

# VRV

Product catalogue 2018  
for professionals



Minimum running costs,  
maximum flexibility.  
Fast installation, top reliability,  
perfect comfort.



# Advantages

With this interactive PDF we want to ensure you quickly find back the information you are looking for. Within this catalogue or via direct links to our business portal.

Focus on your business, we are here to help you.

## We need your feedback

Fill out 5 simple questions to help us improve this catalogue. We've put these questions on an online link, so we can easily process all surveys continuously.

[TAKE THE ONLINE SURVEY »](#)

# Navigation



## Sidebar links

The different chapters in the catalogue are shown at the side. You will be taken directly to the index page of the with a single click.

## All page numbers clickable

Click any page number you see and you will go directly to the page.

### VRV, a total commercial solution

Drastically reducing your running costs  
Top reliability  
Up to 6 times greater resistance against corrosion




## Links to technical documentation

On the pages with technical drawings you can click the button above to get access to all technical drawings available for the product

**VIEW ALL TECHNICAL DRAWINGS  
ON MY.DAIKIN.EU**

Click to go back



# Technology and Innovation Center

Creating value from the world's best technologies

The Technology and Innovation Center (TIC) aims to create new value based on the world's best technologies and highly differentiated products.

For this reason, people of diverse backgrounds gather across national borders from inside and outside the company to consolidate their strengths and, realizing collaborative innovation.

TIC has the latest generation of advanced, large capacity testrooms, enabling us to test larger systems and more precisely than any other manufacturer, providing the most credible data to market.




**You know when buying a Daikin unit it has been checked and tested like no other.**



# VRV

The solution for any commercial application, no matter the size.

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# VRV IV sets the standard ... again



## 9 reasons why VRV is unique in the market

### 1 High energy efficiency

**NEW**

- › Variable Refrigerant Temperature for high seasonal efficiency
- › Round flow cassette and concealed ceiling units with auto cleaning filter
- › The best partner for your "green" project
  - A team of AP's across Europe who are there to help you
  - Daikin is the first HVAC-R manufacturer to achieve BES6001 certificates gaining additional BREEAM credits

### 2 Best comfort

- › Variable Refrigerant Temperature preventing cold draughts thanks to high outblow temperatures
- › True continuous heating during defrost
- › Low sound indoor and outdoor units
- › Presence and floor sensors direct the air flow away from persons, while ensuring an even temperature distribution
- › Round flow cassette and concealed ceiling units with auto cleaning filter ensure optimum air quality

### 3 Top reliability

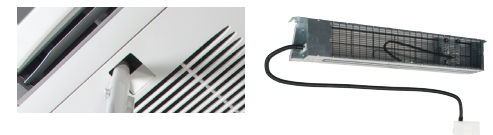
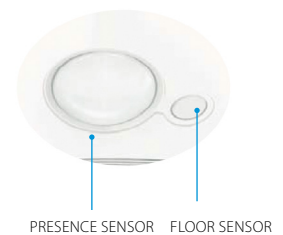
- › True technical cooling
- › Refrigerant cooled PCB
- › Most extensive testing before new units leave the factory
- › Widest support network and after sales service
- › All spare parts available in Europe
- › Preventive maintenance via i-Net
- › Round flow cassette and concealed ceiling units with auto cleaning filter further enhance reliability by extending smooth and trouble free operation due to clean air-filters

### 4 Stylish design products

- › Fully flat cassette, fully integrated in the ceiling
- › Daikin Emura, unique iconic design



Check ongoing validity of certificate:  
[www.eurovent-certification.com](http://www.eurovent-certification.com)



DAIKIN EMURA

## 5 Market leading controls

NEW

A new, sleek wired controller designed to enhance the user experience

- › Intuitive touch button control
- › 3 color versions (White, Silver, Black)
- › Advanced settings and commissioning via smartphone



BRC1H51(9)W

- › 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 offers services such as online control, energy monitoring, comparison of multiple sites and predictive maintenance for a long and trouble free operation

NEW



## 6 Unique installation benefits

- › Automatic refrigerant charge and refrigerant containment check
- › 4-way blow ceiling suspended cassette (FXUQ)
- › Plug & play Daikin Air Handling Unit
- › Total solution including low and high temperature hydro box, Biddle air curtains
- › 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



FXUQ



7-segment display

## 7 Inventor and market leader of VRV systems since 1982

- › Over 90 years of expertise in heat pump technology
- › Designed for and produced in Europe



## 8 Unique outdoor unit range, with dedicated series for every application and climate conditions in design

## 9 VRV IV technologies

### Variable refrigerant temperature

- › 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)



### Continuous heating

Real continuous heating providing heating even during defrost

- › Continuous indoor comfort ensured by the heat accumulating element or alternate defrost
- › An innovative alternative to traditional heating systems, enabling heat pumps to be used as monovalent heating source systems

### VRV configurator

Software for simplified commissioning, configuration and customisation

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

VRV IV

Heat pump  
Heat recovery  
Replacement  
Water cooled



# In the spotlight

## BIM: Building Information Modelling

### What is BIM?

BIM is an intelligent model-based process that provides insight to help you plan, design, construct and manage buildings and infrastructure

### Collaboration and clash control

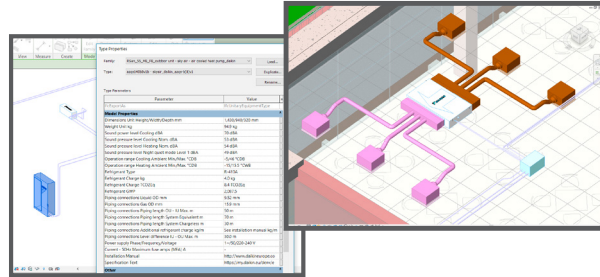
BIM uses a 3D model to provide the right information, to the right people, at the right time. This process improves efficiency throughout the design and building phases and increases savings by discovering clashes during the design phase, rather than later on during the building phase.

Find out more at  
[www.daikin.eu/BIM](http://www.daikin.eu/BIM)

### Daikin and BIM – putting you ahead of competition

Daikin is amongst the first manufacturers to provide a full library of BIM objects for its VRV products.

- ✓ Installers get an edge over competition where customers demand for BIM to be used
- ✓ Consultants have direct access to the base data through the objects, to design the system and see how our solutions can fit your project
- ✓ Customers have easy access to latest relevant information needed to maintain and manage the installation.



## Green building solutions

**BREEAM®**

### Today's challenges

- ✓ In the near future the majority of new building projects in Europe are expected to be green
- ✓ 93% percent of developers & investors consider green certification important

### Daikin: the best partner for your green project

- ✓ We have a team of accredited professionals (AP's) at your service that support you and your customer throughout the project
- ✓ Daikin offers solutions that maximise your BREEAM, LEED and WELL scores with heat recovery, Variable Refrigerant Temperature and i-Net.
- ✓ Daikin has successfully participated in many green and sustainable projects across Europe

World's first HVAC-R manufacturer to receive BES certificate

### Case: Velocity, UK

- ✓ Energy performance certificate B
- ✓ VRV heat recovery ensures an energy cost of less than 9 euro/m<sup>3</sup> compared to a typical cost of 29 euro/m<sup>3</sup>

€8.8/m<sup>3</sup> energy cost  
vs €29/m<sup>3</sup> for a CIBSE typical office





# User-friendly wired remote controller with premium design



White



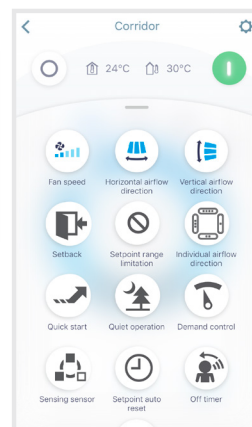
Silver



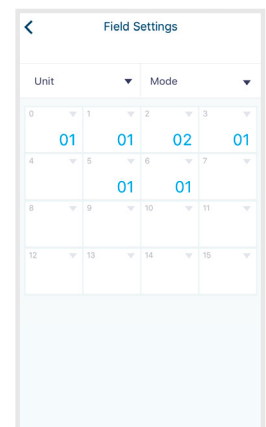
Black



reddot award 2018  
winner



Advanced user settings



Field settings

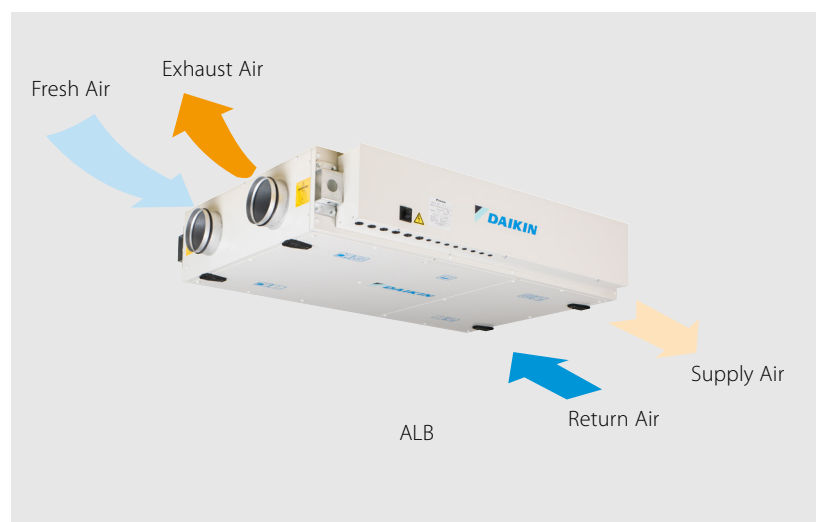
## BRC1H51W/S/K

- ✓ Sleek and elegant design
- ✓ Intuitive touch button control
- ✓ 3 color versions
- ✓ Advanced settings and monitoring can be easily done via your smartphone
- ✓ Flat back for easy wall installation
- ✓ Compact to fit standard size socket boxes

# Modular L: Premium efficiency heat recovery fresh air unit

## Highlights

- ✓ 6 Predefined sizes
- ✓ Compliant with VDI 6022
- ✓ Exceeding ERP 2018 requirement
- ✓ Plug & Play Controls
- ✓ Best choice when Compactness is needed (only 280 mm height up to 550 m3/h)
- ✓ Easy installation and commissioning



# Innovative outdoor units



## VRV IV i-series

### The "invisible" VRV IV heat pump

You can install highly efficient, reliable Daikin air conditioning systems in the most demanding locations while remaining invisible from street level.

#### Invisible

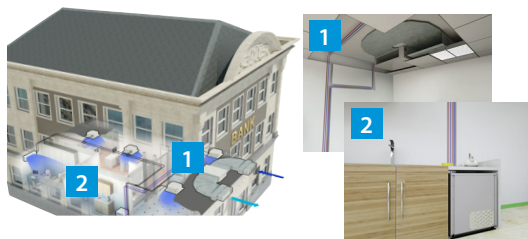
- ✓ Only the grilles are visible
- ✓ Seamless integration into surrounding architecture

#### Intelligent

- ✓ Patented V-shape heat exchanger for the most compact unit ever
- ✓ Connectable to all VRV indoor units
- ✓ Total solution when combined with ventilation units, controls and Biddle air curtains

#### Intuitive

- ✓ Total flexibility as the outdoor unit is split up in 2 parts
- ✓ Easy and quick to transport and install
- ✓ Easy servicability, all components can be easily reached
- ✓ Compact and lightweight heat exchanger unit for quick installation without the use of lifting equipment



unique patented concept

**Split outdoor unit system:**  
 1 heat exchanger unit installed in false ceiling  
 2 compressor unit installed in kitchen

## VRV IV W<sup>+</sup> series

### Air-to-water VRV

The new VRV IV W<sup>+</sup> series brings a whole new range of features to increase your flexibility and make commissioning easier.

#### More flexibility

- ✓ Mixed connection of hydroboxes and VRV indoor units
- ✓ Connects to VRV or stylish indoor units such as Daikin Emura, Nexura, ...
- ✓ Most compact casing in the market
- ✓ No heat dissipation allows installation in non-ventilated indoor spaces

#### Unique zero heat dissipation principle



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

#### More capacity

- ✓ Up to 72% increased capacity (!) per model thanks to new compressor and larger heat exchanger, enabling design of smaller systems

#### Easier commissioning & servicing

- ✓ 3 digit, 7 segment display
- ✓ 5 output signals allowing external control of
  - ON-OFF (e.g. compressor)
  - Operation mode (cooling / heating)
  - Limit of capacity
  - Error signal
- ✓ Rotating switchbox



8 to 14 HP

16 to 28 HP

30 to 42 HP



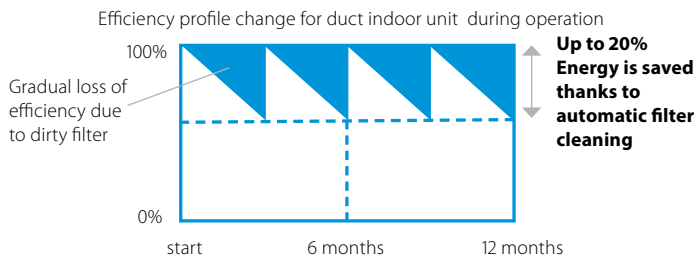
Extension of the range: from 8 up to 42 HP

# Unique auto cleaning technology



## Reduce running costs

- › Automatic filter cleaning ensures high efficiencies and 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 quick and easy cleaning
- › No more dirty ceilings

## Unique technology

- › Unique and innovative filter technology inspired by the Daikin auto cleaning cassette



## Improved indoor air quality

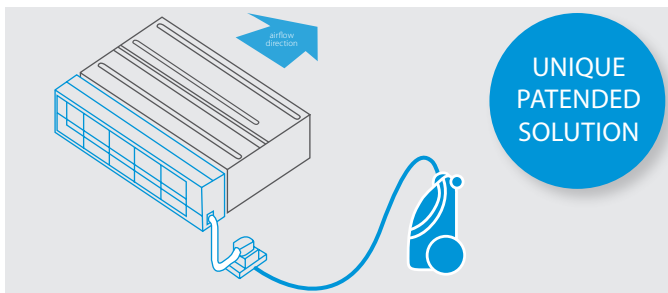
- › Optimum airflow eliminates draft and insulates sound

## Improved reliability

- › Minimizes risks of system down due to dirty filters, extending long and trouble free operation

## How does it work?

- 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



## Concealed ceiling units

- › Ideal for hotels and residential applications
- › Cleaning team /owner can clean the filter

## Round flow cassette

- › Ideal for retail
- › Staff/owner can clean the filter
- › No need to use a ladder to reach the unit

## Combination table

	Split / Sky Air				VRV							
	FDXM-F3				FXDQ-A3							
	25	35	50	60	15	20	25	32	40	50	63	
BAE20A62	•	•			•	•	•	•				
BAE20A82									•	•		
BAE20A102			•	•							•	

	Sky Air		VRV
	FCAG-A	FCAHG-G	FXFQ-A
BYCQ140DG9	•	•	•
BYCQ140DGF9 (fine mesh)	•	•	•

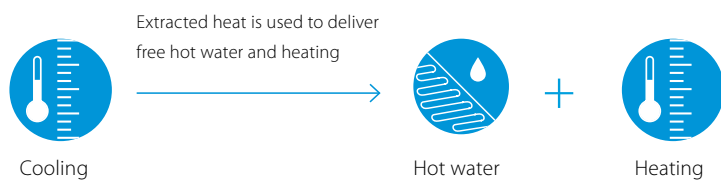
# Which VRV

system offers me the best solution?

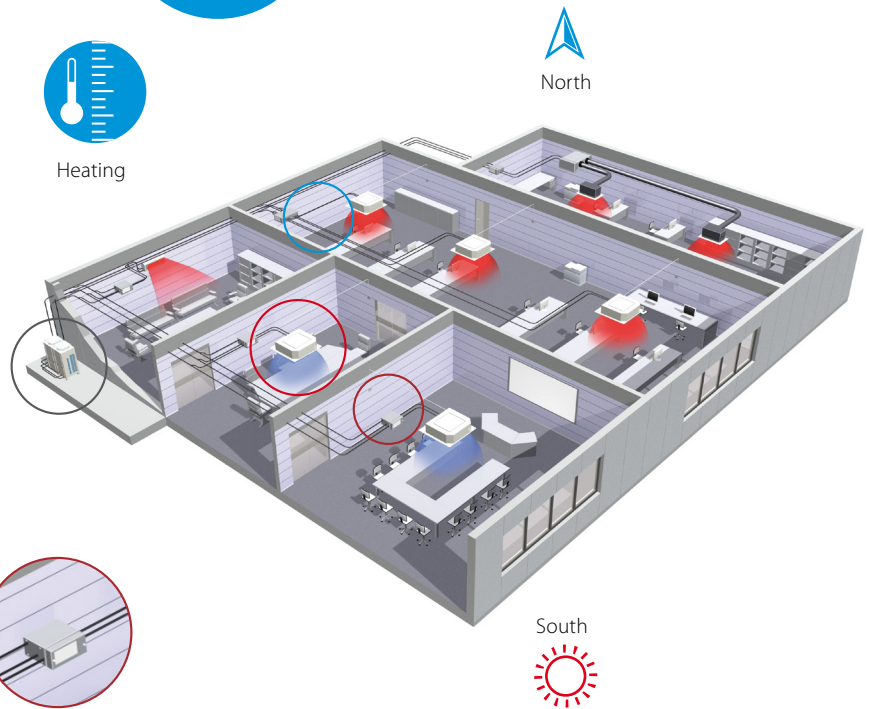
## Heat recovery or heat pump?

### VRV Heat recovery

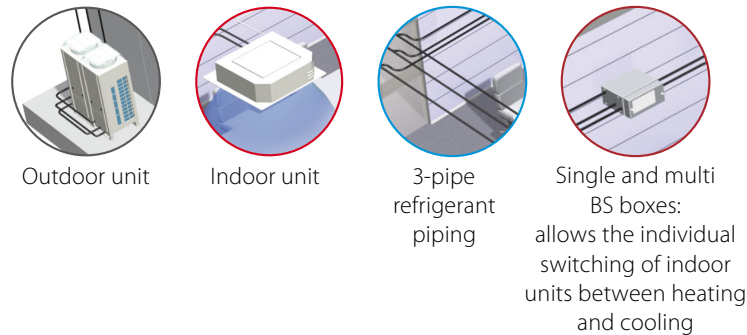
Additional credits for green building certificate



- > Simultaneous heating **AND** cooling from one system
- > "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\*



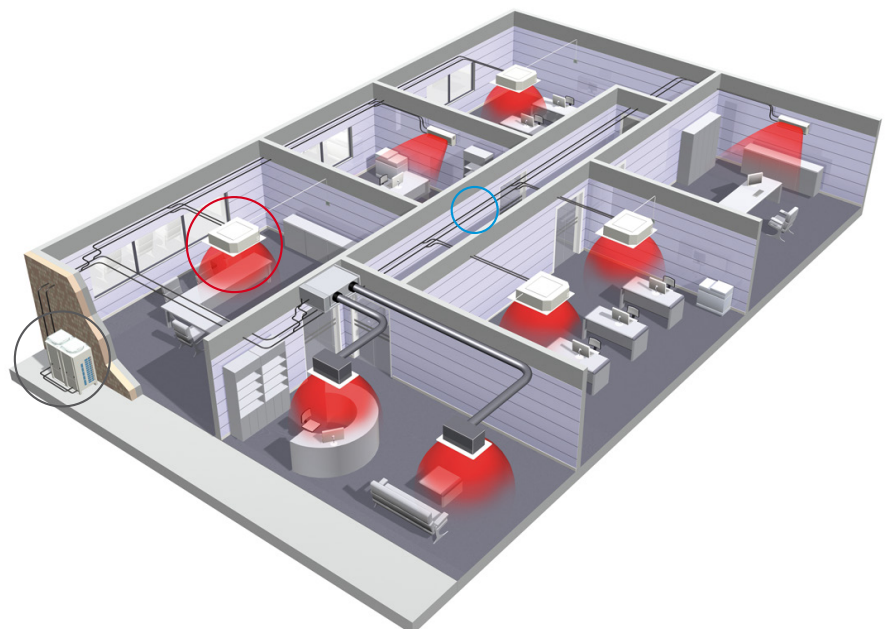
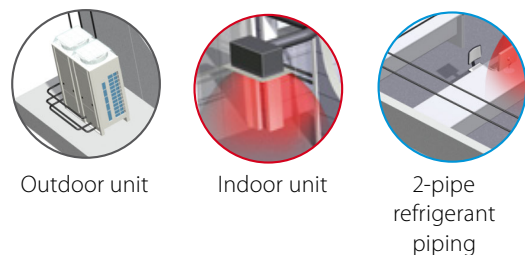
#### Components:



### VRV Heat pump

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

#### Components:



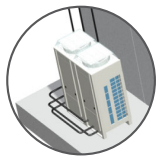
\* According to the Franklin + Andrews construction economics

# Air cooled or water cooled?

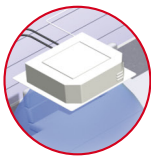
## Air Cooled

- › 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

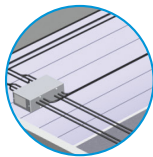
### Components:



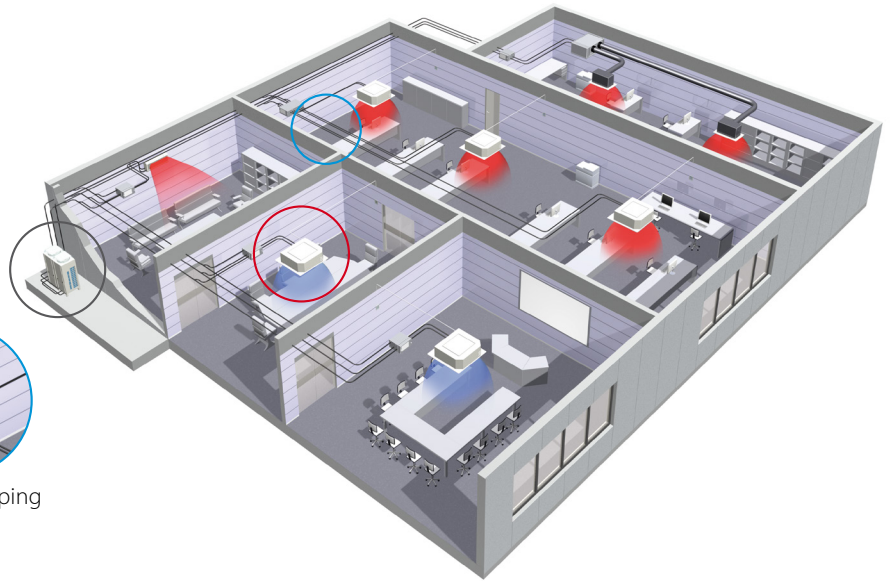
Outdoor unit



Indoor unit



Refrigerant piping

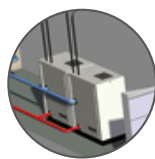


## Water Cooled

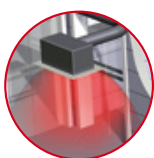
- › Suitable for high rise and large buildings because of the nearly unlimited possibilities of water piping
- › Not affected by outdoor temperature/climate conditions
- › Reduce CO<sub>2</sub> emissions thanks to the use of geothermal energy as a renewable energy source
- › Allows heat recovery in the 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

**Additional credits for green building certificate**

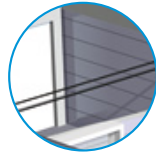
### Components:



Outdoor unit



Indoor unit



Refrigerant piping



(Geothermal) water loop



# Which applications?

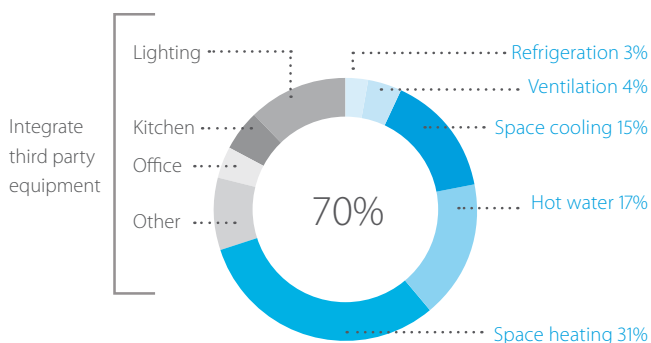


Typically, many buildings today rely on several separate systems for heating, cooling, air curtain heating and hot water. As a result, energy is wasted. To provide a much more efficient alternative, VRV technology has been developed into a total solution managing up to 70% of a building's energy consumption giving large potential to cost saving.

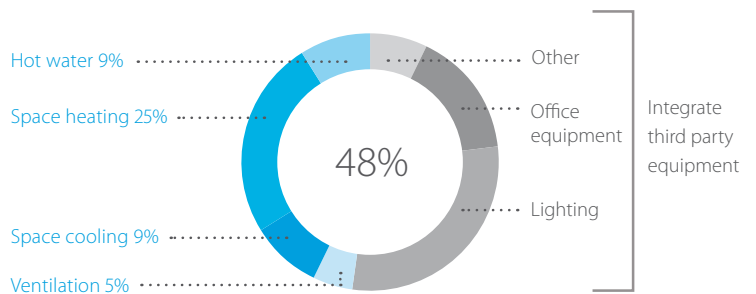
- › **Heating and cooling** for year round comfort
- › **Hot water** for efficient production of hot water
- › **Underfloor heating /cooling** for efficient space heating/cooling
- › **Ventilation** for high quality environments
- › **Air curtains** for optimum air separation
- › **Controls** for maximum operating efficiency
- › **Cooling** for server rooms, telecom shelters, ... in extreme conditions down to -20°C (via VRV heat recovery of Sky Air)
- › **Refrigeration** via our VRV based refrigeration units

## Combine up to 70% of your building's energy consumption

Average hotel energy consumption



Average office energy consumption



# One system, multiple applications for hotels, offices, retail, home ...

## Heating and cooling



- › Combine VRV indoor units with other stylish indoor units in one system
- › New round flow cassette sets the standard for efficiency and comfort
- › Extensive range of models and capacities for optimal selection

## Intelligent control systems



- › Mini BMS which connects Daikin and third-party equipment
- › Integrate intelligent control solutions with energy management tools to reduce running costs

## Low-temperature hydrobox



- › Highly efficient space heating through:
  - Underfloor heating
  - Low temperature radiators
  - AHU water heat exchangers
- › Hot water from 25 °C to 45 °C
- › Cold water from +5°C to +20°C

## Biddle air curtain



- › Payback time less than 1.5 years compared to electrical air curtain
- › A highly efficient solution for doorway climate separation

## High temperature hydrobox



- › Efficient hot water production for:
  - Showers
  - Sinks
  - Tapwater for cleaning
- › Hot water from 25 °C to 80 °C
- › Connectable to VRV heat recovery and Water - cooled VRV

## Ventilation



- › Widest range in DX ventilation – from small heat recovery ventilation to large scale air handling units
- › Provides a fresh, healthy and comfortable environment

**NEW**



## VRV for offices and banks

Efficiency in the workplace



Efficient building and facilities management are key to minimising operational costs

### Our solutions for offices:

- › Significantly reduced costs for hot water and heating by re-using heat recovered from areas requiring cooling
- › Unique cassette integrating fully flat into architectural ceilings
- › Intelligent sensors
  - maximise efficiency by raising the indoor set point or switching off the unit if there is nobody in the room
  - maximise comfort by directing the air flow away from people to avoid cold draughts
- › A complete Daikin mini Building Energy Management System (BEMS), with the Intelligent Touch Manager
- › Plug & play connection to air handling units for a healthier office atmosphere
- › Hot water production for sanitary use (e.g. kitchens) and space heating (e.g. underfloor loops)
- › Truly reliable technical cooling down to -20°C, including duty rotation/standby function

## VRV for hotels

Hospitality with economy



A hotel's reputation depends on how welcome and comfortable guests feel during their stay. Yet at the same time, hotel owners must maintain complete control of their operating costs and energy consumption.

### Our solutions for hotels:

- › Low cost heating and hot water by recovering heat from areas requiring cooling
- › The perfect personal environment for guests by simultaneously heating spaces while cooling others
- › Flexible installation: the outdoor unit can be installed outdoors to maximise hospitality space or indoors to minimize outdoor noise or in case of outdoor space constraints
- › Concealed ceiling units developed for small, well-insulated rooms such as hotel bedrooms, offering very low sound levels ensuring a good night's rest
- › Smart energy management via Intelligent Touch Manager puts the hotel owner in full control of energy costs
- › Intelligent and user-friendly hotel room controllers change the set point automatically when a guest leaves the room or opens the window
- › Easy integration in hotel booking software
- › Hot water production for bathrooms, underfloor heating and radiators up to 80°C

Check on  
**YouTube**

[www.youtube.com/DaikinEurope](http://www.youtube.com/DaikinEurope)

Hotel



Bank / Retail



Check on  
**YouTube**

[www.youtube.com/DaikinEurope](http://www.youtube.com/DaikinEurope)





## VRV for retail

Reducing retail costs



Retailers are under pressure to reduce both store development costs and running costs. That is why affordable, energy-efficient solutions are vital for minimising lifetime costs, while ensuring compliance with the latest regulations.

### Our retail solutions:

- > Compact inverter heat pump technology
- > Flexible installation: the outdoor unit can be installed outdoors to maximise commercial space or indoors to minimise external space or noise in city centres
- > Unique round flow cassettes with autocleaning panel saving up to 50% of energy use compared to standard cassette units
- > Intuitive touch screen intelligent Tablet Controller allowing multi site control via the Daikin Cloud Service
- > Easy to use remote control with lock-key function to avoid improper use
- > Individual control of each indoor unit or shop zone
- > Savings on running cost via pre/post trade modes, limiting energy use by lights, air conditioning, ...
- > The most efficient open-door solution with Biddle air curtains



## VRV for residential use

There is no place like home



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

### Our residential solutions:

- > Lower CO<sub>2</sub> emissions compared to traditional heating systems
- > Compact outdoor unit design with a low sound level
- > Whisper-quiet indoor units down to 19dBA
- > Daikin Emura; iconic design wall mounted unit
- > Unique Nexura floor standing unit offering the feel of a radiator with the efficiency of a heat pump
- > Units to be concealed in the wall or ceiling to make them completely unnoticed
- > User-friendly, intuitive touch control, controlling your entire shop including lights, sensors, ...
- > Manage and control multiple shops from a central location via the Daikin Cloud Service
- > Up to 9 indoor units that can be connected to one outdoor unit

Want to know more  
about our commercial  
solutions?



Check on  
**YouTube**

[www.youtube.com/  
DaikinEurope](http://www.youtube.com/DaikinEurope)

Residential





## VRV IV standards & technologies

Our new VRV IV systems set pioneering standards in all-round climate comfort performance. Total design simplicity, offering rapid installation, full flexibility as well as absolute efficiency and comfort. Find out about all these revolutionary changes at

[www.daikineurope.com/vrviv](http://www.daikineurope.com/vrviv)

# VRV IV =

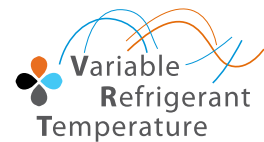
## 3 revolutionary standards

- › Variable Refrigerant Temperature
- › Continuous comfort during defrost
- › VRV configurator

## + unique VRV IV core technologies

- › Newly developed inverter compressor
- › Refrigerant-cooled PCB
- › 4-side heat exchanger
- › Predictive control
- › Outer rotor DC fan motor

# 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 outdoor 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 ( $T_e$ ) and condensing ( $T_c$ ) temperature of the refrigerant in order to achieve the highest seasonal efficiency.

UNIQUE

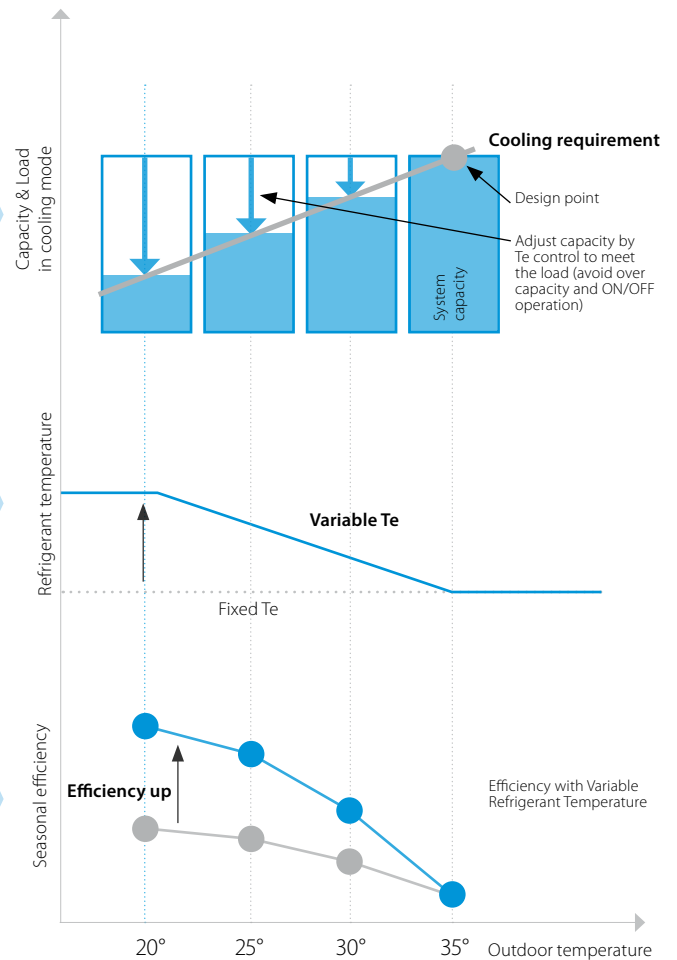
UNIQUE


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

The colder it gets the lower the cooling need of the building

The lower the capacity need, the higher the refrigerant temperature can be

The higher the refrigerant temperature, the higher the efficiency



 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 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 information about monitoring services.**

## 8 Different modes to maximise efficiency and comfort

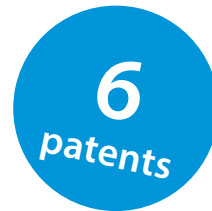


Check on  
**YouTube**

<https://www.youtube.com/DaikinEurope>

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	
<p><b>Step 1</b></p> <p><b>Automatic*</b> Evaporating AND condensing temperature automatically selected according to ambient temperature</p> <p>Quick reaction speed      Top efficiency</p> <p>The perfect balance: Achieves top efficiency throughout the year, reacts quickly on the hottest days</p>	<p><b>Step 2</b></p> <p>Powerful</p> <p>Quick</p> <p>Mild *</p>	<p>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.</p> <p>Same as above but slower response than the powerful mode.</p> <p>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</p>
<p><b>High sensible</b> Target Te can be selected between 7°C to 11°C</p> <p>Quick reaction speed      Top efficiency</p> <p>Year round top efficiency</p>	<p>Powerful</p> <p>Quick</p> <p>Mild</p> <p>Eco</p>	<p>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.</p> <p>Same as above but slower response.</p> <p>The air off temperature remains fairly constant. Suitable for low ceiling rooms.</p> <p>Coil temperature would not change due to fluctuating load. Suitable for computer or low ceiling rooms.</p>
<p><b>Basic</b> Current VRF standard</p>	<p>No submodes</p>	<p>This is how most other VRF systems work and can be used for all general type of applications.</p>

\* Factory setting

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

## 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.

# Real continuous heating during defrost mode

**VRV IV 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.**

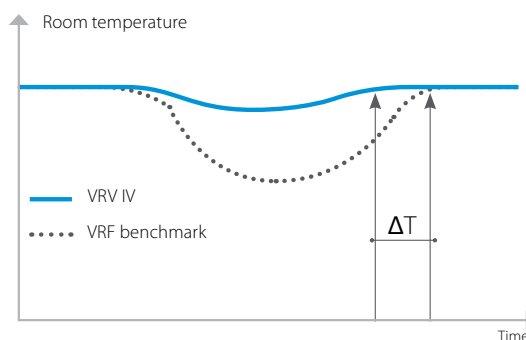
- › **Continuous indoor comfort ensured by the heat accumulating element and alternate defrost**
- › **An innovative alternative to traditional heating systems**



Check on  
**YouTube**

<https://www.youtube.com/DaikinEurope>

Heat pumps are known for their high energy efficiency in heating, but frost is accumulated on their heat exchanger during heating operation and this must be melted periodically using a defrost function that reverses the refrigeration cycle. This causes a temporary temperature drop and reduced comfort levels inside the building. 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?

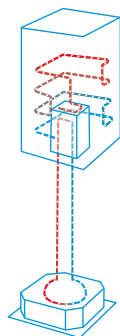
### UNIQUE Heat accumulating element

For the VRV IV 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.

The outdoor unit coil is defrosted ...

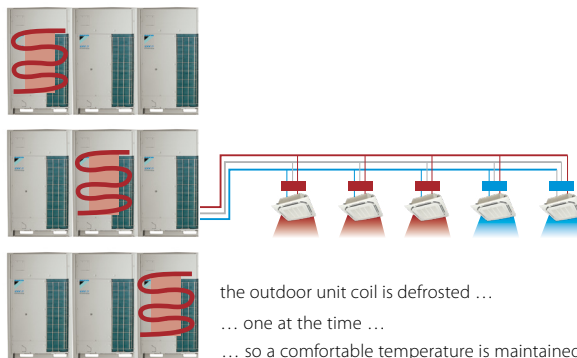
... with the energy stored in the heat accumulating element ...

... so a comfortable temperature is maintained indoors.



### 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
RYYQ8-20T(8)

Water cooled VRV has no defrost cycles

### Available on:

Heat pump	Heat recovery	Replacement VRV
RYYQ16-54T(8)	REYQ10-54T	RXYQQ16-42T
RXYQ16-54T(8)		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



Check on  
**YouTube**

<https://www.youtube.com/DaikinEurope>

## Configurator software for simplified commissioning

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

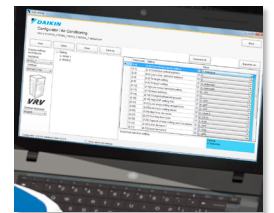
- › less time is required on the roof configuring the outdoor unit
- › multiple systems at different sites can be managed in exactly the same way, thus offering simplified commissioning for key accounts
- › initial settings on the outdoor unit can be easily retrieved.



Simplified commissioning



Retrieve initial system settings



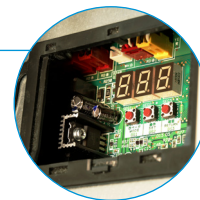
User friendly interface instead of push buttons

# 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

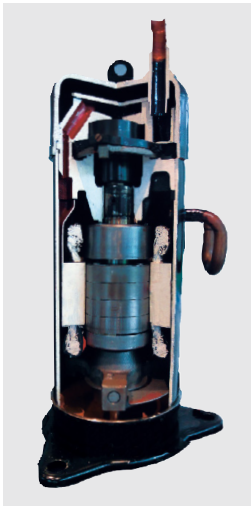


3 digit 7-segment display

### Available on:

Heat recovery	Heat pump	Replacement VRV
REYQ-T	RYYQ-T(8)	RXYQQ-T
	RXYQ-T(8)	
	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)	

# Unique VRV IV core technologies



## Newly developed compressor

37 patents

### Full inverter

- › Enabling variable refrigerant temperature and low start-up currents
- › Stepless capacity control

### Reluctance brushless DC motor

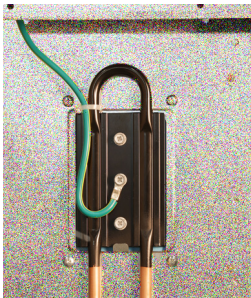
- › increased efficiency compared to AC motors by simultaneously using normal and reluctance torque
- › Powerful neodymium magnets efficiently generate high torque
- › High-pressure oil reduces thrust losses

### High efficiency 6-pole motor

- › 50% stronger magnetic field and higher rotation efficiency

### Thixocasting process

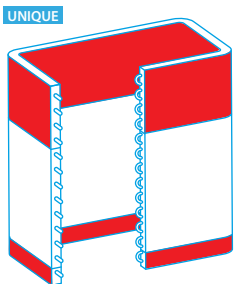
- › Compression volume is increased by 50% thanks to a new high-durability material cast in a semi-molten state



## 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



## 4-sided, 3-row heat exchanger

- › Heat exchange surface up to 50% larger (up to 235m<sup>2</sup>), leading to 30% more efficiency

10 patents



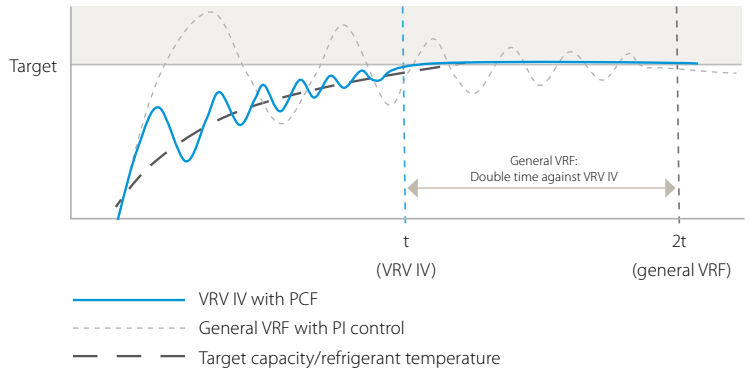


## UNIQUE

# 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.



### 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

## DC fan motor

## UNIQUE

### 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.

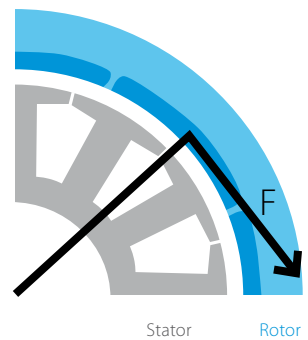
### DC fan motor

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

Conventional motor with inner rotor



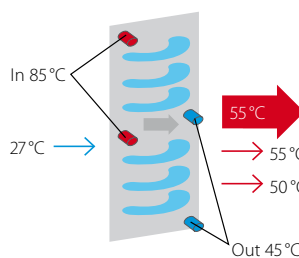
Daikin outer rotor



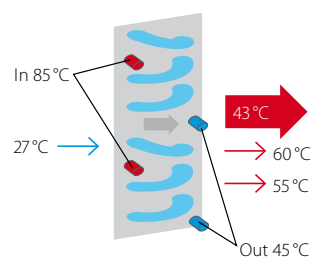
## E-Pass heat exchanger

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.

Standard heat exchanger



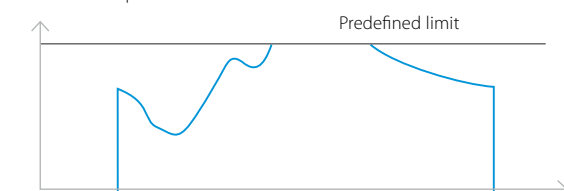
e-Pass heat exchanger



## 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.

Power consumption



Time



## The VRV benefits

See how you can benefit from Daikin's highly flexible and efficiency product range

# VRV

Latest technology, highest efficiency

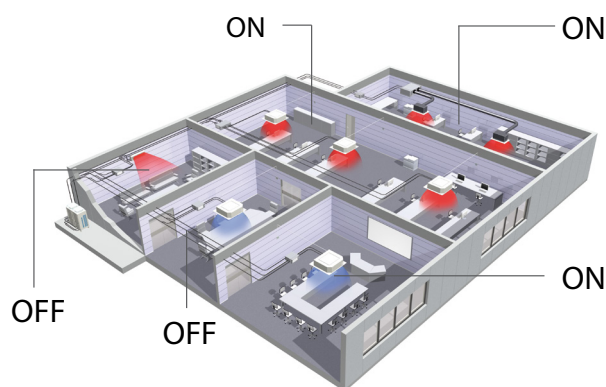
## VRV, a total commercial solution

Drastically reducing your running costs Top reliability Up to 6 times greater resistance against corrosion	26
Comfort guaranteed at all times	28
Great design flexibility	30
Fast installation and commissioning Easy servicing	32

- Drastically reducing running costs
- Top reliability
- Up to 6 times greater resistance against corrosion

## Precise zone control

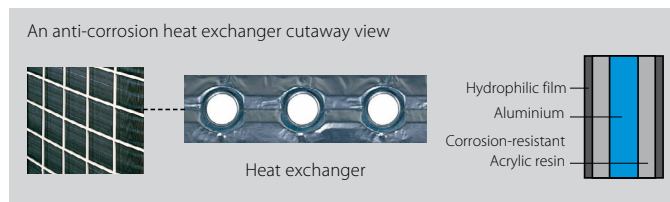
VRV systems have low running costs because it permits each zone to be controlled individually. That is, only those rooms that require air conditioning will be heated or cooled, while the system can be shut down completely in rooms where no air conditioning is required.



## Anti Corrosion Treatment

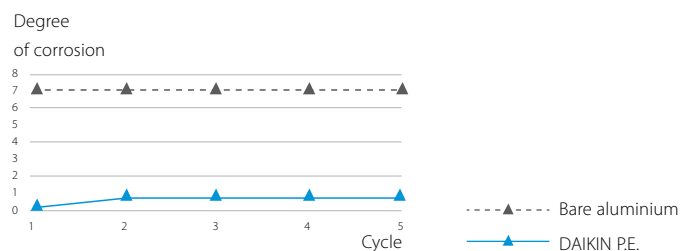
Special anti corrosion treatment of the heat exchanger provides 5 to 6 times greater resistance against acid rain and salt corrosion.

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



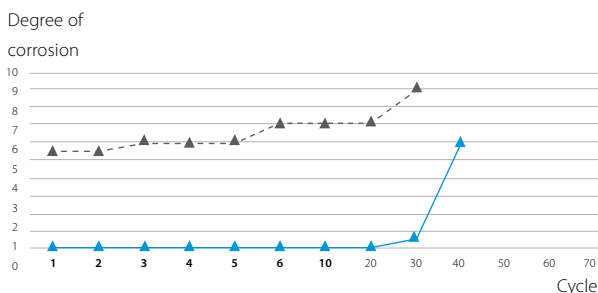
### Performed tests:

- › VDA Wechseltest
- › Contents of 1 cycle (7 days):
- › 24 hours salt spray test SS DIN 50021
- › 96 hours humidity cycle test KFW DIN 50017
- › 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



## 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

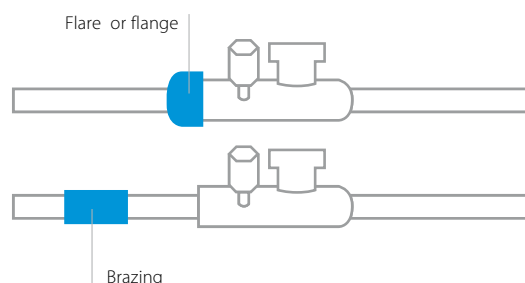
Up to 3 outdoor units can be connected to 1 power supply and can be turned on sequentially. This allows the number of breakers and their capacities to remain small and simplifies wiring (for models of 10HP or less).

## 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.

ALL

INVERTER



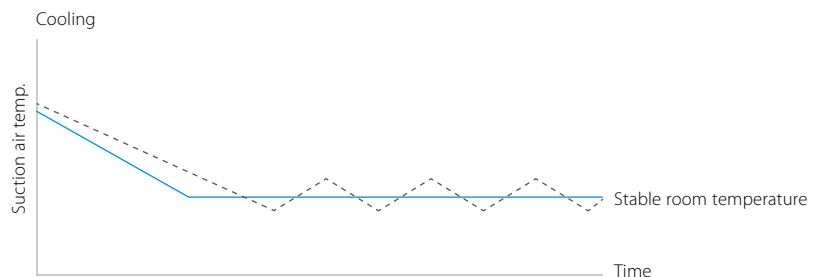
# • Comfort guaranteed at all times

## Smart Control brings comfort

### Stable room temperature

An electronic expansion valve, using PID (Proportional Integral Derivative) control, continuously adjusts the refrigerant volume in response 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.

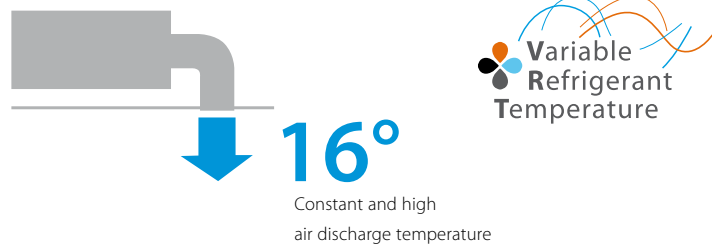
Note: The graph shows the data, measured in a test room assuming actual heating load. The thermostat can control stable room temperature at  $\pm 0.5^\circ\text{C}$  from set point.



— 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.



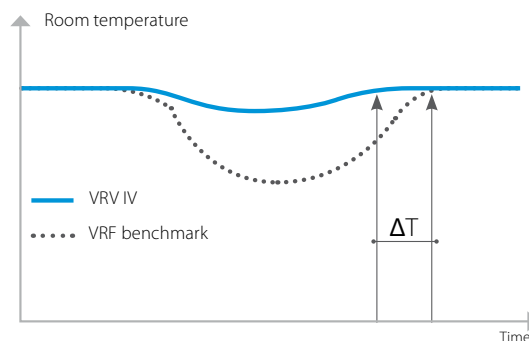
Available on all VRV IV units

## 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-T, RYYQ-T(8), RXYQ-T(8) and RXYQQ-T



## 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 guaranteed.



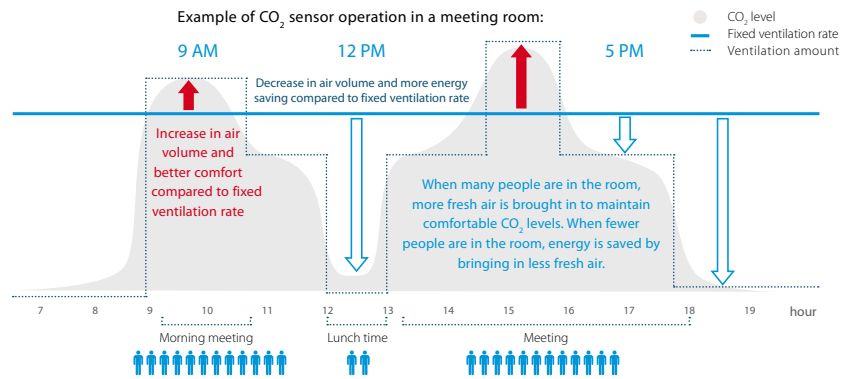
Single outdoor unit with multiple compressors



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 areas as hotel bedrooms, etc...

db(A)	Perceived loudness	Sound
0	Threshold 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:



19dB(A)



25.5dB(A)



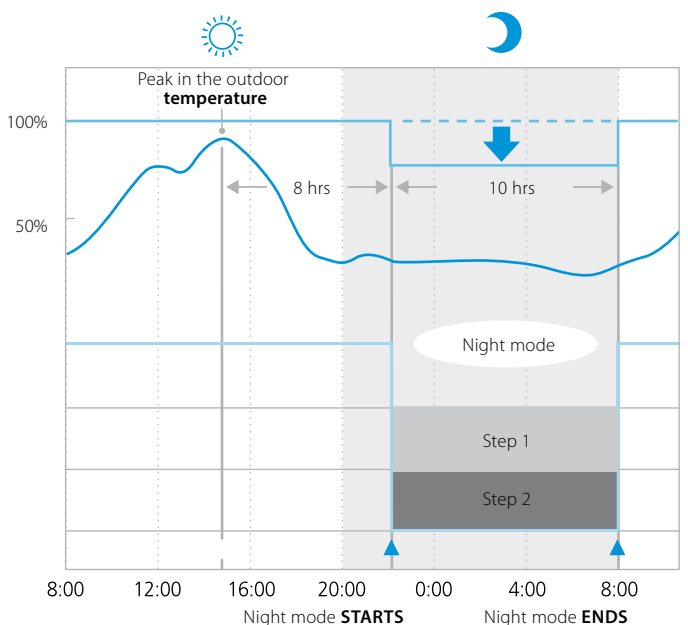
Connectable to all VRV heat pumps

Connectable to VRV IV, VRV IV S-series and VRV IV W-series

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

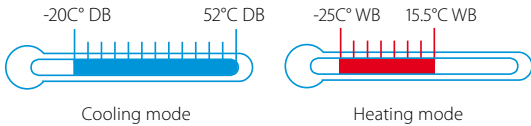
Example for VRV IV heat pump, factory setting.

# • Great design flexibility

## Wide operation range

### Air cooled

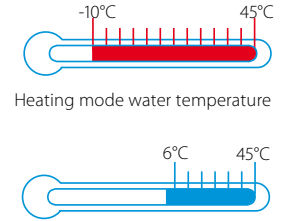
The VRV system can be installed practically anywhere. VRV air cooled outdoor units can cool between -20°C BD and +52°C DB outdoor ambient and can be used as monovalent heating system between -25°C WB and +15.5°C WB.



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

### 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.

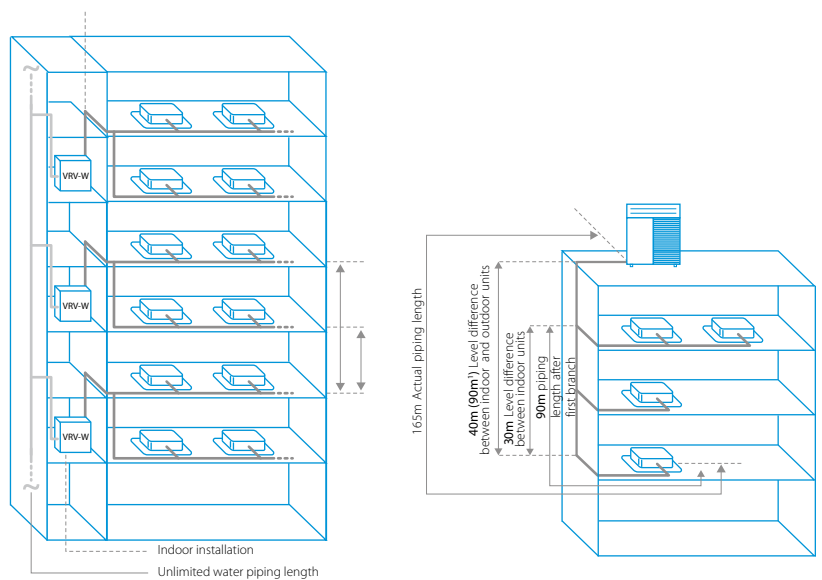


\* Ethylene glycol should be added to the water when the water inlet temperature is below 5°C

## 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



### VRV IV example

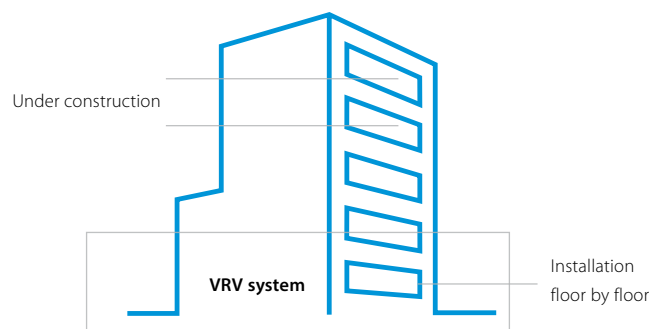
	Air cooled	Water cooled
Total piping length	1000m	500m
Longest length actual (Equivalent)	165m (190m)	165m (190m)
Longest length after first branch	90m <sup>1</sup>	40m (90m <sup>1</sup> )
Level difference between indoor and outdoor units	90m <sup>1</sup>	50m (40m <sup>2</sup> )
Level difference between indoor units	30m	30m

<sup>1</sup> Contact your local dealer or consult technical literature for more information and restrictions

<sup>2</sup> 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.





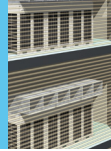
## Indoor installation

### 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.

ESP up to  
78.4 Pa



#### 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

### 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

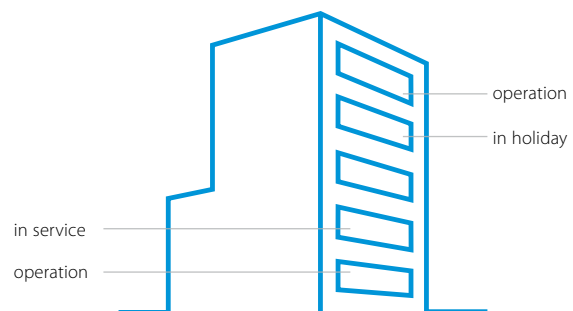


## Multiple tenants, one outdoor unit

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



multi tenant

## 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.

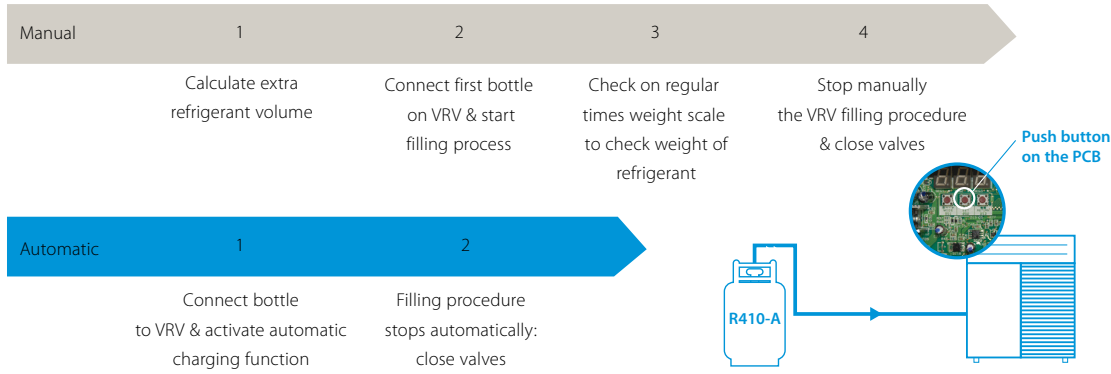
max. 398kg for a 20HP unit



- Fast installation and commissioning
- Easy servicing

## Automatic charging & testing

### Efficient use of time



After charging, pushing the test operation button initiates a check on the wiring, shut off valves, sensors and refrigerant volume.

If the temperature drops below 20°C\* manual charging is necessary.

\* 10°C for heat pump for cold regions

\* Available on REYQ-T, RYYQ-T(8), RXYQ-T(8), RQYQ-P, RXYQQ-T, RQCEQ-P3

## Did you know ...

### Optimal charge = optimal efficiency



10% undercharged

up to 25% capacity loss

33% more energy use

## Compliance to F-gas regulation

### Remote refrigerant containment check

Perform the refrigerant containment check remotely via intelligent Touch Manager.

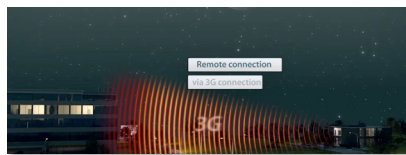
When activating the refrigerant containment check, the unit switches into cooling mode and duplicates certain reference conditions based on memory data. The result indicates whether or not refrigerant leakage has occurred.

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

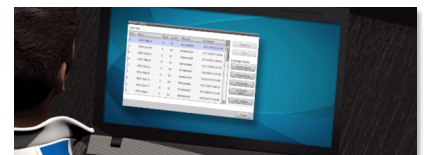
- > Outdoor temperature
- > Reference system temperatures
- > Reference pressure temperatures
- > Refrigerant density
- > Types and number of indoor units



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.

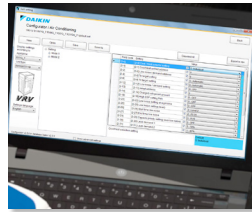
Available on RYYQ-T(8), RXYQ-T(8), REYQ-T

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

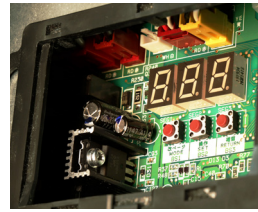
## VRV configurator software

For simplified commissioning, configuration and customisation

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



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.

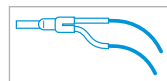


## Daikin unified REFNET piping

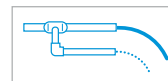
The unified Daikin REFNET piping system is designed for simple installation.

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



T-joint



REFNET 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
- > Sheathed 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.

\* auto address setting function is not available for centralized operation





# VRV Outdoor Systems

For every application a solution

# Overview of functions

Widest range of BS boxes

Unique continuous heating

Widest range

Unique product

EXPECTED

Increased capacity!

	VRV IV Heat recovery	VRV IV heat pump with continuous heating	VRV IV heat pump without continuous heating	VRV IV S-series (compact)	VRV IV i-series	VRV IV C-series	Replacement VRV IV heat pump	Replacement VRV III Heat recovery	VRV IV W*series
	REYQ-T	RYYQ-T(8)	RXYQ-T(8)	RXYSQ-TV1 RXYSQ-T8V RXYSQ-T8Y RXYSQ-TY1	SB.RKXYQ-T (8)	RXYLQ-T	RQYQ-P RXYQQ-T	RQCEQ-P3	RWEYQ-T9
Page	44	52	52	54	62	72	77	76	88
Variable Refrigerant Temperature	●	●	●	●	●	●	●	×	●
Continuous heating (heat accumulating element)	×	●	×	×	×	×	×	×	-
Continuous heating (alternate defrost)	●	●	×	×	×	×	×	×	-
VRV configurator	●	●	●	●	●	●	●	×	●
7 segment display	●	●	●	×	×	●	●	×	●
Automatic refrigerant charge	●	●	●	×	×	●	●	●	×
Refrigerant containment check	●	●	●	×	×	●	×	×	×
Night quiet mode	●	●	●	●	●	●	●	●	-
Low noise function	●	●	●	●	●	●	●	●	-
Connectable to stylish indoor units (Daikin Emura, Nexura)	×	●	●	● <sup>(1)</sup>	×	●	×	×	● <sup>(1)</sup>
Connectable to LT hydrobox for hot water	●	●	●	×	×	●	×	×	●
Connectable to HT hydrobox for hot water	●	×	×	×	×	×	×	×	●
Full inverter compressors	●	●	●	●	●	●	●	●	●
Gas cooled PCB	●	●	●	● <small>not available on RXYSQ4.5,6,8Y1</small>	×	●	●	×	×
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 / power limitation	●	●	●	●	●	●	●	●	●

(1) Either connect VRV or stylish indoor units

# Products overview **VRV**

Model		Product name	4	5	6	8	10	12	13	14	16	18	20	22	24	26	28	30			
Air cooled - heat recovery	VRV IV heat recovery <b>Best efficiency &amp; comfort solution</b> <ul style="list-style-type: none"> <li>Fully integrated solution with heat recovery for maximum efficiency</li> <li>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</li> <li>"Free" heating and hot water through heat recovery</li> <li>The perfect personal comfort for guests/tenants via simultaneous cooling and heating</li> <li>Incorporates VRV IV standards &amp; technologies such as Variable Refrigerant temperature and continuous heating</li> <li>Allows technical cooling</li> <li>Widest range of BS boxes on the market</li> </ul>	REYQ-T <b>VRV IV</b>				●	●	●		●	●	●	●								
	VRV IV heat pump with continuous heating <b>Daikin's optimum solution with top comfort</b> <ul style="list-style-type: none"> <li>Continuous heating during defrost</li> <li>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</li> <li>Connectable to stylish indoor units (Daikin Emura, Nexura)</li> <li>Incorporates VRV IV standards &amp; technologies such as Variable Refrigerant temperature and continuous heating</li> </ul>	RYYQ-T(8) <b>VRV IV</b>				●	●	●		●	●	●	●								
	VRV IV heat pump without continuous heating <b>Daikin's solution for comfort &amp; low energy consumption</b> <ul style="list-style-type: none"> <li>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</li> <li>Connectable to stylish indoor units (Daikin Emura, Nexura)</li> <li>Incorporates VRV IV standards &amp; technologies such as Variable Refrigerant temperature</li> </ul>	RXYQ-T(9) <b>VRV IV</b>				●	●	●		●	●	●	●								
	VRV IV-S series Compact <b>The most compact VRV</b> <ul style="list-style-type: none"> <li>Compact and lightweight single fan design saves space and is easy to install</li> <li>Covers all thermal needs of a building via a single point of contact: accurate temperature control, ventilation, air handling units and Biddle air curtains</li> <li>Either connect VRV of stylish indoor units (Daikin Emura, Nexura)</li> <li>Incorporates VRV IV standards &amp; technologies such as Variable Refrigerant temperature</li> </ul>	RXYSQ-TV1 <b>VRV IV S-series Compact</b>	●	●																	
	VRV IV-S series <b>Space saving solution without compromising on efficiency</b> <ul style="list-style-type: none"> <li>Space saving trunk design for flexible installation</li> <li>Covers all thermal needs of a building via a single point of contact: accurate temperature control, ventilation, air handling units and Biddle air curtains</li> <li>Either connect VRV of stylish indoor units (Daikin Emura, Nexura)</li> <li>Incorporates VRV IV standards &amp; technologies such as Variable Refrigerant temperature</li> </ul>	RXYSQT8V/ T8Y/TY1 <b>VRV IV S-series</b>	●	●	●																
	<b>UNIQUE</b> VRV IV heat pump for indoor installation <b>The invisible VRV</b> <ul style="list-style-type: none"> <li>Unique VRV heat pump for indoor installation</li> <li>Total flexibility for any shop location and building type as the outdoor unit is invisible and split up in 2 parts</li> <li>Incorporates VRV IV standards &amp; technologies such as Variable Refrigerant temperature</li> <li>Covers all thermal needs of a building via a single point of contact: accurate temperature control, ventilation and Biddle air curtains</li> </ul>	SB.RKXYQ-T(8) <b>VRV IV i-series</b>		●	●																
<b>EXPECTED</b> VRV IV heat pump, optimised for cold climates	Where heating is priority without compromising on efficiency <ul style="list-style-type: none"> <li>Suitable for single source heating</li> <li>Extended operation range down to -25°C in heating</li> <li>Stable heating capacity without any capacity loss down to -15°C</li> </ul>	RXYLQ-T <b>VRV IV C-series</b>								●	●	●	●	●	●	●	●	●	●		
Replacement	heat recovery <b>Quick &amp; quality replacement for R-22 and R-407C systems</b> <ul style="list-style-type: none"> <li>Cost-effective and fast replacement through re-use of existing piping</li> <li>Drastically improve your comfort, efficiency and reliability</li> <li>No interruption of daily business while replacing your system</li> <li>Replace Daikin and other manufacturers systems safely</li> </ul>	RQCEQ-P(3)* <b>VRV III Q</b>							●	●	●	●	●	●	●	●	●	●	●		
	heat pump <b>Quick &amp; quality replacement for R-22 and R-407C systems</b> <ul style="list-style-type: none"> <li>Cost-effective and fast replacement through re-use of existing piping</li> <li>Drastically improve your comfort, efficiency and reliability</li> <li>No interruption of daily business while replacing your system</li> <li>Replace Daikin and other manufacturers systems safely</li> <li>Incorporates VRV IV standards &amp; technologies such as Variable Refrigerant temperature</li> </ul>	RXYQQ-T* <b>VRV IV Q-series</b>	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	●	●	
Water cooled	Water cooled VRV IV <b>Ideal for high rise buildings, using water as heat source</b> <ul style="list-style-type: none"> <li>Reduced CO2 emissions thanks to the use of geothermal energy as a renewable energy source</li> <li>No need for an external heating or cooling source when used in geothermal mode</li> <li>Compact &amp; lightweight design can be stacked for maximum space saving</li> <li>Incorporates VRV IV standards &amp; technologies such as Variable Refrigerant temperature</li> <li>Variable Water Flow control option increases flexibility and control</li> <li>Mixed connection of HT hydroboxes and VRV indoor units</li> <li>Either connect VRV of stylish indoor units (Daikin Emura, Nexura)</li> <li>2 analogue input signals allowing external control</li> </ul>	RWEYQ-T9* <b>VRV IV W-series</b>				●	●	●		●									●		

Ranges marked with "\*" are not Eurovent certified. Multi combinations are not in scope of the Eurovent certification programme

● Single unit  
● Multi combination

Capacity (HP)												Description / Combination	VRV indoor units	Residential indoor units	LT Hydrobox HXY-A	HT Hydrobox HXHD-A	HRV units VAM-, VKM-	AHU connection EKEXV + EKEQMCBA	AHU connection EKEXV + EKEQFCBA	Air curtains CVV-DK-	Remarks
32	34	36	38	40	42	44	46	48	50	52	54										
												<b>VRV IV Heat Recovery</b> REYQ-T	○	×	○	○	○	○	×	○	> Standard total system connection ratio limit: 50 ~ 130%
												with only VRV indoor units	✓								
												with LT/HT Hydroboxes	✓		✓	✓	✓				> Max 32 indoor units, even on 16HP and larger systems > Total system connection ratio with HT hydroboxes up to 200% possible
●	●	●	●	●	●	●	●	●	●	●	●	HRV units VAM-, VKM-	✓		✓	✓	✓		✓		> Dedicated systems (with only ventilation units) not allowed – a mix with standard VRV indoor units is always necessary
												AHU connection EKEXV + EKEQMCBA	✓				✓	✓		✓	
												Biddle air curtain CVV-DK-	✓				✓	✓		✓	> Total system connection ratio with AHU is 50 ~ 110%
												<b>VRV IV Heat Pump</b> RYYQ-T(8) / RXYQ-T(9)	○	○	○	×	○	○	○	○	> Standard total system connection ratio limit: 50 ~ 130%
												with only VRV indoor units	✓								> 200% total system connection ratio possible under special circumstances
●	●	●	●	●	●	●	●	●	●	●	●	with residential indoor units	✓	✓			✓				> Only single-module systems (RYYQ 8~20 T / RXYQ 8~20 T) > Max 32 indoor units, even on 16HP, 18HP and 20HP systems > Connection ratio: 80 ~ 130%
												with LT Hydroboxes	✓		✓		✓				> Max 32 indoor units, even on 16HP and larger systems > Contact Daikin in case of multi-module systems (>20HP)
												HRV units VAM-, VKM-	✓	✓	✓		✓	✓		✓	
												AHU connection EKEXV + EKEQMCBA	✓				✓	✓		✓	
												AHU connection EKEXV + EKEQFCBA							✓		> Total system connection ratio with AHU is 50 ~ 110%
●	●	●	●	●	●	●	●	●	●	●	●	Biddle air curtain CVV-DK-	✓				✓	✓		✓	
												<b>VRV IV-S</b> RXYSQ-/RXYSCQ-	○	○	×	×	○	○	×	○	> 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%
												<b>VRV IV i series</b> SB.RKXYQ-T(8)	✓	×	×	×	✓	✓	×	✓	> Standard total system connection ratio limit: 50 ~ 130%
												<b>VRV IV-C</b> RXYLQ-T	○	○	○	×	○	○	○	○	> Standard total system connection ratio limit: 70 ~ 130%
												with VRV indoor units only	✓				✓			✓	
●	●	●	●	●	●							with residential indoor units only		✓							> With residential indoor: connection ratio limit: 80 ~ 130%
												with LT hydroboxes	✓		✓		✓				> Max. 32 indoor units, contact Daikin in case of multi-module systems (> 14HP)
												AHU connection EKEXV + EKEQMCBA	✓				✓	✓		✓	> Total system connection ratio is 70~110%
												AHU connection EKEXV + EKEQFCBA	✓						✓		> With AHU only connection ration is 90~110%
												<b>VRV III-Q Replacement H/R</b> RQCEQ-P3	✓	×	×	×	✓	×	×	×	> Standard total system connection ratio limit: 50 ~ 130%
●	●	●	●	●	●							<b>VRV IV-Q Replacement H/P</b> RXYQQ-T	✓	×	×	×	✓	✓	×	✓	> Standard total system connection ratio limit: 50 ~ 130%
												<b>VRV IV-W Water-cooled VRV</b> RWEYQ-T9	○	○	×	○	○	○	○	○	> Standard total system connection ratio limit: 50 ~ 130%
												with VRV indoor units	✓			✓	✓	✓	✓	✓	
												with split indoor units		✓							> Connection ratio: 80 ~ 130% > Max 32 indoor units, even on 16HP and larger systems
●	●	●	●	●	●							with HT hydrobox	✓		✓						
												AHU connection	✓					✓			> Total system connection ratio with AHU + X indoor is 50 ~ 110% > Total system connection ration with AHU only is 90 ~ 110%

○ ... connection of indoor unit possible, but not necessarily simultaneously with other allowed indoor units  
 ✓ ... connection of indoor unit possible even simultaneously with other checked units in the same row  
 × ... connection of indoor not possible on this outdoor unit system



EIFFAGE ENERGIE ET EIFFAGE ENERGIE THERMIE  
OFFICE BUILDING  
VRV IV HEAT PUMP WITH CONTINUOUS HEATING



PARK PHI  
BREAM EXCELLENT OFFICE BUILDING  
WATERCOOLED VRV



VRV IV i-SERIES VRV IV HEAT PUMP  
FOR INDOOR INSTALLATION



HOTEL LE PIGONNET, 8 REPLACEMENT VRV



BASTIDE ROUGE, OFFICE BUILDING, VRV IV WITH CONTINUOUS HEATING

# VRV IV heat recovery

Best efficiency and comfort solution

Efficient  
**3-pipe**  
system



## VRV IV standards:

### Variable refrigerant temperature

Customize your VRV for best seasonal efficiency & comfort

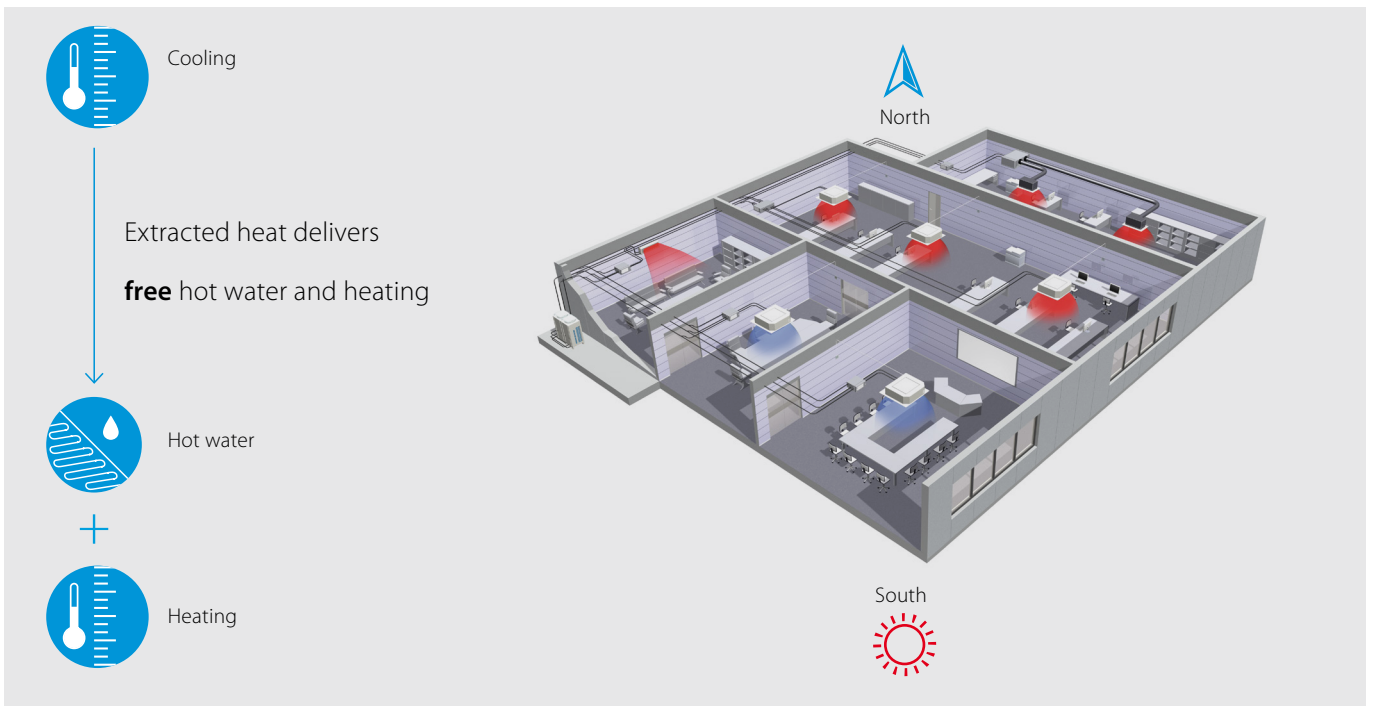
### Continuous heating

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



## “Free” heating and hot water production

Until now, most commercial buildings have relied on separate systems for cooling, heating, hot water and so on, which results in a lot of wasted energy.

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

## Improved efficiency

In heat-recovery operation the VRV IV is up to 15% more efficient compared to VRV III. In single mode operation, the seasonal efficiency of the system can be even as much as 28% higher - thanks to the variable refrigerant temperature technology - compared to a conventional VRF system.

## Optimised Partition of Heat Exchanger for highest seasonal efficiency in heat recovery mode

Vertically divided heat exchanger with an optimized ratio for mix mode operation. This improves heat recovery efficiency by reducing radiation losses.

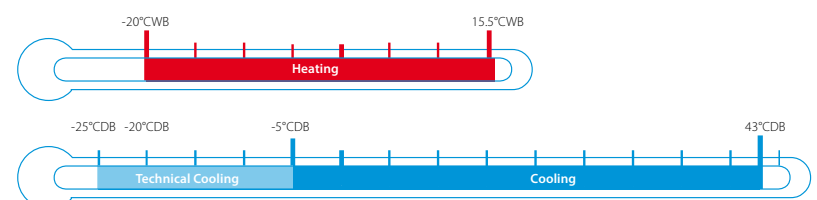
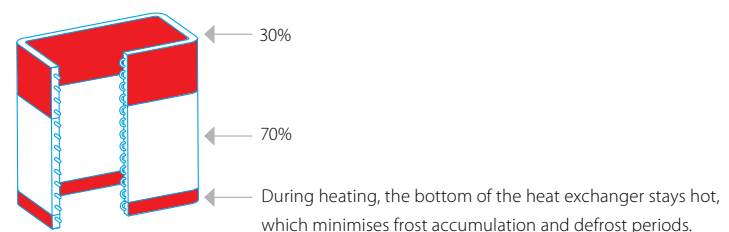
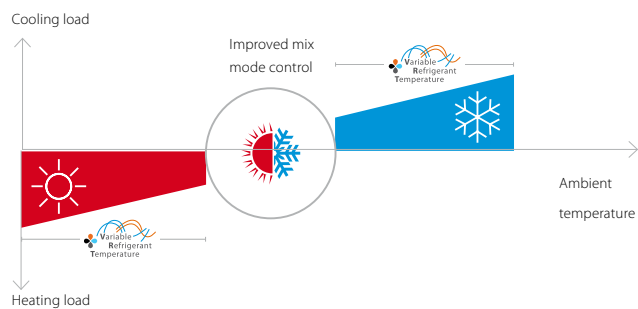
## Wide heating operation range

VRV IV heat recovery has a standard operation range down to  $-20^{\circ}\text{CWB}$  in heating. It can also provide cooling down to  $-20^{\circ}\text{CDB}$  for technical server rooms via field settings and specific system design.

## 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.

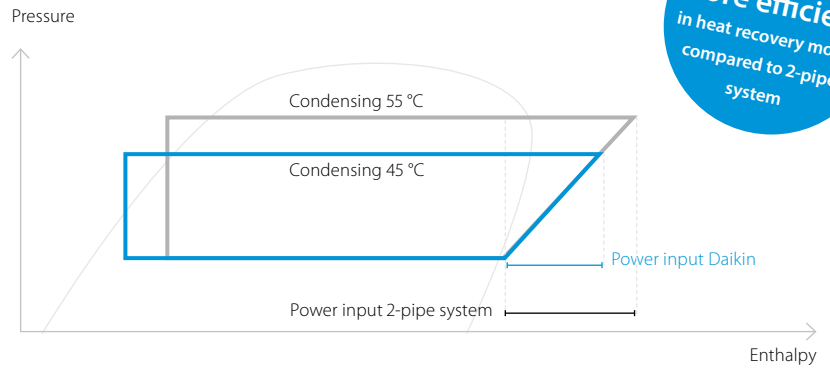


# Advantages of 3-pipe technology

## 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.

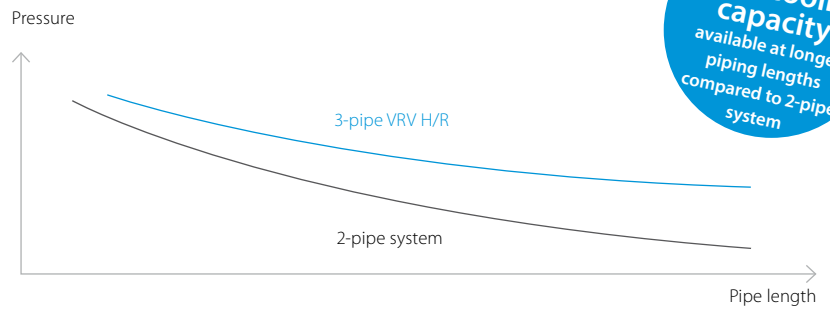
In a 2-pipe system, gas and liquid travel as a mixture so the condensing temperature needs to be higher in order to separate the mixed gas and liquid refrigerant. The higher condensing temperature means more energy is used to recover heat resulting in lower efficiency.



**5 to 15% more efficient** in heat recovery mode compared to 2-pipe system

## 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



**Up to 5% more cooling capacity** available at longer piping lengths compared to 2-pipe system

## Save on refrigerant

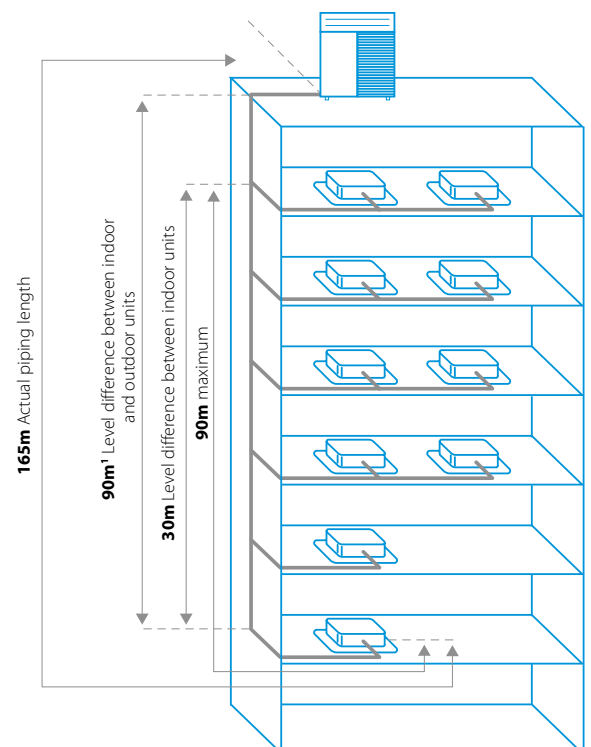
- › Smaller diameter pipes and 3-pipe system results in up to 36% less refrigerant charge compared to 2-pipe systems, saving on refrigerant cost and reducing environmental impact

## Freely combine outdoor units

Combine outdoor units flexibly to reduce your carbon footprint, optimise your system for continuous heating, and achieve the highest efficiency.

## Flexible piping design

Total piping length	1000m
Longest length actual (Equivalent)	165m (190m)
Longest length after first branch	90m <sup>1</sup>
Level difference between indoor and outdoor units	90m <sup>1</sup>
Level difference between indoor units	30m



<sup>1</sup> Outdoor unit in highest position. Consult your local sales representative for restrictions on piping lengths

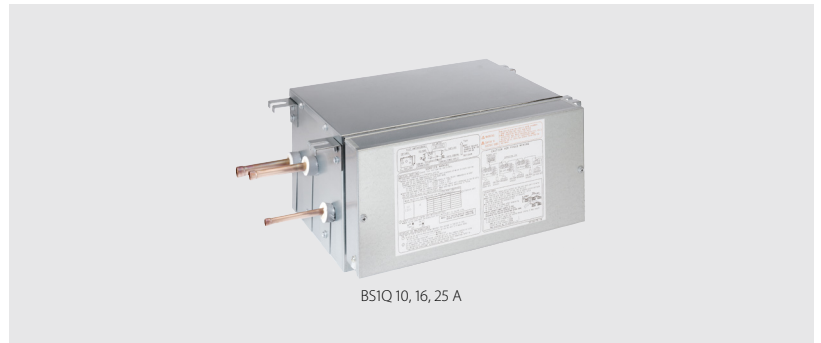
# Fully redesigned BS boxes

## 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



BS1Q 10, 16, 25 A

### 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



BS 4 Q14 AV1

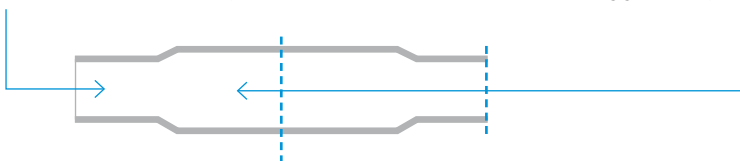
BS 6, 8 Q14 AV1

BS 10, 12 Q14 AV1

BS 16 Q14 AV1

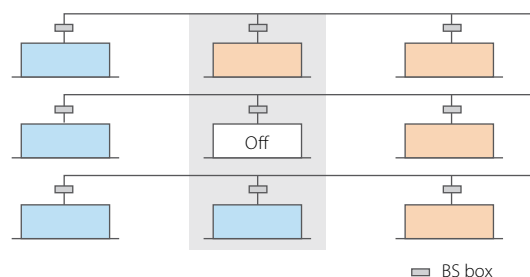
### Faster installation thanks to open connection

- › No need to cut the pipe before brazing – for indoor units smaller or equal to 5.6 kW (50 class)
- › Cut and braise the pipe – for indoor units bigger or equal to 7.1 kW (63 class)



## Maximum comfort at all times

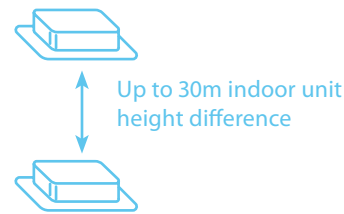
With the VRV BS box, any indoor unit not being used to switch between heating and cooling maintains the constant desired temperature. This is because our heat recovery system does not need to equalise pressure over the entire system after a change-over.



