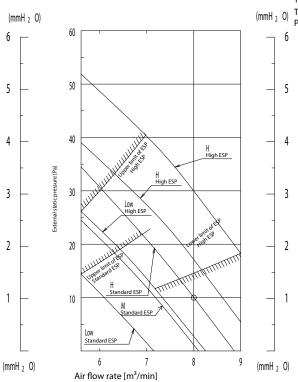


#### Notes

The remote controller can be used to switch between 'high' and 'low'. The air flow is factory-set to 'standard'. It is possible to switch between 'standard ESP' and 'high ESP' by remote controller setting.



# FXDQ20-25A3 FXDA20-25A

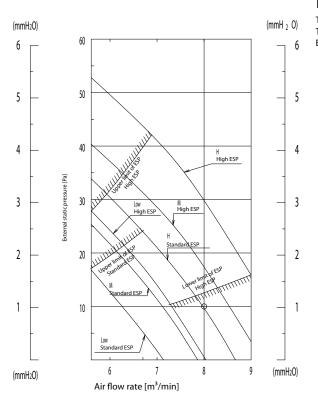


# Notes

The remote controller can be used to switch between 'high' and 'low'. The air flow is factory-set to 'standard'. It is possible to switch between 'standard ES P' and 'high ESP' by remote controller setting.

3D086736B

# FXDQ32A3 FXDA32A

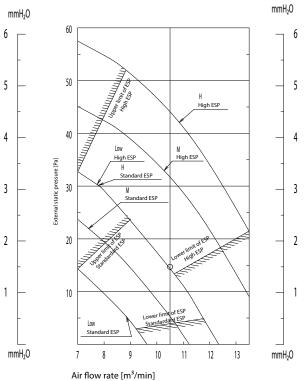


#### Notes

The remote controller can be used to switch between 'high' and 'low'. The air flow is factory-set to 'standard'. It is possible to switch between 'standard ESP' and 'high ESP' by remote controller setting.



# FXDQ40A3 FXDA40A

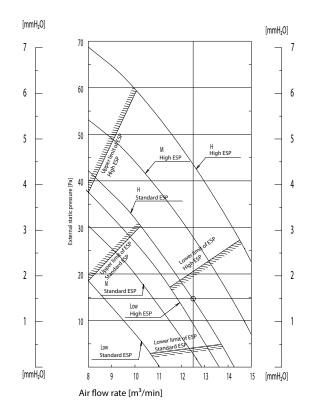


#### Notes

The remote controller can be used to switch between 'high' and 'low'. The air flow is factory-set to 'standard'. It is possible to switch between 'standard ESP' and 'high ESP' by remote controller setting.

3D081426C

# FXDQ50A3 FXDA50A



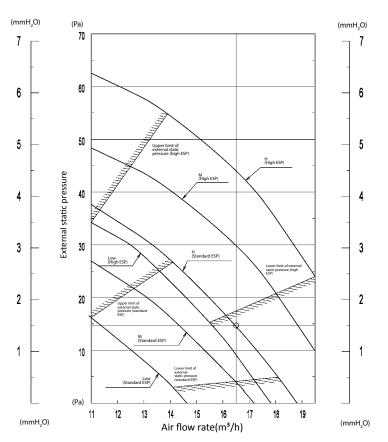
# Notes

The remote controller can be used to switch between 'high' and 'low'. The air flow is factory-set to 'standard'. It is possible to switch between 'standard ESP' and 'high ESP' by remote controller setting.

3D081427C



# FXDQ60A3 FXDA60A



Notes:

1. Remote controller can be used to switch between 'HIGH' and 'LOW'.

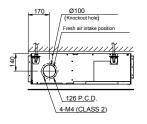
('H', 'M' and 'L' for FDQ-AZVEB model)

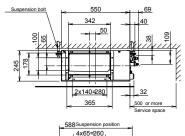
2. The air flows is set to 'STANDARD' before leaving the factory. It is possible to switch between 'STANDARD ESP' and 'HIGH ESP' by remote controller.

3D081429B

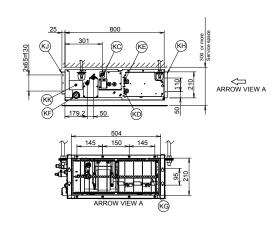


# FXSQ15-32A **FXSA15-32A**





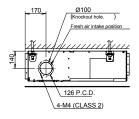


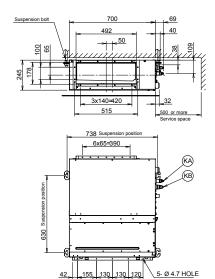


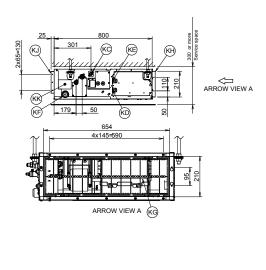
Item	Name	Description
KA	Liquid pipe connection port	Ø6.35 flared connection
KB	Gas pipe connection port	Ø12.70 flared connection
KC	Drain pipe connection	VP20 (OD Ø26, ID Ø20)
KD	Wiring connection	1
KE	Power supply connection	1
KF	Drain outlet	VP20 (OD Ø26, ID Ø20)
KG	Air filter	1
KH	Air suction side	1
KJ	Air discharge side	1
KK	Nameplate	/

3D094888A

# FXSQ40-50A FXSA40-50A







Item	Name	Description
KA	Liquid pipe connection port	Ø6.35 flared connection
KB	Gas pipe connection port	Ø12.70 flared connection
KC	Drain pipe connection	VP20 (OD Ø26, ID Ø20)
KD	Wiring connection	/
KE	Power supply connection	/
KF	Drain outlet	VP20 (OD Ø26, ID Ø20)
KG	Air filter	/
KH	Air suction side	1
KJ	Air discharge side	1
KK	Nameplate	1

Notes

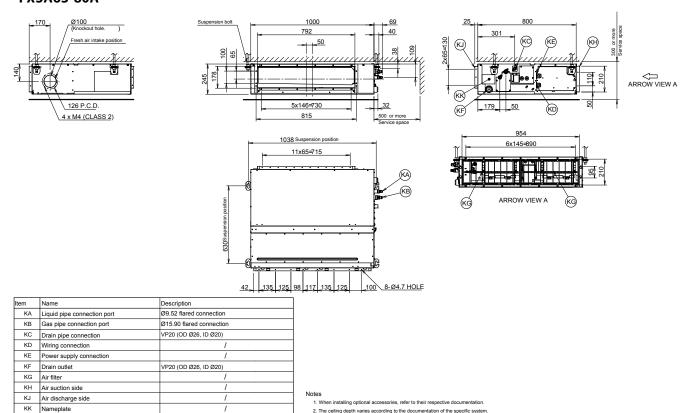
1. When installing optional accessories, refer to their respective documentation.

2. The ceiling depth varies according to the documentation of the specific system.

3D094919A

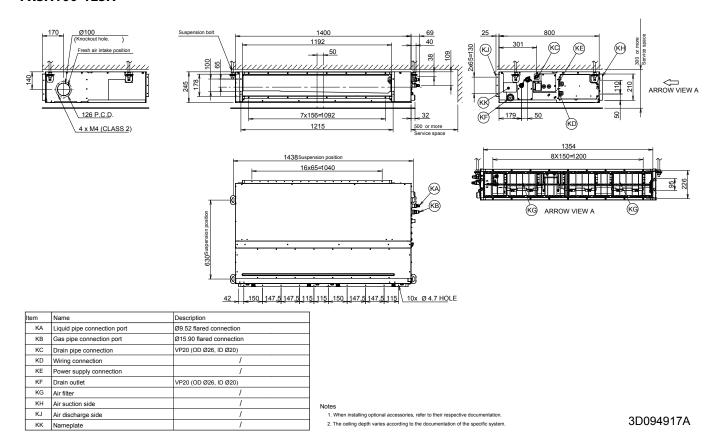


# FXSQ63-80A FXSA63-80A



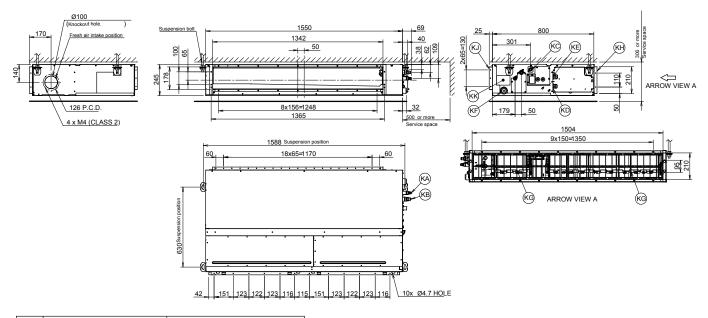
3D094916A

### FXSQ100-125A FXSA100-125A





# FXSQ140A FXSA140A

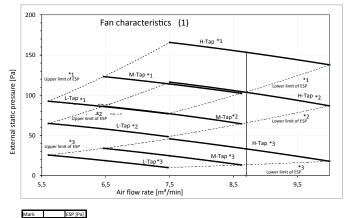


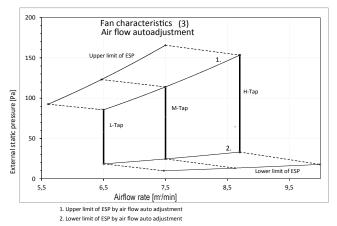
Item	Name	Description
KA	Liquid pipe connection port	Ø9.52 flared connection
KB	Gas pipe connection port	Ø15.90 flared connection
KC	Drain pipe connection	VP20 (OD Ø26, ID Ø20)
KD	Wiring connection	1
KE	Power supply connection	1
KF	Drain outlet	VP20 (OD Ø26, ID Ø20)
KG	Air filter	1
KH	Air suction side	1
KJ	Air discharge side	1
KK	Nameplate	1

2. The ceiling depth varies according to the documentation of the specific system

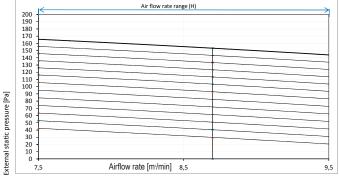
3D094928A

# FXSQ15A FXSA15A





Fan characteristics (2) Field setting with remote control

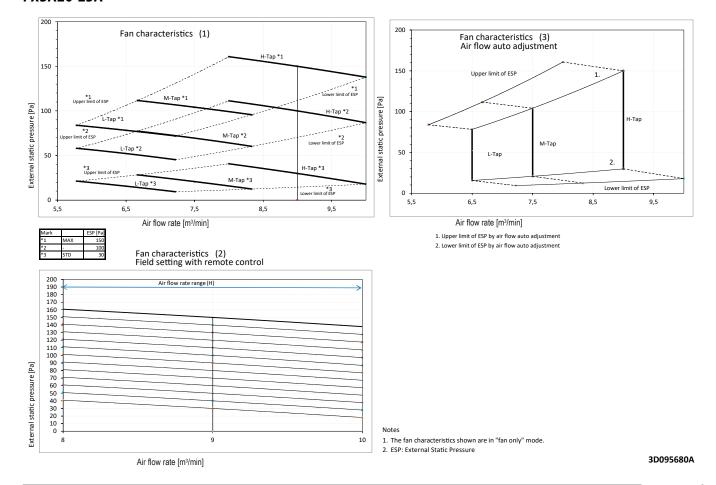


The fan characteristics shown are in "fan only" mode.
 ESP: External Static Pressure

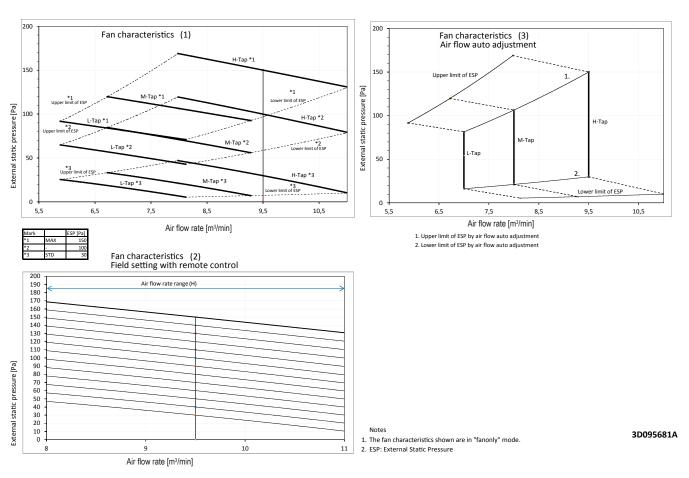
3D096999



# FXSQ20-25A FXSA20-25A



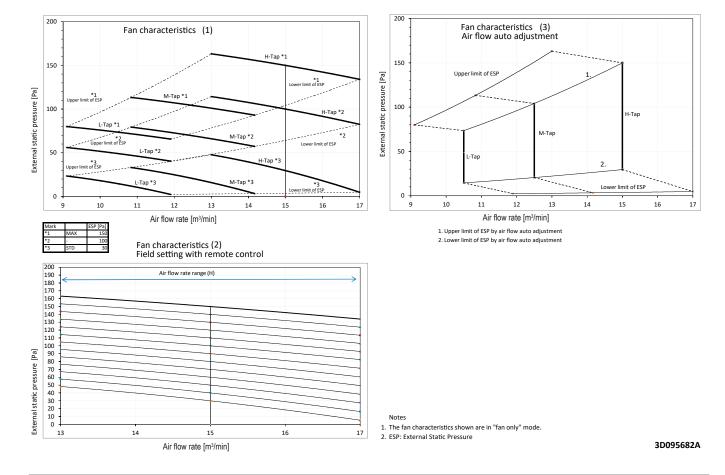
# FXSQ32A FXSA32A



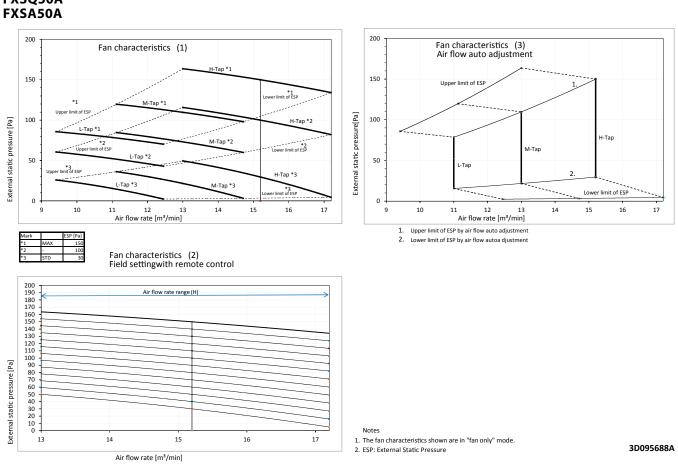




# FXSQ40A **FXSA40A**



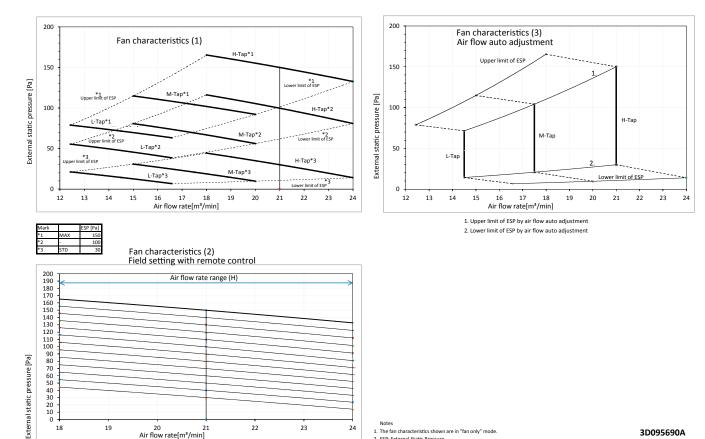
# FXSQ50A



3D095690A



# FXSQ63A FXSA63A



24

The fan characteristics shown are in "fan only" mode.
 ESP: External Static Pressure