# 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



- › 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



Already fully compliant to LOT 21 - Tier 2

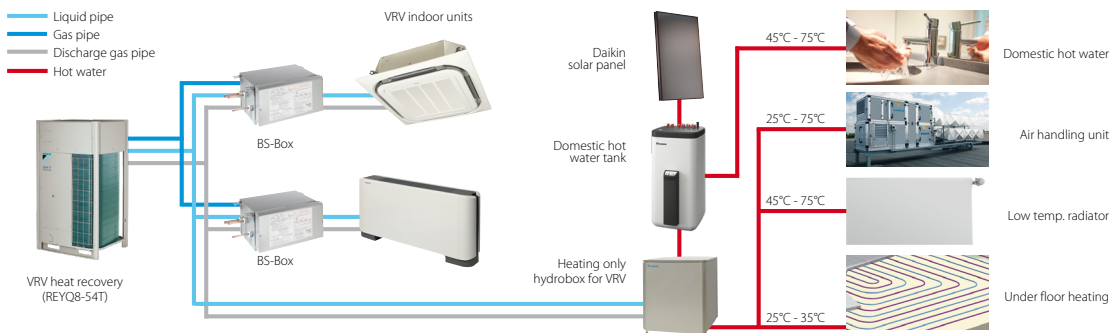
Outdoor unit		REYQ	8T	10T	12T	14T	16T	18T	20T	
Capacity range		HP	8	10	12	14	16	18	20	
Cooling capacity	Prated,c	kW	22.4	28.0	33.5	40.0	45.0	50.4	52.0	
Heating capacity	Prated,h	kW	13.7	16.0	18.4	20.6	23.2	27.9	31.0	
	Max. 6°CWB	kW	25.0	31.5	37.5	45.0	50.0	56.5	63.0	
ηs,c		%	212.4	222.0	216.9	226.6	216.8	216.2	210.3	
ηs,h		%	146.8	152.3	155.5	138.4	138.9	149.1	148.1	
SEER			5.4	5.6	5.5	5.7		5.5	5.3	
SCOP			3.7	3.9	4.0		3.5		3.8	
Maximum number of connectable indoor units			64 (1)							
Indoor index connection	Min.		100.0	125.0	150.0	175.0	200.0	225.0	250.0	
	Nom.									
	Max.		260.0	325.0	390.0	455.0	520.0	585.0	650.0	
Dimensions	Unit	HeightxWidthxD	mm			mm				
Weight	Unit		kg			kg				
Sound power level	Cooling	Nom.	dBA		dBA		dBA		dBA	
Sound pressure level	Cooling	Nom.	dBA		dBA		dBA		dBA	
Operation range	Cooling	Min.-Max.	°CDB							
	Heating	Min.-Max.	°CWB							
Refrigerant	Type/GWP		R-410A/2,087.5							
Piping connections	Liquid	OD	mm		mm		mm		mm	
	Gas	OD	mm		mm		mm		mm	
	HP/LP gas	OD	mm		mm		mm		mm	
	Total piping length	System	m		m		m		m	
Power supply	Phase/Frequency/Voltage		Hz/V							
Current - 50Hz	Maximum fuse amps (MFA)	A	20	25	32	40	50			

Outdoor unit system		REYQ	10T	13T	16T	18T	20T	22T	24T	26T	28T	30T	32T
System	Outdoor unit module 1		REMQ5T		REYQ8T		REYQ10T		REYQ16T		REYQ18T		REYQ16T
	Outdoor unit module 2		REMQ5T		REYQ8T		REYQ12T		REYQ14T		REYQ16T		REYQ18T
Capacity range		HP	10	13	16	18	20	22	24	26	28	30	32
Cooling capacity	Prated,c	kW	28.0	36.4	44.8	50.4	55.9	61.5	67.4	73.5	78.5	83.9	90.0
Heating capacity	Prated,h	kW	16.0	21.7	23.2	27.9	31.0	34.4	36.9	37.1	39.7	44.4	46.4
	Max. 6°CWB	kW	32.0	41.0	50.0	56.5	62.5	69.0	75.0	82.5	87.5	94.0	100.0
ηs,c		%	224.2	229.3	223.9	222.9	215.0	213.5	215.3	222.0	216.8	216.2	216.8
ηs,h		%	156.4	148.9	147.4	150.8	152.3	155.7	147.5	151.0	150.9	152.9	138.9
SEER			5.7	5.8	5.7	5.6	5.5	5.4	5.5	5.6		5.5	
SCOP			4.0		3.8		3.9	4.0		3.8		3.9	3.5
Maximum number of connectable indoor units			64 (1)										
Indoor index connection	Min.		125.0	163.0	200.0	225.0	250.0	275.0	300.0	325.0	350.0	375.0	400.0
	Nom.												
	Max.		325.0	423.0	520.0	585.0	650.0	715.0	780.0	845.0	910.0	975.0	1,040.0
Piping connections	Liquid	OD	mm		mm		mm		mm		mm		
	Gas	OD	mm		mm		mm		mm		mm		
	HP/LP gas	OD	mm		mm		mm		mm		mm		
	Total piping length	System	m		m		m		m		m		
Power supply	Phase/Frequency/Voltage		Hz/V										
Current - 50Hz	Maximum fuse amps (MFA)	A	40		50		63		80				



REYQ10,13,16,18,20,22T

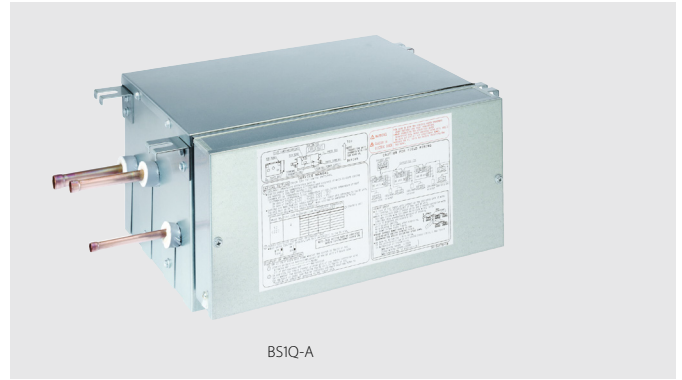


Outdoor unit			REYQ	34T	36T	38T	40T	42T	44T	46T	48T	50T	52T	54T
System	Outdoor unit module 1			REYQ16T		REYQ8T	REYQ10T		REYQ12T	REYQ14T		REYQ16T		REYQ18T
	Outdoor unit module 2			REYQ18T	REYQ20T	REYQ12T		REYQ16T				REYQ18T		
	Outdoor unit module 3			-		REYQ18T		REYQ16T				REYQ18T		
Capacity range		HP	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		%	216.4	213.2	215.3	217.6		216.8	219.7	216.8	216.5	216.3	216.2	
ηs,h		%	146.8	146.1	151.3	153.0	145.7	145.6	138.2	138.9	144.1	148.0	149.6	
SEER			5.5	5.4	5.5			5.6		5.5				
SCOP			3.7		3.9		3.7		3.5		3.7	3.8		
Maximum number of connectable indoor units			64 (1)											
Indoor index connection	Min.		425.0	450.0	475.0	500.0	525.0	550.0	575.0	600.0	625.0	650.0	675.0	
	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									
	Gas	OD	mm		34,9	41,3								
	HP/LP gas	OD	mm		28,6		34,9							
	Total piping length		System	Actual	m		1,000							
Power supply	Phase/Frequency/Voltage		Hz/V		3N~/50/380-415									
Current - 50Hz	Maximum fuse amps (MFA)		A		80			100			125			
<b>Outdoor unit module</b>			<b>REMQ</b>	<b>5T</b>										
Dimensions	Unit	HeightxWidthxDepth	mm		1,685x930x765									
Weight	Unit		kg		210									
Fan	External static pressure	Max.	Pa		78									
Sound power level	Cooling	Nom.	dBA		77,0									
	Heating	Nom.	dBA		56,0									
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		9,7/20,2									
Power supply	Phase/Frequency/Voltage		Hz/V		3N~/50/380-415									
Current - 50Hz	Maximum fuse amps (MFA)		A		20									

(1)Actual number of connectable indoor units depends on the indoor unit type and the connection ratio restriction for the system (50% ≤ CR ≤ 120%)

# 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

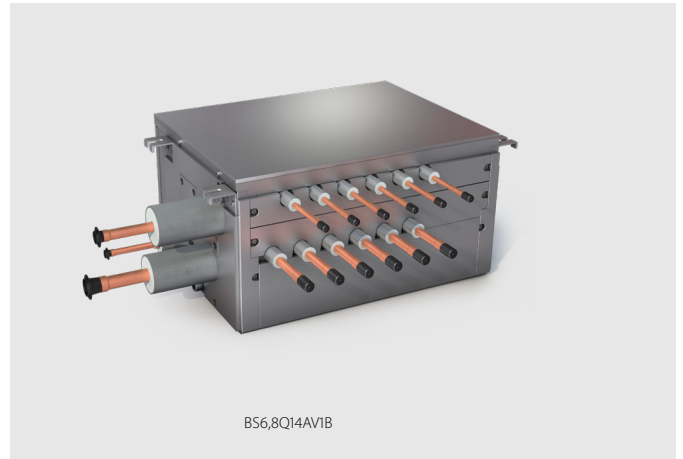


Indoor unit				BS	1Q10A	1Q16A	1Q25A
Power input	Cooling	Nom.		kW		0.005	
	Heating	Nom.		kW		0.005	
Maximum number of connectable indoor units					6		8
Maximum capacity index of connectable indoor units					15 < x ≤ 100	100 < x ≤ 160	160 < x ≤ 250
Dimensions	Unit	Height	Width	Depth	mm		
Weight	Unit				12		15
Casing	Material	Galvanised steel plate					
Piping connections	Outdoor unit	Liquid	OD	mm	9.5		
		Gas	OD	mm	15.9		22.2
		Discharge gas	OD	mm	12.7		19.1
	Indoor unit	Liquid	OD	mm	9.5		
		Gas	OD	mm	15.9		22.2
Sound absorbing thermal insulation				Foamed polyurethane Flame-resistant needle felt			
Power supply	Phase				1~		
	Frequency				50		
	Voltage				220-240		
	Maximum fuse amps (MFA)				15		



# Multi branch selector for VRV IV heat recovery

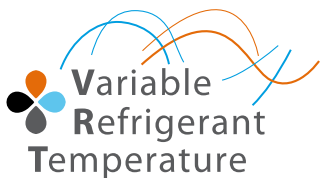
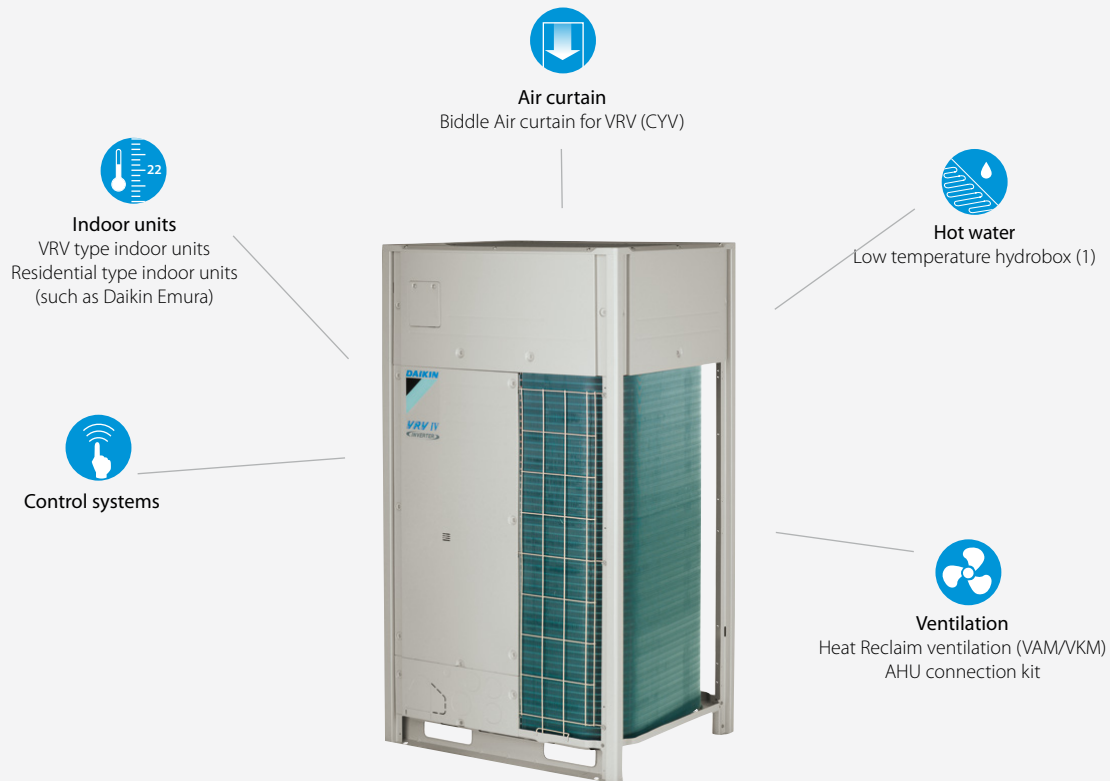
- › Unique range of single and multi BS boxes for flexible and fast design
- › Major reduction in installation time thanks to wide range, compact size and light weight multi BS boxes
- › Up to 70% smaller and 66% lighter than previous series
- › Faster installation thanks to a reduced number of brazing points and wiring
- › All indoor units connectable to one BS box
- › Less inspection ports needed compared to installing single BS boxes
- › 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 connectable indoor units				20	30	40	50	60	64	
Maximum number of connectable indoor units per branch				5						
Number of branches				4	6	8	10	12	16	
Maximum capacity index of connectable indoor units				400	600	750				
Maximum capacity index of connectable indoor units per branch				140						
Dimensions	Unit	HeightxWidthxDepth	mm	298x370x430	298x580x430		298x820x430		298x1,060x430	
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	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. 20/O.D. 26)					
Sound absorbing thermal insulation				Urethane foam, polyethylene foam						
Power supply	Phase			1~						
	Frequency			Hz						
	Voltage			V						
	Maximum fuse amps (MFA)			A						
				15						

# 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

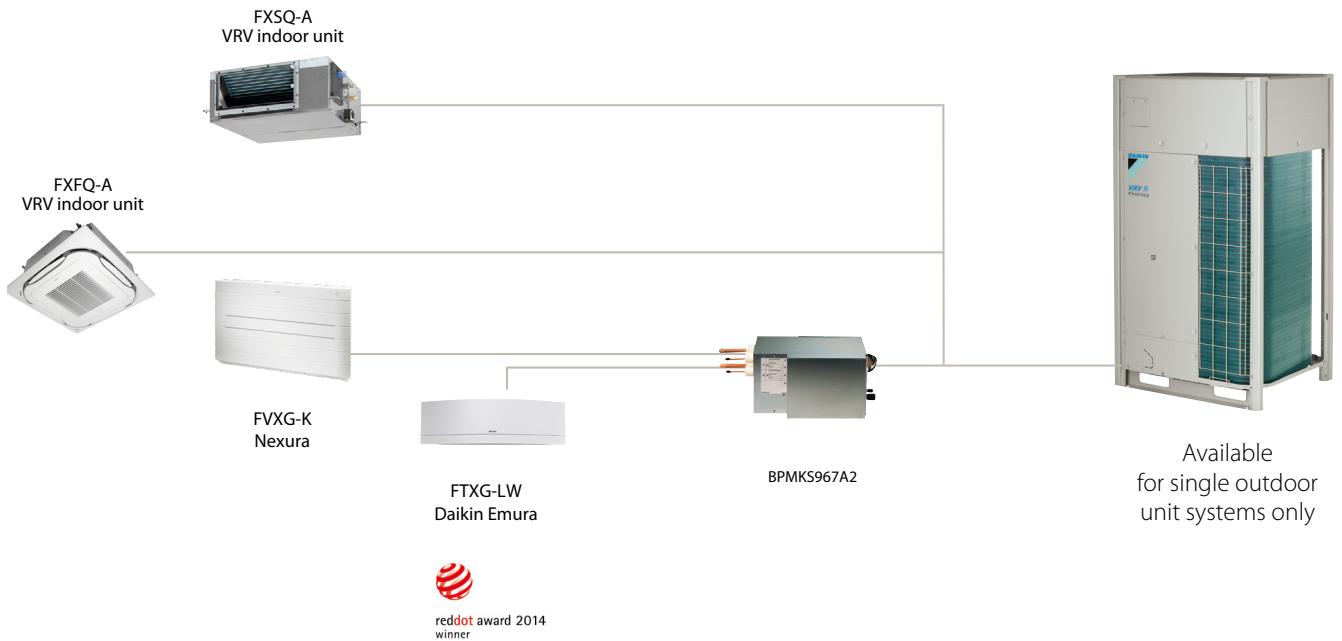
(1) Special order unit needed to connect LT hydroboxes with multi outdoor unit systems  
For detailed explanation of these functions refer to vriv iv technologies tab



## Wide range of indoor units

Freely combine VRV indoor units with stylish indoor units (Daikin Emura, Nexura, ...)

Mix of  
RA units  
& VRV units



Connectable stylish indoor units

		15 CLASS	20 CLASS	25 CLASS	35 CLASS	42 CLASS	50 CLASS	60 CLASS	71 CLASS
Daikin Emura - Wall mounted unit	FTXG-LW/LS		•	•	•		•		
Wall mounted unit	CTXS-K	•			•				
Wall mounted unit	FTXS-K		•	•	•	•			
Wall mounted unit	FTXS-G							•	•
Nexura - Floor standing unit	FVXG-K			•	•		•		
Floor standing unit	FVXS-F			•	•		•		
Flexi type unit	FLXS-B(9)			•	•		•	•	

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

# VRV IV

# proven in practice: 40% more efficient

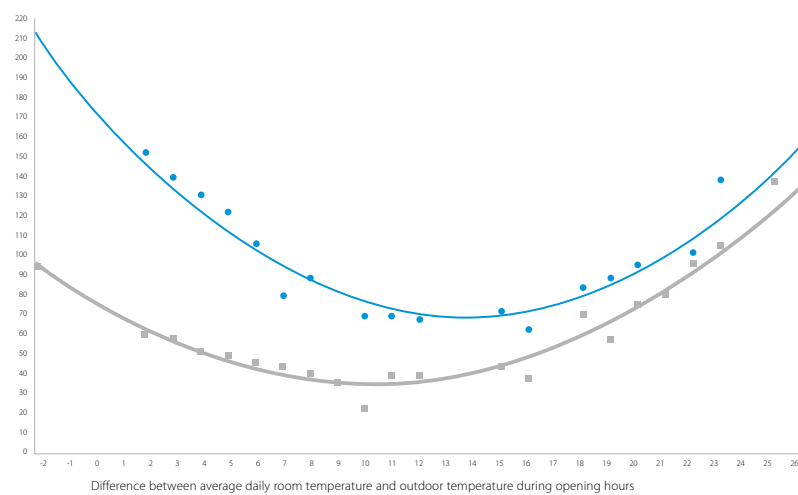
**A field trial at a German fashion chain store demonstrated how the innovative features of VRV IV have improved energy efficiency dramatically over previous models.**

## 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.

Average daily consumption during working hours in kWh



- Energy use VRV III in 2012 in kWh
- Energy use VRV IV in 2013 in kWh
- Trendline energy use VRV III
- Trendline energy use VRV IV

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

## 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.



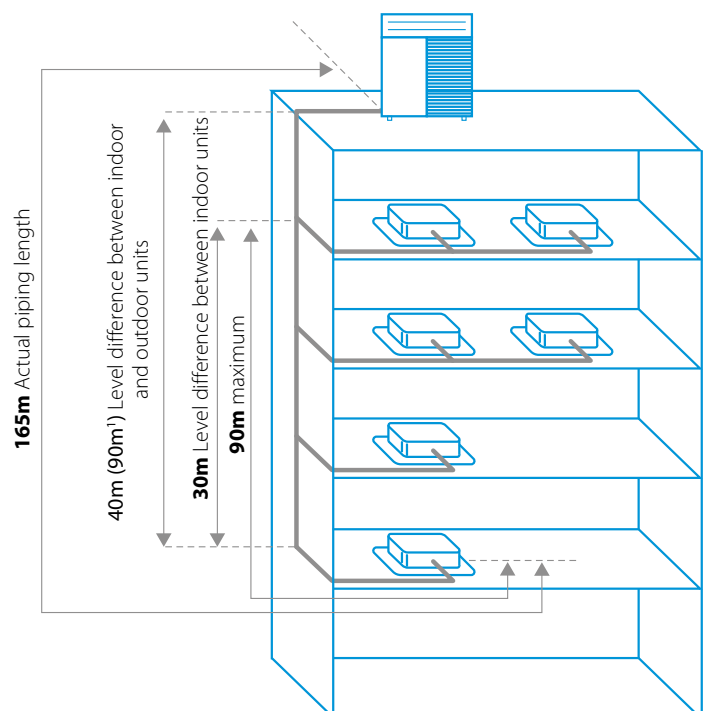
## Free combination of outdoor units

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

## Flexible piping design

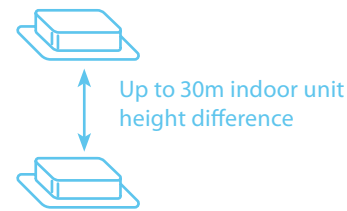
Total piping length	1000m
Longest length actual (Equivalent)	165m (190m)
Longest length after first branch	90m <sup>1</sup>
Level difference between indoor and outdoor units	90m <sup>1</sup>
Level difference between indoor units	30m

1 Contact your local dealer for more information and restrictions  
2 in case outdoor unit is located below indoor units



# VRV IV heat pump

Daikin's optimum solution with top comfort

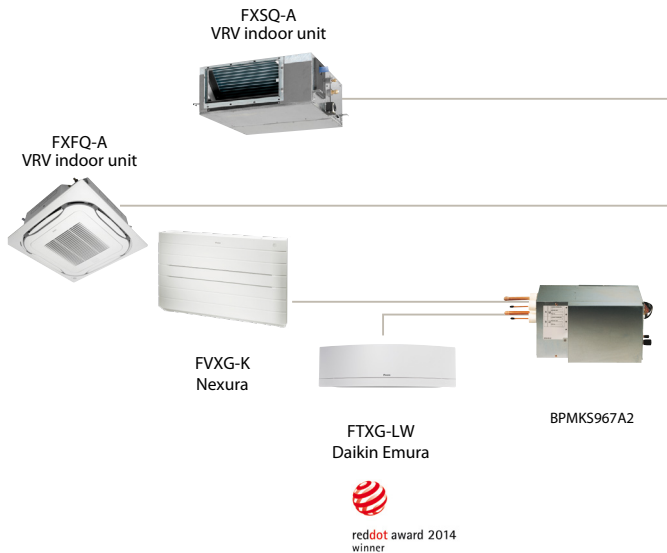


- › Covers all thermal needs of a building via a single point of contact: accurate temperature control, ventilation, hot water, air handling units and Biddle air curtains
- › Wide range of indoor units: possibility to combine VRV with stylish indoor units (Daikin Emura, Nexura, ...)
- › Incorporates 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
- › 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	8T8	10T	12T	14T	16T	18T	20T			
Capacity range		HP	8	10	12	14	16	18	20			
Cooling capacity	Prated,c	kW	22.4	28.0	33.5	40.0	45.0	50.4	52.0			
Heating capacity	Prated,h	kW	13.7	16.0	18.4	20.6	23.2	27.9	31.0			
	Max. 6°CWB	kW	25.0	31.5	37.5	45.0	50.0	56.5	63.0			
ηs,c		%	212.4	222.2	216.9	226.6	216.8	216.2	210.3			
ηs,h		%	142.0	147.2	149.6	136.7	137.0	141.4	145.4			
SEER			5.4	5.6	5.5	5.7	5.5		5.3			
SCOP			3.6	3.8	3.8	3.5	3.5	3.6	3.7			
Maximum number of connectable indoor units			64 (1)									
Indoor index connection	Min.		100	125	150	175	200	225	250			
	Nom.		200	250	300	350		-				
	Max.		260	325	390	455	520	585	650			
Dimensions	Unit	HeightxWidthxDepth	mm				mm					
	Unit		1,685x930x765				1,685x1,240x765					
Weight	Unit		243	252		356			391			
Fan	Air flow rate	Cooling	Nom.		m <sup>3</sup> /min		175		223	-		
Sound power level	Cooling	Nom.	dBA		78.0		79	81.0		81		
Sound pressure level	Cooling	Nom.	dBA		58.0		58	61.0		61		
Operation range	Cooling	Min.-Max.	°CDB		-5.0~43.0		-5~43	-5.0~43.0		-5~43		
	Heating	Min.-Max.	°CWB		-20.0~-15.5		-20~-15.5	-20.0~-15.5		-20~-15.5		
Refrigerant	Type/GWP		R-410A/2,087.5									
	Charge	kg/TCO2Eq	5.9/12.3	6/12.5	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		9.52	12.7		12.7		
	Gas	OD	mm		19.1		22.2	28.6		28.6		
	Total piping length	System	Actual		m							
					1,000							
Power supply	Phase/Frequency/Voltage		Hz/V									
			3N~/50/380-415									
Current - 50Hz	Maximum fuse amps (MFA)	A	20	25	32	32	40		50			
Outdoor system		RYYQ/RXYQ	22T	24T/24T8	26T	28T	30T	32T	34T	36T	38T/38T8	40T
System	Outdoor unit module 1		10	8		12			16		8	10
	Outdoor unit module 2		12	16	14	16	18	16	18	20	10	12
	Outdoor unit module 3						-				20	18
Capacity range		HP	22	24	26	28	30	32	34	36	38	40
Cooling capacity	Prated,c	kW	61.5	67.4	73.5	78.5	83.9	90.0	95.4	97.0	102.4	111.9
Heating capacity	Prated,h	kW	34.4	36.9	37.1	39.7	44.4	46.4	51.1	56.4	59.4	58.9
	Max. 6°CWB	kW	69.0	75.0	82.5	87.5	94.0	100.0	106.5	113.0	119.5	125.5
ηs,c		%	213.5	215.3	222.0	216.8	216.2	216.8	216.4	213.2	213.6	217.6
ηs,h		%	150.0	144.5	143.8	142.6	138.8	137.0	141.8	145.7	147.6	145.7
SEER			5.4	5.5	5.6		5.5			5.4		5.5
SCOP			3.8		3.7	3.6		3.5	3.6	3.7	3.8	3.7
Maximum number of connectable indoor units			64 (1)									
Indoor index connection	Min.		275.0	300.0	325.0	350.0	375.0	400.0	425.0	450.0	475.0	500.0
	Nom.											
	Max.		715.0	780.0	845.0	910.0	975.0	1,040.0	1,105.0	1,170.0	1,235.0	1,300.0
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							
Power supply	Phase/Frequency/Voltage		Hz/V									
			3N~/50/380-415									
Current - 50Hz	Maximum fuse amps (MFA)	A	63				80				100	



Connectable stylish indoor units

		15 CLASS	20 CLASS	25 CLASS	35 CLASS	42 CLASS	50 CLASS	60 CLASS	71 CLASS
Daikin Emura - Wall mounted unit	FTXG-LW/LS		•	•	•		•		
Wall mounted unit	CTXS-K	•			•				
Wall mounted unit	FTXS-K		•	•	•	•	•		
Wall mounted unit	FTXS-G							•	•
Nexura - Floor standing unit	FVXG-K			•	•		•		
Floor standing unit	FVXS-F			•	•		•		
Flexi type unit	FLXS-B(9)			•	•		•	•	

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

Outdoor system		RYYQ/RXYQ	42T	44T	46T	48T	50T	52T	54T	
System	Outdoor unit module 1		10	12	14		16		18	
	Outdoor unit module 2				16			18		
	Outdoor unit module 3			16				18		
Capacity range	HP		42	44	46	48	50	52	54	
Cooling capacity	Prated,c	kW	118.0	123.5	130.0	135.0	140.4	145.8	151.2	
Heating capacity	Prated,h	kW	60.9	62.9	67.0	69.6	74.3	79.0	83.7	
	Max. 6°CWB	kW	131.5	137.5	145.0	150.0	156.5	163.0	169.5	
ηs,c	%		217.6	216.8	219.7	216.8	216.5	216.3	216.2	
ηs,h	%		143.3	143.2	136.9	137.0	139.9	142.0	142.1	
SEER			5.5		5.6	5.5				
SCOP			3.7		3.5	3.6				
Maximum number of connectable indoor units			64 (1)							
Indoor index connection	Min.		525.0	550.0	575.0	600.0	625.0	650.0	675.0	
	Nom.		-							
	Max.		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							
	Gas OD	mm	41,3							
	Total piping length	System Actual	1,000							
Power supply	Phase/Frequency/Voltage	Hz/V	3N~/50/380-415							
Current - 50Hz	Maximum fuse amps (MFA)	A	100			125				
Outdoor unit module		RYMQ	8T	10T	12T	14T	16T	18T	20T	
Dimensions	Unit HeightxWidthxDPTH	mm	1,685x930x765							
Weight	Unit	kg	188	195		309		319		
Fan	Air flow rate	Cooling Nom.	m <sup>3</sup> /min	162	175	185	223	260	251	261
	External static pressure	Max.	Pa	78						
Discharge direction			Vertical							
Type			Propeller fan							
Sound power level	Cooling	Nom.	78	79	81	86	86.0	88.0		
	Cooling	Nom.	58		61	64	65.0	66.0		
Operation range	Cooling	Min.~Max.	-5~43						-5.0~43.0	
	Heating	Min.~Max.	-20~-15.5						-20.0~-15.5	
Refrigerant	Type/GWP		R-410A/2,087.5							
	Charge	kg/TCO2Eq	5.9/12.3	6/12.5	6.3/13.2	10.3/21.5	10.4/21.7	11.7/24.4	11.8/24.6	
Power supply	Phase/Frequency/Voltage	Hz/V	3N~/50/380-415							
Current - 50Hz	Maximum fuse amps (MFA)	A	20	25	32	40	40	50		

(1) 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%)

# VRV IV S-series heat pump

## The most compact VRV

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



Control systems



Indoor units

VRV type indoor units  
Residential type indoor units  
(such as Daikin Emura)



Air curtain

Biddle Air curtain for VRV (CYV)



Ventilation

Heat Reclaim ventilation  
(VAM/VKM) AHU  
connection kit



RXYSQ4, 5TV1

RXYSQ4, 5, T8V/T8Y

RXYSQ8, 10, 12TY1



## VRV IV standards:

## Variable refrigerant temperature

Customize your VRV for best seasonal efficiency & comfort

## VRV configurator

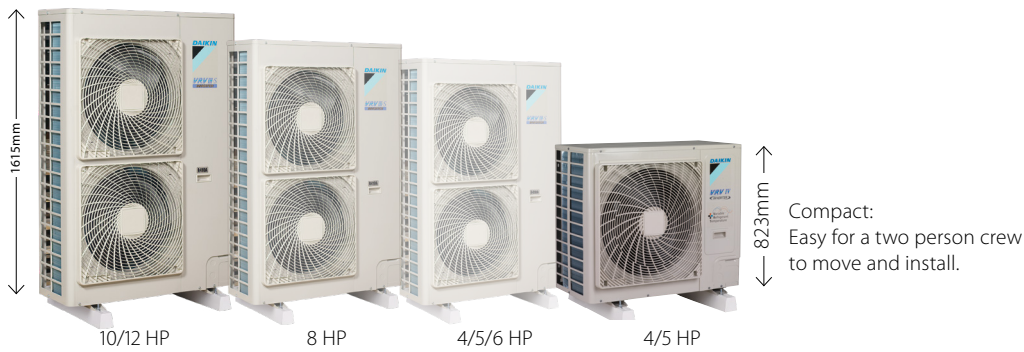
Software for simplified commissioning, configuration and customisation

- › Refrigerant containment check
- › Night quiet mode
- › Low noise function
- › Connectable to stylish indoor units (Daikin Emura, Nexura)
- › Full inverter compressors
- › Gas cooled PCB (not available on RXYSQ4,5,6,8 T8Y/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



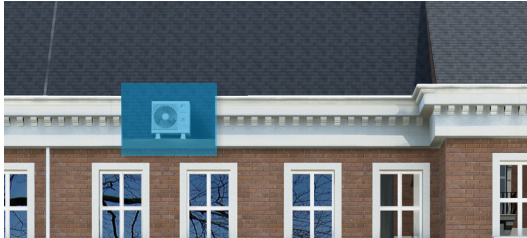
## Lowest height on the market

### Ideal for roof installations

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

### Ideal to install below a window on a Balcony

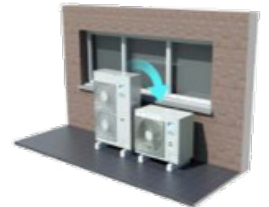
› Daikin VRV IV S-series compact can be installed discretely on a balcony thanks to its compact dimensions, offering you air conditioning while being almost unnoticeable.



Unnoticeable for parapet installation

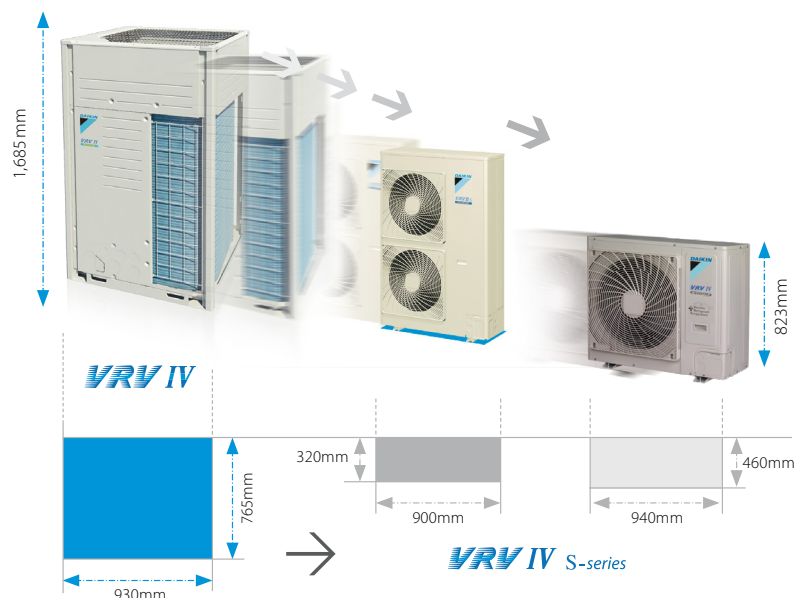


Low height make the unit invisible from inside and unnoticeable from the outside



## Space saving design

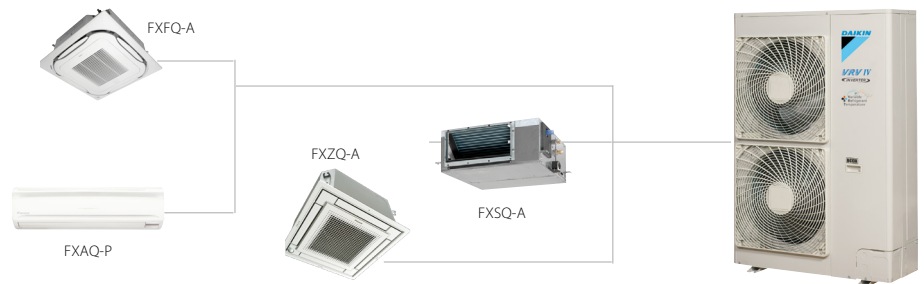
The VRV S-series is slimmer and more compact, resulting in significant savings in installation space.



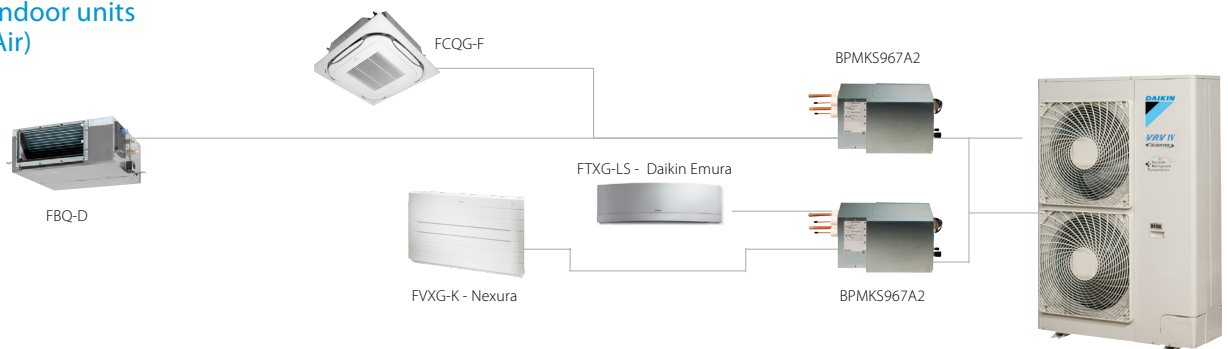


## Wide range of indoor units

Connect VRV units...



... or stylish indoor units (RA and Sky Air)



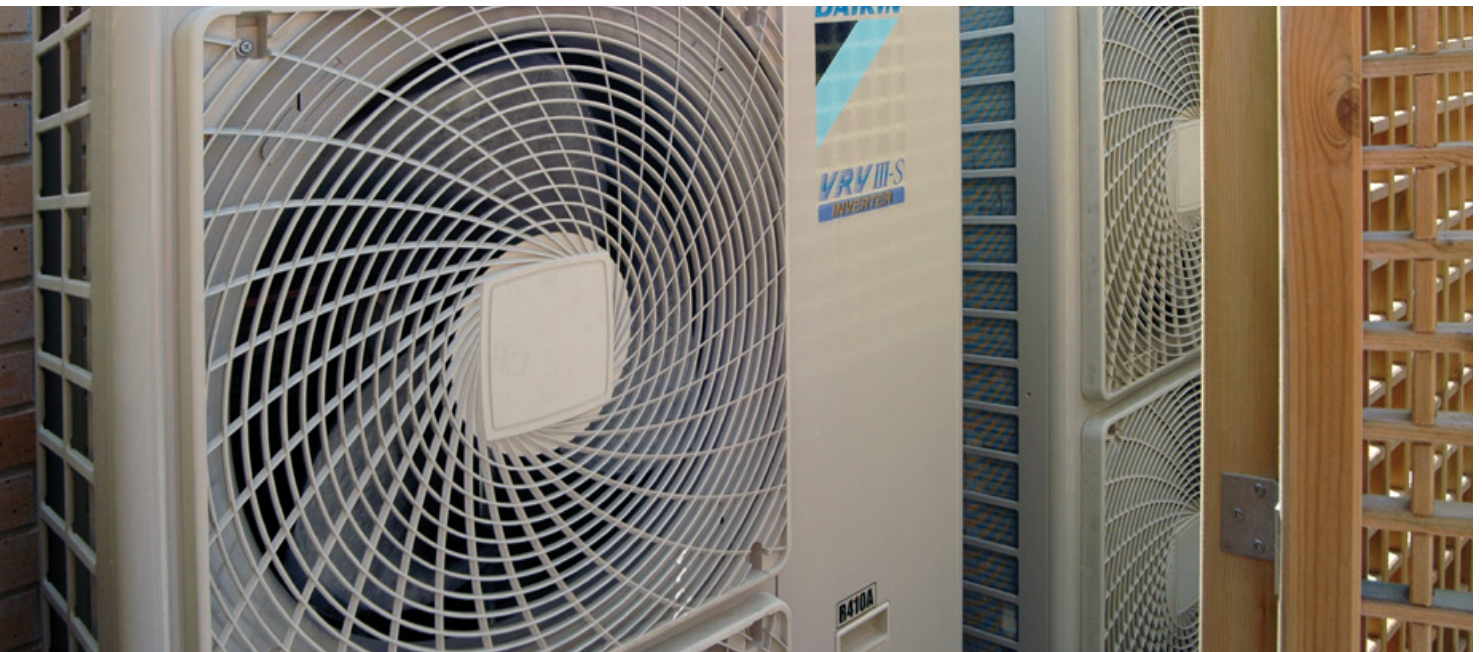
## Connectable stylish indoor units

		15 CLASS	20 CLASS	25 CLASS	35 CLASS	42 CLASS	50 CLASS	60 CLASS	71 CLASS
Round flow cassette	FCAG-A				●		●	●	●
Fully flat cassette	FFA-A			●	●		●	●	
Slim concealed ceiling unit	FDXM-F3			●	●		●	●	
Concealed ceiling unit with inverter driven fan	FBA-A			●	●		●	●	●
Daikin Emura - Wall mounted unit	FTXG-LW/LS		●	●	●		●		
Wall mounted unit	CTXS-K	●			●				
Wall mounted unit	FTXS-K		●	●	●	●	●		
Wall mounted unit	FTXS-G							●	●
Ceiling suspended unit	FHA-A				●		●	●	●
Nexura - Floor standing unit	FVXG-K			●	●		●		
Floor standing unit	FVXS-F			●	●		●		
Concealed floorstanding unit	FNA-A			●	●		●	●	
Flexi type unit	FLXS-B(9)			●	●		●	●	

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

\* VRV indoor units and stylish indoor units cannot be combined.

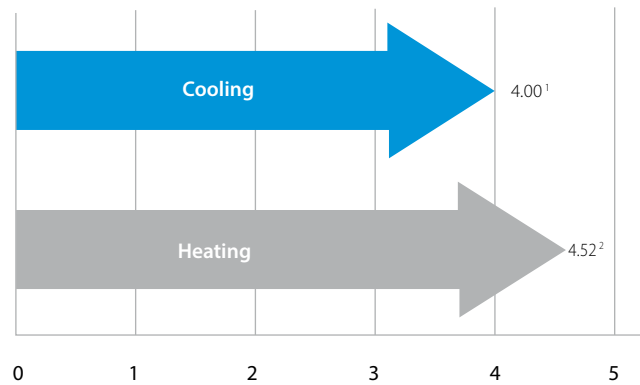
\* To connect stylish indoor units a BPMKS unit is needed



## 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.

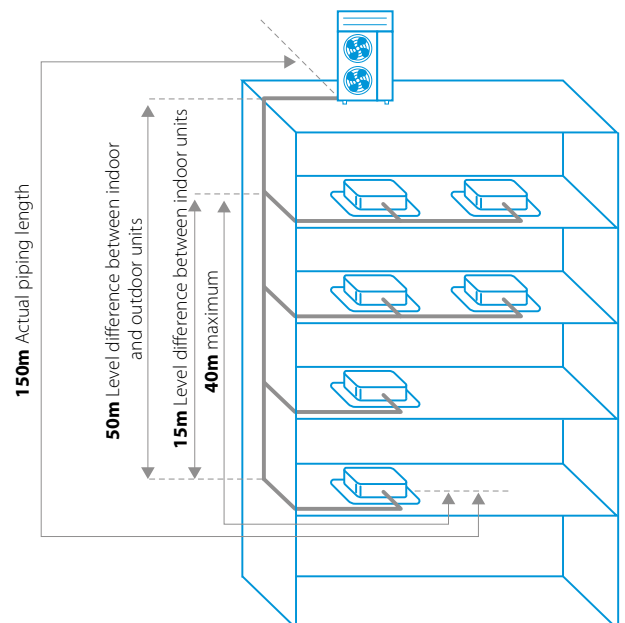
- <sup>1</sup> Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB, outdoor temperature: 35°C, equivalent refrigerant piping: 5m, level difference: 0m.
- <sup>2</sup> Nominal heating capacities are based on: indoor temperature: 20°CDB, outdoor temperature: 7°CDB, 6°CWB, equivalent 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>1</sup> Outdoor unit in lowest position



# VRV IV S-series

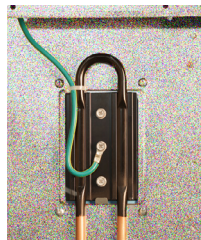
## technologies

### Super aero grille

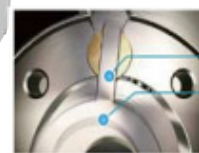
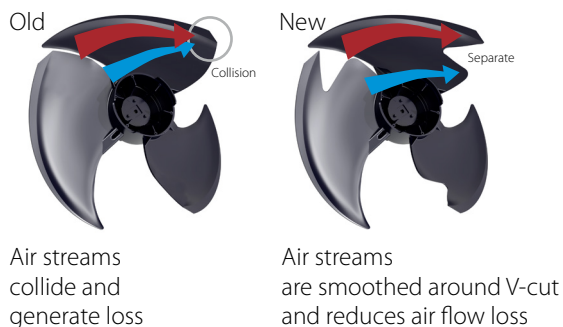
The spiral shaped ribs are aligned with the direction of discharge flow in order to minimise turbulence and reduce noise.

### 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%



### Improved fan blades



Vane fixed to rotor  
Rotor

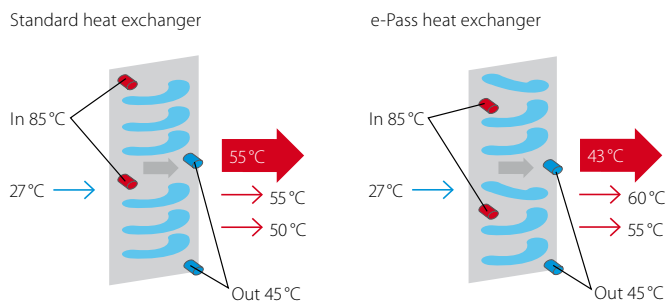
### Compressor

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

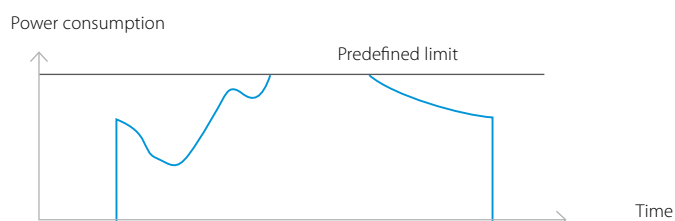
### E-Pass heat exchanger

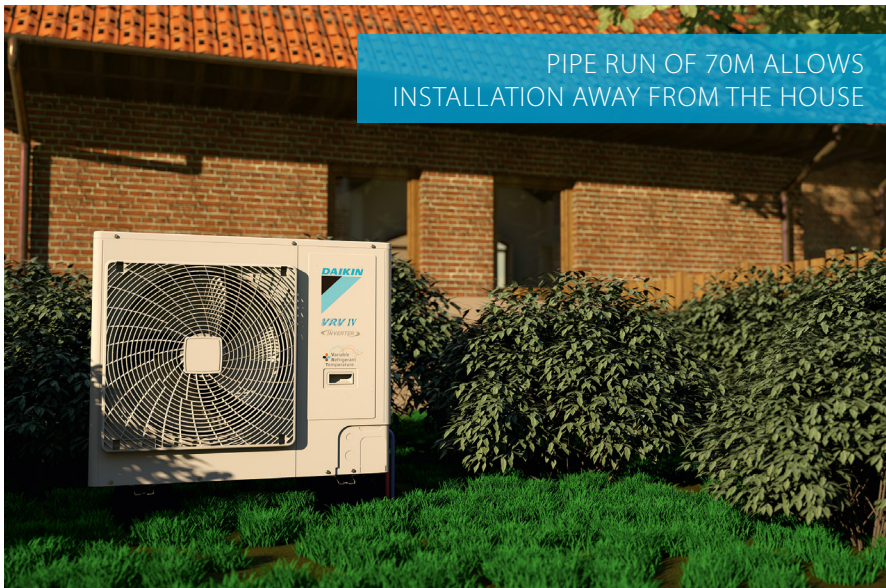
Optimising the heat exchanger's path layout prevents heat being transferred from the overheated gas section to the sub-cooled liquid section which is a more efficient way to use the heat exchanger.



### 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.





# VRV IV S-series compact heat pump

## The most compact VRV

- › Compact & lightweight single fan design makes the unit almost unnoticeable
- › Covers all thermal needs of a building via a single point of contact: accurate temperature control, ventilation, air handling units and Biddle air curtains
- › Wide range of indoor units: either connect VRV or stylish indoor units such as Daikin Emura, Nexura ...
- › 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



Already fully compliant to LOT 21 - Tier 2

## Connectable stylish indoor units

		15 CLASS	20 CLASS	25 CLASS	35 CLASS	42 CLASS	50 CLASS	60 CLASS	71 CLASS
Round flow cassette	FCAG-A				•		•	•	•
Fully flat cassette	FFA-A			•	•		•	•	
Slim concealed ceiling unit	FDXM-F3			•	•		•	•	
Concealed ceiling unit with inverter driven fan	FBA-A			•	•		•	•	
Daikin Emura - Wall mounted unit	FTXG-LW/LS		•	•	•		•		
Wall mounted unit	CTXS-K	•			•				
Wall mounted unit	FTXS-K		•	•	•	•	•		
Wall mounted unit	FTXS-G							•	•
Ceiling suspended unit	FHA-A				•		•	•	
Nexura - Floor standing unit	FVXG-K			•	•		•	•	
Floor standing unit	FVXS-F			•	•		•	•	
Concealed floorstanding unit	FNA-A			•	•		•	•	
Flexi type unit	FLXS-B(9)			•	•		•	•	

Outdoor unit		RXYSCQ	4TV1	5TV1	
Capacity range		HP	4	5	
Cooling capacity	Prated,c	kW	12.1 (1.000)	14.0 (1.000)	
Heating capacity	Prated,h	kW	8.4	9.7	
	Max. 6°CWB	kW	14.2	16.0	
ηs,c		%	322.8	303.4	
ηs,h		%	182.3	185.1	
SEER			8.1	7.7	
SCOP			4.6	4.7	
Maximum number of connectable indoor units			64 (1)		
Indoor index connection	Min.		50.0	62.5	
	Nom.				
	Max.		130.0	162.5	
Dimensions	Unit	HeightxWidthxDepth	mm		
Weight	Unit		kg		
Sound power level	Cooling	Nom.	dBA	68.0	69.0
	Heating	Nom.	dBA	51.0	52.0
Operation range	Cooling	Min.~Max.	°CDB	-5.0~46.0	
	Heating	Min.~Max.	°CWB	-20.0~15.5	
Refrigerant	Type/GWP		R-410A/2,087.5		
	Charge	kg/TCO2eq	3.7/7.7		
Piping connections	Liquid	OD	mm	9.52	
	Gas	OD	mm	15.9	
	Total piping length	System	Actual	m	
				300	
Power supply	Phase/Frequency/Voltage		Hz/V	1~/50/220-240	
Current - 50Hz	Maximum fuse amps (MFA)		A	32	

(1)Actual number of units depends on the indoor unit type (VRV DX indoor, RA DX indoor, etc.) and the connection ratio restriction for the system (being; 50% ≤ CR ≤ 130%).

# 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 curtains
- > Wide range of indoor units: either connect VRV or stylish indoor units such as Daikin Emura, Nexura ...
- > Incorporates VRV IV standards & technologies: Variable Refrigerant Temperature and full inverter compressors
- > Wide range of units (4 to 12HP) suitable for projects up to 200m<sup>2</sup> with space limitations
- > Possibility to limit peak power consumption between 30 and 80%, for example during periods with high power demand
- > Contains all standard VRV features



Already fully compliant to LOT 21 - Tier 2

## Connectable stylish indoor units

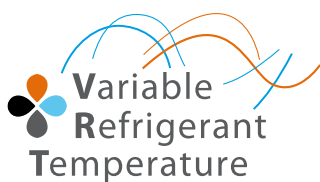
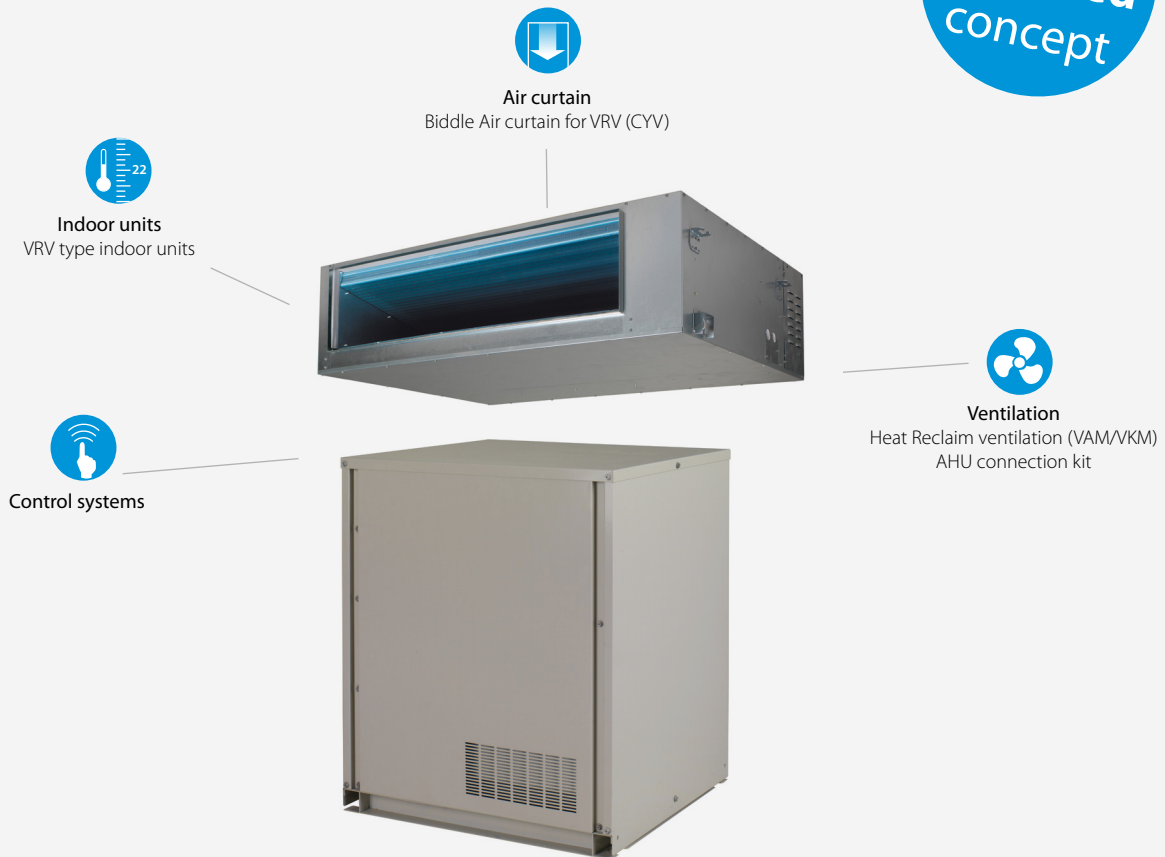
		15 CLASS	20 CLASS	25 CLASS	35 CLASS	42 CLASS	50 CLASS	60 CLASS	71 CLASS
Round flow cassette	FCAG-A				•		•	•	•
Fully flat cassette	FFA-A			•	•		•	•	
Slim concealed ceiling unit	FDXM-F3			•	•		•	•	
Concealed ceiling unit with inverter driven fan	FBA-A			•	•		•	•	
Daikin Emura - Wall mounted unit	FTXG-LW/LS		•	•	•		•		
Wall mounted unit	CTXS-K	•			•				
Wall mounted unit	FTXS-K		•	•	•	•	•		
Wall mounted unit	FTXS-G							•	•
Ceiling suspended unit	FHA-A				•		•	•	
Nexura - Floor standing unit	FVXG-K			•	•		•		
Floor standing unit	FVXS-F			•	•		•		
Concealed floorstanding unit	FNA-A			•	•		•	•	
Flexi type unit	FLXS-B(9)			•	•		•	•	

Outdoor unit		RXYSQ	4T8V	5T8V	6T8V	4T8Y	5T8Y	6T8Y	8TY1	10TY1	12TY1	
Capacity range		HP	4	5	6	4	5	6	8	10	12	
Cooling capacity	Prated,c	kW	12.10	14.00	15.50	12.10	14.00	15.50	22.4	28.0	33.5	
Heating capacity	Prated,h	kW	8.00	9.20	10.20	8.00	9.20	10.20	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			7.0	6.8	7.0	6.8	6.6	6.8	6.3		6.5	
SCOP			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 (1)									
Indoor index connection	Min.		50.0	62.5	70.0	50.0	62.5	70.0	100.0	125.0	150.0	
	Nom.											
	Max.		130.0	162.5	182.0	130.0	162.5	182.0	260.0	325.0	390.0	
Dimensions	Unit	HeightxWidthxDepth	mm						1,430x940x320		1,615x940x460	
Weight	Unit		kg									
			104									
Sound power level	Cooling	Nom.	dB(A)	68.0	69.0	70.0	68.0	69.0	70.0	73.0	74.0	180
Sound pressure level	Cooling	Nom.	dB(A)	50.0	51.0		50.0	51.0		55.0		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		R-410A/2,087.5									
	Charge	kg/CO <sub>2</sub> Eq	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	15.9	19.1	15.9	19.1	22.2	25.4			
	Total piping length	System	Actual	m								
			300									
Power supply	Phase/Frequency/Voltage	Hz/V	1N~/50/220-240			3N~/50/380-415						
Current - 50Hz	Maximum fuse amps (MFA)	A	32			16			25			

(1)Actual number of units depends on the indoor unit type (VRV DX indoor, RA DX indoor, etc.) and the connection ratio restriction for the system (being: 50% ≤ CR ≤ 130%).

# VRV IV i-series heat pump for indoor installation

unique  
patented  
concept



## VRV IV standards:

### Variable refrigerant temperature

Customize your VRV for best seasonal efficiency & comfort

### VRV configurator

Software for simplified commissioning, configuration and customisation

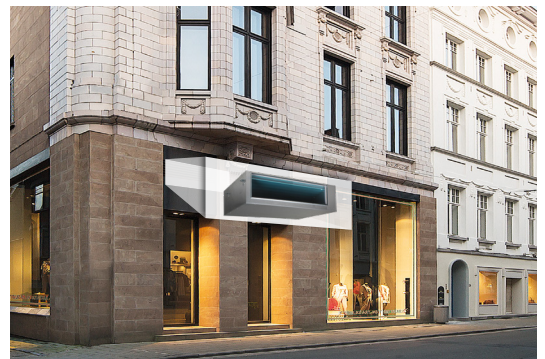
- › Night quiet mode
- › Full inverter compressors
- › Low noise function
- › Sine wave DC inverter
- › DC fan motor
- › E-pass heat exchanger
- › I demand function
- › Manual demand function

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



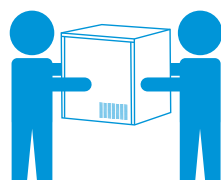
# Quiet

- › 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 can be installed by two people

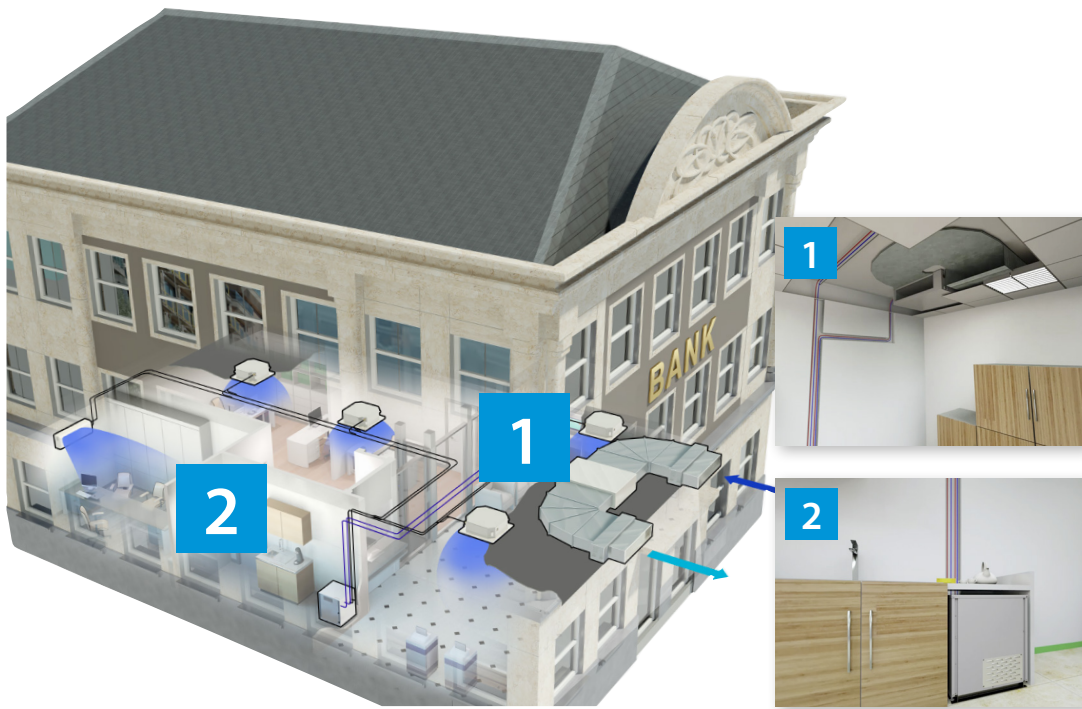


# Unique split outdoor unit for indoor installation

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.

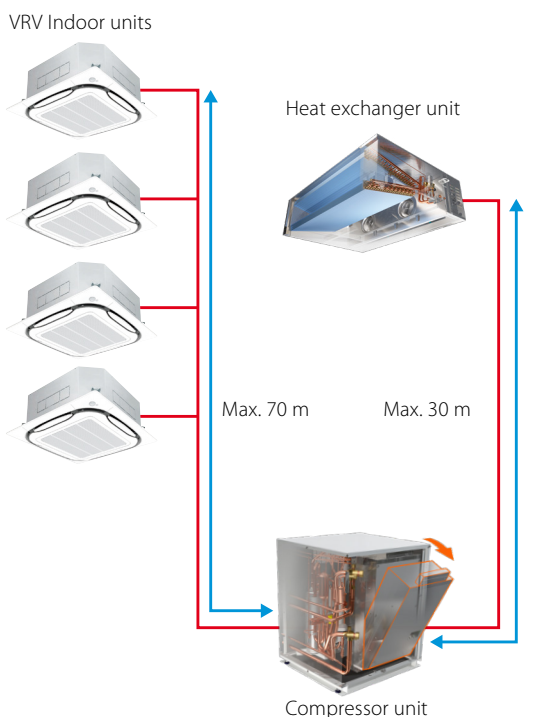
## Unrivalled flexibility thanks to the fact that the outdoor unit is split into two parts



**1.** The heat exchanger can be installed in a false ceiling space.

**2.** The compressor is compact and easy to hide, this element can be installed at floor level, in a back office, storage room, technical area or in a kitchen.

**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)

A photograph of a building entrance with a blue text overlay. The building features a classical architectural style with a stone facade and a decorative balcony above the entrance. The entrance is flanked by two large stone columns. A blue horizontal bar is overlaid on the image, containing the text "Invisible air suction and air discharge".

# Invisible air suction and air discharge

# The problem solver

## for many installation issues

### Example 1

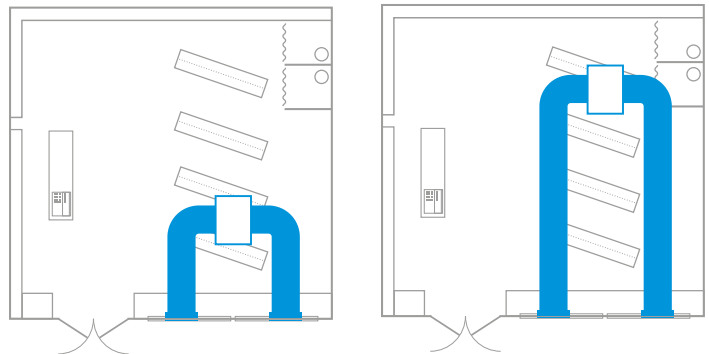
### High flexibility

**The other way around: install the modules where it 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

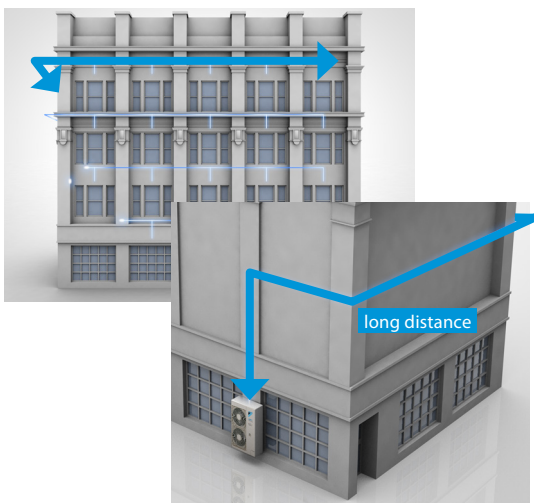


### Example 2

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

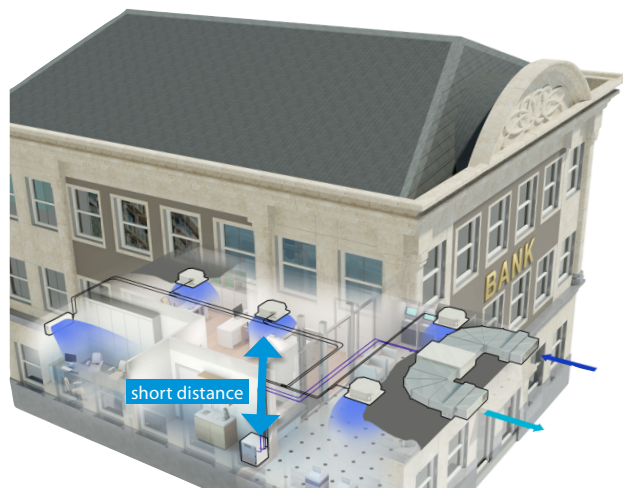
#### Back alley or rooftop needs very long piping lengths

- › 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

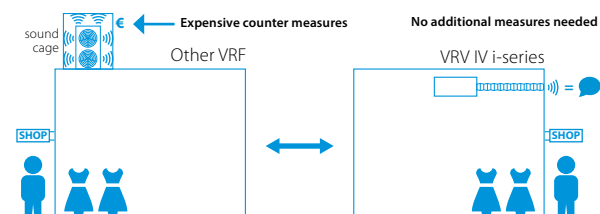
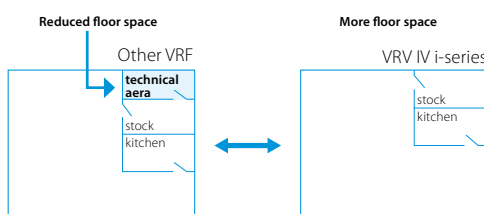
## No need for bulky and expensive sound countermeasures

#### 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

#### 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

8  
patents

## Optimised air flow and temperature distribution

› Best performance for defrost (tested in high humidity down to -20°C).

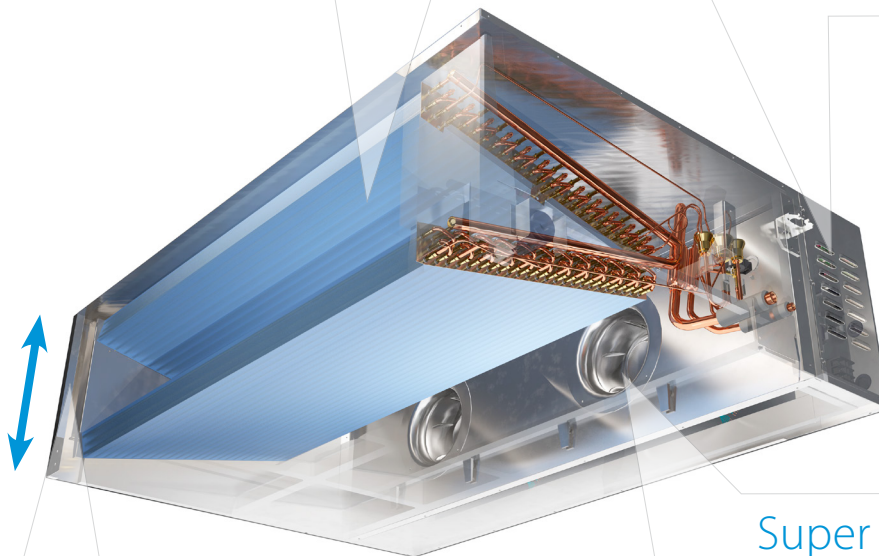
## Patented perforated and insulated partition plate

Reduces conductivity and prevents cold bridges



Only  
400mm  
high

Fits easily in  
any false ceiling



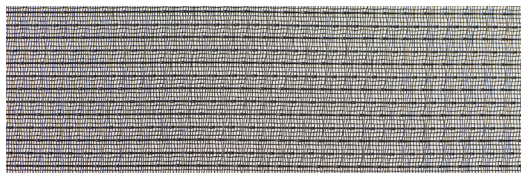
## Super efficient centrifugal fans

- › Over 50% efficiency increase compared to sirocco fan
- › Patented backward-curved blade technology
- › More pressure increase



## Standard delivered filter

› with the unit to prevent dirt from entering the heat exchanger



# Compressor unit with rotating switchbox

Flexible and easy to install

Flexibility by back and top refrigerant connection possibility

Rotating switchbox

- › For easy access to all compressor parts

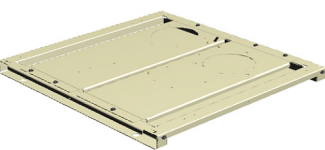
Only  
**77 kg**  
(5HP)

Tube-in-tube subcool heat exchanger

- › This patented heat exchanger increases the capacity of the system by ensuring optimal state of refrigerant in the heat exchanger module. This in turn increases overall efficiency.

No drain connection needed

- › Thanks to natural evaporation
- › Minimized cold surface to reduce dew formation
- › Fast and easy installation



Non welded bottom casing

- › Avoids any corrosion risk

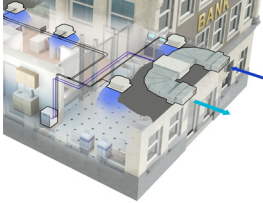
Small footprint

- › Maximizes useable floor space (600 x 554 mm for 5HP)
- › Can easily be mounted in a storage room, back office, ...

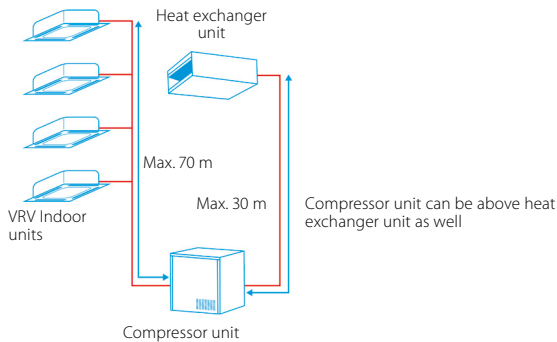
# VRV IV heat pump for indoor installation

## 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
- > 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



Already fully compliant to LOT 21 - Tier 2

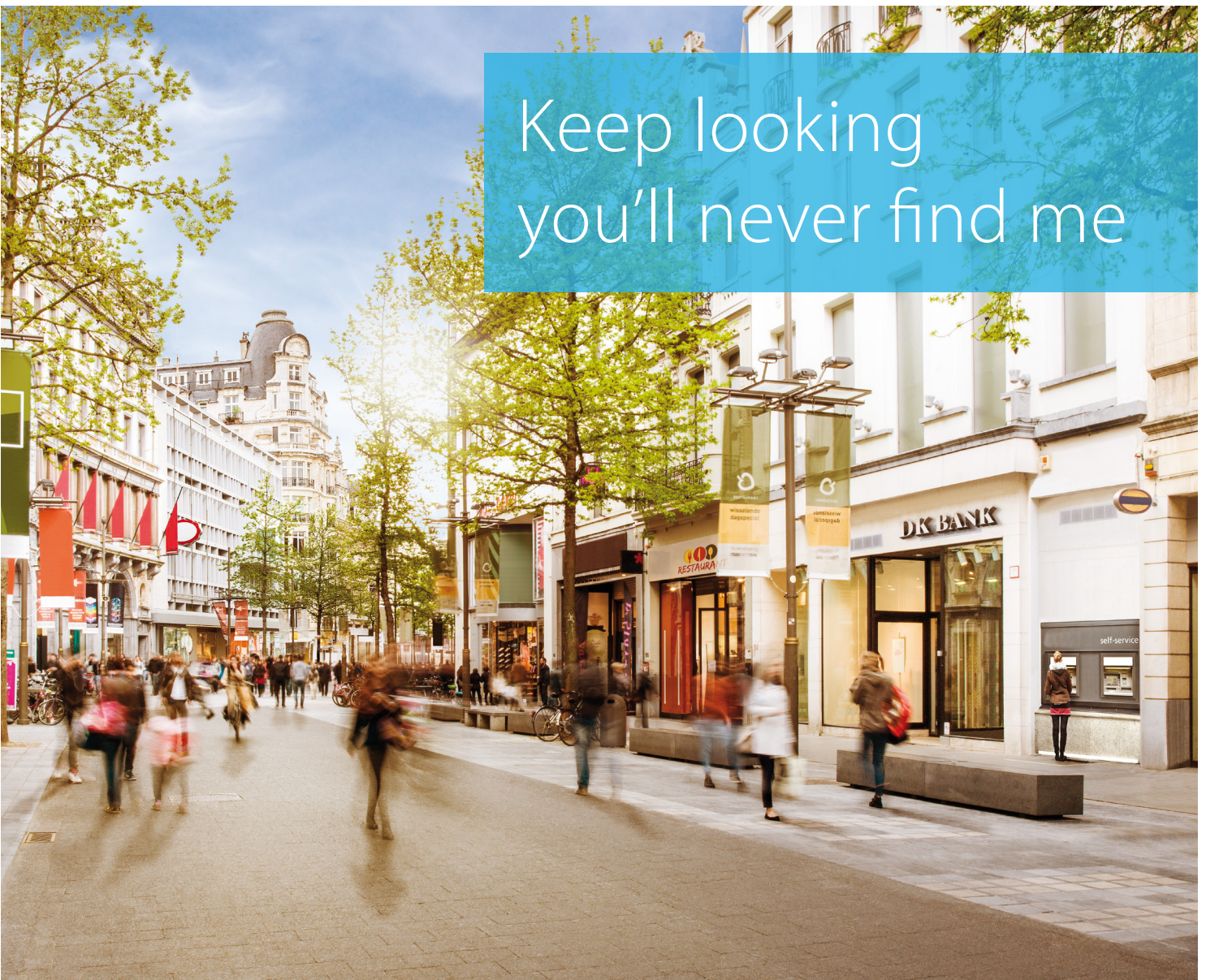
Outdoor system		SB.RKXYQ			5T8		8T		
System	Heat exchanger unit				RDXYQ5T8		RDXYQ8T		
	Compressor unit				RKXYQ5T8		RKXYQ8T		
Capacity range		HP	5			8			
Cooling capacity	Prated,c	kW	14.0 (1.000)			22.4 (1.000)			
Heating capacity	Prated,h	kW	10.4			12.9			
	Max. 6°CWB	kW	16.0			25.0			
ηs,c		%	200.1			191.1			
ηs,h		%	149.3			140.9			
SEER			5.1			4.9			
SCOP			3.8			3.6			
Maximum number of connectable indoor units			10			17			
Indoor index connection	Min.		62.5			100.0			
	Nom.		125.0			200.0			
	Max.		162.5			260.0			
Piping connections	Between Compressor module (CM) and heat exchanger module (HM)	Liquid	OD	mm	12.7				
		Gas	OD	mm	19.1		22.2		
	Between Compressor module (CM) and indoor units (IU)	Liquid	OD	mm	9.52				
		Gas	OD	mm	15.9		19.1		
	Total piping length		System	Actual	m	140		300	

Outdoor unit module		Heat exchanger module				Compressor module				
		5T8		8T		5T8		8T		
Dimensions	Unit	HeightxWidthxDPTH				mm				
		397x1,456x1,044				701x600x554				
Weight	Unit	kg				kg				
		95		103		79		105		
Fan	Air flow rate	Cooling	Nom.		m³/min		-			
					55		100			
Sound power level	Cooling	Nom.		dBA		77.0		81		
					47.0		54		64	
Sound pressure level	Cooling	Nom.		dBA		47.0		48		
							R-410A/2,087.5			
Refrigerant	Type/GWP									
	Charge	kg/TCO2Eq		-/-		2.00/4.20		4.00/8.35		
Power supply	Phase/Frequency/Voltage		Hz/V		1N~/50/220-240		3N~/50/380-415			
Current - 50Hz	Maximum fuse amps (MFA)		A		10		10		16	
									20	





Keep looking  
you'll never find me

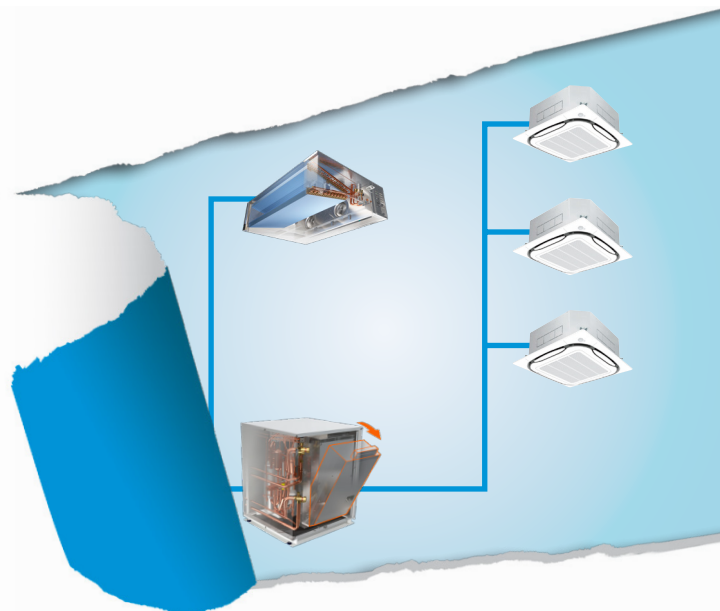


## The city secret

### Unseen in the best places

Our VRV IV i-series offers you a truly unique solution for installations where you need a totally invisible system. It is compact and easy to hide indoors, with only the grilles being visible outside. Split into two lightweight components, the compressor can be installed at floor level in a storage room or technical area, and the heat exchanger unit, which is only 400 mm high, can be installed in a standard false ceiling. The VRV IV i-series has a patented V-shaped heat exchanger which boosts efficiency. So your customer can now enjoy all the power of a fully invisible VRV system.

**VRV IV i-series**



Find out more at [www.daikineurope.com/citysecret](http://www.daikineurope.com/citysecret)

# VRV heat pump optimised for cold climates

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



RXYLQ-T

## Combination table

	10HP	12HP	14HP	16HP	18HP	20HP	22HP	24HP	26HP	28HP	30HP	32HP	34HP	36HP	38HP	40HP	42HP
RXMLQ8T				••	•												
RXYLQ10T	•				•	••	•				•••	••	•				
RXYLQ12T		•					•	••	•			•	••	•••	••	•	
RXYLQ14T			•						•	••					•	••	•••

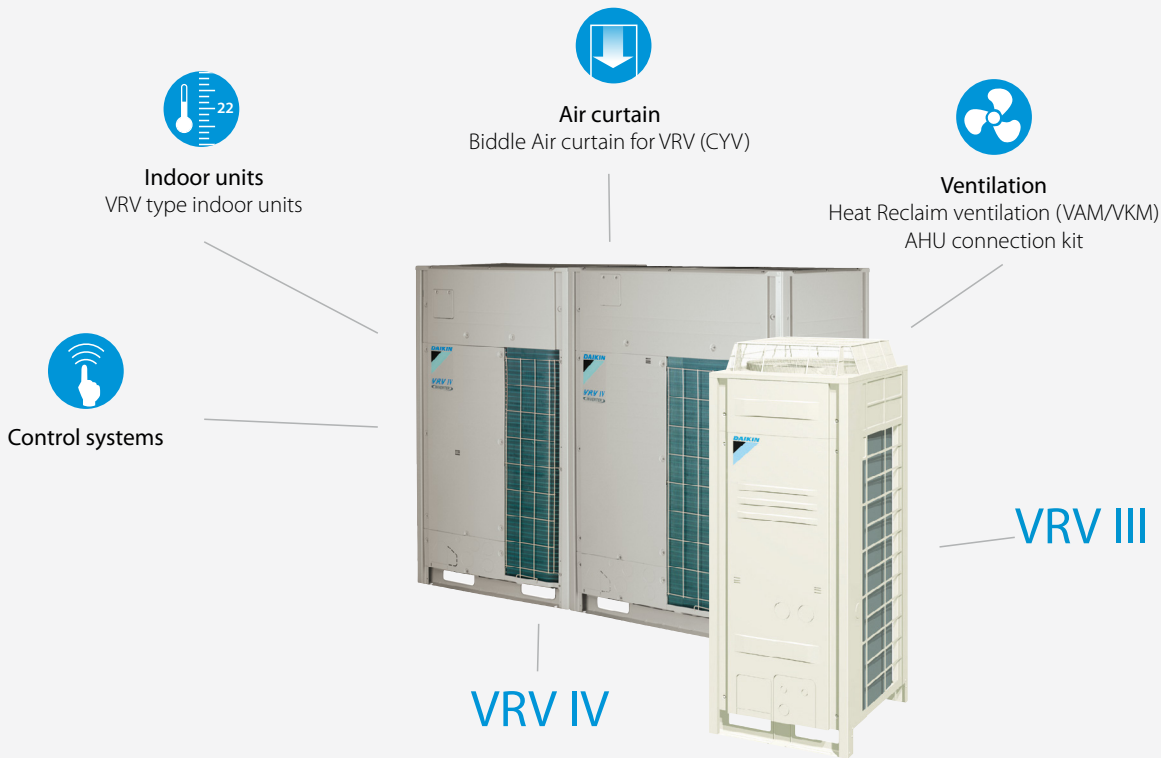
Outdoor unit			RXMLQ8T7Y1B	RXYLQ10T7Y1B	RXYLQ12T7Y1B	RXYLQ14T7Y1B
			For multi combination only			
Capacity range	HP		8	10	12	14
Cooling capacity	Prated,c		kW 22.4	28.0	33.5	40.0
Heating capacity	Prated,h		kW 25.0	31.5	37.5	45.0
	Low. amb	Peak capacity (-15°C)	kW 25.0	31.5	37.5	45.0
η <sub>s,c</sub>			% -	251.4	274.4	270.1
η <sub>s,h</sub>			% -	114.3	137.6	133.3
SEER			-	6.36	6.93	6.83
SCOP			-	3.68	6.93	6.83
Maximum number of connectable indoor units			64 (1)			
Indoor index connection	Min.		-	175	210	245
	Max.		-	325	390	455
Dimensions	Unit	HeightxWidthxDepth	mm 1,657 x 1,240 x 765			
Weight	Unit		kg 295	295	295	295
Sound power level	Cooling	Nom.	dBa 75	77	81	81
Sound pressure level	Cooling	Nom.	dBa 55	56	59	59
Operation range	Cooling	Min.~Max.	°CDB -5 ~ 43			
	Heating	Min.~Max.	°CWB -25 ~ 15,5			
Refrigerant	Type/GWP		R-410A / 2,087.5			
	Charge		kg/TCO2Eq 11.8/24.63			
Piping connections	Liquid	OD	mm 9.52			12.7
	Gas	OD	mm 19.1	22.2	28.6	
	Total piping length	System Actual	m 500			
Power supply	Phase/Frequency/Voltage		Hz/V 3~/50/380-415			

(1) Actual number of connectable indoor units depends on the indoor unit type and the connection ratio restriction for the system

\*Note: blue cells contain preliminary data

# Replacement VRV

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



## **VRV IV** Q-series

Heat pump

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
- › 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



## **VRV III-Q**

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

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

# 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

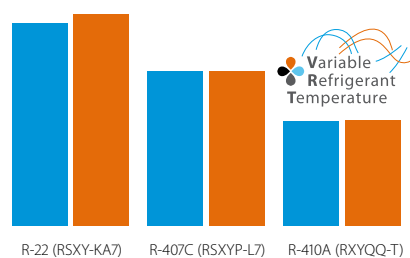
No interruption of daily business while replacing the system thanks to phased-in, fast installation.

### 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

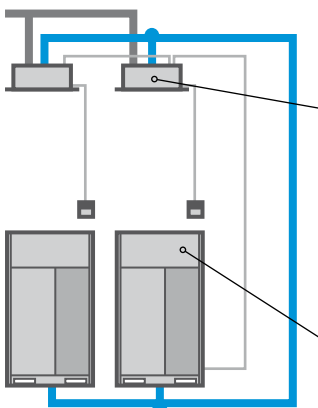
EU Directives prohibit system repairs with R-22 after January 1, 2015. Delaying the required R-22 replacement until an unplanned system breakdown is a losing game. Replacement day will come. Installing a technically advanced system lowers energy consumption and maintenance costs from day one.



**Up to 48% less consumption**

Comparison of 10HP systems:  
■ Cooling mode  
■ Heating mode

## 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:





**!** Planning your replacement in future?

**Monitor your system now!**

Your building use might have changed over the years. Monitoring and Daikin expert advice prepare you for an optimum replacement to maximize efficiency and comfort, while minimizing the investment cost of your new system.

## 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 Automatic refrigerant charging, cleaning and testing



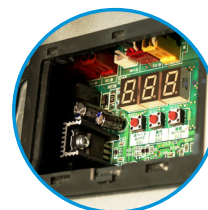
**Up to 45% shorter installation time**

### 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 70% can be realized, by virtue of 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
- › 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-T only)
- › Incorporates VRV IV standards & technologies: Variable Refrigerant Temperature and full inverter compressors (RXYQQ-T only)
- › Possibility to add indoor units and increase capacity without changing the refrigerant piping
- › Possibility to spread the various stages of replacement thanks to the modular design of the VRV system
- › Free combination of outdoor units to meet installation space or efficiency requirements (RXYQQ-T only)



Already fully compliant to LOT 21 - Tier 2

Outdoor unit system		RQCEQ	280P3	360P3	460P3	500P3	540P3	636P3	712P3	744P3	816P3	848P3
System	Outdoor unit module 1		RQEQ140P3	RQEQ180P3	RQEQ140P3		RQEQ180P3	RQEQ212P3	RQEQ140P3		RQEQ180P3	RQEQ212P3
	Outdoor unit module 2		RQEQ140P3	RQEQ180P3	RQEQ140P3	RQEQ180P3		RQEQ212P3	RQEQ180P3		RQEQ212P3	
	Outdoor unit module 3		-		RQEQ180P3			RQEQ212P3	RQEQ180P3	RQEQ212P3		
	Outdoor unit module 4		-		-			RQEQ212P3				
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
ηs,c	%	200	185	191	201	198	186	194		204	187	
ηs,h	%	159	157	161	150	148	157	153	155		157	
Maximum number of connectable indoor units		21	28	34	39	43	47	52	56	60	64	
Indoor index connection	Min.	140	180	230	250	270	318	356	372	408	424	
	Nom.	280	360	500		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	12.7	15.9			19.1			
	Gas	OD	mm	22.2	25.4	28.6			34.9			
	Total piping length	System	Actual	300								
Power supply	Phase/Frequency/Voltage	Hz/V	3~/50/400									
Current - 50Hz	Maximum fuse amps (MFA)	A	30	40	50	60	70	80	90			
Outdoor unit module		RQEQ-P3	140P3			180P3			212P3			
Dimensions	Unit	HeightxWidthxD	mm									
			1,680x635x765									
Weight	Unit		kg									
			175									
Fan	Air flow rate	Cooling	Nom.	m <sup>3</sup> /min		95			110			
	Type	Propeller fan										
Sound power level	Cooling	Nom.	dBA		79			83			87	
Sound pressure level	Cooling	Nom.	dBA									
			-									
Operation range	Cooling	Min.~Max.	°CDB									
	Heating	Min.~Max.	°CWB									
			-5~43									
			-20~15.5									
Refrigerant	Type/GWP	R-410A/2,087.5										
	Charge	kg/TCO2Eq	10.3/21.5			10.6/22.1			11.2/23.4			
Power supply	Phase/Frequency/Voltage	Hz/V	3~/50/380-415									
Current - 50Hz	Maximum fuse amps (MFA)	A	15			20			22.5			



# Replacement VRV, heat pump



Already fully compliant to LOT 21 - Tier 2

Outdoor unit			RXYQQ	RQYQ140P	8T	10T	12T	14T	16T	18T	20T	
Capacity range			HP	5	8	10	12	14	16	18	20	
Cooling capacity	Prated,c		kW	14.0	22.4	28.0	33.5	40.0	45.0	50.4	52.0	
Heating capacity	Prated,h		kW	16.0	13.7	16.0	18.4	20.6	23.2	27.9	31.0	
	Max.	6°CWB	kW	-	25.0	31.5	37.5	45.0	50.0	56.5	63.0	
ηs,c			%	194	212.4	222.0	216.9	226.6	216.8	216.2	210.3	
ηs,h			%	137	142.0	147.2	149.6	136.7	137.0	141.4	145.4	
SEER				-	5.4	5.6	5.5	5.7	5.5		5.3	
SCOP				-	3.6	3.8		3.5		3.6	3.7	
Maximum number of connectable indoor units				10	64 (1)							
Indoor index connection	Min.			62.5	100.0	125.0	150.0	175.0	200.0	225.0	250.0	
	Nom.			125	200	250	300	350	400	450	500	
	Max.			162.5	260.0	325.0	390.0	455.0	520.0	585.0	650.0	
Dimensions	Unit	HeightxWidthxDepth	mm	1,680x635x765			1,685x930x765			1,685x1,240x765		
Weight	Unit		kg	175	187	194		305		314		
Fan	Air flow rate	Cooling	Nom.	m <sup>3</sup> /min	95	162	175	185	223	260	251	261
		Sound power level	Nom.	dB(A)	79	78.0	79.0	81.0		86.0		88.0
Sound pressure level	Cooling	Nom.		dB(A)	-	58.0		61.0		64.0	65.0	66.0
		Operation range	Min.-Max.	°CDB	-5~43			-5.0~43.0			-20.0~15.5	
Refrigerant	Type/GWP			R-410A/2,087.5								
	Charge		kg/TCO2Eq	11.1/23.2	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	9.52			12.7			15.9	
		Gas	OD	mm	15.9	19.1	22.2	28.6				
	Total piping length	System	Actual	m	300			300				
Power supply	Phase/Frequency/Voltage		Hz/V	3~/50/380-415			3N~/50/380-415					
Current - 50Hz	Maximum fuse amps (MFA)		A	15	20	25	32		40		50	

Outdoor system			RXYQQ	22T	24T	26T	28T	30T	32T	34T	36T	38T	40T	42T
System	Outdoor unit module 1		RXYQQ10T	RXYQQ8T	RXYQQ12T				RXYQQ16T			RXYQQ8T	RXYQQ10T	
	Outdoor unit module 2		RXYQQ12T	RXYQQ16T	RXYQQ14T	RXYQQ16T	RXYQQ18T	RXYQQ16T	RXYQQ18T	RXYQQ20T	RXYQQ10T	RXYQQ12T	RXYQQ16T	
	Outdoor unit module 3												RXYQQ20T	RXYQQ18T
Capacity range			HP	22	24	26	28	30	32	34	36	38	40	42
Cooling capacity	Prated,c		kW	61.5	67.4	73.5	78.5	83.9	90.0	95.4	97.0	102.4	111.9	118.0
Heating capacity	Prated,h		kW	34.4	36.9	37.1	39.7	44.4	46.4	51.1	56.4	59.4	58.9	60.9
	Max.	6°CWB	kW	69.0	75.0	82.5	87.5	94.0	100.0	106.5	113.0	119.5	125.5	131.5
ηs,c			%	213.5	215.3	222.0	216.8	216.2	216.8	216.4	213.2	213.6	217.6	
ηs,h			%	150.0	144.5	143.8	142.6	138.8	137.0	141.8	145.7	147.6	145.7	143.3
SEER				5.4	5.5	5.6	5.5			5.4		5.5		
SCOP				3.8	3.7	3.6	3.5		3.6	3.7	3.8	3.7		
Maximum number of connectable indoor units				64 (1)										
Indoor index connection	Min.			275.0	300.0	325.0	350.0	375.0	400.0	425.0	450.0	475.0	500.0	525.0
	Nom.			550	600	650	700	750	800	850	900	950	1,000	1,050
	Max.			715.0	780.0	845.0	910.0	975.0	1,040.0	1,105.0	1,170.0	1,235.0	1,300.0	1,365.0
Piping connections	Liquid	OD	mm	15.9			34.9			19.1			41.3	
		Gas	OD	mm	28.6			34.9			41.3			
	Total piping length	System	Actual	m	300									
Power supply	Phase/Frequency/Voltage		Hz/V	3~/50/380-415			3N~/50/380-415							
Current - 50Hz	Maximum fuse amps (MFA)		A	63			80						100	

(1) Actual number of connectable indoor units depends on indoor unit type and connection ratio

# Water cooled VRV IV W<sup>+</sup> series

Ideal for high rise buildings,  
using water as heat source

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



#### Indoor units

VRV type indoor units OR  
Residential type indoor units  
(such as Daikin Emura, ...)

**NEW**



Control systems



#### Air curtain

Biddle Air curtain for VRV (CYV)



**NEW**

#### Hot water

High temperature hydrobox  
Low temperature hydrobox



#### Ventilation

Heat Reclaim ventilation (VAM/VKM)  
AHU connection kit



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 **NEW**

Software for simplified commissioning, configuration and customisation

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

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



# Water-to-air heat pump



## 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 to 165m (actual)
- > Extended indoor unit height difference to 30m

### 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

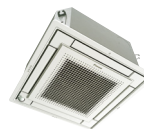
### Total solution



**NEW** Daikin Emura wall mounted unit



**NEW** Nexura floor standing unit



Fully flat cassette



**Intelligent Manager**



Bidde air curtain



**NEW** Air handling unit for ventilation



**NEW** Low temperature hydrobox



**NEW** High temperature hydrobox

### Most compact casing in the market!



8 to 14 HP

16 to 28 HP

30 to 42 HP

### Unique zero heat dissipation principle



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

## With all existing standard functions

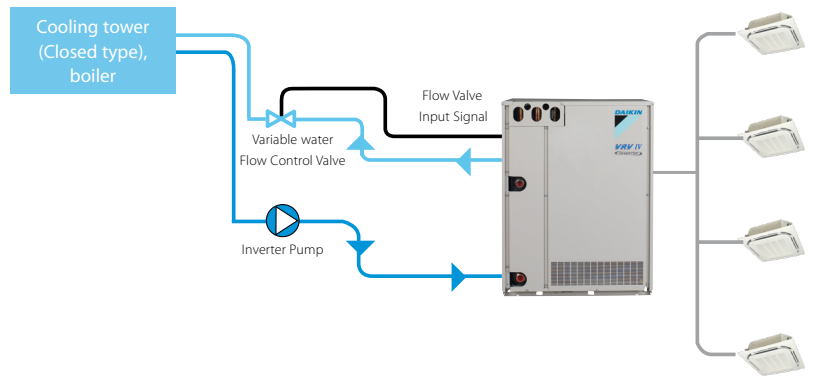
### Indoor installation makes unit invisible from the outside

- › 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

### Single port



BS1Q 10,16,25A

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



BS 4 Q14 A



BS 6, 8 Q14 A



BS 10, 12 Q14 A

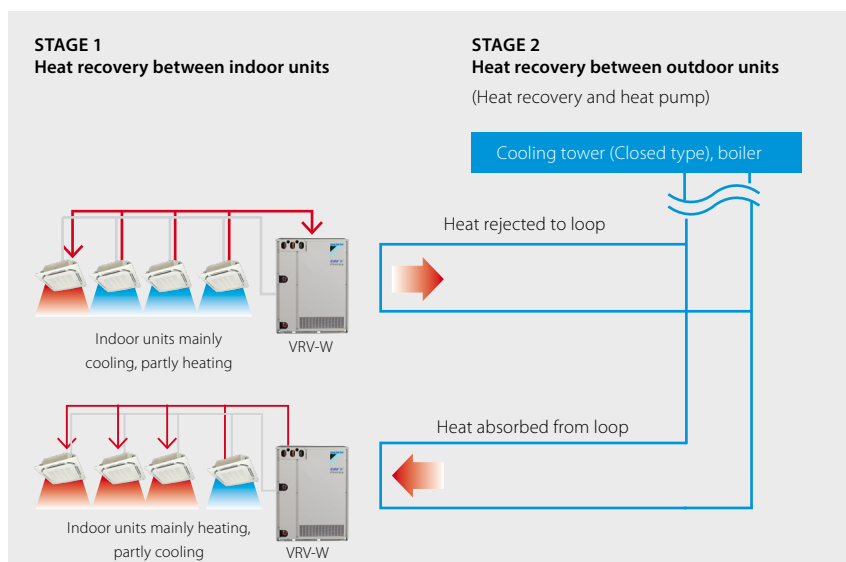


BS 16 Q14 A

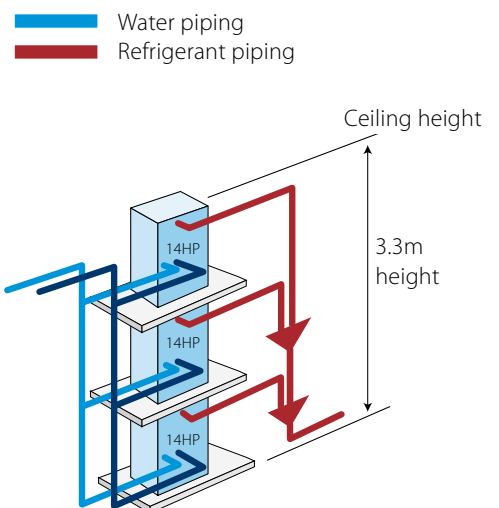
### Maximum design flexibility and installation speed

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

### 2-stage heat recovery



### Stacked configuration



# Crystal Tower

BREEAM Design Phase: Excellent rating



## 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 Cassettes
- › 4 x air-cooled water chillers
- › 11 x DMS504B51 (LonWorks gateway)

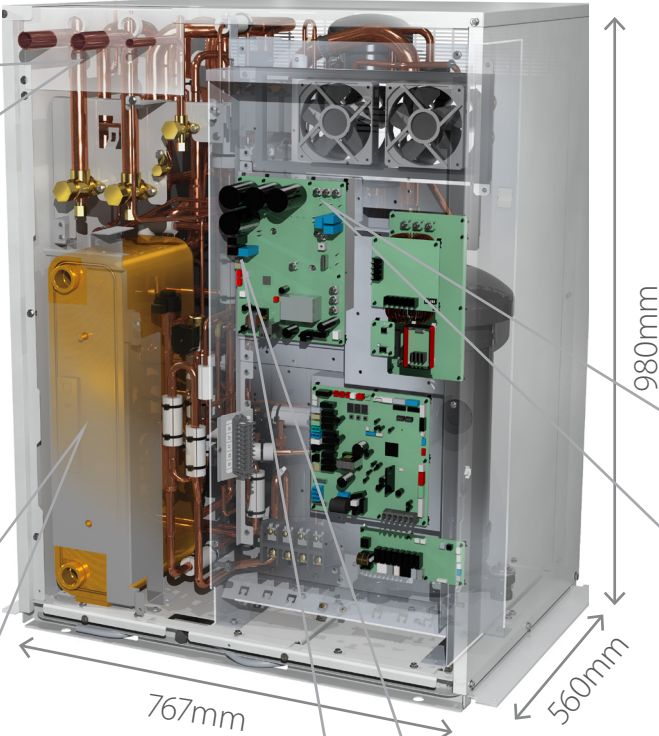
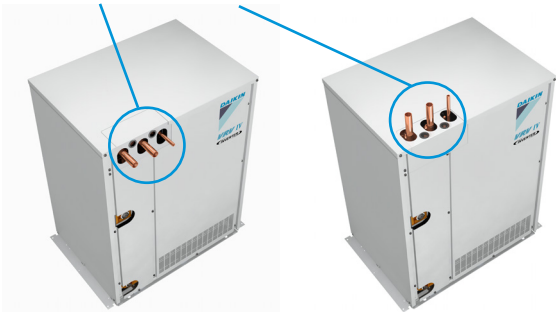
### Awards

- › 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

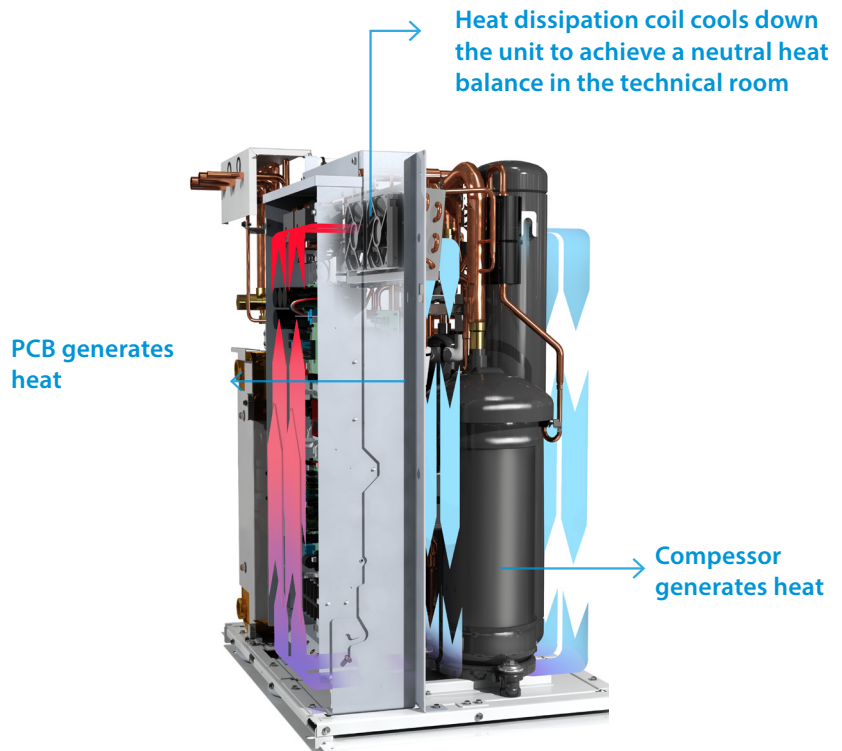


step 1

step 2

## Zero heat dissipation principle

- › No need for ventilation or cooling of the technical room
- › Enhancing installation flexibility and reliability of parts



Smallest footprint on the market

## VRV IV technology

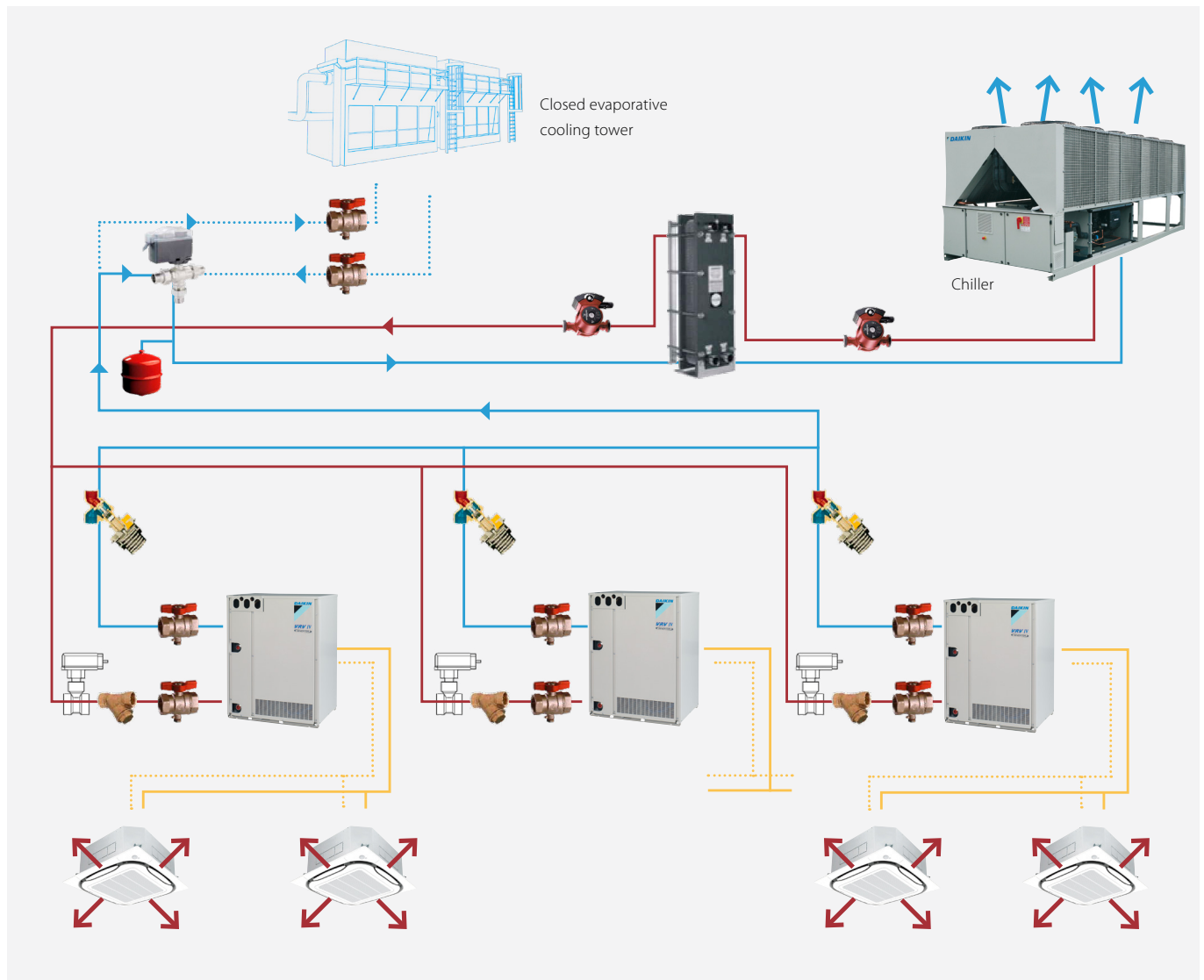










- › VRV configurator
- › 7 segment display




# Application

## examples

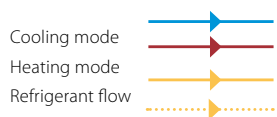
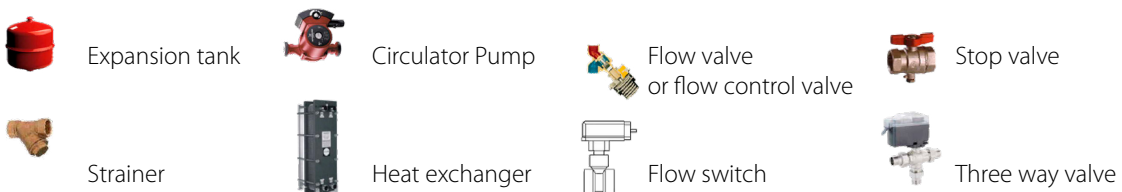
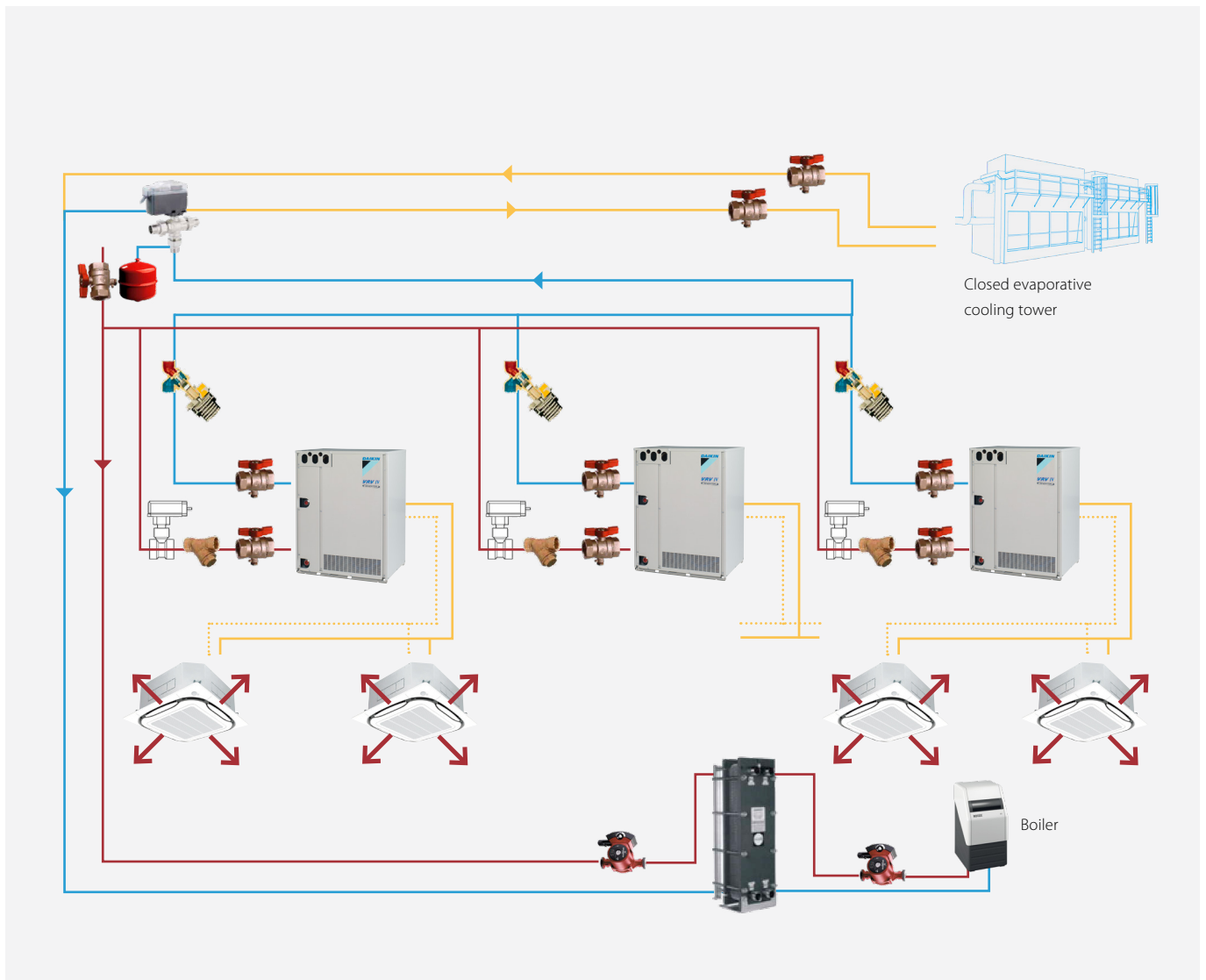
Closed evaporative cooling tower used for cooling,  
Chiller used for heating



-  Expansion tank
-  Circulator Pump
-  Flow valve or flow control valve
-  Stop valve
-  Strainer
-  Heat exchanger
-  Flow switch
-  Three way valve

- Cooling mode 
- Heating mode 
- Refrigerant flow 

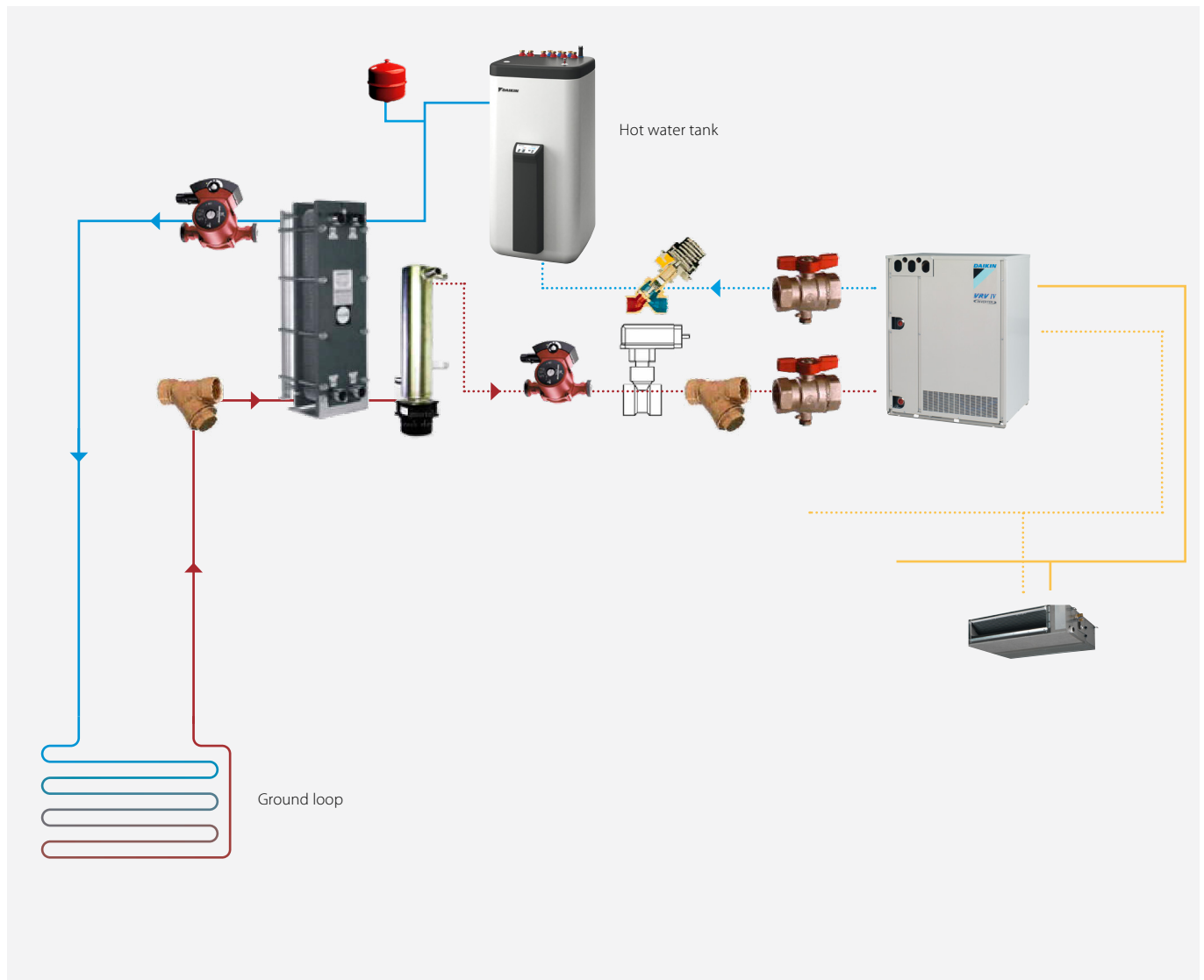
## Dry cooler used for cooling, boiler used for heating



# Application

## examples

### Geothermal operation



Expansion tank  
Liquid heater  
Strainer



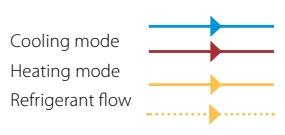
Circulator Pump  
Buffer tank



Heat exchanger  
Flow valve or flow control valve



Flow switch  
Stop valve  
Three way valve



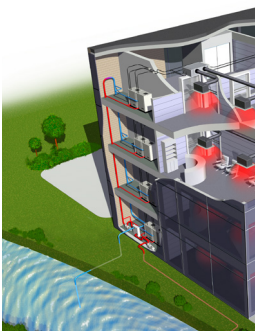


# Ground loop

## 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



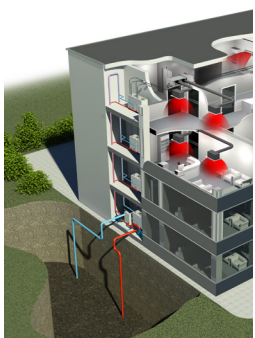
#### Conditions:

- › 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 corrosiveness:
- ✗ 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

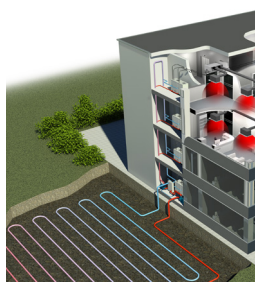


#### Vertical system conditions

- › Typical depth: 30-140 m. Below 15 m, the temperature of the ground is constant around 10°C

- ✓ 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.
- ✗ 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 CO2 emissions thanks to the use of geothermal energy as a renewable energy source and typical lower refrigerant levels making it ideal to comply with EN378
- › 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

**NEW** › Unique zero heat dissipation principle obviates the need for ventilation or cooling in the technical room, maximising installation flexibility

**NEW** › Wide range of indoor units: either connect VRV or stylish indoor units such as Daikin Emura, Nexura ...

› Incorporates VRV IV standards & technologies: Variable Refrigerant Temperature, VRV configurator, 7-segment display and full inverter compressors

› Customize your VRV for best seasonal efficiency & comfort with the weather dependant Variable Refrigerant Temperature function. Increased seasonal efficiency and no more cold draft by supply of high outblow temperatures

**NEW** › 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

**NEW** › Compact & lightweight design can be stacked for maximum space saving: 42HP can be installed in less than 0,5m<sup>2</sup> floorspace

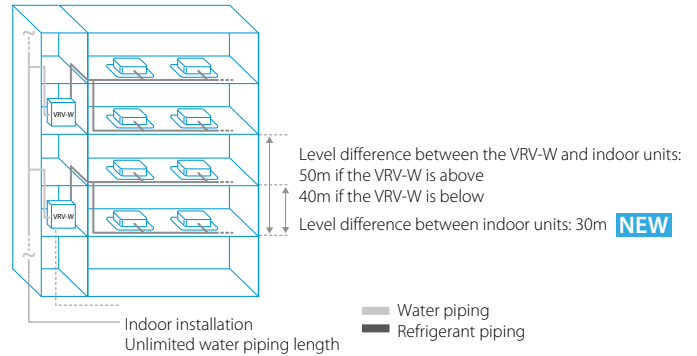
› 2-stage heat recovery: first stage between indoor units, second stage between outdoor units thanks to the storage of energy in the water circuit

› Unified model for heat pump and heat recovery version and geothermal and standard operation

› Variable Water Flow control option increases flexibility and control

**NEW** › 2 analogue input signals allowing external control of ON-OFF, operation mode, error signal, ...

› Contains all standard VRV features



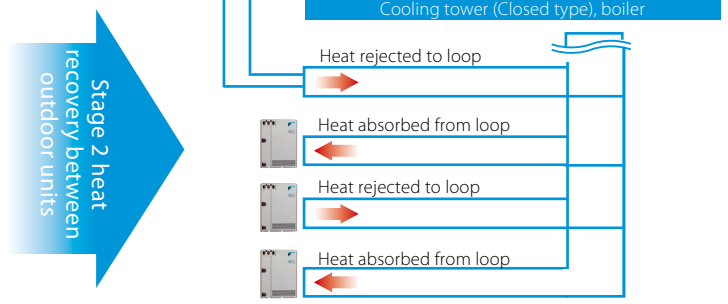
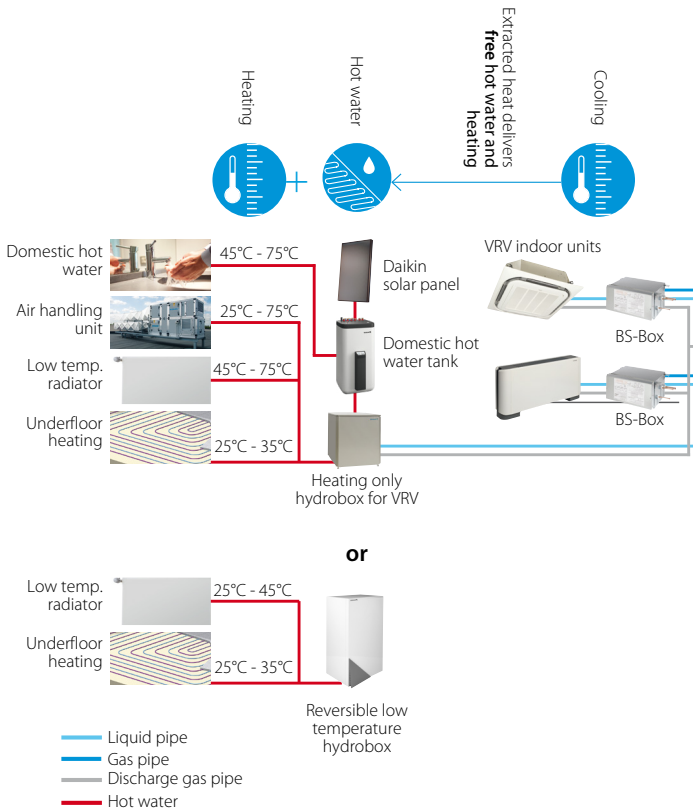
**NEW** Extended piping length between indoor and outdoor units up to 165m (actual)



Already fully compliant to LOT 21 - Tier 2

Outdoor unit		RWEYQ	8T9	10T9	12T9	14T9
Capacity range		HP	8	10	12	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
	Max. 6°CWB	kW	25.0	31.5	37.5	45.0
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 of connectable indoor units			64 (1)			
Indoor index connection	Min.		100.0	125.0	150.0	175.0
	Nom.		200	250	300	350
	Max.		300.0	375.0	450.0	525.0
Dimensions	Unit	HeightxWidthxDepth	mm			
Weight	Unit		195		197	
Sound power level	Cooling	Nom.	65.0	71.0	72.0	74.0
	Cooling	Nom.	48.0	50.0	56.0	58.0
Operation range	Inlet water temperature	Cooling	10~45			
		Heating	10~45			
	Temperature around casing	Max.	40			
	Humidity around casing	Cooling~Heating	80~80			
Refrigerant	Type/GWP Charge		R-410A/2,087.5			
Piping connections	Liquid	OD	7.9/16.5		9.6/20.0	
		OD	9.52			
	Gas	OD	19.1 (2)		22.2 (2)	
	HP/LP gas	OD	15.9 (3) / 19.1 (4)		19.1 (3) / 22.2 (4)	
		OD	19.1 (3) / 28.6 (4)			
	Drain	Size	14mm OD/ 10mm ID			
	Water	Inlet/Outlet	ISO 228-G1 1/4 B/ISO 228-G1 1/4 B			
	Total piping length	System	500			
Power supply	Phase/Frequency/Voltage		3N~/50/380-415			
Current - 50Hz	Maximum fuse amps (MFA)	A	20		25	

Stage 1 heat recovery between indoor units



\* Above system configuration are for illustration purpose only.

Outdoor system		RWEYQ	16T9	18T9	20T9	22T9	24T9	26T9	28T9	
System	Outdoor unit module 1		RWEYQ8T		RWEYQ10T		RWEYQ12T		RWEYQ14T	
	Outdoor unit module 2		RWEYQ8T	RWEYQ10T					RWEYQ14T	
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	
Maximum number of connectable indoor units			64 (1)							
Indoor index connection	Min.		200.0	225.0	250.0	275.0	300.0	325.0	350.0	
	Nom.		400	450	500	550	600	650	700	
	Max.		600.0	675.0	750.0	825.0	900.0	975.0	1,050.0	
Piping connections	Liquid	OD	mm	12,7		15,9			19,1	
	Gas	OD	mm		28,6 (2)			34,9 (2)		
	HP/LP gas	OD	mm	22,2 (3) / 28,6 (4)		28,6 (3) / 28,6 (4)		28,6 (3) / 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	32		35	40		50		
Outdoor system		RWEYQ	30T9	32T9	34T9	36T9	38T9	40T9	42T9	
System	Outdoor unit module 1		RWEYQ10T		RWEYQ12T		RWEYQ14T			
	Outdoor unit module 2		RWEYQ10T		RWEYQ12T		RWEYQ14T			
	Outdoor unit module 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	
ηs,c		%	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	
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 connection	Min.		375.0	400.0	425.0	450.0	475.0	500.0	525.0	
	Nom.		750	800	850	900	950	1,000	1,050	
	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						
	Gas	OD	mm	34,9 (2)		41,3 (2)				
	HP/LP gas	OD	mm	28,6 (3) / 34,9 (4)		28,6 (3) / 41,3 (4)		41,3 (4) / 34,9 (3)		
	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	63			80			

(1) 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



## VRV Indoor units

One of the widest ranges on the market, it currently comprises no less than 26 different stylish and elegant models in 116 different variants. All designed to maximise comfort, minimise operating noise and simplify installation and servicing.

# VRV Indoor units

## VRV indoor units

	Ceiling mounted cassette units	
UNIQUE	FXFQ-A	101
UNIQUE	FXZQ-A	102
	FXCQ-A	106
	FXKQ-MA	107

### Concealed ceiling units

	FXDQ-M9	108
UNIQUE	Auto cleaning filter for concealed ceiling units	109
	Multi zoning kit	110
SLIMMEST IN CLASS	FXDQ-A3	111
	FXSQ-A	112
	FXMQ-P7 / FXMQ-MB	114

### Wall mounted unit

NEW	FXAQ-A	116
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### Ceiling suspended units

	FXHQ-A	117
UNIQUE	FXUQ-A	119

### Floor standing units

SLIMMEST IN CLASS	FXNQ-A	120
	FXLQ-P	121

## Stylish indoor units

	BPMKS	
	Accessory to connect stylish indoor units	122

### Wall mounted

UNIQUE DESIGN UNIT	FTXG-LS/LW	123
	CTXS-K / FTXS-K / FTXS-G	126

### Floor standing

















UNIQUE RADIATING PANEL	FVXG-K	127
	FVXS-F	129

### Flexi type unit

	FLXS-B(9)	130
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# Products overview

Capacity class (kW)

Type	Model	Product name	15	20	25	32	40	50	63	71	80	100	125	140	200	250	
Ceiling mounted cassette	<b>UNIQUE</b> 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! 	FXFQ-A 		•	•	•	•	•	•		•	•	•				
	<b>UNIQUE</b> 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 	•	•	•	•	•	•									
	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 				•	•	•		•							
Concealed ceiling	Small concealed ceiling unit Designed for hotel rooms > Compact dimensions enable installation in narrow ceiling voids > Discretely concealed in the ceiling: only the grilles are visible > Flexible installation as the air suction direction can be altered from rear to bottom suction	FXDQ-M9 		•	•												
	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 developed for small of well-insulated rooms > Reduced energy consumption thanks to DC fan motor	FXDQ-A3 	•	•	•	•	•	•	•								
	Concealed ceiling unit with medium ESP Slimmest yet most powerful 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	FXSQ-A 	•	•	•	•	•	•	•			•	•	•	•		
	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 developed 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 	•	•	•	•	•	•	•								
Ceiling suspended	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 				•			•			•					
	<b>UNIQUE</b> 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 									•		•				
Floor standing	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 		•	•	•	•	•	•								
	Concealed floor standing unit 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 > Requires very little installation space as the depth is only 200mm > High ESP allows flexible installation	FXNQ-A 		•	•	•	•	•	•								
Cooling capacity (kW) <sup>1</sup>			1.7	2.2	2.8	3.6	4.5	5.6	7.1	8.0	9.0	11.2	14.0	16.0	22.4	28.0	
Heating capacity (kW) <sup>2</sup>			1.9	2.5	3.2	4.0	5.0	6.3	8.0	9.0	10.0	12.5	16.0	18.0	25.0	31.5	

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

# Stylish indoor units overview

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 unit portfolio** for combination restrictions.

Type	Model	Product name	Capacity class (kW)								Connectable outdoor unit				
			15	20	25	35	42	50	60	71	RYYQ-T	RXYQ-T(9)	RXYSQ-TV <sup>3</sup>	RXYSQ-TV <sup>3</sup>	RWEYQ-T9 <sup>3</sup>
Ceiling mounted cassette	Round flow cassette (incl. auto-cleaning function <sup>1</sup> )	FCAG-A				●			●	●				✓	✓
	Fully flat cassette	FFA-A			●	●			●	●				✓	✓
Concealed ceiling	Small concealed ceiling unit	FDBQ-B			●									✓	✓
	Slim concealed ceiling unit	FDXM-F3			●	●			●	●		NEW Auto cleaning filter option		✓	✓
	Concealed ceiling unit with inverter-driven fan	FBA-A				●			●	●	●			✓	✓
Wall mounted	Daikin Emura Wall mounted unit	FTXG-LW/LS		●	●	●			●				✓	✓	✓
	Wall mounted unit	CTXS-K FTXS-K	●	●	●	●	●	●					✓	✓	✓
	Wall mounted unit	FTXS-G								●	●		✓	✓	✓
Ceiling suspended	Ceiling suspended unit	FHA-A				●			●	●	●			✓	✓
Floor standing	Nexura floor standing unit	FVXG-K			●	●			●				✓	✓	✓
	Floor standing unit	FVXS-F			●	●			●				✓	✓	✓
	Flexi type unit	FLXS-B(9)			●	●			●	●			✓	✓	✓

<sup>1</sup> Decoration panel BYCQ140DG9 or BYCQ140DGF9 + BRC1E53A/B/C needed

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





















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





















# Benefits overview **VRV**

We care		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
		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
Comfort		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
		Whisper quiet	Daikin indoor units are whisper quiet. Also the outdoor units are guaranteed not to disturb the quiet of the neighbourhood
		Auto cooling-heating changeover	Automatically selects cooling or heating mode to achieve the set temperature
Air treatment		Air filter	Removes airborne dust particles to ensure a steady supply of clean air
Humidity control		Dry programme	Allows humidity levels to be reduced without variations in room temperature
Air flow		Ceiling soiling prevention	The air discharge of the indoor unit is specially designed to prevent air being blown against the ceiling to prevent ceiling stains
		Vertical auto swing	Possibility to select automatic vertical moving of the air discharge louvre, for uniform air flow and temperature distribution
		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
Remote control & timer		Weekly timer	Timer can be set to start and stop operation anytime on a daily or weekly basis
		Infrared remote control	Infrared remote control with LCD to remotely control your indoor unit
		Wired remote control	Wired remote control to remotely control your indoor unit
		Centralised control	Centralised control to control several indoor units from one single point
		Multi zoning <b>NEW</b>	Allows up to 6 individual climate zones with one indoor unit
Other functions		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
		Multi tenant	The indoor unit's main power supply can be turned off when leaving the building or for servicing purposes

 \*Note: blue cells contain preliminary data

Ceiling mounted cassette units				Concealed ceiling units					Wall mounted unit	Ceiling suspended units			Floor standing units	
FXFQ-A	FXZQ-A	FXCQ-A	FXKQ-MA	FXDQ-M9	FXDQ-A3	FXSQ-A	FXMQ-P7	FXMQ-MB	FXAQ-A	FXHQ-A	FXUQ-A	FXNQ-A	FXLQ-P	
														
•	•	•	•	•	•	•	•	•	•	•	•	•	•	
•	•	•	•	•	•	•	•	•	•	•	•	•	•	
•					• NEW									
•	•													
•	•		•								•			
•	•	•			•	•		•						
•	•	•	•	•	•	•	•	•	•	•	•	•	•	
G1 F8 (optional)	G1	•	G1	•	•	G1 F8 (optional)	•	G1 F8 (optional)	•	G1	G1	G1	G1	
•	•	•	•	•	•	•	•	•	•	•	•	•	•	
•	•	•	•											
•	•	•	•						•		•			
3	3	3	2	2	3	3	3	2	2	3	3	2	2	
•	•										•			
•	•	•	•	•	•	•	•	•	•	•	•	•	•	
•	•	•	•	•	•	•	•	•	•	•	•	•	•	
•	•	•	•	•	•	•	•	•	•	•	•	•	•	
					• NEW	• NEW								
•	•	•	•	•	•	•	•	•	•	•	•	•	•	
•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Standard	Standard	Standard	Standard		Standard	Standard	Standard	Optional	Optional	Optional	Standard			
•	•	(•)	(•)	•	•	•	•	(•)	•	(•)	(•)	•	•	



## FXFQ-A Auto cleaning cassette

### Why choose a round flow cassette?

- 360° air discharge for optimum comfort
- Intelligent sensors for maximum efficiency

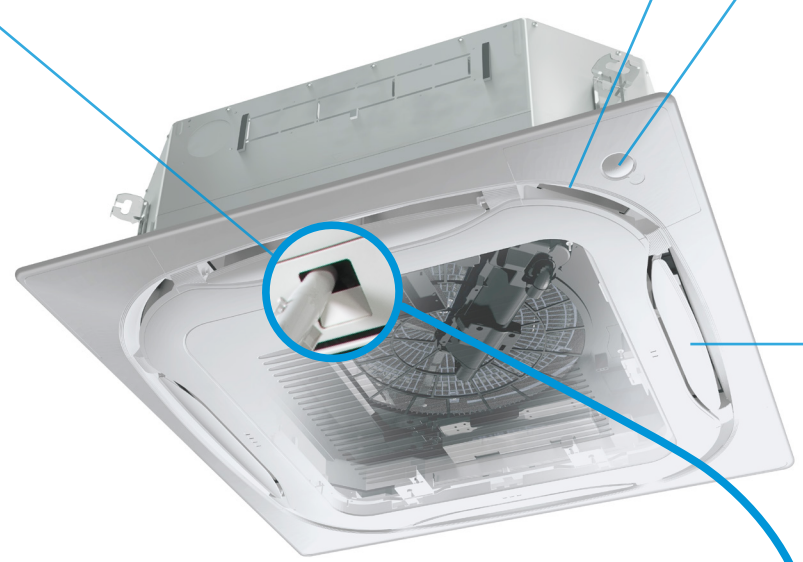


### More energy efficient and user-friendly than any other cassette

- › Running costs are reduced by 50% compared with standard solutions
- › Automatic filter cleaning.
- › Less time is required to maintain the filter: dust can be removed easily with a vacuum cleaner without opening the unit.

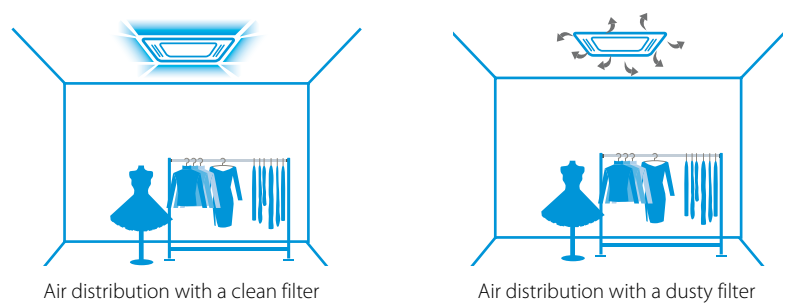
### Finer mesh panel

- › For dust prone areas (i.e. clothing and book shops) a finer mesh panel (BYCQ140DGF9) ensures consistent performance and optimum air distribution
- › Clean ceilings ensured thanks to fine mesh and clean filter

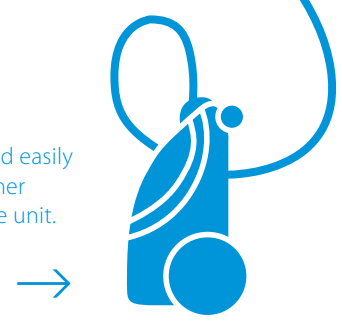


BYCQ140DG9	BYCQ140DGF9
Auto-cleaning panel	Auto-cleaning panel with fine mesh filter
White with grey louvers	White with grey louvers

### Auto-cleaning cassette for maintaining the optimum store atmosphere



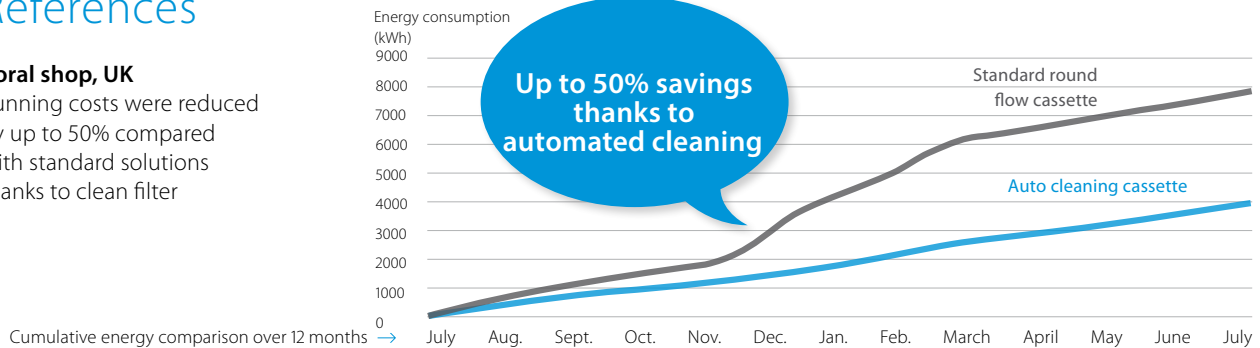
Dust can be removed easily with a vacuum cleaner without opening the unit.



## References

### Coral shop, UK

Running costs were reduced by up to 50% compared with standard solutions thanks to clean filter

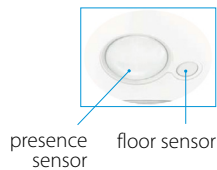


### 360° air discharge for improved comfort

- › Industry-first and proven design.

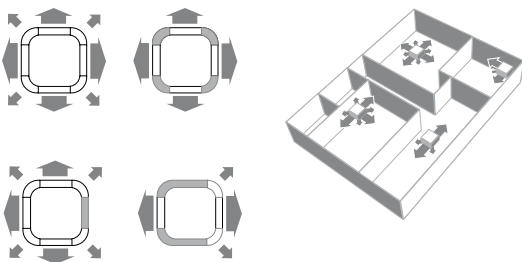
### Intelligent sensors improve efficiency and comfort even more

- › The presence sensor adjusts the set point if no one is detected in the room leading to up to 27% savings. It also automatically directs air flow away from any person to avoid draught.
- › The infrared floor sensor detects the average floor temperature and ensures even temperature distribution between ceiling and floor to prevent cold feet.



### Flexible installation

- › Flaps can be individually controlled or closed using the wired remote control, to suit room configuration. Optional closure kits are also available.



## Benefits for the installer

- › Product with unique functions in this market.
- › Less time needed for onsite maintenance.
- › Use the controller to individually open or close any of the four flaps to easily adapt to a changing room layout.
- › Easy set-up of the sensor option to improve comfort and save energy.

## Benefits for the consultant

- › Product with unique functions in this market.
- › Designed for use in all types and sizes of commercial offices and retail environments.
- › Ideal product for improving BREEAM score/EPBD in combination with Sky Air or VRV IV heat pump units.

## Benefits for the end user

- › Designed for use in all types and sizes of commercial offices and retail environments.
- › Perfect environment conditions: no more draughts or cold feet.
- › Save up to 50% on running costs with the auto-cleaning panel, which also facilitates maintenance.
- › Your customers can save up to 27% on their energy bills thanks to the sensor option.
- › Flexible use of space thanks to individual flap control.

## Marketing tools

- › Visit the website: [https://www.daikin.eu/en\\_us/product-group/round-flow-cassette.html](https://www.daikin.eu/en_us/product-group/round-flow-cassette.html)



[www.youtube.com/DaikinEurope](https://www.youtube.com/DaikinEurope)





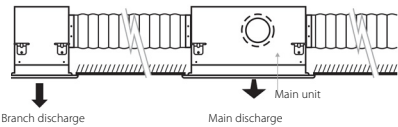
AUTO CLEANING PANEL WITH FINE MESH FILTER, IDEAL FOR CLOTHING SHOPS



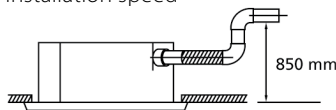
# Round flow cassette

## 360° air discharge for optimum efficiency and comfort

- › Automatic filter cleaning results in higher efficiency & comfort and lower maintenance costs. 2 filters available: standard filter and finer mesh filter (for fine dust applications e.g. clothing shops)
- › Two optional intelligent sensors improve energy efficiency and comfort.
- › Individual flap 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
- › Modern style decoration panel is available in 3 different variations: white (RAL9010) with grey louvers, full white (RAL9010) or auto cleaning panel
- › Reduced energy consumption thanks to specially developed small tube heat exchanger, DC fan motor and drain pump
- › 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	20A	25A	32A	40A	50A	63A	80A	100A	125A
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	HeightxWidthxDepth	mm	204x840x840						246x840x840		288x840x840
Weight	Unit		kg	19		20		21		24		26
Casing	Material			Galvanised steel plate								
Decoration panel	Model			BYCQ140D7GFW1 - auto cleaning panel with fine mesh filter								
	Colour			Pure White (RAL 9010)								
	Dimensions	HeightxWidthxDepth	mm	130x950x950								
	Weight		kg	10.3								
Decoration panel 2	Model			BYCQ140D7GW1 - auto cleaning panel								
	Colour			Pure White (RAL 9010)								
	Dimensions	HeightxWidthxDepth	mm	130x950x950								
	Weight		kg	10.3								
Decoration panel 3	Model			BYCQ140D7W1W - full white								
	Colour			Pure White (RAL 9010)								
	Dimensions	HeightxWidthxDepth	mm	50x950x950								
	Weight		kg	5.4								
Decoration panel 4	Model			BYCQ140D7W1 - white with grey louvers								
	Colour			Pure White (RAL 9010)								
	Dimensions	HeightxWidthxDepth	mm	50x950x950								
	Weight		kg	5.4								
Fan	Air flow rate - 50Hz	Cooling	Low/High	m <sup>3</sup> /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
		Heating	Low/High	m <sup>3</sup> /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	dB(A)	49			51		53	55	60	61
Sound pressure level	Cooling	Low/Nom./High	dB(A)	28.0/29.0/31.0			29.0/31.0/33.0		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	dB(A)	28.0/29.0/31.0			29.0/31.0/33.0		30.0/33.0/35.0	30.0/34.0/38.0	30.0/37.0/43.0
Refrigerant	Type/GWP			R-410A/2,087.5								
Piping connections	Liquid	OD	mm	6,35					9,52			
		Gas	mm	12.70					15.90			
	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 amps (MFA)		A	16								
Control systems	Infrared remote control			BRC7FA532F								
	Wired remote control			BRC1H51(9)W/S/K / BRC1E53A/B/C / BRC1D52								
	Simplified wired remote control for hotel applications			BRC2E52C (heat recovery type) / BRC3E52C (heat pump type)								

The BYCQ140D7W1W has white insulations. Be informed that formation of dirt on white insulation is visibly stronger and that it is consequently not advised to install the BYCQ140D7W1W decoration panel in environments exposed to concentrations of dirt. | BYCQ140D7W1: pure white standard panel with grey louvers; BYCQ140D7W1W: pure white standard panel with white louvers; BYCQ140D7GW1: pure white auto cleaning panel.

# Fully Flat Cassette

Design & Genius in one

## Why choose fully flat cassette

- Unique design in the market that integrates fully flat into the ceiling
- Advanced technology and top efficiency combined
- Most quiet cassette available on the market

## FXZQ-A



Choice between grey or white panel

## Benefits for the installer

- > Unique product in the market!
- > Most quiet unit (25dBA)
- > The user-friendly remote control, available in several languages, enables the easy set-up of sensor option and control of the individual flap position
- > Meeting European design taste.

## Benefits for the consultant

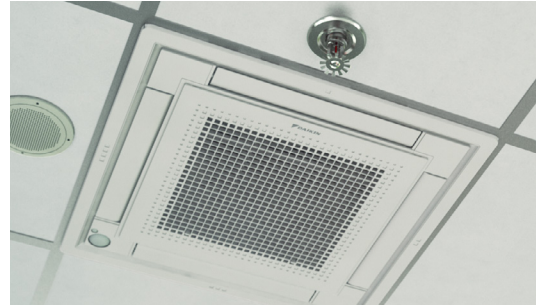
- > Unique product in the market!
- > Blends seamlessly in any modern office interior design
- > Ideal product to improve BREEAM score/EPBD in combination with Sky Air (FFA-A) or VRV IV heat pump units (FXZQ-A).

## Benefits for the end user

- > Engineering excellence and unique design in one
- > Most quiet unit (25dBA)
- > Perfect working conditions: no more cold draughts
- > Save up to 27% on your energy bill thanks to the optional sensors
- > Flexible usage of space and suits any room configuration thanks to individual flap control
- > User-friendly remote control, available in several languages.

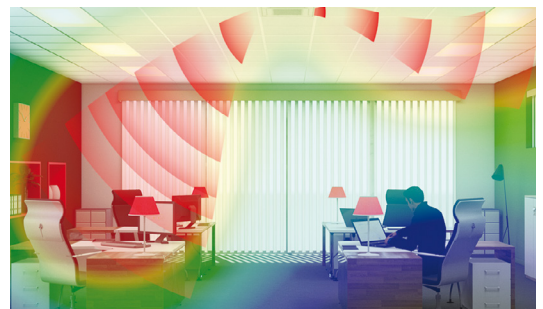






### Unique design

- › Designed by a European design office to fully meet the European taste.
- › Fully flat into the ceiling, leaving only 8mm.
- › Fully integrated in the one ceiling tile, enabling lights, speakers and sprinklers to be installed in adjoining ceiling tiles.
- › Decoration panel available in 2 colours (white and white-silver).



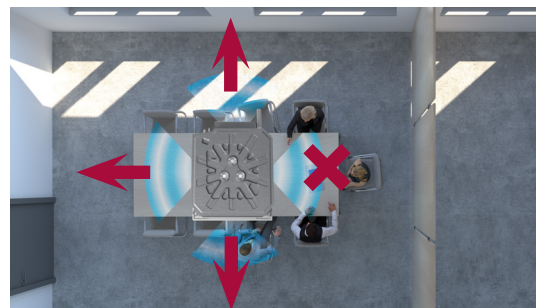
### Differentiating in technology

#### Optional presence sensor

- › When the room is empty, it can adjust the set temperature or switch off the unit – saving energy.
- › When people are detected, the direction of the airflow is adapted to avoid cold draughts being directed towards occupants.

#### Optional floor sensor

- › Detects the temperature difference and re-directs the airflow to ensure even temperature distribution.



### Top efficiency

- › When the room is empty, the sensor option can adjust the set temperature or switch off the unit – saving up to 27% energy.

### Other benefits

- › Individual flap control: easily control one or more flaps via the wired remote controller (BRC1E/ BRC1H) when rearranging the room. When fully closing or blocking the flaps, the option "Sealing member of air discharge outlet" is needed.
- › Most silent cassette in the market (25dBA), important for office applications.



### Marketing tools

- › [https://www.daikin.eu/en\\_us/product-group/fully-flat-cassette.html](https://www.daikin.eu/en_us/product-group/fully-flat-cassette.html)
- › [www.youtube.com/DaikinEurope](https://www.youtube.com/DaikinEurope)



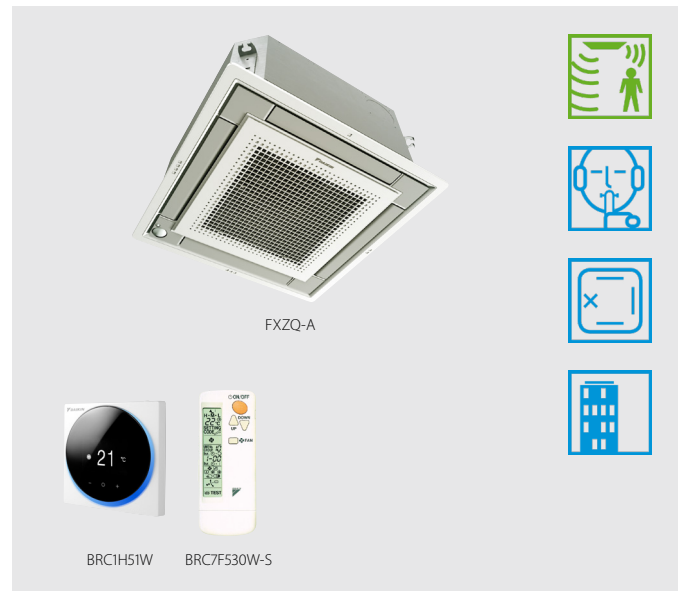
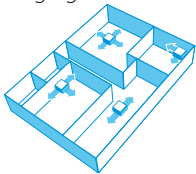


	Budget	Target
<u>MAHAT</u>		
New business	30 000	45 000
Up-selling	5 000	5 000
TOTAL	35 000	50 000
<u>WORK</u>		
Salaries	10 000	
Subscription fees	2 000	
Grand	12 000	
Overhead	5 000	
Profit	5 000	
Marketing	10 000	
Admin	10 000	
Travel	2 000	
IT	2 000	
Other	5 000	

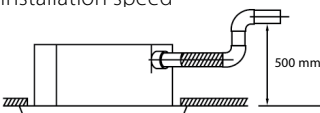
# Fully flat cassette

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!



- › Reduced energy consumption thanks to specially developed small tube heat exchanger, DC fan motor and drain pump
- › Optional fresh air intake
- › Standard drain pump with 630mm lift increases flexibility and installation speed



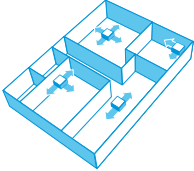
Indoor unit		FXZQ	15A	20A	25A	32A	40A	50A		
Cooling capacity	Total capacity	Nom.	kW	1.70	2.20	2.80	3.60	4.50	5.60	
	Heating capacity	Total capacity	Nom.	kW	1.90	2.50	3.20	4.00	5.00	6.30
Power input - 50Hz	Cooling	Nom.	kW	0.043			0.045	0.059	0.092	
	Heating	Nom.	kW	0.036			0.038	0.053	0.086	
Dimensions	Unit	HeightxWidthxDepth	mm	260x575x575						
Weight	Unit		kg	15.5		16.5		18.5		
Casing	Material			Galvanised steel plate						
Decoration panel	Model			BYFQ60C2W1W						
	Colour			White (N9.5)						
	Dimensions	HeightxWidthxDepth	mm	46x620x620						
	Weight		kg	2.8						
Decoration panel 2	Model			BYFQ60C2W1S						
	Colour			SILVER						
	Dimensions	HeightxWidthxDepth	mm	46x620x620						
	Weight		kg	2.8						
Decoration panel 3	Model			BYFQ60B2W1						
	Colour			White (RAL9010)						
	Dimensions	HeightxWidthxDepth	mm	55x700x700						
	Weight		kg	2.7						
Decoration panel 4	Model			BYFQ60B3W1						
	Colour			WHITE (RAL9010)						
	Dimensions	HeightxWidthxDepth	mm	55x700x700						
	Weight		kg	2.7						
Fan	Air flow rate	Cooling	Low/High	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/High	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	Type			Resin net						
Sound power level	Cooling	High	dB(A)	49		50	51	54	60	
	Cooling	Low/Nom./High	dB(A)	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	
Sound pressure level	Heating	Low/Nom./High	dB(A)	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	12.7						
	Drain			VP20 (I.D. 20/O.D. 26)						
Power supply	Phase/Frequency/Voltage		Hz/V	1~/50/60/220-240/220						
Current - 50Hz	Maximum fuse amps (MFA)		A	16						
Control systems	Infrared remote control			BRC7EB530W (standard panel) / BRC7F530W (white panel) / BRC7F530S (grey panel)						
	Wired remote control			BRC1H51 (9)W/S/K / BRC1E53A/B/C / BRC1D52						
	Simplified wired remote control for hotel applications			BRC2E52C (heat recovery type) / BRC3E52C (heat pump type)						

Dimensions do not include control box

# 2-way blow ceiling mounted cassette

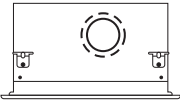
Thin, lightweight design installs easily in narrow corridors

- › 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!



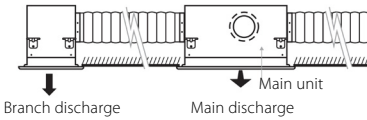
- › Reduced energy consumption thanks to specially developed small tube heat exchanger, DC fan motor and drain pump
- › Stylish unit blends easily with any interior. The flaps close entirely when the unit is not operating and there are no air intake grilles visible
- › Fresh air intake integrated in the same system thus reducing installation cost as no additional ventilation device is required

Fresh air intake opening in casing

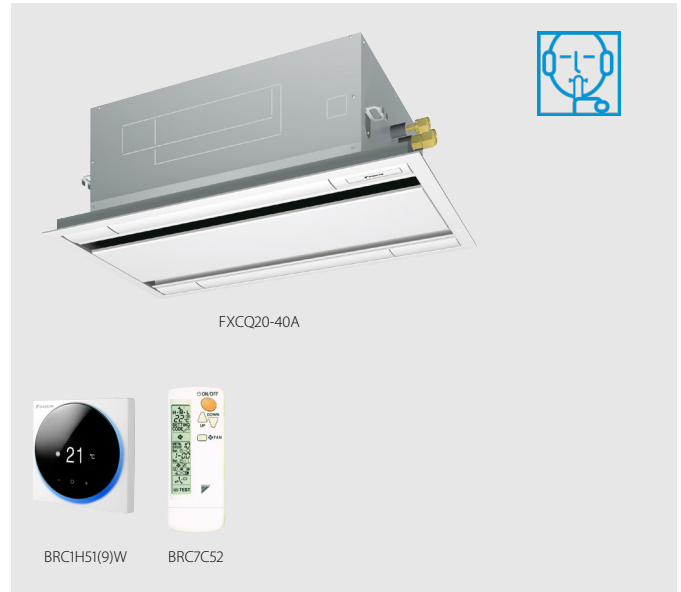
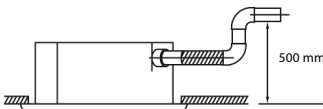


\* Brings in up to 10% of fresh air into the room

- › 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



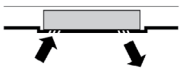
Indoor unit			FXCQ	20A	25A	32A	40A	50A	63A	80A	125A	
Cooling capacity	Total capacity	Nom.	kW	2.2	2.8	3.6	4.5	5.6	7.1	9.0	14.0	
	Heating capacity	Total capacity	Nom.	kW	2.5	3.2	4.0	5.0	6.3	8.0	16.0	
Power input - 50Hz	Cooling	Nom.	kW	0.031	0.039		0.041	0.059	0.063	0.090	0.149	
	Heating	Nom.	kW	0.028	0.035		0.037	0.056	0.060	0.086	0.146	
Dimensions	Unit	HeightxWidthxDepth	mm	305x775x620				305x990x620		305x1,445x620		
Weight	Unit		kg	19			22	25	33	38		
Casing	Material			Galvanised steel plate								
Decoration panel	Model			BYBCQ40HW1			BYBCQ63HW1		BYBCQ125HW1			
	Colour			Fresh white (6.5Y 9.5/0.5)								
	Dimensions	HeightxWidthxDepth	mm	55x1,070x700				55x1,285x700		55x1,740x700		
	Weight		kg	10			11		13			
Fan	Air flow rate - 50Hz	Cooling Low/High	m³/min	7.5/10.5	8/11.5		8.5/12	10.5/15	11.5/16	18.5/26	22.5/32	
Air filter	Type			Resin net								
	Cooling	Nom./High	dB(A)	46/48	47/50	48/50	49/52	51/53	53/55	54/58	58/62	
Sound pressure level	Cooling	Low/Nom./High	dB(A)	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	dB(A)	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/Voltage		Hz/V	1~/50/220-240								
Current - 50Hz	Maximum fuse amps (MFA)		A	16								
Control systems	Infrared remote control			BRC7C52								
	Wired remote control			BRC1H51(9)W/S/K / BRC1E53A/B/C / BRC1D52								
	Simplified wired remote control for hotel applications			BRC2E52C (heat recovery type) / BRC3E52C (heat pump type)								

# Ceiling mounted corner cassette

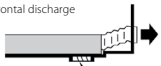
## 1-way blow unit for corner installation

- › 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

Downward discharge

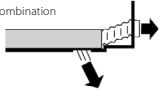


Frontal discharge

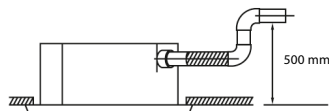


Closed decoration panel

Combination



- › Maintenance operations can be performed by removing the front panel
- › Standard drain pump with 330mm lift increases flexibility and installation speed

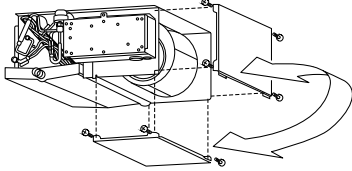


Indoor unit			FXKQ	25MA	32MA	40MA	63MA
Cooling capacity	Total capacity	Nom.	kW	2.8	3.6	4.5	7.10
Heating capacity	Total capacity	Nom.	kW	3.2	4.0	5.0	8.00
Power input - 50Hz	Cooling	Nom.	kW	0.066		0.076	0.105
	Heating	Nom.	kW	0.046		0.056	0.085
Dimensions	Unit	HeightxWidthxDepth		215x1,110x710			215x1,310x710
Weight	Unit			31			34
Casing	Material	Galvanised steel plate					
Decoration panel	Model	BYK45FJW1					BYK71FJW1
	Colour	White					
	Dimensions	HeightxWidthxDepth		70x1,240x800			70x1,440x800
Fan	Weight	kg					
	Air flow rate - 50Hz	Cooling	Low/High	m <sup>3</sup> /min		9/11	10/13
Air filter	Type	Resin net					
Sound power level	Cooling	High	dBA	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/Voltage			1~/50/60/220-240/220			
Current - 50Hz	Maximum fuse amps (MFA)			A			15
Control systems	Infrared remote control	BRC4C61					
	Wired remote control	BRC1H51(9)W/S/K / BRC1E53A/B/C / BRC1D52					
	Simplified wired remote control for hotel applications	BRC2E52C (heat recovery type) / BRC3E52C (heat pump type)					

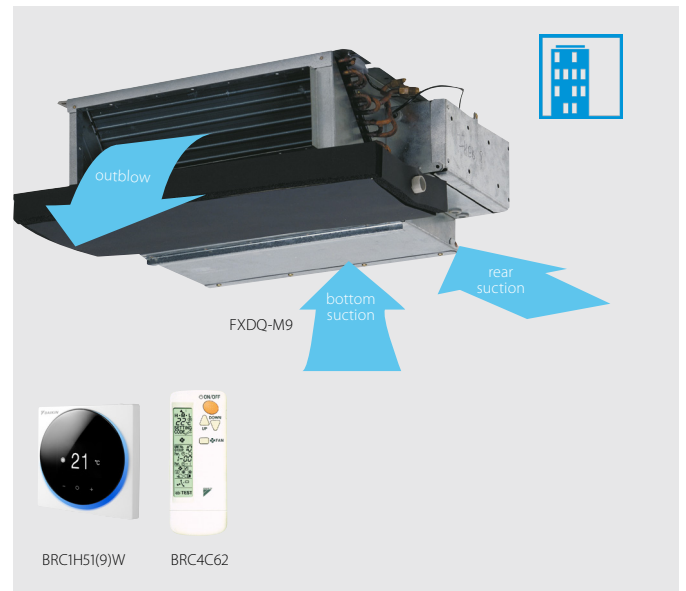
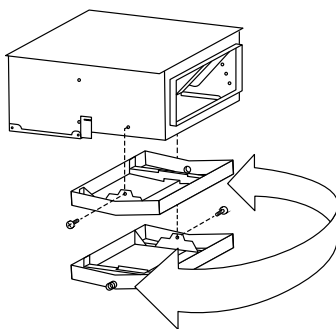
# Small concealed ceiling unit

## Designed for hotel applications

- > Compact unit (230mm high & 652mm deep), can easily be mounted in narrow ceiling voids
- > Discretely concealed in the ceiling: only the suction and discharge grilles are visible
- > Flexible installation, as the air suction direction can be altered from rear to bottom suction



- > For easy mounting, the drain pan can be located to the left or right of the unit



Indoor unit			FXDQ	20M9	25M9
Cooling capacity	Total capacity	Nom.	kW	2.20	2.80
Heating capacity	Total capacity	Nom.	kW	2.5	3.2
Power input - 50Hz	Cooling	Nom.	kW	0.050	0.050
	Heating	Nom.	kW	0.050	0.050
Required ceiling void >			mm	250	
Dimensions	Unit	HeightxWidthxDpeth	mm	230x502x652	
Weight	Unit			17	
Casing	Material	Galvanised steel			
Fan	Air flow rate	Cooling	Low/High	m <sup>3</sup> /min	5.2/6.7
	-50Hz	Heating	Low/High	m <sup>3</sup> /min	5.2/6.7
Air filter	Type	Resin net			
Sound power level	Cooling	Nom.	dB(A)	50	
Sound pressure level	Cooling	Low/High	dB(A)	32.0/37.0	32.0/37.0
	Heating	Low/High	dB(A)	32.0/37.0	32.0/37.0
Refrigerant	Type	R-410A			
Piping connections	Liquid	OD	mm	6.35	
	Gas	OD	mm	12.7	
	Drain	I.D. 21.6, O.D. 27.2			
Power supply	Phase/Frequency/Voltage	Hz/V			
		1~/50/230			
Current - 50Hz	Maximum fuse amps (MFA)	A			
		16			
Control systems	Wired remote control	BRC1H51(9)W/S/K / BRC1E53A/B/C / BRC1D52			

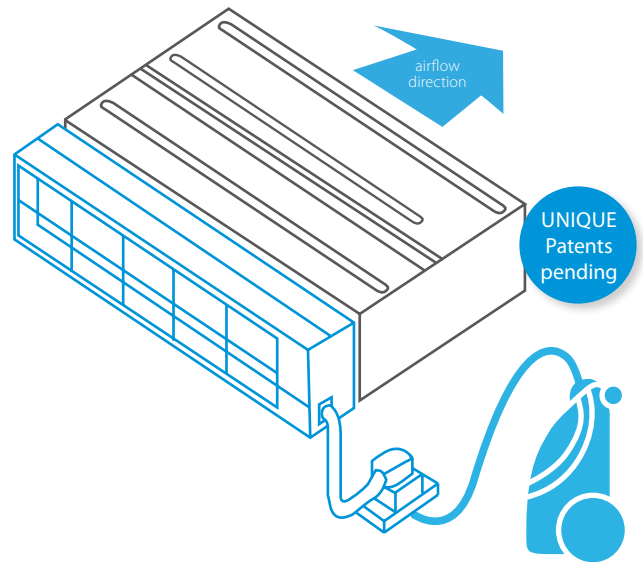
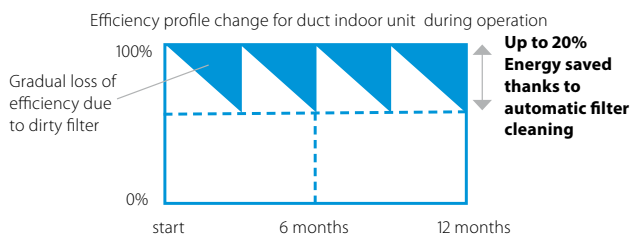
# Auto cleaning filter for concealed ceiling units



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



## How does it work?

- 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

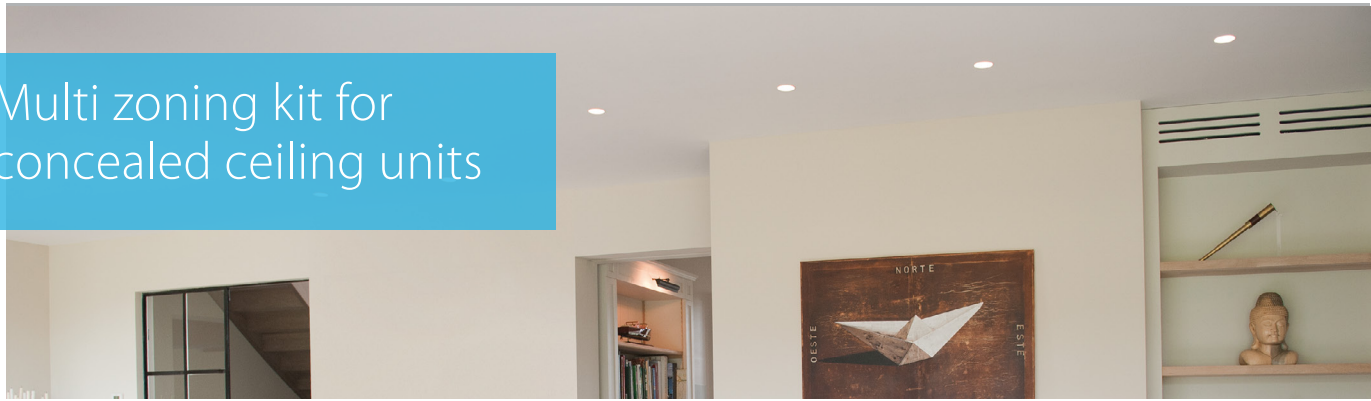
### Combination table

	Split / Sky Air				VRV						
	FDXM-F3				FXDQ-A3						
	25	35	50	60	15	20	25	32	40	50	63
BAE20A62	•	•			•	•	•	•			
BAE20A82									•	•	
BAE20A102			•	•							•

### Specifications

	BAE20A62	BAE20A82	BAE20A102
Height (mm)	212		
Width (mm)	764	964	1164
Width (mm) (incl. hanger bracket)	984	1094	1294
Depth (mm)	201		

# Multi zoning kit for concealed ceiling units



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.

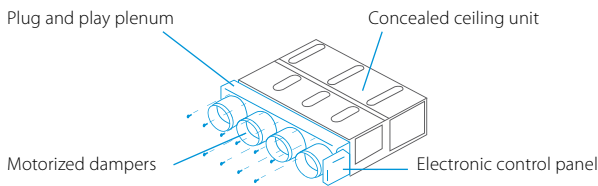
## Benefits

### Increased comfort

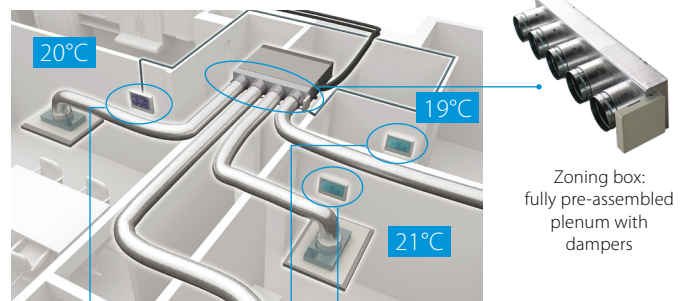
- › Increases comfort levels by allowing more individual zone control
  - Up to 8 individual zones can be served thanks to separate modulating dampers
  - Individual thermostat for room-by-room or zone-by-zone control

### 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?



### Individual zone thermostats

#### 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



AZCE6LITERB

## Compatibility

			SkyAir												VRV																									
			FDXM-F3				FBA-A				ADEQ-C				FXDQ-A3						FXSQ-A																			
Number of motorised dampers	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					
Standard Ceiling Void	2	AZEZ6DAIST07XS2	300 x 930 x 454					•	•																•	•	•	•												
		AZEZ6DAIST07S2	300 x 930 x 454					•	•																	•	•													
		AZEZ6DAIST07XS3	300 x 930 x 454																								•	•	•	•										
		AZEZ6DAIST07S3	300 x 930 x 454																								•	•												
		AZEZ6DAIST07S4	300 x 930 x 454																																					
		AZEZ6DAIST07M4	300 x 1,140 x 454																																					
		AZEZ6DAIST07M5	300 x 1,425 x 454																																					
		AZEZ6DAIST07L5	300 x 1,425 x 454																																					
		AZEZ6DAIST07M6	300 x 1,638 x 454																																					
		AZEZ6DAIST07L6	300 x 1,638 x 454																																					
Compact Ceiling Void	2	AZEZ6DAISL01S2	210 x 720 x 444	•	•																																			
		AZEZ6DAISL01S3	210 x 720 x 444	•	•																																			
		AZEZ6DAISL01M4	210 x 930 x 444																																					
		AZEZ6DAISL01M4	210 x 930 x 444																																					
		AZEZ6DAISL01L5	210 x 1,140 x 444																																					
		AZEZ6DAISL01L5	210 x 1,140 x 444																																					
		AZEZ6DAISL01L5	210 x 1,140 x 444																																					
		AZEZ6DAISL01L5	210 x 1,140 x 444																																					
		AZEZ6DAISL01L5	210 x 1,140 x 444																																					
		AZEZ6DAISL01L5	210 x 1,140 x 444																																					

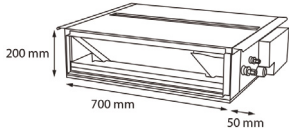


# Slim concealed ceiling unit

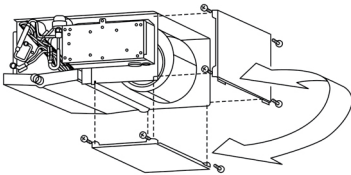
## Slim design for flexible installation

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

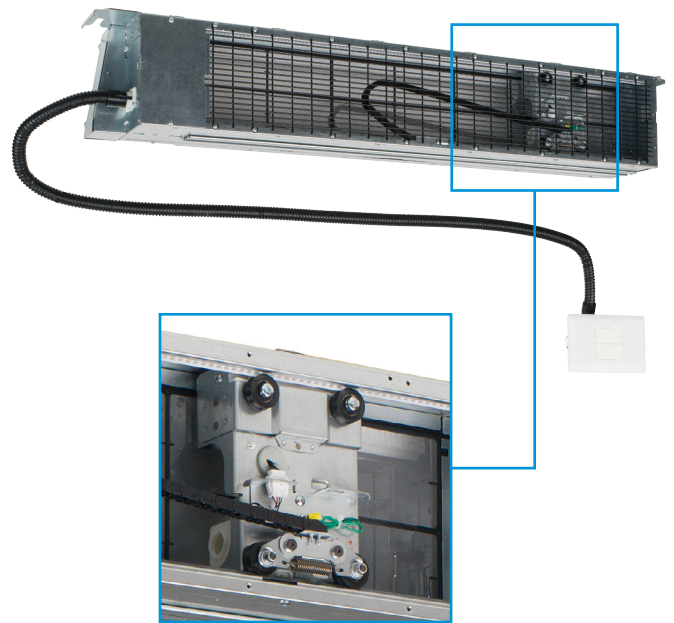
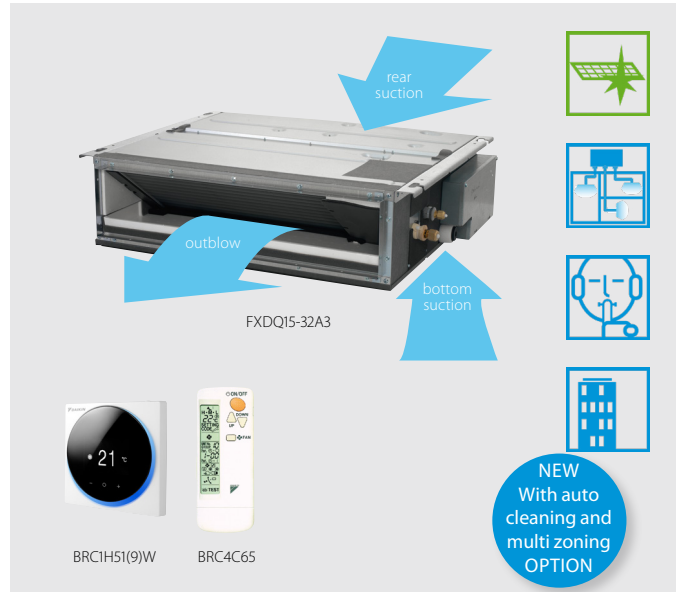
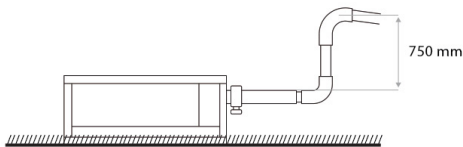
SERIE A (15, 20, 25, 32)



- › 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
- › 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
- › Reduced energy consumption thanks to specially developed DC fan motor
- › 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



Auto cleaning filter option

Indoor unit			FXDQ	15A3	20A3	25A3	32A3	40A3	50A3	63A3	
Cooling capacity	Total capacity	Nom.	kW	1.70	2.20	2.80	3.60	4.50	5.60	7.10	
	Heating capacity	Total capacity	Nom.	1.90	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
Required ceiling void >			mm	240							
Dimensions	Unit	HeightxWidthxDensity	mm	200x750x620				200x950x620		200x1,150x620	
Weight	Unit		kg	22.0				26.0		29.0	
Casing	Material			Galvanised steel							
Fan	Air flow rate - 50Hz	Cooling	Low/High	m <sup>3</sup> /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			
Air filter	Type			Removable / washable							
Sound power level	Cooling	High	dB(A)	50	51			52	53	54	
	Sound pressure level	Cooling	Low/Nom./High	dB(A)	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-410A/2,087.5							
Piping connections	Liquid	OD	mm	6,35			12.7		9,52		
	Gas	OD	mm	12.7			15.9				
	Drain			VP20 (I.D. 20/O.D. 26)							
Power supply	Phase/Frequency/Voltage		Hz/V	1~/50/60/220-240/220							
Current - 50Hz	Maximum fuse amps (MFA)		A	16							
Control systems	Infrared remote control			BRC1H51(9)W/S/K / BRC1E53A/B/C / BRC1D52							
	Wired remote control			BRC1D528 / BRC1E51							

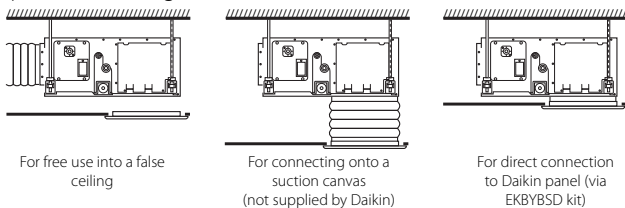
# Concealed ceiling unit with medium ESP

Slimmest yet most powerful medium static pressure unit on the market

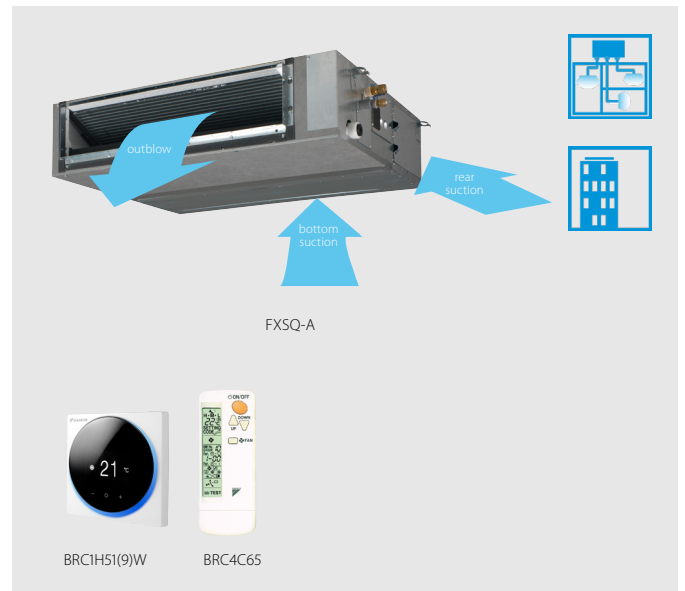
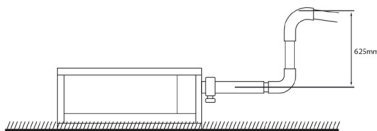
- > Slimmest unit in class, only 245mm (300mm built-in height) and therefore narrow ceiling voids are no longer a challenge



- > 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
- > Reduced energy consumption thanks to specially developed DC fan motor and drain pump
- > 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



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



**NEW**  
Multizoning  
kit

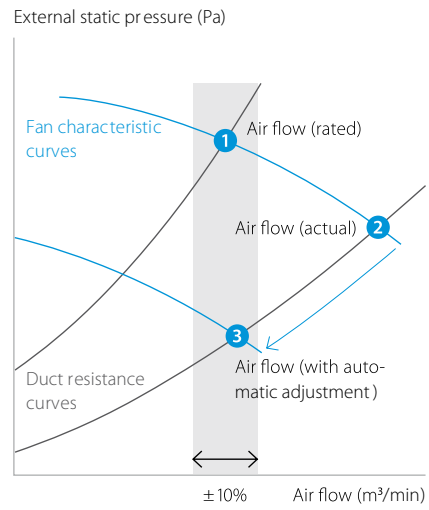
# Automatic Airflow Adjustment function

Automatically selects the most appropriate fan curve to achieve the units' nominal air flow within ±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



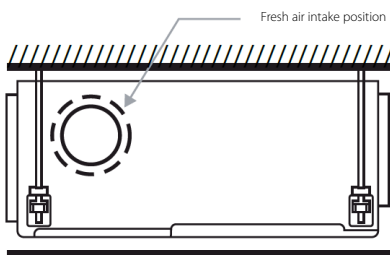
Indoor unit			FXSQ	15A	20A	25A	32A	40A	50A	63A	80A	100A	125A	140A		
Cooling capacity	Total capacity	Nom.	kW	1.70	2.20	2.80	3.60	4.50	5.60	7.10	9.00	11.20	14.00	16.00		
Heating capacity	Total capacity	Nom.	kW	1.90	2.50	3.20	4.00	5.00	6.30	8.00	10.0	12.5	16.0	18.0		
Power input - 50Hz	Cooling	Nom.	kW	0.090			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	HeightxWidthxDepth	mm	245x550x800				245x700x800			245x1,000x800		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			Galvanised steel plate												
Fan	Air flow rate - 50Hz	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	
		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 pressure - 50Hz		Nom./High	Pa	30/150							40/150		50/150		
Air filter	Type			Resin net												
Sound power level	Cooling	High	dB(A)	54			55	60		59	61		64			
Sound pressure level	Cooling	Low/Nom./High	dB(A)	25.0/28.0/29.5	25.0/28.0/30.0		26.0/29.0/31.0	29.0/32.0/35.0		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/Nom./High	dB(A)	26.0/29.0/31.5	26.0/29.0/32.0		27.0/30.0/33.0	29.0/34.0/37.0		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/2,087.5												
Piping connections	Liquid	OD	mm	6.35							9.52					
	Gas	OD	mm	12.7							15.9					
	Drain			VP20 (I.D. 20/O.D. 26), drain height 625 mm												
Power supply	Phase/Frequency/Voltage		Hz/V	1~/50/60/220-240/220												
Current - 50Hz	Maximum fuse amps (MFA)		A	16												
Control systems	Infrared remote control			BRC4C65												
	Wired remote control			BRC1H51(9)W/S/K / BRC1E53A/B/C / BRC1D52												
	Simplified wired remote control for hotel applications			BRC2E52C (heat recovery type) / BRC3E52C (heat pump type)												

# Concealed ceiling unit with high ESP

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

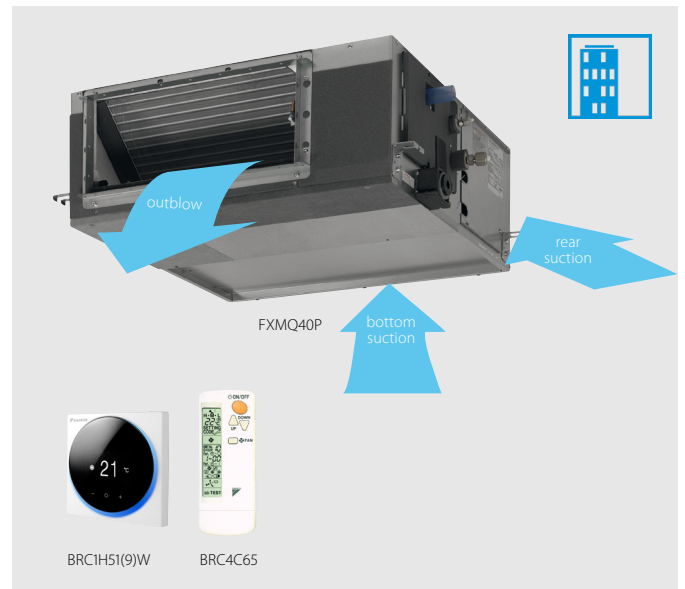
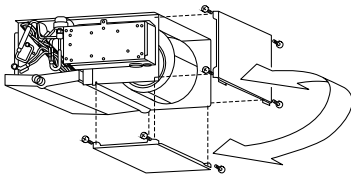
- › Possibility to change ESP via wired remote control allows optimisation of the supply air volume
- › High external static pressure up to 200Pa facilitates extensive duct and grille network
- › Discretely concealed in the wall: only the suction and discharge grilles are visible
- › Reduced energy consumption thanks to specially developed DC fan motor
- › 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

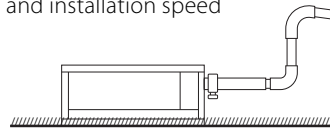


\* Brings in up to 10% of fresh air into the room

- › 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
- › Reduced energy consumption thanks to specially developed DC fan motor

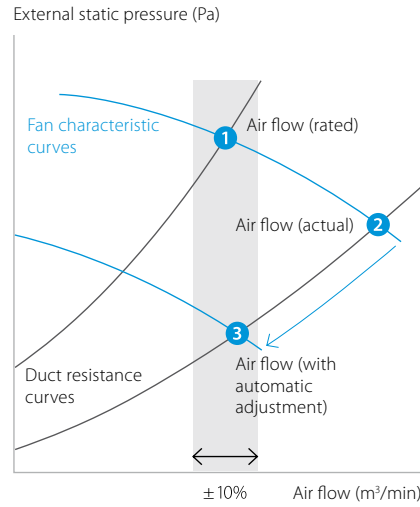
# Automatic Airflow Adjustment function

Automatically selects the most appropriate fan curve to achieve the units' nominal air flow within ±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



Indoor unit			FXMQ/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	
Heating capacity	Total capacity	Nom.	kW	6.3	8.0	10.0	12.5	16.0	25.0	31.5	
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	HeightxWidthxD	mm	300x1,000x700			300x1,400x700		470x1,380x1,100		
Weight	Unit			35			46		132		
Casing	Material	Galvanised steel plate									
Decoration panel	Model				BYBS71DJW1			BYBS125DJW1			
	Colour	White (10Y9/0.5)									
	Dimensions	HeightxWidthxD	mm	55x1,100x500			55x1,500x500		-x-x-		
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
		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./High	Pa	100/200					160/270	170/270	
	Air filter	Type	Resin net								
Sound power level	Cooling	Nom./High	dB(A)	-/61.0	-/64.0	-/67.0	-/65.0	-/70.0	75/76		
Sound pressure level	Cooling	Low/Nom./High	dB(A)	37.0/39.0/41.0	38.0/40.0/42.0	39.0/41.0/43.0		40.0/42.0/44.0		45/-/48	
	Heating	Low/Nom./High	dB(A)	37.0/39.0/41.0	38.0/40.0/42.0	39.0/41.0/43.0		40.0/42.0/44.0		-/-	
Refrigerant	Type/GWP	R-410A/-									
Piping connections	Liquid	OD	mm	6,35				9,52	9,52		
	Gas	OD	mm	12,7				15,9	19,1	22,2	
	Drain	VP25 (I.D. 25/O.D. 32)									
Power supply	Phase/Frequency/Voltage			1~/50/60/220-240/220 +/-10%					PS1B		
Current - 50Hz	Maximum fuse amps (MFA)			16							
Control systems	Infrared remote control	BRC4C65									
	Wired remote control	BRC1H51(9)W/S/K / BRC1E53A/B/C / BRC1D52									
	Simplified wired remote control for hotel applications	BRC2E52C (heat recovery type) / BRC3E52C (heat pump type)									

# 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
- › Reduced energy consumption thanks to specially developed DC fan motor
- › 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



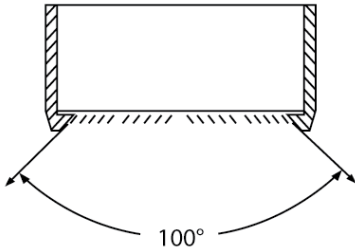
New design

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	HeightxWidthxDepth	mm	290x795x266				290x1,050x269			
Weight	Unit		kg	12				15			
Fan	Air flow rate - 50Hz	Cooling	Low/High	m <sup>3</sup> /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	dB(A)	51.0	52.0	53.0	55.0		58.0	63.0	
Sound pressure level	Cooling	Low/High	dB(A)	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	dB(A)	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	12.7						15.9	
	Drain			VP13 (I.D. 15/O.D. 18)							
Power supply	Phase/Frequency/Voltage		Hz/V	1~/50/220-240							
Current - 50Hz	Maximum fuse amps (MFA)		A	16							
Control systems	Infrared remote control			BRC7EA628 / BRC7EA629							
	Wired remote control			BRC1H51(9)W/S/K / BRC1E53A/B/C / BRC1D52							

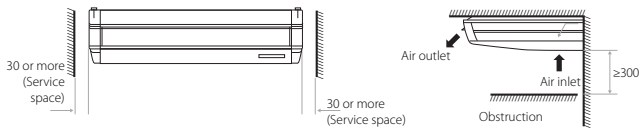
# Ceiling suspended unit

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



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	HeightxWidthxDepth		mm		235x1,270x690		235x1,590x690	
Weight	Unit			kg		24		33	
Casing	Material		Resin						
Fan	Air flow rate - 50Hz	Cooling	Low/High	m <sup>3</sup> /min		10.0/14.0		14.0/20.0	
		Heating	Low/High	m <sup>3</sup> /min		10.0/14.0		14.0/20.0	
Air filter	Type		Resin net						
Sound power level	Cooling	Nom./High	dB(A)	52/54		53/55		55/62	
Sound pressure level	Cooling	Low/Nom./High	dB(A)	31.0/34.0/36.0		34.0/35.0/37.0		34.0/37.0/44.0	
	Heating	Low/Nom./High	dB(A)	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				9.52	
	Gas	OD	mm	12.7				15.9	
	Drain			VP20 (I.D. 20/O.D. 26)					
Power supply	Phase/Frequency/Voltage		Hz/V	1~/50/220-240					
Current - 50Hz	Maximum fuse amps (MFA)		A	16					
Control systems	Infrared remote control		BRC7G53						
	Wired remote control		BRC1H51(9)W/S/K / BRC1E53A/B/C / BRC1D52						
	Simplified wired remote control for hotel applications		BRC2E52C (heat recovery type) / BRC3E52C (heat pump type)						

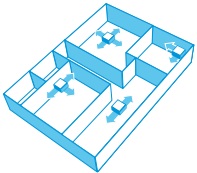




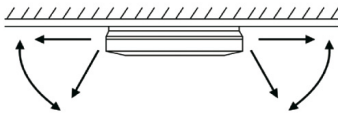
# 4-way blow ceiling suspended unit

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

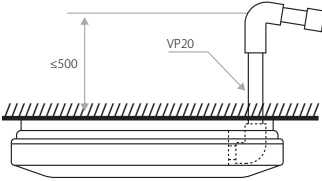
- > Even rooms with ceilings up to 3.5m can be heated up or cooled down very easily without capacity loss
- > Can easily be installed in both new and refurbishment projects
- > Individual flap control: flexibility to suit every room layout without changing the location of the unit!