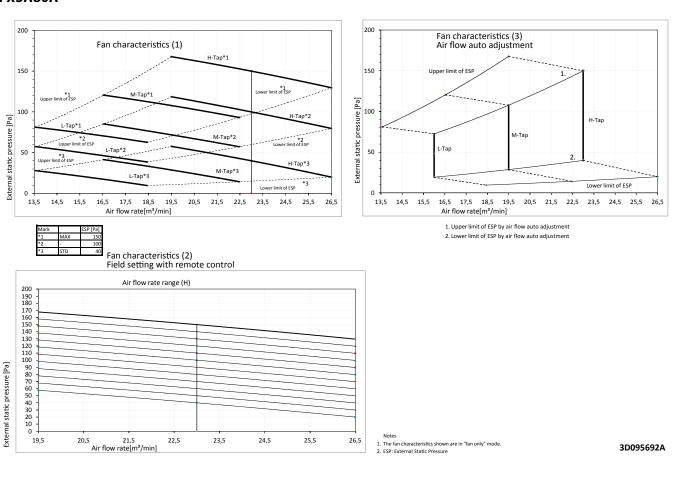
# FXSQ80A **FXSA80A**

20 21 Air flow rate[m³/min]

22

23

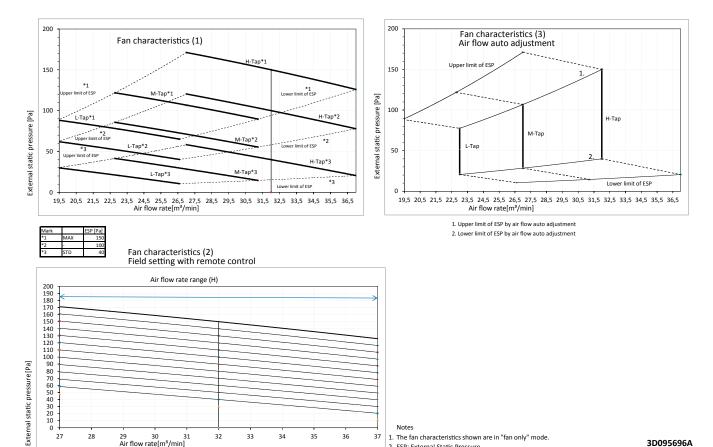
19





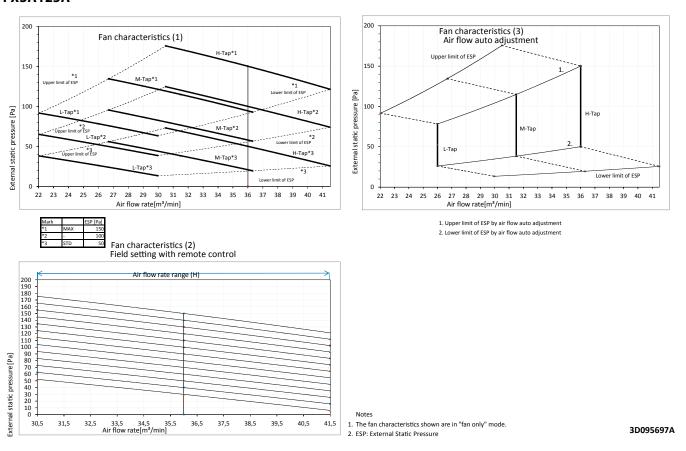


# FXSQ100A FXSA100A



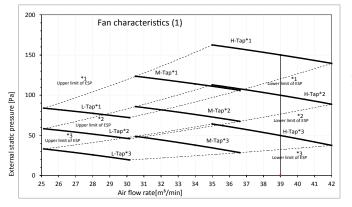
2. ESP: External Static Pressure

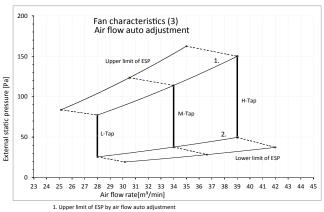
# FXSQ125A FXSA125A





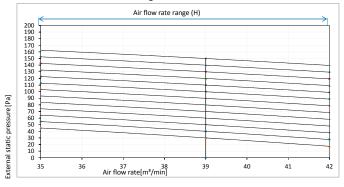
# FXSQ140A FXSA140A







Fan characteristics (2) Field setting with remote control



Notes
1. The fan characteristics shown are in "fan only" mode.

2. Lower limit of ESP by air flow auto adjustment

2. ESP: External Static Pressure

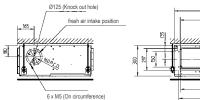
3D096688A

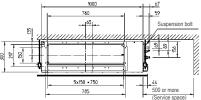


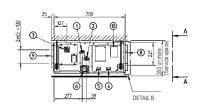
# FXMQ50P7

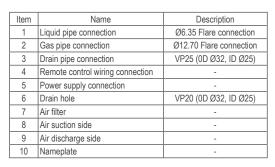






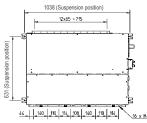






0125 (Knock out hole) Fresh air intake p

With decoration panel



Su

3TW32694-1

#### NOTES

1 Refer to 'outlook drawing for installing optional accessories' when installing optional accessories.

①

6

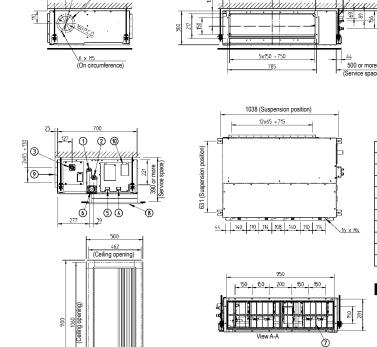
-® ≅

- 2 The required ceiling depth varies according to the configuration of the specific system.
- 3 For maintenance of the air filter, it is necessary to provide a service access panel. Refer to the 'filter installation method' drawing.

**(3)** 

9

# FXMQ63-80P7



Item	Name	Description
1	Liquid pipe connection	ø 9.52 Flare connection
2	Gas pipe connection	ø 15.90 Flare connection
3	Drain pipe connection	VP25 (OD ø 32, ID ø 25)
4	Remote control wiring connection	-
5	Power supply connection	-
6	Drain hole	VP25 (OD ø 32, ID ø 25)
7	Air filter	-
8	Air suction side	-
9	Air discharge side	-
10	Nameplate	-

**(3) (4)** 

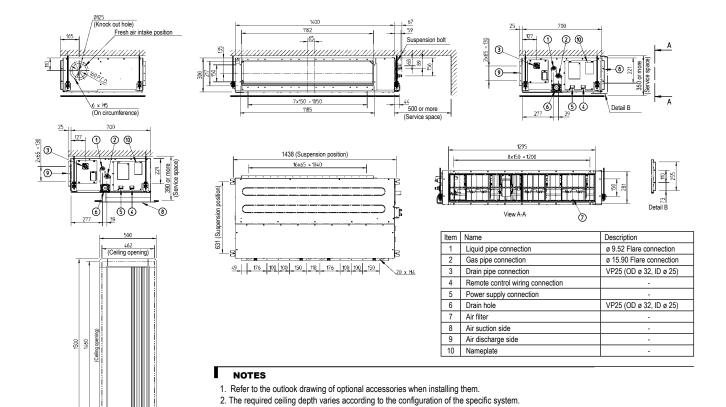
39

### NOTES

- 1. Refer to the outlook drawing of optional accessories when installing them.
- The required ceiling depth varies according to the configuration of the specific system.
- For maintenance of the air filter, it is necessary to provide a service access panel.
- 4. Optional decoration panel: BYBS71DJW1 (light ivory white 10Y9/0.5)



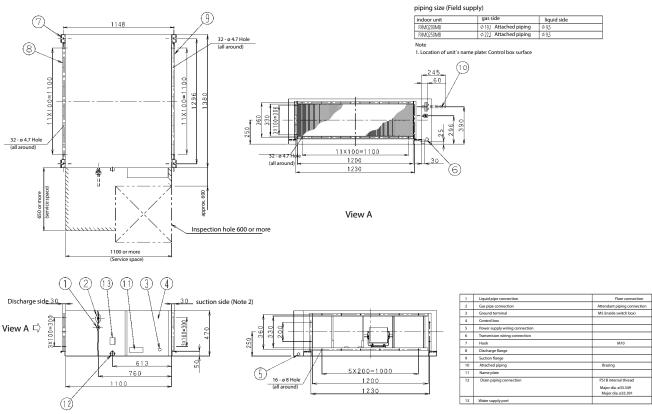
# FXMQ100-125P7



3. For maintenance of the air filter, it is necessary to provide a service access panel.
4. Optional decoration panel: BYBS125DJW1 (light ivory white 10Y9/0.5)

# **FXMQ-MB**

With decoration panel

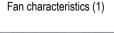


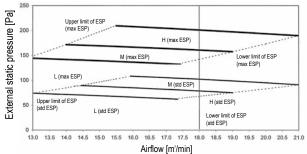
3D096007

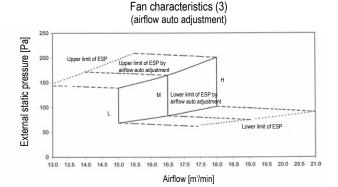
3TW31254-1B

# VIEW ALL FXMQ-P7 TECHNICAL DRAWINGS ON MY.DAIKIN.EU

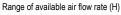
# FXMQ50P7

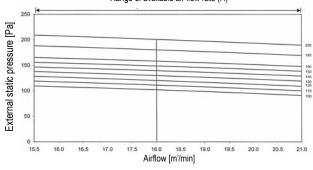






Fan characteristics (2) (Field setting with remote control)





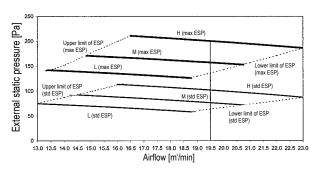
3TW32698-1

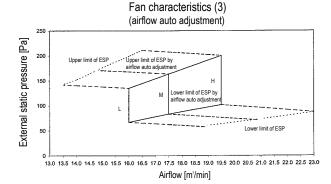
# NOTES

- 1. Fan characteristics as shown are in "fan only" mode.
- 2. ESP: External static pressure

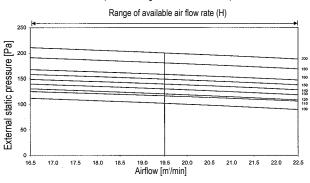
# FXMQ63P7

### Fan characteristics (1)





# Fan characteristics (2) (Field setting with remote control)



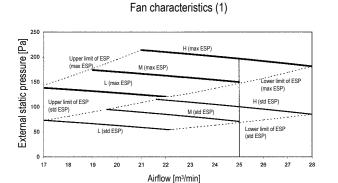
3TW32708-1

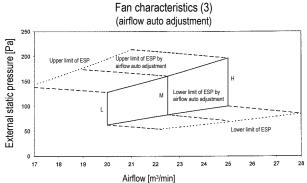
# NOTES

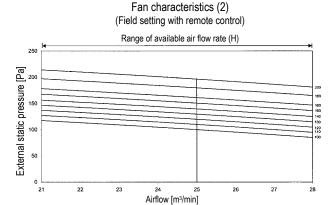
- 1. Fan characteristics as shown are in "fan only" mode.
- 2. ESP: External static pressure



# FXMQ80P7





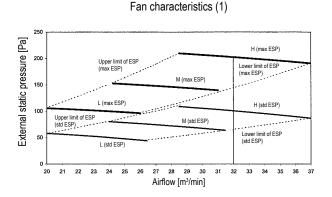


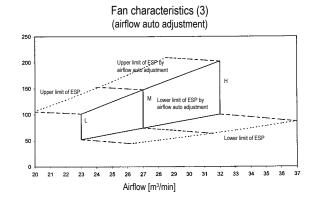
3TW32718-1

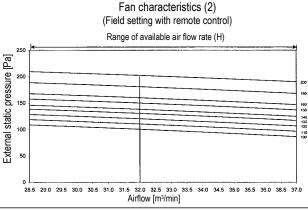
# NOTES

- 1. Fan characteristics as shown are in "fan only" mode.
- 2. ESP: External static pressure

# FXMQ100P7







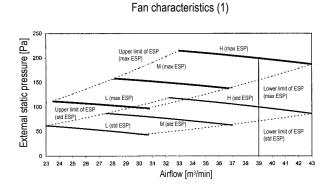
3TW32728-1

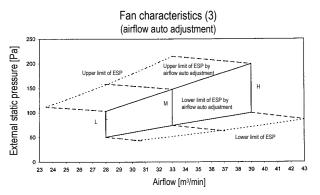
#### NOTES

- 1. Fan characteristics as shown are in "fan only" mode.
- 2. ESP: External static pressure.

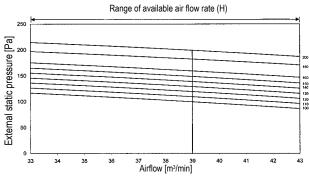


# FXMQ125P7





Fan characteristics (2) (Field setting with remote control)



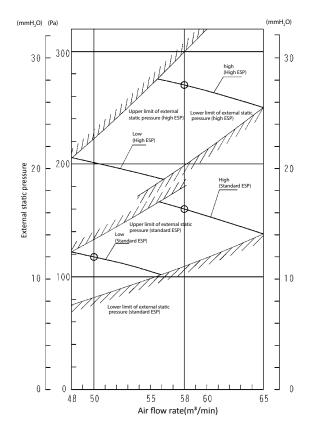
3TW32738-1

#### NOTES

- 1. Fan characteristics as shown are in "fan only" mode.
- 2. ESP: External static pressure

# FXMQ200MB





Notes:

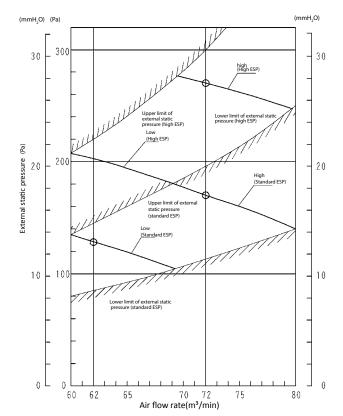
1. Remote controller can be used to switch between 'HIGH' and 'LOW'.