- > Reduced energy consumption thanks to specially developed small tube heat exchanger, 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
- > 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	HeightxWidthxDepth	mm	198x950x950		
Weight	Unit		kg	26	27	
Casing	Material			Resin		
Fan	Air flow rate - 50Hz	Cooling	Low/High	m <sup>3</sup> /min	16.0/22.5	21.0/31.0
		Heating	Low/High	m <sup>3</sup> /min	16.0/22.5	21.0/31.0
Air filter	Type			Resin net		
Sound power level	Cooling	Nom./High	dB(A)	56/58	62/65	
Sound pressure level	Cooling	Low/Nom./High	dB(A)	36.0/38.0/40.0	40.0/44.0/47.0	
	Heating	Low/Nom./High	dB(A)	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/Frequency/Voltage		Hz/V	1~/50/60/220-240/220-230		
Current - 50Hz	Maximum fuse amps (MFA)		A	16		
Control systems	Infrared remote control			BRC7C58		
	Wired remote control			BRC1H51(9)W/S/K / BRC1E53A/B/C / BRC1D52		
	Simplified wired remote control for hotel applications			BRC2E52C (heat recovery type) / BRC3E52C (heat pump type)		

# 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



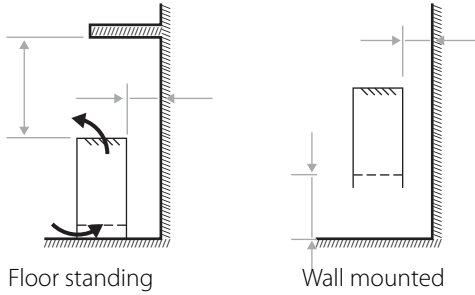
- › Its low height (620 mm) enables the unit to fit perfectly beneath a window
- › High ESP allows flexible installation

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	HeightxWidthxDepth		mm	620 / 720 x790x200			620 / 720 x990x200	620 / 720 x1,190x200		
Weight	Unit			kg	23.5			27.5	32.0		
Casing	Material		Galvanised steel plate								
Fan	Air flow rate	Cooling	Low/High	m <sup>3</sup> /min	6.4/8.0			10.0/12.5	13.0/16.5		
		Heating	Low/High	m <sup>3</sup> /min	6.4/8.0			8.5/10.5	10.0/12.5	13.0/16.5	
	External static pressure - 50Hz		Nom./High	Pa	10/41.0	10/42.0	15/52.0	15/59.0	15/55.0		
Air filter	Type		Resin net								
Sound power level	Cooling	High	dB(A)	51			52	53	54		
		Sound pressure level	Cooling	Low/Nom./High	dB(A)	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./High	dB(A)	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/Voltage		Hz/V	1~/50/60/220-240/220							
Current - 50Hz	Maximum fuse amps (MFA)		A	16							
Control systems	Infrared remote control		BRC4C65								
	Wired remote control		BRC1H51(9)W/S/K / BRC1E53A/B/C / BRC1D52								
	Simplified wired remote control for hotel applications		BRC2E52C (heat recovery type) / BRC3E52C (heat pump type)								

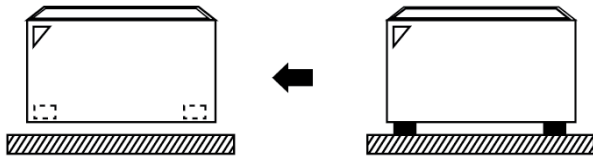
# Floor standing unit

## 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

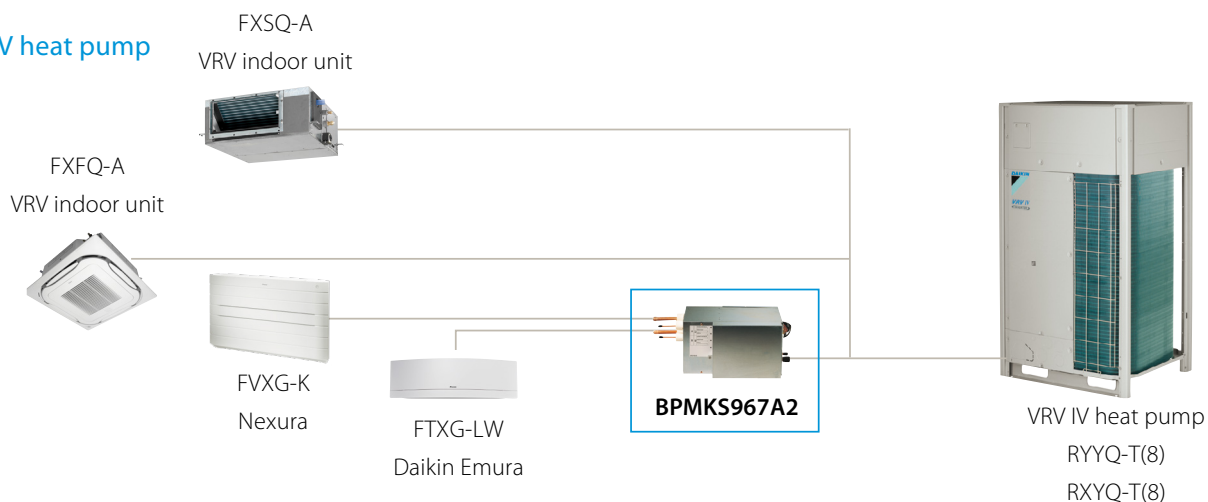


Indoor unit				FXLQ	20P	25P	32P	40P	50P	63P
Cooling capacity	Total capacity	Nom.		kW	2.2	2.8	3.6	4.5	5.6	7.1
Heating capacity	Total capacity	Nom.		kW	2.5	3.2	4.0	5.0	6.3	8.0
Power input - 50Hz	Cooling	Nom.		kW	0.05		0.09		0.11	
	Heating	Nom.		kW	0.05		0.09		0.11	
Dimensions	Unit	HeightxWidthxDpeth		mm	600x1,000x232		600x1,140x232		600x1,420x232	
Weight	Unit			kg	27		32		38	
Fan	Air flow rate - 50Hz	Cooling	Low/High	m <sup>3</sup> /min	6.0/7		6.0/8	8.5/11	11.0/14	12.0/16
Air filter	Type				Resin net					
Sound power level	Cooling	High		dB(A)	54		57		58	59
Sound pressure level	Cooling	Low/High		dB(A)	32/35		33/38		34/39	35/40
	Heating	Low/High		dB(A)	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 (Vinyl chloride)					
Power supply	Phase/Frequency/Voltage			Hz/V	1~/50/60/220-240/220					
Current - 50Hz	Maximum fuse amps (MFA)			A	15					
Control systems	Infrared remote control				BRC4C65					
	Wired remote control				BRC1H51(9)W/S/K / BRC1E53A/B/C / BRC1D52					
	Simplified wired remote control for hotel applications				BRC2E52C (heat recovery type) / BRC3E52C (heat pump type)					

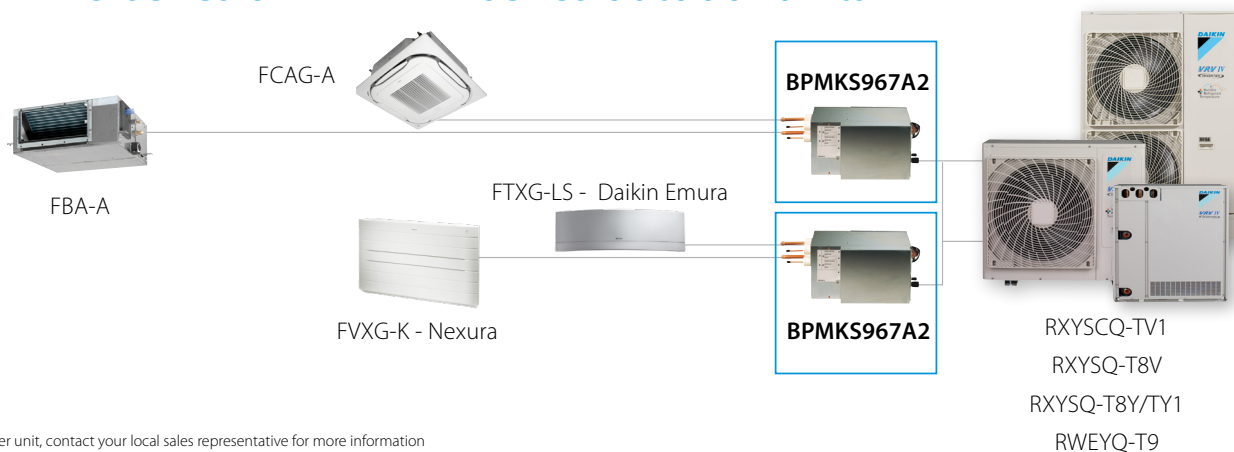
# VRV heatpump combined with stylish indoor units

Combine VRV indoor units with stylish indoor units

on a VRV IV heat pump



Connect only stylish indoor units to VRV IV S-series or VRV IV W-series outdoor units



> \* 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



Branch provider			BPMKS967A2	BPMKS967A2
Connectable indoor units			1~2	1~3
Max. indoor unit connectable capacity			14.2	20.8
Max. connectable combination			71+71	60+71+71
Dimensions	Height x Width x Depth	mm	180x294x350	
Weight		kg	7	8

# Daikin Emura Form. Function. Redesigned



## Why choose Daikin Emura?

- Unique **design**. Designed in Europe for Europe.
- High seasonal **efficiency**, further improved by energy saving techniques like weekly timer and intelligent eye.
- Optimal **comfort** thanks to advanced technologies e.g. 2-area intelligent eye, whisper quiet operation and online controller.



## Benefits

- › A remarkable blend between iconic design and engineering excellence
- › Stylish design in matt crystal white and silver
- › Whisper quiet with sound levels down to 19 dBA
- › Horizontal and vertical autoswing
- › 2-area intelligent eye saves energy by reducing the set point if nobody is present and directs airflow away from people, thus avoiding cold draught
- › Weekly timer
- › Online controller: Always in control no matter where you are



## 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 white
- › 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
- › Online controller (optional): 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		FTXG	20LW	20LS	25LW	25LS	35LW	35LS	50LW	50LS	
Dimensions	Unit	HeightxWidthxDepth	mm								
			303x998x212								
Weight	Unit		kg								
			12								
Air filter	Type		Removable / washable / mildew proof								
Fan - Air flow rate	Cooling	High/Low/Silent operation	m <sup>3</sup> /min				8.9/4.4/2.6		10.9/4.8/2.9		10.9/6.8/3.6
	Heating	High/Low/Silent operation	m <sup>3</sup> /min		10.2/6.3/3.8		11.0/6.3/3.8		12.4/6.9/4.1		12.6/8.1/5.0
Sound power level	Cooling		dBA		54		59		60		
	Heating		dBA		56		59		60		
Sound pressure level	Cooling	High/Low/Silent operation	dBA				38/25/19		45/26/20		46/35/25
	Heating	High/Low/Silent operation	dBA		40/28/19		41/28/19		45/29/20		47/35/25
Control systems	Infrared remote control		ARC466A1								
Power supply	Phase / Frequency / Voltage	Hz / V	1~ / 50 / 220-240								

(1) EER/COP according to Eurovent 2012, for use outside EU only.

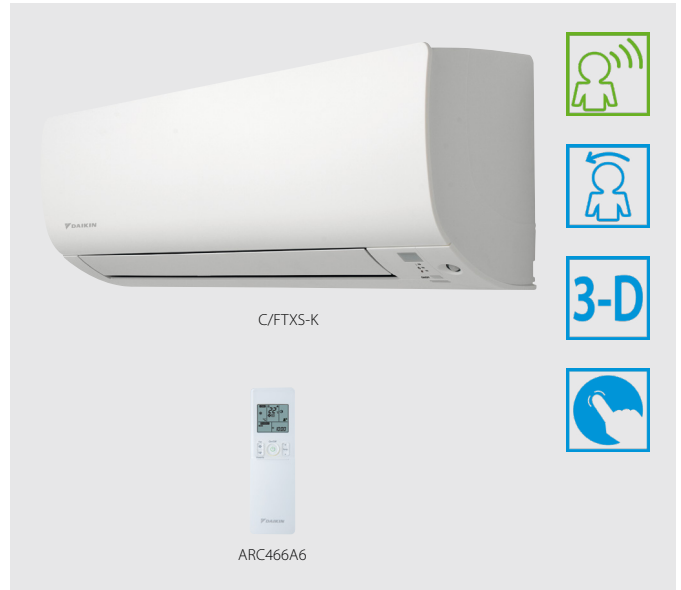
(2) MFA is used to select the circuit breaker and the ground fault circuit interrupter (earth leakage circuit breaker). For more detailed information on each combination, please refer to the electrical data drawing.



## Wall mounted unit

Discreet, modern design for optimal efficiency and comfort thanks to 2 area intelligent eye

- › Discreet, modern design. Its smooth curve blends beautifully with the wall resulting in an unobtrusive presence that matches all interior décors.
- › High quality matt crystal white finish
- › Whisper quiet in operation: the operating of the unit can hardly be heard. The sound pressure level goes down to 19dBA!
- › Ideal for installation in bedrooms (20,25 class) and larger or irregular shaped living areas (35,42,50 class)
- › 2 area intelligent eye: air flow is sent to a zone other than where the person is located at that moment; if no people are detected, the unit will automatically switch over to the energy-efficient setting (FTXS35,42,50K)
- › Online controller (optional): control your indoor from any location with an app, via your local network or internet



Indoor unit		FTXS	CTXS15K	CTXS35K	20K	25K	35K	42K	50K	60G	71G	
Dimensions	Unit	HeightxWidthxDepth	mm	289x780x215			298x900x215			290x1,050x250		
Weight	Unit		kg	8			11			12		
Air filter	Type			Removable / washable / mildew proof								
Fan - Air flow rate	Cooling	High/Low/Silent operation	m <sup>3</sup> /min	7.9/4.7/3.9	9.2/5.2/3.9	8.8/4.7/3.9	9.1/5.0/3.9	11.2/5.8/4.1	11.2/7.0/4.1	11.9/7.4/4.5	16.0/11.3/10.1	17.2/11.5/10.5
	Heating	High/Low/Silent operation	m <sup>3</sup> /min	9.0/6.0/4.3	10.1/6.3/4.3	9.5/6.0/4.3	10.0/6.0/4.3	12.1/6.5/4.2	12.4/7.8/5.2	13.3/8.4/5.5	17.2/12.6/11.3	19.5/14.2/12.6
Sound power level	Cooling		dBA	55	59	58		59	60		63	
	Heating		dBA	56	58			59	60	59	62	
Sound pressure level	Cooling	High/Low/Silent operation	dBA	37/25/21	42/28/21	40/24/19	41/25/19	45/29/19	45/33/21	46/34/23	45/36/33	46/37/34
	Heating	High/Low/Silent operation	dBA	38/28/21	41/30/21	40/27/19	41/27/19	45/29/19	45/33/22	47/34/24	44/35/32	46/37/34
Control systems	Infrared remote control			ARC466A6				ARC466A9		ARC452A3		
Power supply	Phase / Frequency / Voltage		Hz / V	1~ / 50 / 220-240								

(1) EER/COP according to Eurovent 2012, for use outside EU only (2) When connected with multi-system outdoor unit, refer to the specifications of the multi outdoor unit to be connected. (3) MFA is used to select the circuit breaker and the ground fault circuit interrupter (earth leakage circuit breaker). For more detailed information on each combination, please refer to the electrical data drawing.



The best of two worlds united

# Pure comfort and design



## Why choose Nexura?

- Unique radiant heat panel that heats up just like a traditional radiator
- Whisper quiet operation down to 19 dBA
- Unobtrusive yet stylish design
- Reduced air flow, creating an even distribution of air through the room

### Comfort is key

Nexura makes your world a comfortable one. The coolness of a summer breeze or the cosiness of an extra heat source brings a feeling of well-being to your living space all year round. Its unobtrusive yet stylish design with a front panel that radiates additional heat, its low noise level and reduced air flow turn your room into a haven.

### Radiant heat panel

To add even more comfort on cold days, the aluminium front panel of the Nexura unit has the capability of warming up, just like a traditional radiator. The result? A comfortable feeling of warm air that envelopes you. And all you have to do to activate this unique feature is push the "radiant" button on your remote control.

## Benefits

- > Vertical autoswing
- > Weekly timer
- > Guaranteed operation down to -25°C (with RXLG-M)

### Online controller

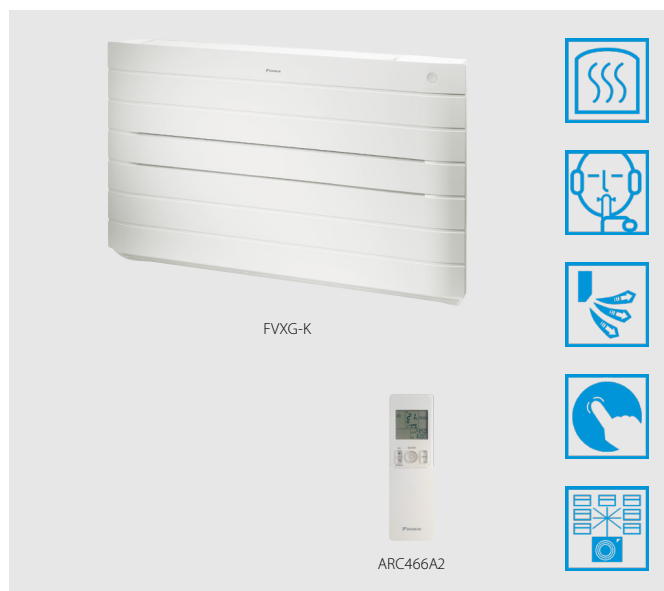
Always in control, no matter where you are. Control your indoor from any location with an app, via your local network or internet.



## 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	600x950x215			
Weight	Unit		22			
Air filter	Type		Removable / washable / mildew proof			
Fan - Air flow rate	Cooling	High/Low/Silent operation	m <sup>3</sup> /min	8.9/5.3/4.5	9.1/5.3/4.5	10.6/7.3/6.0
	Heating	High/Low/Silent operation	m <sup>3</sup> /min	9.9/5.7/4.7	10.2/5.8/5.0	12.2/7.8/6.8
Sound power level	Cooling		dB(A)	52		58
	Heating		dB(A)	53		60
Sound pressure level	Cooling	High/Low/Silent operation	dB(A)	38/26/23	39/27/24	44/36/32
	Heating	High/Low/Silent operation/Radiant heat	dB(A)	39/26/22/19	40/27/23/19	46/34/30/26
Control systems	Infrared remote control		ARC466A2			
Power supply	Phase / Frequency / Voltage		Hz / V			
			1~ / 50 / 220-240			

(1) EER/COP according to Eurovent 2012, for use outside EU only

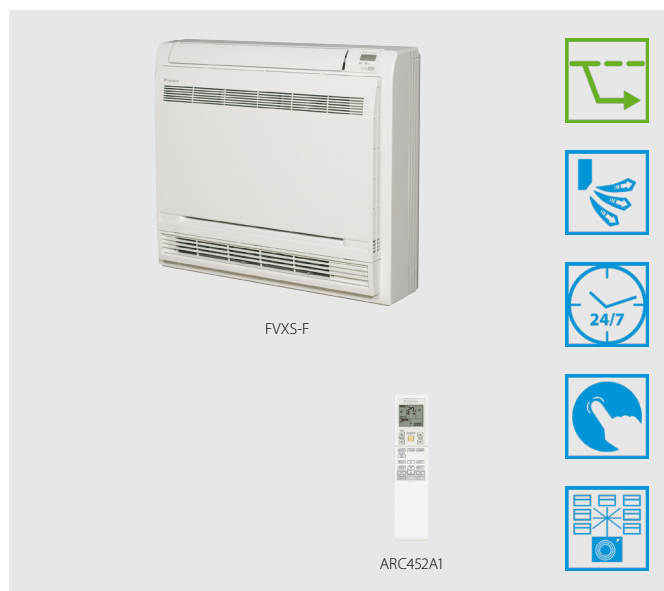
(2) MFA is used to select the circuit breaker and the ground fault circuit interrupter (earth leakage circuit breaker). For more detailed information on each combination, please refer to the electrical drawing.

(3) Operation range in combination with Nexura, FVXG-K, cooling: min. 10°CDB - max. 46°CDB; heating: min. -15°CWB - max. 18°CWB

## 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		FVXS		25F	35F	50F
Dimensions	Unit	HeightxWidthxDepth	mm	600x700x210		
Weight	Unit		kg	14		
Air filter	Type			Removable / washable / mildew proof		
Fan - Air flow rate	Cooling	High/Low/Silent operation	m <sup>3</sup> /min	8.2/4.8/4.1	8.5/4.9/4.5	10.7/7.8/6.6
	Heating	High/Low/Silent operation	m <sup>3</sup> /min	8.8/5.0/4.4	9.4/5.2/4.7	11.8/8.5/7.1
Sound power level	Cooling		dBA	52		60
	Heating		dBA	52		60
Sound pressure level	Cooling	High/Low/Silent operation	dBA	38/26/23	39/27/24	44/36/32
	Heating	High/Low/Silent operation	dBA	38/26/23	39/27/24	45/36/32
Control systems	Infrared remote control			ARC452A1		
Power supply	Phase / Frequency / Voltage		Hz / V	1~ / 50 / 220-240		

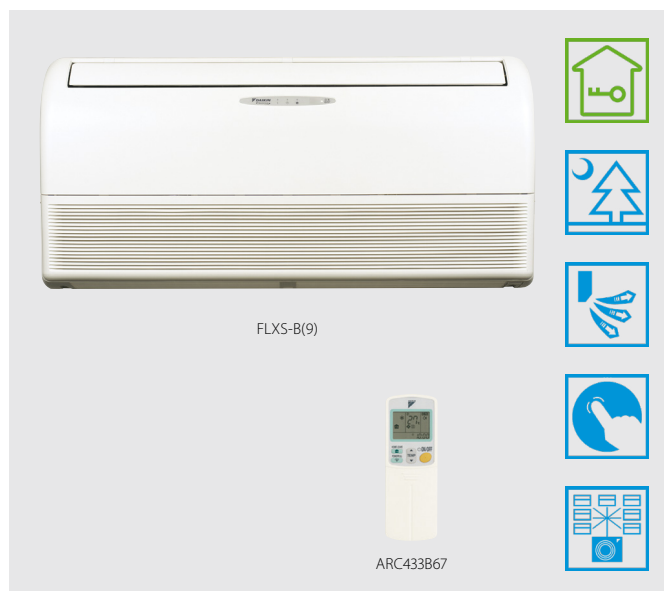
(1) EER/COP according to Eurovent 2012, for use outside EU only.

(2) MFA is used to select the circuit breaker and the ground fault circuit interrupter (earth leakage circuit breaker). For more detailed information on each combination, please refer to the electrical data drawing.

## Flexi type unit

Flexible unit, ideal for rooms without false ceiling, can fit on either ceiling or wall

- › Can fit on either ceiling or lower wall; its low height enables the unit to fit beneath a window
- › Vertical auto swing moves the discharge flaps up and down for efficient air and temperature distribution throughout the room
- › Home leave operation maintains the indoor temperature at your specified comfort level during absence, thus saving energy
- › Online controller (optional): control your indoor from any location with an app, via your local network or internet



Indoor unit		FLXS	25B	35B9	50B	60B	
Dimensions	Unit	HeightxWidthxDepth	490x1,050x200				
Weight	Unit	kg	16		17		
Air filter	Type		Removable / washable / mildew proof				
Fan - Air flow rate	Cooling	High/Low/Silent operation	m <sup>3</sup> /min	7.6/6.0/5.2	8.6/6.6/5.6	11.4/8.5/7.5	12.0/9.3/8.3
	Heating	High/Low/Silent operation	m <sup>3</sup> /min	9.2/7.4/6.6	12.8/8.0/7.2	12.1/7.5/6.8	12.8/8.4/7.5
Sound power level	Cooling		dBA	51	53	60	
	Heating		dBA	51	59	-	59
Sound pressure level	Cooling	High/Low/Silent operation	dBA	37/31/28	38/32/29	47/39/36	48/41/39
	Heating	High/Low/Silent operation	dBA	37/31/29	46/33/30	46/35/33	47/37/34
Control systems	Infrared remote control		ARC433B67				
Power supply	Phase / Frequency / Voltage	Hz / V	1~ / 50/60 / 220-240/220-230	1~ / 50 / 220-240	1~ / 50/60 / 220-240/220-230	1~ / 50 / 230	

(1) EER/COP according to Eurovent 2012, for use outside EU only. (2) MFA is used to select the circuit breaker and the ground fault circuit interrupter (earth leakage circuit breaker). For more detailed information on each combination, please refer to the electrical data drawing.



## Hot water



Efficient hot water production for underfloor heating, radiators and air handling units, or for producing hot water for sinks, baths and showers. Integrating heat recovery into the VRV system means that the production of hot water is virtually free.

# Hot water

Low temperature hydrobox	
HXY-A8	133
High temperature hydrobox	
HXHD-A8	134
<b>NEW</b> Accessories for hot water	135

## Hydrobox range

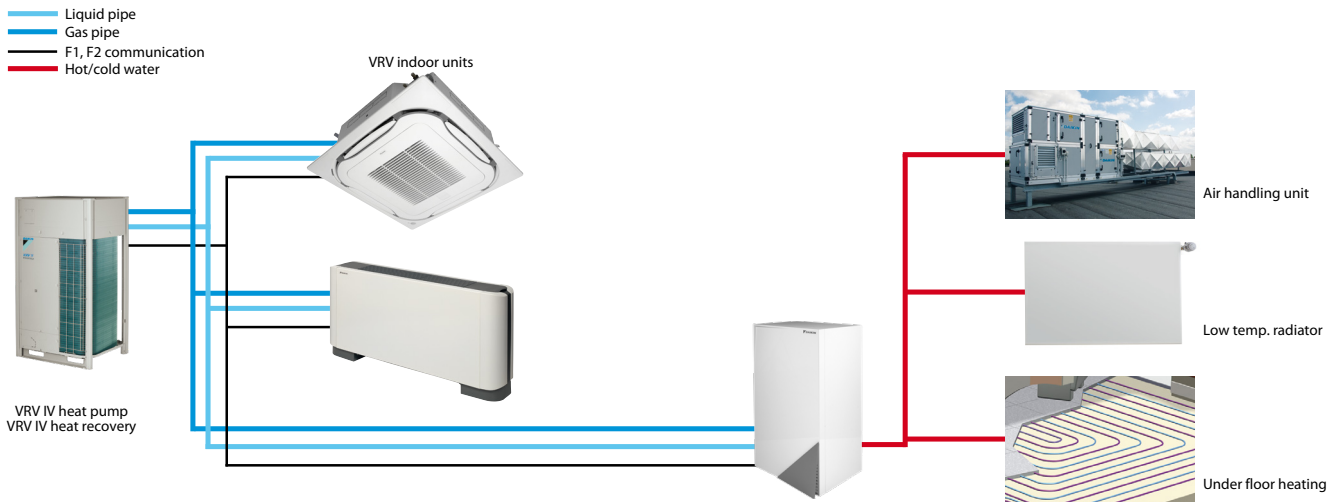
Capacity class (kW)

Type	Product name	Model	80	125	200	Leaving water temperature range
Low temperature hydrobox	HXY-A8	 <p><b>For high efficiency space heating and cooling</b></p> <ul style="list-style-type: none"> <li>&gt; Ideal for hot or cold water in underfloor, air handling units, low temperature radiators ...</li> <li>&gt; Hot/cold water from 5° to 45°C</li> <li>&gt; Large operation range (down to -20°C and up to 43°C)</li> <li>&gt; Fully integrated water-side components save time on system design</li> <li>&gt; Space saving contemporary wall hung design</li> </ul>	●	●		5 °C - 45 °C
High temperature hydrobox	HXHD-A8	 <p><b>For efficient hot water production and space heating</b></p> <ul style="list-style-type: none"> <li>&gt; Ideal for hot water in bathrooms, sinks and for underfloor heating, radiators, air handling units, ...</li> <li>&gt; Hot water from 25 to 80°C</li> <li>&gt; "Free" heating and hot water through heat recovery</li> <li>&gt; Uses heat pump technology to produce hot water efficiently, providing up to 17% savings compared to a gas boiler</li> <li>&gt; Possibility to connect thermal solar collectors</li> </ul>		●	●	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 hung design
- › No gas connection or oil tank needed
- › Connectable to VRV IV heat pump and heat recovery



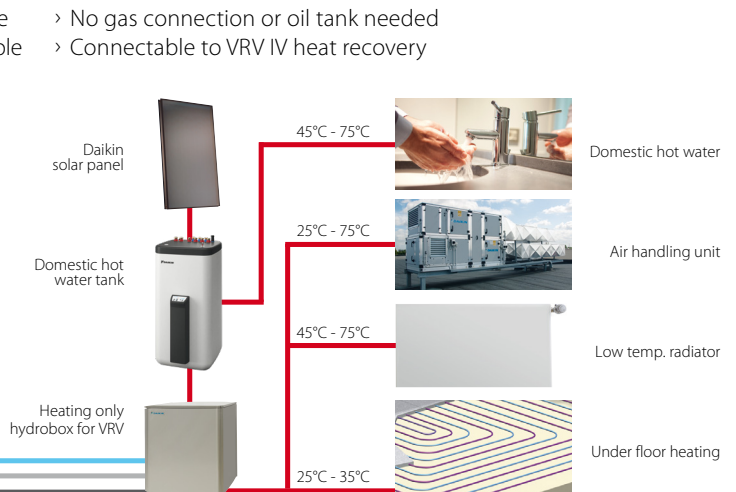
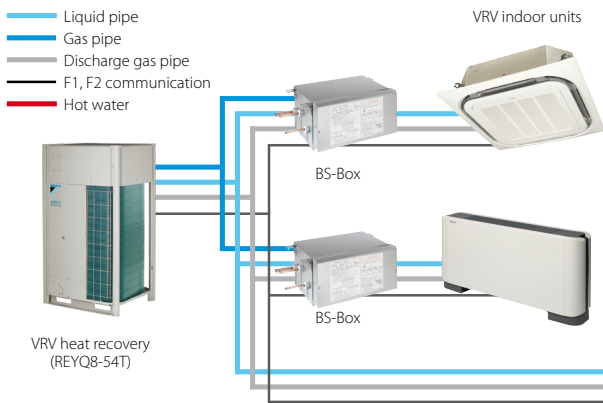
Indoor Unit		HXY		080A8		125A8	
Cooling capacity	Nom.			kW		8.0 (1)	
Heating capacity	Nom.			kW		9.00 (2)	
Dimensions	Unit	HeightxWidthxDepth		mm		890x480x344	
Weight	Unit			kg		44	
Casing	Colour					White	
	Material					Precoated sheet metal	
Sound pressure level	Nom.			dBA		-	
Operation range	Heating	Ambient	Min.~Max.	°C		-20~24	
			Water side	Min.~Max.	°C		25~45
	Domestic hot water	Ambient	Min.~Max.	°CDB		---	
			Water side	Min.~Max.	°C		---
Refrigerant	Type					R-410A	
	GWP					2,087.5	
Refrigerant circuit	Gas side diameter			mm		15.9	
	Liquid side diameter			mm		9.5	
Water circuit	Piping connections diameter			inch		G 1"1/4 (female)	
Power supply	Phase/Frequency/Voltage			Hz/V		1~/50/220-240	
Current	Recommended fuses			A		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) (3) Flow switch setting

# 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

**NEW**

Indoor Unit		HXHD	125A8	200A8
Heating capacity	Nom.	kW	14.0	22.4
Casing	Colour			Metallic grey
	Material			Precoated sheet metal
Dimensions	Unit	HeightxWidthxDepth	705x600x695	
Weight	Unit		92	147
Operation range	Heating	Ambient	-20~-20 / 24 (1)	
		Water side	25~80	
	Domestic hot water	Ambient	-20~43	
		Water side	45~75	
Refrigerant	Type		R-134a	
	Charge		2	2.6
		TCO <sub>2eq</sub>	2.9	3.7
GWP			1,430.0	
Sound power level	Nom.	dB(A)	55 (2)	-
Sound pressure level	Nom.	dB(A)	42 (2) / 43 (3)	46
	Night quiet mode	Level 1	38 (2)	45
			12.7	15.9
Refrigerant circuit	Gas side diameter	mm	9.52	
	Liquid side diameter	mm		
Water circuit	Piping connections diameter	inch	G 1" (female)	
	Heating water system	Water volume	200~20	400~20
	Max.~Min.			
Power supply	Phase/Frequency/Voltage	Hz/V	1~/50/220-240	
Current	Recommended fuses	A	20	-

(1) Field setting (2) Sound levels are measured at: EW 55°C; LW 65°C (3) Sound levels are measured at: EW 70°C; LW 80°C



# 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		EKHWP	300B	500B	
Casing	Colour		Traffic white (RAL9016) / Dark grey (RAL7011)		
	Material		Impact resistant polypropylene		
Dimensions	Unit	Width	595	790	
		Depth	615	790	
Weight	Unit	Empty	58	82	
	Tank	Water volume	294	477	
	Tank	Material	Polypropylen		
		Maximum water temperature	85 °C		
		Insulation Heat loss	1.5 kWh/24h	1.7	
		Energy efficiency class	B		
		Standing heat loss	64 W	72	
		Storage volume	294 l	477	
	Heat exchanger	Domestic hot water	Quantity	1	
Tube material			Stainless steel (DIN 1.4404)		
Face area			5.600 m <sup>2</sup>	5.800	
Internal coil volume			27.1 l	28.1	
Operating pressure			6 bar		
		Average specific thermal output	2,790 W/K	2,825	
Charging		Quantity	1		
		Tube material	Stainless steel (DIN 1.4404)		
		Face area	3 m <sup>2</sup>	4	
		Internal coil volume	13 l	18	
		Operating pressure	3 bar		
		Average specific thermal output	1,300 W/K	1,800	
Auxiliary solar heating		Tube material	-	Stainless steel (DIN 1.4404)	
		Face area	- m <sup>2</sup>	1	
	Internal coil volume	- l	4		
	Operating pressure	- bar	3		
	Average specific 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		Traffic white (RAL9016) / Dark grey (RAL7011)		
	Material		Impact resistant polypropylene		
Dimensions	Unit	Width	595	790	
		Depth	615	790	
Weight	Unit	Empty	58	89	
	Tank	Water volume	294	477	
	Tank	Material	Polypropylen		
		Maximum water temperature	85 °C		
		Insulation Heat loss	1.5 kWh/24h	1.7	
		Energy efficiency class	B		
		Standing heat loss	64 W	72	
		Storage volume	294 l	477	
	Heat exchanger	Domestic hot water	Quantity	1	
Tube material			Stainless steel (DIN 1.4404)		
Face area			5.600 m <sup>2</sup>	5.900	
Internal coil volume			27.1 l	28.1	
Operating pressure			6 bar		
		Average specific thermal output	2,790 W/K	2,825	
Charging		Quantity	1		
		Tube material	Stainless steel (DIN 1.4404)		
		Face area	3 m <sup>2</sup>	4	
		Internal coil volume	13 l	18	
		Operating pressure	3 bar		
		Average specific thermal output	1,300 W/K	1,800	
		Average specific thermal output	390.00 W/K	840.00	
Auxiliary solar heating		Tube material	-	Stainless steel (DIN 1.4404)	
	Face area	- m <sup>2</sup>	1		
	Internal coil volume	- l	4		
	Operating pressure	- bar	3		
	Average specific thermal output	- W/K	280		

# 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	26P
Mounting					Vertical	Horizontal
Dimensions	Unit	HeightxWidthxDepth	mm		1,006x85x2,000	2,000x85x1,300
Weight	Unit			kg	33	42
Volume				l	1.3	1.7
Surface	Outer			m <sup>2</sup>	2.01	2.60
	Aperture			m <sup>2</sup>	1.800	2.360
	Absorber			m <sup>2</sup>	1.79	2.35
Coating	Micro-therm (absorption max. 96%, Emission ca. 5% +/-2%)					
Absorber	Harp-shaped copper pipe register with laser-welded highly selective coated aluminium plate					
Glazing	Single pane safety glass, transmission +/- 92%					
Allowed roof angle	Min.~Max.			°	15~80	
Operating pressure	Max.			bar	6	
Stand still temperature	Max.			°C	192	
Thermal performance	collector efficiency (η <sub>col</sub> )				%	
	Zero loss collector efficiency η <sub>0</sub>				%	
	Heat loss coefficient a <sub>1</sub>		W/m <sup>2</sup> .K		4.240	
	Temperature dependence of the heat loss coefficient a <sub>2</sub>		W/m <sup>2</sup> .K <sup>2</sup>		0.006	
	Thermal capacity		kJ/K		4.9	
Auxiliary	Solpump		W		-	
	Solstandby		W		-	
	Annual auxiliary electricity consumption Q <sub>aux</sub>		kWh		-	

## EKSRDS2A/EKSRPS4A

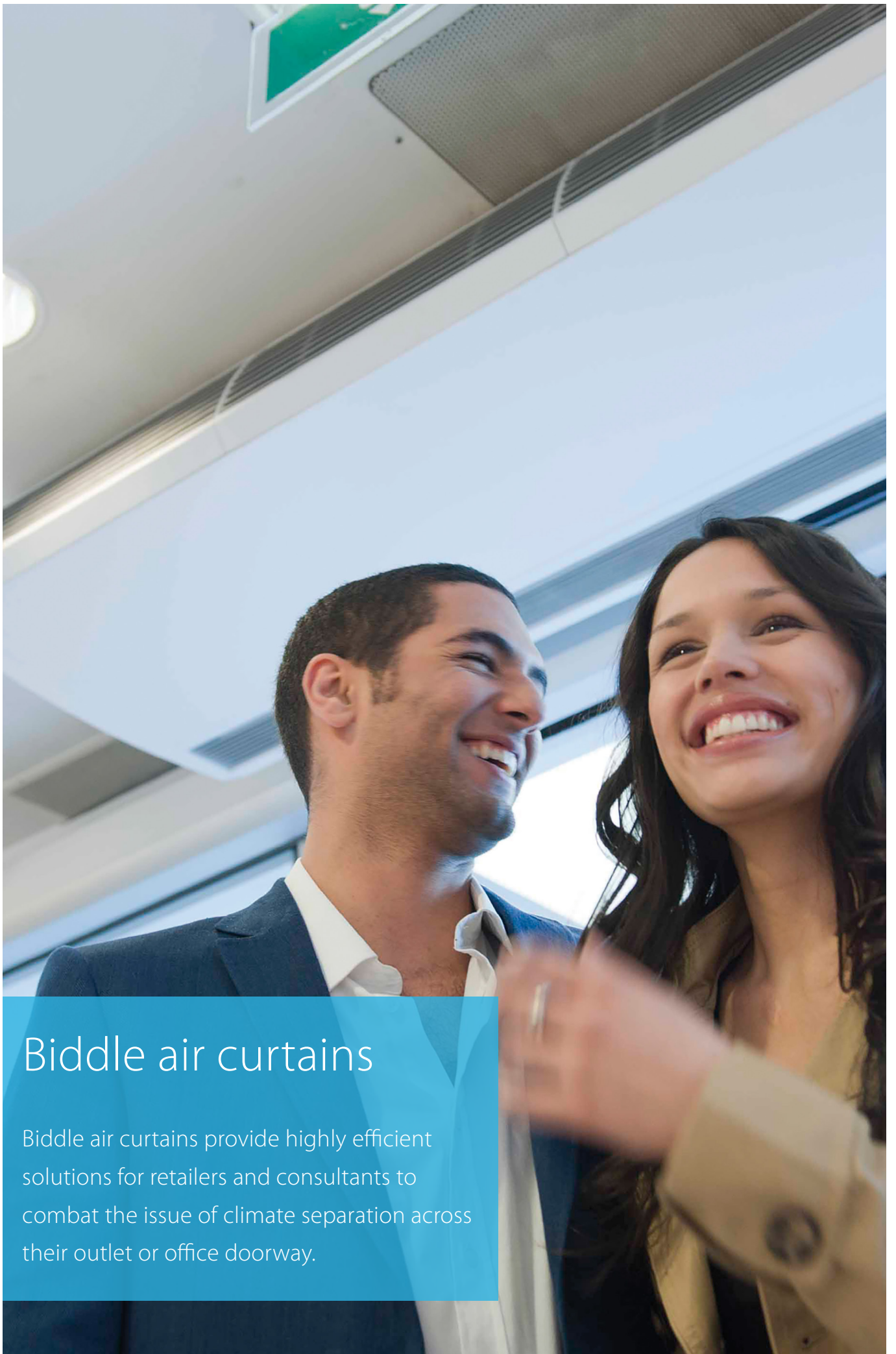
# Pump station

- › 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/EKSRDS2A	4A	2A
Mounting					On side of tank	On wall
Dimensions	Unit	HeightxWidthxDepth	mm		815x142x230	410x314x154
Weight	Unit			kg	6	
Operation range	Ambient temperature	Min.~Max.			°C	
Operating pressure	Max.			bar		6
Stand still temperature	Max.			°C		120
Thermal performance	collector efficiency (η <sub>col</sub> )				%	
	Zero loss collector efficiency η <sub>0</sub>				%	
Control	Type				Digital temperature difference controller with plain text display	
	Power consumption		W		2	
Power supply	Phase/Frequency/Voltage		Hz/V		1~/50/230	
Sensor	Solar panel temperature sensor				Pt1000	
	Storage tank sensor				PTC	
	Return flow sensor				PTC	
	Feed temperature and flow sensor				Voltage signal (3.5V DC)	
Power supply intake					Indoor unit	
Auxiliary	Solpump		W		30	
	Solstandby		W		2.00	
	Annual auxiliary electricity consumption Q <sub>aux</sub>		kWh		78	





## Biddle air curtains

Biddle air curtains provide highly efficient solutions for retailers and consultants to combat the issue of climate separation across their outlet or office doorway.

# Biddle air curtains

## connected to Daikin Heat Pumps

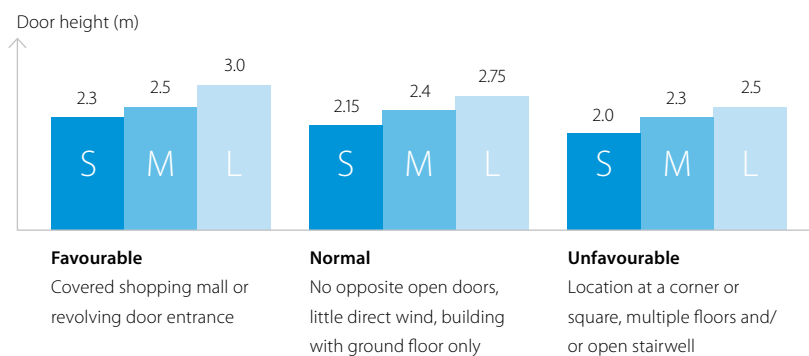
### 'Open Door' Trading

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.

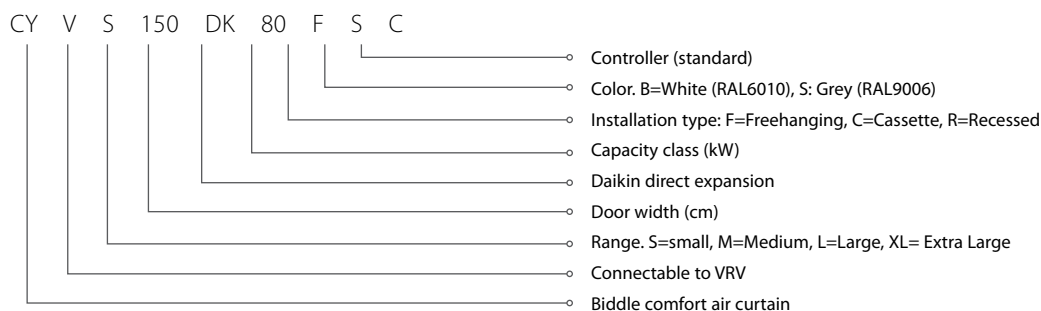
### High efficiency and low CO<sub>2</sub> emission

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 payback period of less than 1.5 years!

### Air curtain size selector



### Biddle comfort air curtain nomenclature



## Portfolio

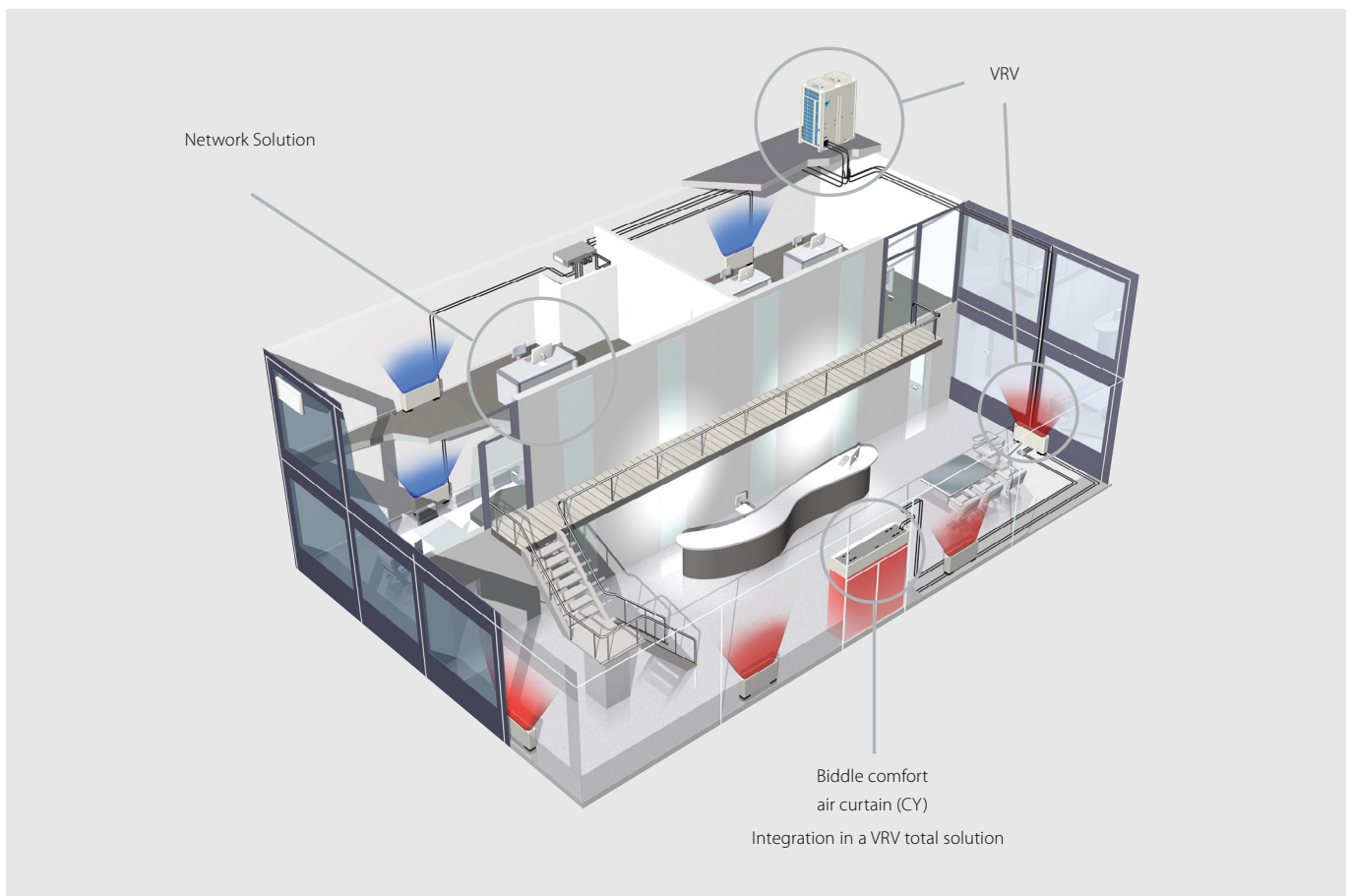
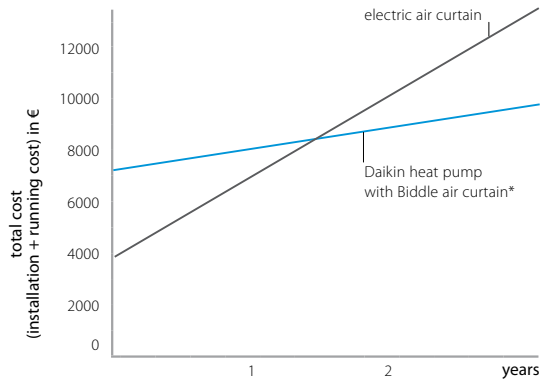
Type	Product name	
Biddle air curtain free hanging	CYV S/M/L-DK-F	
Biddle air curtain cassette	CYV S/M/L-DK-C	
Biddle air curtain recessed	CYV S/M/L-DK-R	

- › 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

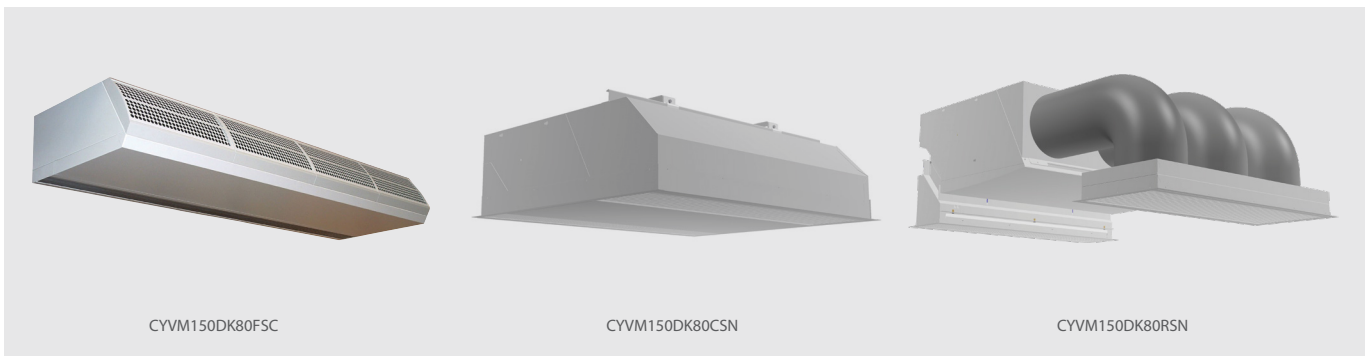
# Biddle air curtain for VRV

- › 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 systems, 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



\* 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



				Small				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	15		16	17	14	13	15
Casing	Colour	BN: RAL9010 / SN: RAL9006									
Dimensions	Unit	Height F/C/R	mm	270/270/270							
		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	590/821/561							
Required ceiling void >			mm	420							
Door height	Max.		m	23 (1) / 2.15 (2) / 2.0 (3)	23 (1) / 2.15 (2) / 2.0 (3)	23 (1) / 2.15 (2) / 2.0 (3)	23 (1) / 2.15 (2) / 2.0 (3)	25 (1) / 2.4 (2) / 2.3 (3)	25 (1) / 2.4 (2) / 2.3 (3)	25 (1) / 2.4 (2) / 2.3 (3)	25 (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	m <sup>3</sup> /h	1,164	1,746	2,328	2,910	1,605	2,408	3,210	4,013
Sound pressure level	Heating	Speed 3	dB(A)	47	49	50	51	50	51	53	54
Refrigerant	Type / GWP	R-410A / 2,087.5									
Piping connections	Liquid/OD/Gas/OD		mm	9.52/16.0			9.52/19.0	9.52/16.0			9.52/19.0
Required accessories (should be ordered separately)		Daikin wired remote control (BRC1H51(9)W/S/K / BRC1E53A/B/C / BRC1D52)									
Power supply	Voltage		V	230							

				Large				
				CYVL100DK125*BC/*SC	CYVL150DK200*BC/*SC	CYVL200DK250*BC/*SC	CYVL250DK250*BC/*SC	
Heating capacity	Speed 3		kW	15.6		23.3	29.4	
Power input	Fan only	Nom.	kW	0.75		1.13	1.50	
	Heating	Nom.	kW	0.75		1.13	1.50	
Delta T	Speed 3		K	15			14	
Casing	Colour	BN: RAL9010 / SN: RAL9006						
Dimensions	Unit	Height F/C/R	mm	370/370/370				
		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	774/1,105/745				
Required ceiling void >			mm	520				
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	m <sup>3</sup> /h	3,100	4,650	6,200	7,750	
Sound pressure level	Heating	Speed 3	dB(A)	53	54	56	57	
Refrigerant	Type / GWP	R-410A / 2,087.5						
Piping connections	Liquid/OD/Gas/OD		mm	9.52/16.0	9.52/19.0	9.52/22.0		
Required accessories (should be ordered separately)		Daikin wired remote control (BRC1H51(9)W/S/K / BRC1E53A/B/C / BRC1D52)						
Power supply	Voltage		V	230				

(1) Favorable conditions: covered shopping mall or revolving door entrance (2) Normal conditions: little direct wind, no opposite open doors, building with ground floor only  
 (3) Unfavorable conditions: location at a corner or square, multiple floors and/or open stairway



Daikin offers the widest range in DX ventilation in the market.

With a variety of ventilation solutions from small heat recovery ventilation to large scale air handling units we help provide a fresh, healthy and comfortable environment in offices, hotels, stores and other commercial environments.

Abluft



# Ventilation & air handling

## Daikin fresh air portfolio 145

### Heat reclaim ventilation

<b>NEW</b>	VAM-FC / J	146
	VH-B electrical heater	148
<b>NEW</b>	ALB-L/R - Modular L	149
	VKM-GB(M)	150

### Daikin air handling units with DX connection

	Advantages	152
	Overview of VRV & ERQ DX units	154
	Control possibilities	155

### Integration in third party AHU

	Expansion valves & Control boxes	158
	Selection procedure	159



# Widest range of DX ventilation

on the market

Daikin offers a variety of solutions from small heat recovery ventilation to large-scale air handling units for the provision of fresh air ventilation to homes, or commercial outlets such as offices, hotels, stores and others.

## Ventilation solutions

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

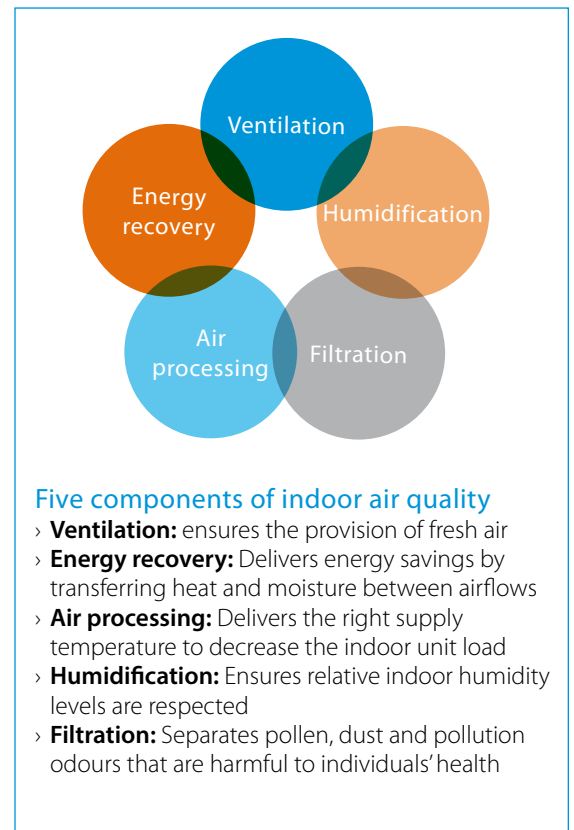
- › Unique portfolio within DX manufacturers
- › High-quality solutions complying with the highest Daikin quality standards
- › Seamless integration of all products to provide the best indoor climate
- › All Daikin products connected to a single controller for complete control of the HVAC system.

## Heat Reclaim Ventilation - Ventilation with heat recovery as standard

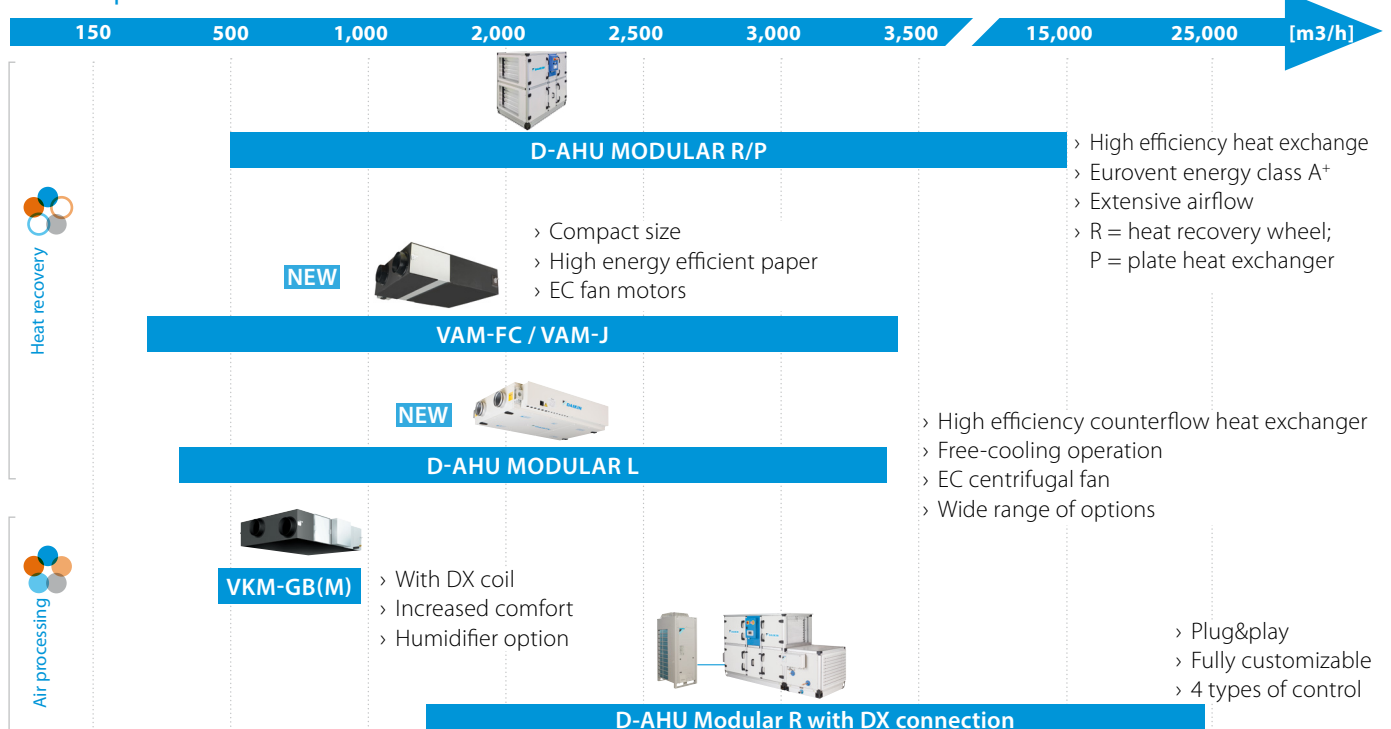
Proper ventilation is a key component of climate control in buildings, offices and shops and part of the EU requirements. Our heat recovery units can **recover both sensible and latent heat** thus substantially **reducing the air conditioning load of up to 40%**. The range starts from as low as 150 m<sup>3</sup>/h to 2,000 m<sup>3</sup>/h (VAM) and go up to 25000 m<sup>3</sup>/h (Modular AHU).

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

Daikin offers a range of R-410A 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.



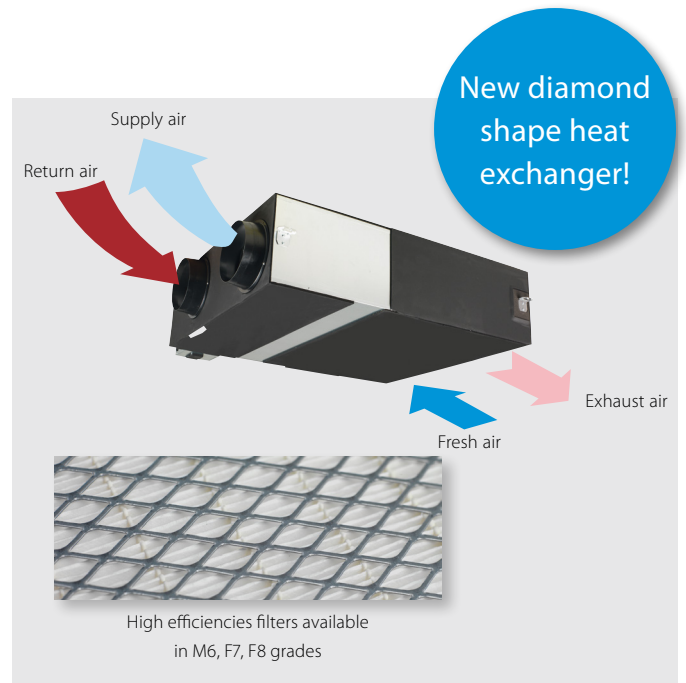
## Fresh air portfolio



# Heat reclaim ventilation

## Ventilation with heat recovery as standard

- › **NEW** Thinnest High Efficiency Enthalpy Heat Exchanger in the market (J-series)
- › Energy saving ventilation using indoor heating, cooling and moisture recovery
- › Ideal solution for shops, restaurants or offices requiring maximum floor space for furniture, decorations and fittings
- › 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
- › **NEW** 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
- › Wide range of units: air flow rate from 150 up to 2,000 m<sup>3</sup>/h
- › Optional medium and fine dust filters M6, F7, F8 to meet customer request or legislation
- › Shorter installation time thanks to easy adjustment of nominal air flow rate, so less need for dampers compared with traditional installation.

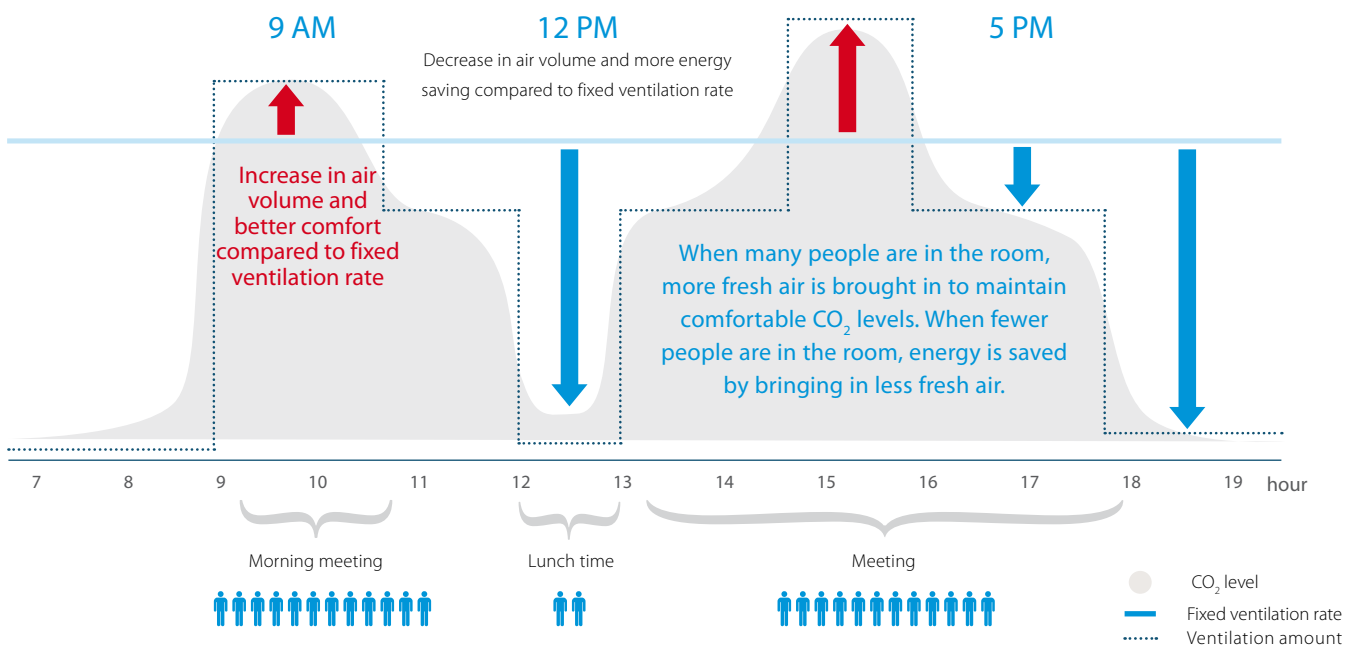


- › No drain piping needed
- › Can operate in over- and under pressure
- › Total solution for fresh air with Daikin supply of both VAM / VKM and electrical heaters

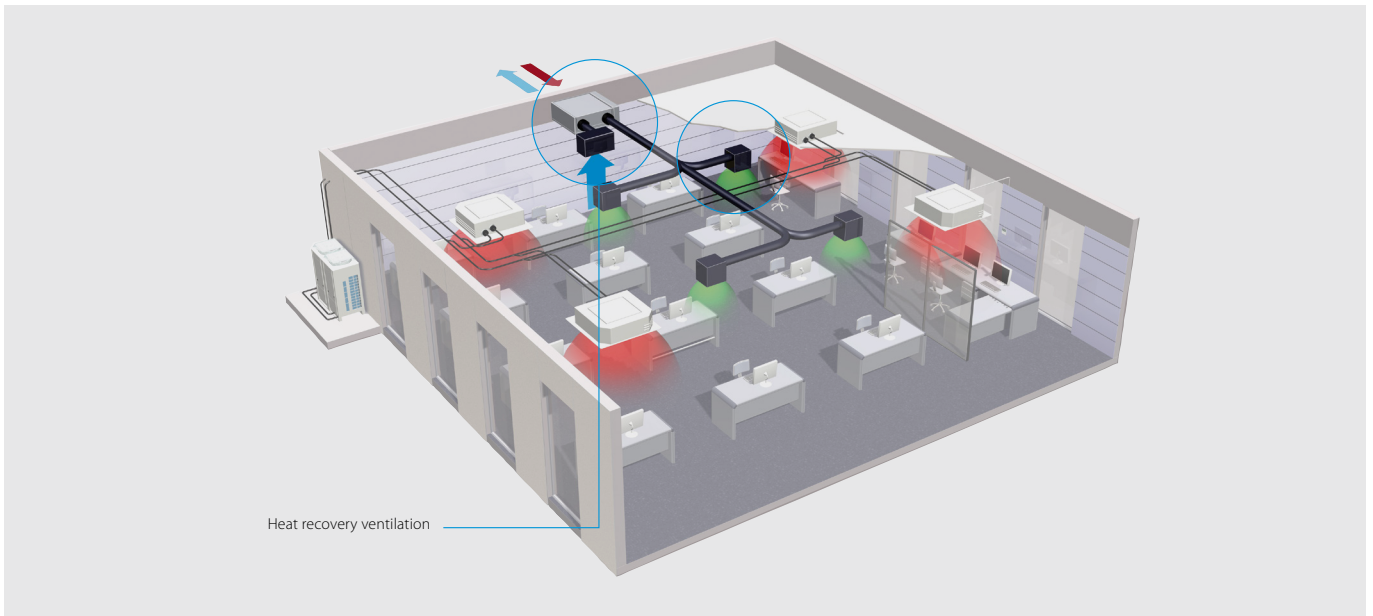
## Prevent energy losses from over ventilation with CO<sub>2</sub> sensor

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 throttles or even switches off the ventilation system when there is enough fresh air in the room, thus saving energy.

### Example of CO<sub>2</sub> sensor operation in a meeting room:



Using CO<sub>2</sub> sensors has the most energy-saving potential in buildings where occupancy fluctuates during a 24-hour period, is unpredictable and peaks at a high level. For example office buildings, government facilities, retail stores and shopping malls, movie theaters, auditoriums, schools, entertainment clubs and nightclubs. The ventilation unit's reaction to fluctuations in CO<sub>2</sub> can be easily adjusted through a field setting.

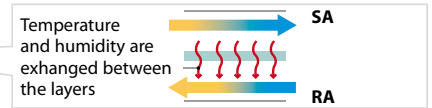
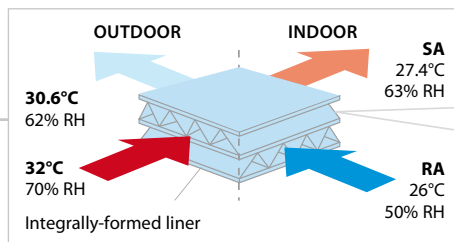


Heat recovery ventilation

## High efficiency Paper Heat Exchanger

Operation of the high efficiency paper heat exchanger.

Cross flow of air to exchange heat and moisture.



RH: Relative Humidity SA: Supply Air (to room) RA: Return Air (from room)

Ventilation			VAM/VAM	150FC	250FC	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/High/Low			%	770(1)/720(2)/783(1)/723(2)/828(1)/732(2)	749(1)/695(2)/760(1)/700(2)/801(1)/720(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 mode, bypass mode, fresh-up mode														
Heat exchange system	Air to air cross flow total heat (sensible + latent heat) exchange														
Heat exchange element	Specially processed non-flammable paper														
Dimensions	Unit	HeightxWidthxDepth	mm	285x776x525			301x1,120x868		368x1,350x917		368x1,350x1,170		731x1,350x1,170		
Weight	Unit		kg	24.0			46.5		61.5		79.0		157		
Casing	Material			Galvanised steel plate											
Fan	Air flow rate - 50Hz	Heat exchange mode	Ultra high/High/Low	m <sup>3</sup> /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	m <sup>3</sup> /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	Type			Multidirectional fibrous fleeces				Multidirectional 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 unit		°CDB	-				0°C~40°CDB, 80% RH or less							
Connection duct diameter			mm	100	150	200	250			2x250					
Power supply	Phase/Frequency/Voltage		Hz/V	15.0				1~/50/60/220-240/220							
Current	Maximum fuse amps (MFA)		A	15.0				16.0							
Specific energy consumption (SEC)	Cold climate		kWh/(m <sup>2</sup> ·a)	-56.0(5)				-							
	Average climate		kWh/(m <sup>2</sup> ·a)	-22.1(5)				-							
	Warm climate		kWh/(m <sup>2</sup> ·a)	-0.100(5)				-5.30(5)							
SEC class			D / See note 5	B / See note 5			-								
Maximum flow rate at 100 Pa ESP	Flow rate		m <sup>3</sup> /h	130	207	-									
	Electric power input		W	129	160	-									
Sound power level (Lwa)			dB	40	43	51	54	58	61	62	65				
Annual electricity consumption			kWh/a	18.9(5)	13.6(5)	-									
Annual heating saved	Cold climate		kWh/a	41.0(5)	40.6(5)	-									
	Average climate		kWh/a	80.2(5)	79.4(5)	-									
	Warm climate		kWh/a	18.5(5)	18.4(5)	-									

(1) Measured according to JIS B 8628 | (2) Measured at reference flow rate according to EN13141-7 | Measured according to EN308 : 1997 | In accordance with commission regulation (EU) No 1254/2014 | In accordance with commission regulation (EU) No 1253/2014 | At reference flow rate in accordance with commission regulation (EU) No 1254/2014 | Clean the filter when the filter icon appears on the controller screen. Regular filter cleaning is important for delivered air quality and for the unit's energy efficiency.

## 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
- › BMS integration thanks to:
  - Volt free relay for error indication
  - 0-10VDC input for setpoint control



ELECTRICAL HEATER FOR VAM	VH	(VH)
Supply voltage		220/250V ac 50/60 Hz. +/-10%
Output current (maximum)		19A at 40°C (ambient)
Temperature sensor		5k ohms at 25°C (table 502 1T)
Temperature control range		0 to 40°C / (0-10V 0-100%)
Control fuse		20 x 5mm 250mA
LED indicators		Power ON - Yellow Heater ON - Red (solid or flashing, indicating pulsed control) Airflow fault - Red
Mounting holes		98mm x 181mm centres 5 mm ø holes
Maximum ambient adjacent to terminal box		35°C (during operation)
Auto high temp. cutout		100°C Pre-set
Man. reset high temp. cutout		125°C Pre-set
Run relay		1A 120V AC or 1A 24V DC
BMS setpoint input		0-10VDC

		VH	1B	2B	3B	4B	4/AB	5B(1)
Capacity	kW			1		1.5	2.5	2.5
Duct diameter	mm		100	150	200	250		300
Connectable VAM			VAM150FC	VAM250FC	VAM350,500J	VAM650J, VAM800J, VAM1000J		VAM1500J, VAM2000J

(1) Available only with the optional plenum

(2) For the selection of the appropriate capacity, please refer to the VAM selection software.

## Modular L

Premium efficiency heat recovery unit

### Highlights

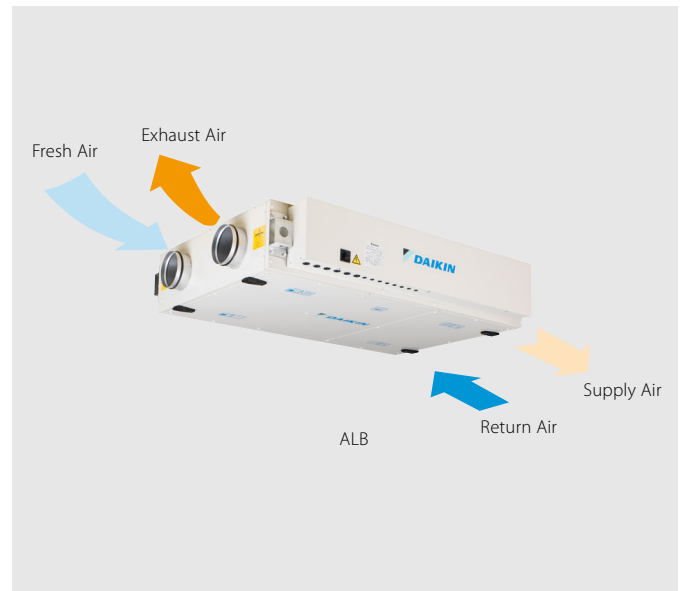
- › 6 Predefined sizes
- › Compliant with VDI 6022
- › Exceeding ERP 2018 requirement
- › Plug & Play Controls
- › Best choice when Compactness is needed  
(only 280 mm height up to 550 m<sup>3</sup>/h)
- › Easy installation and commissioning

### EC centrifugal fan

- › Inverter driven with IE4 premium efficiency motor
- › High-efficient blade profiling
- › Reduced energy consumption
- › Optimized SFP (Specific Fan Power) for an efficient unit operation
- › Maximum ESP available 700 Pa (depending on model sizes and air-flow)

### Heat exchanger

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



D-AHU Modular L			2	3	4	5	6	7
Airflow		m <sup>3</sup> /h	300	600	1200	1500	2500	3000
Thermal efficiency		%	89	89	89	89	90	89
External static pressure	Nom.	Pa	100	100	100	100	100	100
Current	Nom.	A	0.49	1.09	2.17	2.72	5.28	6.52
Power input	Nom.	kW	0.11	0.25	0.50	0.63	1.22	1.50
SFPv		kW/m <sup>3</sup> /s	1.35	1.50	1.50	1.50	1.75	1.80
max ESP	Nom.	Pa	300	700	500	350	550	450
Electrical supply	Phase	ph	1	1	1	1	1	1
	Frequency	Hz	50	50	50	50	50	50
	Voltage	V	230	230	230	230	230	230
Dimensions unit	Width	mm	920	1,100	1,600	1,600	2,000	2,000
	Height	mm	280	350	415	415	500	500
	Length	mm	1,660	1,800	2,000	2,000	2,000	2,000
Weight unit		kg	125	180	270	280	355	360

\*Note: blue cells contain preliminary data

# Heat reclaim ventilation, humidification and air processing

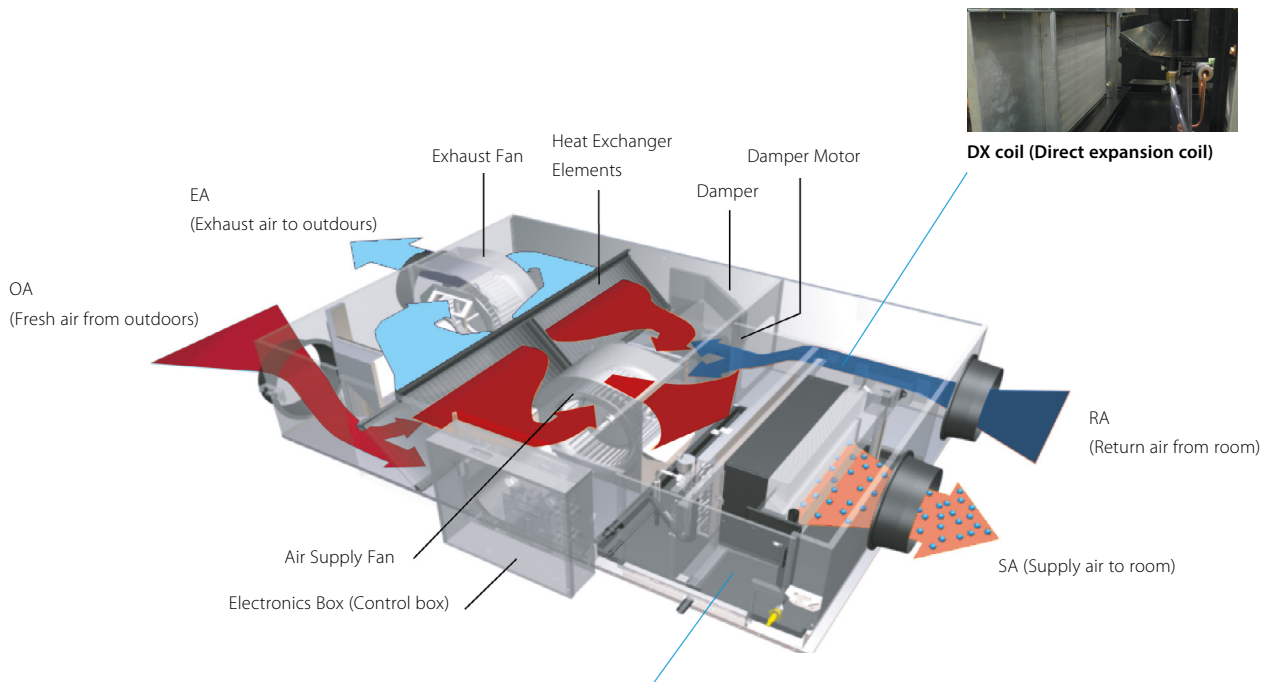
Pre heating or cooling of fresh air for lower load on the air conditioning system

- > Energy saving ventilation using indoor heating, cooling and moisture recovery
- > Creates a high quality indoor environment by pre conditioning incoming fresh air
- > Humidification of the incoming air results in comfortable indoor humidity level, even during heating
- > Ideal solution for shops, restaurants or offices requiring maximum floor space for furniture, decorations and fittings
- > 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 CO2 sensor
- > Shorter installation time thanks to easy adjustment of nominal air flow rate, so less need for dampers compared with traditional installation.



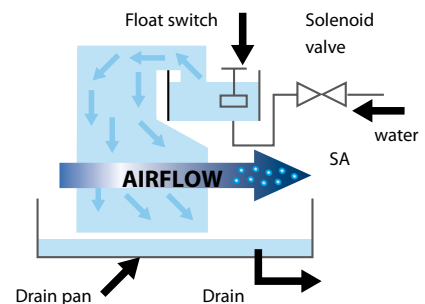
- > Specially developed heat exchange element with High Efficiency Paper (HEP)
- > Can operate in over- and under pressure

## Operation example: humidification & air processing (heating mode)<sup>1</sup>



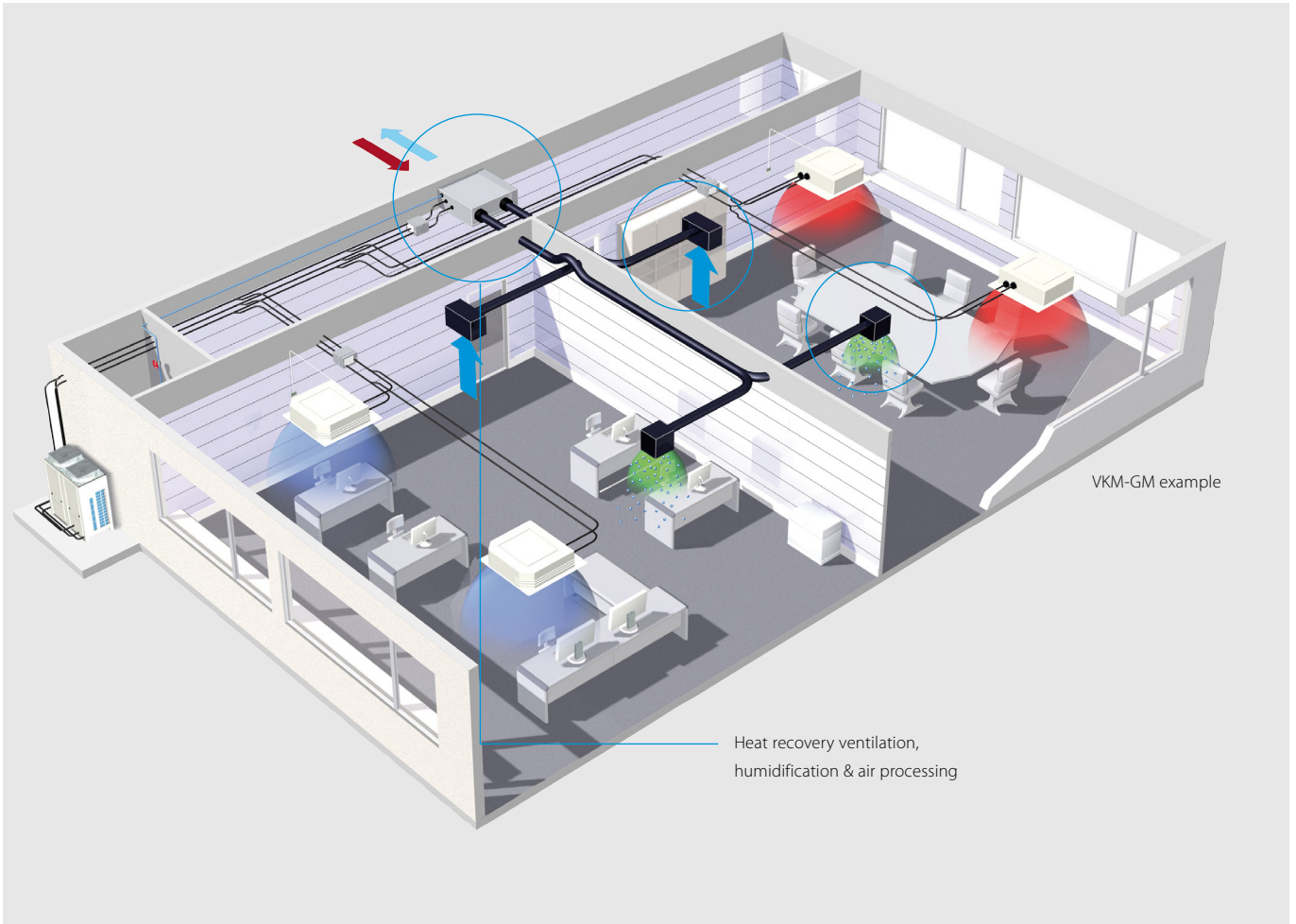
### Humidifier element:

Utilizing the principle of capillary action, water is permeated throughout the humidifier element. The heated air from the DX coil passes through the humidifier and absorbs the moisture.



<sup>1</sup> VKM-GM example





Heat recovery ventilation,  
humidification & air processing

Ventilation			VKM-GB/VKM-GBM	50GB	80GB	100GB	50GBM	80GBM	100GBM	
Power input - 50Hz	Heat exchange mode	Nom.	Ultra high/High/Low	kW	0.270/0.230/0.170	0.330/0.280/0.192	0.410/0.365/0.230	0.270/0.230/0.170	0.330/0.280/0.192	0.410/0.365/0.230
	Bypass mode	Nom.	Ultra high/High/Low	kW	0.270/0.230/0.140	0.330/0.280/0.192	0.410/0.365/0.230	0.270/0.230/0.170	0.330/0.280/0.192	0.410/0.365/0.230
Fresh air conditioning load	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
	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 exchange efficiency - 50Hz	Ultra high/High/Low			%	76/76/77.5	78/78/79	74/74/76.5	76/76/77.5	78/78/79	74/74/76.5
Enthalpy exchange efficiency - 50Hz	Cooling	Ultra high/High/Low		%	64/64/67	66/66/68	62/62/66	64/64/67	66/66/68	62/62/66
	Heating	Ultra high/High/Low		%	67/67/69	71/71/73	65/65/69	67/67/69	71/71/73	65/65/69
Operation mode				Heat exchange mode / Bypass mode / Fresh-up mode						
Heat exchange system				Air to air cross flow total heat (sensible + latent heat) exchange						
Heat exchange element				Specially processed non-flammable paper						
Humidifier				Natural evaporating type						
Dimensions	Unit	HeightxWidthxDepth	mm	387x1,764x832	387x1,764x1,214	387x1,764x832	387x1,764x832	387x1,764x1,214	387x1,764x1,214	
Weight	Unit		kg	94	110	112	100	119	123	
Casing				Galvanised steel plate						
Fan-Air flow rate - 50Hz	Heat exchange mode	Ultra high/High/Low	m <sup>3</sup> /h	500/500/440	750/750/640	950/950/820	500/500/440	750/750/640	950/950/820	
	Bypass mode	Ultra high/High/Low	m <sup>3</sup> /h	500/500/440	750/750/640	950/950/820	500/500/440	750/750/640	950/950/820	
Fan-External static pressure - 50Hz	Ultra high/High/Low		Pa	210/170/140	210/160/110	150/100/70	200/150/120	205/155/105	110/70/60	
Air filter				Multidirectional fibrous fleeces						
Sound pressure level - 50Hz	Heat exchange mode	Ultra high/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	
	Bypass mode	Ultra high/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	0°C~40°CDB, 80% RH or less						
	Supply air		°CDB	-15°C~40°CDB, 80% RH or less						
	Return air		°CDB	0°C~40°CDB, 80% RH or less						
	On coil temperature	Cooling/Max./Heating/Min.	°CDB	-15/43						
Refrigerant				Electronic expansion valve						
Control				R-410A						
Type				2,087.5						
GWP										
Connection duct diameter			mm	200	250	200	200	250	250	
Piping connections	Liquid	OD	mm	6.35						
	Gas	OD	mm	12.7						
	Water supply		mm	-						
	Drain		mm	6.4						
Power supply				PT3/4 external thread						
Current				1~/50/220-240						
				15						

# Daikin 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 unmatched 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.**

### Supporting tools

**Selecting an AHU in combination with a DX unit has never been this easy** amongst manufacturers.

The well known VRV xpress selection software has been modified to integrate pre-sized AHU combinations with

DX outdoor units or just to select outdoor units connected to expansion valve kits.

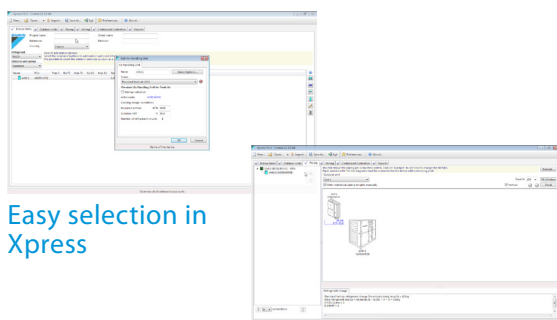
If a more complex selection is required, then the new Astra web can be utilized to make unique tailor-made solutions for any project requirements.

### 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.

### 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 m<sup>3</sup>/h up to 140,000 m<sup>3</sup>/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 24h/7 control of the system when connected to an iTM.



Easy selection in  
Xpress

## Advantages

- > Unique manufacturer offering a complete range
- > Plug&play solution
- > Direct iTM compatibility
- > VRV Xpress supporting AHU business **NEW**
- > Pre-sized AHU+DX outdoor units for fresh air **NEW**

# New pre-sized fresh air solution



## ✓ Easy to design

- › A wide range of preselected AHU and VRV combinations meet the needs of all European climates
- › Range from 2,000 m<sup>3</sup>/h to 17,000 m<sup>3</sup>/h
- › Designed for outdoor temperatures up to 46°CDB
- › The VRV outdoor unit and connection kits (to the coil of the AHU), are all factory mounted and configured

## ✓ Easy integration

- › Fully compatible communication between AHU control and outdoor units, and standard BMS (Modbus and BACnet)
- › Remote operation (of set point operation mode and on/off fresh air solution) is managed by Daikin's unique intelligent Touch Manager, via BACnet/IP interface
- › The unit is also accessible through a dedicated web page, available at anytime from anywhere

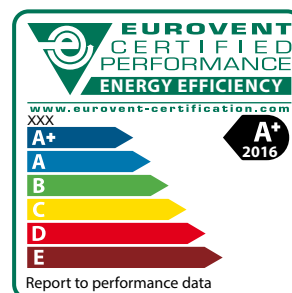
## ✓ Easy installation

- › Factory mounted controls and same piping diameter between the AHU coil and the VRV outdoor unit
- › Factory developed control logic guarantees faster installation compared to other third party combinations of AHU and controls
- › Commissioning becomes extremely easy thanks to Daikin's fresh air solution

## ✓ Fast Quotation

- › Daikin's fresh air solution is incorporated into the VRVXpress tool, which serves to send accurate quotations and offer more insight about the VRV range
- › VRVXpress selection is as easy as any other VRV indoor unit
- › With VRVXpress, the consultant is able to gain a competitive edge by offering accurate and reliable quotations

Download Xpress now with the new pre-sized combination from [my.daikin.eu](http://my.daikin.eu)



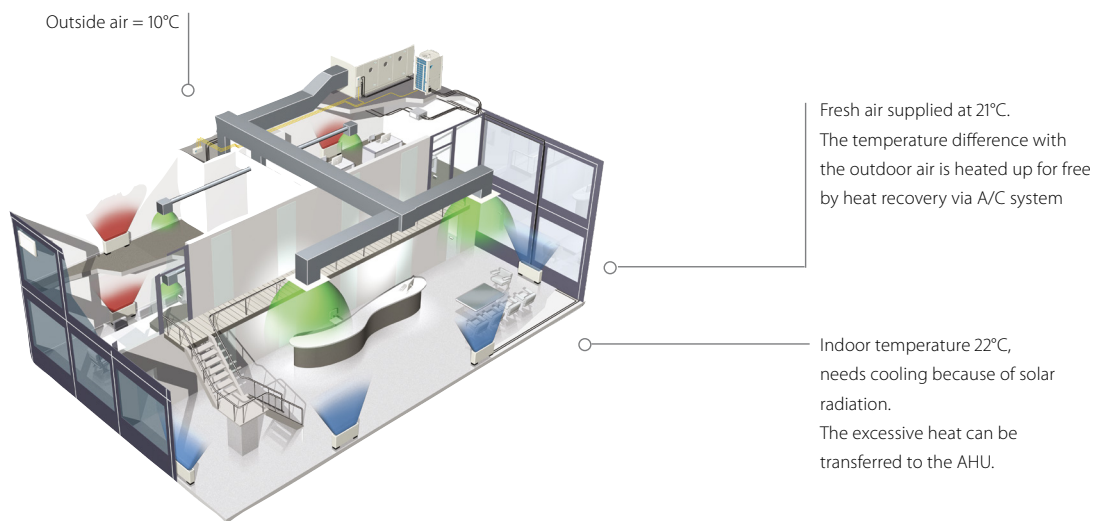
More details in the dedicated brochure

## 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 incoming fresh air.



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

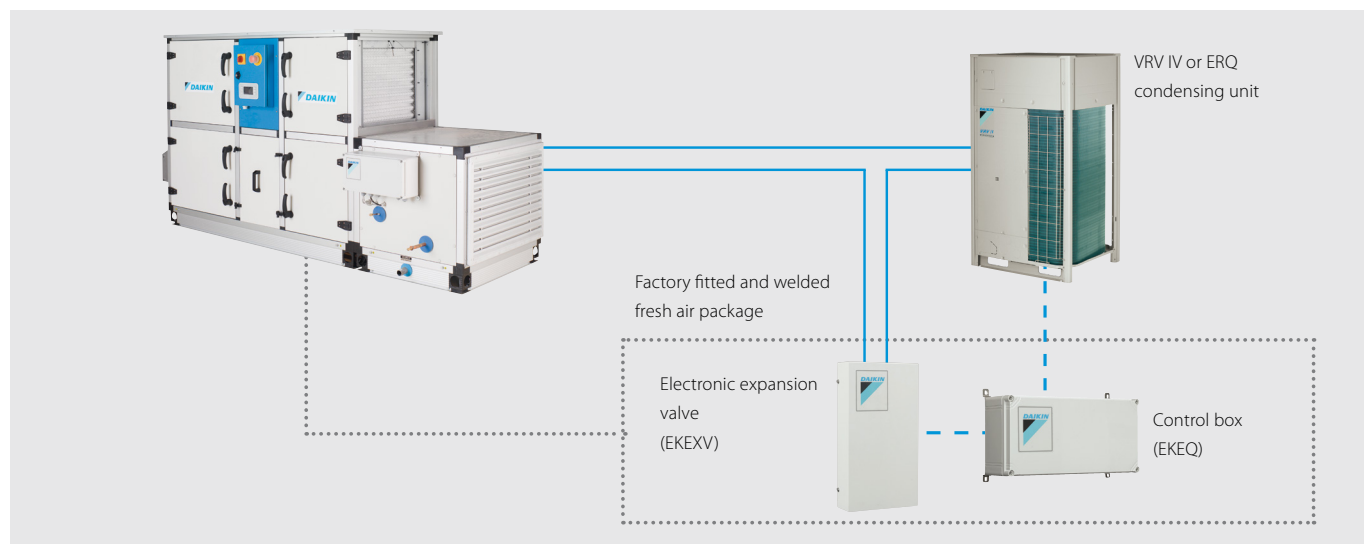
Daikin ERQ and VRV units respond rapidly to fluctuations in supply air temperature, resulting in a steady indoor temperature and resultant high comfort levels for the end user. The ultimate is the VRV range which improves comfort even more by offering continuous heating, also during defrost.

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.

### Easy Design and Installation

#### Daikin Fresh air package

- › If the pre-sized fresh air solution does not match the need.
- › Plug & play connection between VRV/ERQ and the entire D-AHU modular range.
- › Factory fitted and welded 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)

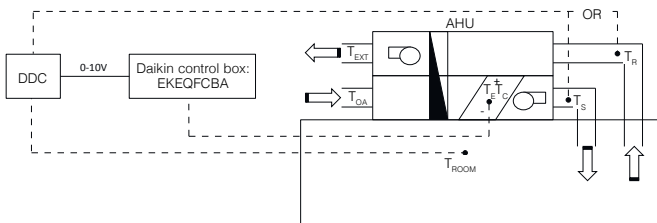
**Z control:** Control of air temperature (suction temperature, room temperature) via Daikin control (no DDC controller needed)

**Y control:** Control of refrigerant ( $T_e/T_c$ ) temperature via Daikin control (no DDC controller needed)

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

#### Air temperature control via DDC controller

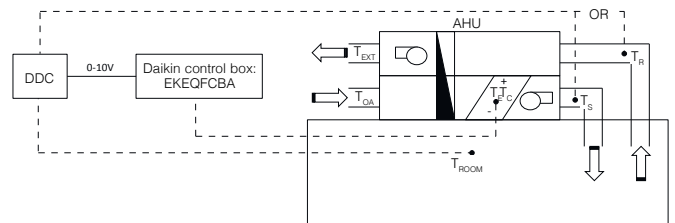
Room temperature is controlled as a function of the air handling unit suction or discharge air (customer selection). The DDC controller is translating the temperature difference between set point and air suction temperature (or air discharge temperature or room temperature) into a proportional 0-10V 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

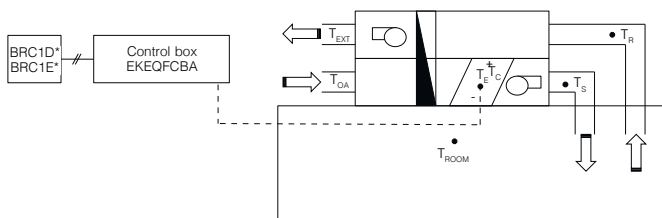
Room temperature is controlled as a function of the air handling unit suction or discharge air (customer selection). The DDC controller is translating the temperature difference between set point and air suction temperature (or air discharge temperature or room temperature) into a reference voltage (0-10V) 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

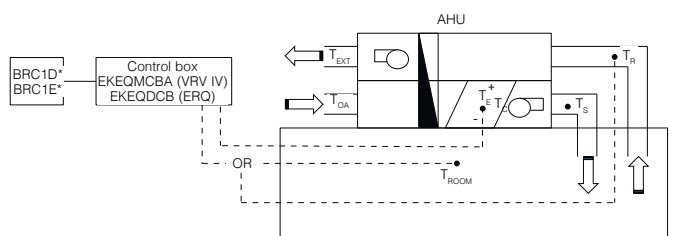
A fixed target evaporating or condensing temperature can be set by the customer. In this case, room temperature is only indirectly controlled. A Daikin wired remote control (BRC1D52 or BRC1E52A/B - optional) have to be connected for initial set-up but not required for operation.



### 4. Z control ( $T_s/T_{ROOM}$ control):

#### Control your AHU just like a VRV indoor unit with 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 BRC1D52 or BRC1E52A/B 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	$T_{DA}$ = 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	EKEQFCBA	Off-the-shelf DDC controller that requires no pre-configuration
Possibility X		Pre-configured DDC controller required
Possibility Y		Using fixed evaporating temperature, no set point can be set using remote control
Possibility Z	EKEQDCB EKFQMCBA*	Using Daikin infrared remote control BRC1D52 or BRC1E52A/B Temperature control using air suction temperature or room temperature (via remote sensor)

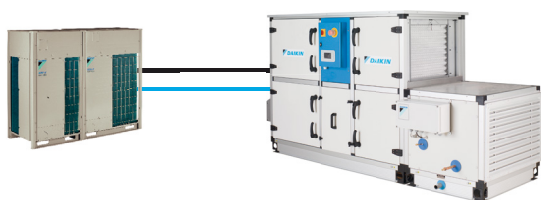
\* EKEQMCB (for 'multi' application)

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

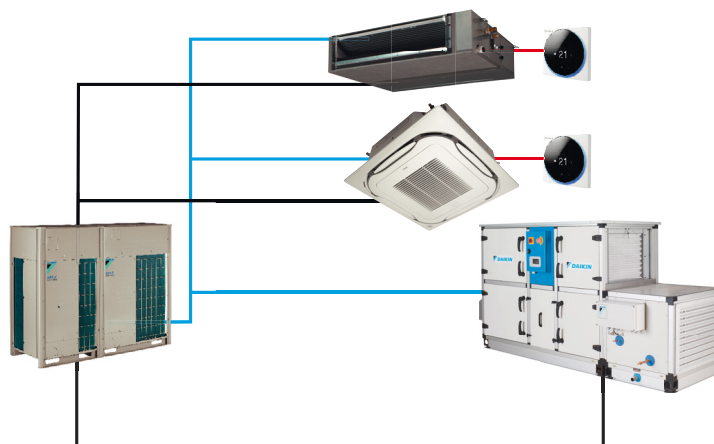
## An advanced solution for both pair and multi application

- > Inverter controlled units
- > Heat recovery, heat pump
- > R-410A
- > Control of room temperature via Daikin control
- > Large range of expansion valve kits available
- > BRC1H51W/S/K or BRC1E53A/B/C 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



- Refrigerant piping
- F1-F2
- other communication



## 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		
Weight	Unit		kg		120		
Casing	Material				Painted galvanized steel plate		
Fan-Air flow rate	Cooling	Nom.	m <sup>3</sup> /min		106		
	Heating	Nom.	m <sup>3</sup> /min	102		105	
Sound power level	Cooling	Nom.	dBA	66	67		69
Sound pressure level	Cooling	Nom.	dBA	50	51		53
	Heating	Nom.	dBA	52	53		55
Operation range	Cooling	Min./Max.	°CDB		-5/46		
	Heating	Min./Max.	°CWB		-20/15.5		
	On coil temperature	Heating/Min./Cooling/Max.	°CDB		10/35		
Refrigerant	Type				R-410A		
	Charge		kg		4.0		
			TCO <sub>2</sub> eq		8.4		
			GWP		2,087.5		
Piping connections					Expansion valve (electronic type)		
	Liquid	OD	mm		9.52		
	Gas	OD	mm	15.9			19.1
	Drain	OD	mm		26x3		
Power supply	Phase/Frequency/Voltage		Hz/V		1N~/50/220-240		
Current	Maximum fuse amps (MFA)		A		32.0		
Ventilation				ERQ	125AW1	200AW1	250AW1
Capacity range				HP	5	8	10
Cooling capacity	Nom.			kW	14.0	22.4	28.0
Heating capacity	Nom.			kW	16.0	25.0	31.5
Power input	Cooling	Nom.		kW	3.52	5.22	7.42
	Heating	Nom.		kW	4.00	5.56	7.70
EER					3.98	4.29	3.77
COP					4.00	4.50	4.09
Dimensions	Unit	HeightxWidthxDepth	mm		1,680x635x765		1,680x930x765
Weight	Unit		kg		159	187	240
Casing	Material				Painted galvanized steel plate		
Fan-Air flow rate	Cooling	Nom.	m <sup>3</sup> /min	95	171		185
	Heating	Nom.	m <sup>3</sup> /min	95	171		185
Sound power level	Nom.		dBA	72	78		
Sound pressure level	Nom.		dBA	54	57		58
Operation range	Cooling	Min./Max.	°CDB		-5/43		
	Heating	Min./Max.	°CWB		-20/15		
	On coil temperature	Heating/Min./Cooling/Max.	°CDB		10/35		
Refrigerant	Type				R-410A		
	Charge		kg	6.2	7.7		8.4
			TCO <sub>2</sub> eq	12.9	16.1		17.5
			GWP		2,087.5		
Piping connections					Electronic expansion valve		
	Liquid	OD	mm		9.52		
	Gas	OD	mm	15.9	19.1		22.2
	Drain	OD	mm		26x3		
Power supply	Phase/Frequency/Voltage		Hz/V		3N~/50/400		
Current	Maximum fuse amps (MFA)		A	16		25	

# 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			Expansion valve kit										Mixed connection with VRV indoor units
	EKEQDCB	EKEQFCBA	EKEQMCBA	EKE XV50	EKE XV63	EKE XV80	EKE XV100	EKE XV125	EKE XV140	EKE XV200	EKE XV250	EKE XV400	EKE XV500	
	Z control	W,X,Y control	Z control	-	-	-	-	-	-	-	-	-	-	-
1-phase	ERQ100	P	P	-	-	P	P	P	P	P	-	-	-	-
	ERQ125	P	P	-	-	P	P	P	P	P	-	-	-	-
	ERQ140	P	P	-	-	P	P	P	P	P	-	-	-	-
3-phase	ERQ125	P	P	-	-	P	P	P	P	P	-	-	-	-
	ERQ200	P	P	-	-	-	-	P	P	P	P	-	-	-
	ERQ250	P	P	-	-	-	-	P	P	P	P	-	-	-
VRV III	-	-	n1	n1	n1	n1	n1	n1	n1	n1	n1	n1	n1	Mandatory
VRV IV H/P / VRV IV W-series / VRV IV S-series	-	P (1 -> 3)	n2	n2	n2	n2	n2	n2	n2	n2	n2	n2	n2	Possible (not mandatory)
VRV IV H/R / VRV IV 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

EKE XV Class	Allowed heat exchanger capacity (kW)			Allowed heat exchanger volume (dm <sup>3</sup> )	
	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

EKE XV Class	Allowed heat exchanger capacity (kW)			Allowed heat exchanger volume (dm <sup>3</sup> )	
	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

## EKE XV - Expansion valve kit for air handling applications

Ventilation		EKE XV	50	63	80	100	125	140	200	250	400	500	
Dimensions	Unit	mm	401x215x78										
Weight	Unit	kg	2.9										
Sound pressure level	Nom.	dBA	45										
Operation range	On coil	Heating Min.	°CDB										
		temperature Cooling Max.	°CDB										
Refrigerant	Type / GWP		R-410A / 2.087,5										
Piping connections	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	MCBA
Application			See note	Pair	Multi
Outdoor unit			ERQ / VRV	ERQ	VRV
Dimensions	Unit	mm	132x400x200		
Weight	Unit	kg	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  $0,89 \times 400=356$ . So the capacity class of the expansion valve kit is 356.

### 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). 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 units.

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  $0,89 \times 200=178$ . 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.

Available from spring 2018 onwards!

Experience a new way to air conditioning control and configuration



## More control, less buttons



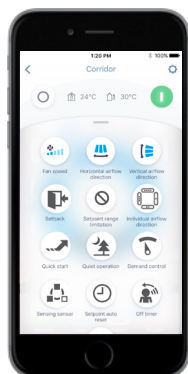
White  
BRC1H51(9)W



Silver  
BRC1H51(9)S



Black  
BRC1H51(9)K



Advanced settings and commissioning can be easily done via smartphone



# Control Systems

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New online controller for Sky Air



New premium design wired remote control

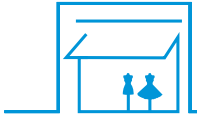


# Requirement tables per application

Daikin offers various control solutions 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 advanced energy management

## Shop



**NEW** **NEW**

	Unit control		Integrating control				Advanced control	
	BRP069*	BRC1H51(9)W/S/K	RTD-20	RTD-Net	KLIC-DI	EKMBOXA	DCC601A51	DCM601A51
	Online controller	User-friendly wired remote control	Retail economiser	Modbus interface for monitoring & control	KNX interface	DIII-net Modbus interface		
	Smart phone 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 (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)	1 iTM for 64 indoor unit(s) (groups) (1)
Design controller with simple interface	●	●					●	●
Automatic control of A/C	●	●	●	●	●	●	●	●
Limit control possibilities for shop staff		●	●	●	●	●	●	●
Create zones within the shop			●				●	●
Interlock with eg. Alarm, PIR sensor			●				● (limited)	●
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)	●
App for easy setting and status read-out	●	●						
Allows free cooling								●
Integrate Daikin products cross pillars into Daikin BMS						●		●
Integrate third party products into Daikin BMS							●	●
Online control	●						● (2)	●
Manage multiple sites							● (2)	● (3)

(1) 7 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

## Hotel



**NEW**

	Unit control	Integrating control	Advanced control		
	BRC1H51(9)W/S/K	RTD-HO	KLIC-DI	DCM010A51	DCM601A51
	User-friendly wired remote control	Intelligent hotel room controller	KNX interface	<b>PMS Interface</b>	
	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)		●
Design controller with simple interface	●				●
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					●
App for easy setting and status read-out	●				
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 and 80 outdoor (systems) (2) Via BRP7A51 adapter (3) requires KNX compatible controller

## Office



NEW

	Unit control	Integrating control			Advanced control	
	BRC1H51(9)W/S/K	EKMBOXA	DMS504B51	DMS502A51 / DAM412B51	DCC601A51	DCM601A51
	User-friendly wired remote control	DIII-net modbus interface	<b>LonWorks Interface</b>	<b>BACnet Interface</b>		
	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 outdoors (2)	1 unit for 32 indoor unit(s) (groups)	1 iTM for 64 indoor unit(s) (groups) (1)
Design controller with simple interface	●				●	
Automatic control of A/C	●	●	●	●	●	●
Centralised control for management		●	●	●	●	●
Limit control possibilities for office staff	●	●(6)	●(6)	●(6)	●	●
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	●(7)					
Monitor energy consumption					●(4)	●
Advanced energy management					●(4)	●
App for easy setting, copy of settings and status read-out	●					
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 needed to go to 256 indoor unit(s) (groups), 40 outdoors (3) ON/OFF only (4) Via Daikin cloud service (5) Through own IT set-up (not Daikin cloud sever) (6) if a wired remote controller is installed (7) via app, not available for all connectable units

## Infrastructure cooling



	Unit	Integrating	Advanced
	BRC1E53A/B/C	RTD-10	DCM601A51
		Server room controller	
	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	●	●	●
App for easy setting, copy of settings and status read-out			
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

(1) 7 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 Seasonal Smart outdoor units.  
 (3) See option list of indoor unit

# Experience a new way

of air conditioning control and  
commissioning



Silver  
BRC1H51(9)S



Black  
BRC1H51(9)K



White  
BRC1H51(9)W

## User-friendly wired remote controller with premium design

A complete redesigned controller  
focussed to enhance  
user experience

- Sleek and elegant design
- Intuitive touch button control
- 3 colors to match any interior design
- Compact, only 85x85mm
- Advanced settings and commissioning via smartphone



reddot award 2018  
winner

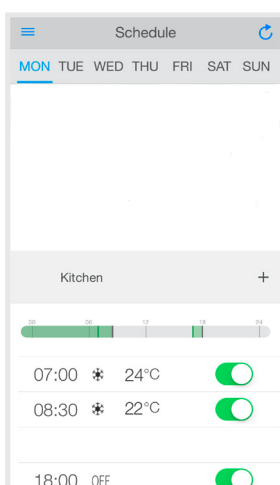




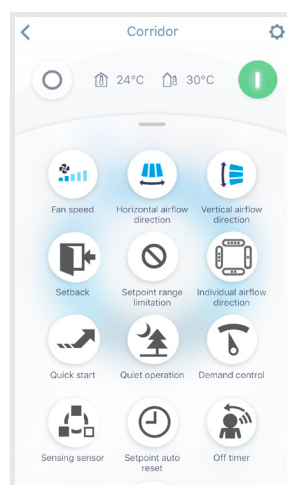
## Advanced settings can be easily done via your smartphone

- BLE (Bluetooth Low Energy) communication
- Visual interface for intuitive setting of schedules, set point restriction and other settings for advanced users / technical managers
- Easy and time saving commissioning for installers

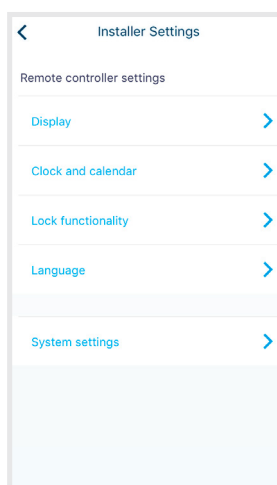
Schedule



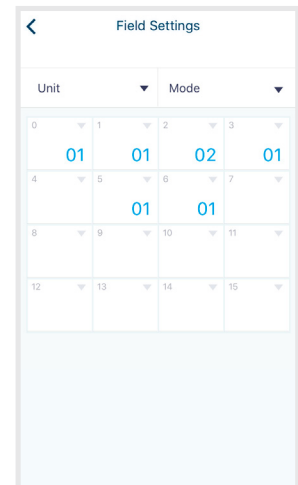
Advanced user settings



Installer settings



Field settings



Individual control systems

BRC1H51(9)W / BRC1H51(9)S / BRC1H51(9)K

# User-friendly wired remote controller with premium design for Sky Air and VRV

## A complete redesigned controller focussed to enhance user experience



BRC1H51(9)W



BRC1H51(9)S



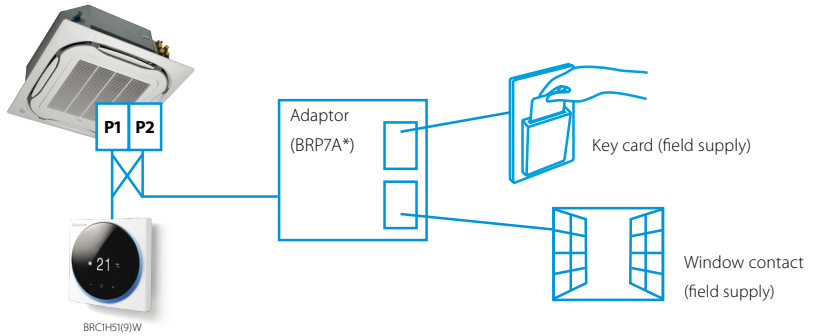
BRC1H51(9)K

- > Sleek and elegant design
- > Intuitive touch button control
- > 2 display views: standard and detailed
- > Access to basic functions (on/off, mode, setpoint, fanspeed, louvers, filter sign & reset, error & code)
- > 3 colors to match any interior design
- > Compact, only 85x85mm
- > Real time clock with auto update to daylight saving time
- > BRC1H519 models are equipped with a buzzer

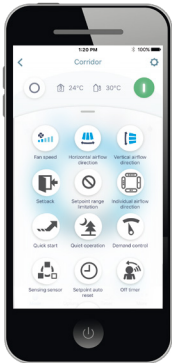
### Hotel application functions

- > 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 guest comfort

### Key card and window contact integration



## Advanced settings can be easily done via your smartphone



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

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

### kWh indication keeps track of your consumption (2)

The kWh indication shows an indicative electricity consumption of the last day/month/year.

### Other functions

- > Up to 3 independent schedules can be set, so the user can easily change the schedule himself throughout the year (e.g. summer, winter, mid-season)
- > Possibility to individually restrict menu functions
- > Selection of quiet mode function for the outdoor unit (1)

### Temperature range limit avoids excessive heating or cooling

Save energy by constraining the upper and lower temperature limit in cooling and heating mode.  
note : Also available in auto cooling/heating change over mode.



### 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, increasing lifetime of the system  
Rotation interval can be set from 6h, 12h, 24h, 72h, 96h, weekly

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

(1) Only available on RZAG\*, RZASG\*, RZQG\*, RZQSG\*

(2) For Sky Air FBA, FCAG and FCAHG pair combinations only





[www.daikin.eu/brc1h](http://www.daikin.eu/brc1h)

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

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

### 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
- › 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

BRC2E52C / BRC3E52C

## Simplified wired remote control developed for hotel applications



BRC2E52C

With operation mode selector

- › Symbol driven interface for intuitive control
- › Functions restricted to basic customer needs
- › 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 guest comfort
- › Flat backpanel for easy installation
- › Easy commissioning: intuitive interface for advanced menu settings
- › 2 versions available:
  - BRC3E52C: temperature, fan speed, ON/OFF
  - BRC2E52C: temperature, mode, fan speed, ON/OFF

BRC1D52

## Wired remote control



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

AZCE6BLUEFACECB / AZCE6THINKRB / AZCE6LITERB

## Controls for multi zoning kits

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



AZCE6BLUEFACECB

### Blueface - main thermostat

- > Intuitive graphical, colour touch screen for controlling multiple zones
- > Wired communication
- > Optional bus cable (2 x 0.5 mm<sup>2</sup> + 2 x 0.22 mm<sup>2</sup>) (10m cable length)



AZCE6THINKRB

### Think - zone thermostat

- > Graphic touch button with low-energy e-ink screen for controlling single zones
- > Low energy radio communication with proprietary protocol (868MHz)



AZCE6LITERB

### Lite - zone thermostat

- > Simplified thermostat with touch buttons for temperature control
- > Low energy radio communication with proprietary protocol (868MHz)

\* The wired Daikin BRC1E / BRC1H remote control is needed to control operation and maintenance.

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

## Centralised control systems

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

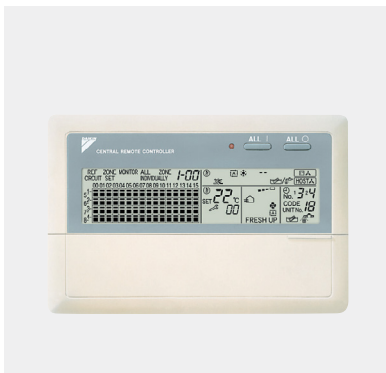
1 zone = several groups in combination.

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

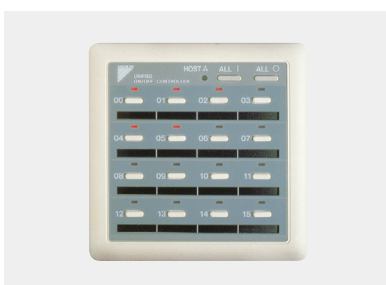


Enabling 64 groups to be programmed.

- > 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



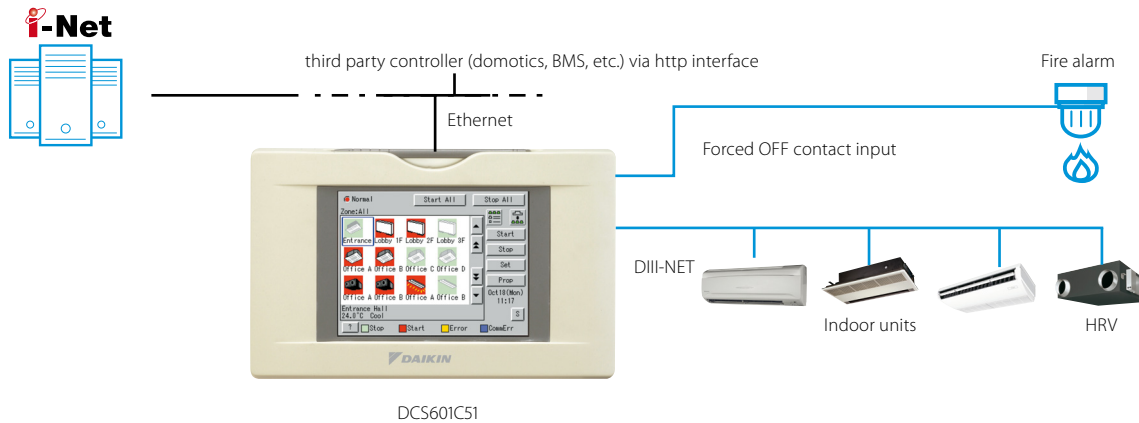
Providing simultaneous and individual control of 16 groups of indoor units.

- > 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)

# Intelligent touch Controller

## 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 schedule
- › 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)

# Advanced centralised controller with Cloud connection

- 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

## 2 solutions:

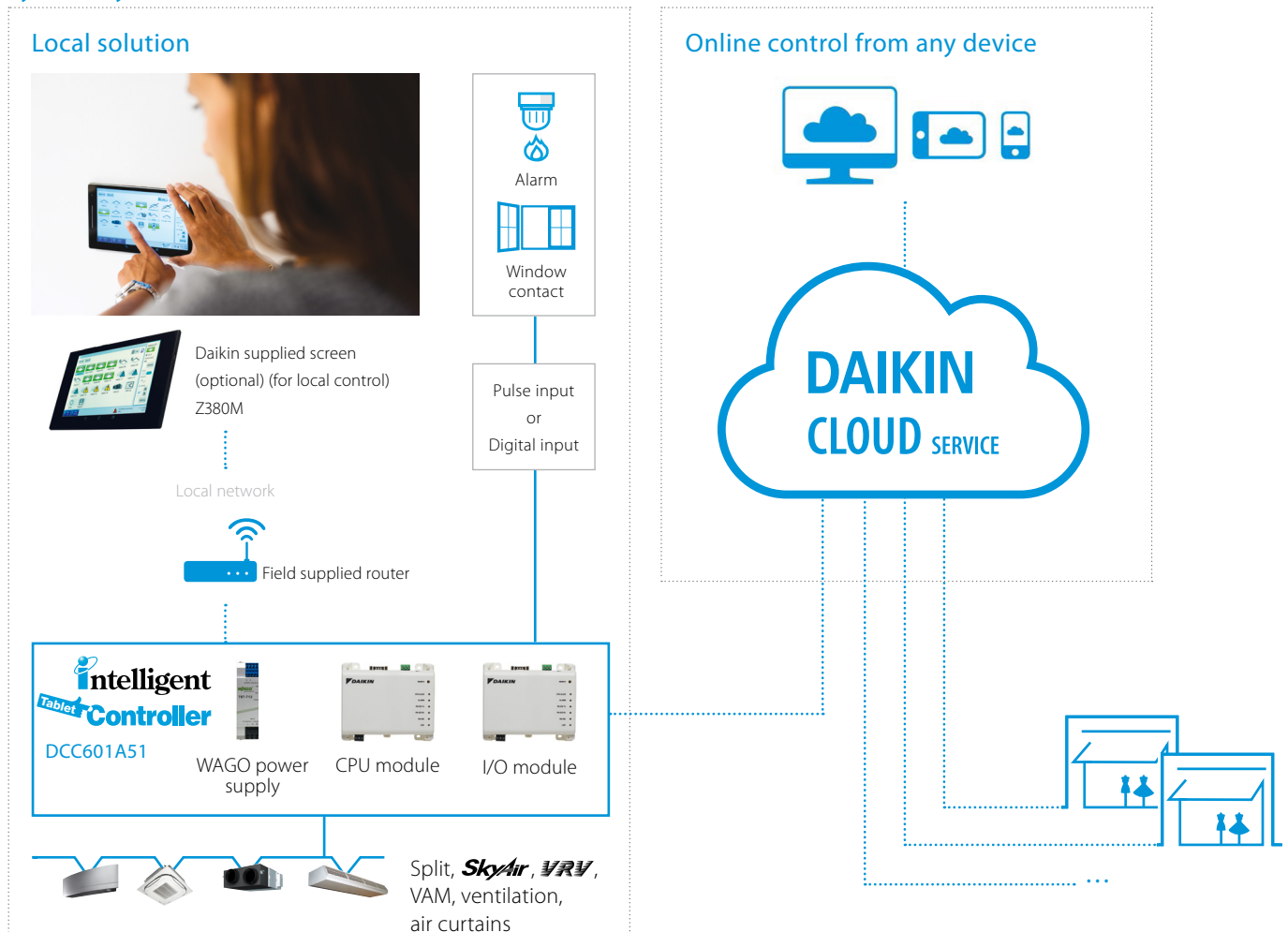
### Local solution

- › 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



(1) For VRV

### 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

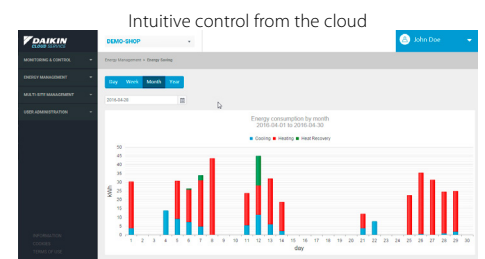
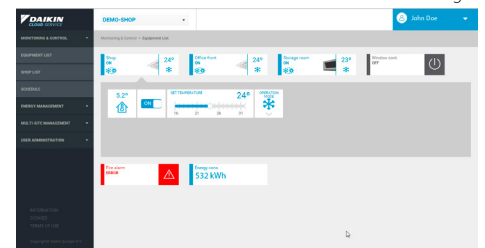
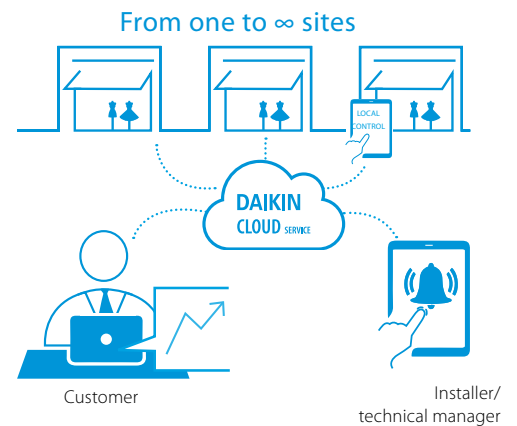
### User friendly touch control

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

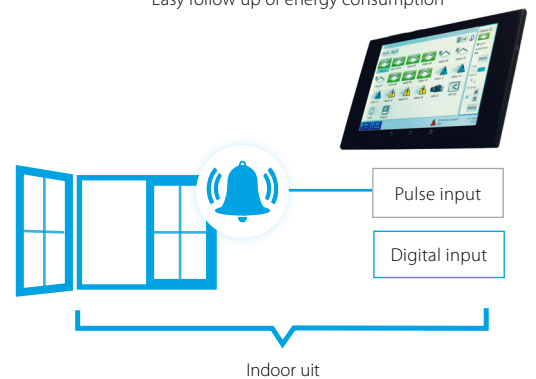
### Flexible

- › Inputs via digital and pulse input 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 unit (groups)

(1) only available in combination with certain indoor units



Easy follow up of energy consumption



### Functions overview

		Local solution	Cloud solution
<b>Languages</b>		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
<b>System layout</b>	N° of connectable indoor units	32	32
	Multiple sites control		●
<b>Monitoring &amp; control</b>	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		●
<b>Connectable to</b>	DX split, Sky Air, VRV	●	●
	VAM, VKM ventilation	●	●
	Air curtains	●	●

For available Daikin Cloud Service options refer to the option list

# 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



## NEW

Download the WAGO  
selection tool from  
[my.daikin.eu](http://my.daikin.eu)

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

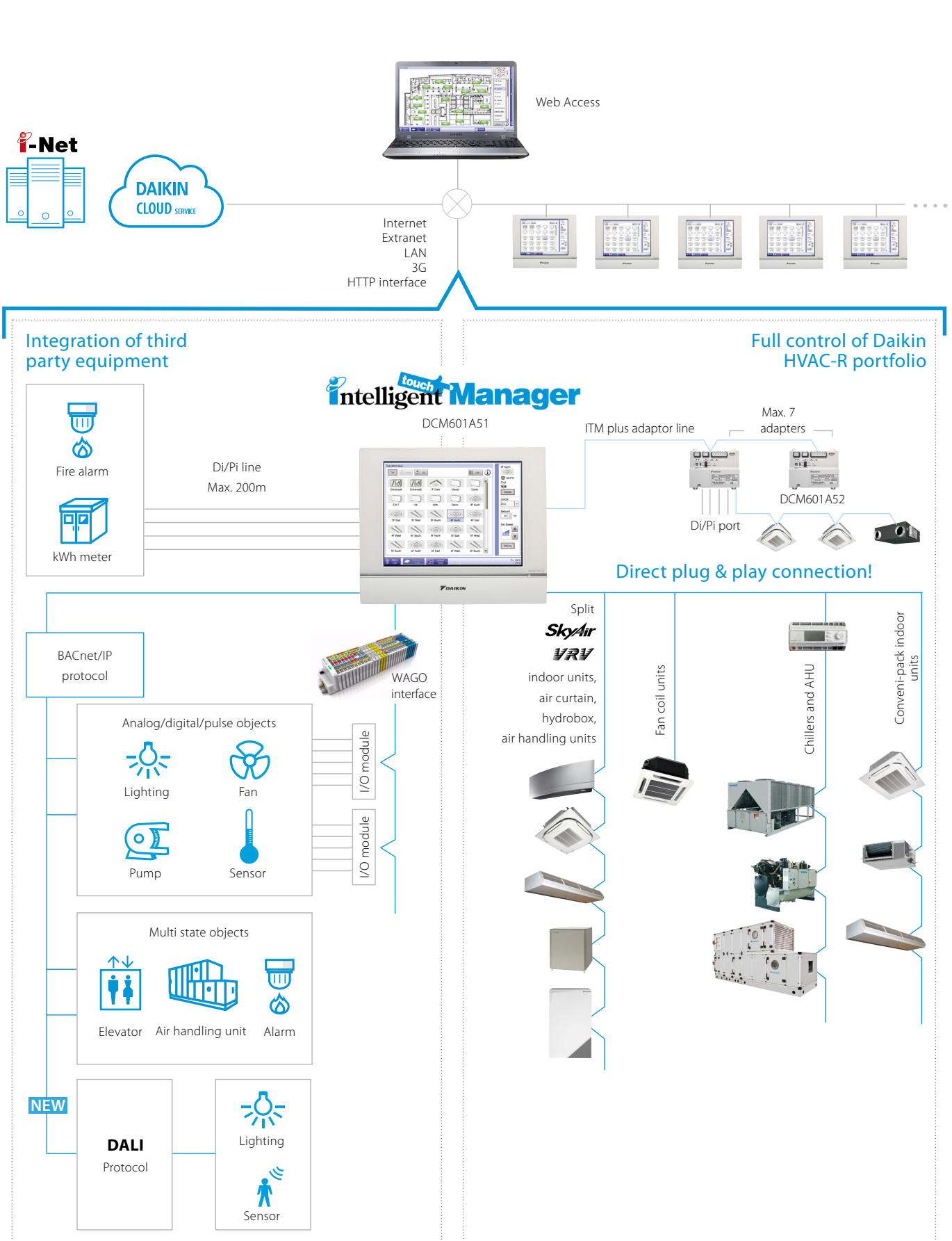


Check on  
**You Tube**

[https://www.youtube.com/  
DaikinEurope](https://www.youtube.com/DaikinEurope)



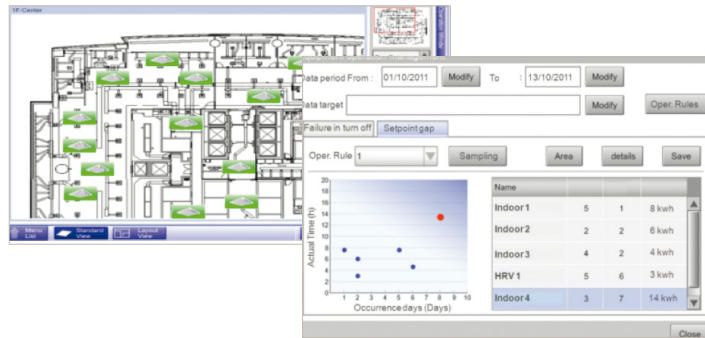
# System overview





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

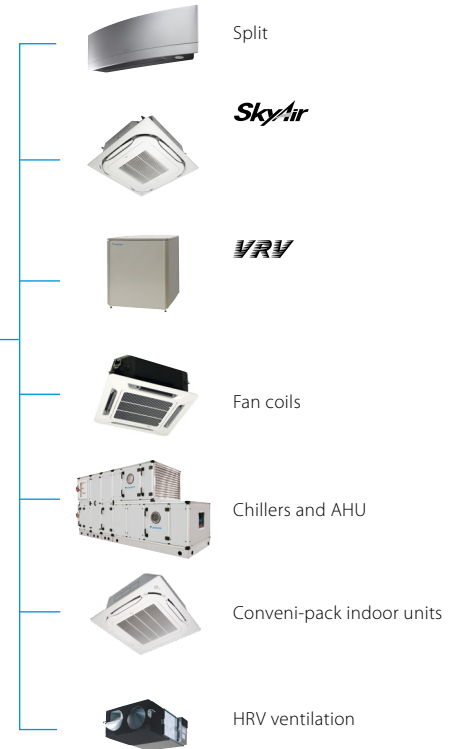
Flexibility

- › 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

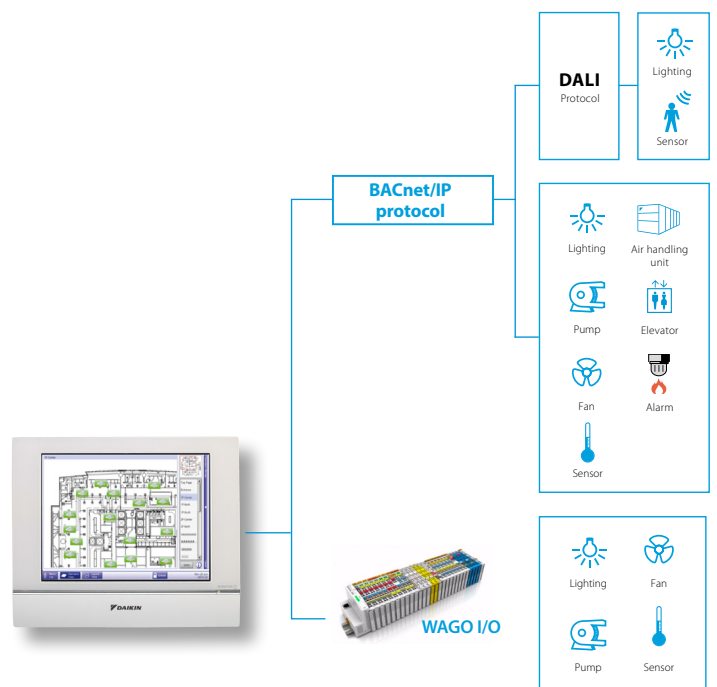
Easy servicing and commissioning

- › 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

Plug & play



Flexibility in size  
64 up to 512 groups



## 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
  - WAGO coupler (interface between WAGO and iTM)
  - Di module
  - Do module
  - Ai module
  - Ao module
  - Thermistor module
  - Pi module

### 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 calendar, 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-EKMBACIP controller)
- Daikin AHU (via MT3-EKMBACIP 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) **NEW**



# Modbus Interface

## RTD

### 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	H x W x D	mm	80 x 80 x 37,5			100 x 100 x 22	
Key card + window contact							
Set back function			R				
Prohibit or restrict remote control functions (setpoint limitation, ...)			R	R		R**	
Modbus (RS485)							
Group control			R (1)	R	R	R	R
0 - 10 V control							
Resistance control							
IT application			R				
Heating interlock							
Output signal (on/defrost, error)					R	R****	R
Retail application							
Partitioned room control							
Air curtain				R***	R***	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	M,V,R	M	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	M	M
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
Thermo 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	H x W x D	mm	100x100x22
On/off prohibition			R
Modbus RS485			R
Dry contact control			R
Output signal (operation error)			R
Space heating / cooling operation			R
Domestic hot water control			R
Smart Grid control			

Control functions		RTD-W
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
Weather dependent setpoint enable		M
Weather dependent curve shift		M
Fault/pump info relay choice		
Control source prohibition		M

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

Monitoring functions		RTD-W
On/Off Space heating/cooling		M,C
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
Fault		M,C
Fault 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		
3-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

M : Modbus / R : Resistance / V : Voltage / C: control  
 \* : only when room is occupied / \*\* : setpoint limitation / (\*) if available  
 \*\*\* : no fan speed control on the CVV air curtain / \*\*\*\* : run & fault

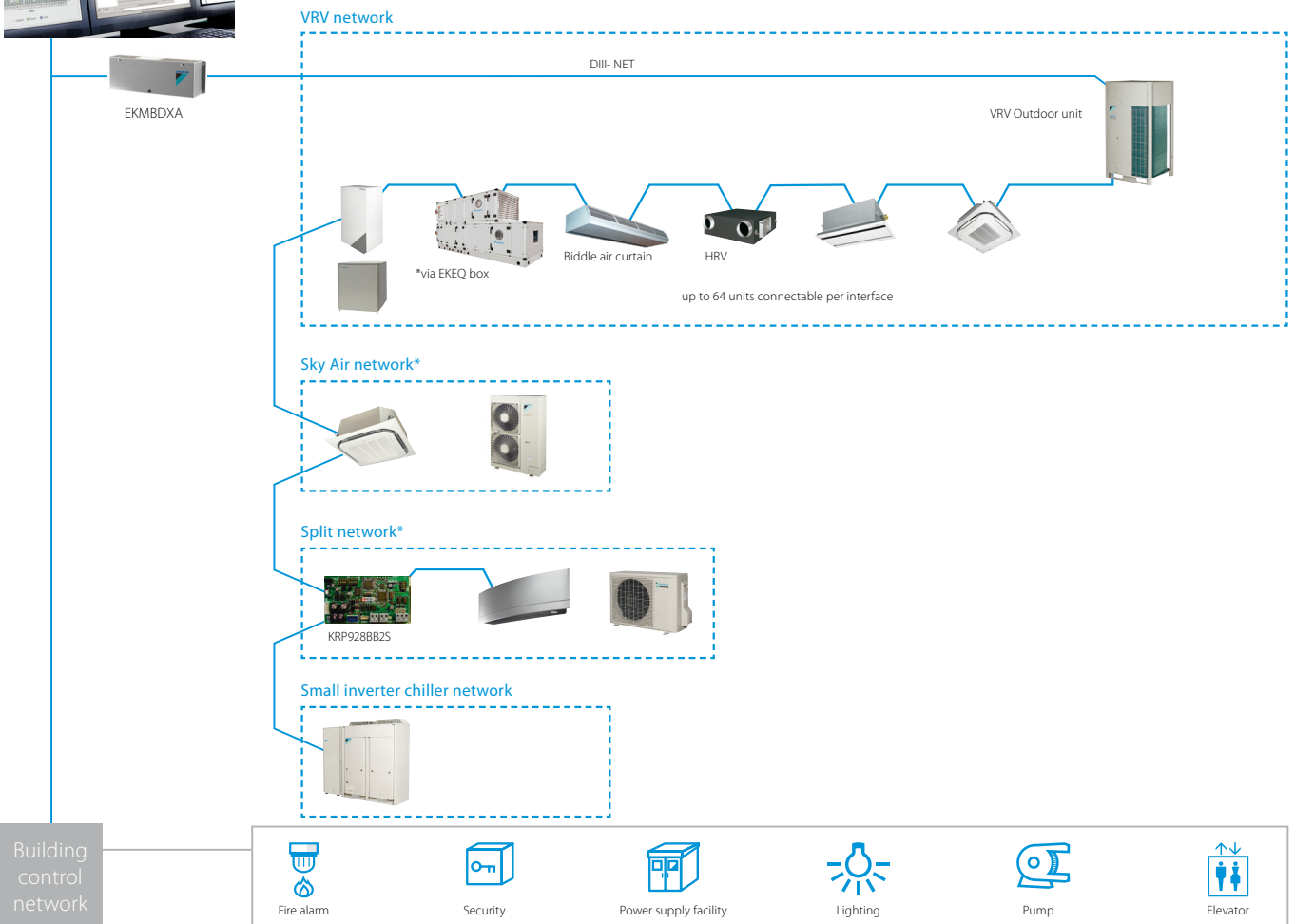
# DIII-net Modbus interface

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.

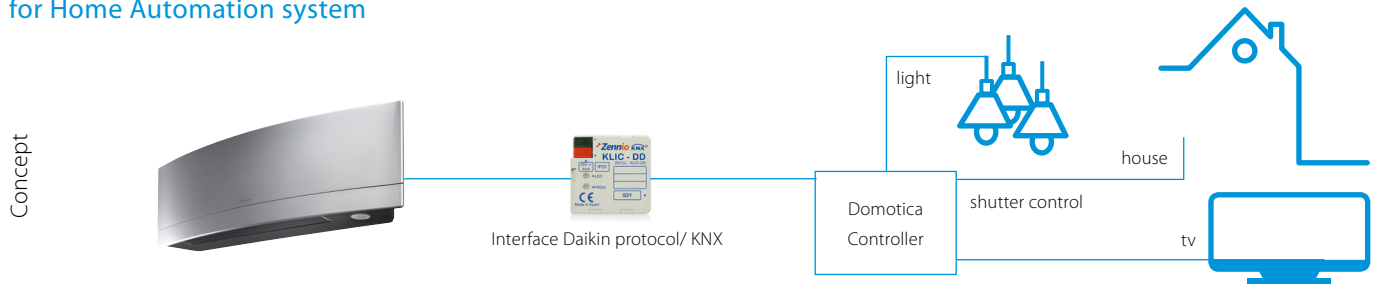
		<b>EKMBDXA7V1</b>	
Maximum number of connectable indoor units		64	
Maximum number of connectable outdoor units		10	
Communication	DIII-NET - Remark	DIII-NET (F1F2)	
	Protocol - Remark	2 wire; communication speed: 9600 bps or 19200 bps	
	Protocol - Type	RS485 (modbus)	
	Protocol - Max. Wiring length	m	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

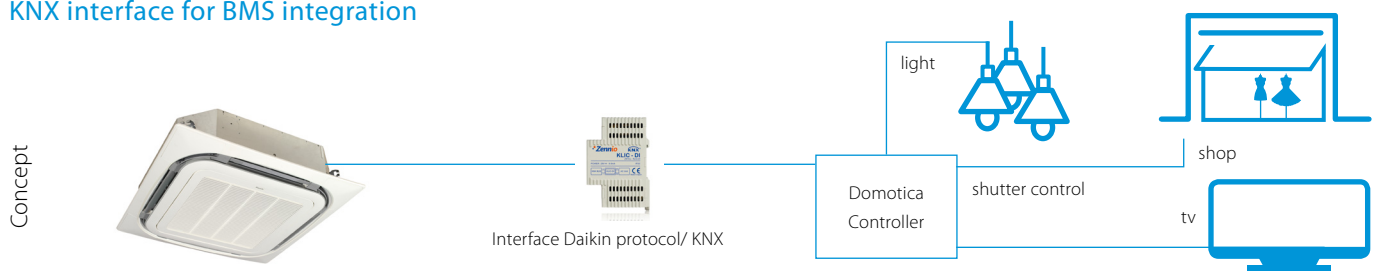
KLIC-DD(3)  
KLIC-DI

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

Connect split indoor units to KNX interface for Home Automation system



Connect Sky Air / VRV indoor units to KNX interface for BMS integration





## 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 'scenario' - 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

	 <b>KLIC-DD(3) Size 45x45x15mm</b>	 <b>KLIC-DI Size 90x60x35mm</b>	
	<b>Split</b>	<b>Sky Air</b>	<b>VRV</b>
<b>Basic control</b>			
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
Swing	Stop or movement	Stop or movement	Swing or fixed positions (5)
<b>Advanced functionalities</b>			
Error management	Communication errors, Daikin unit errors		
Scenes	●	●	●
Auto switch off	●	●	●
Temperature limitation	●	●	●
Initial configuration	●	●	●
Master and slave configuration		●	●

# PMS Interface

DCM010A51

## Hotel interface connecting Daikin HVAC with Oracle Property Management Systems



Room view showing room status: check-in, check-out, pre-heating / cooling status, room temperature and A/C status

HVAC settings can be easily observed and changed by the reception desk

Multiple room types (bedroom, meeting room, ...) can be defined with customized A/C settings for each type

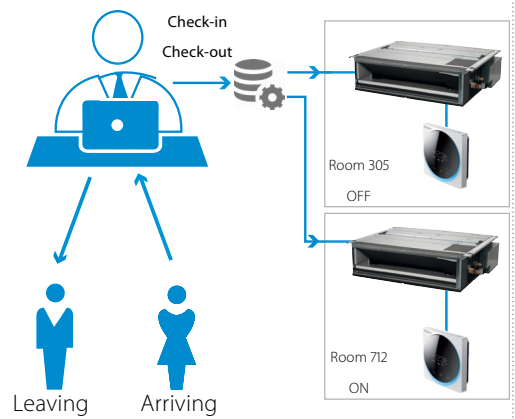
### Features

- > 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

#### Hotel case example:

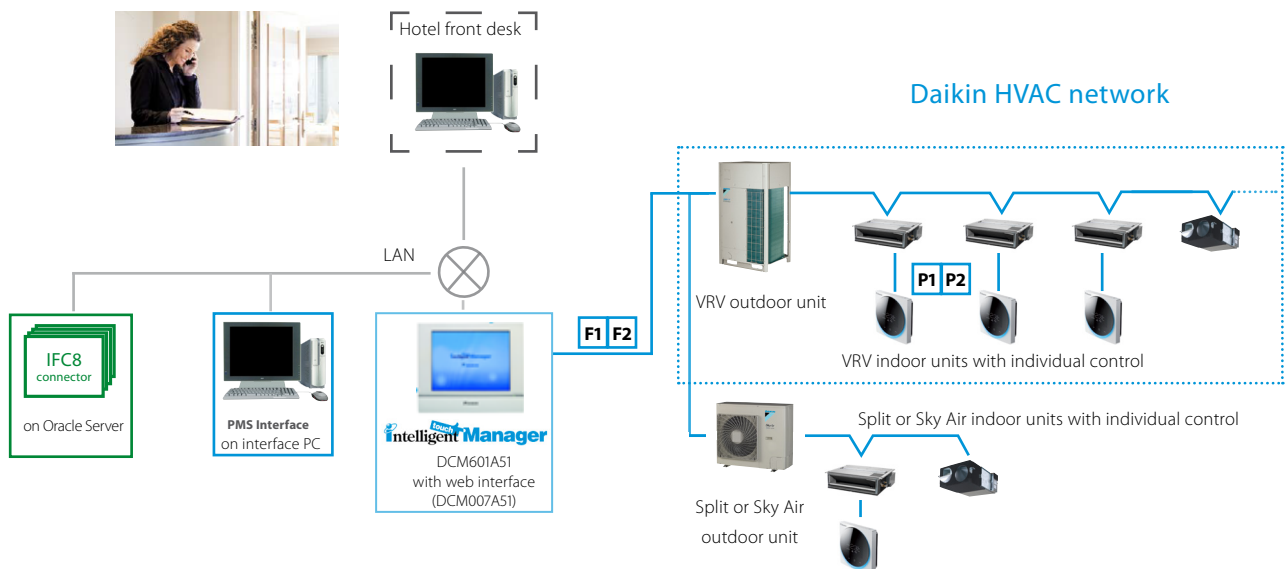
- > On check-in the HVAC for the room is automatically switched on
- > On check-out the HVAC for the room is automatically switched off.
- > Increased hotel customer experience by pre-heating / cooling of booked rooms

#### Hotel front desk



Check-Out room 305    Check-In room 712

### Simplified configuration of Daikin PMS interface



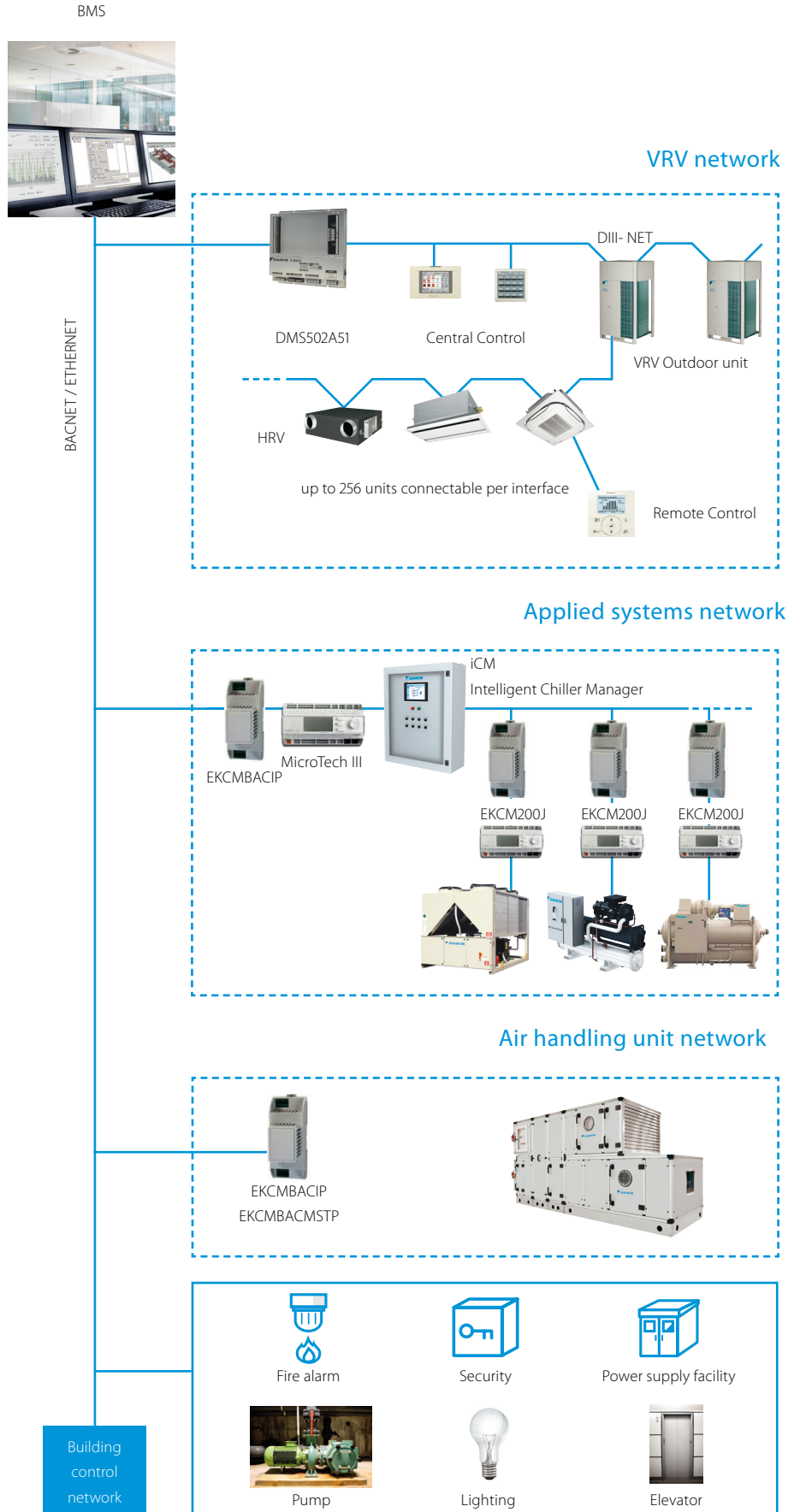


# BACnet Interface

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)

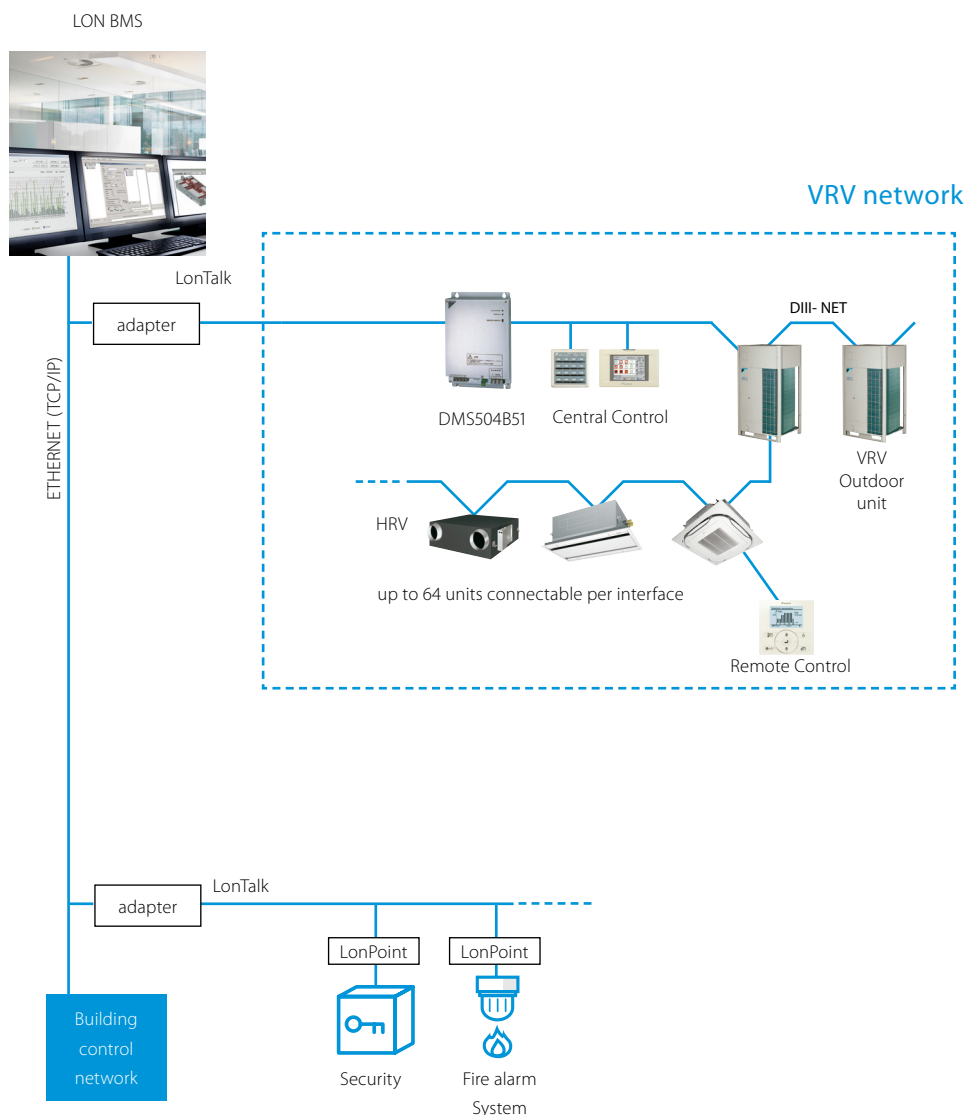


# LonWorks Interface

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 Software

EKPCCAB3

**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



Simplified  
commissioning



Retrieve initial  
system settings



# What is I-Net?

A service based on our global remote monitoring technology, keeping your system trouble-free and working with top efficiency.



## What does I-Net offer you

Safeguarding the lifelong optimum operation of your air conditioning system means getting geared up to operate the system in a energy efficient way and reduce unexpected breakdowns and costs to the absolute minimum. This is where I-Net helps to improve the effectiveness of your building management.

I-Net is about 'being connected' with Daikin, the Internet-based link between you, your air conditioning system and Daikin's Remote Monitoring Centre. This allows you to monitor your energy consumption and Daikin's expert service engineers to monitor your entire system's status non-stop, all year round. Through predicting malfunctions and offering technical advice from data analysis, you can maximise equipment uptime, as well as controlling energy costs with no sacrifice in comfort levels. By doing this, i-Net will prevent problems, prolong your system's service life while reducing the energy bill.

## I-Net Services

i-Net consists of 2 main services: the VRV Cloud and I-Net performance monitoring and analysis.

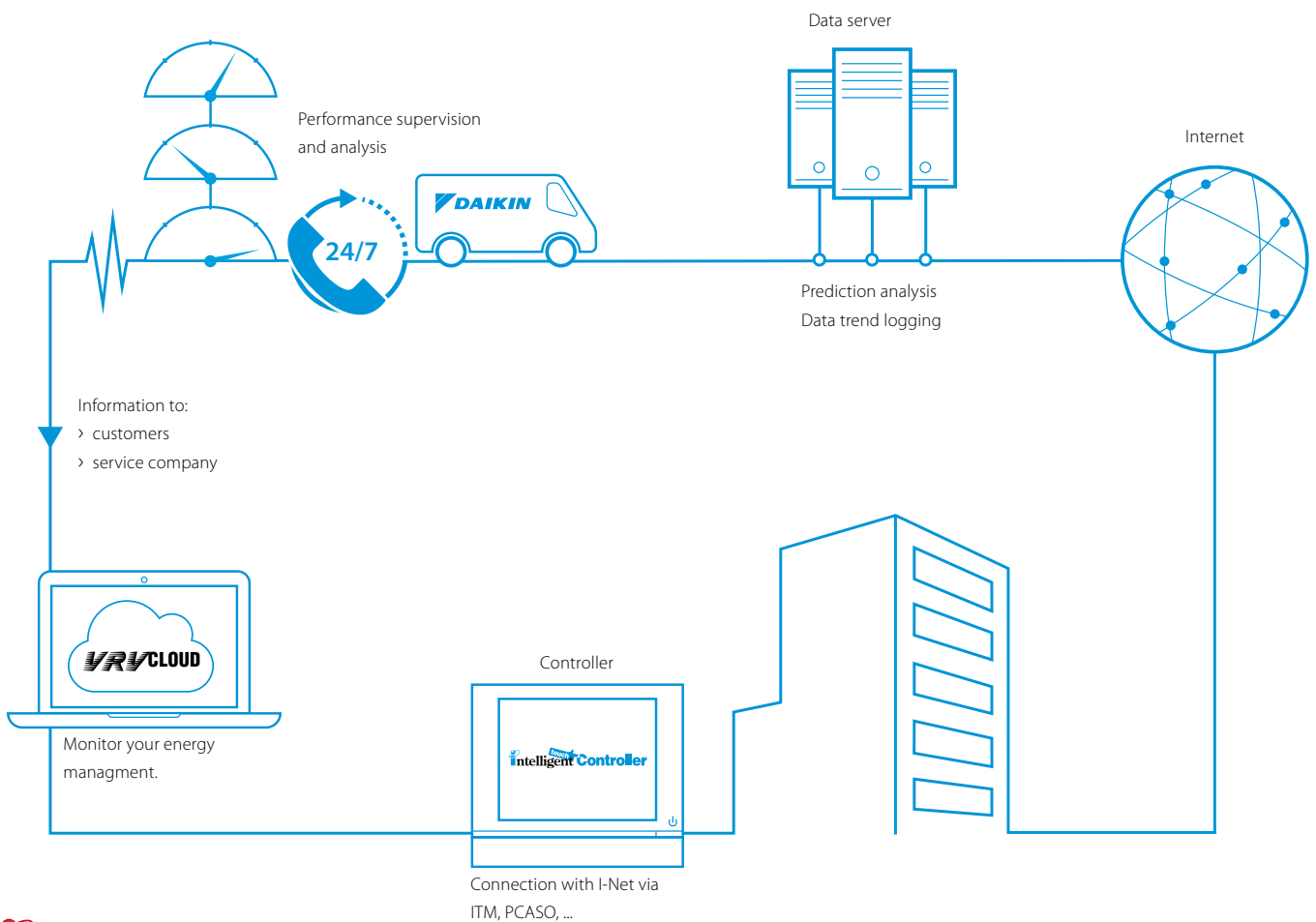
### VRV Cloud

The VRV Cloud puts you in the driving seat of your energy management. The easy-to-use energy data trending and analytic tools puts you in control and shows you CO<sub>2</sub> footprint reduction opportunities and energy savings of up to 15%.

Saving starts by measuring. Enhance your company's sustainability !

### I-Net performance monitoring and analysis

Focus on your core business and hand the HVAC over to Daikin. Daikin I-Net connects your system continuously with Daikin. It notifies alarms and early warnings of system deviations to maximise system uptime and the comfort of the people in the building. Service providers have webbased access to operation data so that they are fully prepared when they arrive on-site. Specialists run trend analyses. All of which boosts your system's reliability by ensuring that it is running at optimum efficiency.



## Daikin VRV Cloud

**Helps you manage your energy through Daikin technology.**

- › Intelligent energy visualization tool that helps you with your energy management
- › 24/7 online monitoring by the customer from any location.
- › User friendly visualization of VRV energy management (kWh)
- › Analysis support of waste operation
- › Multiple site monitoring

- › Performance Supervision by Daikin experts enhances a maintenance plan.
- › This service aims to enhance the service level, to respond fast and accurate, to save on unexpected repair costs and assure the peace of mind. Repetitive interventions and disturbance of building tenants and maintenance teams are kept to a minimum.

### Long lifetime systems

- › I-Net will maximise the installation's lifetime, by assuring the equipment runs in optimal conditions and avoid unnecessary stress on components.

## Performance monitoring

**Daikin's unique I-Net Service aims to prevent the equipment coming to an unexpected stop or needing emergency repair.**

### Fast response, better prepared

- › If an alarm does occur, the service provider is immediately alerted and receives all crucial information.
- › Early fault indication (predictions) : operation data are 24/7 checked by I-Net prediction algorithms to act as early as possible, averting breakdowns.

## Analysis

**Be connected with Daikin's experts, this gives you a clear overview of operability and use of the air conditioning system.**

- › Daikin continuously monitors energy, operation and comfort data. Thanks to periodic analysis of the data, Daikin can suggest ways of improving performance.
- › if there is a problem, Daikin specialists will analyse the operation data history to provide remote support.

# Wireless room temperature sensor

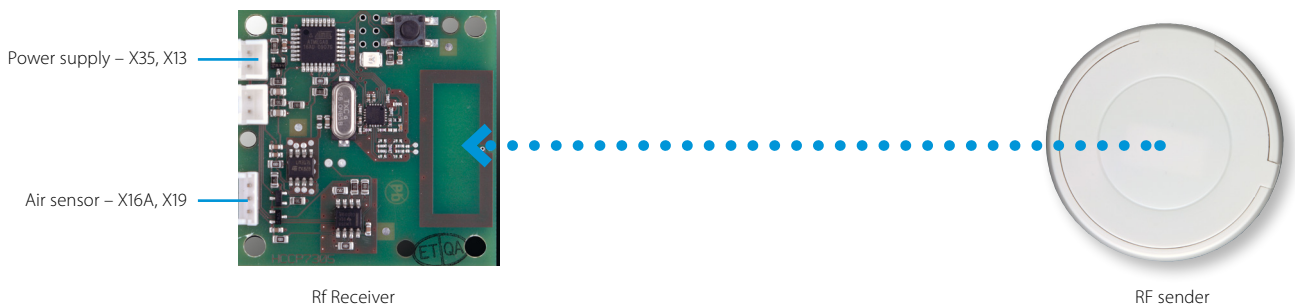
K.RSS



## 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 temperature 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			0~50
Communication	Type			RF
	Frequency	MHz		868.3

- › 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

KRCS01-1B  
KRCS01-4B



- › Accurate temperature measurement, thanks to flexible placement of the sensor











## Specifications

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

## ADAPTER PCBs


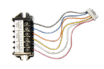

### Simple solutions for unique requirements Concept and benefits

- › Low cost option to satisfy simple control requirements
- › Deployed on single or multiple units

			Connectable to:		
			Split	Sky Air	VRV
	<b>(E)KRP1B*</b> adapter for wiring	<ul style="list-style-type: none"> <li>Facilitates integration of auxiliary heating apparatus, humidifiers, fans, damper</li> <li>Powered by and installed at the indoor unit</li> </ul>		•	•
	<b>KRP2A*/KRP4A*</b> Wiring adapter for electrical appendices	<ul style="list-style-type: none"> <li>Remotely start and stop up to 16 indoor units (1 group) (KRP2A* via P1 P2)</li> <li>Remotely start and stop up to 128 indoor units (64 groups) (KRP4A* 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>		•	•
	<b>KRP58M3</b>	<ul style="list-style-type: none"> <li>Low noise and demand control option for RZQ200/250C</li> </ul>		•	
	<b>SB.KRP58M51</b>	<ul style="list-style-type: none"> <li>Low noise and demand control option for RZQG and RZQSG single phase</li> <li>Includes mounting plate EKMKA1</li> </ul>		•	
	<b>KRP58M51</b>	<ul style="list-style-type: none"> <li>Low noise and demand control option for RZQG1 and RZQSG 3 phase</li> </ul>		•	
	<b>DTA104A*</b> Outdoor Unit External Control Adapter	<ul style="list-style-type: none"> <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>			•
	<b>DCS302A52</b> Unification adapter for computerized control	<ul style="list-style-type: none"> <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>			•
	<b>KRP928*</b> Interface adapter for DIII-net	<ul style="list-style-type: none"> <li>Allows integration of split units to Daikin central controls</li> </ul>	•		
	<b>KRP413*</b> Wiring adapter normal open contact / normal open pulse contact	<ul style="list-style-type: none"> <li>Switch off auto restart after power failure</li> <li>Indication of operation mode / error</li> <li>Remotely start /stop</li> <li>Remotely change operation mode</li> <li>Remotely change fan speed</li> </ul>	•		
	<b>KRP980*</b> Adapter for split units without an S21 port	<ul style="list-style-type: none"> <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

<b>EKRORO</b>		<ul style="list-style-type: none"> <li>External ON/OFF or forced off</li> <li>Example: door or window contact</li> </ul>
<b>EKRORO 3</b>		<ul style="list-style-type: none"> <li>External ON/OFF or forced off</li> <li>F1/F2 contact</li> <li>Example: door or window contact</li> </ul>
<b>KRC19-26A</b>		<ul style="list-style-type: none"> <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>
<b>BRP2A81</b>		<ul style="list-style-type: none"> <li>Cool/heat selector PCB</li> <li>Required to connect KRC19-26A to a VRV IV outdoor unit</li> </ul>

AUTO-CLEANING PANEL



FILTERS



INTELLIGENT SENSORS



# Options & accessories

VRV outdoor	192
VRV indoor	196
Stylish indoor	200
Ventilation & Hot Water	202
Control Systems	203

Options & accessories - **VRV** outdoor

		VRV IV Heat Recovery					
		REYQ 8~12T	REYQ 14~20T	REMQ5T	2-module systems	3-module systems	
Kits	<b>Multi-module connection kit (obligatory)</b> - 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					
	<b>Central drain pan kit</b> - 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)	EKBPH012T + EKBHPCBT	EKBPH020T + EKBHPCBT	EKBPH012T + EKBHPCBT			
Adapters	<b>BHGP26A1</b> 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	
	<b>External control adapter for outdoor unit</b> - 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 mounting plate is required. See Options & Accessories of indoor units					
	<b>KRC19-26A</b> 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.						
	<b>EBRP2B</b> - Cool/heat selector PCB						
	<b>BRP2A81</b> Cool/heat selector PCB (required to connect KRC19-26A to VRV IV outdoor)						
	<b>KKSA26A560*</b> Cool/heat selector PCB mounting plate (only required when cool/heat selector PCB and Heater tape kit are combined)						
	Others	<b>KJB111A</b> Installation box for remote cool/heat selector KRC19-26A					
		<b>EKCHSC</b> - Cool/heat selector cable					
		<b>EKPCCAB3</b> VRV configurator	•	•	•	•	•
		<b>KKSB2B61*</b> Demand PCB mounting plate. Needed to mount Demand PCB for one or more outdoor units.					
<b>DTA109A51</b> DIII-net expander adapter		•	•	•	•	•	
<b>BPMKS967A2/A3</b> Branch provider (for connection of 2/3 RA indoor units)							
<b>EKDK04</b> Drain plug kit							

		VRV IV S-series			
		RXYSQC-T	RXYSQ4-6T8V	RXYSQ4-6T8Y	
Kits	<b>Multi-module connection kit (obligatory)</b> - Connects multiple modules into a single refrigerant system				
	<b>Extended level difference kit</b> - Allows outdoor unit to be more than 50m above indoor units				
	<b>Central drain pan kit</b> - 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)				
Adapters	<b>BHGP26A1</b> 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.				
	<b>External control adapter for outdoor unit</b> - 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. See Options & Accessories of indoor units			
	<b>KRC19-26A</b> 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.		•	•	
	<b>EBRP2B</b> - Cool/heat selector PCB (Required to connect KRC19-26A)		•		
	<b>BRP2A81</b> Cool/heat selector PCB (required to connect KRC19-26A to VRV IV outdoor)				
	<b>KKSA26A560*</b> Cool/heat selector PCB mounting plate (only required when cool/heat selector PCB and Heater tape kit are combined)				
	Others	<b>KJB111A</b> Installation box for remote cool/heat selector KRC19-26A		•	•
		<b>EKCHSC</b> - Cool/heat selector cable (Required to connect KRC19-26A)			•
		<b>EKPCCAB3</b> VRV configurator	•	•	•
		<b>KKSB2B61*</b> Demand PCB mounting plate. Needed to mount Demand PCB for one or more outdoor units.			
<b>DTA109A51</b> DIII-net expander adapter					
<b>BPMKS967A2/A3</b> Branch provider (for connection of 2/3 RA indoor units)		•	•	•	
<b>EKDK04</b> Drain plug kit		•	•		

VRV IV with continuous heating						VRV IV without continuous heating			
RYYQ8-12T (8)	RYYQ14-20T	RYMQ8-12T	RYMQ14-20T	2-module systems	3-module systems	RXYQ8-12T 8	RXYQ14-20T	2-module systems	3-module systems
				BHFQ22P1007	BHFQ22P1517			BHFQ22P1007	BHFQ22P1517
EKBPH012T + EKBPHPCBT	EKBPH020T + EKBPHPCBT	EKBPH012T + EKBPHPCBT	EKBPH020T + EKBPHPCBT			EKBPH012T + EKBPHPCBT	EKBPH020T + EKBPHPCBT		
•	•	•	•	1 kit per system	1 kit per system	•	•	1 kit per system	1 kit per system

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

•	•	•	•	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	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
	EKDPRHIRDX	EKDPRHIRDX		

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

			•	•
				•
				•
•			•	•
•			•	•
•				

		VRV IV-Q Heat Pump Replacement VRV				
		RQYQ 140P	RXYQ8-12T	RXYQ14-20T	2-module systems	3-module systems
Kits	<b>Multi-module connection kit (obligatory)</b> Connects multiple modules into a single refrigerant system				BHFQ22P1007	BHFQ22P1517
	<b>Central drain pan kit</b> - 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				
	<b>Heater tape kit</b> - Optional electrical heater to guarantee trouble-free operation in extremely cold and humid climates (one per outdoor unit needed)		EKBPH012T + EKBPHPCBT	EKBPH020T + EKBPHPCBT		
	<b>BHGP26A1</b> 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	<b>External control adapter for outdoor unit</b> - 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 mounting plate is required. See Options & Accessories of indoor units				
	<b>KRC19-26A</b> 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
	<b>BRP2A81</b> Cool/heat selector PCB (required to connect KRC19-26A to VRV IV outdoor)		•	•	1 kit per system	1 kit per system
Others	<b>KKSA26A560*</b> - 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
	<b>KJB111A</b> Installation box for remote cool/heat selector KRC19-26A	•	•	•	1 kit per system	1 kit per system
	<b>EKPCCAB3</b> VRV configurator		•	•	•	•
	<b>KKSB2B61*</b> Demand PCB mounting plate. Needed to mount Demand PCB for one or more outdoor units.			•		
	<b>DTA109A51</b> DIII-net expander adapter	•	•	•	•	•

Refnets & branch selector boxes

		Refnet 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
Refnets	Metric-size connections for heat pump systems (2-pipe)	KHRQM22M20T	KHRQM22M29T	KHRQM22M64T	KHRQM22M75T	KHRQM22M29H	KHRQM22M64H
	Imperial-size connections for heat recovery pump (2-pipe)	KHRQ22M20T	KHRQ22M29T9	KHRQ22M64T	KHRQ22M75T	KHRQ22M29H	KHRQ22M64H
	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
Options for Branch selector-boxes (BS box) (only for connection with VRV heat recovery system)	<b>EKBSVQLNP</b> Sound reduction kit (sound insulation)						
	<b>KHFP26A100C</b> Closed pipe kit						
	<b>KHRP26A1250C</b> Joint kit						
	Quiet kit						

VRV III-Q Heat Recovery Replacement VRV				VRV-W IV Water-cooled VRV				
RQEQ 140~212	2-module systems	3-module systems	4-module systems	RWEYQ8-14T9	Heat Pump application		Heat Recovery application	
	BHFP26P36C	BHFP26P63C	BHFP26P84C		2-module systems	3-module systems	2-module systems	3-module systems
					BHFQ22P1007	BHFQ22P1007 / BHFQ22P1517	BHFQ23P907	BHFQ23P907 / BHFQ23P1357
KWC26B160	1 kit per module	1 kit per module	1 kit per module					
•	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		
				•	1 kit per system	1 kit per system		
				•	•	•	•	•
•	•	•	•	•	•	•	•	•

Capacity index > 640	Heat Recovery Branch Selector Boxes (BS-Boxes)						
	1-port BS1Q-A	4-port BS4Q14AV1B	6-port BS6Q14AV1B	8-port BS8Q14AV1B	10-port BS10Q14AV1B	12-port BS12Q14AV1B	16-port BS16Q14AV1B
KHRQM22M75H							
KHRQ22M75H							
KHRQM23M75H							
KHRQ23M75H							
	•						
		•	•	•	•	•	•
		•	•	•	•	•	•
		KDDN26A4	KDDN26A8	KDDN26A8	KDDN26A12	KDDN26A12	KDDN26A16

		Ceiling mounted cassette units				
		Round flow (800x800)	4-way (600x600)	2-way blow		
		FXFQ 20~125A	FXZQ 15~50A	FXCQ 20~40A	FXCQ 50~63A	FXCQ 80 ~125A
Panels	Decoration panel (obligatory for cassette units, optional for others, rear panel for FXLQ)	BYCQ140DG9 (self clean) (5)/(6) BYCQ140DGF9 (fine mesh) (5)/(6) BYCQ140DW (white) (3) BYCQ140D (Standard)	BYFQ60CW (white panel) BYFQ60CS (grey panel) BYFQ60B3 (Standard panel)	BYBCQ40H	BYBCQ63H	BYBCQ125H
	Panel spacer for reducing required installation height		KDBQ44B60 (Standard panel)			
	Sealing kit for 3- or 2-directional air discharge	KDBHQ55B140 (7)	BDBHQ44C60 (white & grey panel)			
	Sensor kit	BRYQ140A	BRYQ60AW (white panel) BRYQ60AS (grey panel)			
Individual control systems	Infrared remote control including receiver	BRC7FA532F	BRC7F530W (9) (10) (white panel) BRC7F530S (9) (10) (grey panel) BRC7EB530 (9) (10) (standard panel)	BRC7C52	BRC7C52	BRC7C52
	<b>BRC1H51W</b> (White) / <b>BRC1H51S</b> (Silver) / <b>BRC1H51K</b> (Black) User-friendly wired remote controller with premium design	•	•	•	•	•
	<b>BRC1E53A/B/C</b> Wired remote control with full-text interface and back-light	•	•	•	•	•
	<b>BRC1D52 (4)</b> Standard wired remote control with weekly timer	•	•	•	•	•
	<b>BRC2E52C</b> Simplified remote control (with operation mode button)	•	•	•	•	•
	<b>BRC3E52C</b> Simplified remote control (without operation mode button)	•	•	•	•	•
	<b>DCC601A51</b> Intelligent Tablet Controller	•	•	•	•	•
	<b>DCS601C51 (12)</b> intelligent Touch Controller	•	•	•	•	•
Centralised control systems	<b>DCS302C51 (12)</b> Central remote control	•	•	•	•	•
	<b>DCS301B51 (12) (13)</b> Unified ON/OFF control	•	•	•	•	•
	<b>DST301B51 (12)</b> Schedule timer	•	•	•	•	•
	<b>DCM601A51</b> Intelligent Touch Manager	•	•	•	•	•
	<b>EKMBDXA</b> DIII-net modbus interface	•	•	•	•	•
Building management system + standard protocol interface	<b>KLIC-DI</b> KNX interface	•	•	•	•	•
	<b>DMS502A51</b> BACnet interface	•	•	•	•	•
	<b>DMS504B51</b> LowWorks interface	•	•	•	•	•
	Replacement long life filter, non-woven type	KAFP551K160	KAFQ441BA60	KAFP531B50	KAFP531B80	KAFP531B160
	Auto cleaning filter	see decoration panel				
Adapters	Wiring adapter for external monitoring/control via dry contacts and setpoint control via 0-140Ω	KRP4A53 (2)/(7)	KRP4A53 (2)	KRP4A51	KRP4A51	KRP4A51
	Wiring adapter with 2 output signals (Compressor / Error, Fan output)	KRP1B57 (2)/(7)	KRP1B57			
	Wiring adapter with 4 output signals (Compressor / Error, Fan, Aux. heater, Humidifier output)	EKRP1C11 (2)/(7)	EKRP1B2	EKRP1B2	EKRP1B2	EKRP1B2
	Adapter for wiring (interlock for fresh air intake fan)					
	Wiring adapter for external central monitoring/control (controls 1 entire system)		KRP2A52	KRP2A51	KRP2A51	KRP2A51
	External control adapter for outdoor unit (installation on indoor unit)			DTA104A61	DTA104A61	DTA104A61
	Adapter for multi-tenant applications (24VAC PCB power supply interface)	DTA114A61	DTA114A61			
	Digital input adapter (2)/11	BRP7A53	BRP7A53	BRP7A51	BRP7A51	BRP7A51
	Installation box / Mounting plate for adapter PCBs (For units where there is no space in the switchbox)	KRP1H98 (7)	KRP1A101	KRP1C96	KRP1C96	KRP1C96
	External wired temperature sensor	KRCS01-4	KRCS01-4	KRCS01-4	KRCS01-4	KRCS01-4
	<b>K.RSS</b> External wireless temperature sensor	•	•	•	•	•
	Connector for forced-off contact	Standard	Standard	Standard	Standard	Standard
Others	Multi zoning kit					
	Drain pump kit	Standard	Standard	Standard	Standard	Standard
	Fresh air intake kit	KDDQ55B140-1 + KDDQ55B140-2 (7)(8)	KDDQ44XA60			
	Air discharge adapter for round duct					
	Filter chamber for bottom suction			KDDFP53B50	KDDFP53B80	KDDFP53B160

- (1) pump station is necessary for this option
- (2) Installation box is necessary for these adapters
- (3) The BYCQ140D7W1W 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 BYCQ140D7W1W 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 BYCQ140D7GW1 the controller BRC1E is needed
- (6) The BYCQ140D7GW1 is not compatible with Multi and Split Non-Inverter Outdoor units
- (7) Option not available in combination with BYCQ140D7GW1
- (8) Both parts of the fresh air intake are needed for each unit
- (9) Sensing function not available
- (10) Independently controllable flaps function not available
- (11) Only possible in combination with BRC1H\* / BRC1/2/3E\*
- (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 harness EKEWTSC is necessary



		Concealed ceiling units (duct units)			Ceiling suspended units			
		High efficiency		Large	1-way blow			
		FXMQ 50~80	FXMQ 100~125	FXMQ 200~250	FXHQ 32A	FXHQ 63A	FXHQ 71~100A	
Panels	Decoration panel (obligatory for cassette units, optional for others, rear panel for FXLQ)							
	Panel spacer for reducing required installation height							
	Sealing kit for 3- or 2-directional air discharge							
	Sensor kit							
Individual control systems	Infrared remote control including receiver	BRC4C65	BRC4C65	BRC4C65	BRC7G53	BRC7G53	BRC7G53	
	<b>BRC1H51W</b> (White) / <b>BRC1H51S</b> (Silver) / <b>BRC1H51K</b> (Black)	•	•	•	•	•	•	
	User-friendly wired remote controller with premium design							
	<b>BRC1E53A/B/C</b>	•	•	•	•	•	•	
	Wired remote control with full-text interface and back-light							
	<b>BRC1D52 (4)</b>	•	•	•	•	•	•	
	Standard wired remote control with weekly timer							
Centralised control systems	<b>BRC2E52C</b>	•	•	•	•	•	•	
	Simplified remote control (with operation mode button)							
	<b>BRC3E52C</b>	•	•	•	•	•	•	
Building management system + standard protocol interface	Simplified remote control (without operation mode button)							
	<b>DCC601A51</b>	•	•	•	•	•	•	
	Intelligent Tablet Controller							
	<b>DCS601C51 (12)</b>	•	•	•	•	•	•	
	intelligent Touch Controller							
	<b>DCS302C51 (12)</b>	•	•	•	•	•	•	
	Central remote control							
Filters	<b>DCS301B51 (12) (13)</b>	•	•	•	•	•	•	
	Unified ON/OFF control							
	<b>DST301B51 (12)</b>	•	•	•	•	•	•	
Adapters	Schedule timer							
	<b>DCM601A51</b>	•	•	•	•	•	•	
	Intelligent Touch Manager							
	<b>EKMBDXA</b>	•	•	•	•	•	•	
	DIII-net modbus interface							
	<b>KLIC-DI</b>	•	•	•	•	•	•	
Others	KNX interface							
	<b>DMS502A51</b>	•	•	•	•	•	•	
	BACnet interface							
	<b>DMS504B51</b>	•	•	•	•	•	•	
	LowWorks interface							
	Replacement long life filter, non-woven type				KAFP501A56	KAFP501A80	KAFP501A160	
	Auto cleaning filter							
	Adapters	Wiring adapter for external monitoring/control via dry contacts and setpoint control via 0-140Ω	KRP4A51	KRP4A51	KRP4A51	KRP4A52	KRP4A52	KRP4A52
		Wiring adapter with 2 output signals (Compressor / Error, Fan output)				KRP1B54	KRP1B54	KRP1B54
		Wiring adapter with 4 output signals (Compressor / Error, Fan, Aux. heater, Humidifier output)	EKRP1B2	EKRP1B2	KRP1B61			
		Adapter for wiring (interlock for fresh air intake fan)						
		Wiring adapter for external central monitoring/control (controls 1 entire system)	KRP2A51	KRP2A51	KRP2A51	KRP2A62	KRP2A62	KRP2A62
		External control adapter for outdoor unit (installation on indoor unit)	DTA104A61	DTA104A61	DTA104A61	DTA104A62	DTA104A62	DTA104A62
		Adapter for multi-tenant applications (24VAC PCB power supply interface)	DTA114A61	DTA114A61				
Digital input adapter (2) / (11)		BRP7A51	BRP7A51	BRP7A51	BRP7A52	BRP7A52	BRP7A52	
Installation box / Mounting plate for adapter PCBs (For units where there is no space in the switchbox)		KRP4A96	KRP4A96		KRP1D93A	KRP1D93A	KRP1D93A	
External wired temperature sensor		KRCS01-4	KRCS01-4	KRCS01-1	KRCS01-4	KRCS01-4	KRCS01-4	
<b>K.RSS</b>		•	•	•	•	•	•	
External wireless temperature sensor								
Connector for forced-off contact		Standard	Standard	Standard	EKRORO4	EKRORO4	EKRORO4	
Multi zoning kit								
Drain pump kit	Standard	Standard		KDU50P60	KDU50P140	KDU50P140		
Fresh air intake kit				KDDQ50A140	KDDQ50A140	KDDQ50A140		
Air discharge adapter for round duct	KDAJ25K71	KDAJ25K140						
L-type piping kit (for upward direction)				KHFP5M35	KHFP5N63	KHFP5N160		

(1) pump station is necessary for this option  
 (2) Installation box is necessary for these adapters  
 (3) The BYCQ140D7W1W 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 BYCQ140D7W1W 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 BYCQ140D7GW1 the controller BRC1E is needed  
 (6) The BYCQ140DGW1 is not compatible with Multi and Split Non-Inverter Outdoor units  
 (7) Option not available in combination with BYCQ140D7GW1  
 (8) Both parts of the fresh air intake are needed for each unit  
 (9) Sensing function not available  
 (10) Independently controllable flaps function not available  
 (11) Only possible in combination with BRC1H\* / BRC1/2/3E\*  
 (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 harness EKEWTSC is necessary



4-way blow FXUQ 71~100A	Wall mounted units	Floor standing units			
	FXAQ 15~63	Concealed	Free-standing		
		FXNQ 20~63	FXLQ 20~25	FXLQ 32~40	FXLQ 50~63
			EKRDP25A	EKRDP40A	EKRDP63A
KDBHP49B140 + KDBTP49B140					
BRC7C58	BRC7EA628	BRC4C65	BRC4C65	BRC4C65	BRC4C65
•	•	•	•	•	•
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KAFP551K160					
KRP4A53 *2	KRP4A51(2)	KRP4A54	KRP4A51	KRP4A51	KRP4A51
	KRP1B56	KRP1B56	KRP1B61	KRP1B61	KRP1B61
	KRP2A51(2)	KRP2A53	KRP2A51	KRP2A51	KRP2A51
	DTA104A61				
	DTA114A61	DTA114A61	EKMTAC	EKMTAC	EKMTAC
BRP7A53		BRP7A51	BRP7A51	BRP7A51	BRP7A51
KRP1B97	KRP4A93				
KRCS01-4	KRCS01-1	KRCS01-4	KRCS01-1	KRCS01-1	KRCS01-1
•	• (14)	•	•	•	•
EKROROS	Standard	Standard	Standard	Standard	Standard

	HXY080-125A8	HXHD125-200A8
Drain pan	EKHBDFCA2	-
Digital I/O PCB	EKRPIHBAA	-
Demand PCB - Required to connect room thermostat	EKRPIAHTA	-
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 installer needs to select 1 master & 1 slave	EKRUAHTB	-
Back-up heater	EKBUHAA6(W1/V3)	-
Wired room thermostat - Requires demand PCB EKRPIAHTA	EKRRTWA	-
Wireless room thermostat - Requires demand PCB EKRPIAHTA	EKRTR1	-
Remote sensor for room thermostat - Requires demand PCB EKRPIAHTA	EKRTEETS	-
Domestic hot water tank - standard (stacked on top of hydrobox)	-	EKHTS200AC EKHTS260AC
Domestic hot water tank - with possibility for solar connection	-	EKHWP500B
Solar collector *1	-	EKS26P (vertical) EKSH26P (horizontal)
Pump station	-	EKSRRPS

## Options - Stylish indoor

		R-410A					
		FDXM-F3	FTXG-LW/S	C/FTXS-K	FVXG-K	FVXS-F	FLXS-B(9)
Individual control systems	BRC1E53A/B/C (3)(4)(5) - Premium wired remote control with full-text interface and back-light	•					
	BRC073 (9) - Wired remote control (cord for wired remote control required)		•	•	•	•	•
	BRC2E52C - Simplified remote control (with operation mode selector button)						
	BRC2C51 - Simplified remote control	•					
	BRC3E52C - Simplified remote control (without operation mode selector button)	•					
	BRC3A61 - Remote control for hotel use						
	BRC4C65 - Infrared remote control	• (10)					
Centralised control systems	DCC601A51 - Centralised controller with cloud connection by using the adapter KRP928*				•	•	•
	Online controller		BRP069A41	BRP069A43 (CTXS15-35, FTXS20-25) BRP069A42 (FTXS35-50)	BRP069A42	BRP069A42	BRP069A42
	DCS302C51 - Central remote control		•	•			
	DCS301B51 - Unified ON/OFF control		•	•			
	DST301BA51 - Schedule timer	•	•	•			
Building Management System & Standard protocol interface	DCM601A5A - Intelligent Touch Manager		•	•	•	•	•
	EKMBDXA - Modbus interface						
	RTD-RA (9) - Modbus gateway		•	•	•	•	•
	KLIC-DD (9) - KNX Interface		•	•	•	•	•
Adapters	BRP7A54 (7)(8) - Adapter PCB for interlock (key card, ...)	•					
	BRP069A45 - WIFI adapter fro smart phone						
	KRP1B56 - Adapter for wiring	•					
	EKR1B2 (6) - Adapter for wiring (hour meter)						
	KRP413A1S (9) - Adapter for wiring normal open contact/normal open pulse contact (time clock and other devices to be purchased locally)		•	•	•	•	•
	KRP4A54 - Adapter for external ON/OFF and monitoring for electrical appendices	•					
	KRP2A53 - Wiring adapter for electrical appendices	•					
	Installation box for adapter PCBs (when there is no space in the switchbox)	KRP1BA101					
	KRP980A1 - Interface adapter for wired remote control			class 15-20-25			
	KRP928A 2S (9) - Interface adapter for DIII-net		•	•	•	•	•
	DTA114A61 - Multi tenant	•					
	KRCS01-4 - External wired temperature sensor						
Filter	KEK26-1A - Noise filter (for electromagnetic use only)	•					
Others	Anti-theft protection for remote control		KKF910A4	KKF910A4	KKF910A4		
	KRCS01-4B - External wired temperature sensor	•					
	BRCW901A03 - Cord for wired remote control - 3m		•	•	•	•	•
	BRCW901A08 - Cord for wired remote control - 8m		•	•	•	•	•
	BKS028 - Installation leg				•		
	KDT25N32/KDT25N50/KDT25N63 - Installation kit for high humidity	•					
	KJB212A - Electrical box with earth terminal (2 blocks)	•					
	KJB311A - Electrical box with earth terminal (3 blocks)	•					

(1) Can be used only in combination with KRP980A1

(2) WLAN installation kit include interface adapter PCB

(3) BRC1E53A: included languages: English, German, French, Italian, Spanish, Dutch, Greek, Russian, Turkish, Portuguese, Polish

(4) BRC1E53B: included languages: English, German, Czech, Hungarian, Romanian, Slovenian, Bulgarian, Slovak, Serbian, Albanian

(5) BRC1E53C: included languages

(6) Installation box for adapter PCB is necessary. Hour meter is field supply and should not be installed inside the equipment.

(7) Installation box for adapter PCB is necessary. They require mounting plate KRP4A96, maximally 2 optional PCBs can be mounted.

(8) Only in combination with simplified remote control BRC2E52C or BRC3E52C.

(9) Wiring adapter supplied by Daikin. Time clock and other devices: to be purchased locally.

(10) Standard there is no remote control delivered with this indoor unit. Wired or infrared control to be ordered separately.

(11) Standard delivered with the unit.