2. The air flows is set to 'STANDARD' before leaving the factory. It is possible to switch between 'STANDARD ESP' and 'HIGH ESP' by remote controller.

4D095421

# FXMQ250MB





Notes:

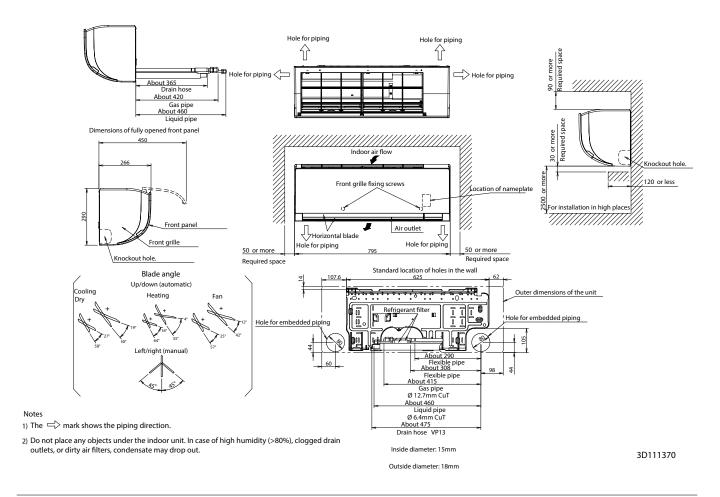
1. Remote controller can be used to switch between 'HIGH' and 'LOW'.

2. The air flows is set to 'STANDARD' before leaving the factory, it is possible to switch between 'STANDARD ESP' and 'HIGH ESP' by remote controller.

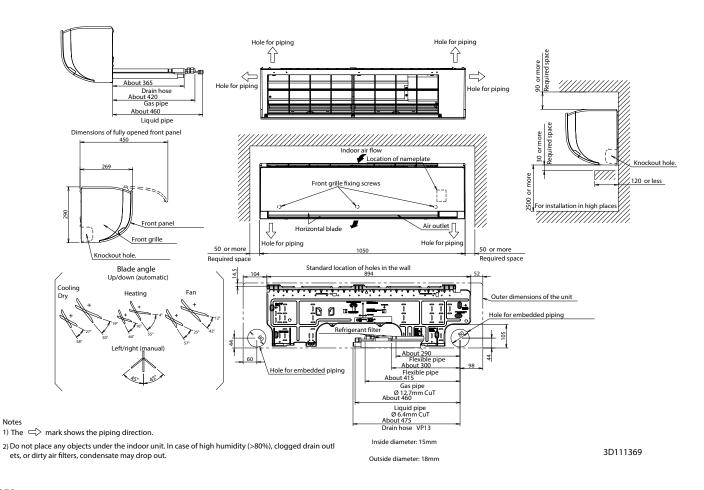
4D095422



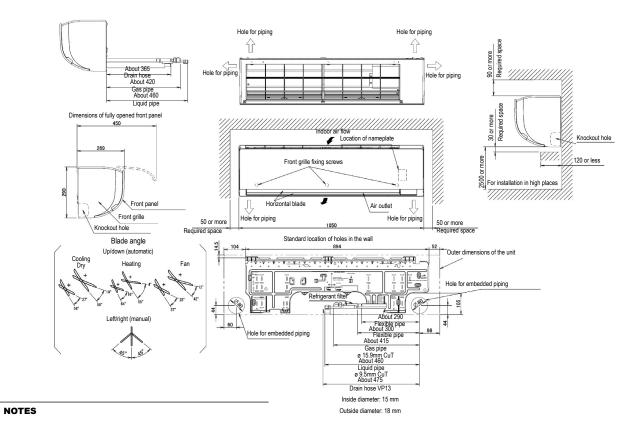
# **FXAQ15-32A**



# **FXAQ40-50A**



# FXAQ63A



- 1. The mark shows the piping direction.
  2. Do not place any objects under the indoor unit. In case of high humidity

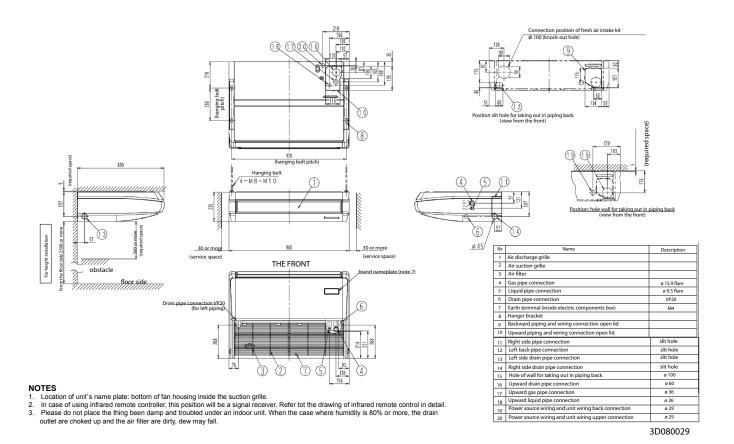
  1. The mark shows the piping direction.
  2. Do not place any objects under the indoor unit. In case of high humidity

  1. The mark shows the piping direction. (>80%), clogged drain outlets or dirty air filters, condensate may drop out.

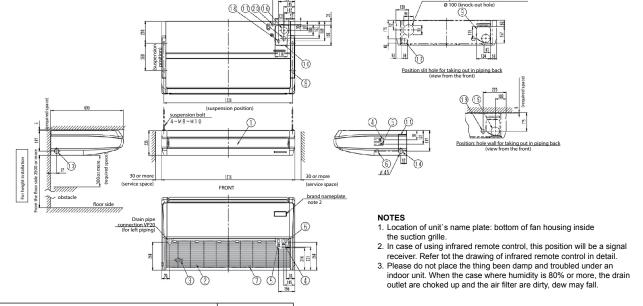
3D111368

# VIEW ALL FXHQ-A TECHNICAL DRAWINGS ON MY.DAIKIN.EU

# FXHQ32A



# FXHQ63A

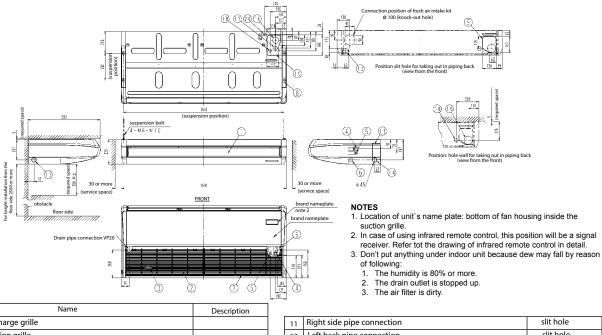


Nr	Name	Description		
1	Air discharge grille		11	Right side pipe connection
2	Air suction grille		12	Left back pipe connection
3	Air filter		13	Left side drain pipe connec
4	Gas pipe connection	ø 15.9 flare	14	Right side drain pipe conn
5	Liquid pipe connection	ø 9.5 flare	15	Hole of wall for taking out
6	Drain pipe connection	VP20	16	Upward drain pipe connec
7	Earth terminal (inside electric components box)	M4	17	Upward gas pipe connecti
8	Hanger bracket		18	Upward liquid pipe connec
9	Backward piping and wiring connection open lid		19	Power source wiring and u
10	Upward piping and wiring connection open lid		20	Power source wiring and u

11	Right side pipe connection	slit hole
12	Left back pipe connection	slit hole
13	Left side drain pipe connection	slit hole
14	Right side drain pipe connection	slit hole
15	Hole of wall for taking out in piping back	ø 100
16	Upward drain pipe connection	ø 60
17	Upward gas pipe connection	ø 36
18	Upward liquid pipe connection	ø 26
19	Power source wiring and unit wiring back connection	ø 29
20	Power source wiring and unit wiring upper connection	ø 29



# FXHQ100A

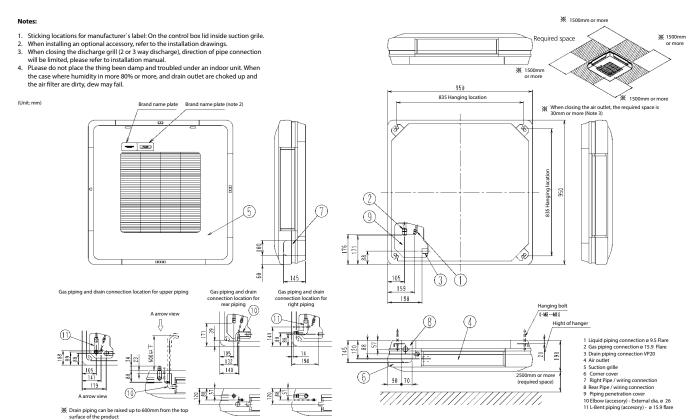


Nr	Name	Description
1	Air discharge grille	
2	Air suction grille	
3	Air filter	
4	Gas pipe connection	ø 15.9 flare
5	Liquid pipe connection	ø 9.5 flare
6	Drain pipe connection	VP20
7	Earth terminal (inside electric components box)	M4
8	Hanger bracket	
9	Backward piping and wiring connection open lid	
10	Upward piping and wiring connection open lid	

11	Right side pipe connection	slit hole
12	Left back pipe connection	slit hole
13	Left side drain pipe connection	slit hole
14	Right side drain pipe connection	slit hole
15	Hole of wall for taking out in piping back	ø 100
16	Upward drain pipe connection	ø 60
17	Upward gas pipe connection	ø 36
18	Upward liquid pipe connection	ø 26
19	Power source wiring and unit wiring back connection	ø 29
20	Power source wiring and unit wiring upper connection	ø 29

3D069633D

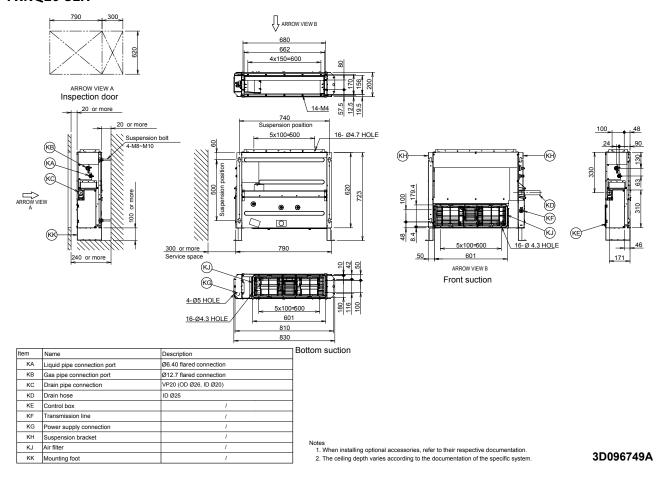
# **FXUQ-A**



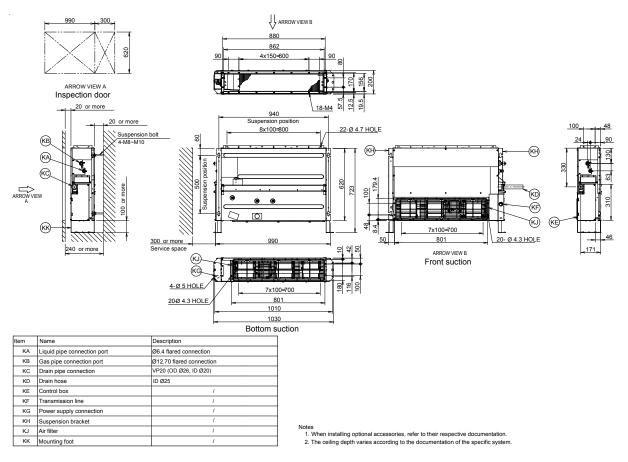
3D080135



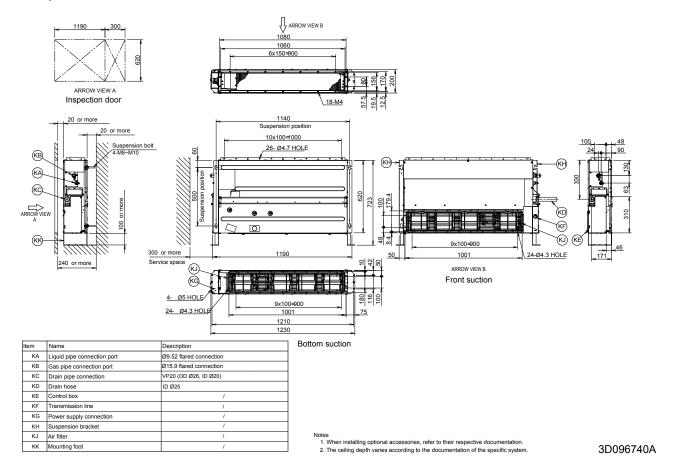
# FXNQ20-32A



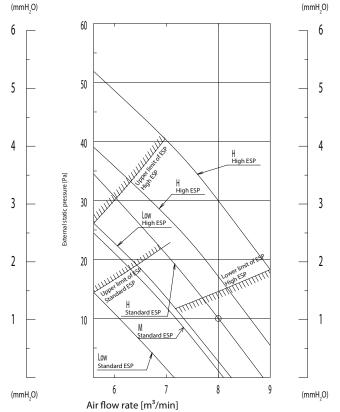
# FXNQ40-50A



# FXNQ63A



# FXNQ20-25A



### Notes

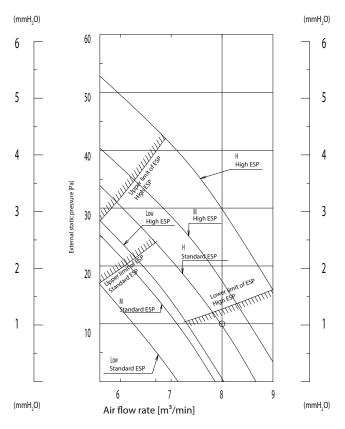
The remote controller can be used to switch between 'high' and 'low'.

The air flow is factory-set to 'standard'. It is possible to switch between 'standard ESP' and 'high ESP' by remote controller setting.

3D086736B



# FXNQ32A



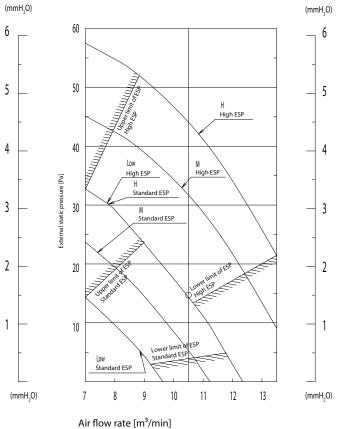
#### Notes

The remote controller can be used to switch between 'high' and 'low'.