## Options - Stylish indoor

INDOOR UNITS		FCAHG-G FCAG-A	FFA-A	FDBQ-B	FBA-A	FDA-A	FHA-A
Panels	Decoration panel (obligatory for cassette units, optional for others)	BYCQ140D (standard) BYCQ140DW (white)(1) BYCQ140DG9/ BYCQ140DGF9 (auto-cleaning)(2)(4)	BYFQ60CW (white) BYFQ60CS (silver) BYFQ60B3 (standard)			BYBS12SD + EKBYBSD	
	Panel spacer for reducing required installation height		KDBQ44B60 (only for standard panel)				
	Sealing kit for 3- or 2-directional air discharge	KDBHQ55B140 (11)	BDBHQ44C60				
	Sensor kit	BRYQ140A	BRYQ60AW (white) (9) BRYQ60AS (silver)(9)				
Individual control systems	BRP069A81 - Online Controller	•	•		•	•	•
	Infrared remote control (incl. receiver)	BRC7FA532F (11)	BRC7E8530W for standard panel (5)(6) BRC7F530W for white panel (5)(6) BRC7F395 - for silver panel (5)(6)		BRC4C65	BRC4C65	BRC7G53
	BRC1H51(9)W (9) (White) / BRC1H51S (9) (Silver) / BRC1H51K (9) (Black) User-friendly wired remote controller with premium design	•	•	•	•	•	•
	BRC1E53A/B/C (3) (13) - Wired remote control with full-text interface and back-light	•	•	•	•	•	•
	BRC1D52 (13) - Standard wired remote control with weekly timer	•	•	•	•	•	•
	BRC2E52C (3) (13) - Simplified remote control (with operation mode selector button)	•	•	•	•	•	•
	BRC3E52C (3) (13) - Simplified remote control (without operation mode selector button)	•	•	•	•	•	•
	ARCWB - Wired remote controller						
	DIII-net connection - for connection to centralized control	standard	standard		standard	standard	standard
	DCC601A51 - Intelligent tablet controller	•	•	•	•	•	•
DCS601C51 (13) - Intelligent touch controller	•	•	•	•	•	•	
DCS302C51 (13) - Central remote control	•	•	•	•	•	•	
DCS301B51 (13) - Unified ON/OFF control	•	•	•	•	•	•	
DST301B51 (13) - Schedule timer	•	•	•	•	•	•	
NIM03 - R04084124324 - Option PCB for group control							
Building Management System & Standard protocol interface	DCM601A51 - Intelligent Touch Manager	•	•	•	•	•	•
	RTD-NET - Modbus interface for monitoring and control	•	•	•	•	•	•
	RTD-10 - Modbus interface for infrastructure cooling	•	•	•	•	•	•
	RTD-20 - Modbus interface for retail	•	•	•	•	•	•
	RTD-HO - Modbus interface for hotel	•	•	•	•	•	•
	EKMBDXA - Modbus interface	•	•	•	•	•	•
	KLIC-DI - KNX Interface	•	•	•	•	•	•
	DCM010A51 - Daikin PMS interface	•	•	•	•	•	•
	DMS502A51 - BACnet Interface	•	•	•	•	•	•
	DMS504B51 - LonWorks Interface	•	•	•	•	•	•
Filters	Replacement long-life filter, non-woven type	KAFP551K160	KAFQ441BA60				KAFP501A56 (35-50) KAFP501A80 (60-71) KAFP501A60 (100-140)
	Auto cleaning filter	see deco panel					
Adapter	Wiring adapter for external monitoring/control via dry contacts and setpoint control via 0-140 Ω	KRP4A53 (10)(11)	KRP4A53 (10)		KRP4A52 (10)		KRP4A52 (10)
	Wiring adapter with 2 output signals (compressor/ Error, Fan output)	KRP1B57 (10)(11)	KRP1B57 (10)				
	Wiring adapter for external central monitoring/control (controls 1 entire system)				KRP2A51 (7)(10)	KRP2A51 (8)	
	Adapter for wiring (interlock for fresh air intake fan)				KRP1B54	KRP1C64 (7)	KRP1B54 (10)
	Wiring adapter with 4 output signals (compressor / Error, Fan, Aux, heater, Humidifier output)	EKRPT1C11 (10)(11)	EKRPT1B2	EKRPT1B2	EKRPT1B2 (7)	EKRPT1B2 (7)	
	Adapter for keypad or window contact connection (in combination with BRC1H*, BRC1/2/3E* only)	BRP7A53	BRP7A53	BRP7A53	BRP7A51 (12)	BRP7A54 (12)	BRP7A52 (10)
	Installation box/Mounting plate for adapter PCBs (when there is no space in the switchbox, an installation box is required)	KRP1H98 (11)	KRP1B101/ KRP1BA101		KRP1B101/ KRP1BA101	KRP4A96	KRP1D93A (box) KKSAP50A56 (35-50) [mounting plate]
	External wired temperature sensor	KRCS01-4	KRCS01-4	KRCS01-1	KRCS01-4	KRCS01-4	KRCS01-4
	K.R55 - External wireless temperature sensor	•	•	•	•	•	•
	Remote ON/OFF, forced OFF kit	standard	standard	standard	standard	EKRORO3	
DTA112B51 - Interface adapter for Sky Air					•		
Others	Drain pump kit						KDU50P60 (35 - 60) KDU50P140 (71 - 140)
	Multi zoning kit (for detailed model code overview refer to multizoning argue card in this catalogue)				2 dampers (35 - 50) 3 dampers (35 - 50) 4 dampers (35 - 71) 5 dampers (60 - 140) 6 dampers (60 - 140) 7 dampers (100 - 140) 8 dampers (100 - 140)		
	L-type piping kit (upward direction)						KHFPM5A35 (35) KHFPSN63 (50-60) KHFPSN160 (71-140)
	Fresh air intake kit (direct installation type)	KDDQ55B140-1 + KDDQ55B140-2 (11)	KDDQ44XA60				KDDQ50A140
	Air discharge adapter for round duct				KDAP25A56A (35-50) KDAP25A71A (60-71) KDAP25A140A [100-140]	KDAJ25K140A	

- (1) Dirt formation is more easily visible on white insulation. It is recommended not to install this option in environments with a high concentration of dirt.
- (2) To be able to control option BYCQ140DG(F)9, controller BRC1H\*, BRC1E\* is needed. These options cannot be combined with RXY5Q\*, multi or non-inverter split units
- (3) Included languages are:  
A: English, German, French, Dutch, Spanish, Italian and Portuguese  
B: English, Bulgarian, Croatian, Czech, Hungarian, Romanian and Slovenian  
C: English, Greek, Polish, Russian, Albanian, Slovak and Turkish (in case of BRC2/3E52C Serbian is available instead of Albanian)  
For BRC2/3E52C use PC cable EKPCAB3 in combination with the updater PC software to change to language pack B or C
- (4) The option is intended exclusively for use in fine dust environments (e.g. Clothing shops). Do not use it in environments that are greasy or have high humidity.
- (5) Sensing function is not available
- (6) Individual flap control function not available
- (7) If installing an electrical heater, an option PCB for external electrical heater (EKRP1B2) for each indoor unit is required. These options require mounting plate KRP4A96. Electrical heaters and humidifiers are field-supplied. Do not install them inside the equipment.
- (8) Mounting plate KRP4A96 is required for these options. Maximum 2 option PCB's can be mounted.
- (9) This option cannot be used with RR and RQ models
- (10) Requires installation box for adapter PCB, refer to table for model code
- (11) This option cannot be combined with BYCQ140DG(F)9
- (12) Maximum 2 optional PCBs can be mounted
- (13) Applicable boxes (KJB\*) to mount controllers can be found in the controls option list

## Options & accessories - Ventilation & hot water

		Heat reclaim ventilation - VAM									Heat reclaim ventilation VKM			Air handling unit applications		
		VAM 150FC	VAM 250FC	VAM 350J	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)
Individual control systems	BRC301B61 VAM wired remote control	•	•	•	•	•	•	•	•	•						
	BRC1H51W (Glossy white) / BRC1H51S (Silver Metallic) / BRC1H51K (Black matte) User-friendly wired remote controller with premium design	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	BRC1E53A/B/C Wired remote control with full-text interface and back-light	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	BRC1D52 Standard wired remote control with weekly timer	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Centralised control systems	DCC601A51 intelligent Tablet Controller	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	DCS601C51 intelligent Touch Controller	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	DCS302C51 Central remote control	•	•	•	•	•	•	•	•	•	•	•	•			
	DCS301B51 Unified ON/OFF control	•	•	•	•	•	•	•	•	•	•	•	•			
	DST301B51 Schedule timer	•	•	•	•	•	•	•	•	•	•	•	•			
	Building Management System & Standard protocol interface	DCM601A5A Intelligent Touch Manager	•	•	•	•	•	•	•	•	•	•	•	•	•	•
EKMBOXA Modbus interface		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
DMS502A51 BACnet Interface		•	•	•	•	•	•	•	•	•	•	•	•			
DMS504B51 LonWorks Interface		•	•	•	•	•	•	•	•	•	•	•	•			
Filters		EN779 Medium M6			EKAFV50F6	EKAFV50F6	EKAFV66F6	EKAFV100F6	EKAFV100F6	EKAFV100F6	EKAFV100F6 x2	EKAFV100F6 x2				
	EN779 Fine F7			EKAFV50F7	EKAFV50F7	EKAFV66F7	EKAFV100F7	EKAFV100F7	EKAFV100F7	EKAFV100F7 x2	EKAFV100F7 x2					
	EN779 Fine F8			EKAFV50F8	EKAFV50F8	EKAFV66F8	EKAFV100F8	EKAFV100F8	EKAFV100F8	EKAFV100F8 x2	EKAFV100F8 x2					
<b>Separate plenum</b>										EKPLEN200 (6)	EKPLEN200 (6)					
<b>CO<sub>2</sub> sensor</b>				BRYMA65	BRYMA65	BRYMA65	BRYMA100	BRYMA100	BRYMA200	BRYMA200	BRYMA65	BRYMA100	BRYMA200			
<b>Electrical heater</b>		VH1B	VH2B	VH3B	VH3B	VH4B / VH4/AB	VH4B / VH4/AB	VH4B / VH4/AB	VH5B(7)	VH5B(7)						
Others	Wiring adapter for external monitoring/control (controls 1 entire system)	KRP2A51	KRP2A51	KRP2A51(2)	KRP2A51(2)	KRP2A51(2)	KRP2A51(2)	KRP2A51(2)	KRP2A51(2)	KRP2A51(2)	BRP4A50A (4)	BRP4A50A (4)	BRP4A50A (4)			
	Adapter PCB for humidifier	KRP50-2	KRP50-2	KRP1C4(5)	KRP1C4(5)	KRP1C4(3/5)	KRP1C4(5)	KRP1C4(5)	KRP1C4(3/5)	KRP1C4(3/5)	BRP4A50A (4)	BRP4A50A (4)	BRP4A50A (4)			
	Adapter PCB for third party heater	BRP4A50	BRP4A50	BRP4A50A (4)	BRP4A50A (4)	BRP4A50A (3/4)	BRP4A50A (4)	BRP4A50A (4)	BRP4A50A (3/4)	BRP4A50A (3/4)	BRP4A50A (4)	BRP4A50A (4)	BRP4A50A (4)			
	External wired temperature sensor															KRCS01-1
	Adapter PCB Mounting plate					EKMP65VAM				EKMPVAM						

### Notes

- (1) Do not connect the system to DIII-net devices LONWorks interface, BACnet interface, ...; (intelligent Touch Manager, EKMBOXA 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

## Intelligent Tablet Controller - DCC601A51

		Intelligent Controller		
		Options for local control	Cloud options	Software
Zenpad 8" Tablet for local control	Z380M	●	-	-
Router		●	-	-
Online control - for remote monitoring and control	DCC001A51	-	●	-
App for local control- Application to run on Z380M tablet (download from Play store, Android only)		-	-	●
Commissioning tool		-	-	●
Software update tool		-	-	●

## Intelligent Touch Manager

		Intelligent Manager	
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

## Standard protocol interfaces

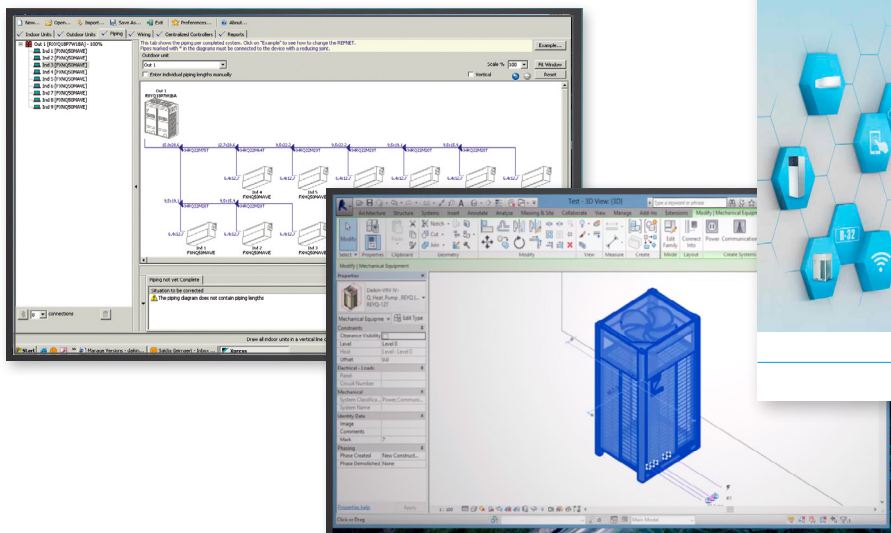
		BACnet Interface	
DIII-net expansion board (2 ports), connects up to 128 additional indoor units	DAM411B51	●	
Digital pulse inputs (12) for PPD functionality	DAM412B51	●	



We're here to help you!  
Online and offline



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# Tools and platforms

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30 years of history	212
Research & development	214

# Commercial market - literature overview

## for professional network

Solution guides:

Reference books:



Product profiles:



**VRV IV range**  
Detailed VRV IV standards and technologies benefits. Main features and specs of VRV IV product range

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**VRV IV i-series**  
Main benefits, application examples and specs of VRV IV i-series product range

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**VRV IV S-series**  
Main benefits, application examples and specs of VRV IV S-series product range

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**Sky Air A-series**  
Main benefits and specs

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**Water-to-air heat pump**  
Detailed info on VRV IV W-series, application examples, technical system design background

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Focus topics:



**Replacement Technology**  
Clear installer benefits of VRV replacement technology

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**Infrastructure cooling**  
Clear installer benefits why to choose Daikin for infrastructure cooling

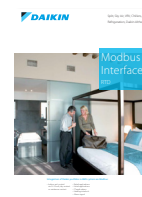
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Product flyers:



**Wired Remote Control**  
Detailed info on BRC1E52A/B remote control

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**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/Ventilation/Biddle Air Curtain/Control systems/AHU

100



**VRV Catalogue**  
Detailed technical information & benefits of the VRV total solution

200



**Ventilation Catalogue**  
Detailed info on Ventilation products

203



## for your customers



**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

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**Reference catalogue**  
Daikin commercial and industrial references

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**Hotel Solutions**  
Clear building owner/investor benefits why to choose Daikin for a hotel

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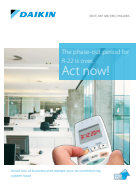
**Intelligent Touch Manager**  
Detailed benefits of Intelligent Touch Manager

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**DCC601A51**  
Detailed benefits of DCC601A51 and Daikin Cloud Service

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**Replacement technology**  
Clear building owner/investor benefits of replacement technology

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**Sky Air product leaflets**  
Single page leaflet with the main benefits and technical specifications of each individual Sky Air unit. Ideal for quotations

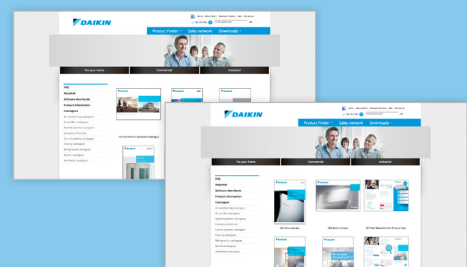


**VRV product leaflets**  
Single page leaflet with the main benefits and technical specifications of each individual VRV unit. Ideal for quotations



### Technical documentation:

All latest Daikin catalogues are available in a convenient library on the internet:  
[www.daikineurope.com/support-and-manuals/catalogues](http://www.daikineurope.com/support-and-manuals/catalogues)



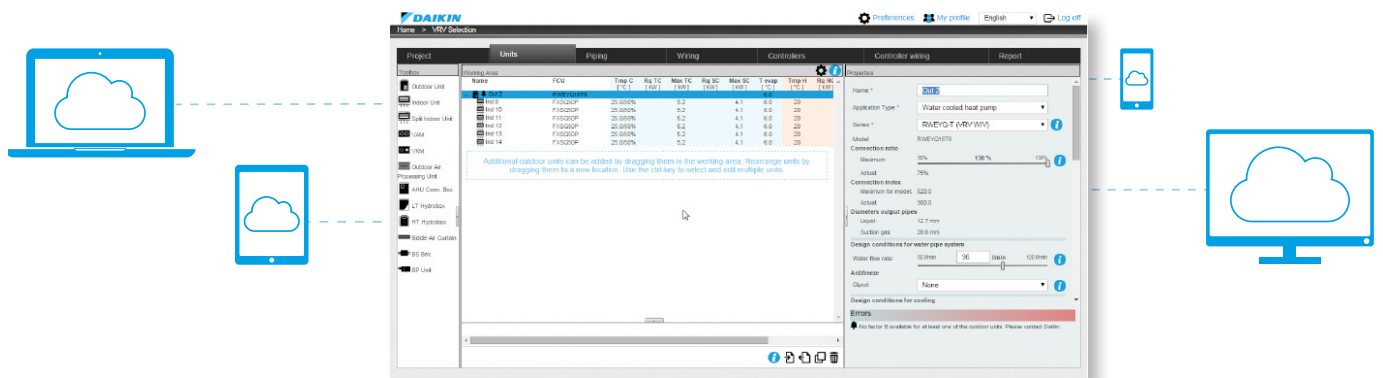
# Supporting tools, software and apps

[www.daikineurope.com/  
support-and-manuals/  
software-downloads](http://www.daikineurope.com/support-and-manuals/software-downloads)

## New web based Xpress selection software

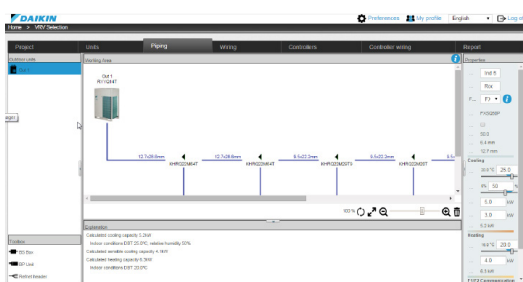
### Making selection easy, anytime, anywhere

- › 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

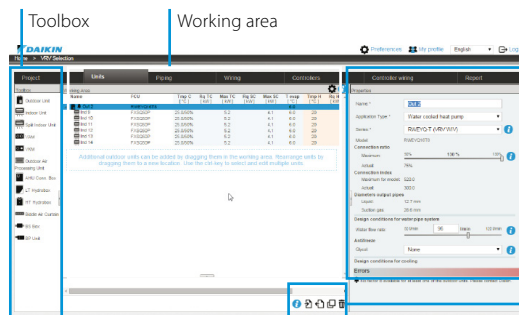


Easy selection, anytime, anywhere

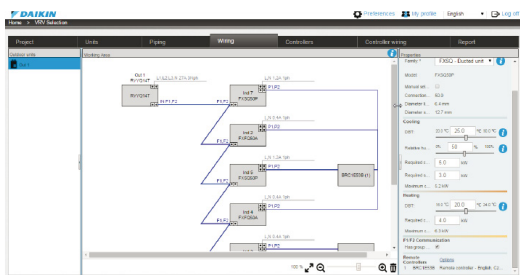
### Main functions



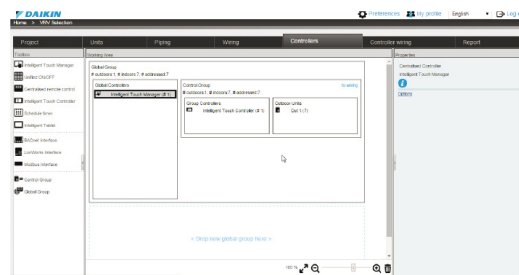
Easy editing of piping



Intuitive interface



Clear wiring overview, easy to make control groups



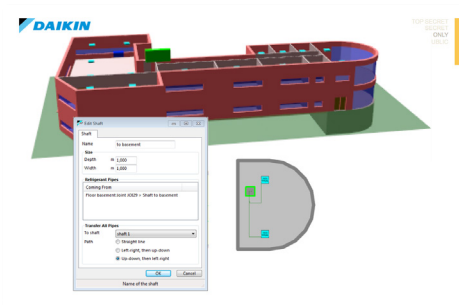
Clear overview of control groups and central controls

## 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.

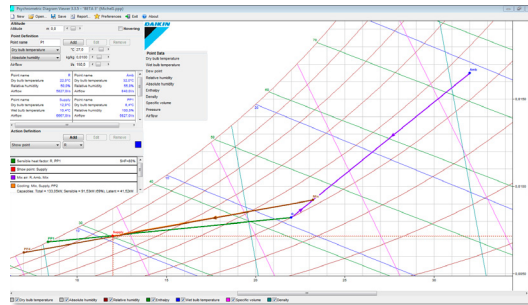
- › Accurate heat load calculation
- › Precise selection based on peak loads
- › Energy consumption indication



### 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):

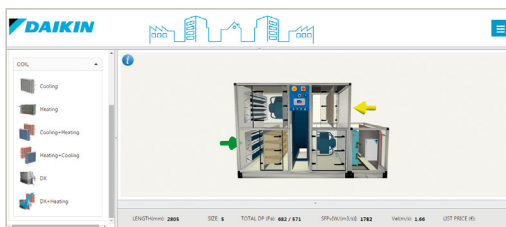
- › Determines size of electrical heaters
- › Visualisation of psychrometric chart
- › Visualisation of selected configuration
- › Required field settings mentioned in the report



### Webbased ASTRA selection **NEW** 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 **NEW**

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

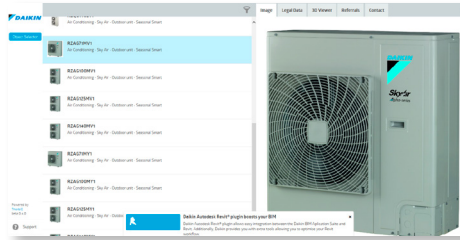
**Intelligent touch Manager**



# Plugins and third-party software tools

## Building Information Modelling (BIM) support

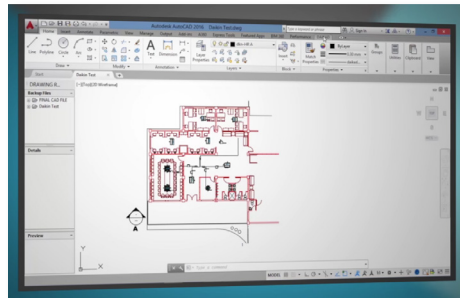
- › BIM improves efficiency of design and build phase
- › Daikin is among the first to supply a full library of BIM objects for its VRV products



[www.daikin.eu/bim](http://www.daikin.eu/bim)

## 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

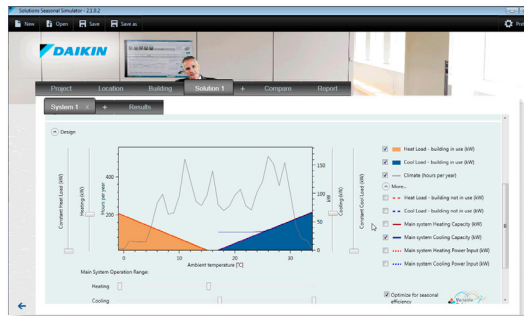


<http://www.daikineurope.com/autocad/index.jsp>

# Energy simulation and design aid tools

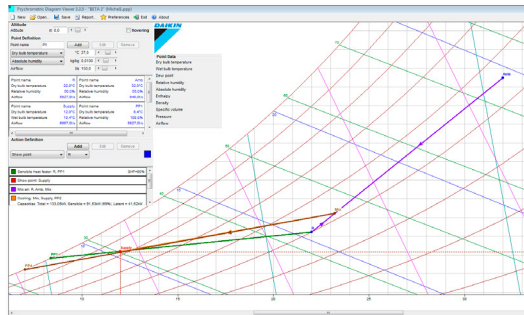
## Seasonal simulator

- › 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

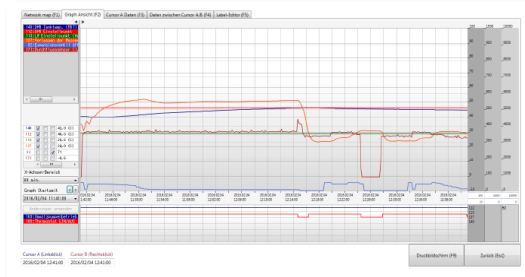
## Bluetooth adaptor **NEW**

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

## **NEW** Business portal

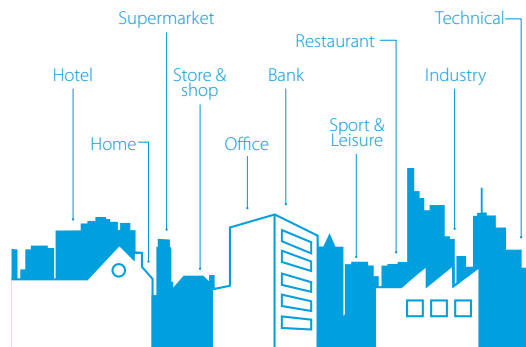
- › Experience our new extranet that thinks with you at [my.daikin.eu](http://my.daikin.eu)
- › Find information in seconds via a powerful search
- › Customise the options so you see only info relevant for you
- › Access via mobile device or desktop

[my.daikin.eu](http://my.daikin.eu)



# Internet

Find our solution for different applications:



- › Get more commercial details on our flagship products via our dedicated minisites
- › See our references



[www.daikineurope.com/references](http://www.daikineurope.com/references)

# Over 30 years of VRV History



**R-22**



**R-407C**



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

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

1987

1991

1994

1998

2003

2004

2005

2006-20

1991

**Introduce VRV heat recovery**

- > Simultaneous cooling and heating

1994

**Awarded ISO9001 certification**



2003

**Introduce VRVII-- the first R-410A VRF system**

Available in cooling, heat pump and heat recovery

- > 40 units connected to single refrigerant circuit

2005

**Extends VRVII inverter range with water cooled VRV-WIII**

- > Available in heat pump and heat recovery



**R-410A**





### 2009

#### Extends VRV range with water cooled VRV-WIII

- > Geothermal version available
- > Operate down to -10C in heating mode



### 2011

#### Launch total solution concept

- > Integrate hot water production and Biddle air curtains into VRV system
- > Connectable to Daikin Emura and Nexura
- > 400,000 outdoors units sold
- > 2.2 million indoor units sold



### 2015

#### Launch of VRV IV S-series

- > Most compact unit in the market
- > Widest range in the market

### 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



### 2010

#### Launch of replacement VRV (VRVIII-Q)

- > 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

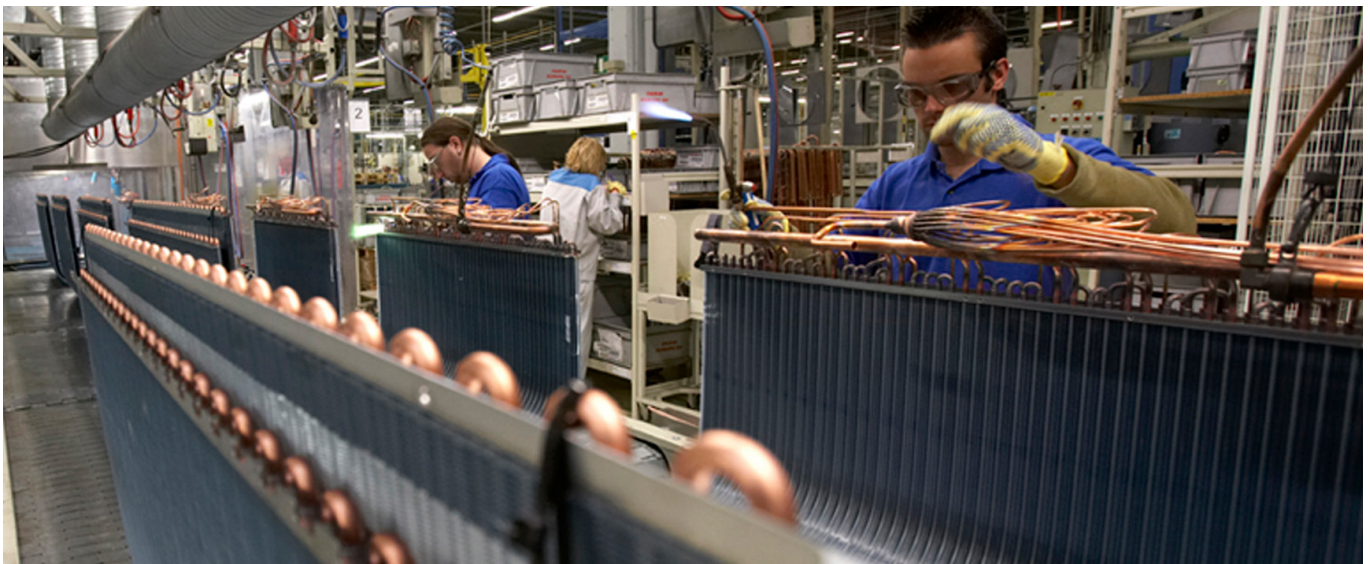


### 2015

#### Launch of VRV IV i-series

- > The invisible VRV
- > Unique product concept





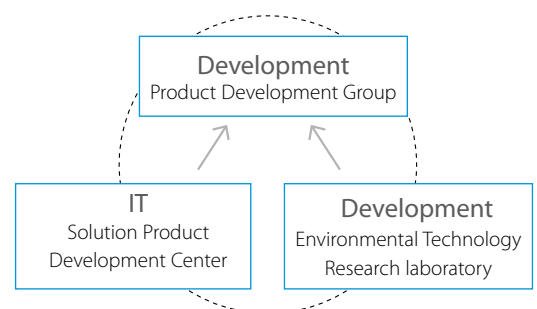
## Research & development

### Creating value through innovative technologies

R&D is essential for the creation of products that enrich people's lives. As symbolised by the VRV, Daikin is at the forefront of innovative technology and the development of market leading products: the result of our advanced R&D system.

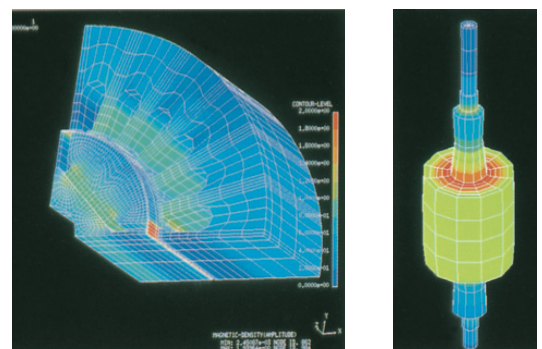
### Superior products from multi-part development approach

To create more advanced functions with added value, Daikin has set up the 'Environmental Technology Research Laboratory' and the 'Solution Product Development Center'. Working with the Product Development Group, the three divisions cooperate closely to ascertain and meet the customers' needs and to enable commercialisation of products incorporating advanced technology.



### Intensive research on environmental impact

The diverse needs in different countries encountered during the accelerating globalisation of our air conditioning business have presented us with increased research challenges particularly in terms of environmental impact. To promote energy savings in and to lower the environmental impact of our air conditioners, we have developed technologies based on fundamental research into motor inverters and many other areas.



### IT and air conditioners: the obvious solution

With advances in computerisation and networking, we have integrated IT into our air conditioners including communication technology and advanced software for total control. Our new control systems enable users to develop comfortable environments with superior energy savings by networking air conditioners to enable them to exchange information with each other and with our service centres.





# Technical drawings

Outdoor units	216
Indoor units	240
Hot water	286
Biddle air curtains	291
Ventilation	294

# Technical drawings

# Outdoor units

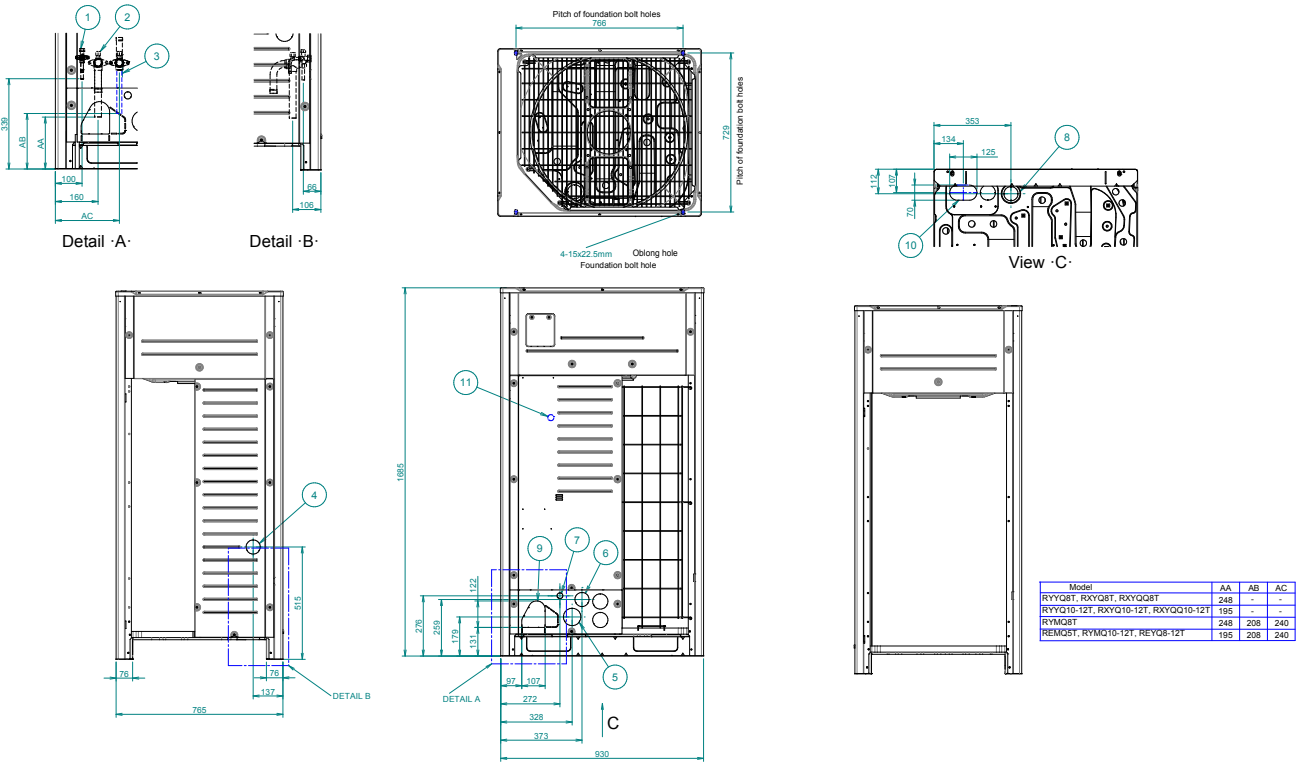
REMQ-T / REYQ-T	217
RYYQ-T(8) / RXYQ-T(8) / RYMQ-T	219
RXYSCQ-TV1 / RXYSQ-T8V / T8Y / TY1	221
RDXYQ-T(8) / RKXYQ-T(8)	231
RQCEQ-P3	233
RQYQ-P / RXYQQ-T	236
RWEYQ-T9	239

DAIKIN

VRV IV  
INVERTER



### REM05T / REY08-12T



Model	AA	AB	AC
RYYQ8T, RXYQ8T, RXYQ08T	248	-	-
RYYQ12T, RXYQ12T, RXYQ10-12T	195	-	-
RYMQ5T	245	208	240
REM05T, RYMQ10-12T, REY08-12T	195	208	240

**Notes**

- Detail A and detail B indicate the dimensions after fixing the attached piping.
- Items 4 - 10: Knockout hole.
- Gas pipe
  - RYYQ8T, RYMQ8T, RXYQ8T, RXYQ08T:  $\varnothing$  19.1 brazing connection
  - RYYQ10T, RYMQ10T, RXYQ10T, RXYQ10T:  $\varnothing$  22.2 brazing connection
  - REM05T, REY08-12T:  $\varnothing$  25.4 brazing connection
  - RYYQ12T, RYMQ12T, RXYQ12T, RXYQ12T:  $\varnothing$  28.6 brazing connection

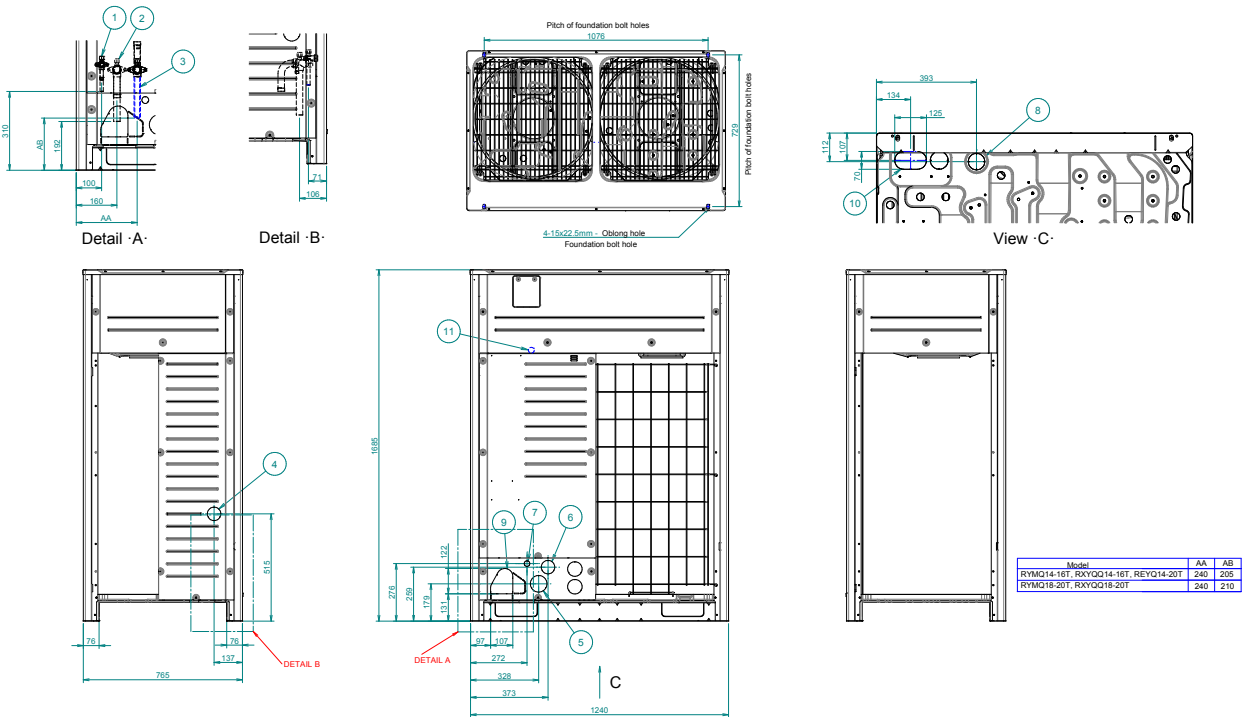
**Liquid pipe**

- RYYQ8-10T, RYMQ8-10T, RXYQ8-10T, RXYQ8-10T, REM05T, REY08-12T:  $\varnothing$  9.5 brazing connection
  - RYYQ12T, RYMQ12T, RXYQ12T, RXYQ12T:  $\varnothing$  12.7 brazing connection
- Equalising pipe**
- RYMQ8-10T:  $\varnothing$  19.1 brazing connection
  - RYMQ12T:  $\varnothing$  22.2 brazing connection
- High pressure/low pressure gas pipe**
- REM05T, REY08-12T:  $\varnothing$  19.1 brazing connection

No.	Part name	Inside of the switch box (MB)
11	Grounding terminal	
10	Pipe routing hole (bottom)	
9	Pipe routing hole (front)	
8	Power cord routing hole (bottom)	$\varnothing$ 65
7	Power cord routing hole (front)	$\varnothing$ 27
6	Power cord routing hole (front)	$\varnothing$ 65
5	Power cord routing hole (front)	$\varnothing$ 80
4	Power cord routing hole (side)	$\varnothing$ 65
3	Equalising pipe connection port	See note -3-
2	Gas pipe connection port	See note -3-
1	Liquid pipe connection port	See note -3-
No.	Part name	Remark

2D079532B

### REYQ14-20T



Model	AA	AB
RYMQ14-16T, RXYQ14-16T, REYQ14-20T	240	205
RYMQ18-20T, RXYQ18-20T	240	210

**Notes**

- Detail A and detail B indicate the dimensions after fixing the attached piping.
- Items 4 - 10: Knockout hole.
- Gas pipe
  - REYQ14-20T:  $\varnothing$  25.4 brazing connection
  - RYMQ14-20T, RXYQ14-20T, RXYQ14-20T:  $\varnothing$  28.6 brazing connection

**Equalising pipe**

- RYMQ14-16T:  $\varnothing$  22.2 brazing connection
  - RYMQ18-20T:  $\varnothing$  28.6 brazing connection
- High pressure/low pressure gas pipe**
- REYQ14-20T:  $\varnothing$  22.2 brazing connection

No.	Part name	Inside of the switch box (MB)
11	Grounding terminal	
10	Pipe routing hole (bottom)	
9	Pipe routing hole (front)	
8	Power cord routing hole (bottom)	$\varnothing$ 65
7	Power cord routing hole (front)	$\varnothing$ 27
6	Power cord routing hole (front)	$\varnothing$ 65
5	Power cord routing hole (front)	$\varnothing$ 80
4	Power cord routing hole (side)	$\varnothing$ 65
3	Equalising pipe connection port	See note -3-
2	Gas pipe connection port	See note -3-
1	Liquid pipe connection port	See note -3-
No.	Part name	Remark

2D079533B



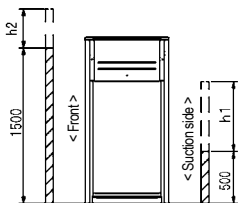
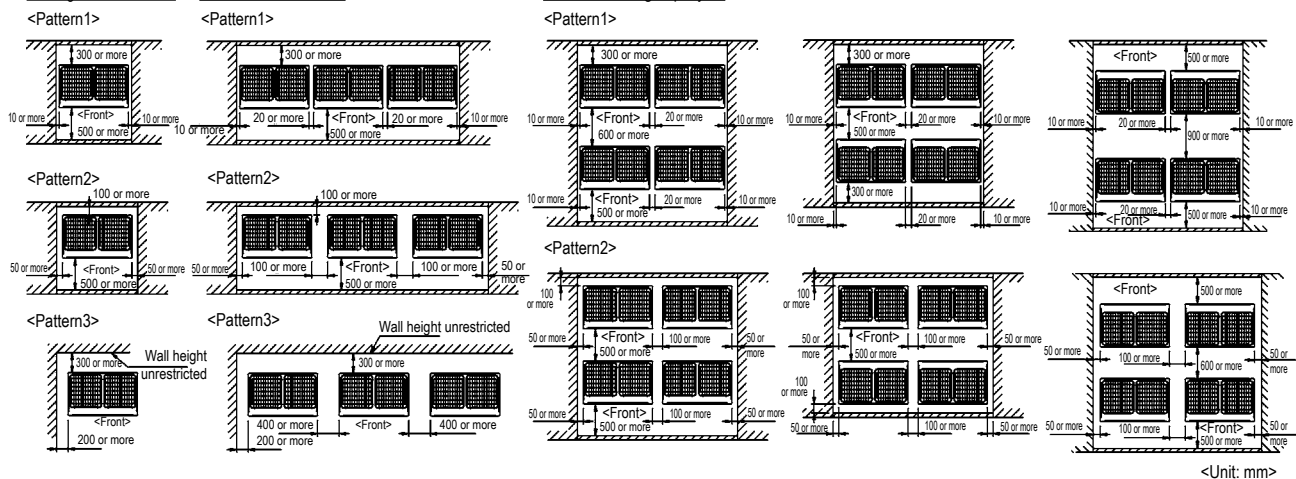
# Detailed technical drawings

## REYQ-T

For single unit installation

For installation in rows

For centralized group layout



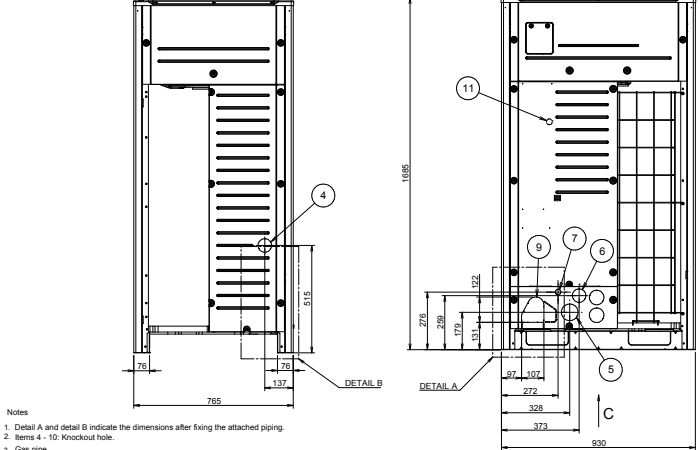
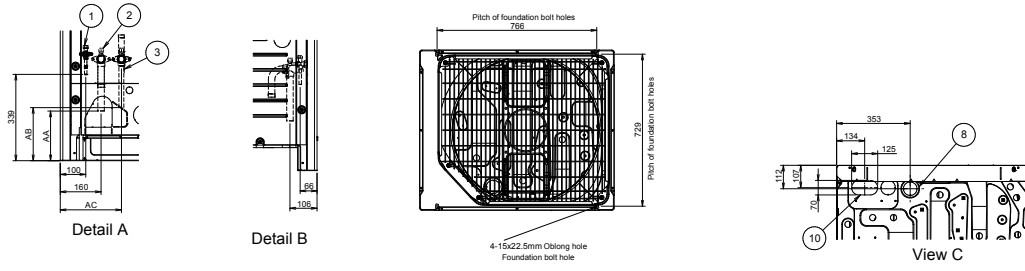
### NOTES

3D079542

- Heights of walls in case of patterns 1 and 2:  
Front: 1500mm  
Suction side: 500mm  
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.
- 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.
- 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 of the possibility of short circuits.)
- The units should be installed to leave sufficient space at the front for the on site refrigerant piping work to be carried out comfortably.



**RYYQ8-12T(8) / RYMQ8-12T / RXYQ8-12T(8)**



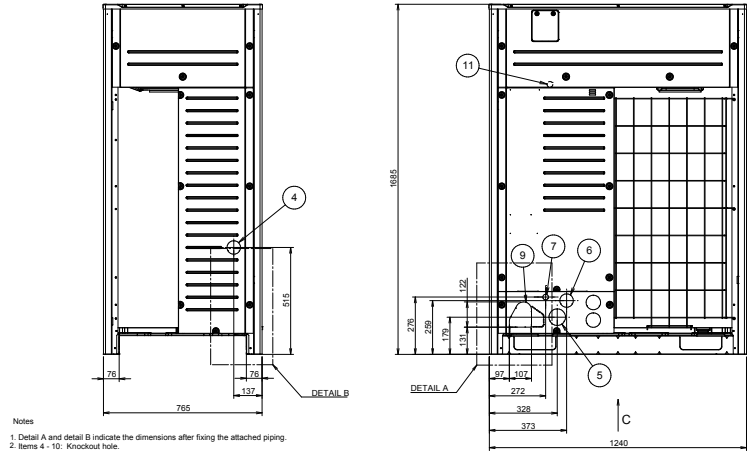
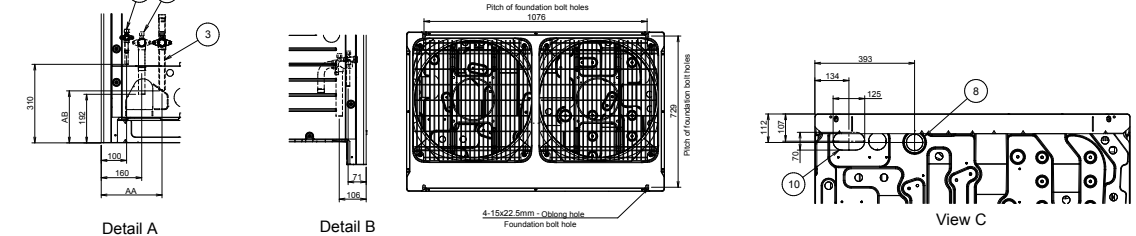
- Notes
1. Detail A and detail B indicate the dimensions after fixing the attached piping.
  2. Items 4 - 10. Knockout hole.
  3. Gas pipe
    - RYYQ8T, RYMQ8T, RXYQ8T, RXYQ8T, RXYQ8T  $\varnothing$  19.1 brazing connection
    - RXYQ10T, RYMQ10T, RXYQ10T, RXYQ10T  $\varnothing$  22.2 brazing connection
    - REM08T, REYQ8-12T  $\varnothing$  25.4 brazing connection
    - RXYQ12T, RYMQ12T, RXYQ12T, RXYQ12T  $\varnothing$  28.6 brazing connection
  - Liquid pipe
    - RYYQ8-10T, RYMQ8-10T, RXYQ8-10T, RXYQ8-10T, REMQ8T, REYQ8-12T, RXYQ8T  $\varnothing$  9.5 brazing connection
    - RXYQ12T, RYMQ12T, RXYQ12T, RXYQ12T  $\varnothing$  12.7 brazing connection
  - Equalising pipe
    - RYMQ8-10T  $\varnothing$  19.1 brazing connection
    - RYMQ12T  $\varnothing$  22.2 brazing connection
  - High pressure/low pressure gas pipe
    - REM08T, REYQ8-12T  $\varnothing$  19.1 brazing connection

Model	AA	AB	AC
RYYQ8T, RXYQ8T, RXYQ8T, RXYQ8T	248	208	240
RXYQ10-12T, RXYQ10-12T, RXYQ10-12T	-	-	-
RXYQ10-12T, RXYQ10-12T, RXYQ10-12T	248	208	240
RYMQ8T	248	208	240
REM08T, RYMQ10-12T, REYQ8-12T	195	208	240

11	Grounding terminal	Inside of the switch box (AB)
10	Pipe routing hole (bottom)	
9	Pipe routing hole (front)	
8	Power cord routing hole (bottom)	$\varnothing$ 65
7	Power cord routing hole (front)	$\varnothing$ 27
6	Power cord routing hole (front)	$\varnothing$ 65
5	Power cord routing hole (front)	$\varnothing$ 65
4	Power cord routing hole (side)	$\varnothing$ 65
3	Equalising pipe connection port	See note 3.
2	Gas pipe connection port	See note 3.
1	Liquid pipe connection port	See note 3.
No.	Part name	Remark

2D079532C

**RYYQ14-20T(8) / RYMQ14-20T / RXYQ14-20T(8)**



- Notes
1. Detail A and detail B indicate the dimensions after fixing the attached piping.
  2. Items 4 - 10. Knockout hole.
  3. Gas pipe
    - RXYQ10T  $\varnothing$  22.2 brazing connection
    - REYQ14-20T  $\varnothing$  25.4 brazing connection
    - RXYQ14-20T, RYMQ14-20T, RXYQ14-20T, RXYQ14-20T  $\varnothing$  28.6 brazing connection
  - Liquid pipe
    - RXYQ10T  $\varnothing$  9.5 brazing connection
    - RXYQ14-16T, RYMQ14-16T, RXYQ14-16T, REYQ14-20T, RXYQ12-16T, RXYQ18-20T, RYMQ18-20T, RXYQ18-20T, RXYQ18-20T  $\varnothing$  12.7 brazing connection
    - RXYQ18-20T, RYMQ18-20T, RXYQ18-20T, RXYQ18-20T  $\varnothing$  15.9 brazing connection
  - Equalising pipe
    - RYMQ14-16T  $\varnothing$  22.2 brazing connection
    - RYMQ18-20T  $\varnothing$  28.6 brazing connection
  - High pressure/low pressure gas pipe
    - REYQ14-20T  $\varnothing$  22.2 brazing connection

Model	AA	AB
RYMQ14-16T, RXYQ14-16T, REYQ14-20T	240	205
RYMQ18-20T, RXYQ18-20T	240	210

11	Grounding terminal	Inside of the switch box (AB)
10	Pipe routing hole (bottom)	
9	Pipe routing hole (front)	
8	Power cord routing hole (bottom)	$\varnothing$ 65
7	Power cord routing hole (front)	$\varnothing$ 27
6	Power cord routing hole (front)	$\varnothing$ 65
5	Power cord routing hole (front)	$\varnothing$ 65
4	Power cord routing hole (side)	$\varnothing$ 65
3	Equalising pipe connection port	See note 3.
2	Gas pipe connection port	See note 3.
1	Liquid pipe connection port	See note 3.
No.	Part name	Remark

2D079533C



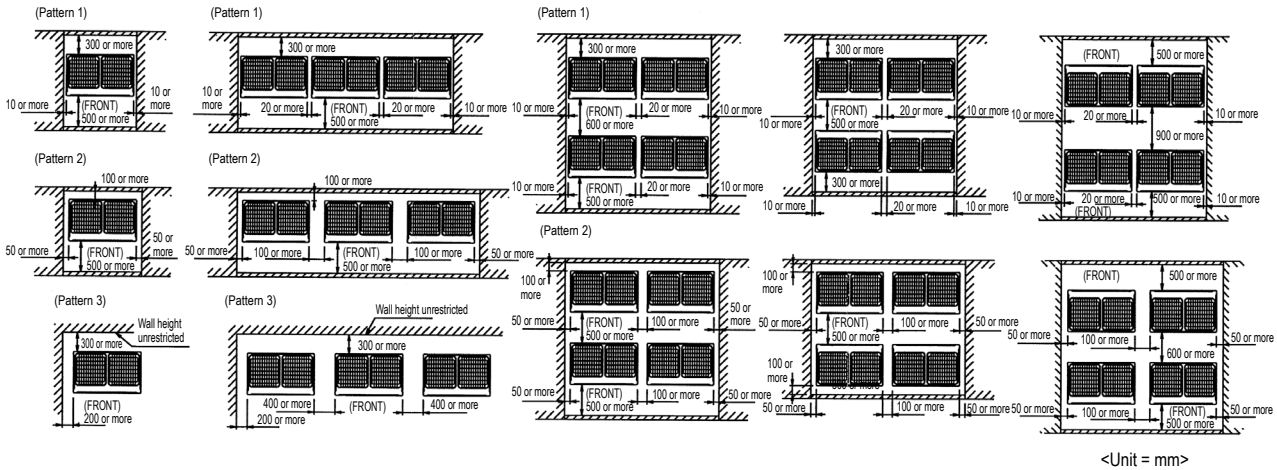
Detailed technical drawings

RYYQ-T(8) / RXYQ-T(8)

For single unit installation

For installation in rows

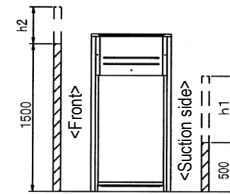
For centralized group layout



NOTES

3D079542

- Heights of walls in case of patterns 1 and 2:  
 Front: 1500mm  
 Suction side: 500mm  
 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.
- If the above wall heights are exceeded then  $h/2$  and  $h/2$  should be added to the front and suction side service spaces respectively as shown in the figure on the right.
- 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 of the possibility of short circuits.)
- The units should be installed to leave sufficient space at the front for the on site refrigerant piping work to be carried out comfortably.

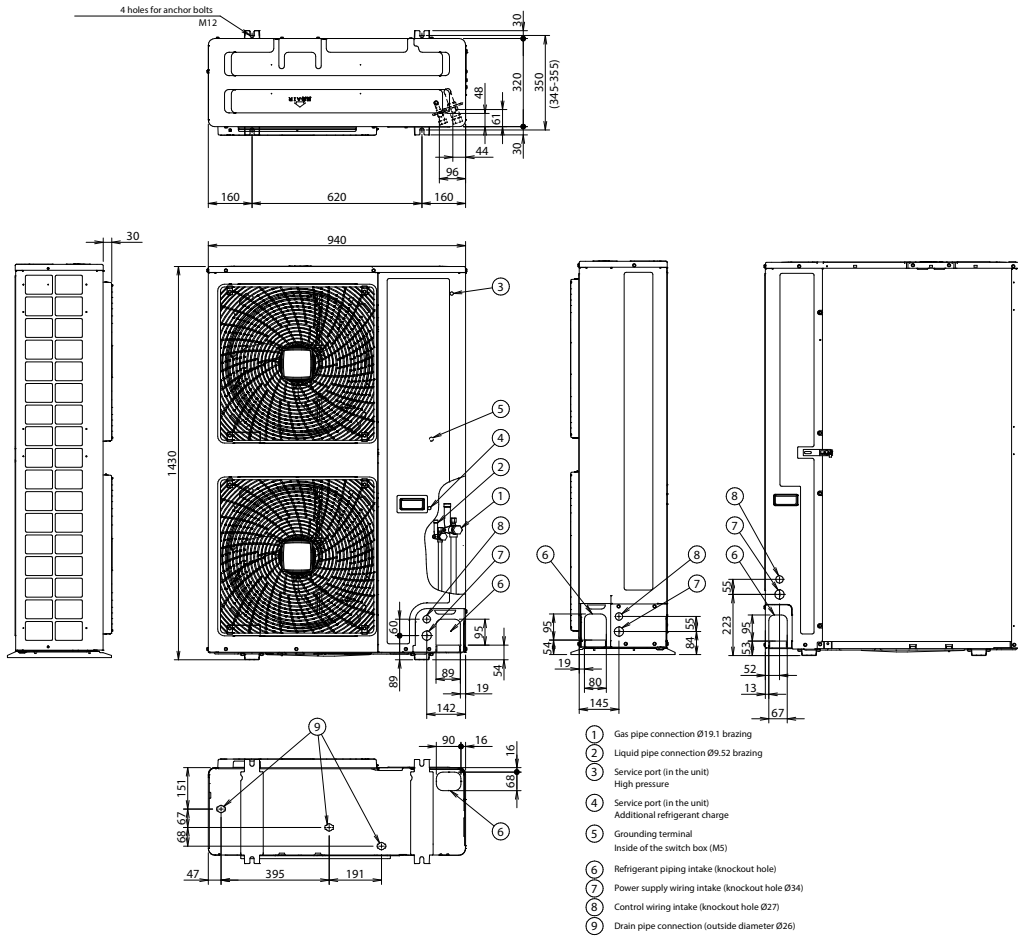






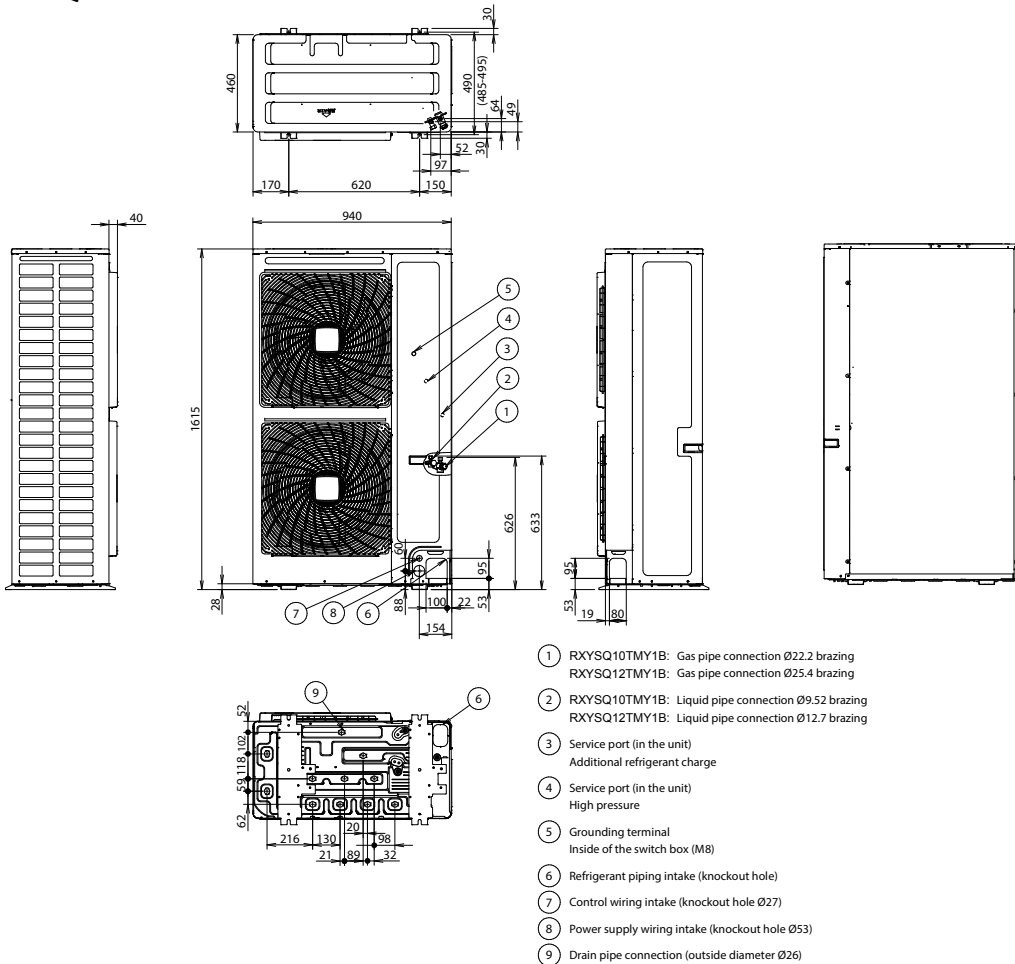
Detailed technical drawings

**RXYSQ-TY1**



3D098108

**RXYSQ10-12TY1**



3D098109





**RXYSQ-TV1**

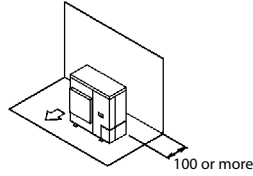
**Required instalation space**

The unit of values is mm.

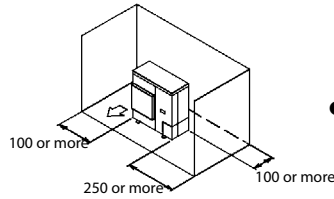
**(A) When there are obstacles on suction sides**

● **No obstacle above**

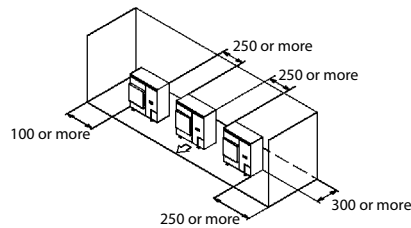
- ① Stand-alone installation
  - Obstacle on the suction side only



- Obstacle on both sides

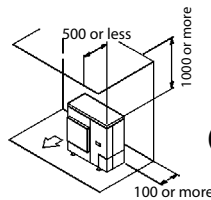


- ② Series installation (2 or more)
  - Obstacle on both sides

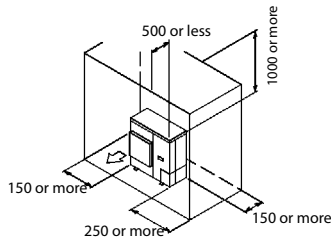


● **Obstacle above, too**

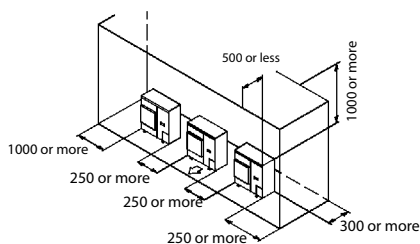
- ① Stand-alone installation
  - Obstacle on the suction side, too



- Obstacle on the suction side, and both sides



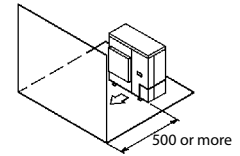
- ② Series installation (2 or more)
  - Obstacle on the suction side, and both sides



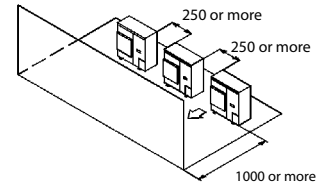
**(B) When there are obstacles on discharge sides.**

● **No obstacle above**

- ① Stand-alone installation

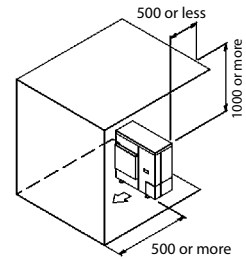


- ② Series installation (2 or more)

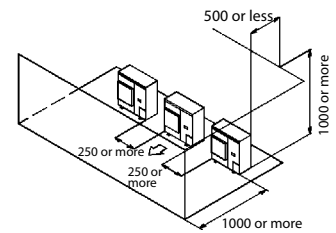


● **Obstacle above, too**

- ① Stand-alone installation



- ② Series installation (2 or more)



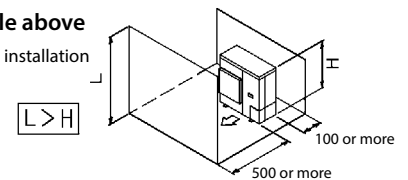
**(C) When there are obstacles on both suction and discharge sides.**

**Pattern 1**

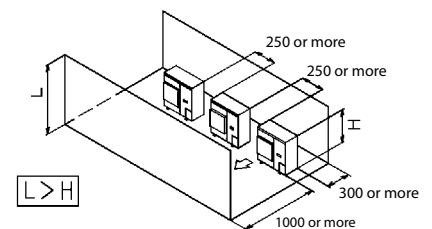
When the obstacles on the discharge side is higher than the unit.  
(There is no height limit for obstructions on the intake side.)

● **No obstacle above**

- ① Stand-alone installation



- ② Series installation (2 or more)



3D089310A



**RXYSQC-TV1**

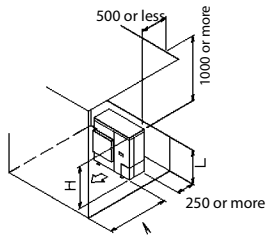
● **Obstacle above, too**

① Stand-alone installation

The relations between H, A and L are as follows.

	L	A
$L \leq H$	$0 < L \leq 1/2 H$	750
	$1/2 H < L \leq H$	1000
$H < L$	Set the stand as: $L \leq H$	

Close the bottom of the installation frame to prevent the discharged air from being bypassed.



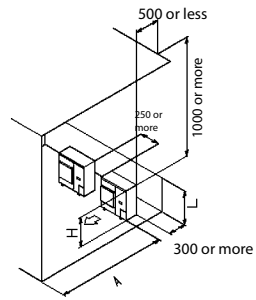
② Series installation (2 or more)

The relations between H, A and L are as follows.

	L	A
$L \leq H$	$0 < L \leq 1/2 H$	1000
	$1/2 H < L \leq H$	1250
$H < L$	Set the stand as: $L \leq H$	

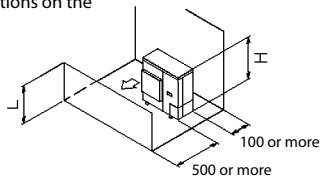
Close the bottom of the installation frame to prevent the discharged air from being bypassed.

Only two units can be installed for this series.



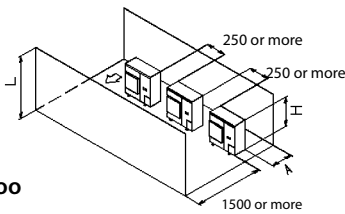
**Pattern 2**

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**

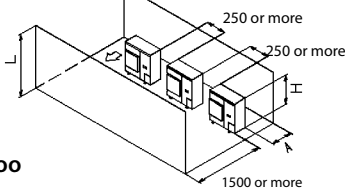
① Stand-alone installation  
 $L > H$



② Series installation (2 or more)

The relations between H, A and L are as follows.

	L	A
$L > H$	$0 < L \leq 1/2 H$	250
	$1/2 H < L \leq H$	300



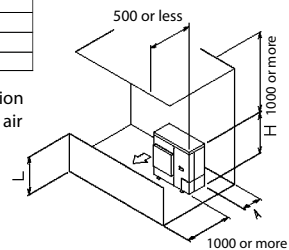
● **Obstacle above, too**

① Stand-alone installation

The relations between H, A and L are as follows.

	L	A
$L \leq H$	$0 < L \leq 1/2 H$	100
	$1/2 H < L \leq H$	200
$H < L$	Set the stand as: $L \leq H$	

Close the bottom of the installation frame to prevent the discharged air from being bypassed.



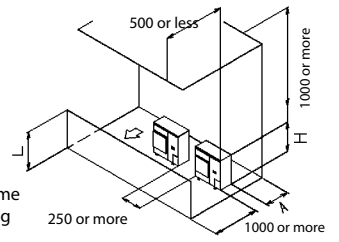
② Series installation

The relations between H, A and L are as follows.

	L	A
$L \leq H$	$0 < L \leq 1/2 H$	250
	$1/2 H < L \leq H$	300
$H < L$	Set the stand as: $L \leq H$	

Close the bottom of the installation frame to prevent the discharged air from being bypassed.

Only two units can be installed for this series.

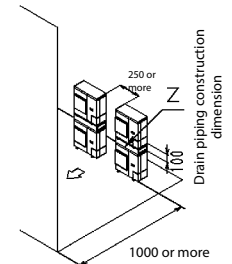


**(D) Double-decker installation**

① Obstacle on the discharge side

Close the gap Z (the gap between the upper and lower outdoor units) to prevent the discharged air from being bypassed.

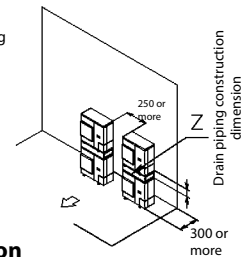
Don't stack more than two units.



② Obstacle on the suction side

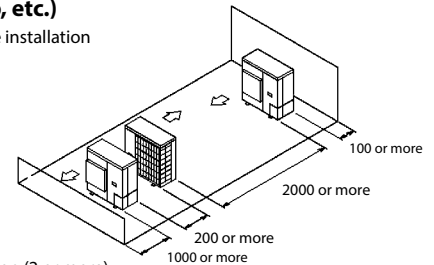
Close the gap Z (the gap between the upper and lower outdoor units) to prevent the discharged air from being bypassed.

Don't stack more than two units.



**(E) Multiple rows of series installation (on the rooftop, etc.)**

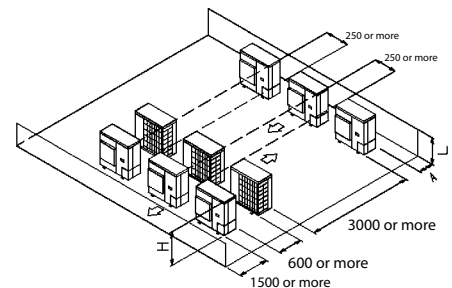
① One row of Stand-alone installation



② Rows of series installation (2 or more)

The relations between H, A and L are as follows.

	L	A
$L \leq H$	$0 < L \leq 1/2 H$	250
	$1/2 H < L \leq H$	300
$H < L$	Can not be installed	





**RXYSQ-T8V // RXYSQ4-6T8Y**

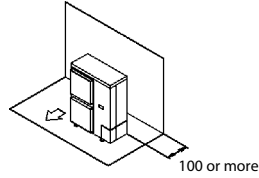
**Required installation space**

The unit of values is mm.

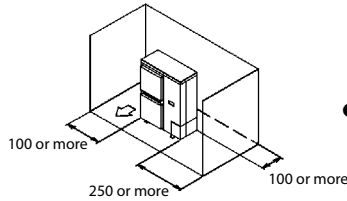
**(A) When there are obstacles on suction sides**

● **No obstacle above**

- ① Stand-alone installation
  - Obstacle on the suction side only

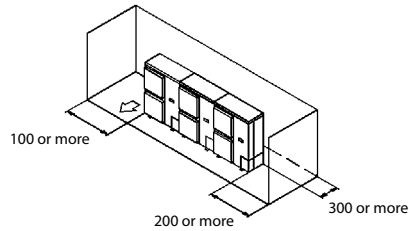


- Obstacle on both sides



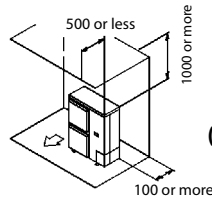
- ② Series installation (2 or more)

- Obstacle on both sides

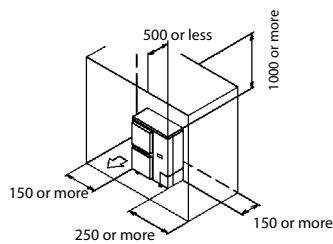


● **Obstacle above, too**

- ① Stand-alone installation
  - Obstacle on the suction side, too

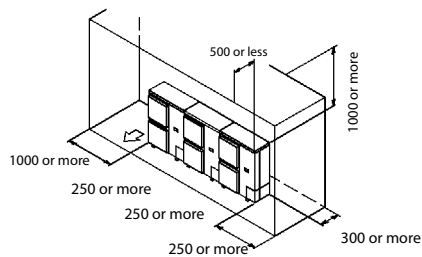


- Obstacle on the suction side, and both sides



- ② Series installation (2 or more)

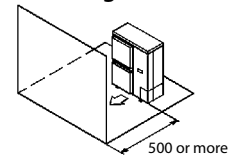
- Obstacle on the suction side, and both sides



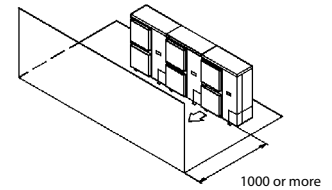
**(B) When there are obstacles on discharge sides.**

● **No obstacle above**

- ① Stand-alone installation

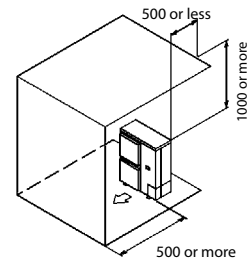


- ② Series installation (2 or more)

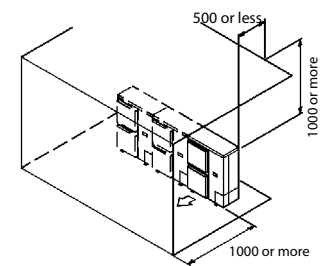


● **Obstacle above, too**

- ① Stand-alone installation



- ② Series installation (2 or more)



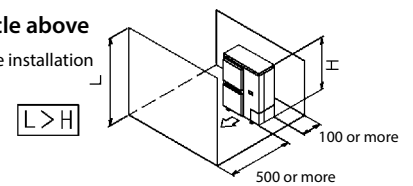
**(C) When there are obstacles on both suction and discharge sides.**

Pattern 1

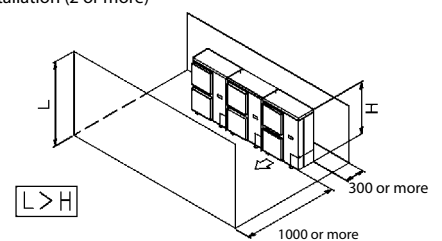
When the obstacles on the discharge side is higher than the unit.  
(There is no height limit for obstructions on the intake side.)

● **No obstacle above**

- ① Stand-alone installation



- ② Series installation (2 or more)



3D045696D



**RXYSQ-T8V // RXYSQ4-6 T8Y**

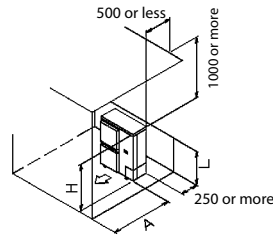
● **Obstacle above, too**

① Stand-alone installation

The relations between H, A and L are as follows.

	L	A
$L \leq H$	$0 < L \leq 1/2 H$	750
	$1/2 H < L \leq H$	1000
$H < L$	Set the stand as: $L \leq H$	

Close the bottom of the installation frame to prevent the discharged air from being bypassed.

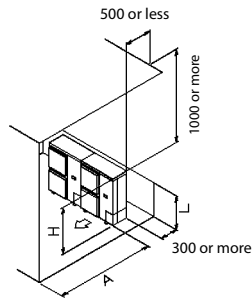


② Series installation (2 or more)

The relations between H, A and L are as follows.

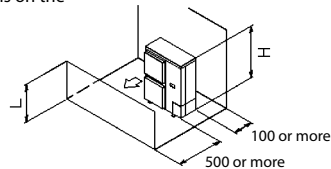
	L	A
$L \leq H$	$0 < L \leq 1/2 H$	1000
	$1/2 H < L \leq H$	1250
$H < L$	Set the stand as: $L \leq H$	

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**

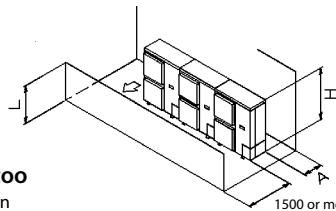
① Stand-alone installation

$L \leq H$

② Series installation (2 or more)

The relations between H, A and L are as follows.

	L	A
$L \leq H$	$0 < L \leq 1/2 H$	250
	$1/2 H < L \leq H$	300



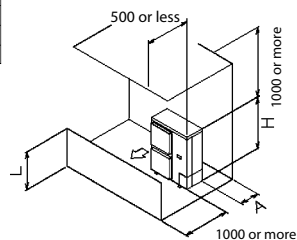
● **Obstacle above, too**

① Stand-alone installation

The relations between H, A and L are as follows.

	L	A
$L \leq H$	$0 < L \leq 1/2 H$	100
	$1/2 H < L \leq H$	200
$H < L$	Set the stand as: $L \leq H$	

Close the bottom of the installation frame to prevent the discharged air from being bypassed.

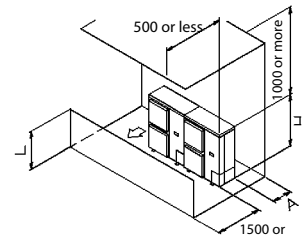


② Series installation

The relations between H, A and L are as follows.

	L	A
$L \leq H$	$0 < L \leq 1/2 H$	250
	$1/2 H < L \leq H$	300
$H < L$	Set the stand as: $L \leq H$	

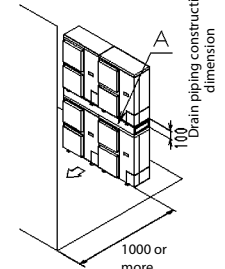
Close the bottom of the installation frame to prevent the discharged air from being bypassed. Only two units can be installed for this series.



**(D) Double-decker installation**

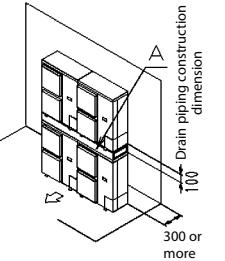
① Obstacle on the discharge side

Close the gap A (the gap between the upper and lower outdoor units) to prevent the discharged air from being bypassed. Don't stack more than two units.



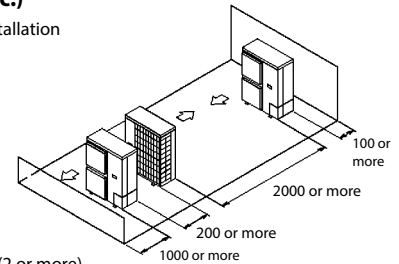
② Obstacle on the suction side

Close the gap A (the gap between the upper and lower outdoor units) to prevent the discharged air from being bypassed. Don't stack more than two units.



**(E) Multiple rows of series installation (on the rooftop, etc.)**

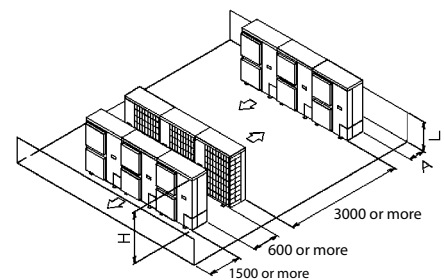
① One row of Stand-alone installation



② Rows of series installation (2 or more)

The relations between H, A and L are as follows.

	L	A
$L \leq H$	$0 < L \leq 1/2 H$	250
	$1/2 H < L \leq H$	300
$H < L$	Can not be installed	





**RXYSQ-8TY1**

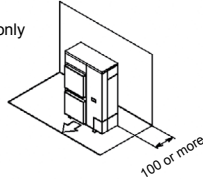
**Required installation space**

The unit of these values is mm.

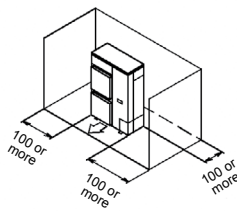
1. Where there is an obstacle on the suction side:

(a) No obstacle above

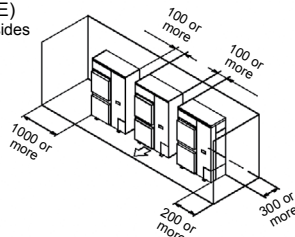
- (1) Stand-alone installation
- Obstacle on the suction side only



- Obstacle on both sides

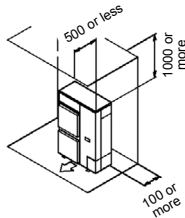


- (2) Series installation (2 or more) (NOTE)
- Obstacle on both sides

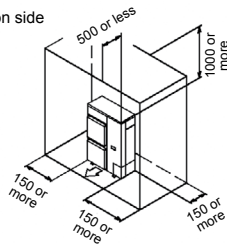


(b) Obstacle above, too

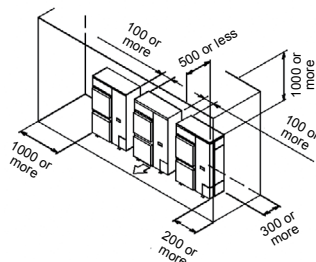
- (1) Stand-alone installation
- Obstacle on the suction side, too



- Obstacle on the suction side and both sides



- (2) Series installation (2 or more) (NOTE)
- Obstacle on the suction side and both sides



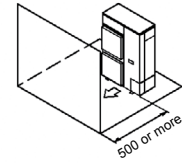
**NOTE**

When install the units in a line, have to leave the distance over 100 mm between the two units.

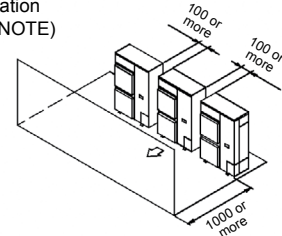
2. Where there is an obstacle on the discharge side:

(a) No obstacle above

- (1) Stand-alone installation

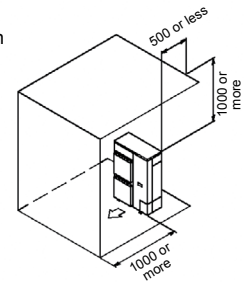


- (2) Series installation (2 or more) (NOTE)

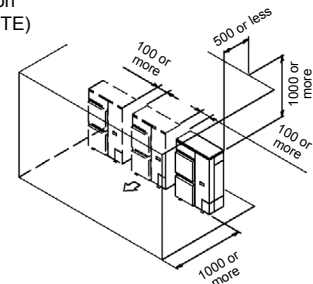


(b) Obstacle above, too

- (1) Stand-alone installation



- (2) Series installation (2 or more) (NOTE)



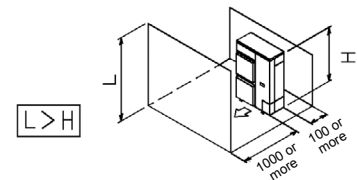
3. Where there are obstacles on both suction and discharge sides:

**Pattern 1**

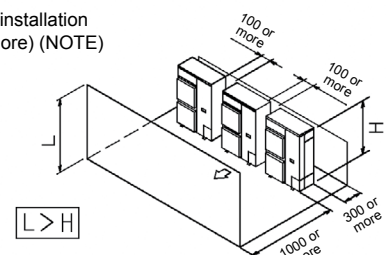
Where the obstacle on the discharge side is higher than the unit: (There is no height limit for obstructions on the intake side)

(a) No obstacle above

- (1) Stand-alone installation



- (2) Series installation (2 or more) (NOTE)





RXYSQ-8TY1

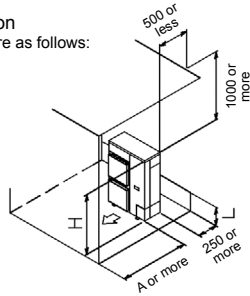
(b) Obstacle above, too

(1) Stand-alone installation

The relations between H, A and L are as follows:

	L	A
$L \leq H$	$0 < L \leq 1/2 H$	1000
	$1/2 H < L \leq H$	1250
$H < L$	Set the stand as: $L \leq H$ .	

Close the bottom of the installation frame to prevent the discharged air from being bypassed.

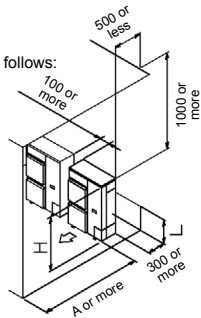


(2) Series installation (2 or more) (NOTE)

The relations between H, A and L are as follows:

	L	A
$L \leq H$	$0 < L \leq 1/2 H$	1000
	$1/2 H < L \leq H$	1250
$H < L$	Set the stand as: $L \leq H$ .	

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

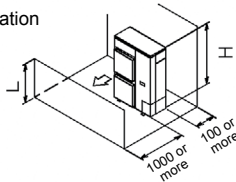
Where the obstacle on the discharge side is lower than the unit:

(There is no height limit for obstructions on the intake side)

(a) No obstacle above

(1) Stand-alone installation

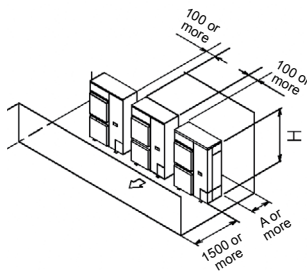
$L \leq H$



(2) Series installation (2 or more) (NOTE)

The relations between H, A and L are as follows:

	L	A
$0 < L \leq 1/2 H$		250
$1/2 H < L \leq H$		300



(b) Obstacle above, too

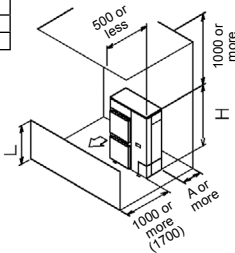
(1) Stand-alone installation

The relations between H, A and L are as follows:

	L	A
$L \leq H$	$0 < L \leq 1/2 H$	100
	$1/2 H < L \leq H$	200
$H < L$	Set the stand as: $L \leq H$ .	

Close the bottom of the installation frame to prevent the discharged air from being bypassed.

If the distance exceeds the figure in the ( ), then it's no need to set the stand.



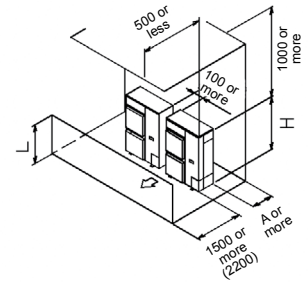
(2) Series installation (NOTE)

The relations between H, A and L are as follows:

	L	A
$L \leq H$	$0 < L \leq 1/2 H$	250
	$1/2 H < L \leq H$	300
$H < L$	Set the stand as: $L \leq H$ .	

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

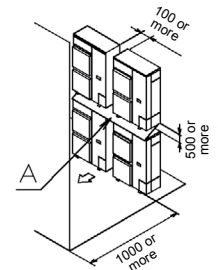
(a) Obstacle on the discharge side (NOTE)

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 freezing.

Leave the enough space between the layer one and the board.



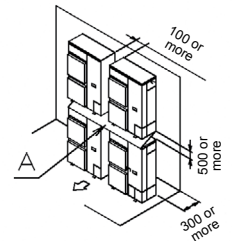
(b) Obstacle on the suction side (NOTE)

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.

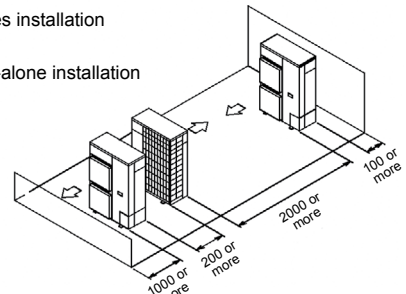
Set the board (field supply) as the detail A between two units to prevent the drainage from freezing.

Leave the enough space between the layer one and the board.



5. Multiple rows of series installation (on the rooftop, etc.)

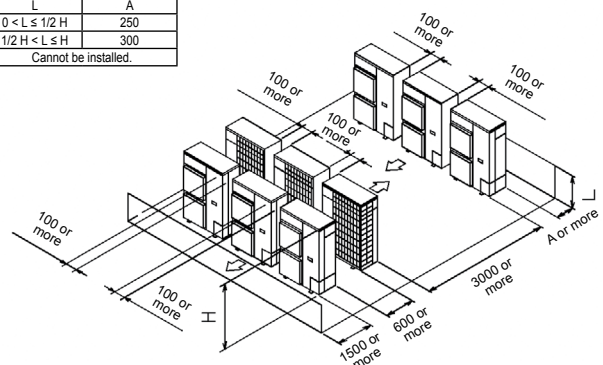
(a) One row of stand-alone installation



(b) Rows of series installation (2 or more)

The relations between H, A and L are as follows:

	L	A
$L \leq H$	$0 < L \leq 1/2 H$	250
	$1/2 H < L \leq H$	300
$H < L$	Cannot be installed.	



NOTE

When install the units in a line, have to leave the distance over 100 mm between the two units.

3D068442L



**RXYSQ10-12TY1**

**Required installation space**

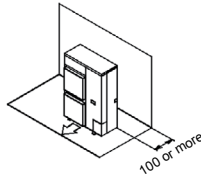
The unit of these values is mm.

1. Where there is an obstacle on the suction side:

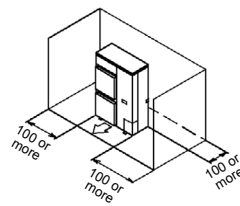
(a) No obstacle above

(1) Stand-alone installation

- Obstacle on the suction side only

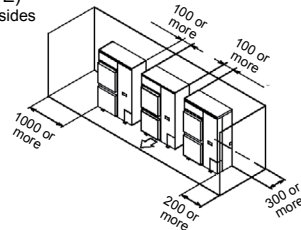


- Obstacle on both sides



(2) Series installation (2 or more) (NOTE)

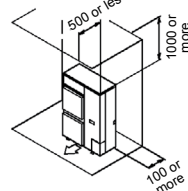
- Obstacle on both sides



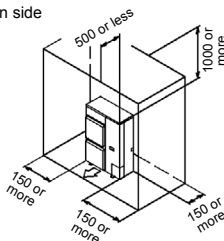
(b) Obstacle above, too

(1) Stand-alone installation

- Obstacle on the suction side, too

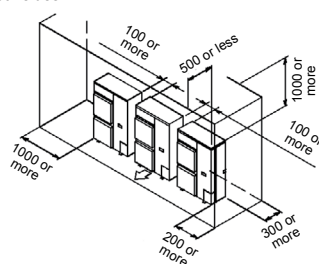


- Obstacle on the suction side and both sides



(2) Series installation (2 or more) (NOTE)

- Obstacle on the suction side and both sides



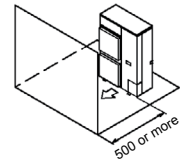
**NOTE**

When install the units in a line, have to leave the distance over 100 mm between the two units.

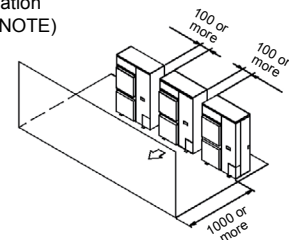
2. Where there is an obstacle on the discharge side:

(a) No obstacle above

(1) Stand-alone installation

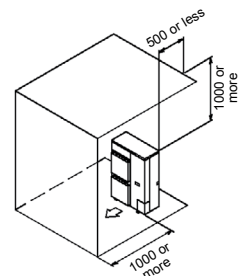


(2) Series installation (2 or more) (NOTE)

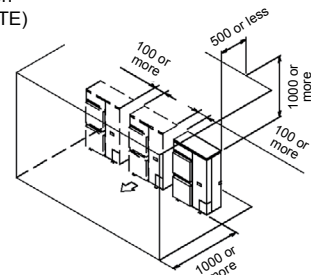


(b) Obstacle above, too

(1) Stand-alone installation



(2) Series installation (2 or more) (NOTE)



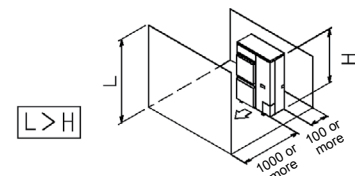
3. Where there are obstacles on both suction and discharge sides:

**Pattern 1**

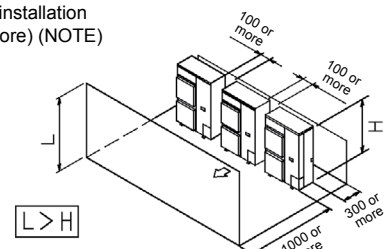
Where the obstacle on the discharge side is higher than the unit: (There is no height limit for obstructions on the intake side)

(a) No obstacle above

(1) Stand-alone installation



(2) Series installation (2 or more) (NOTE)





RXYSQ10-12TY1

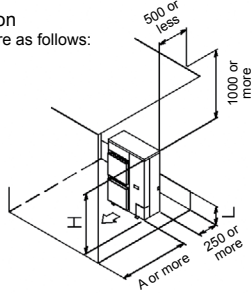
(b) Obstacle above, too

(1) Stand-alone installation

The relations between H, A and L are as follows:

	L	A
$L \leq H$	$0 < L \leq 1/2 H$	1000
	$1/2 H < L \leq H$	1250
$H < L$	Set the stand as: $L \leq H$ .	

Close the bottom of the installation frame to prevent the discharged air from being bypassed.

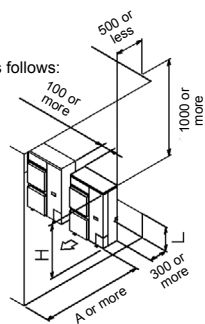


(2) Series installation (2 or more) (NOTE)

The relations between H, A and L are as follows:

	L	A
$L \leq H$	$0 < L \leq 1/2 H$	1000
	$1/2 H < L \leq H$	1250
$H < L$	Set the stand as: $L \leq H$ .	

Close the bottom of the installation frame to prevent the discharged air from being bypassed. Only two units can be installed for this series



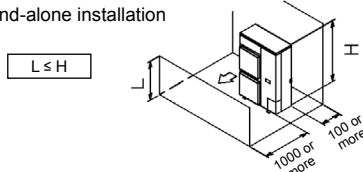
Pattern 2

Where the obstacle on the discharge side is lower than the unit:

(There is no height limit for obstructions on the intake side)

(a) No obstacle above

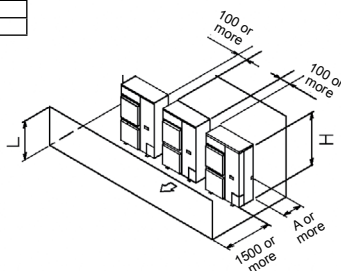
(1) Stand-alone installation



(2) Series installation (2 or more) (NOTE)

The relations between H, A and L are as follows:

	L	A
$0 < L \leq 1/2 H$		250
$1/2 H < L \leq H$		300



(b) Obstacle above, too

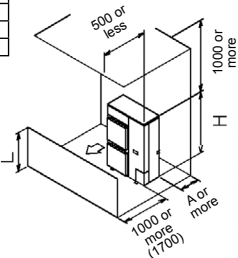
(1) Stand-alone installation

The relations between H, A and L are as follows:

	L	A
$L \leq H$	$0 < L \leq 1/2 H$	100
	$1/2 H < L \leq H$	200
$H < L$	Set the stand as: $L \leq H$ .	

Close the bottom of the installation frame to prevent the discharged air from being bypassed.

If the distance exceeds the figure in the ( ), then it's no need to set the stand.



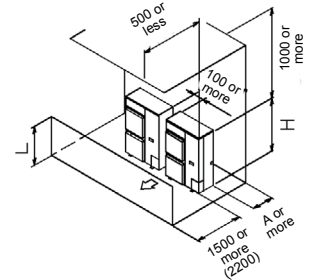
(2) Series installation (NOTE)

The relations between H, A and L are as follows:

	L	A
$L \leq H$	$0 < L \leq 1/2 H$	250
	$1/2 H < L \leq H$	300
$H < L$	Set the stand as: $L \leq H$ .	

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

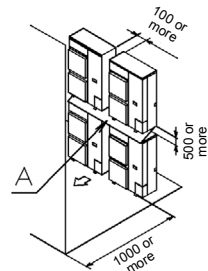
(a) Obstacle on the discharge side (NOTE).

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 freezing.

Leave the enough space between the layer



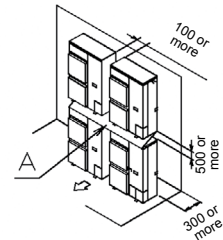
(b) Obstacle on the suction side (NOTE).

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.

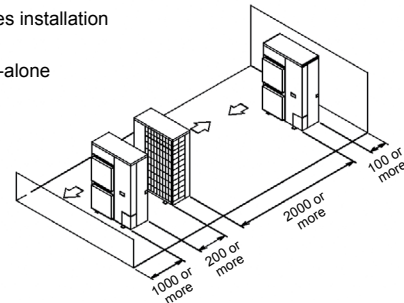
Set the board (field supply) as the detail A between two units to prevent the drainage from freezing.

Leave the enough space between the layer



5. Multiple rows of series installation (on the rooftop, etc.)

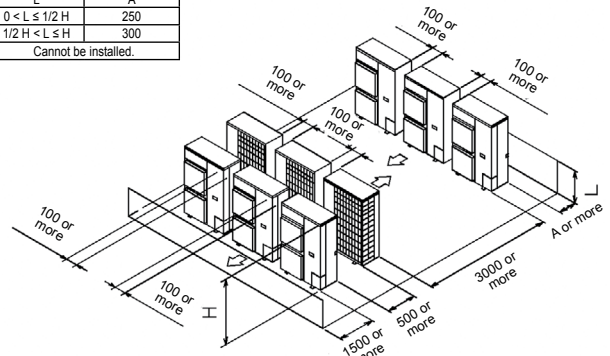
(a) One row of stand-alone installation



(b) Rows of series installation (2 or more)

The relations between H, A and L are as follows:

	L	A
$L \leq H$	$0 < L \leq 1/2 H$	250
	$1/2 H < L \leq H$	300
$H < L$	Cannot be installed.	



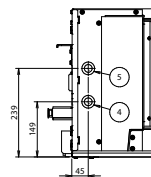
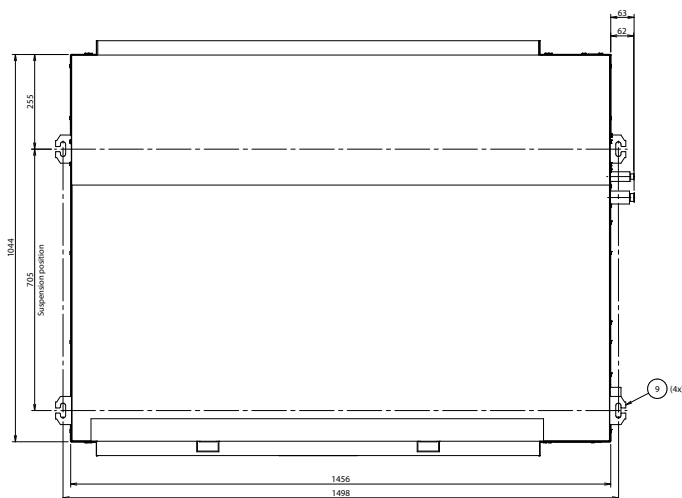
NOTE

When install the units in a line, have to leave the distance over 100 mm between the two units.

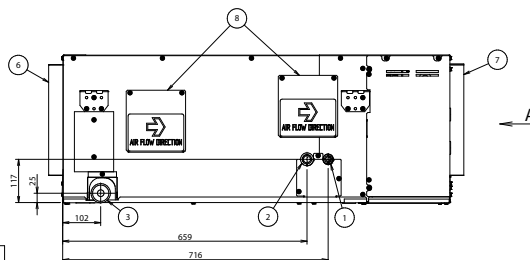
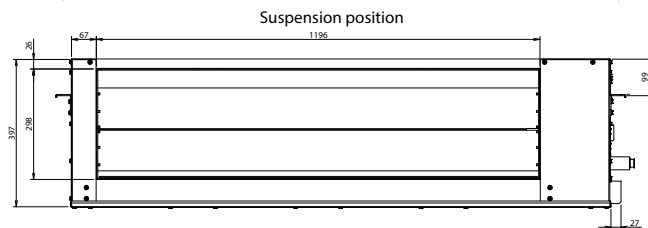




**RDXYQ-T(8)**



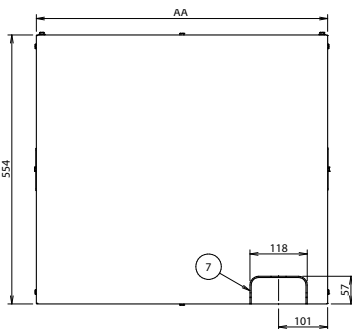
View A



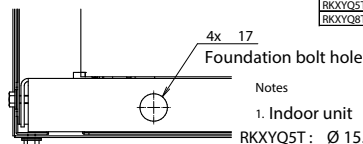
9	Hook	
8	Service door	
7	Air discharge side	
6	Air suction side	
5	Wiring intake (low voltage wiring)	Transmission wiring connection
4	Wiring intake (high voltage wiring)	Power supply connection
3	Drain outlet	VP25
2	Gas pipe connection port	Ø 19.1 brazing connection
1	Liquid pipe connection port	Ø 12.7 brazing connection
No.	Part name	Remark

2D112002

**RKXYQ-T(8)**

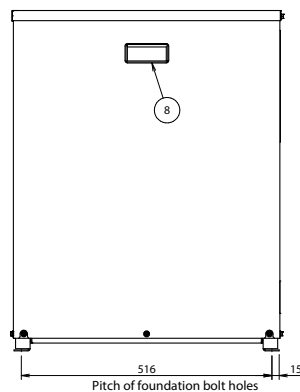
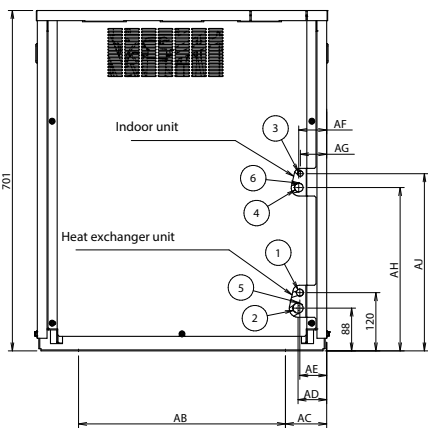


Model	AA	AB	AC	AD	AE	AF	AG	AH	AJ
RKXYQ5T	600	426	85	59	55	57	54	337	365
RKXYQ8T	760	600	78	55	52	55	52	197	222



View A

Notes  
 1. Indoor unit  
 RKXYQ5T : Ø 15.9 brazing connection  
 RKXYQ8T : Ø 19.1 brazing connection  
 2. Heat exchanger unit  
 RKXYQ5T : Ø 19.1 brazing connection  
 RKXYQ8T : Ø 22.2 brazing connection

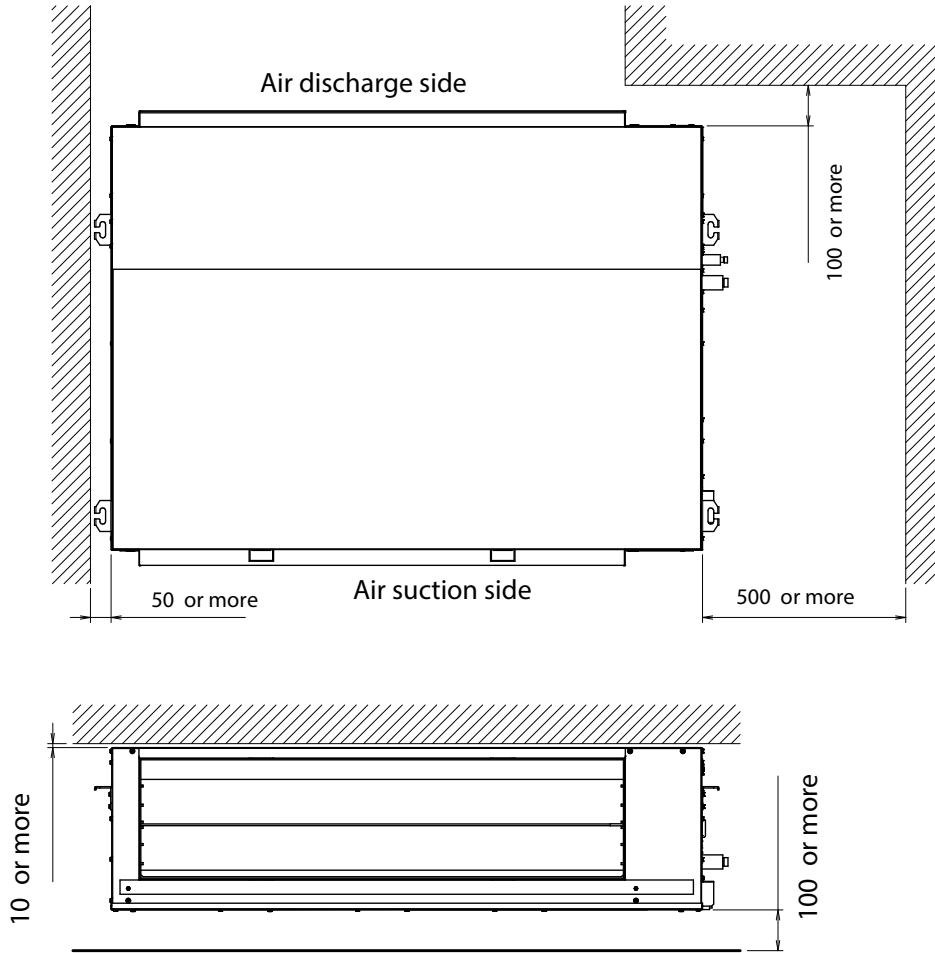


8	Handle	
7	Pipe routing hole	Knockout hole.
6	Wiring intake (low voltage wiring)	Transmission wiring connection
5	Wiring intake (high voltage wiring)	Power supply connection
4	Gas pipe connection port	See note 1.
3	Liquid pipe connection port	Ø 9.5 brazing connection
2	Gas pipe connection port	See note 2.
1	Liquid pipe connection port	Ø 12.7 brazing connection
No.	Part name	Remark

3D098827A

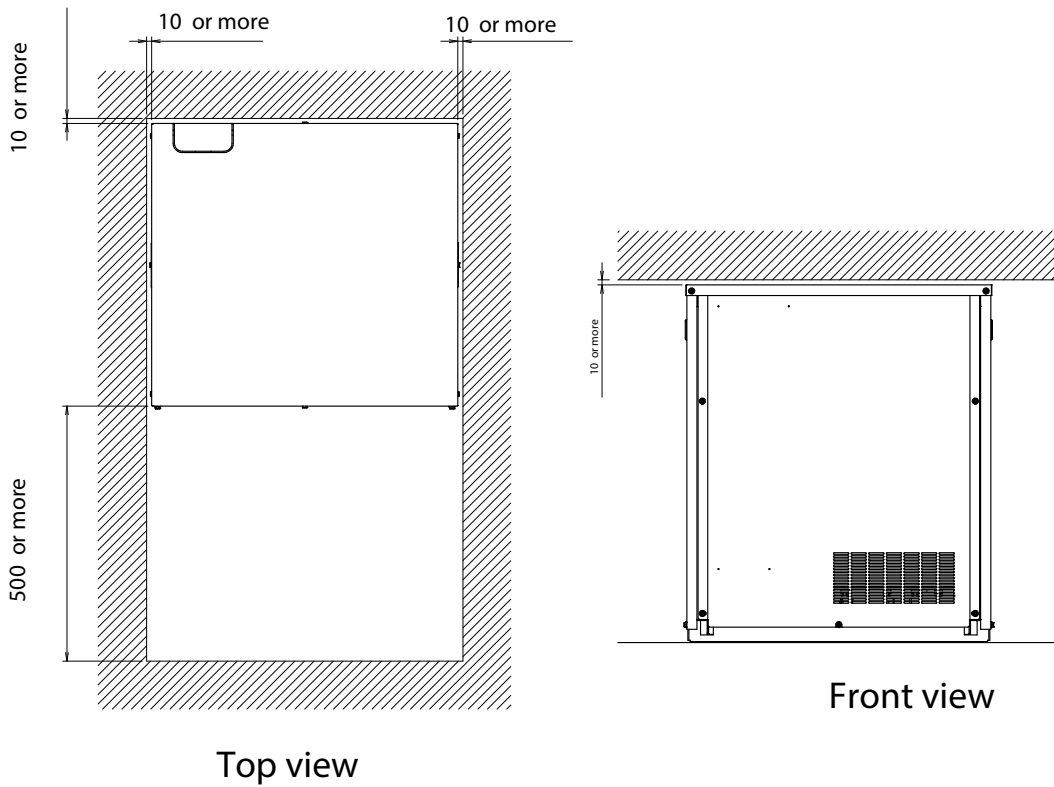


**RDXYQ-T(8)**



3D098834

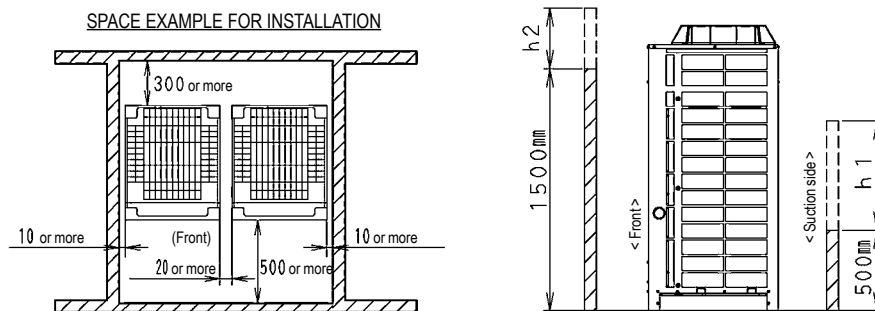
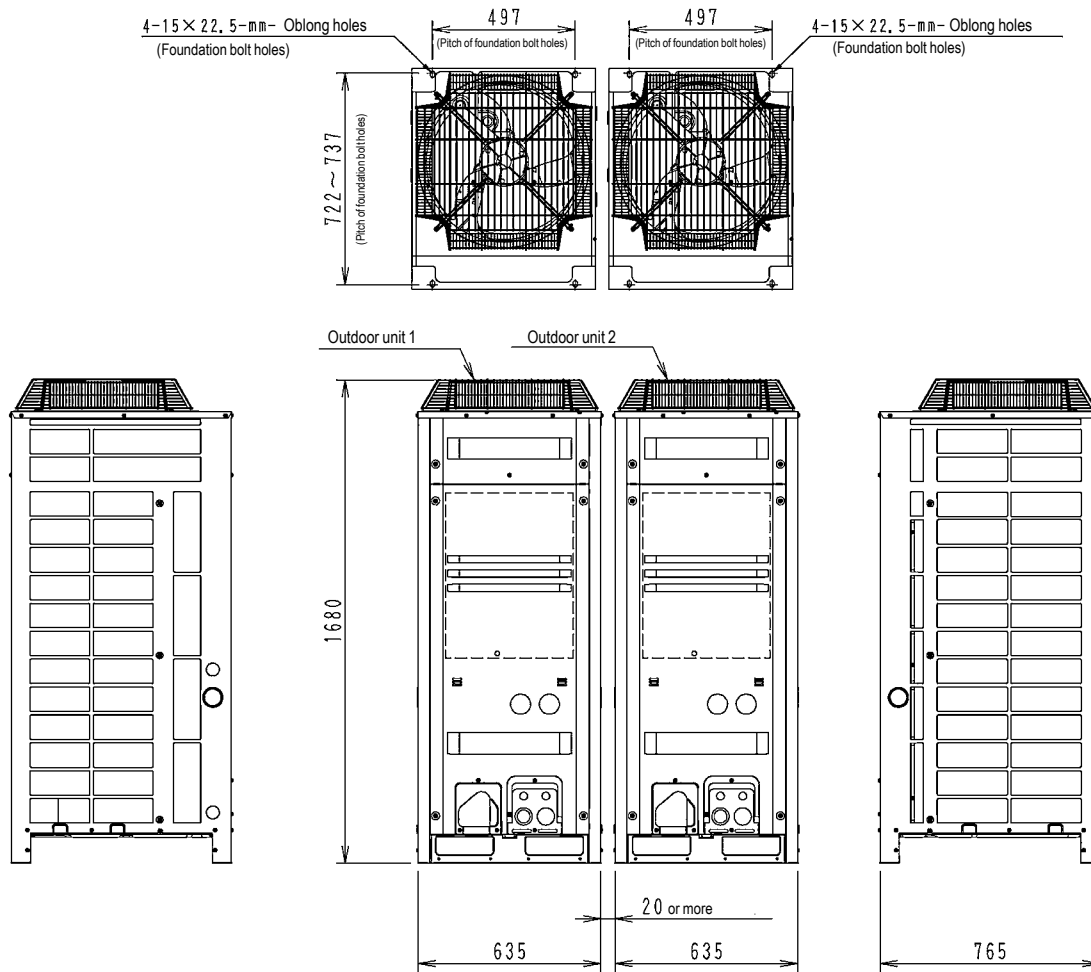
**RKXYQ-T(8)**



3D098835



RQCEQ280-360P3



Model name	Outdoor unit 1	Drawing N°	Outdoor unit 2	Drawing N°
RQCEQ280P3	RQE140P3	3D066441A	RQE140P3	3D066441A
RQCEQ360P3	RQE180P3	3D066441A	RQE180P3	3D066441A

Unit: mm

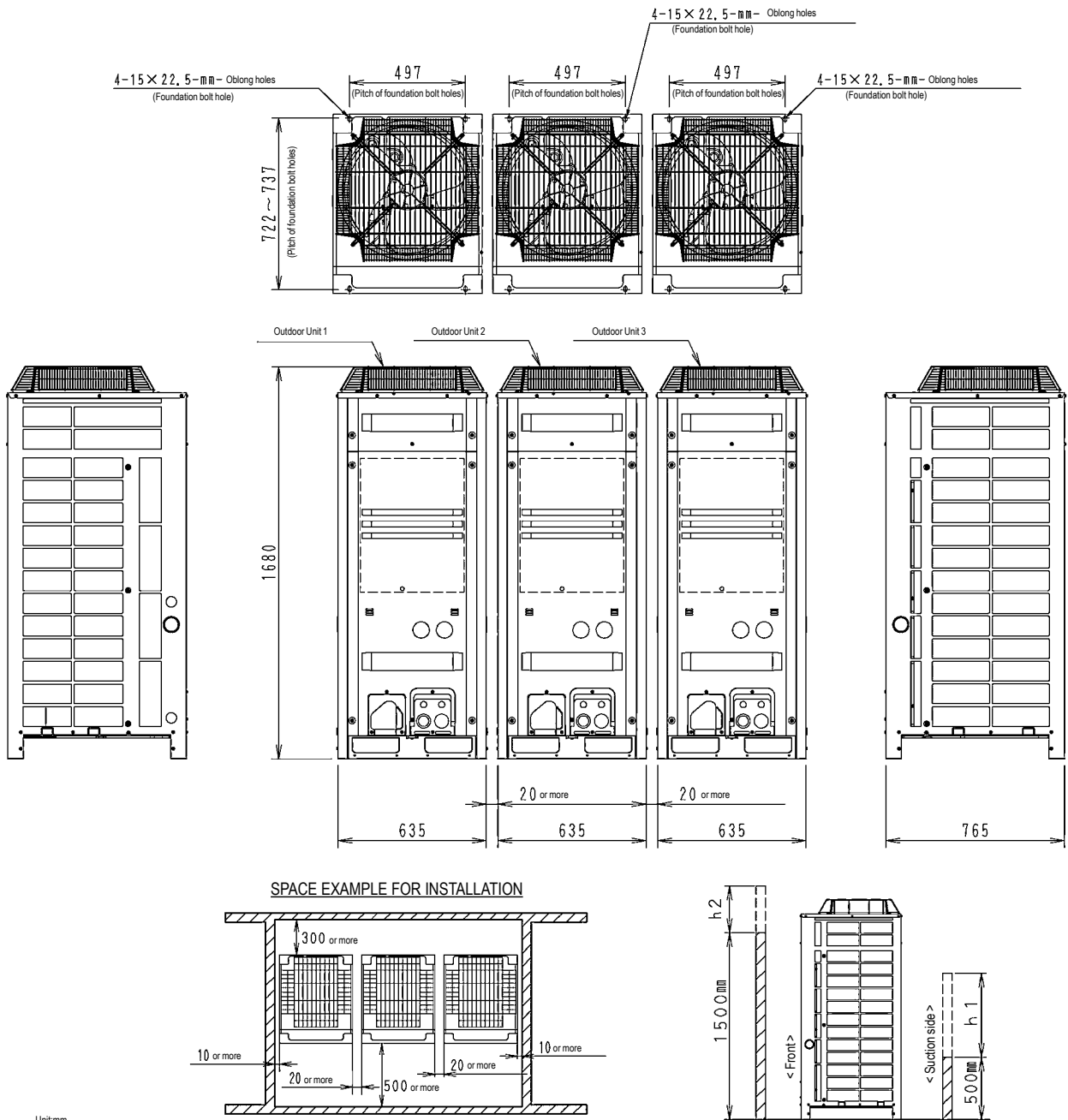
NOTES

- 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)
- 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 following figure.
- 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 always bearing in mind the need to leave enough room for a person to pass between units 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.)
- The units should be installed to leave sufficient space at the front for the on site refrigerant piping work to be carried out comfortably.

3D066856A



RQCEQ460-636P3



Model name	Outdoor unit 1	Drawing N°	Outdoor unit 2	Drawing N°	Outdoor unit 3	Drawing N°
RQCEQ460P3	RQEQ180P3	3D066441A	RQEQ140P3	3D066441A	RQEQ140P3	3D066441A
RQCEQ500P3	RQEQ180P3	3D066441A	RQEQ180P3	3D066441A	RQEQ140P3	3D066441A
RQCEQ540P3	RQEQ180P3	3D066441A	RQEQ180P3	3D066441A	RQEQ180P3	3D066441A
RQCEQ636P3	RQEQ212P3	3D066441A	RQEQ212P3	3D066441A	RQEQ212P3	3D066441A

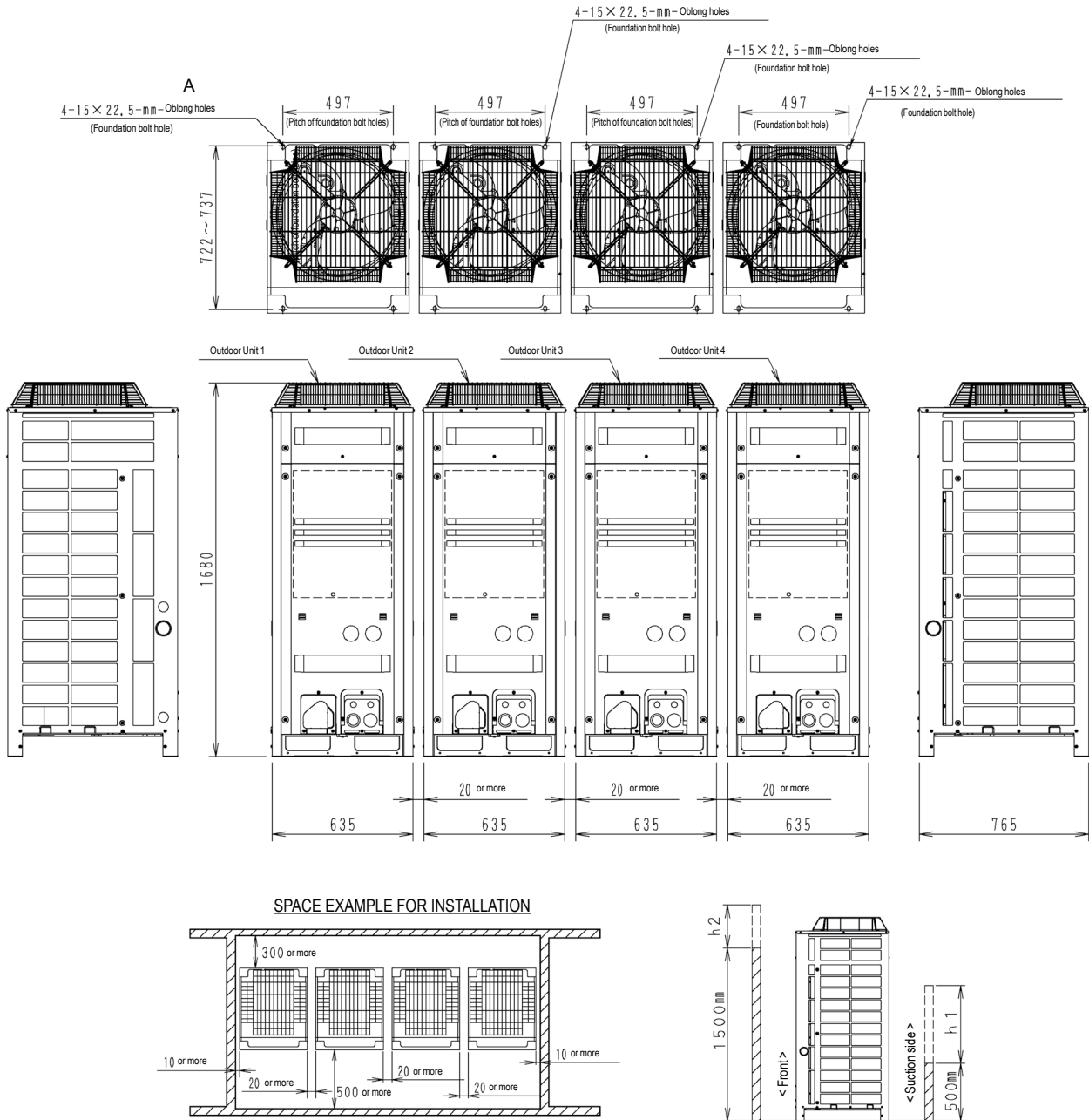
**NOTES**

- 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)
- If the above wall heights are exceeded then h/2 and h/2 should be added to the front and suction side service spaces respectively as shown in the following figure.
- 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 always bearing in mind the need to leave enough room for a person to pass between units 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.)
- The units should be installed to leave sufficient space at the front for the on site refrigerant piping work to be carried out comfortably.

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	RQE212P3	3D066441A	RQE180P3	3D0664413	RQE180PA	3D066441A	RQE140P3	3D066441A
RQCEQ744P3	RQE212P3	3D066441A	RQE212P3	3D0664413	RQE180PA	3D066441A	RQE140P3	3D066441A
RQCEQ816P3	RQE212P3	3D066441A	RQE212P3	3D0664413	RQE212PA	3D066441A	RQE180P3	3D066441A
RQCEQ848P3	RQE212P3	3D066441A	RQE212P3	3D0664413	RQE212PA	3D066441A	RQE212P3	3D066441A

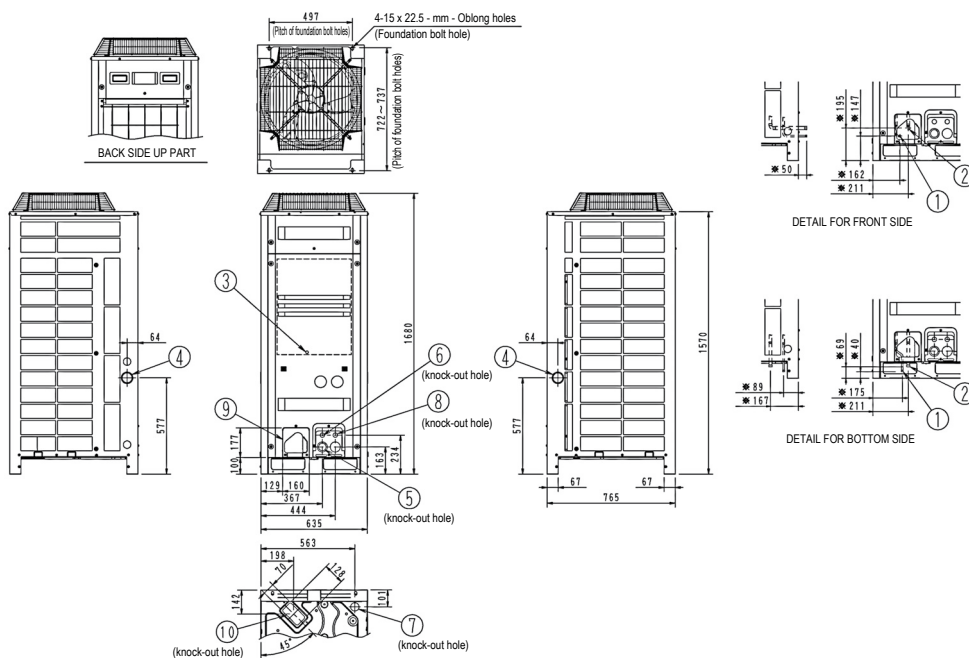
NOTES

- 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)
- 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 following figure.
- 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 always bearing in mind the need to leave enough room for a person to pass between units 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.)
- The units should be installed to leave sufficient space at the front for the on site refrigerant piping work to be carried out comfortably.

3D066865A



RQYQ140P



3D066442

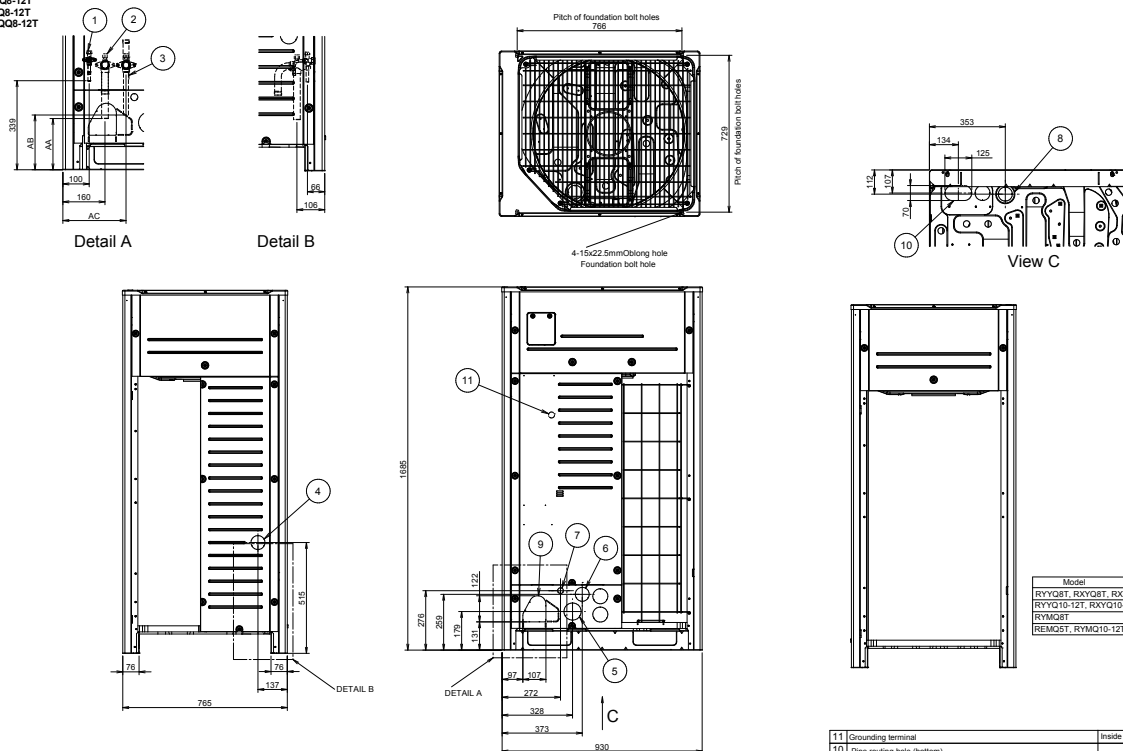
No.	Parts name	Remarks
1	Liquid pipe connection port	ø9.5 Brazing connection
2	Gas pipe connection port	See note 3.
3	Grounding terminal	Inside of switch box (M8)
4	Power cord routing hole (side)	ø62
5	Power cord routing hole (front)	ø45
6	Power cord routing hole (front)	ø27
7	Power cord routing hole (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

- ✳ shows the dimensions after fixing the accessory pipes.
- For piping connection method (front and bottom sides) see the installation manual.
- Gas pipe ø15.9 Brazing connection: RQYQ140P

RXYQQ8-12T

RYYQ8-12T  
RYYQ8-12T  
RXYQ8-12T  
RXYQ8-12T



Notes

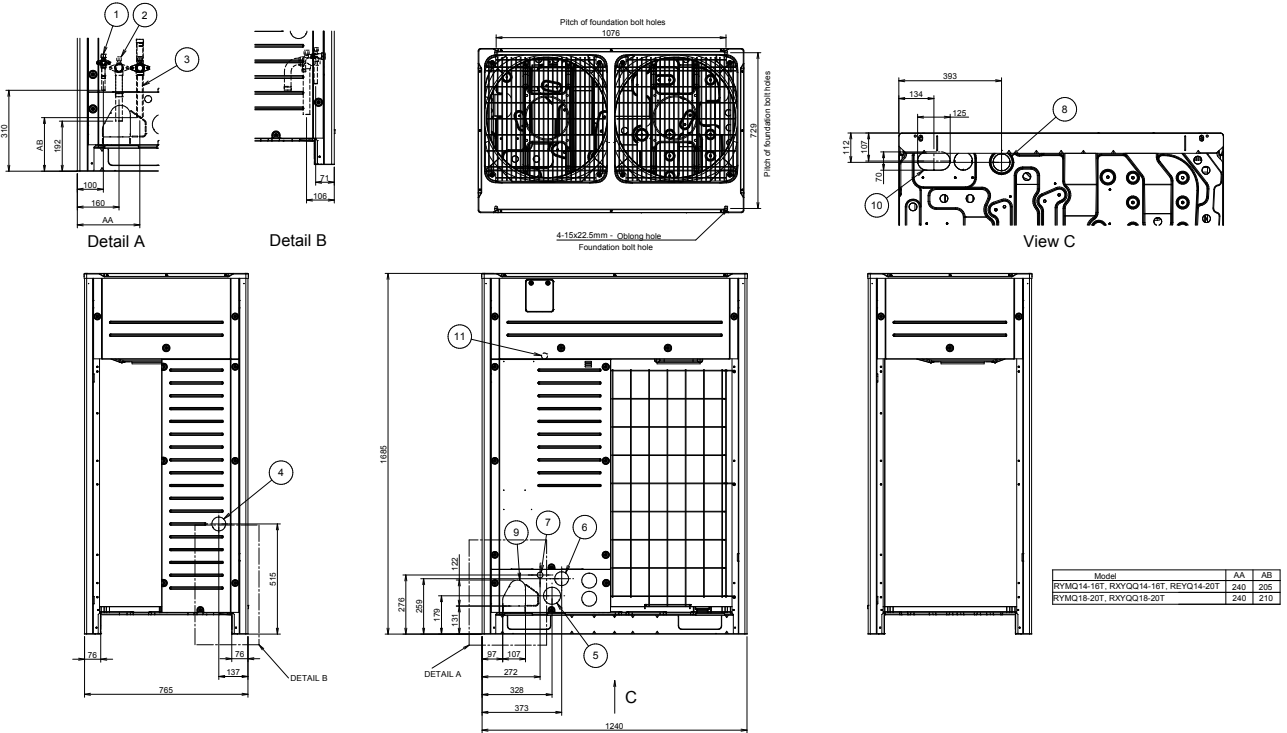
- Detail A and detail B indicate the dimensions after fixing the attached piping.
- Items 4 - 10: Knockout hole.
- Gas pipe  
RYYQ8T, RYMQ8T, RXYQ8T, RXYQ8BT : ø 19.1 brazing connection  
RXYQ10T, RYMQ10T, RXYQ10T, RXYQ10T : ø 22.2 brazing connection  
REMQ8T, REYQ8-12T : ø 25.4 brazing connection  
RYYQ12T, RYMQ12T, RXYQ12T, RXYQ12T : ø 28.6 brazing connection

- Liquid pipe  
RYYQ8-10T, RYMQ8-10T, RXYQ8-10T, RXYQ8-10T, REMQ8T, REYQ8-12T : ø 9.5 brazing connection  
RYYQ12T, RYMQ12T, RXYQ12T, RXYQ12T : ø 12.7 brazing connection
- Equalising pipe  
RYYQ8-10T : ø 19.1 brazing connection  
RXYQ12T : ø 22.2 brazing connection
- High pressure/low pressure gas pipe  
REMQ8T, REYQ8-12T : ø 19.1 brazing connection

11	Grounding terminal	Inside of the switch box (M8)
10	Pipe routing hole (bottom)	
9	Pipe routing hole (front)	
8	Power cord routing hole (bottom)	ø65
7	Power cord routing hole (front)	ø27
6	Power cord routing hole (front)	ø65
5	Power cord routing hole (front)	ø80
4	Power cord routing hole (side)	ø65
3	Equalising pipe connection port	See note 3.
3	High pressure/low pressure gas pipe	
2	Gas pipe connection port	See note 3.
1	Liquid pipe connection port	See note 3.
No.	Part name	Remark



RXYQQ14-20T



Notes

- Detail A and detail B indicate the dimensions after fixing the attached piping.
- Items 4 - 10: Knockout hole.
- Gas pipe
  - RXYQ14-20T : Ø 25.4 brazing connection
  - RXYQ14-20T, RYMQ14-20T, RXYQ14-20T, RXYQQ14-20T : Ø 28.6 brazing connection

- Liquid pipe
- RXYQ14-16T, RYMQ14-16T, RXYQ14-16T, RXYQ14-16T, RXYQ14-20T : Ø 12.7 brazing connection
  - RXYQ18-20T, RYMQ18-20T, RXYQ18-20T, RXYQ18-20T : Ø 15.9 brazing connection
- Equalising pipe
- RXYQ14-16T : Ø 22.2 brazing connection
  - RXYQ18-20T : Ø 28.6 brazing connection
- High pressure/low pressure gas pipe
- RXYQ14-20T : Ø 22.2 brazing connection

	Inside of the switch box (MB)	
11	Grounding terminal	
10	Pipe routing hole (bottom)	
9	Pipe routing hole (front)	
8	Power cord routing hole (bottom)	Ø65
7	Power cord routing hole (front)	Ø27
6	Power cord routing hole (front)	Ø65
5	Power cord routing hole (front)	Ø65
4	Power cord routing hole (side)	Ø65
3	Equalising pipe connection port	See note 3.
2	Gas pipe connection port	See note 3.
1	Liquid pipe connection port	See note 3.
MB	Part name	Remark

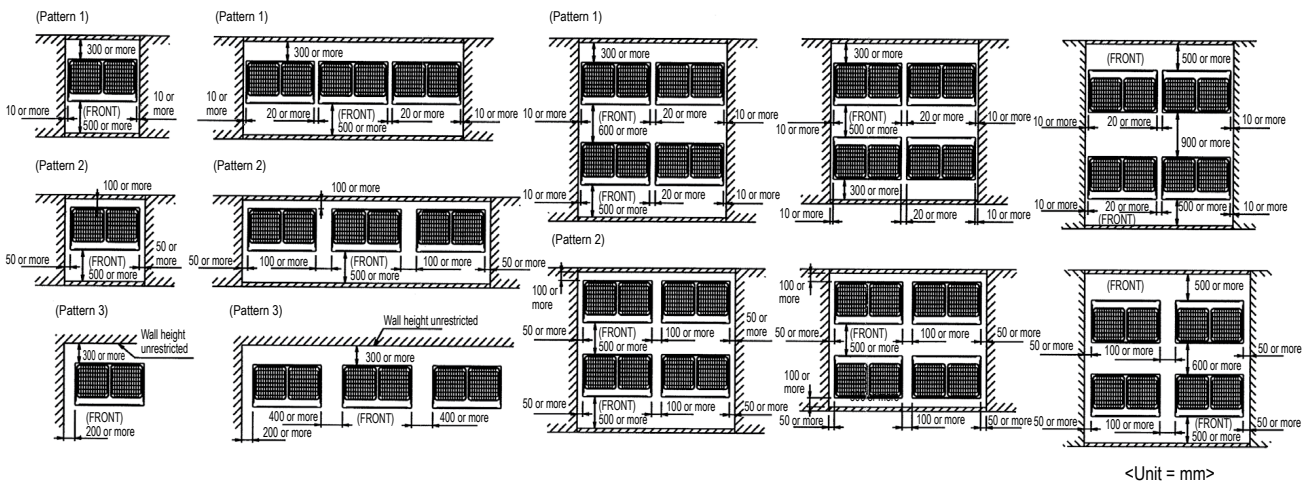
2D079533B

RXYQQ-T

For single unit installation

For installation in rows

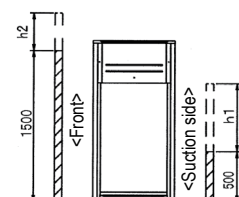
For centralized group layout



NOTES

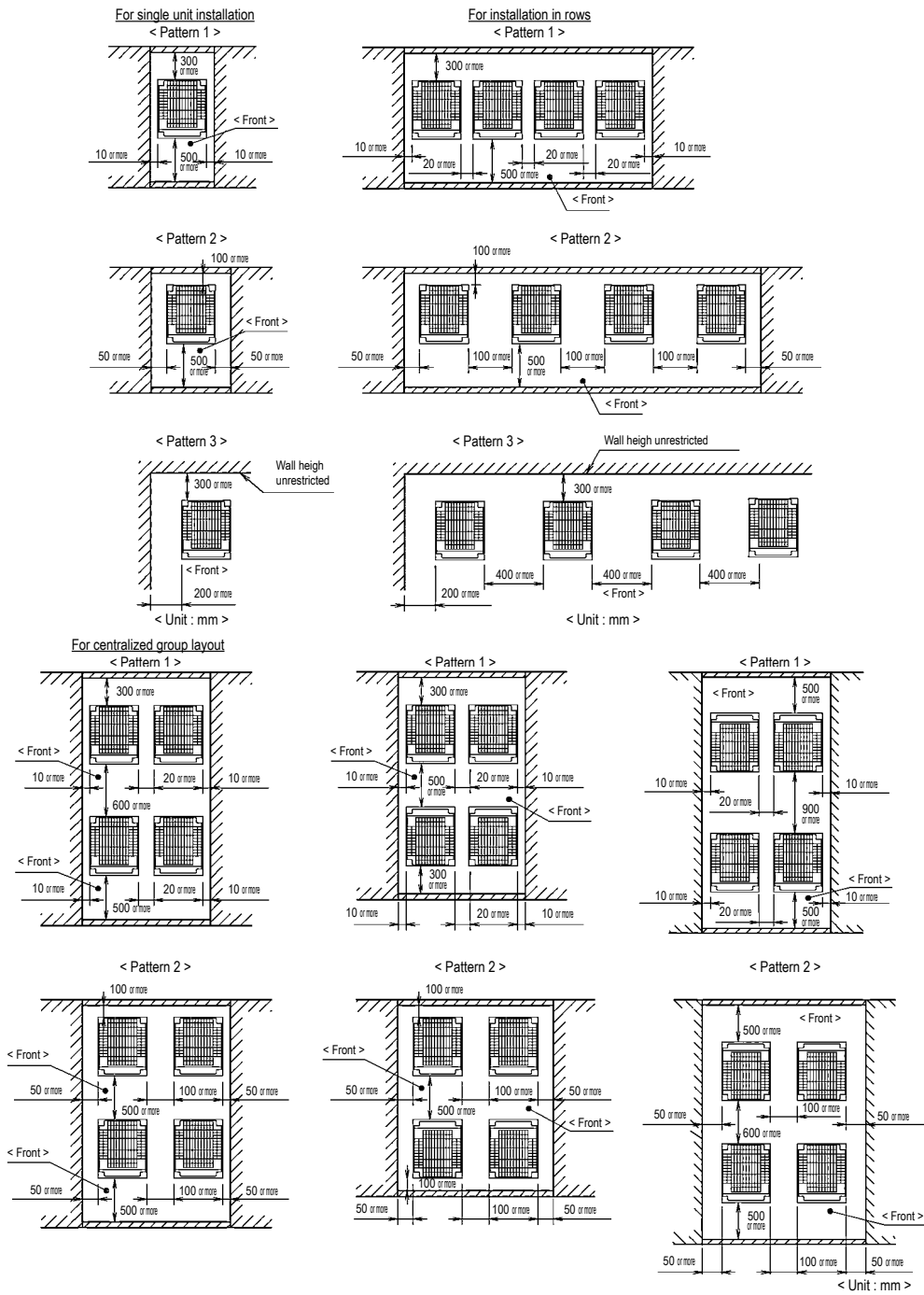
3D079542

- Heights of walls in case of patterns 1 and 2:
  - Front: 1500mm
  - Suction side: 500mm
  - 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.
- 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.
- 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 of the possibility of short circuits.)
- The units should be installed to leave sufficient space at the front for the on site refrigerant piping work to be carried out comfortably.





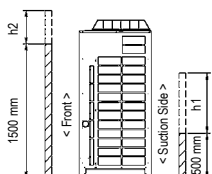
RQYQ140P



3D066327A

NOTES

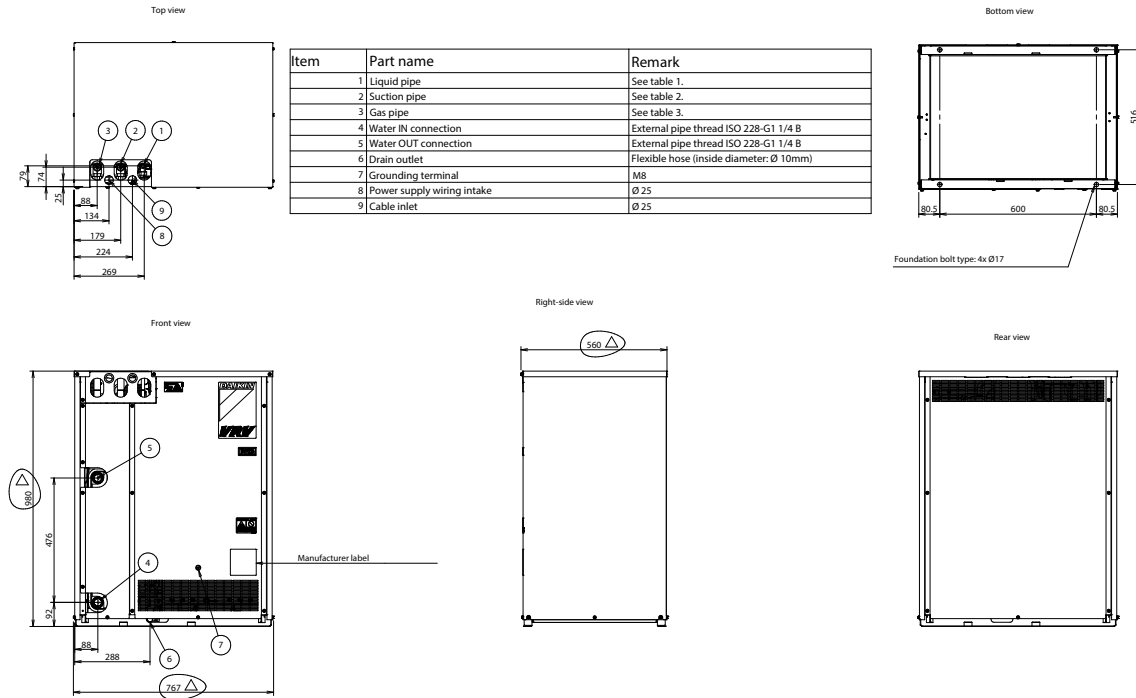
- Heights of walls in case of patterns 1 and 2:  
 Front: 1500 mm  
 Suction side: 500mm  
 Side: Height unrestricted.  
 Installation space to be shown in this drawing is based on the cooling operation at 35 degrees outdoor air temperature.  
 When the design outdoor air temperature exceeds 35 degrees 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.
- 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.
- 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.)
- 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

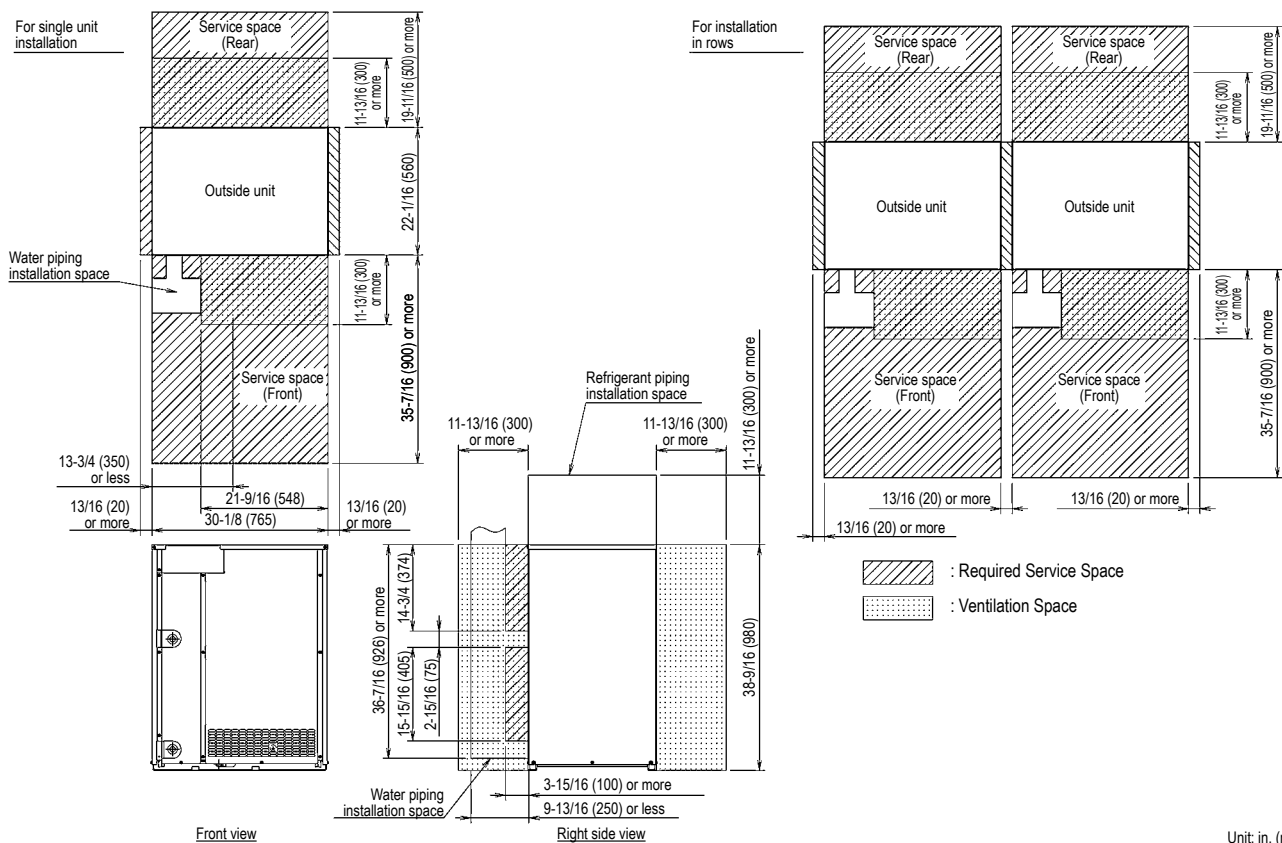


Model	RWEYQ8T9		RWEYQ10T9		RWEYQ12T9		RWEYQ14T9	
	Heat pump	Heat recovery	Heat pump	Heat recovery	Heat pump	Heat recovery	Heat pump	Heat recovery
Liquid pipe	Ø 9.5	Ø 9.5	Ø 9.5	Ø 9.5	Ø 12.7	Ø 12.7	Ø 12.7	Ø 12.7
Suction pipe	Ø 19.1	Ø 19.1	Ø 22.2	Ø 22.2	Ø 28.6	Ø 28.6	Ø 28.6	Ø 28.6
Gas pipe (high/low pressure)	Ø 19.1	Ø 15.9	Ø 22.2	Ø 19.1	Ø 28.6	Ø 19.1	Ø 28.6	Ø 22.2

- Notes
1. The grounding terminal is located in the switch box.
  2. The pipe connections are brazed connections.
  3. In case of a heat pump, the suction pipe is not used.

2D108932A

RWEYQ-T9



3D109304

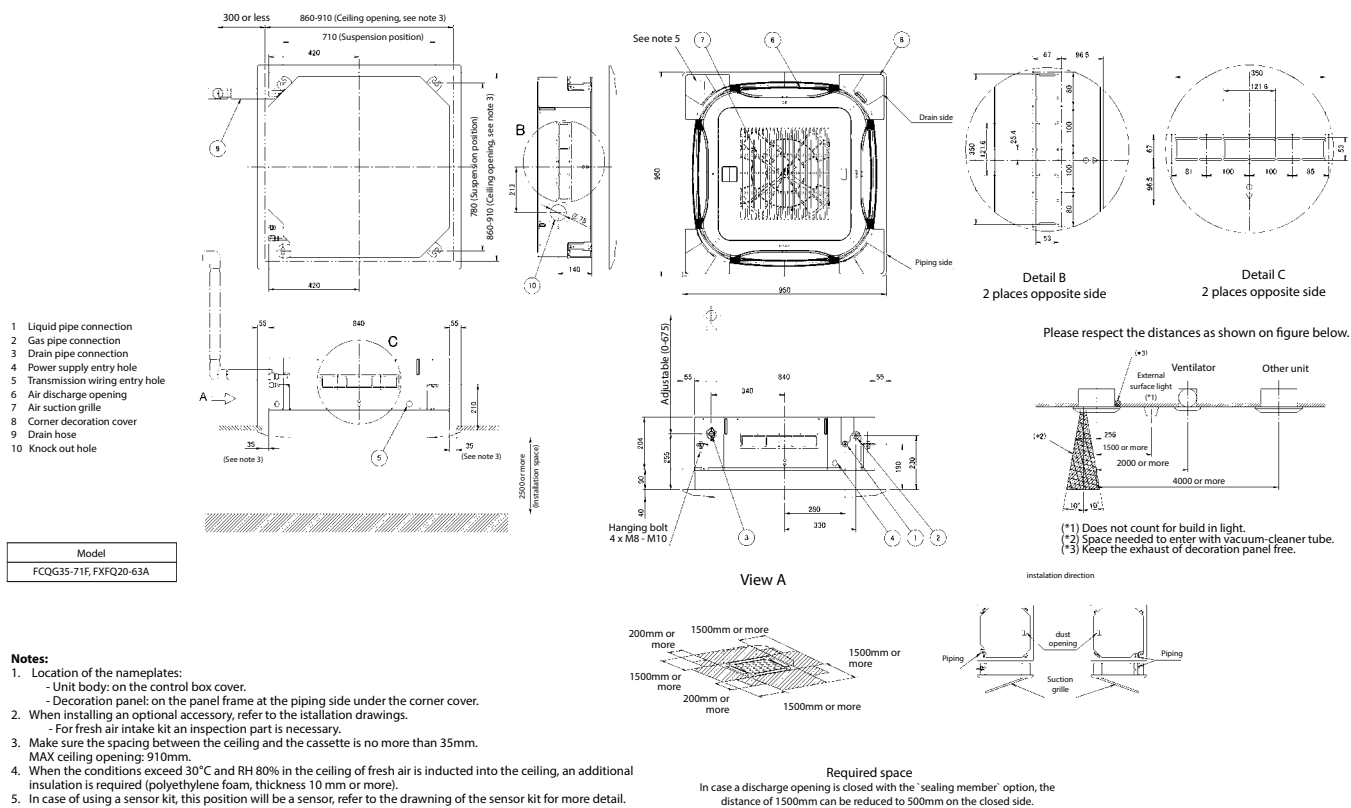
# Technical drawings

## Indoor units

FXFQ-A	241
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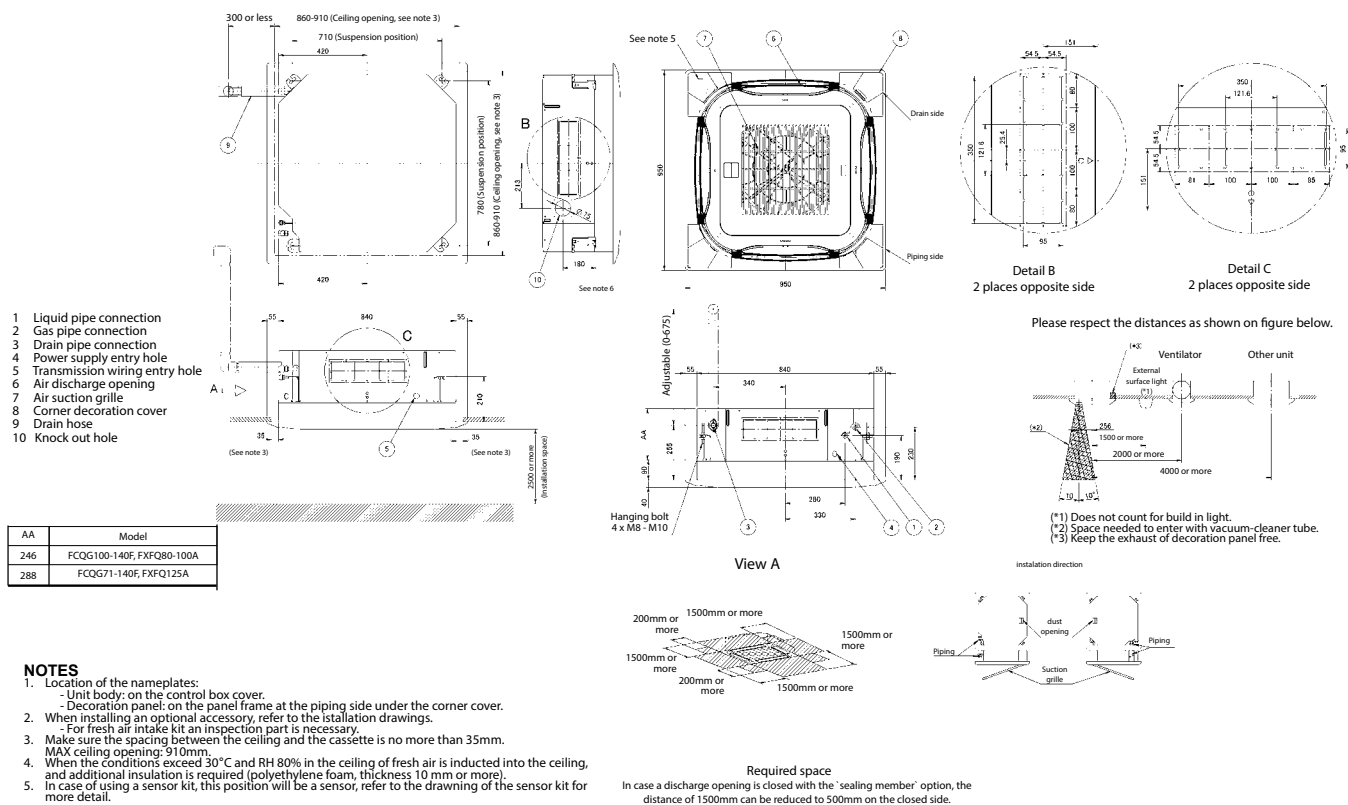


### FXFQ20-63A WITH AUTO-CLEANING PANEL



D2090231

### FXFQ80-125A WITH AUTO-CLEANING PANEL

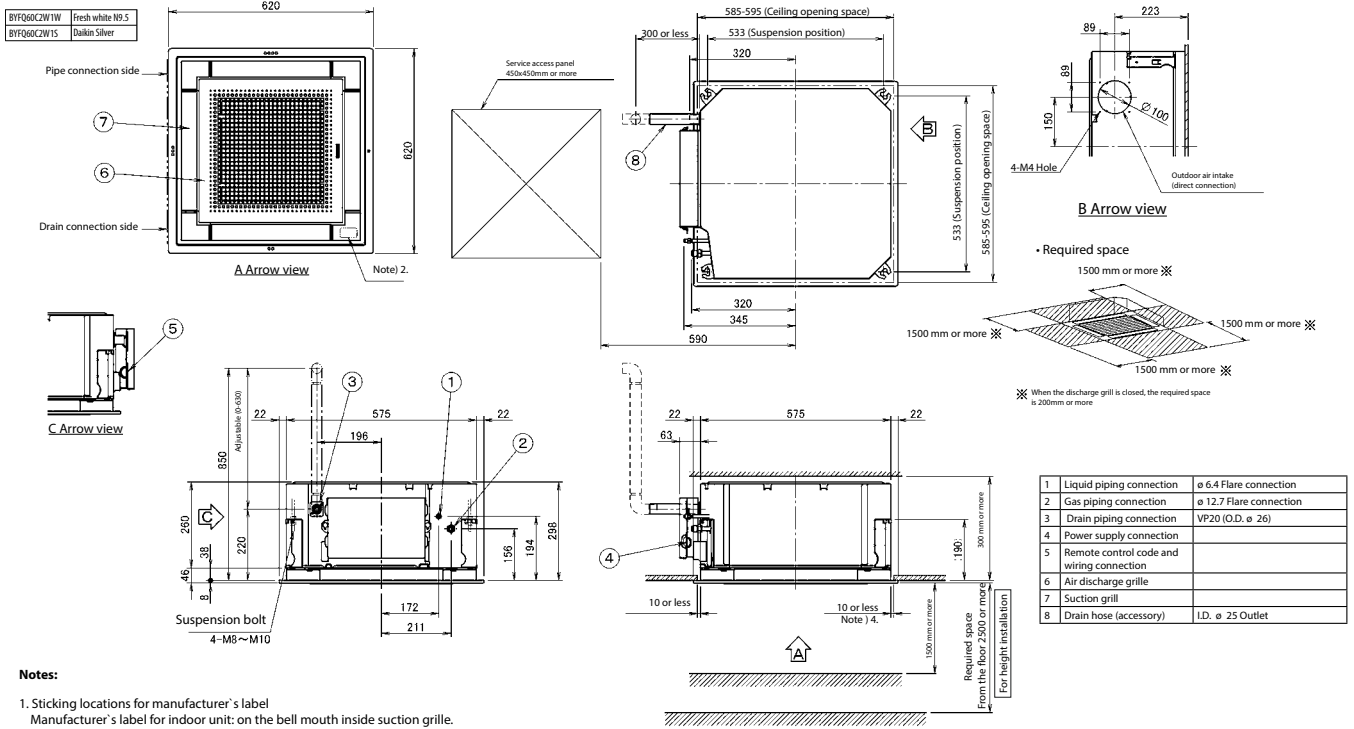


3D07131D



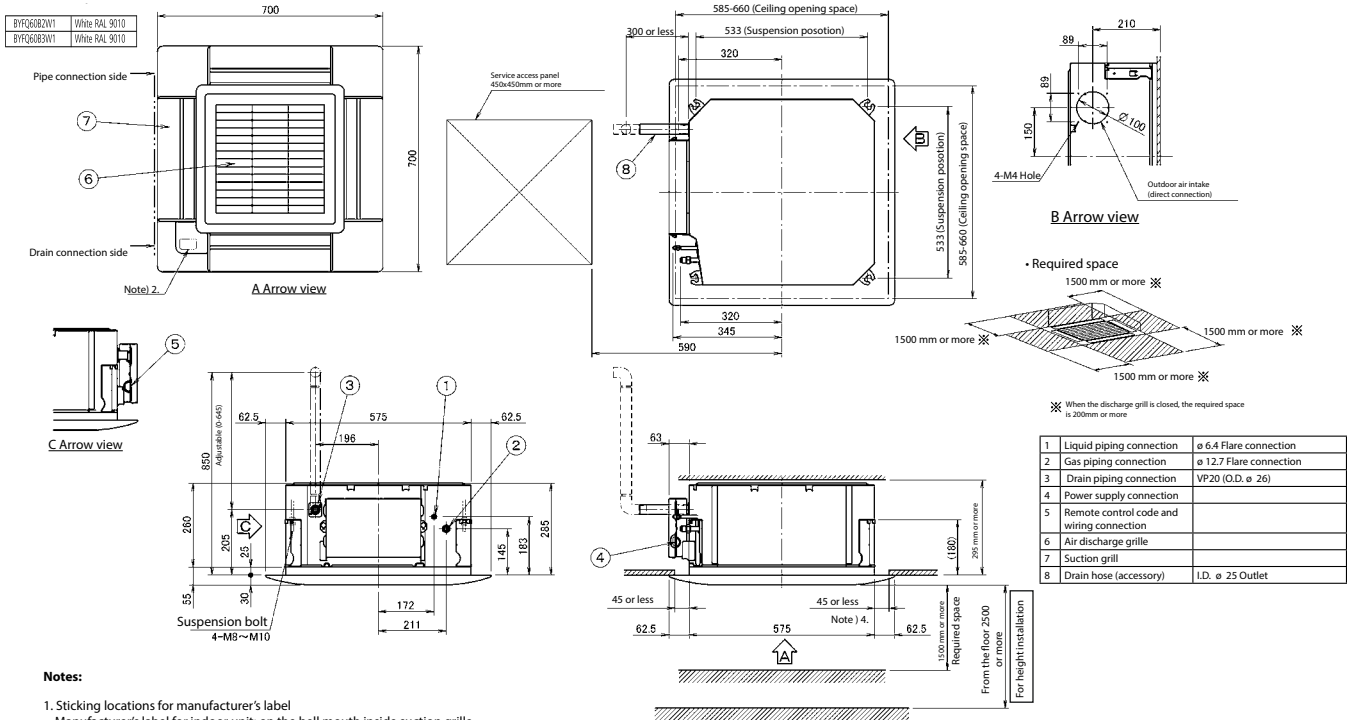


### FXZQ-A NEW PANEL



3D082052

### FXZQ-A OLD PANEL

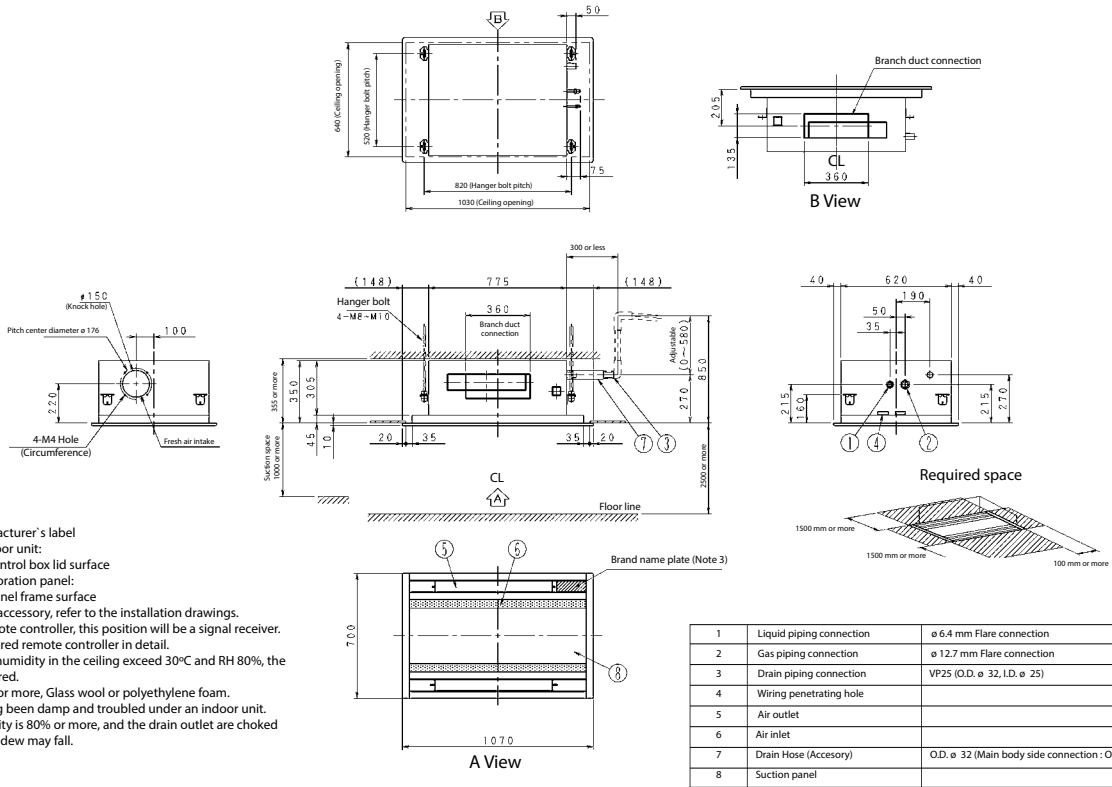


3D082161A



Detailed technical drawings

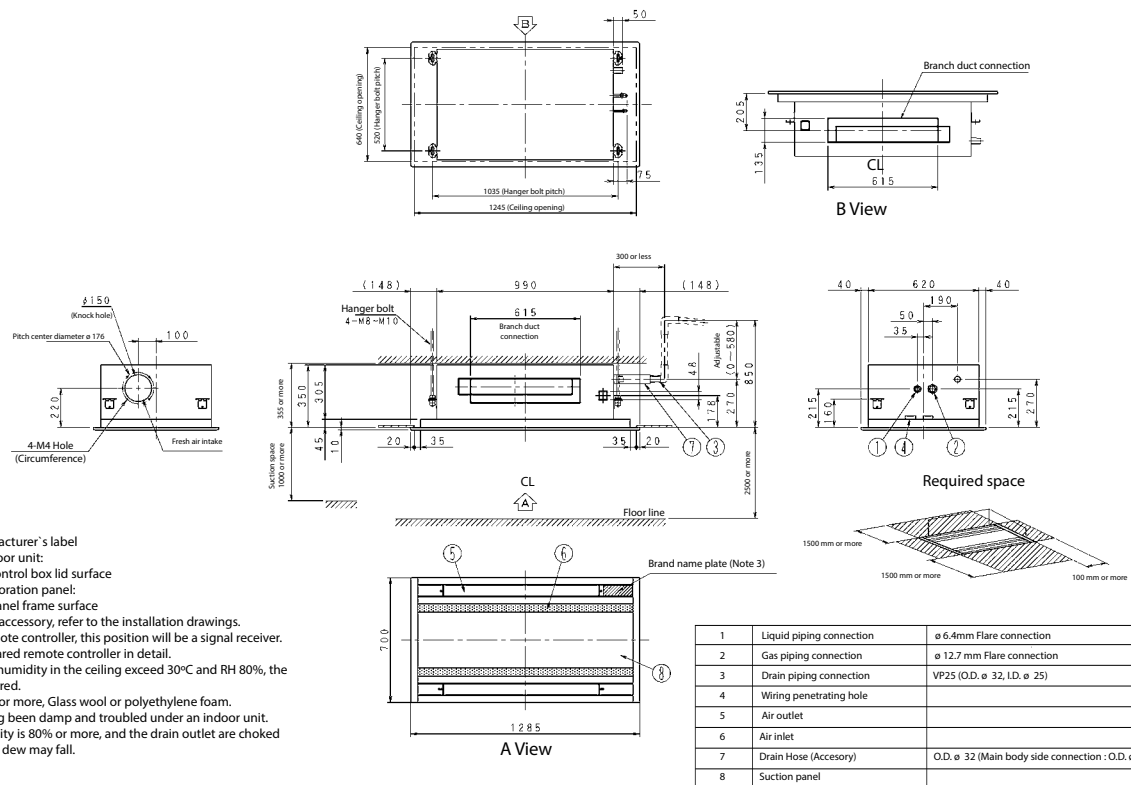
FXCQ20-40A



1	Liquid piping connection	ø 6.4 mm Flare connection
2	Gas piping connection	ø 12.7 mm Flare connection
3	Drain piping connection	VP25 (O.D. ø 32, I.D. ø 25)
4	Wiring penetrating hole	
5	Air outlet	
6	Air inlet	
7	Drain Hose (Accessory)	O.D. ø 32 (Main body side connection : O.D. ø 26)
8	Suction panel	

3D079628

FXCQ50A

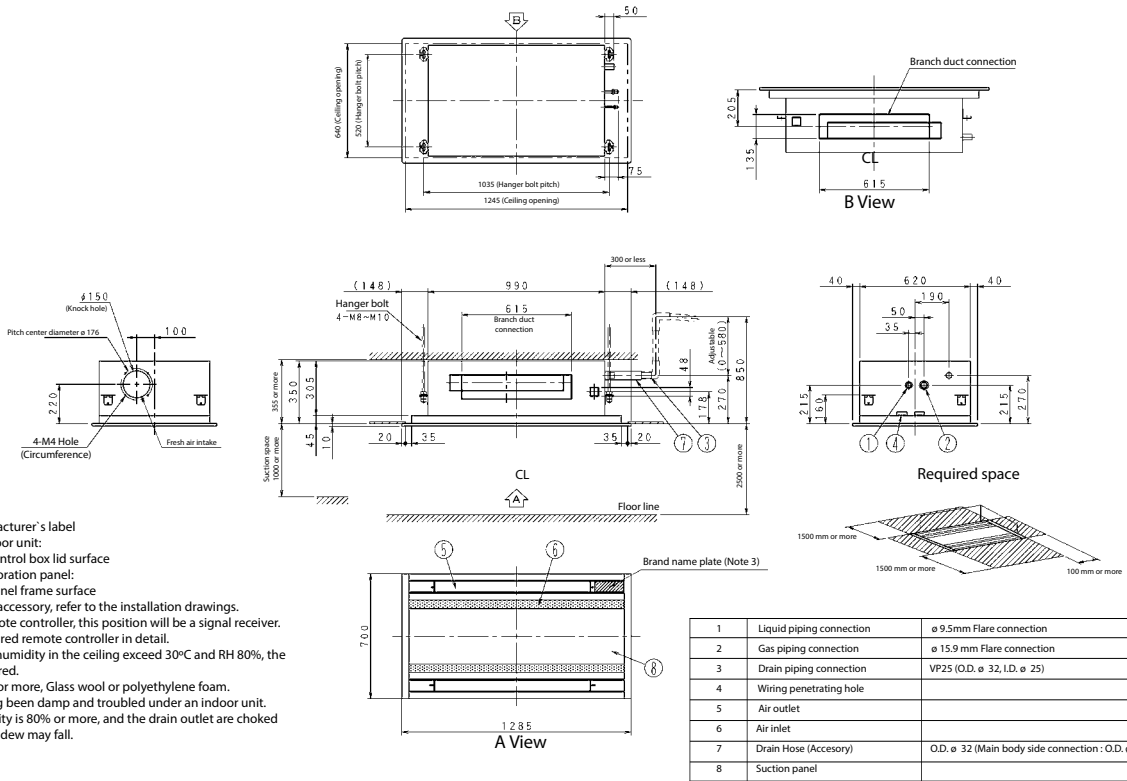


1	Liquid piping connection	ø 6.4mm Flare connection
2	Gas piping connection	ø 12.7 mm Flare connection
3	Drain piping connection	VP25 (O.D. ø 32, I.D. ø 25)
4	Wiring penetrating hole	
5	Air outlet	
6	Air inlet	
7	Drain Hose (Accessory)	O.D. ø 32 (Main body side connection : O.D. ø 26)
8	Suction panel	

3D079629

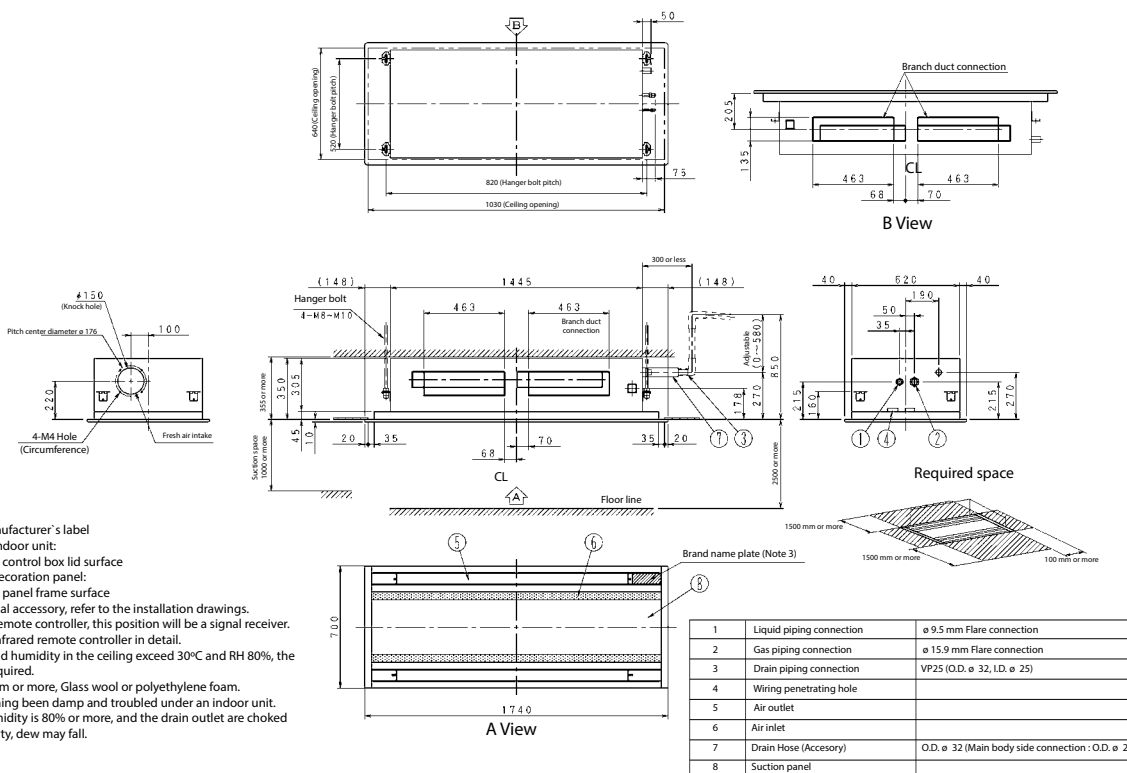


**FXCQ63A**



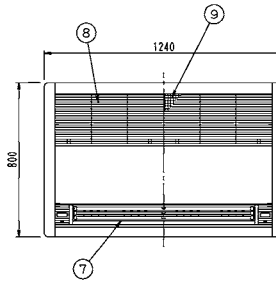
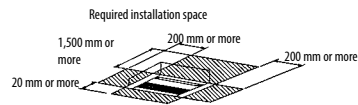
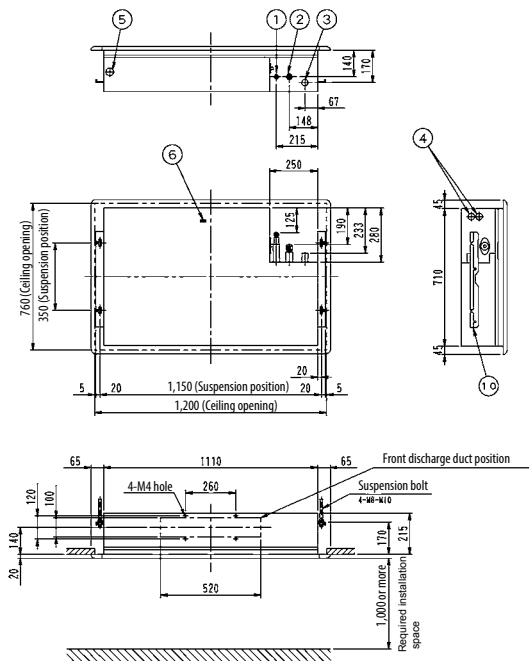
3D079630

**FXCQ80-125A**



3D079631

**FXKQ25, 32, 40MA**



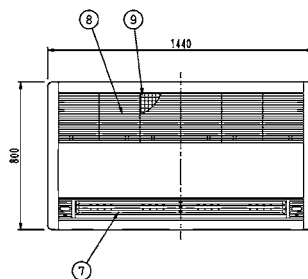
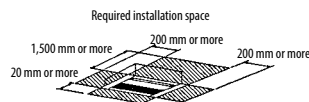
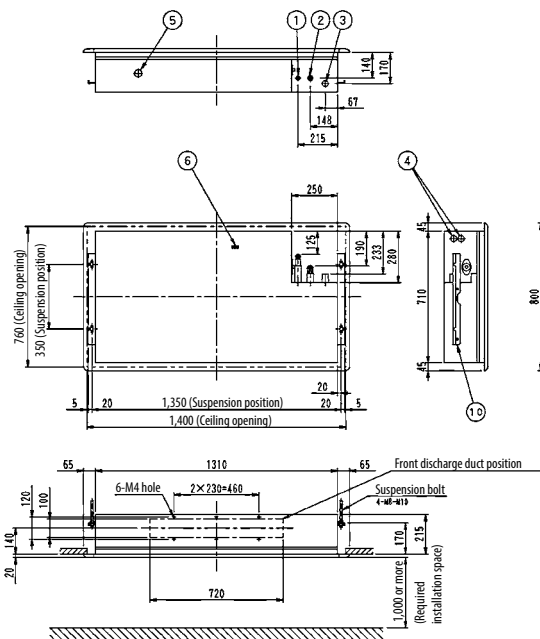
Nr.	Name	Description
1	Liquid pipe connection	ø 6.4 Flare connection
2	Gas pipe connection	ø 12.7 Flare connection
3	Drain pipe connection	VP25 (O.D. ø 32)
4	Wire intake	
5	Interunit wiring connection	
6	Grounding terminal	Inside switch box (M4)
7	Discharge	
8	Air suction grille	
9	Long life filter	
10	Suspension bolt	

**NOTES**

- 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.
- When installing an optional accessory, refer to the installation drawings.

3D038840

**FXKQ63MA**



Nr.	Name	Description
1	Liquid pipe connection	ø 9.5 Flare connection
2	Gas pipe connection	ø 15.9 Flare connection
3	Drain pipe connection	VP25 (O.D. ø 32)
4	Wire intake	
5	Interunit wiring connection	
6	Grounding terminal	Inside switch box (M4)
7	Discharge	
8	Air suction grille	
9	Long life filter	
10	Suspension bolt	

**NOTES**

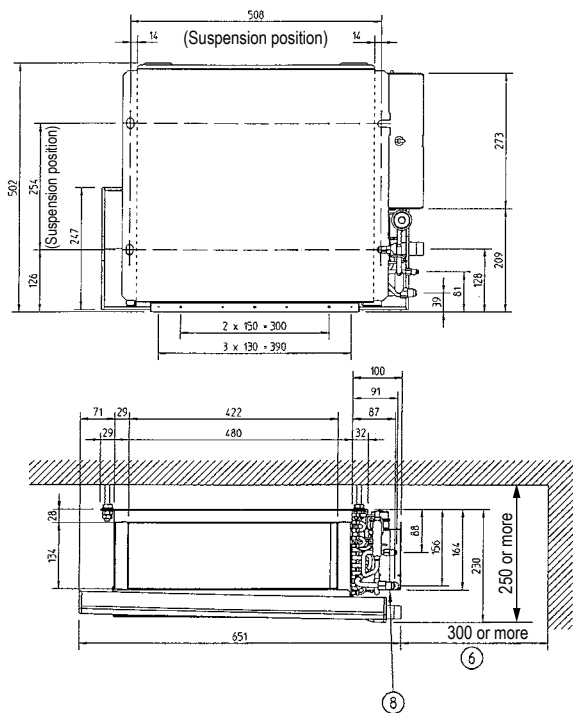
- Location of unit's name plate:
  - For main body: Bottom part of fan housing inside of air suction grille.
  - For decoration panel: Service lid face inside of air suction grille.
- When installing an optional accessory, refer to the installation drawings.

3D038841

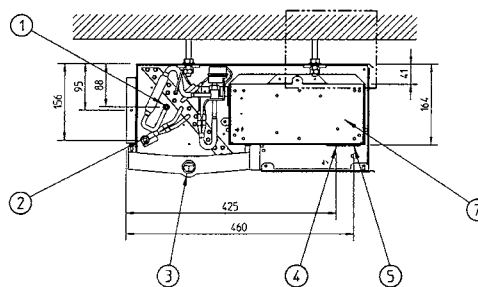




FXDQ-M9



Nr	Part name
1	Liquid pipe connection (ø 6.35)
2	Gas pipe connection (ø 12.7)
3	Drain hole (o.d. ø 27.2 - i.d. ø 21.6)
4	Transmission wiring port
5	Power supply wiring port
6	Service space
7	Switch box
8	Nameplate

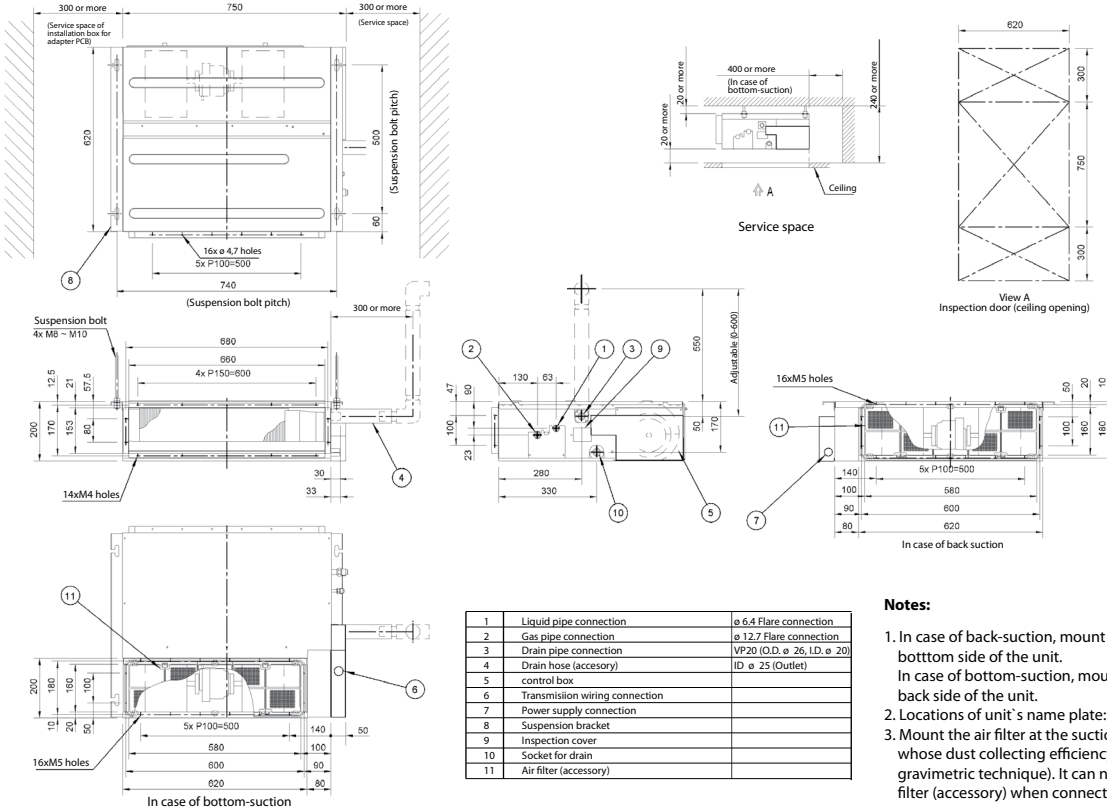


3TW25774-1



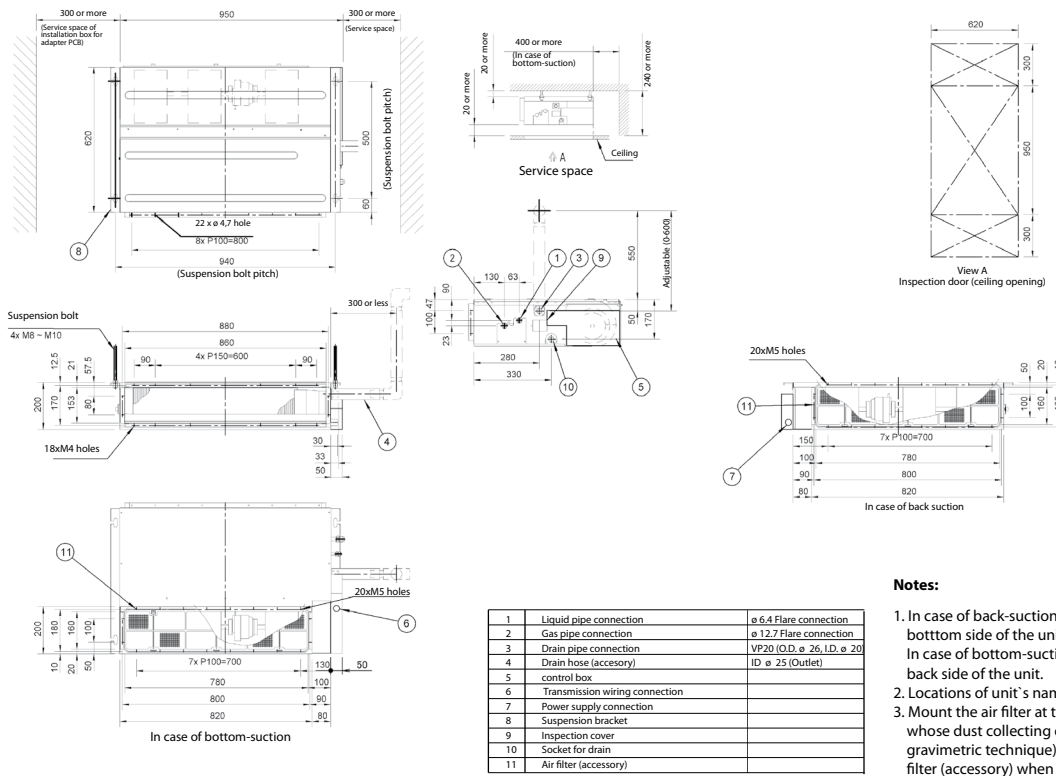
Detailed technical drawings

FXDQ15-32A3



3D081435

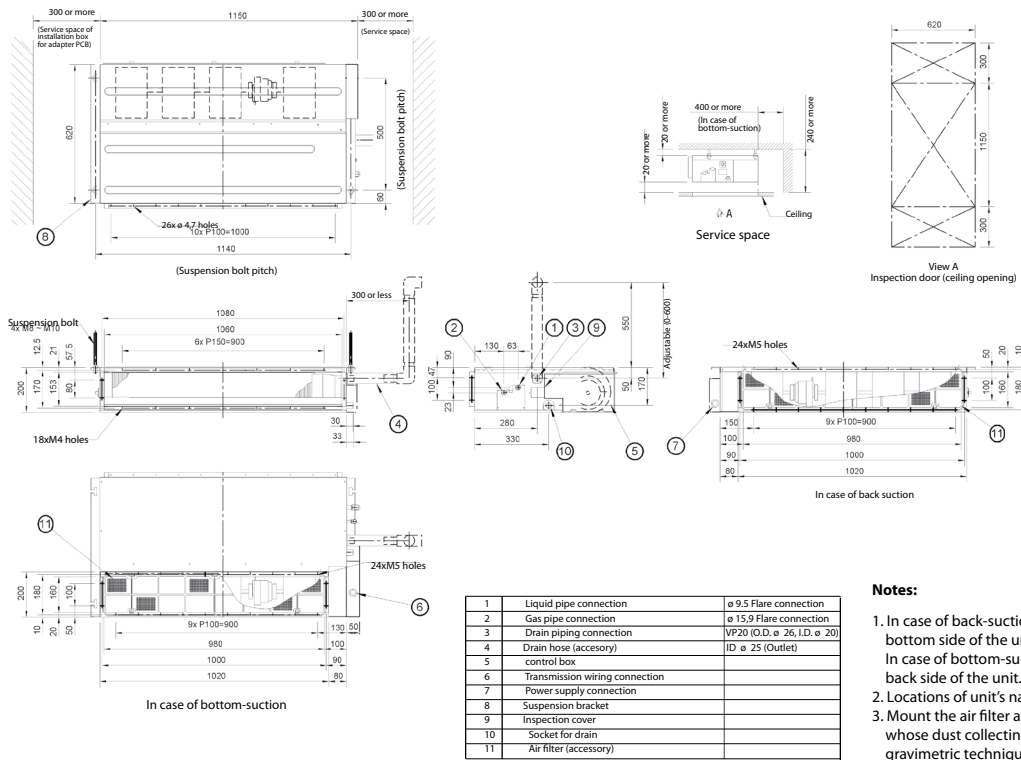
FXDQ40-50A3



3D081436



**FXDQ63A3**

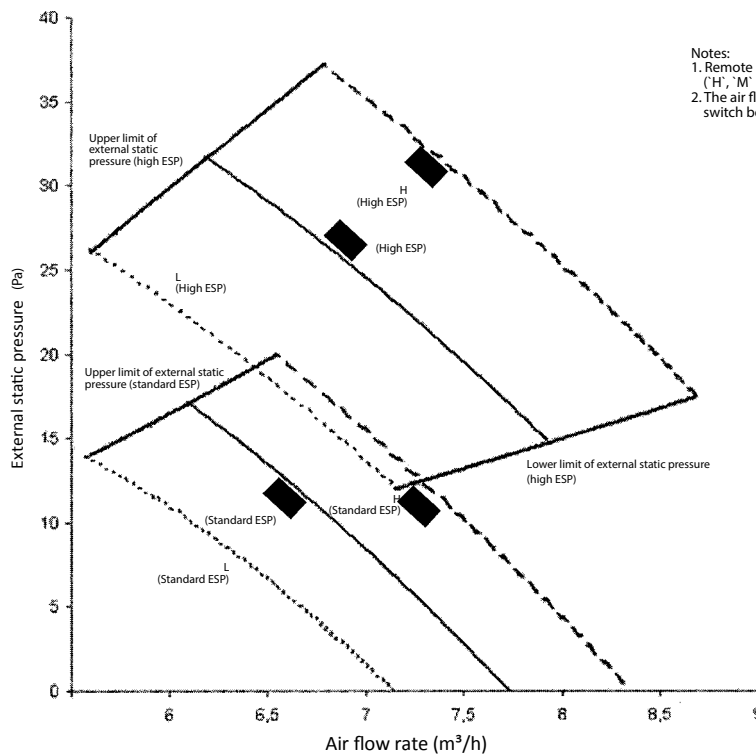


**Notes:**

- In case of back-suction, mount chamber cover to bottom side of the unit.  
In case of bottom-suction, mount chamber cover to back side of the unit.
- Locations of unit's name plate: control box cover.
- Mount the air filter at the suction side. (Use an air filter whose dust collecting efficiency is at least 50% in a gravimetric technique). It can not be equipped with air filter (accessory) when connecting duct to suction side.