The air flow is factory-set to 'standard'. It is possible to switch between 'standard ESP' and 'high ESP' by remote controller setting.

3D081425C

# **FXNQ40A**

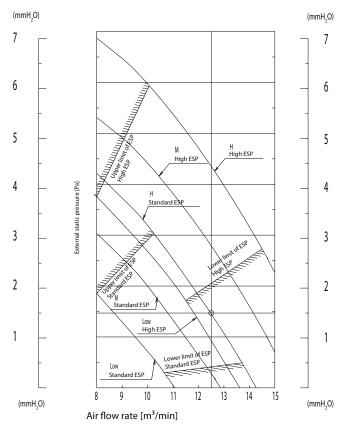


# Notes

The remote controller can be used to switch between 'high' and 'low'.

The air flow is factory-set to 'standard'. It is possible to switch between 'standard ESP' and 'high ESP' by remote controller setting.

# FXNQ50A



#### Notes

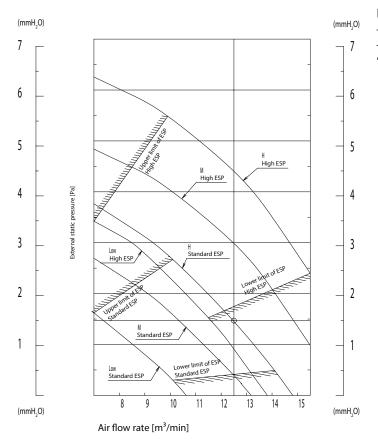
The remote controller can be used to switch between 'high' and 'low'.

The air flow is factory-set to 'standard'. It is possible to switch between 'standard'.

The air flow is factory-set to 'standard'. It is possible to switch between 'standard ESP' and 'high ESP' by remote controller setting.

3D081427C

# FXNQ63A

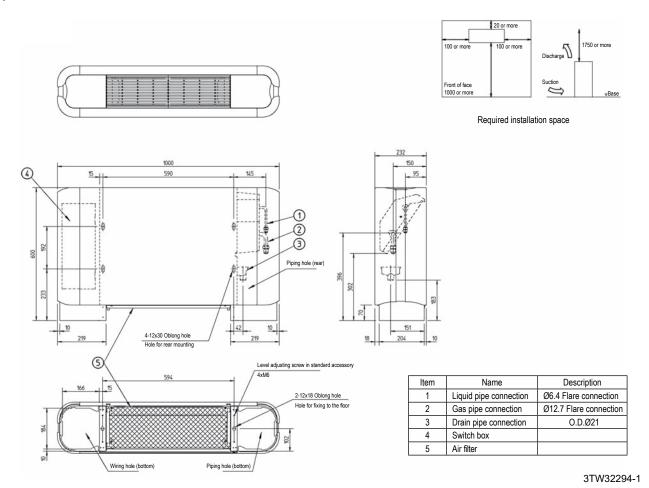


# Notes

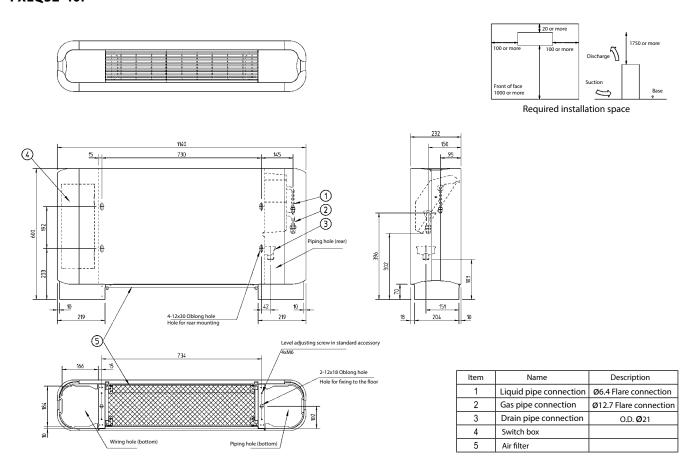
The remote controller can be used to switch between 'high' and 'low'. The air flow is factory-set to 'standard'. It is possible to switch between 'standard ESP' and 'high ESP' by remote controller setting.



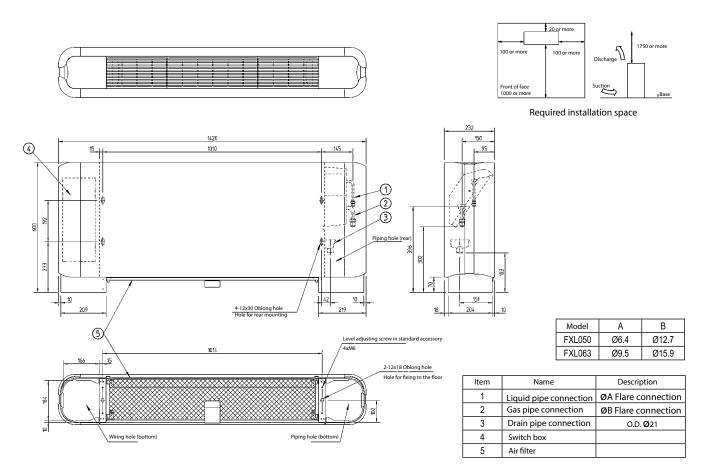
# FXLQ20-25P



# FXLQ32-40P



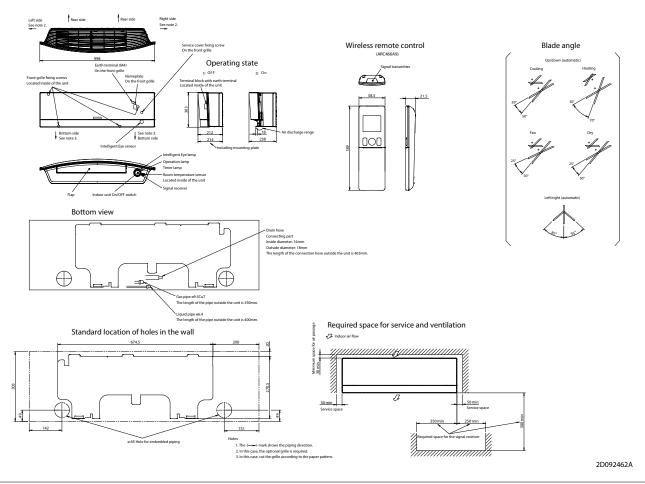
# FXLQ50-63P



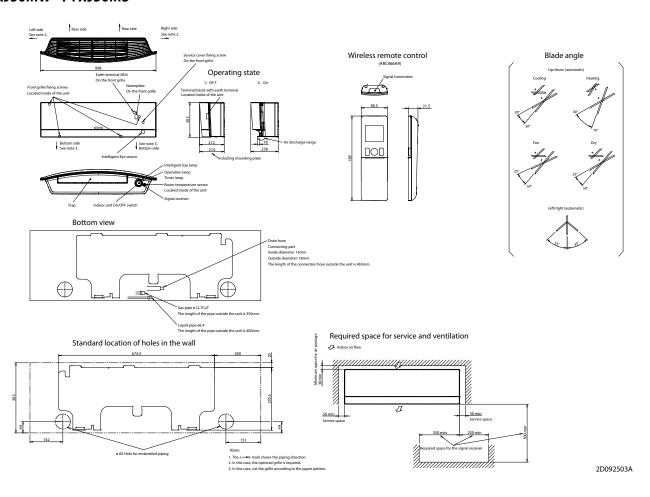
3TW32334-1



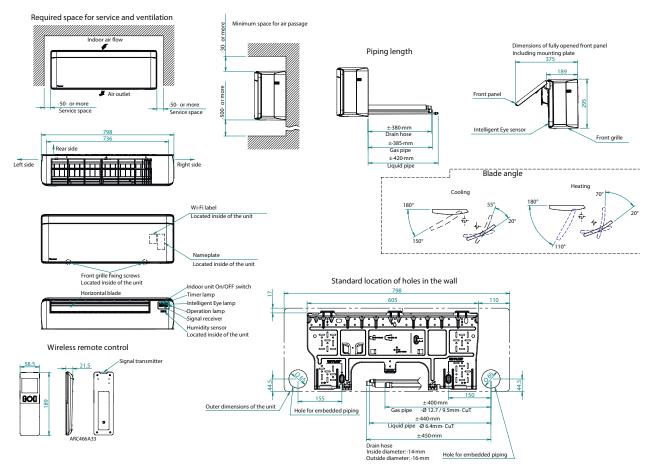
# **FTXJ20-35MW - FTXJ20-35MS**



# FTXJ50MW - FTXJ50MS



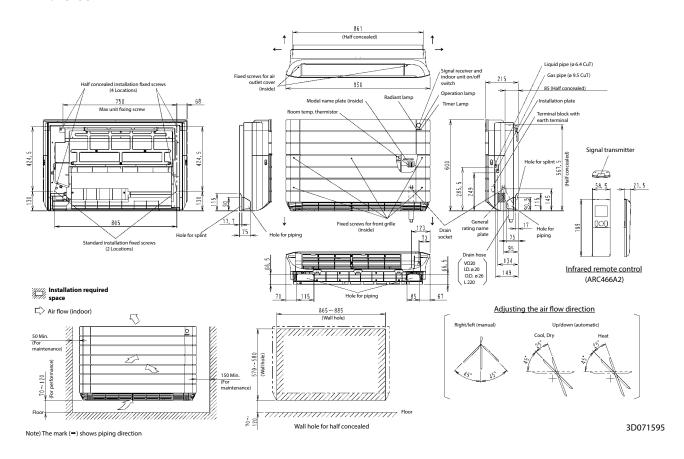
# CTXA-AW/AS/AT - FTXA-AW/AS/AT



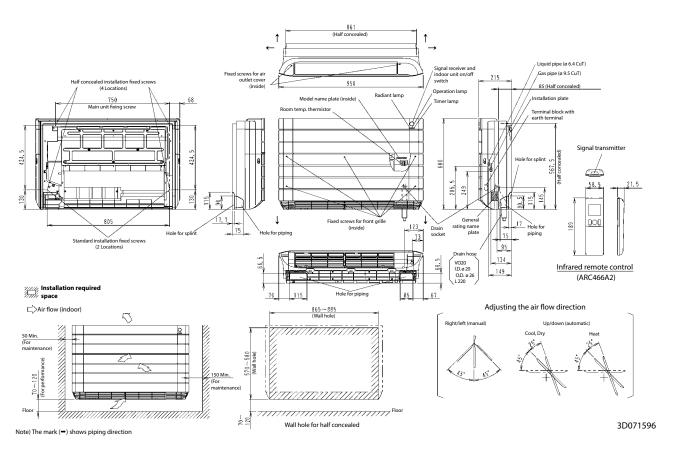
3D113513B



# FVXG25-35K

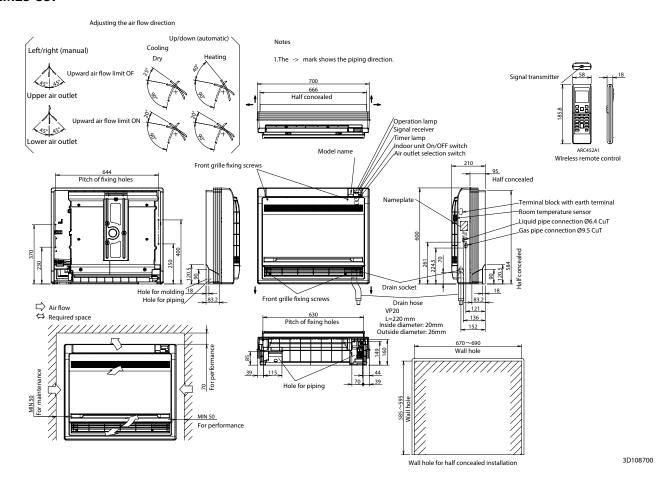


# FVXG50K

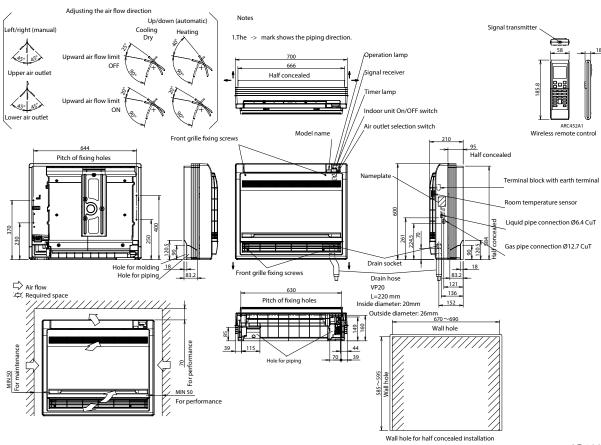




# FVXM25-35F



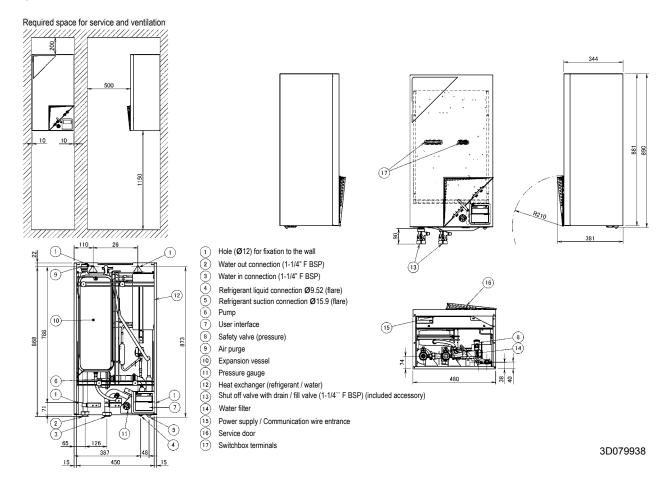
# FVXM50F



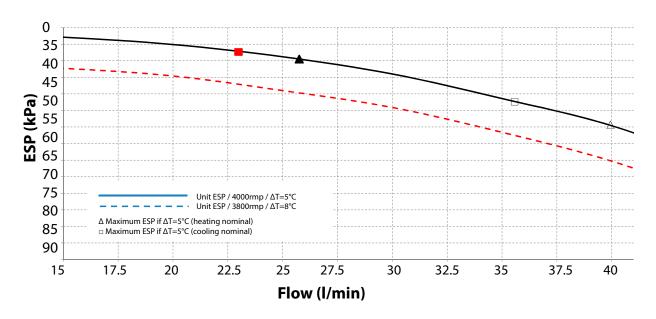




# HXY-A8



# HXY-A8

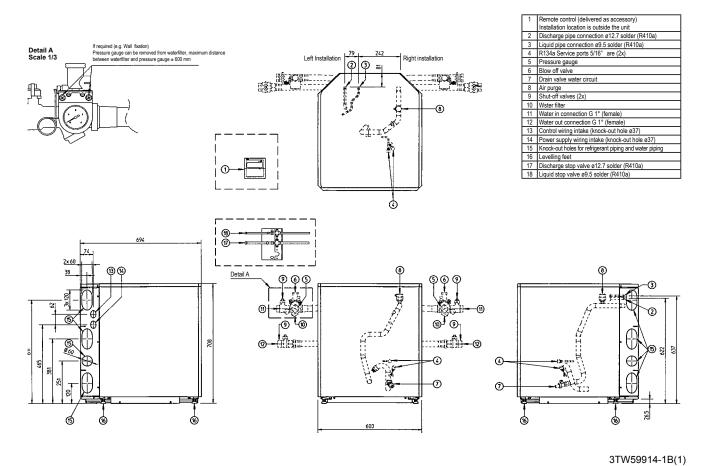


ESP: External Static Pressure Flow Water flow through the unit

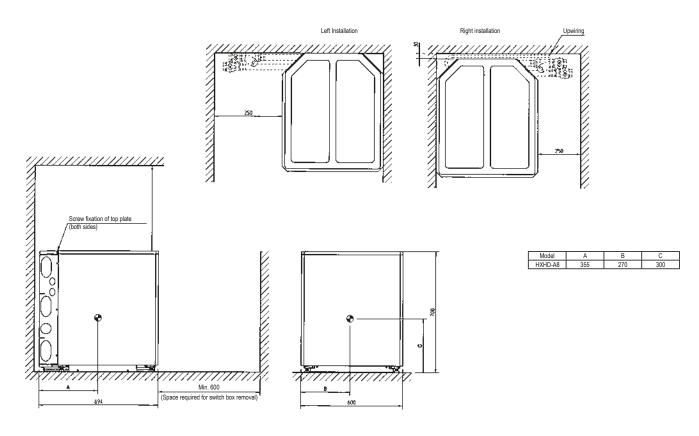
# Notes

- 1. Selecting a flow outside the operating area can damage the unit or cause the unit to malfunction. See also the minimum and maximum allowed water flow range in the technical specifications.
- 2. Water quality must be according to EU directive 98/83 EC.

# **HXHD125A8**

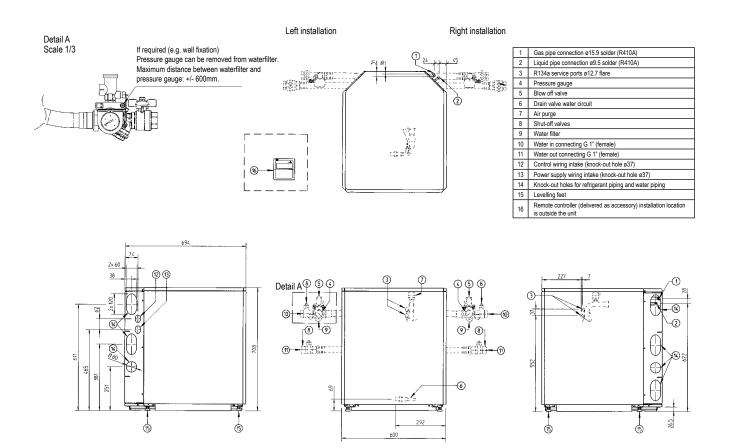


# HXHD125A8



3TW59914-1B(2)

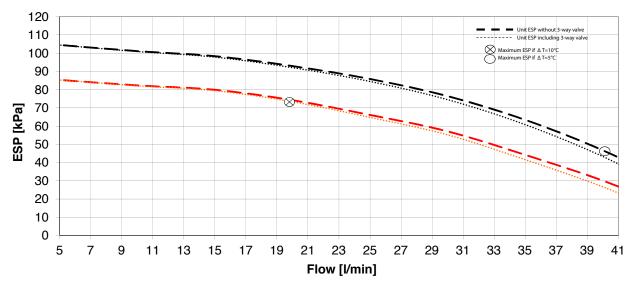
## HXHD200A8



3TW59854-1



### **HXHD125A8**



#### Notes

- 1. The ESP curves are the maximum ESP curves for different (T types (pump rpm=4200 for (T=5°C; pump rpm=3800 for (T=10°C).
- 2. The pump of the indoor unit is inverter-controlled and functions to have a fixed (T between the return water temperature and the leaving water temperature. In case of installing a domestic hot water tank, there is an additional pressure drop over the 3-way valve (delivered as an accessory with the tank).

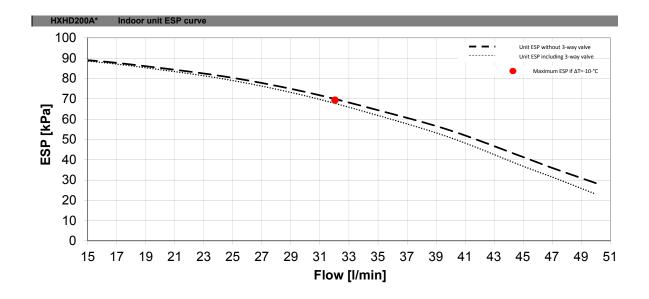
ESP: External Static Pressure Flow: water flow through the unit

#### Warning

- 1. Selecting a flow outside the operating area can damage the unit or cause the unit to malfunction. See also the minimum and maximum allowed water flow range in the technical specifications.
- 2. Water quality must be according to EU directive 98/83 EC.

3D097621

## HXHD200A8



- 3.

  The ESP curves are the maximum ESP curves, with and without domestic hot water tank installed on top of the indoor unit (pump rpm: 4000).

  The pump of the indoor unit is inverter-controlled and functions to have a fixed \( \Delta \) T between the return water temperature and the leaving water temperature.

  In case of installing a domestic hot water tank, there is an additional pressure drop over the 3-way valve (delivered as an accessory with the tank).

ESP: External Static Pressure Flow: water flow through the unit

Warning

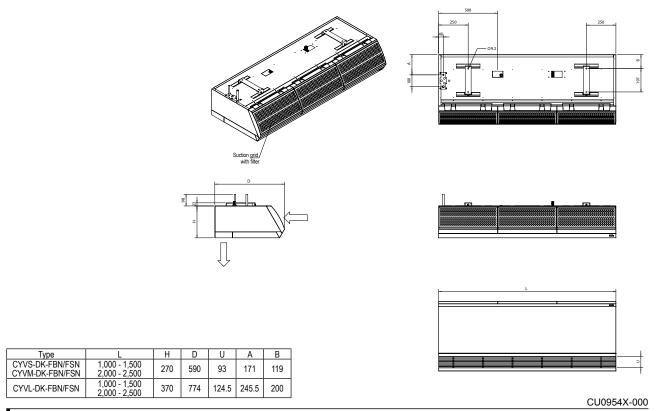
1. Selecting a flow outside the operating area can damage the unit or cause the unit to malfunction.

See also the minimum and maximum allowed water flow range in the technical specifications.

2. Water quality must be according to EU directive 98/83 EC.



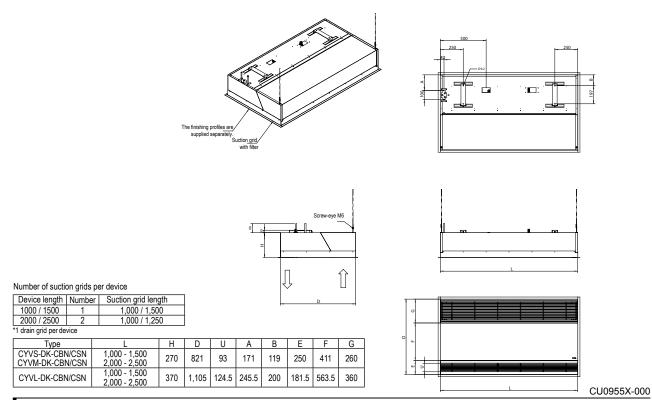
## CYVS\_DK\_FBN/FSN / CYVM\_DK\_FBN/FSN / CYVL\_DK\_FBN/FSN



#### REMARKS

1 The 2,500mm large devices have 3 suspension brackets, where the third bracket is mounted at half the length of the device.

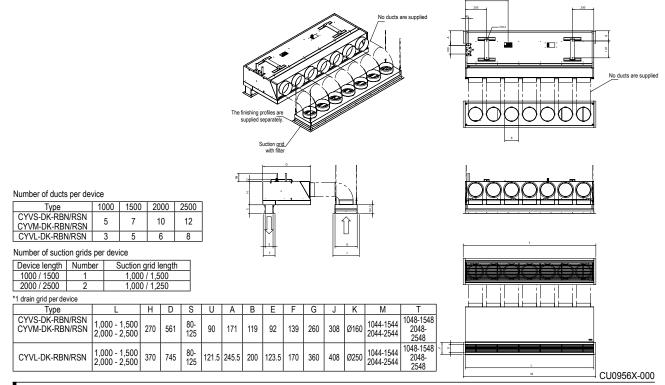
## CYVS\_DK\_CBN/CSN / CYVM\_DK\_CBN/CSN / CYVL\_DK\_CBN/CSN



#### REMARKS

- The 2,500mm large devices have 3 suspension brackets, where the third bracket is mounted at half the length of the device.
- 2 The mounting holes for finishing profiles in a lowered ceiling (L+8) x (D+8) mm

## CYVS\_DK\_RBN/RSN / CYVM\_DK\_RBN/RSN / CYVL\_DK\_RBN/RSN



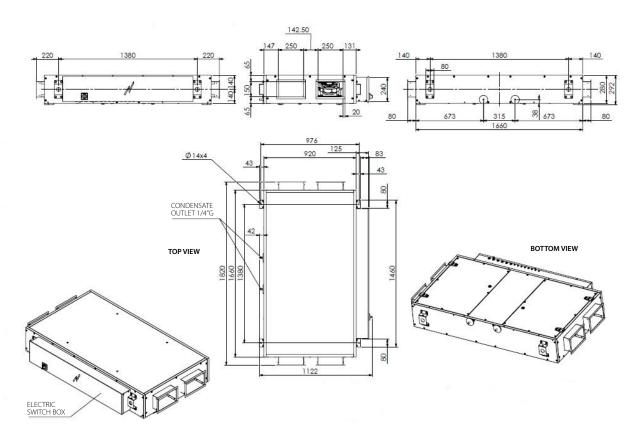
#### REMARKS

- 1 The 2,500mm large devices have 3 suspension brackets, where the third bracket is mounted at half the length of the device.
- 2 Holes (for finishing profiles) drain (L+8) x (E+8) mm suction (L+8) x (G+8) mm.

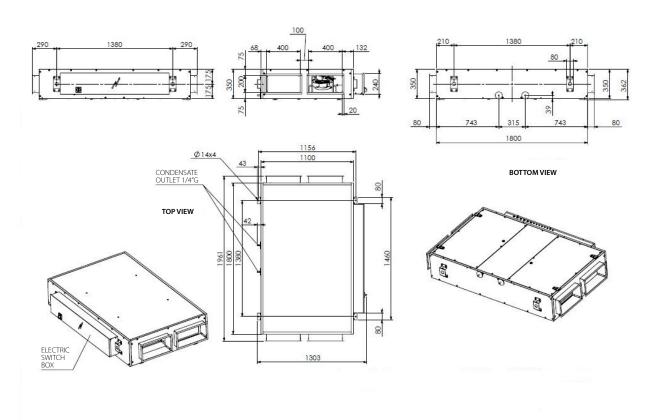




## ALB02RBS/LBS

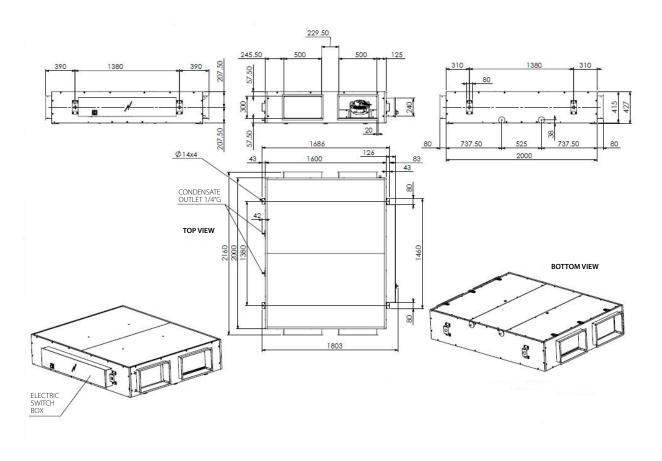


## ALB03RBS/LBS

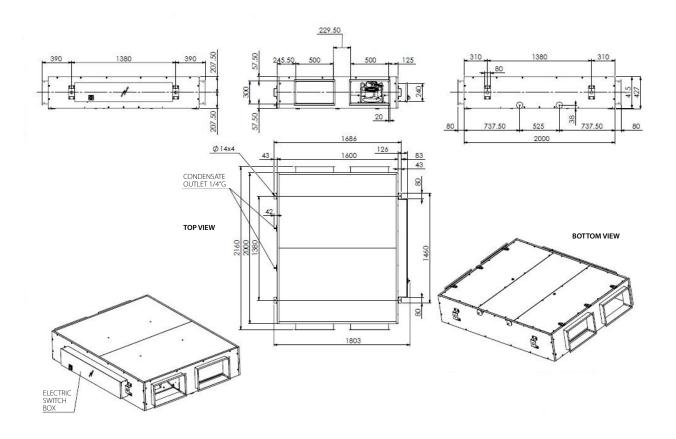




## ALB04RBS/LBS

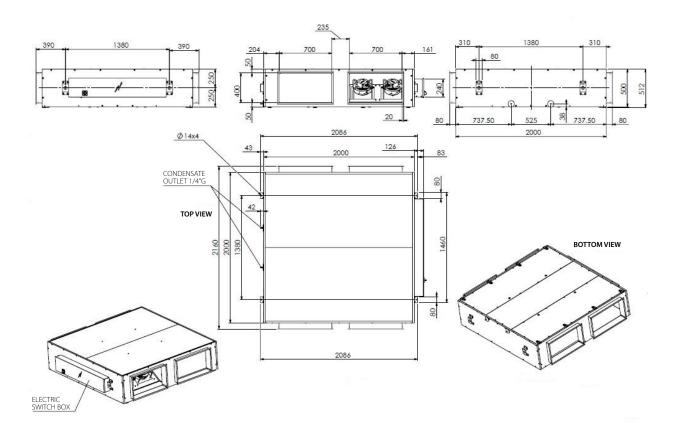


## ALB05RBS/LBS

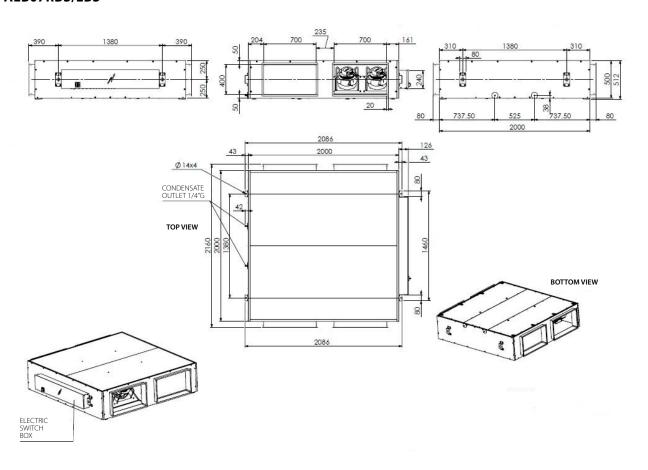




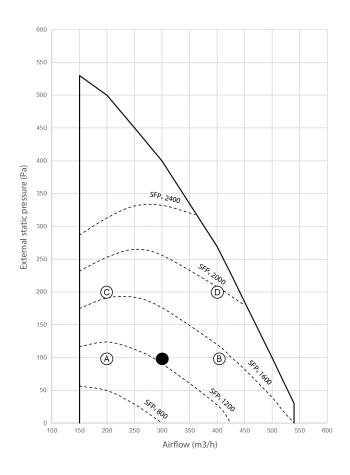
## ALB06RBS/LBS



## ALB07RBS/LBS



## ALB02RBS/LBS



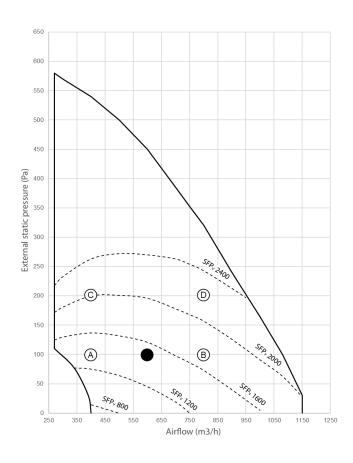
The diagram shows the available external pressure for the duct system given an airflow.

#### SFPv = Specific Fan Power (W/m3/s)

The SFPv curves are referring to the complete unit. Moreover, it includes power to both supply and extract fan divided by either the supply or extract volume whichever is the greater.

Nominal working point

## ALB03RBS/LBS



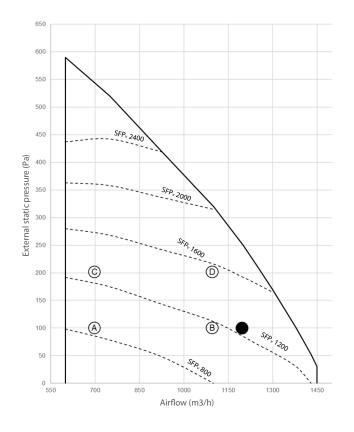
The diagram shows the available external pressure for the duct system given an airflow.

## SFPv = Specific Fan Power (W/m3/s)

The SFPv curves are referring to the complete unit. Moreover, it includes power to both supply and extract fan divided by either the supply or extract volume whichever is the greater.

Nominal working point

## ALB04RBS/LBS



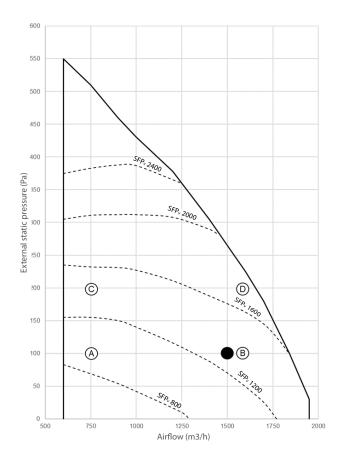
The diagram shows the available external pressure for the duct system given an airflow.

### SFPv = Specific Fan Power (W/m3/s)

The SFPv curves are referring to the complete unit. Moreover, it includes power to both supply and extract fan divided by either the supply or extract volume whichever is the greater.

Nominal working point

## ALB05RBS/LBS



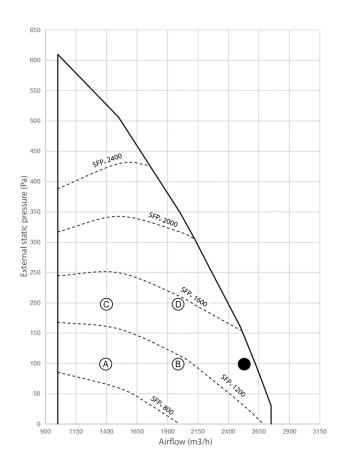
The diagram shows the available external pressure for the duct system given an airflow.

## SFPv = Specific Fan Power (W/m3/s)

The SFPv curves are referring to the complete unit. Moreover, it includes power to both supply and extract fan divided by either the supply or extract volume whichever is the greater.

Nominal working point

### ALB06RBS/LBS



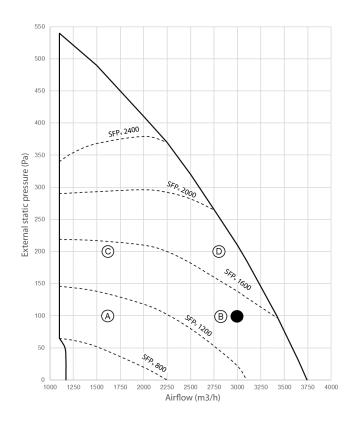
The diagram shows the available external pressure for the duct system given an airflow.

#### SFPv = Specific Fan Power (W/m3/s)

The SFPv curves are referring to the complete unit. Moreover, it includes power to both supply and extract fan divided by either the supply or extract volume whichever is the greater.

Nominal working point

## ALB07RBS/LBS



The diagram shows the available external pressure for the duct system given an airflow.

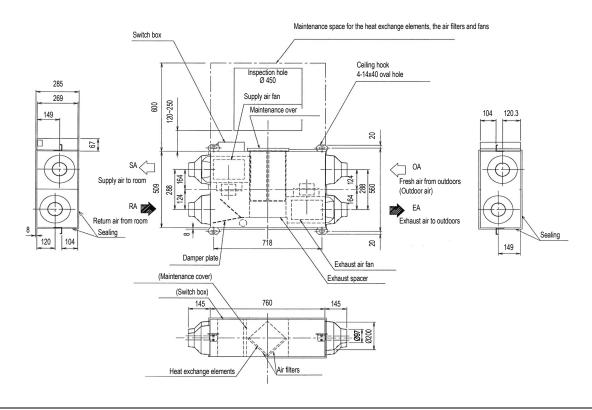
## SFPv = Specific Fan Power (W/m3/s)

The SFPv curves are referring to the complete unit. Moreover, it includes power to both supply and extract fan divided by either the supply or extract volume whichever is the greater.

Nominal working point



## VAM150FC9

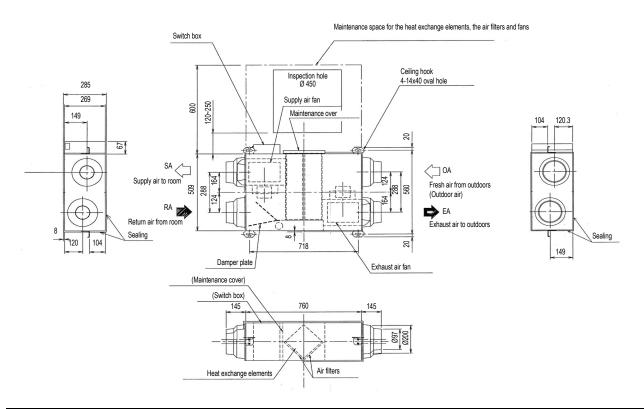


#### NOTE

1 Be sure to provide the inspection hole (450x450 mm) to inspect the air filters, the exchange elements and fans.

#### 3TW27874-1

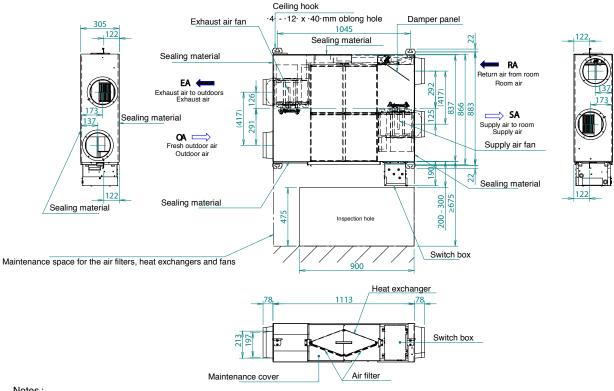
## VAM250FC9



#### NOTE

1 Be sure to provide the inspection hole (450x450 mm) to inspect the air filters, the exchange elements and fans.

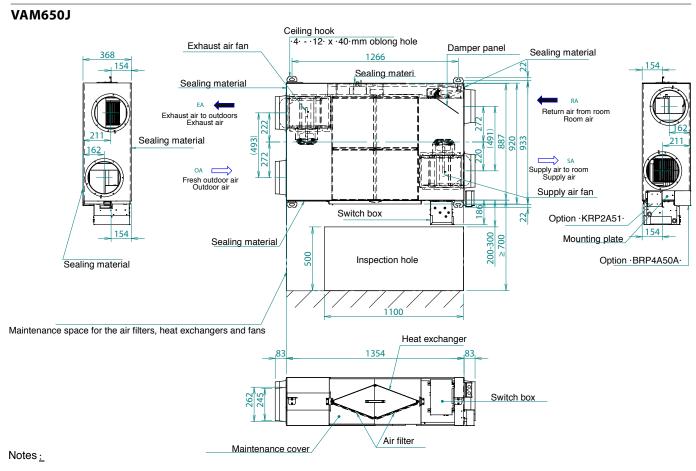
### VAM350-500J



Notes:

1.To allow for the inspection of the air filters, heat exchangers, and fans, be sure to provide the inspection hole.

#### 3D112815C

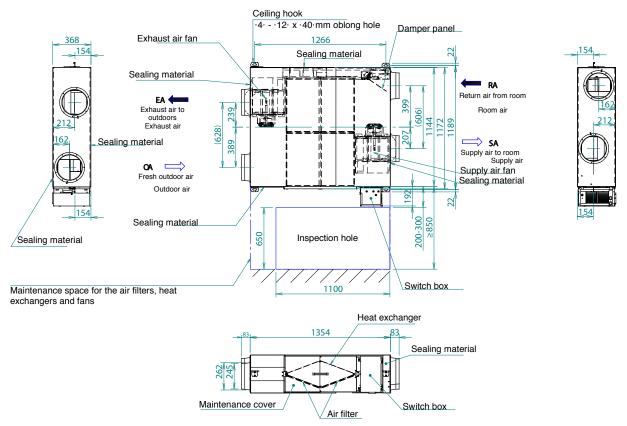


1. To allow for the inspection of the air filters, heat exchangers, and fans, be sure to provide the inspection hole.

3D113502A



#### VAM800-1000J

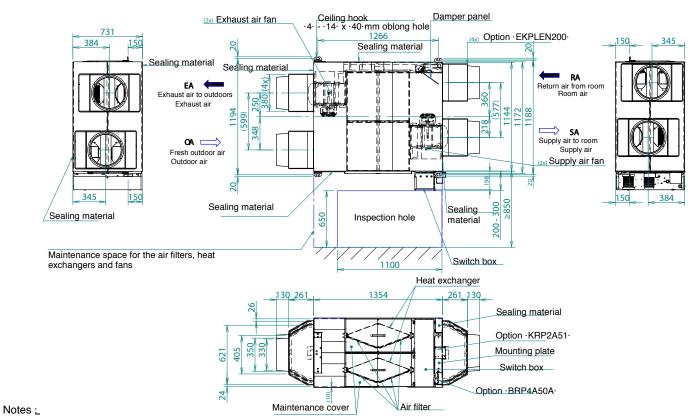


Notes:

1. To perform maintenance on the air filter, it is required to provide a service access panel.

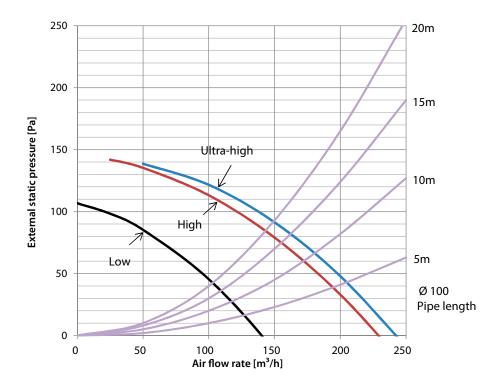
#### 3D112817D

## VAM1500-2000J



1. To allow for the inspection of the air filters, heat exchangers, and fans, be sure to provide the inspection hole.

## VAM150FC9

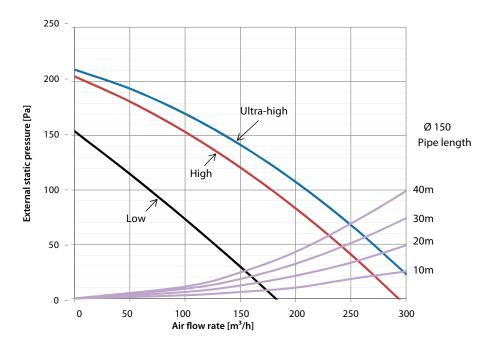


Notes

1. The fan speeds are valid for ·230·V, ·50·Hz power supply.

4D100379

## VAM250FC

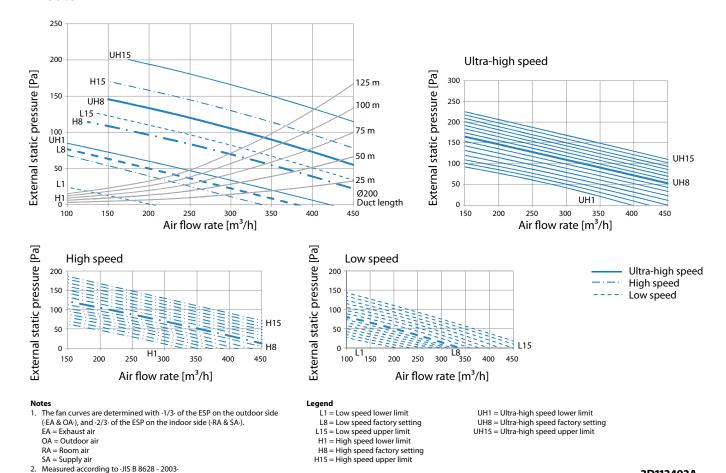


Notes

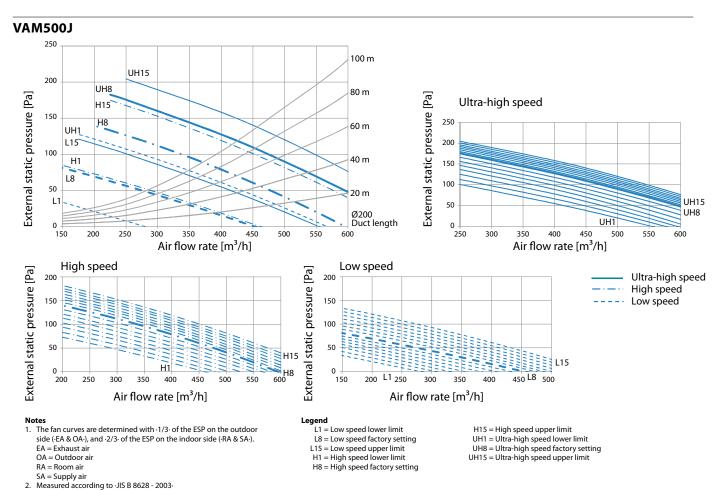
1. The fan speeds are valid for ·230·V, ·50·Hz power supply.



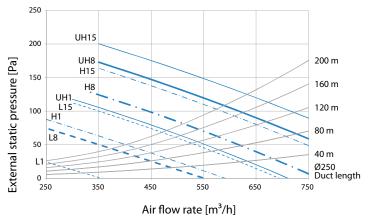
#### VAM350J

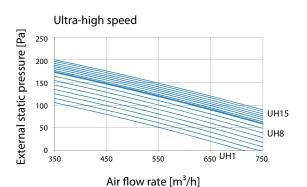


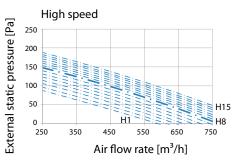
#### 3D113493A

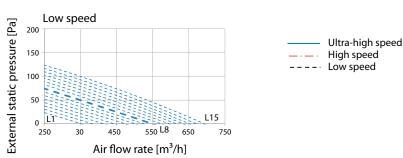


#### VAM650J







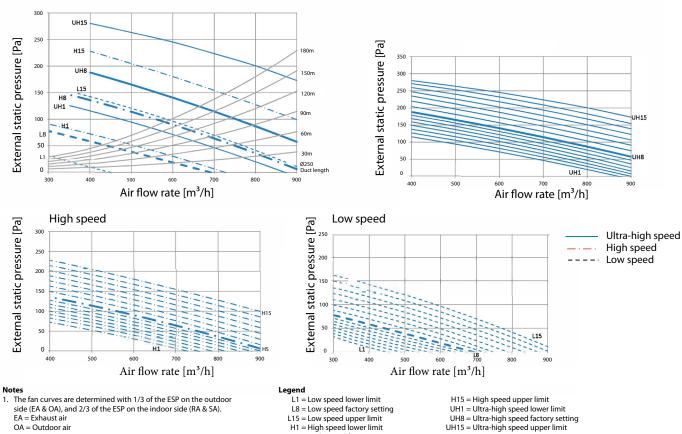


- The fan curves are determined with 1/3 of the ESP on the outdoor side (EA & OA), and 2/3 of the ESP on the indoor side (RA & SA). EA = Exhaust air
  - OA = Outdoor air RA = Room air
- SA = Supply air
  2. Measured according to JIS B 8628 2003-

- **Legend**L1 = Low speed lower limit
- L8 = Low speed factory setting L15 = Low speed upper limit
- H1 = High speed lower limit H8 = High speed factory setting
- H15 = High speed upper limit
- UH1 = Ultra-high speed lower limit UH8 = Ultra-high speed factory setting
- UH15 = Ultra-high speed upper limit

3D113495A

## VAM800J



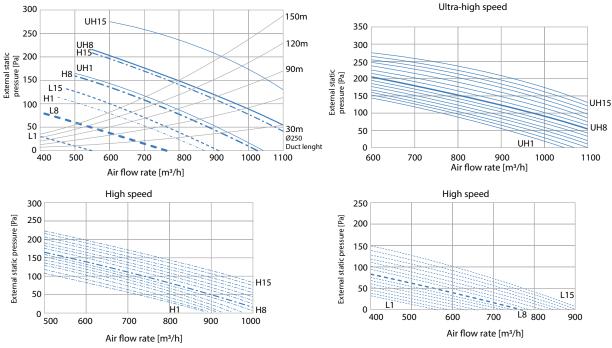
- - EA = Exhaust air OA = Outdoor air
  - RA = Room air
- SA = Supply air

  Measured according to JIS B 8628 2003

- L15 = Low speed upper limit H1 = High speed lower limit
- H8 = High speed factory setting



#### **VAM1000J**



Notes

1.The fan curves are determined with  $\cdot$ 1/3· of the ESP on the outdoor side ( $\cdot$ EA & OA·), and  $\cdot$ 2/3· of the ESP on the indoor side ( $\cdot$ RA & SA).

EA= Exhaust air OA = Outdoor air RA= Room air SA= Supply air Ultra-high speed
High speed
Low speed

2. Measured according to JIS B 8628 - 2003-

## Legend

L1 = Low speed lower limit LB = Low speed factory setting

L15 = Low speed upper limit

H1 = High speed lower limit

H8 = High speed factory setting

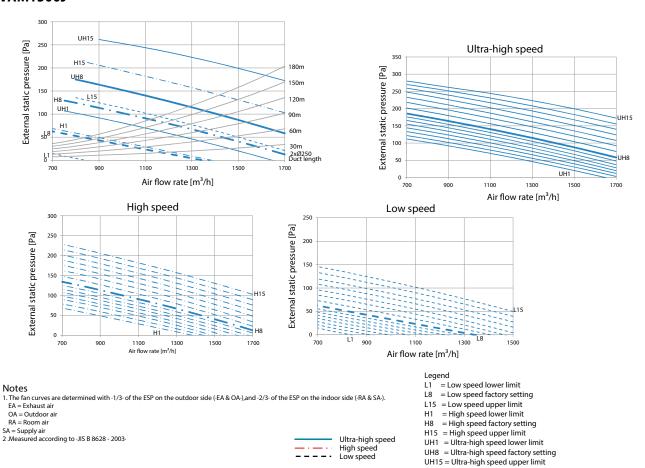
H15 = High speed upper limit UH1 = Ultra-high speed lower limit

UH8 = Ultra-high speed factory setting

UH15 = Ultra-high speed upper limit

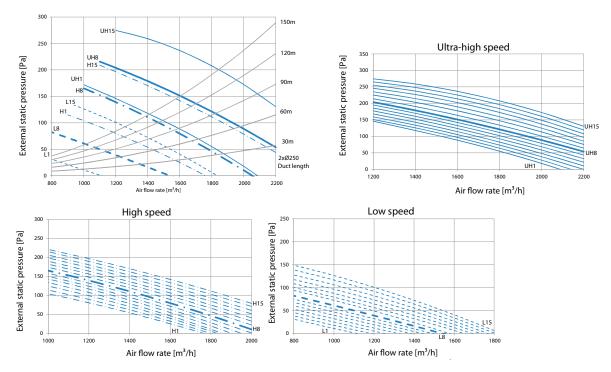
D112832

## **VAM1500J**





## **VAM2000J**



#### Notes

1. The fan curves are determined with ·1/3· of the ESP on the outdoorside (-EA & OA-), and ·2/3· of the ESP on the indoorside (-RA & SA-).

EA = Exhaust air
OA = Outdoor air
RA = Room air
SA = Supplyair

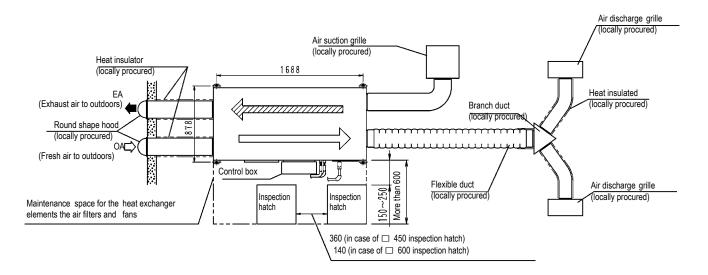
2 Measured according to -JIS B 8628 - 2003-

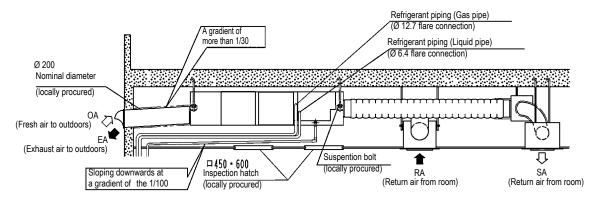
Ultra-high speed - - - Ultra-nigns
High speed
Low speed

#### Legend

L8 L15 Low speed factory setting Low speed upper limit H1 H8 High speed lower limit High speed factory setting H15 UH1 High speed upper limit Ultra-high speed lower limit Ultra-high speed factory setting Ultra-high speed upper limit

#### VKM50GB



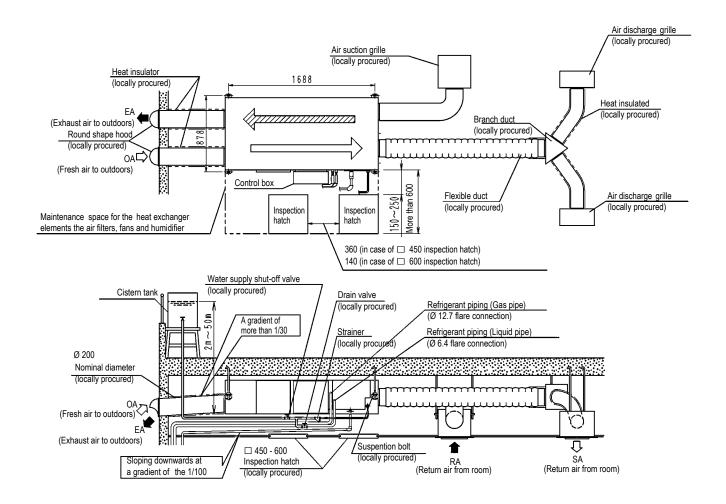


#### NOTES

- 1. Leave space for servicing the unit and include inspection hatch. (Always open a hole on the side of the control box so that the air filters heat exchange elements, and fans can easily be inspected and serviced.)
- 2. Install the two outdoor ducts with down slope (slope of 1/30 or more) to prevent entry of rain water, also, provide insulation for three ducts (outdoor ducts and indoor supply air duct) to prevent dew condensation.(Material: glass wool of 25mm thick)
- 3. Do not turn the unit upside down.
- 4. Make sure to install drain piping, and insulate drain piping to prevent dew condensation.
- 5. Keep the drain pipe short and sloping downwards at a gradient of at least 1/100 to prevent air from forming.
- 6. Do not use a bent cap or a round hood as the outdoor hood if they might get rained on directly (we recommend using a deep hood) (optional accessory).
- 7. In areas where freezing may occur, always take steps to preventthe pipes from freezing.
- 8. Do not place something which shouldn't get wet at the below of this unit. The dew would fall at following case, where humidity is 80% more, or the exit of drain socket is choked up, or the air filter is very dirty.



#### VKM50GBM

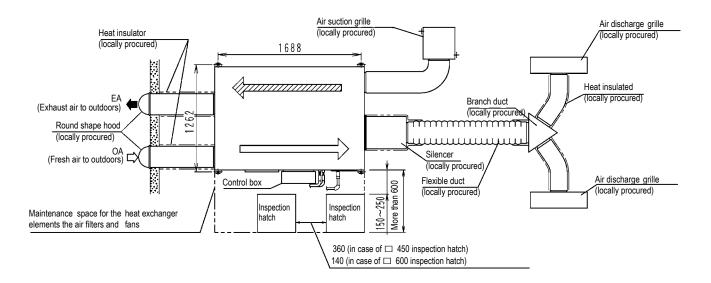


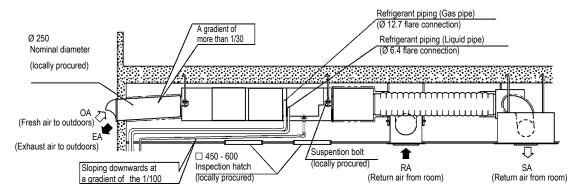
## NOTES

- 1. Leave space for servicing the unit and include inspection hatch. (Always open a hole on the side of the control box so that the air filters heat exchange elements, and fans can easily be inspected and serviced.)
- 2. Install the two outdoor ducts with down slope (slope of 1/30 or more) to prevent entry of rain water, also, provide insulation for three ducts (outdoor ducts and indoor supply air duct) to prevent dew condensation. (Material: glass wool of 25mm thick)
- 3. Do not turn the unit upside down.
- 4. Use city water or clean water
  - Include water supply piping with strainer, a water supply shut-off valve, and a drain valve (both locally procured) somewhere along the water supply piping that can be reached from the inspection
- 5. It is impossible to connect the water supply piping directly to public piping. Use a cistern tank (of the approved type), if you need to get your water supply from public piping.
- 6. Make sure the supply water 0.02MPa to 0.49MPa (0.2 kg/cm² to 5 kg/cm²)
- 7. Make sure the supply water is between 5°C and 40°C in temperature.
- 8. Insulate the water supplypiping to prevent condensation from forming.
- 9. Make sure to install drain piping, and insulate drain piping to prevent dew condensation.
- 10. Keep the drain pipe short and sloping downwards at a gradient of at least 1/100 to prevent air from forming.
- 11. Install in a location where the air around the unit or taken into the umidifier will notdrop below 0°C.
- 12. Do not use a bent cap or a round hoodas the outdoor hood if they might get rained on directly (we recommend using a deep hood) (optional accessory).
- 13. In areas where freezing may occur, always take steps to prevent the pipes from freezing.

  14. Do not place something which shouldn't get wet at the below of this unit. The dew would fall at following case, where humidity is 80% more, or the exit of drain socket is choked up, or the air filter is very dirty.
- 15. Feed clean water. If the supply water is hard water, use a water softener because of short life. Life of humidifying element is about 3 years (4,000 hours), under the supply water conditions of hardness: 150 mg/L. (Life of humidifying element is about 1 years (1500 hours), under the supply water conditions of hardness: 400 mg/L.) 3D083011

#### VKM80GB





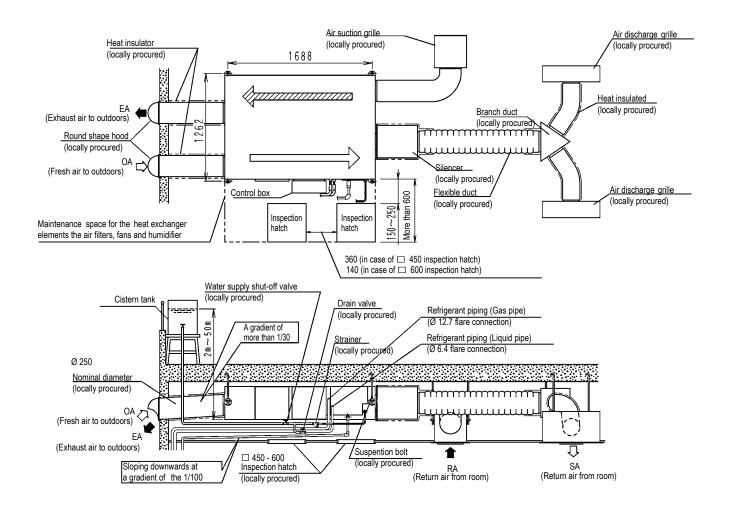
#### NOTES

- 1. Leave space for servicing the unit and include inspection hatch. (Always open a hole on the side of the control box so that the air filters heat exchange elements, and fans can easily be inspected and serviced.)
- 2. Install the two outdoor ducts with down slope (slope of 1/30 or more) to prevent entry of rain water, also, provide insulation for three ducts (outdoor ducts and indoor supply air duct) to prevent dew condensation. (Material: glass wool of 25mm thick)
- 3. Do not turn the unit upside down.
- Make sure to install drain piping, and insulate drain piping to prevent dew condensation.
- Keep the drain pipe short and sloping downwards at a gradient of at least 1/100 to prevent air from forming.
- Do not use a bent cap or a round hood as the outdoor hood if they might get rained on directly (we recommend using a deep hood) (optional accessory).
- In areas where freezing may occur, always take steps to prevent the pipes from freezing.

  Do not place something which shouldn't get wet at the below of this unit. The dew would fall at following case, where humidity is 80% more, or the exit of drain socket is choked up, or the air filter is very dirty



#### VKM80GBM

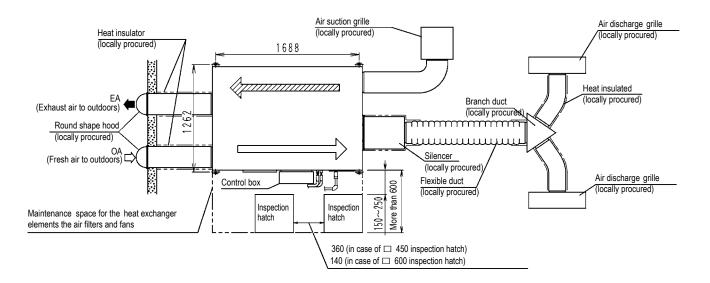


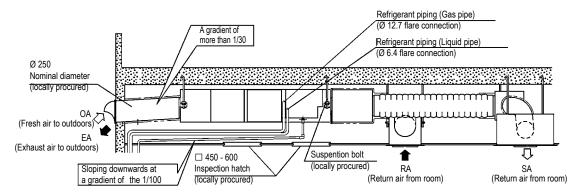
#### NOTES

- 1. Leave space for servicing the unit and include inspection hatch. (Always open a hole on the side of the control box so that the air filters heat exchange elements, and fans can easilybe inspected and serviced.)
- 2. Install the two outdoor ducts with down slope (slope of 1/30 or more) to prevent entry of rain water, also, provide insulation for three ducts (outdoor ducts and indoor supply air duct) to prevent dew condensation. (Material: glass wool of 25mm thick)
- 3. Do not turn the unit upside down.
- Use city water or clean water
  - Include water supply piping with strainer, a water supply shut-off valve, and a drain valve (both locally procured) somewhere along the water supply piping that can be reached from the inspection
- 5. It is impossible to connect the water supply piping directly to public piping. Use a cistern tank (of the approved type), if you need to get your water supply from public piping.

  6. Make sure the supply water 0.02MPa to 0.49MPa (0.2 kg/cm² to 5 kg/cm²)
- Make sure the supply water is between 5°C and 40°C in temperature.
- Insulate the water supply piping to prevent condensation from forming.
- 9. Make sure to install drain piping, and insulate drain piping to prevent dew condensation.
- 10. Keep the drain pipe short and sloping downwards at a gradient of at least 1/100 to prevent air from forming.
- 11. Install in a location where the air around the unit or taken into the umidifier will notdrop below 0°C.
- 12. Do not use a bent cap or a round hood as the outdoor hood if they might get rained on directly (we recommend using a deep hood) (optional accessory).
- 13. In areas where freezing may occur, always take steps to prevent the pipes from freezing.
   14. Do not place something which shouldn't get wet at the below of this unit. The dew would fall at following case, where humidity is 80% more, or the exit of drain socket is choked up, or the air filter is very dirty.
- 15. Feed clean water. If the supply water is hard water, use a water softener because of short life. Life of humidifying element is about 3 years (4,000 hours), under the supply water conditions of hardness: 150 mg/L. (Life of humidifying element is about 1 years (1500 hours), under the supply water conditions of hardness: 400 mg/L.)

### VKM100GB

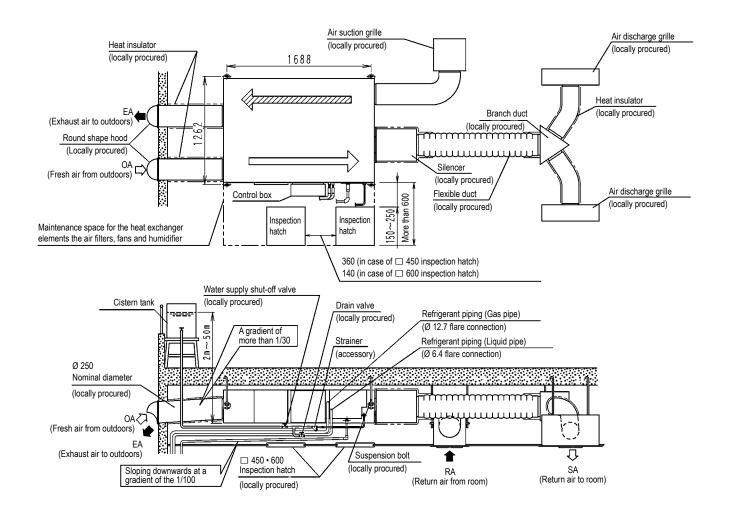




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#### VKM100GBM

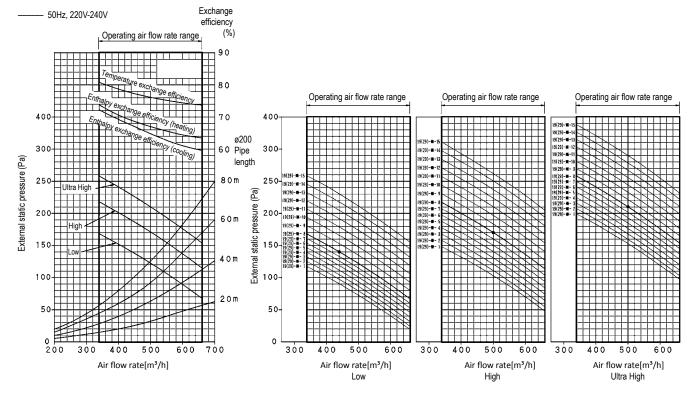


#### NOTES

- 1. Leave space for servicing the unit and include inspection hatch. (Always open a hole on the side of the control box so that the air filters, heat exchange elements, fans and humidifier elements can easily be inspected and serviced.)
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- 10. Keep the drain pipe short and sloping downwards at a gradient of at least 1/100 to prevent air from forming.
- 11. Install in a location where the air around the unit or taken into the humidifier will not drop below 0°C.
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- 15. Feed clean water. If the supply water is hard water, use a water softener because of short life.

  Life of humidifying element is about 3 years (4,000 hours), under the supply water conditions of hardness: 150 mg/L. (Life of humidifying element is about 1 years (1500 hours), under the supply water conditions of hardness: 400 mg/L.)

#### VKM50GB



[Reading of Performance Characteristics]

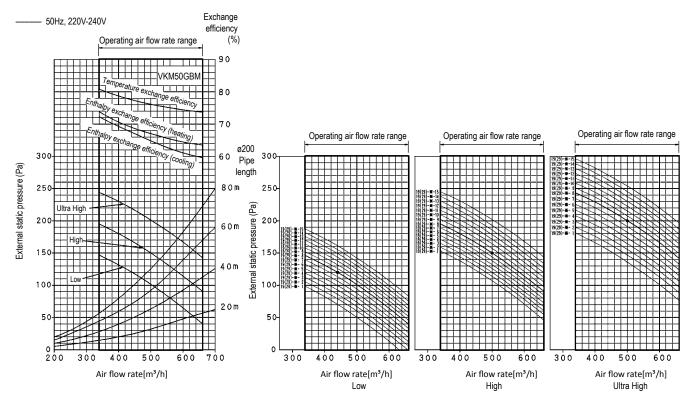
- 1) For example: 19(29)-**※**-07 Mode no.: 19(29)
  - First code: ★ (Supply 「2」 Exhaust 「3」)

Second code no.: 07

- 2) Rated point: •
- 3) The characteristic of each tap becomes a setup of the characteristic of the same code number.

3D082904

## VKM50GBM



[Reading of Performance Characteristics]

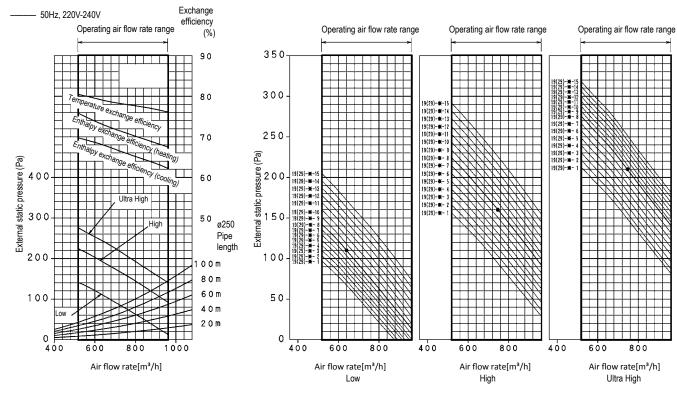
1) For example: 19(29)-**※**-07 Mode no.: 19(29)
First code: ★ (Supply 「2」 Exhaust 「3」)

Second code no.: 07

- 2) Rated point: ●
- 3) The characteristic of each tap becomes a setup of the characteristic of the same code number.

# **VIEW ALL VKM-GBM TECHNICAL DRAWINGS ON MY.DAIKIN.EU**

### VKM80GB



[Reading of Performance Characteristics]

1) For example: 19(29)-**※**-07 Mode no.: 19(29)

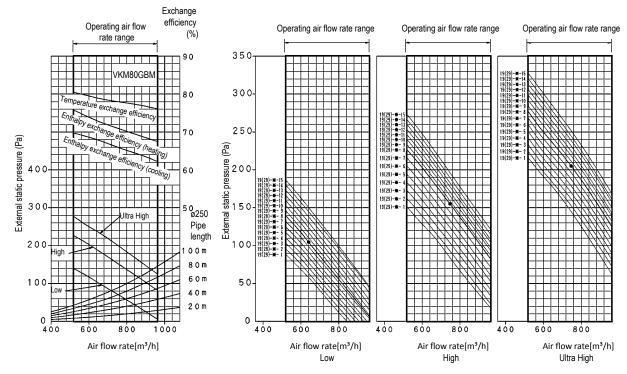
First code: ★ (Supply 「2」 Exhaust 「3」)
Second code no.: 07

- 2) Rated point: •
- 3) The characteristic of each tap becomes a setup of the characteristic of the same code number.

3D082905

## VKM80GBM

- 50Hz, 220V-240V



[Reading of Performance Characteristics]

1) For example: 19(29)-₩-07 Mode no.: 19(29)

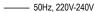
First code: ★ (Supply 「2」 Exhaust 「3」)

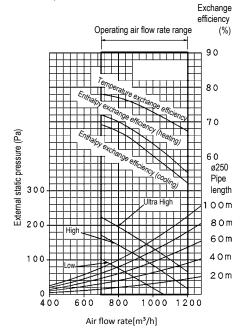
Second code no.: 07

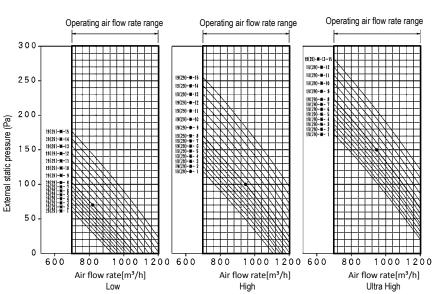
- 2) Rated point: •
- 3) The characteristic of each tap becomes a setup of the characteristic of the same code number.



#### VKM100GB







[Reading of Performance Characteristics]

1) For example: 19(29)-**※**-07 Mode no. : 19(29)

First code: ★ (Supply 「2」 Exhaust 「3」)

Second code no.: 07

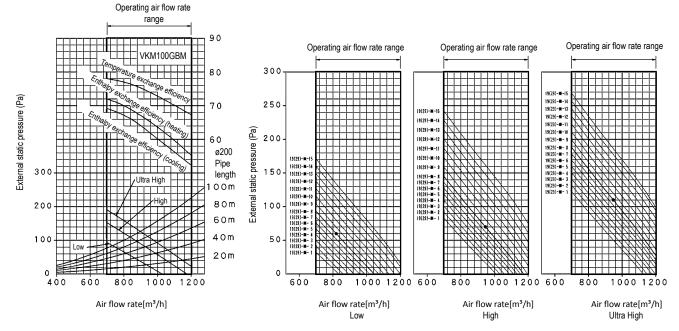
- 2) Rated point: •
- 3) The characteristic of each tap becomes a setup of the characteristic of the same code number.

3D082906

## VKM100GBM

----- 50Hz, 220V-240V

Exchange efficiency



[Reading of Performance Characteristics]

1) For example: 19(29)-**※**-07 Mode no. : 19(29)

First code: ★ (Supply 「2」 Exhaust 「3」)

Second code no.: 07

- Rated point: ●
- The characteristic of each tap becomes a setup of the characteristic of the same code number.



Determined to reduce our environmental footprint, we aim to be CO<sub>2</sub>-neutral by 2050. A circular economy, innovation and smart use – these are the stepping stones on our path.

The time to act is now. Join us in creating a sustainable future for HVAC-R.

# Sowing the seeds of climate protection with Daikin



### Through a circular economy

- > Embrace Certified Reclaimed Refrigerant Allocation to reuse more refrigerant
- > Increase recovered refrigerant returns
- Reuse refrigerant for maintenance with our refrigerant recycling machine



### Through innovation

- > Equip our VRV 5 range with the lower GWP refrigerant R-32
- > Offer high real-world seasonal efficiencies
- Deploy unique auto cleaning filters to maximise efficiency 24/7

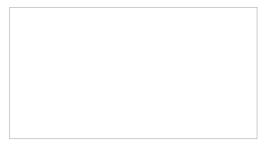


### Through smart use

- > Rigorously follow up on energy consumption via the Daikin Cloud Service
- > Factor in experts' advice to continuously optimise system efficiency
- > Enable predictive maintenance to ensure optimum operation and uptime
- > Prevent energy waste with smart key cards and sensors

## www.daikin.eu/building-a-circular-economy

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ECPEN20-200A 05





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