3D081441

**FXDQ15A3**

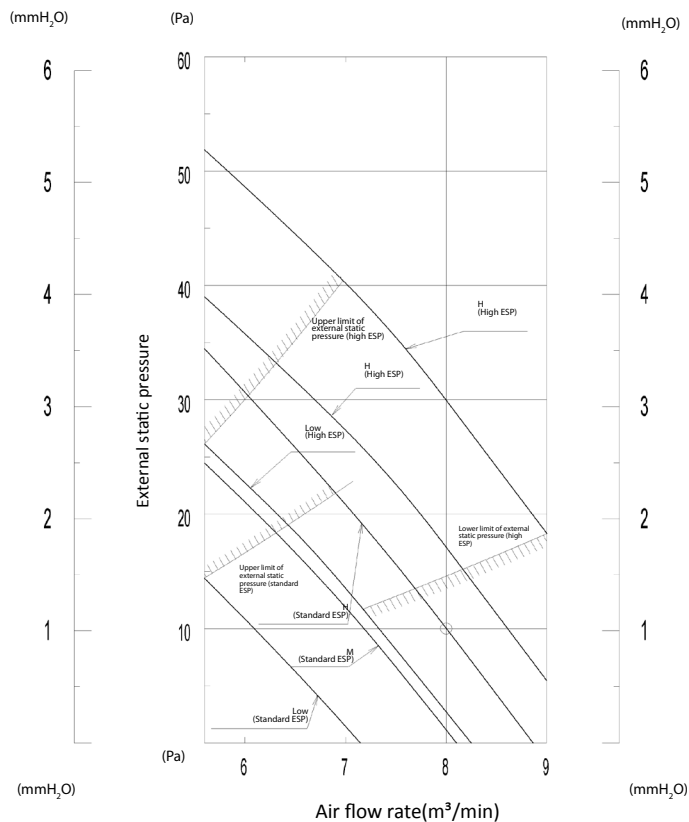


**Notes:**

- Remote controller can be used to switch between 'HIGH' and 'LOW'. ('H', 'M' and 'L' for FDQ-A2VEB model)
- 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.

3D081424A

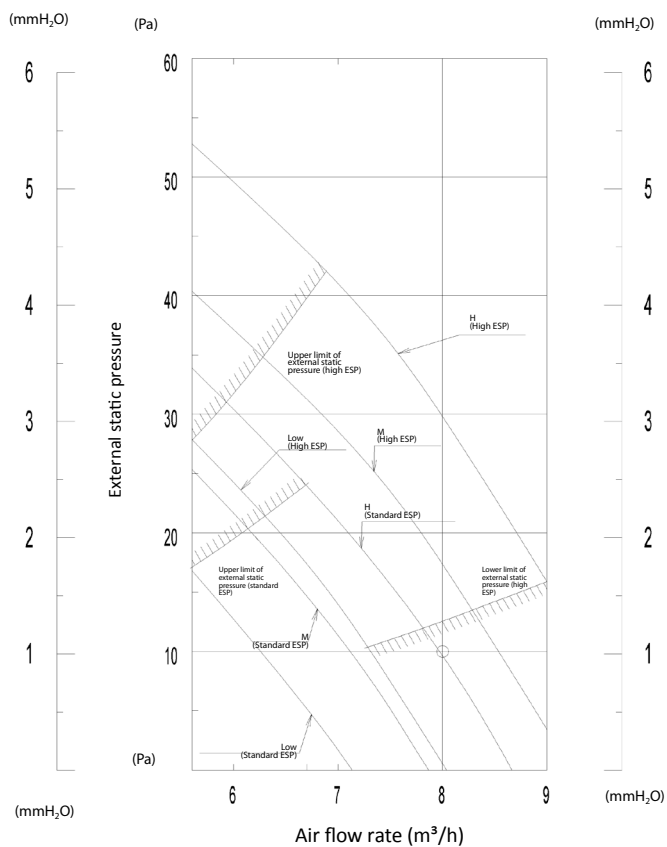
**FXDQ20-25 A3**



- 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.

3D086736A

**FXQQ32A3**

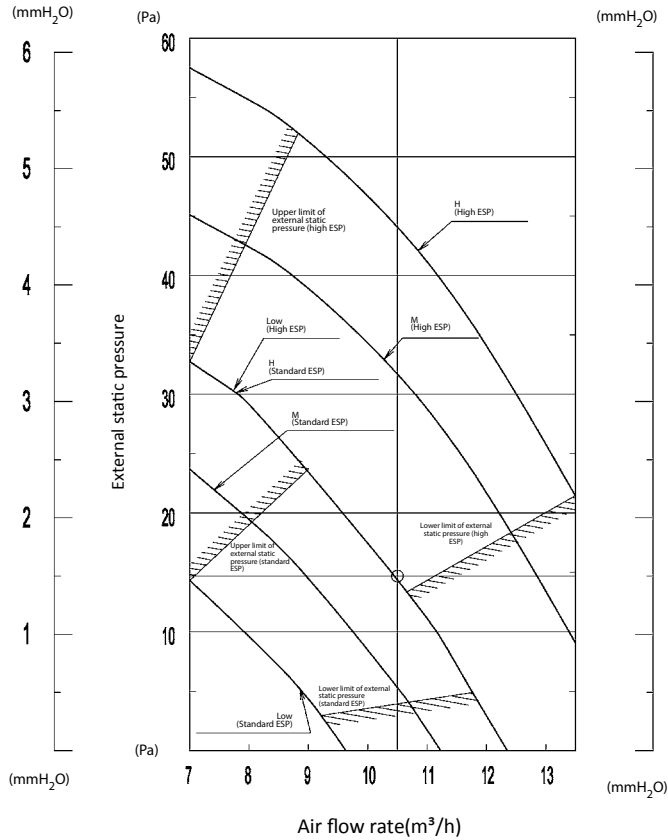


- Notes:
1. Remote controller can be used to switch between 'HIGH' and 'LOW'. ('H', 'M' and 'L' for FDQ-A2VEB model)
  2. The air flows is set to 'STANDARD' before leaving the factory. It is possible to switch between 'STANDARD ESP' and 'HIGH ESP' by remote controller.

3D081425



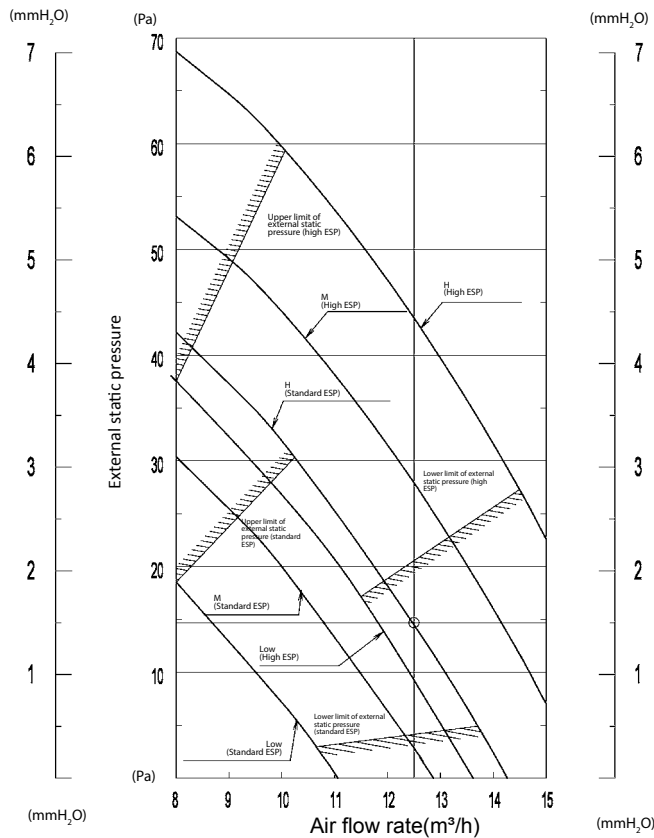
**FXDQ40A3**



- 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.

3D81426B

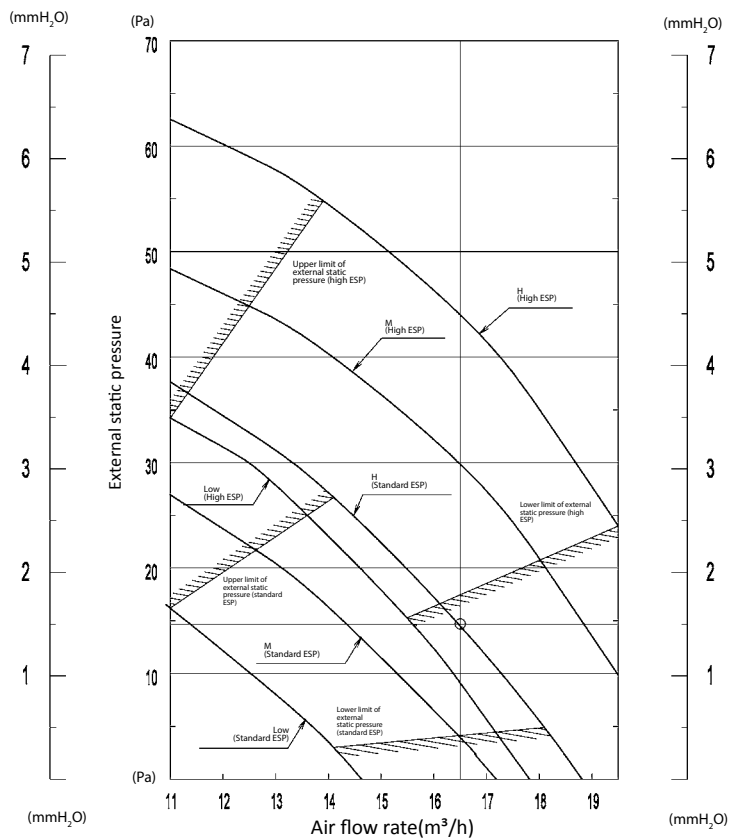
**FXDQ50A3**



- Notes:  
 1. Remote controller can be used to switch between 'HIGH' and 'LOW'. ('H', 'M' and 'L' for FDQ-A2VEB model)  
 2. The air flow is set to 'STANDARD' before leaving the factory. It is possible to switch between 'STANDARD ESP' and 'HIGH ESP' by remote controller.

3D081427B

**FXDQ60A3**

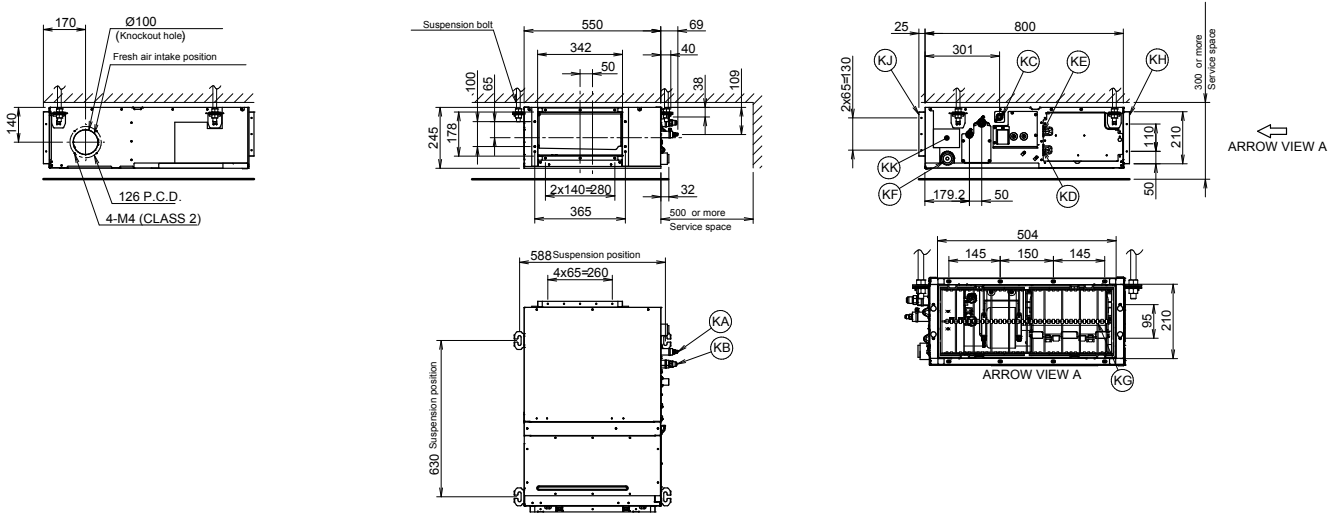


Notes:  
 1. Remote controller can be used to switch between 'HIGH' and 'LOW'. ('H', 'M' and 'L' for FDQ-A2VEB model)  
 2. The air flows is set to 'STANDARD' before leaving the factory. It is possible to switch between 'STANDARD ESP' and 'HIGH ESP' by remote controller.

3D081429B



**FXSQ15-32A**

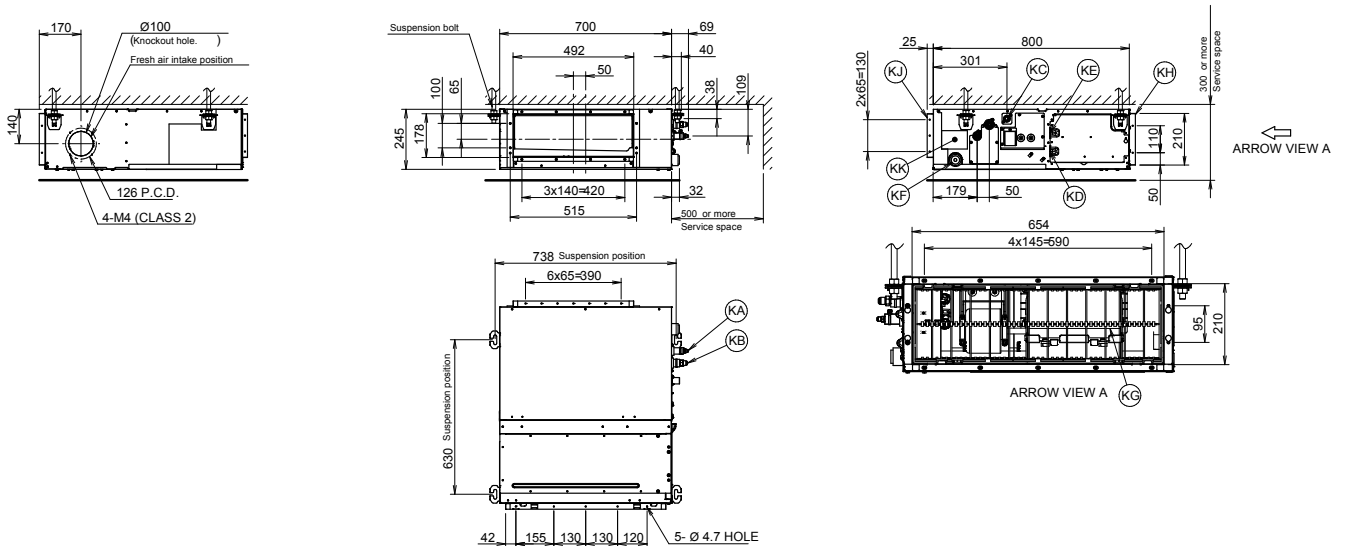


Item	Name	Description
KA	Liquid pipe connection port	Ø6.35 flared connection
KB	Gas pipe connection port	Ø12.70 flared connection
KC	Drain pipe connection	VP20 (OD Ø26, ID Ø20)
KD	Wiring connection	/
KE	Power supply connection	/
KF	Drain outlet	VP20 (OD Ø26, ID Ø20)
KG	Air filter	/
KH	Air suction side	/
KJ	Air discharge side	/
KK	Nameplate	/

Notes  
 1. When installing optional accessories, refer to their respective documentation.  
 2. The ceiling depth varies according to the documentation of the specific system.

3D094888A

**FXSQ40-50A**



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	/
KJ	Air discharge side	/
KK	Nameplate	/

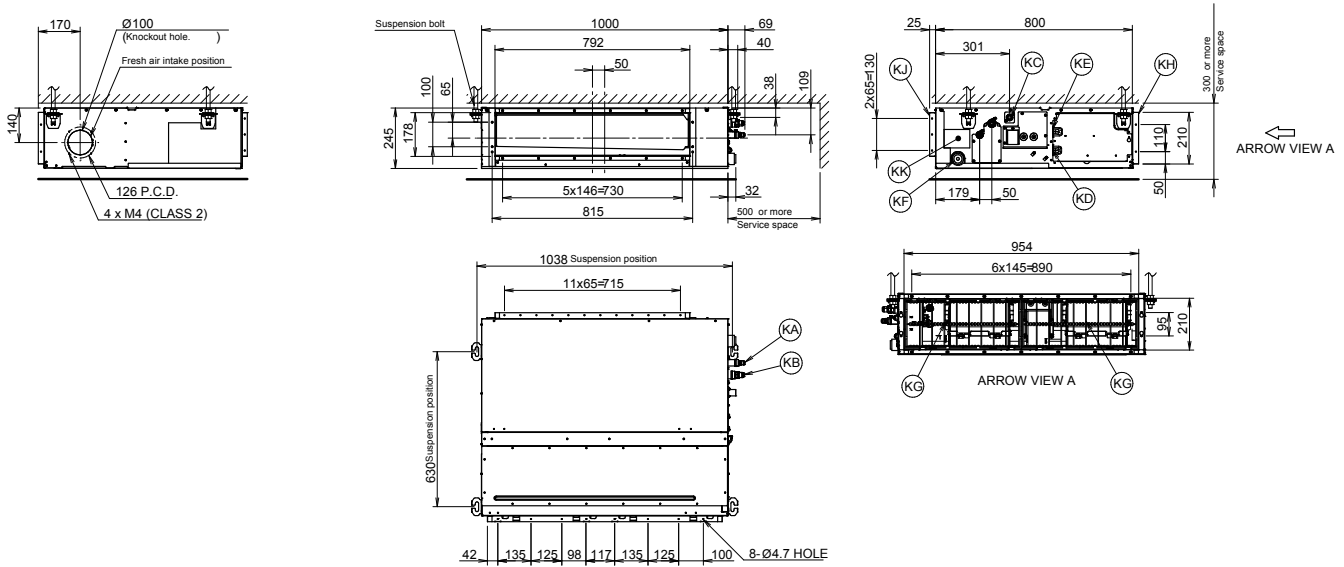
Notes  
 1. When installing optional accessories, refer to their respective documentation.  
 2. The ceiling depth varies according to the documentation of the specific system.

3D094919A



Detailed technical drawings

**FXSQ63-80A**

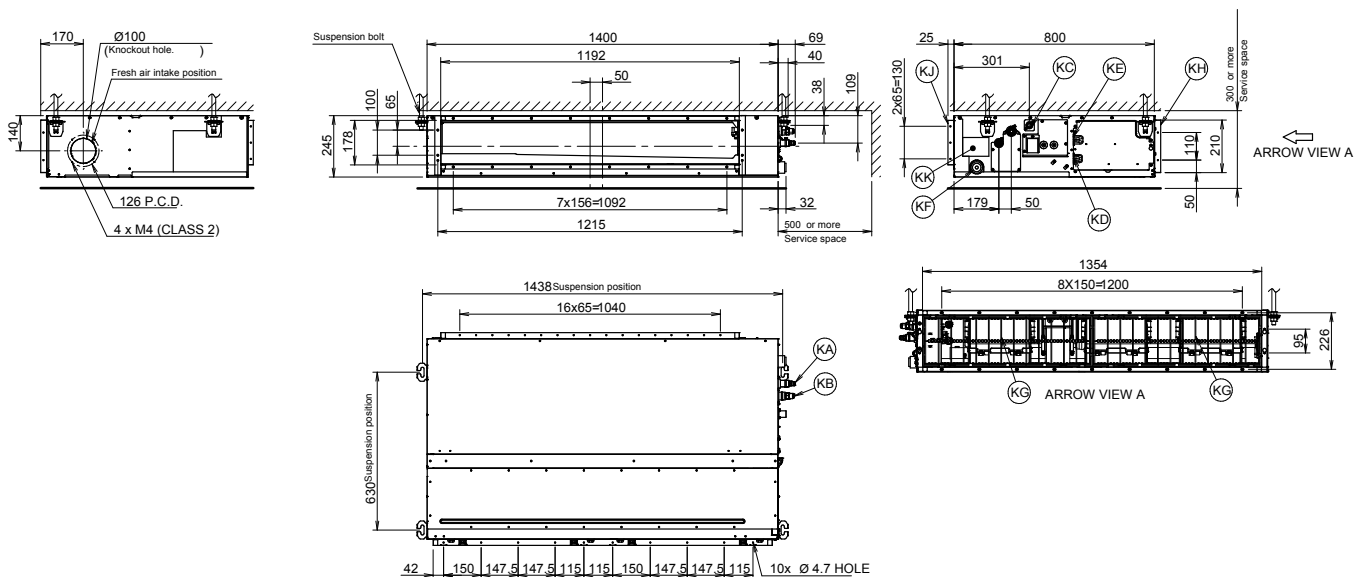


Item	Name	Description
KA	Liquid pipe connection port	Ø9.52 flared connection
KB	Gas pipe connection port	Ø15.90 flared connection
KC	Drain pipe connection	VP20 (OD Ø26, ID Ø20)
KD	Wiring connection	/
KE	Power supply connection	/
KF	Drain outlet	VP20 (OD Ø26, ID Ø20)
KG	Air filter	/
KH	Air suction side	/
KJ	Air discharge side	/
KK	Nameplate	/

**Notes**  
 1. When installing optional accessories, refer to their respective documentation.  
 2. The ceiling depth varies according to the documentation of the specific system.

3D094916A

**FXSQ100-125A**



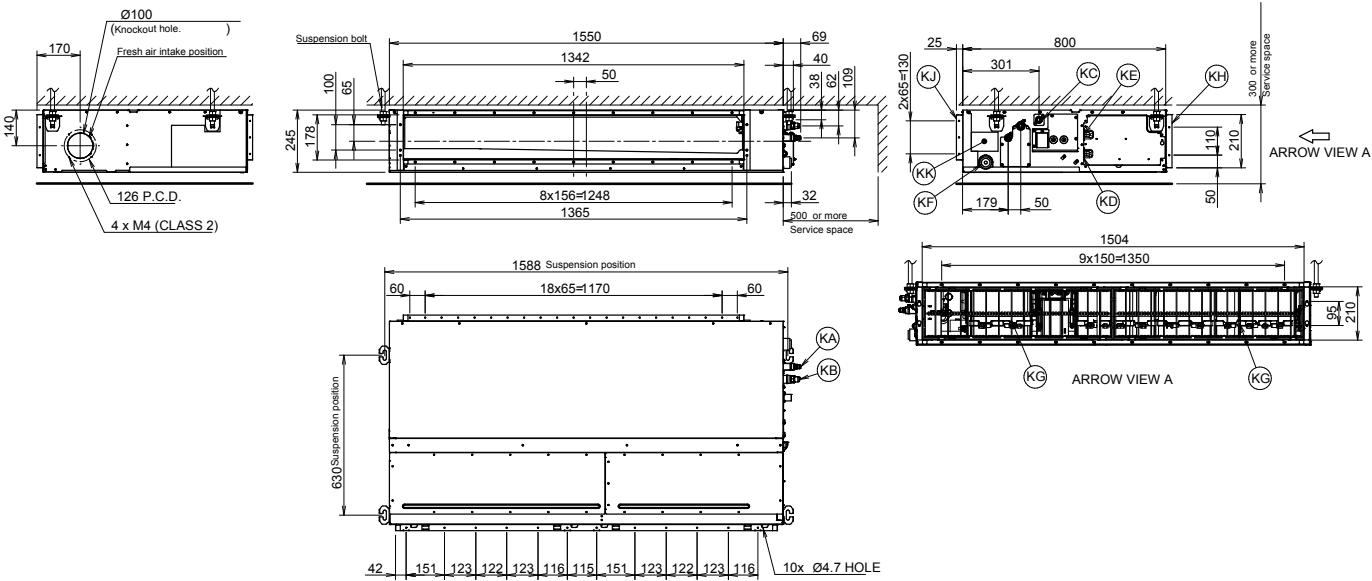
Item	Name	Description
KA	Liquid pipe connection port	Ø9.52 flared connection
KB	Gas pipe connection port	Ø15.90 flared connection
KC	Drain pipe connection	VP20 (OD Ø26, ID Ø20)
KD	Wiring connection	/
KE	Power supply connection	/
KF	Drain outlet	VP20 (OD Ø26, ID Ø20)
KG	Air filter	/
KH	Air suction side	/
KJ	Air discharge side	/
KK	Nameplate	/

**Notes**  
 1. When installing optional accessories, refer to their respective documentation.  
 2. The ceiling depth varies according to the documentation of the specific system.

3D094917A



**FXSQ140A**

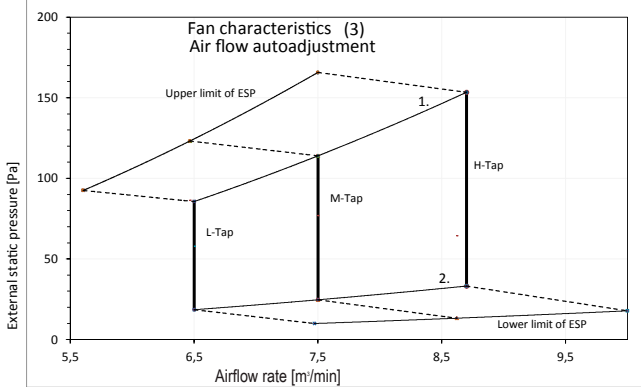
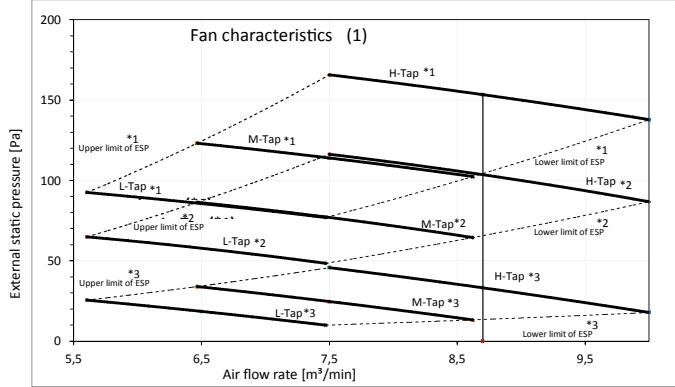


Item	Name	Description
KA	Liquid pipe connection port	Ø9.52 flared connection
KB	Gas pipe connection port	Ø15.90 flared connection
KC	Drain pipe connection	VP20 (OD Ø26, ID Ø20)
KD	Wiring connection	/
KE	Power supply connection	/
KF	Drain outlet	VP20 (OD Ø26, ID Ø20)
KG	Air filter	/
KH	Air suction side	/
KJ	Air discharge side	/
KK	Nameplate	/

Notes  
 1. When installing optional accessories, refer to their respective documentation.  
 2. The ceiling depth varies according to the documentation of the specific system.

3D094928A

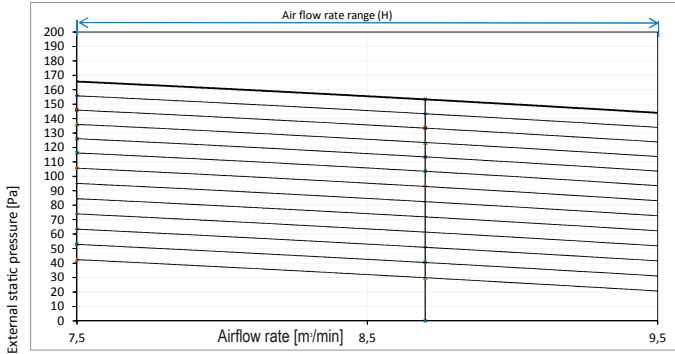
**FXSQ15A**



1. Upper limit of ESP by air flow auto adjustment  
 2. Lower limit of ESP by air flow auto adjustment

Mark	ESP [Pa]
*1	MAX 150
*2	- 100
*3	STD 50

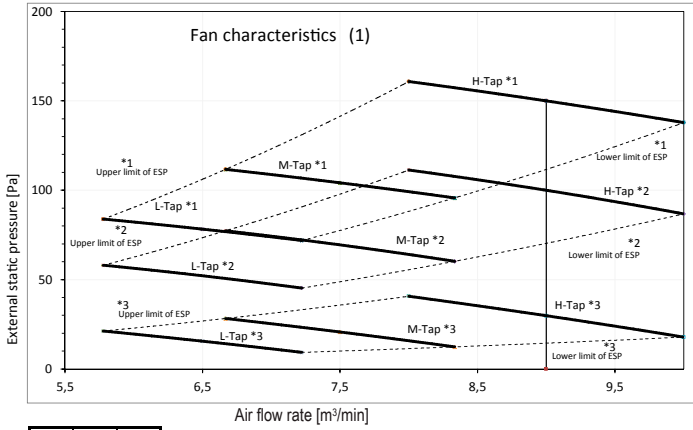
Fan characteristics (2)  
 Field setting with remote control



Notes  
 1. The fan characteristics shown are in "fan only" mode.  
 2. ESP: External Static Pressure

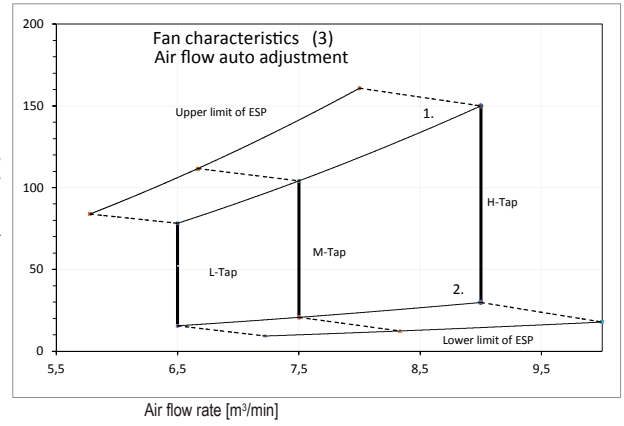
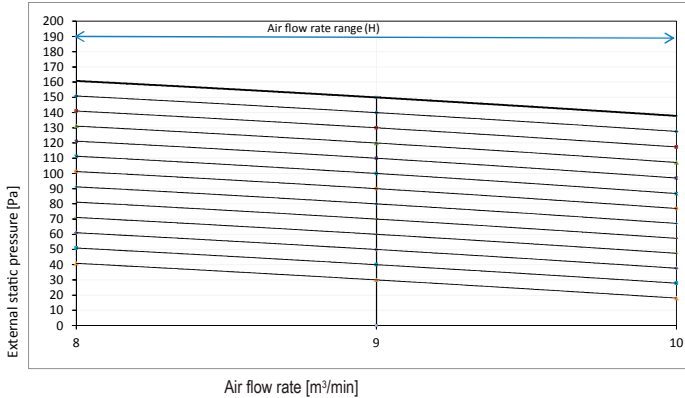
3D096999

**FXSQ20-25A**



Mark	ESP [Pa]
*1	MAX 150
*2	100
*3	STD 30

Fan characteristics (2)  
Field setting with remote control

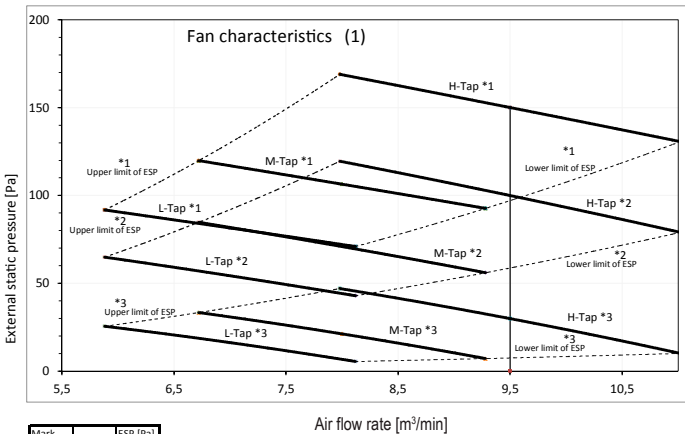


1. Upper limit of ESP by air flow auto adjustment
2. Lower limit of ESP by air flow auto adjustment

- Notes
1. The fan characteristics shown are in "fan only" mode.
  2. ESP: External Static Pressure

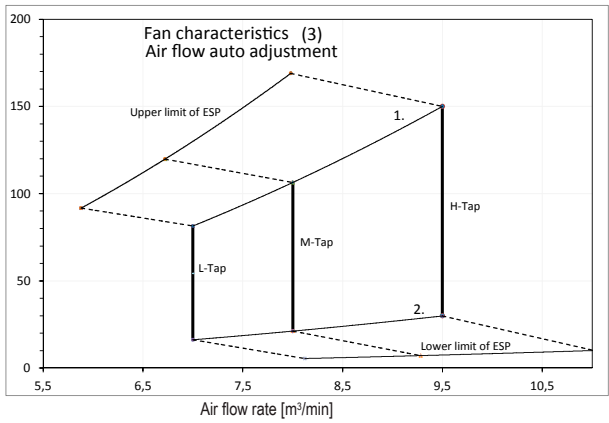
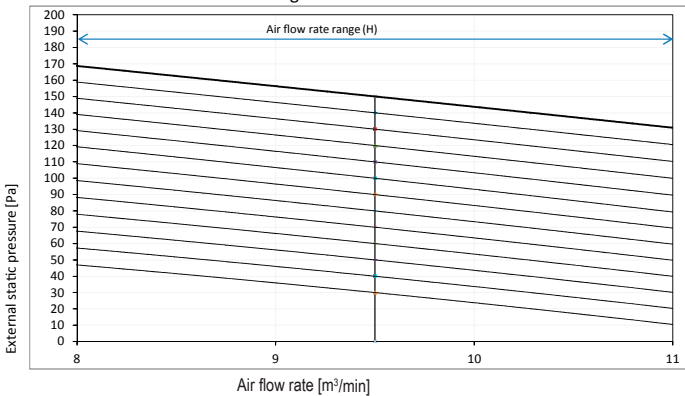
3D095680A

**FXSQ32A**



Mark	ESP [Pa]
*1	MAX 150
*2	100
*3	STD 30

Fan characteristics (2)  
Field setting with remote control



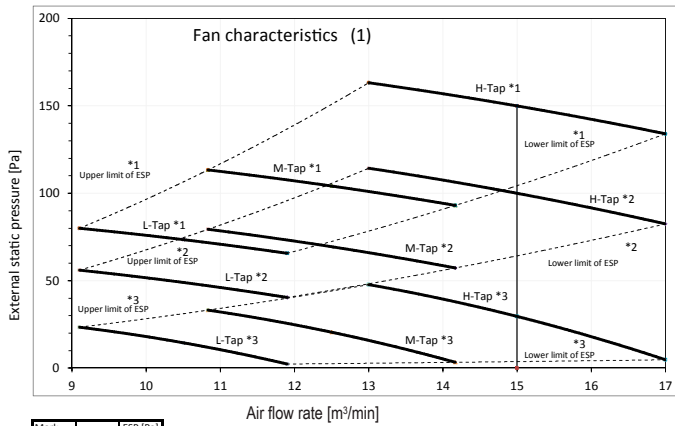
1. Upper limit of ESP by air flow auto adjustment
2. Lower limit of ESP by air flow auto adjustment

- Notes
1. The fan characteristics shown are in "fanonly" mode.
  2. ESP: External Static Pressure

3D095681A

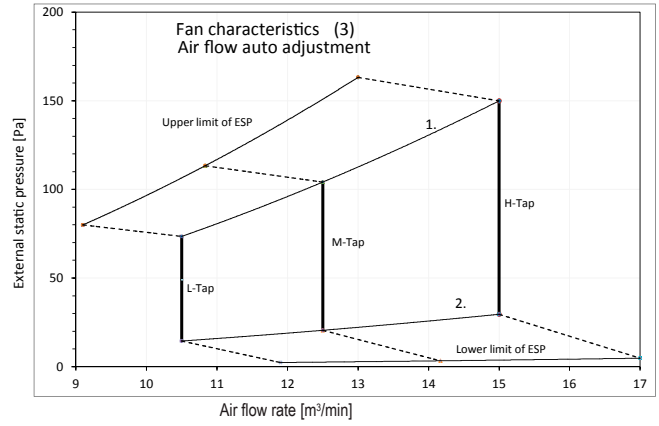
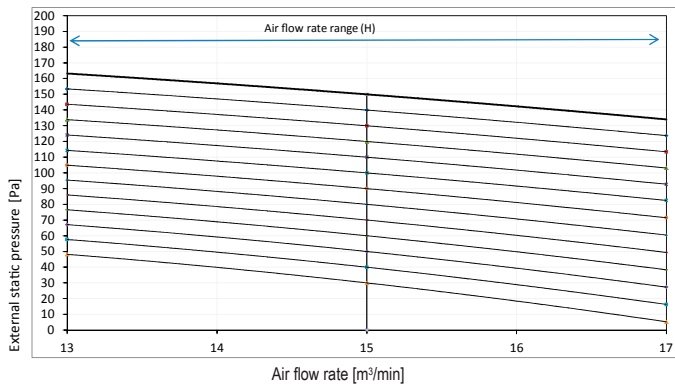


### FXSQ40A



Mark		ESP [Pa]
*1	MAX	150
*2		100
*3	STD	30

Fan characteristics (2)  
Field setting with remote control

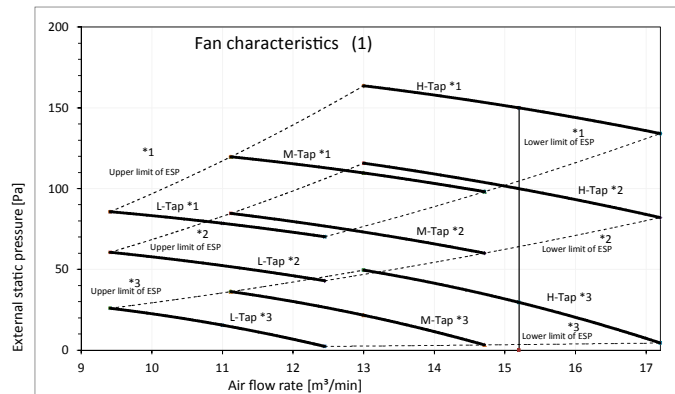


1. Upper limit of ESP by air flow auto adjustment
2. Lower limit of ESP by air flow auto adjustment

- Notes
1. The fan characteristics shown are in "fan only" mode.
  2. ESP: External Static Pressure

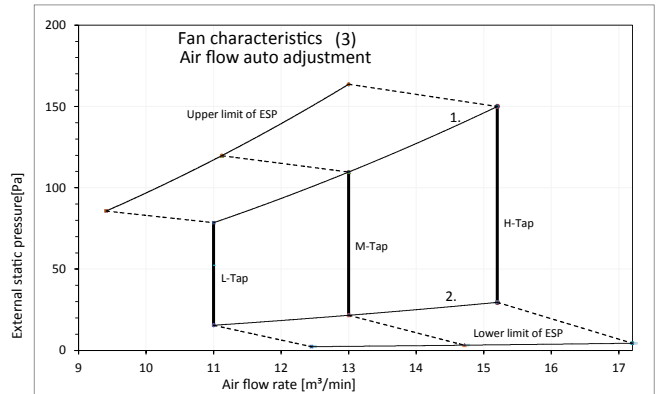
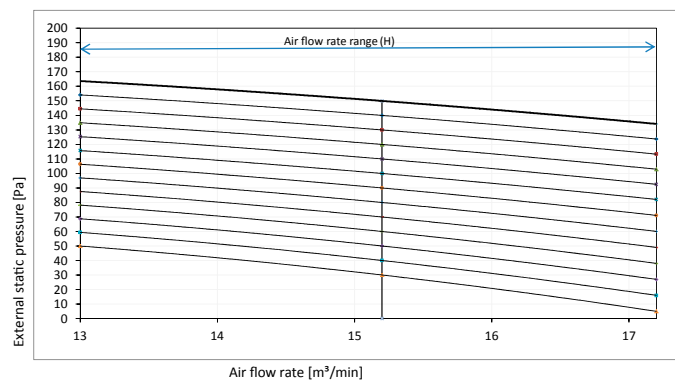
3D095682A

### FXSQ50A



Mark		ESP [Pa]
*1	MAX	150
*2		100
*3	STD	30

Fan characteristics (2)  
Field setting with remote control



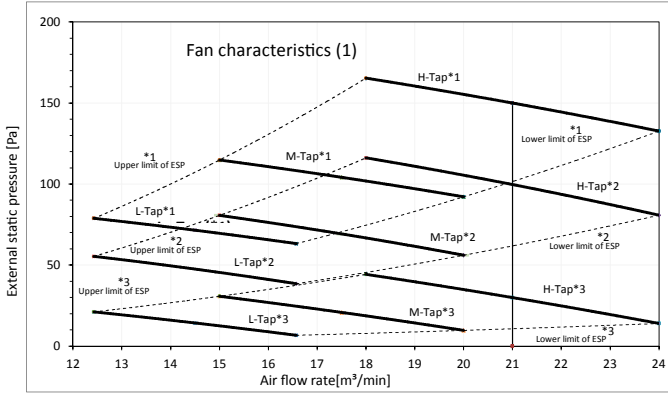
1. Upper limit of ESP by air flow auto adjustment
2. Lower limit of ESP by air flow auto adjustment

- Notes
1. The fan characteristics shown are in "fan only" mode.
  2. ESP: External Static Pressure

3D095688A

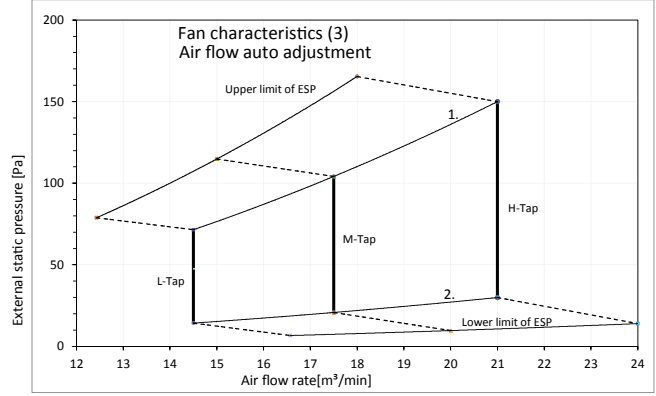
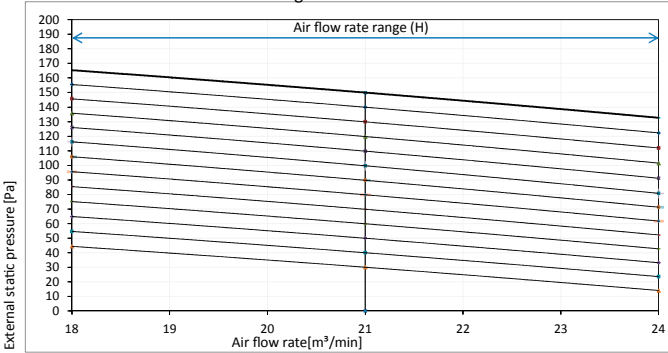


### FXSQ63A



Mark	ESP [Pa]
*1	150
*2	100
*3	30

Fan characteristics (2)  
Field setting with remote control

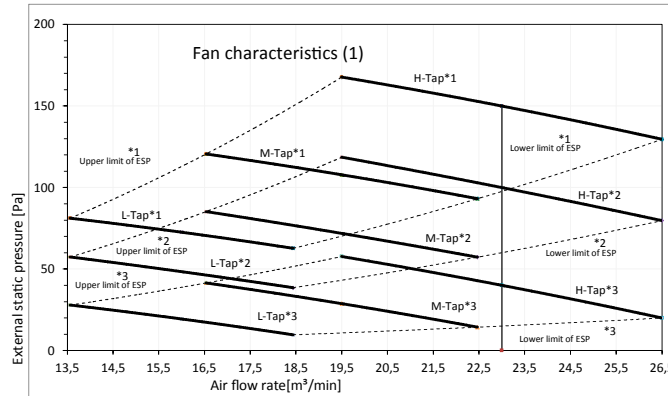


1. Upper limit of ESP by air flow auto adjustment
2. Lower limit of ESP by air flow auto adjustment

Notes  
 1. The fan characteristics shown are in "fan only" mode.  
 2. ESP: External Static Pressure

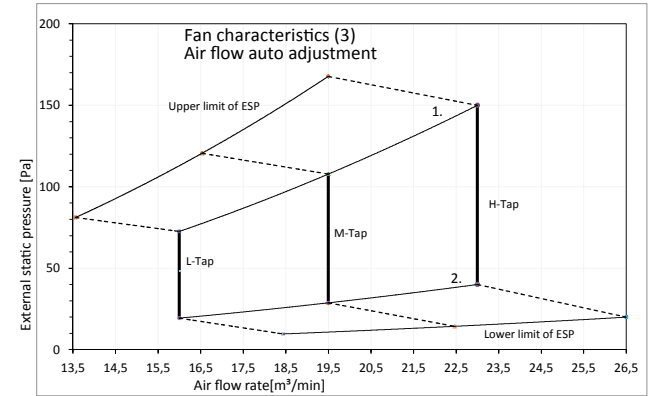
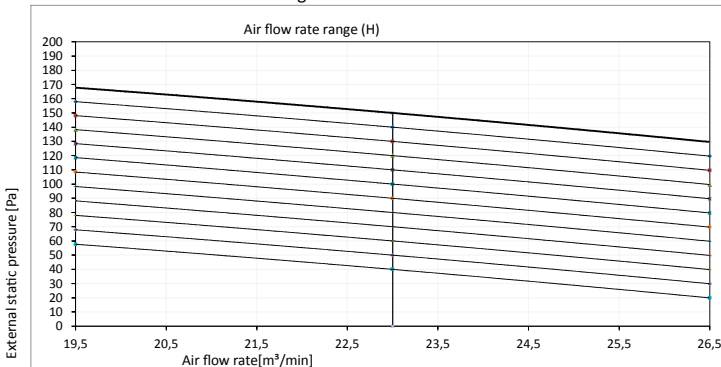
3D095690A

### FXSQ80A



Mark	ESP [Pa]
*1	150
*2	100
*3	40

Fan characteristics (2)  
Field setting with remote control



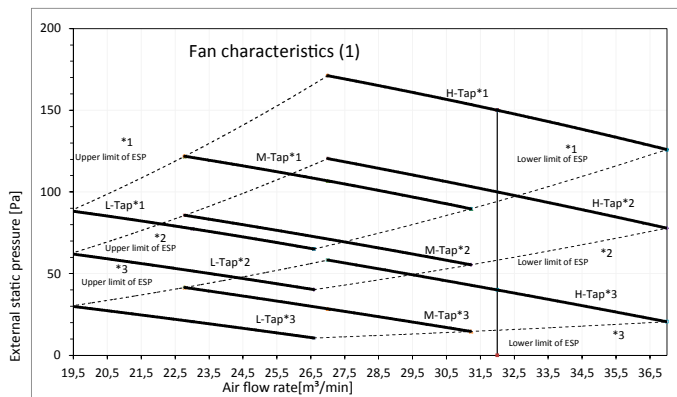
1. Upper limit of ESP by air flow auto adjustment
2. Lower limit of ESP by air flow auto adjustment

Notes  
 1. The fan characteristics shown are in "fan only" mode.  
 2. ESP: External Static Pressure

3D095692A

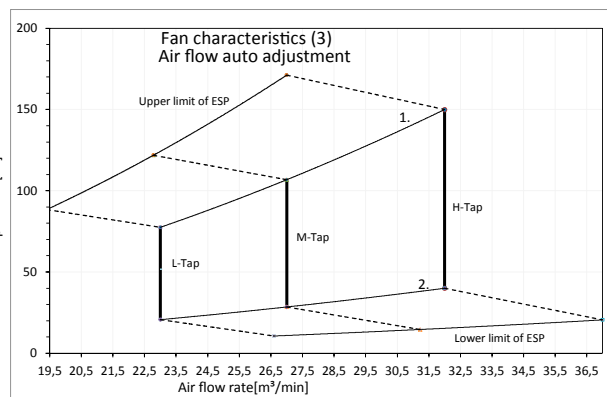
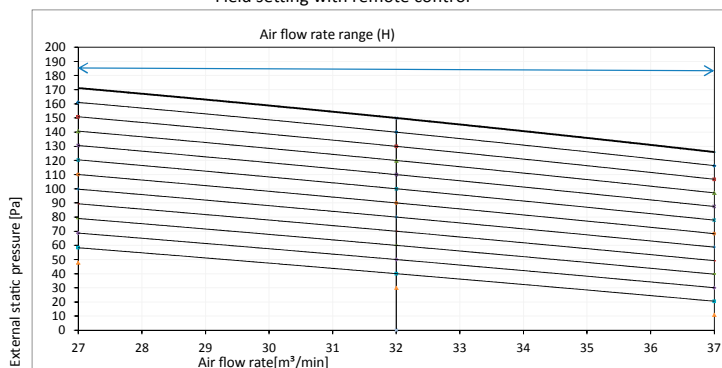


### FXSQ100A



Mark	ESP [Pa]
*1	MAX 150
*2	100
*3	STD 40

Fan characteristics (2)  
Field setting with remote control



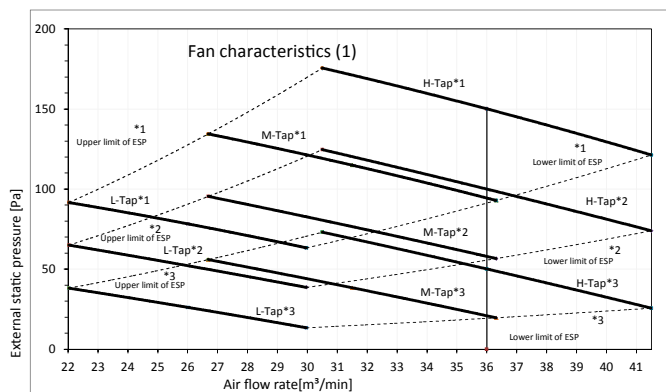
1. Upper limit of ESP by air flow auto adjustment
2. Lower limit of ESP by air flow auto adjustment

Notes

1. The fan characteristics shown are in "fan only" mode.
2. ESP: External Static Pressure

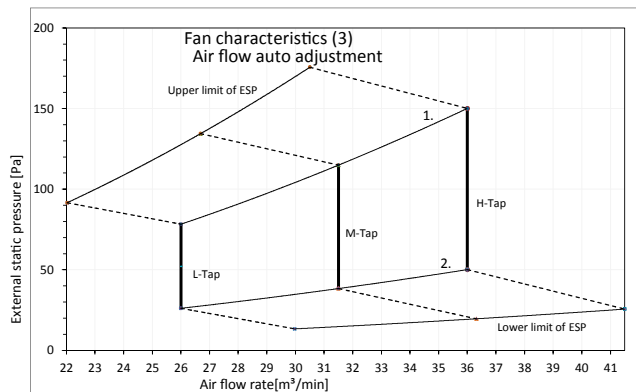
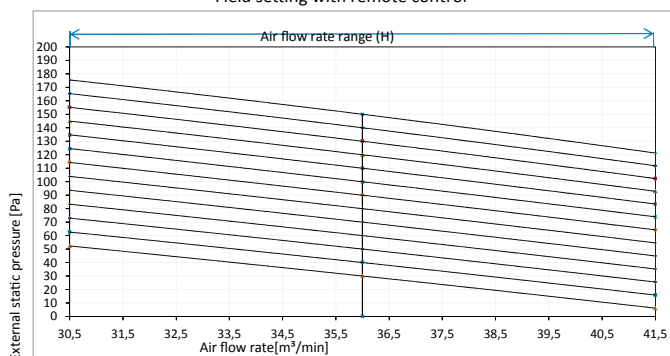
3D095696A

### FXSQ125A



Mark	ESP [Pa]
*1	MAX 150
*2	100
*3	STD 50

Fan characteristics (2)  
Field setting with remote control



1. Upper limit of ESP by air flow auto adjustment
2. Lower limit of ESP by air flow auto adjustment

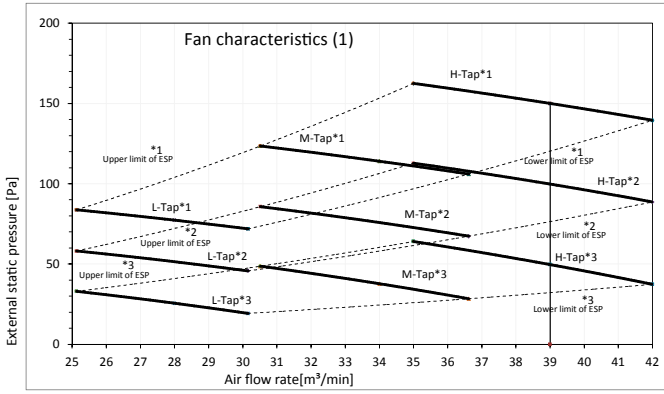
Notes

1. The fan characteristics shown are in "fan only" mode.
2. ESP: External Static Pressure

3D095697A

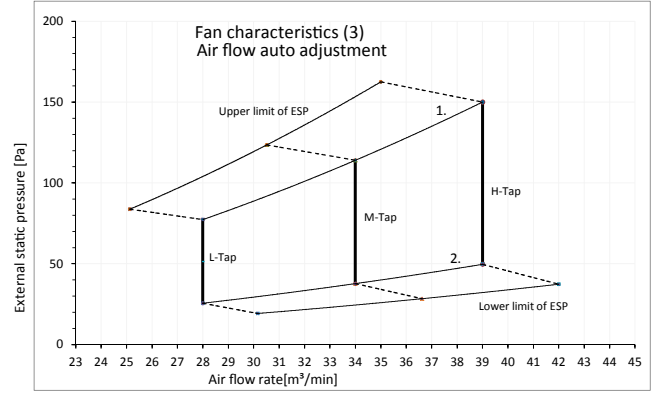
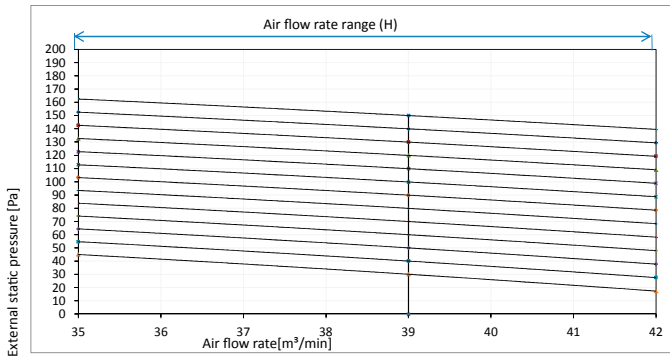


FXSQ140A



Mark		ESP [Pa]
*1	MAX	150
*2	-	100
*3	STD	50

Fan characteristics (2)  
Field setting with remote control



- 1. Upper limit of ESP by air flow auto adjustment
- 2. Lower limit of ESP by air flow auto adjustment

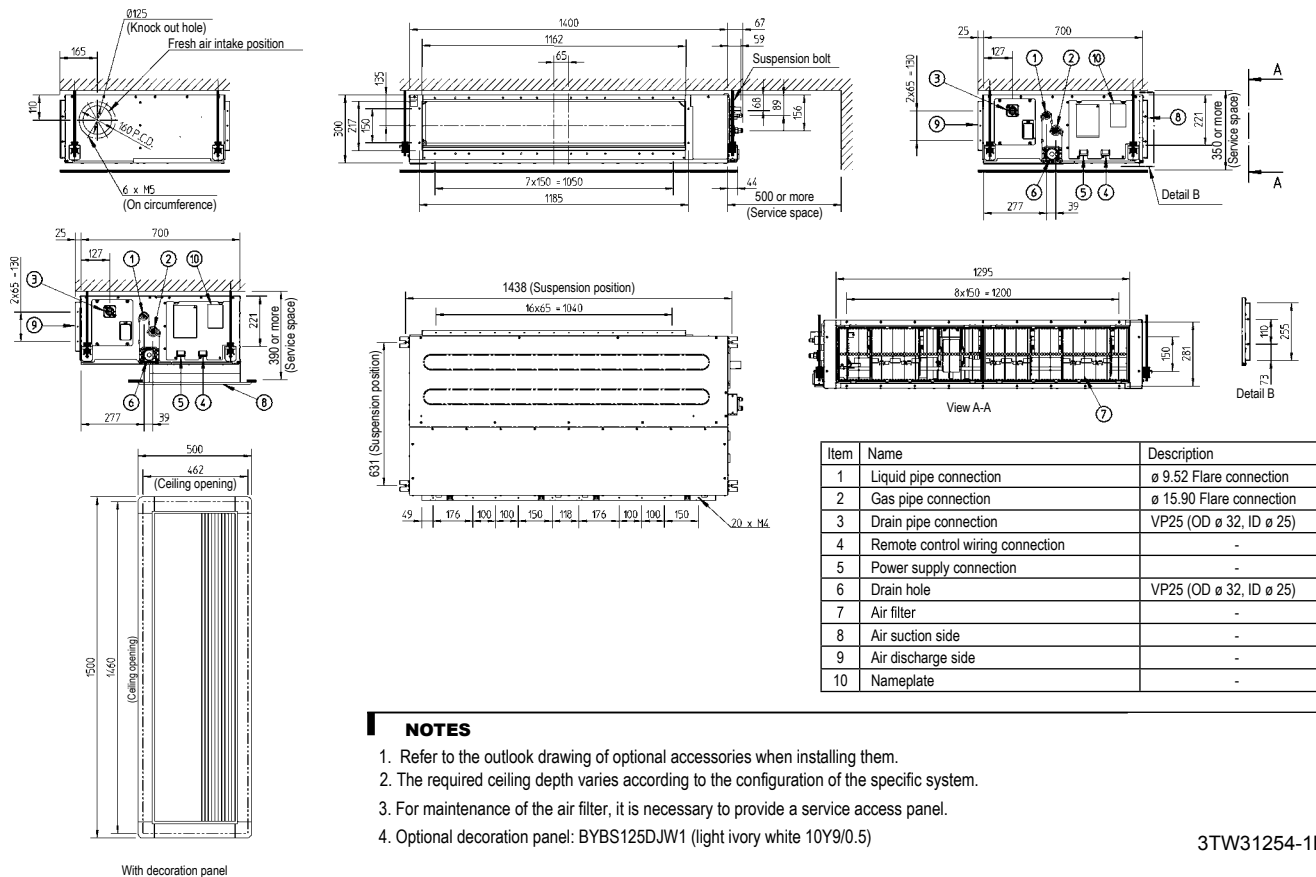
- Notes
- 1. The fan characteristics shown are in "fan only" mode.
  - 2. ESP: External Static Pressure

3D096688A

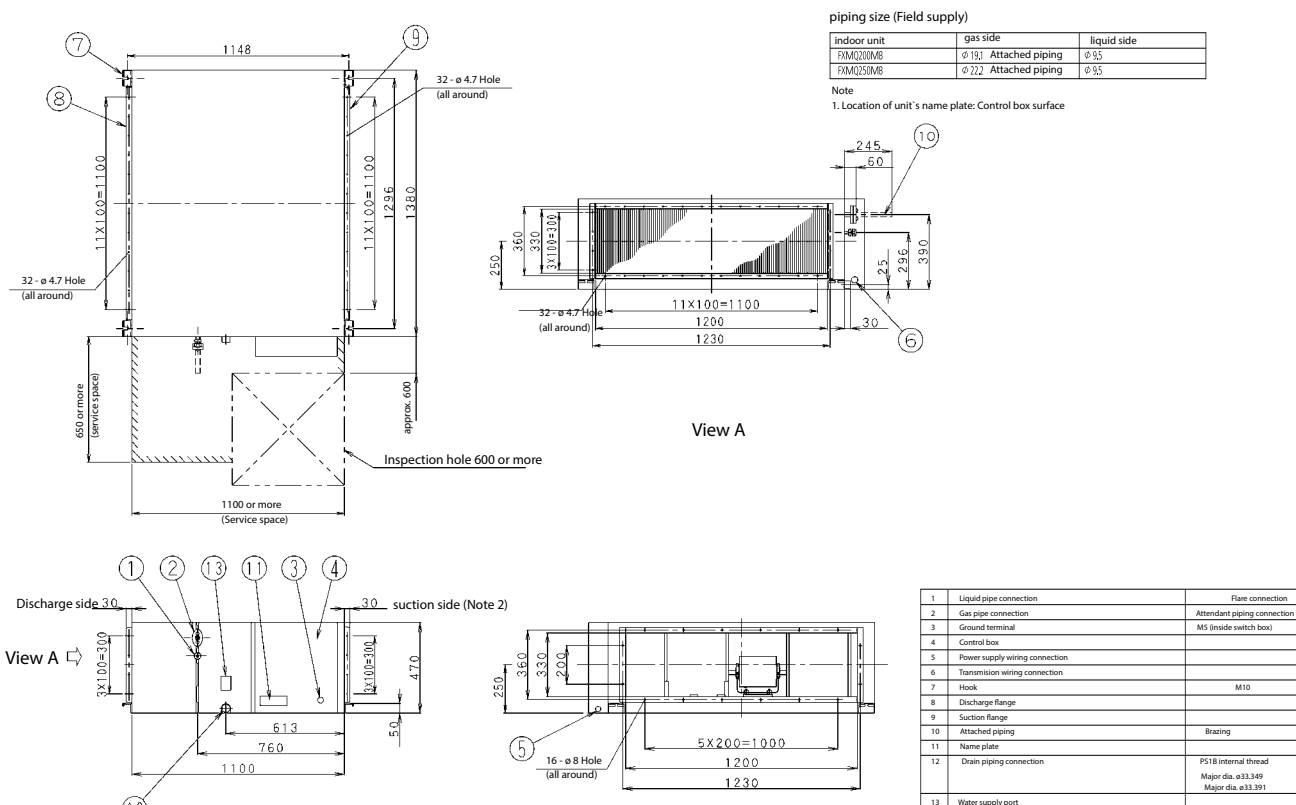




**FXMQ100-125P7**



**FXMQ-MB**



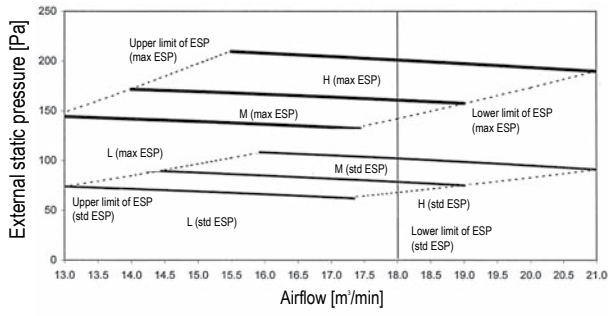
3D096007



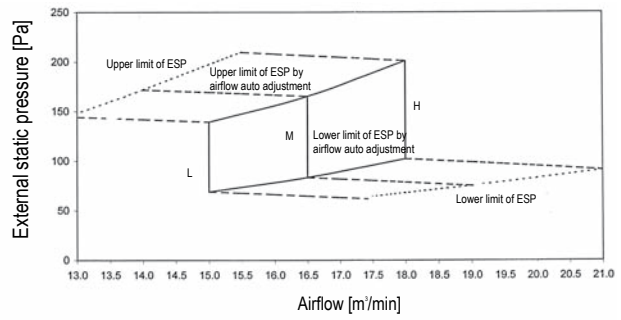


**FXMQ50P7**

Fan characteristics (1)

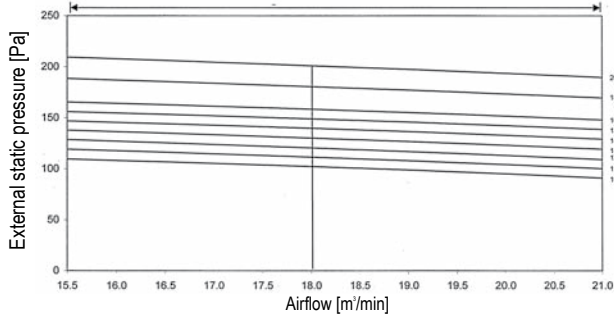


Fan characteristics (3)  
(airflow auto adjustment)



Fan characteristics (2)  
(Field setting with remote control)

Range of available air flow rate (H)



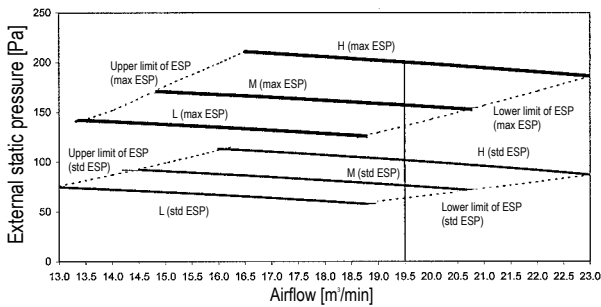
3TW32698-1

**NOTES**

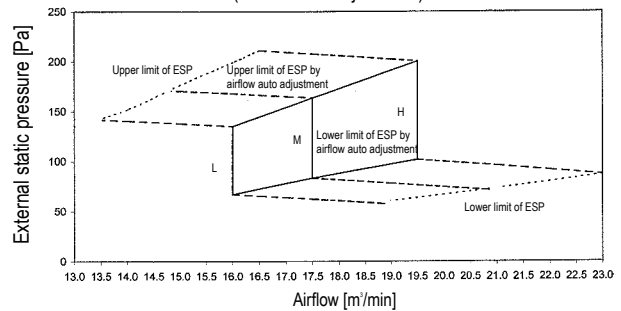
1. Fan characteristics as shown are in "fan only" mode.
2. ESP: External static pressure

**FXMQ63P7**

Fan characteristics (1)

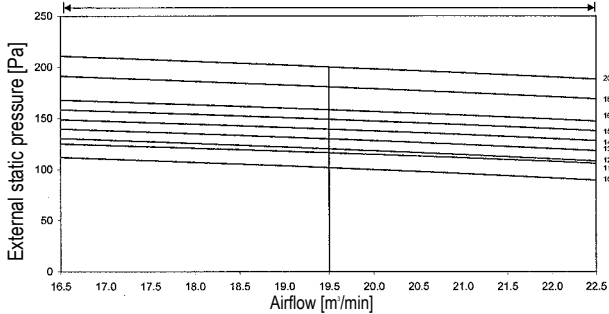


Fan characteristics (3)  
(airflow auto adjustment)



Fan characteristics (2)  
(Field setting with remote control)

Range of available air flow rate (H)



3TW32708-1

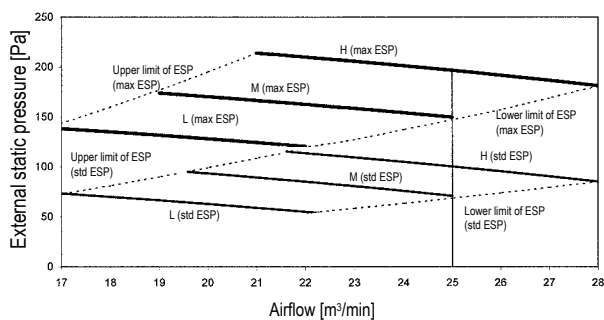
**NOTES**

1. Fan characteristics as shown are in "fan only" mode.
2. ESP: External static pressure

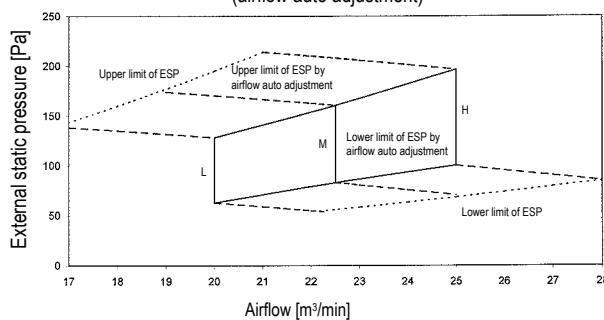


### FXMQ80P7

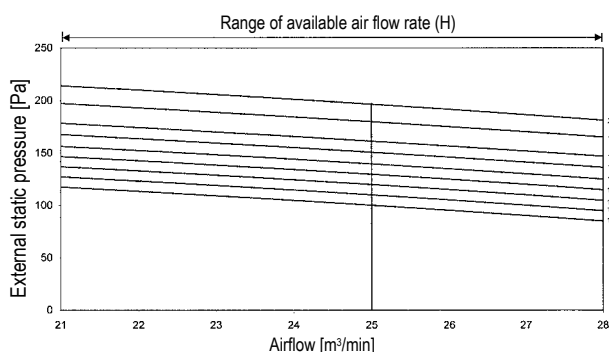
#### Fan characteristics (1)



#### Fan characteristics (3) (airflow auto adjustment)



#### Fan characteristics (2) (Field setting with remote control)



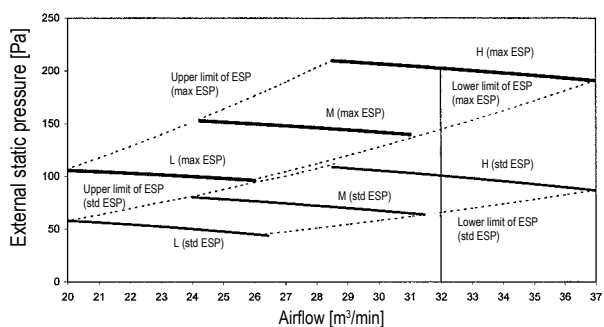
3TW32718-1

#### NOTES

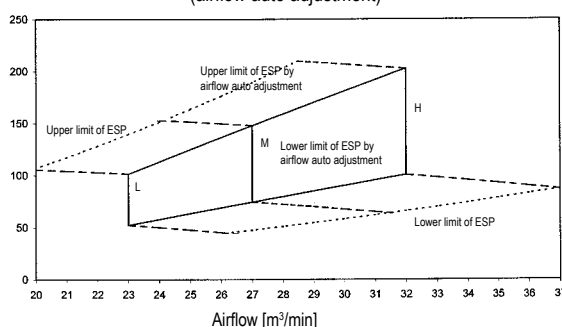
1. Fan characteristics as shown are in "fan only" mode.
2. ESP: External static pressure

### FXMQ100P7

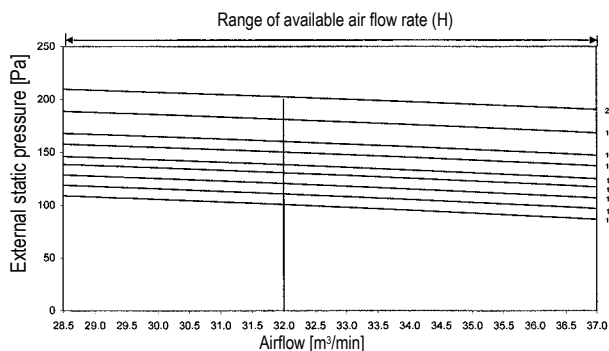
#### Fan characteristics (1)



#### Fan characteristics (3) (airflow auto adjustment)



#### Fan characteristics (2) (Field setting with remote control)



3TW32728-1

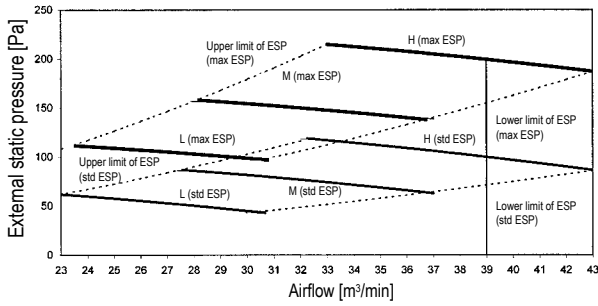
#### NOTES

1. Fan characteristics as shown are in "fan only" mode.
2. ESP: External static pressure.

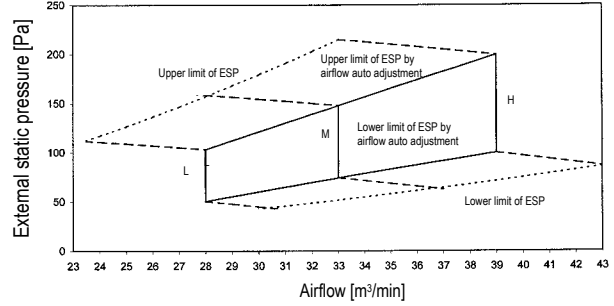


**FXMQ125P7**

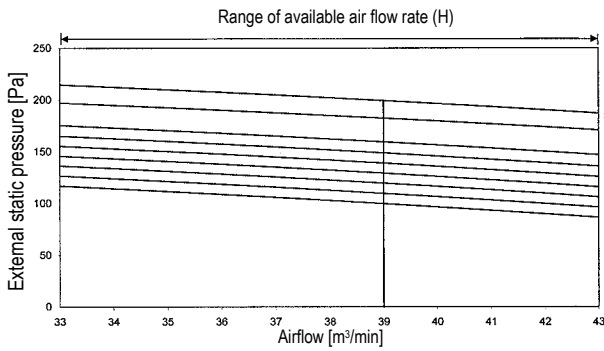
Fan characteristics (1)



Fan characteristics (3)  
(airflow auto adjustment)



Fan characteristics (2)  
(Field setting with remote control)

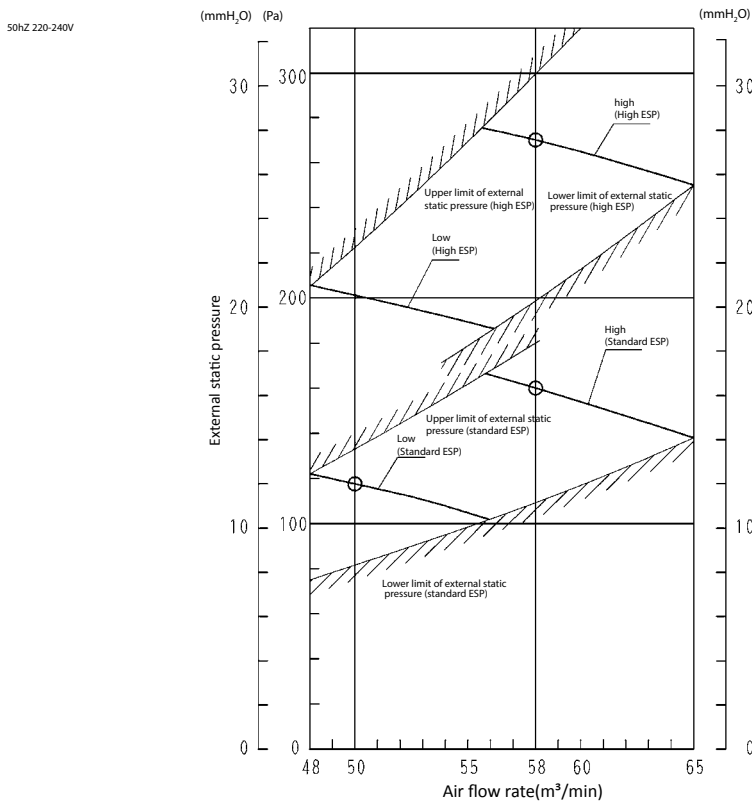


3TW32738-1

**NOTES**

1. Fan characteristics as shown are in "fan only" mode.
2. ESP: External static pressure

**FXMQ200MB**



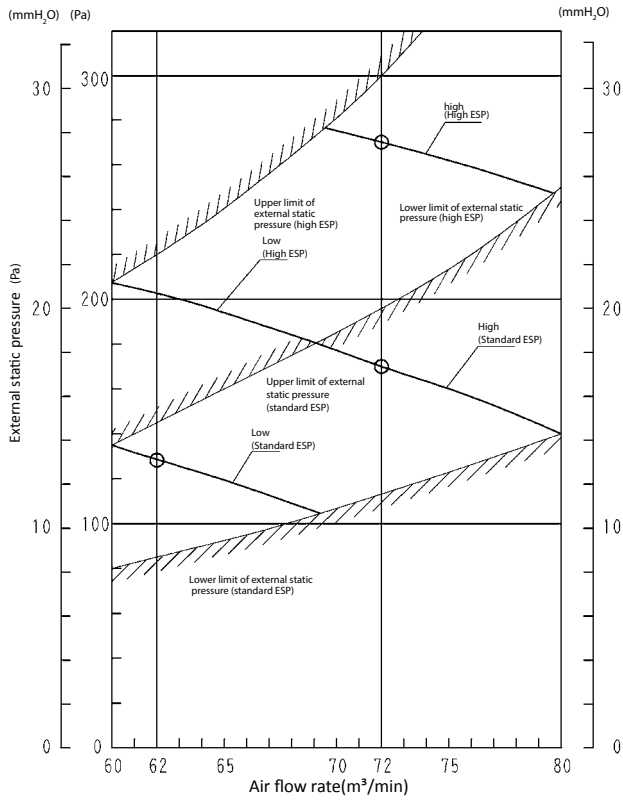
- Notes:
1. Remote controller can be used to switch between 'HIGH' and 'LOW'.
  2. The air flow is set to 'STANDARD' before leaving the factory. It is possible to switch between 'STANDARD ESP' and 'HIGH ESP' by remote controller.

4D095421



**FXMQ250MB**

50Hz 220-240V

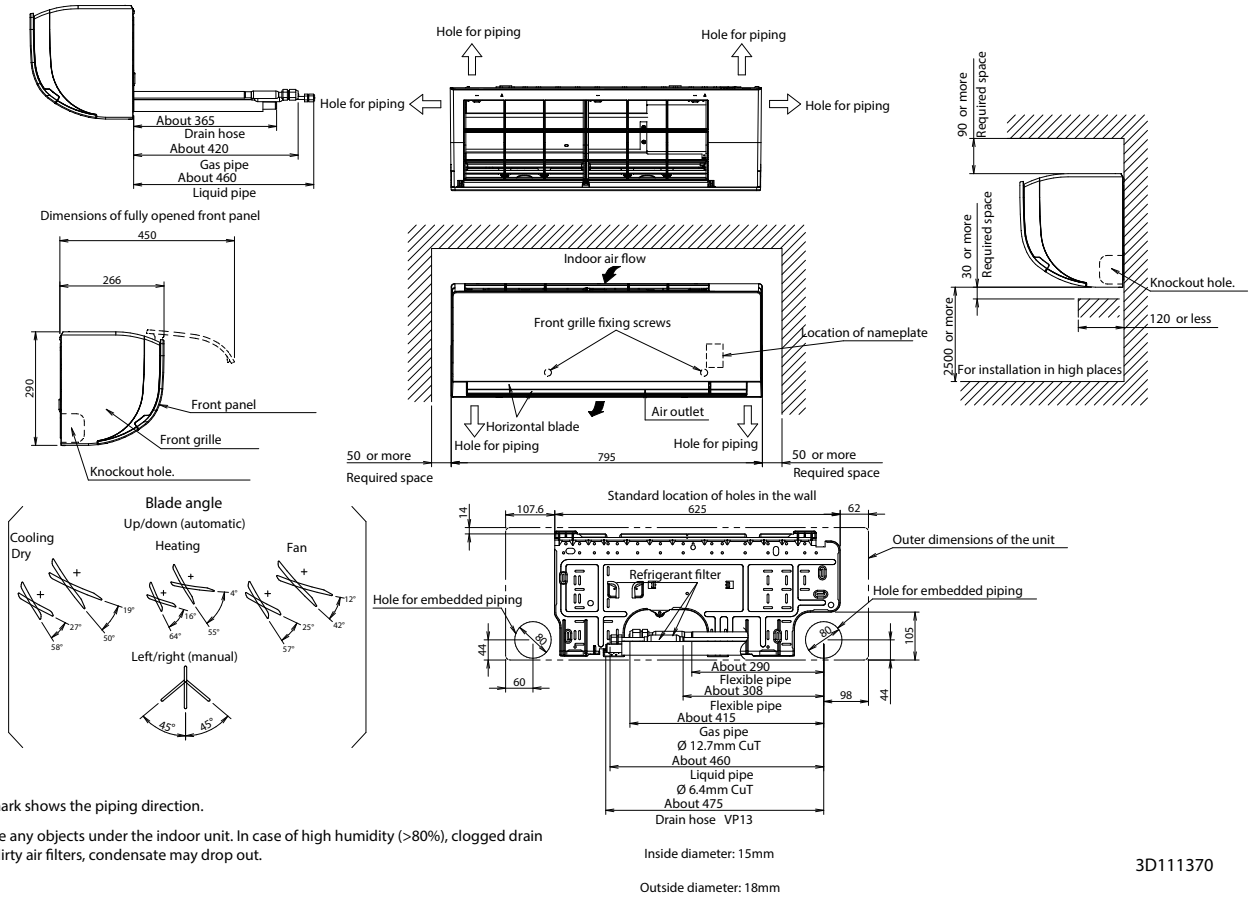


Notes:  
 1. Remote controller can be used to switch between 'HIGH' and 'LOW'.  
 2. The air flows is set to 'STANDARD' before leaving the factory. It is possible to switch between 'STANDARD ESP' and 'HIGH ESP' by remote controller.

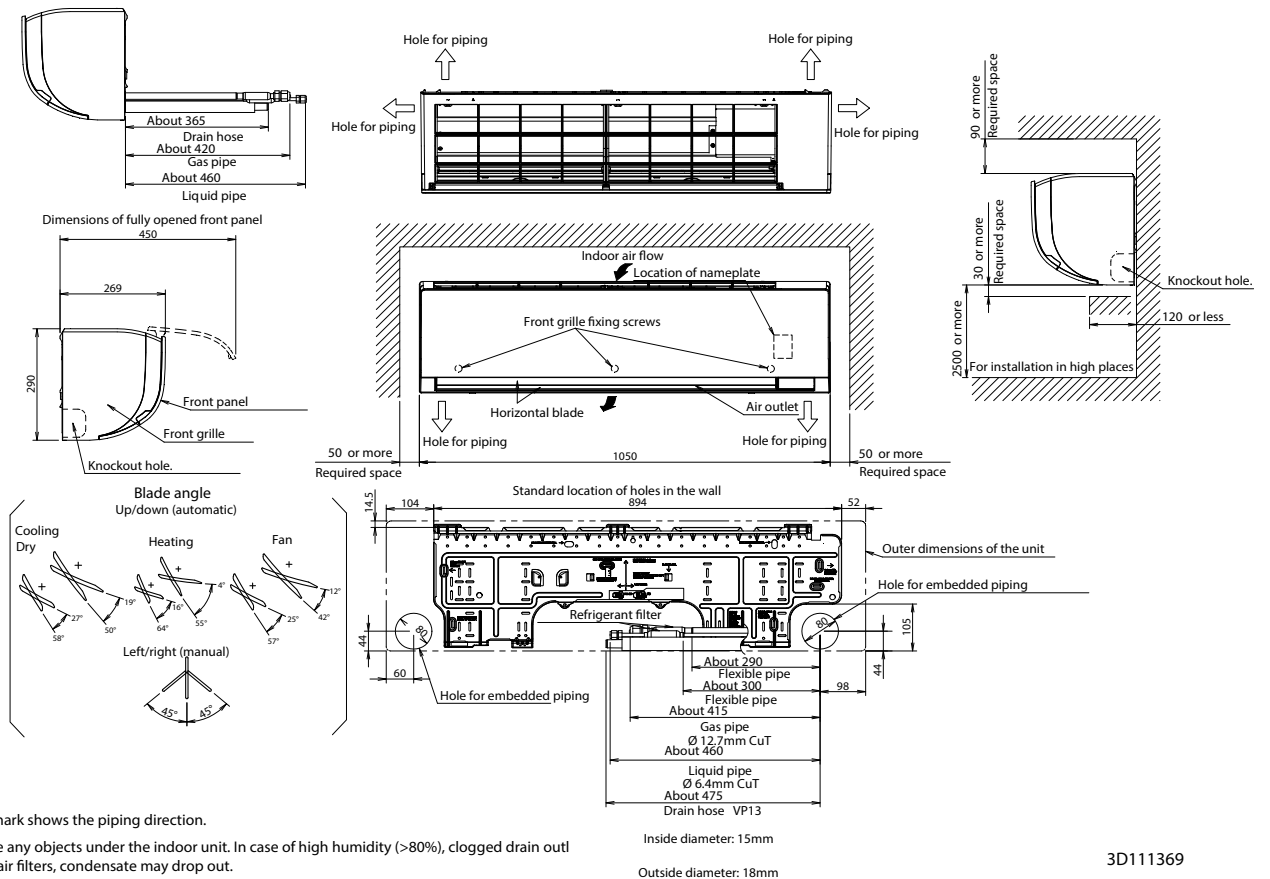
4D095422



**FXAQ15-32A**

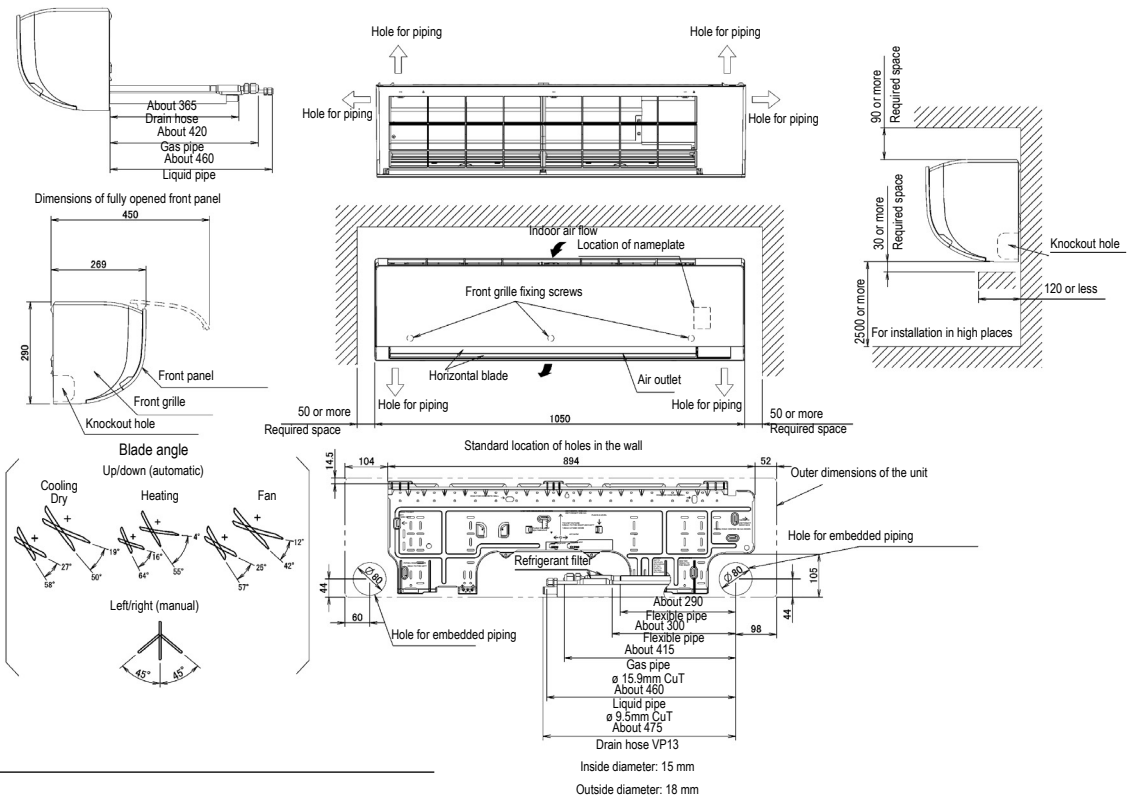


**FXAQ40-50A**





FXAQ63A



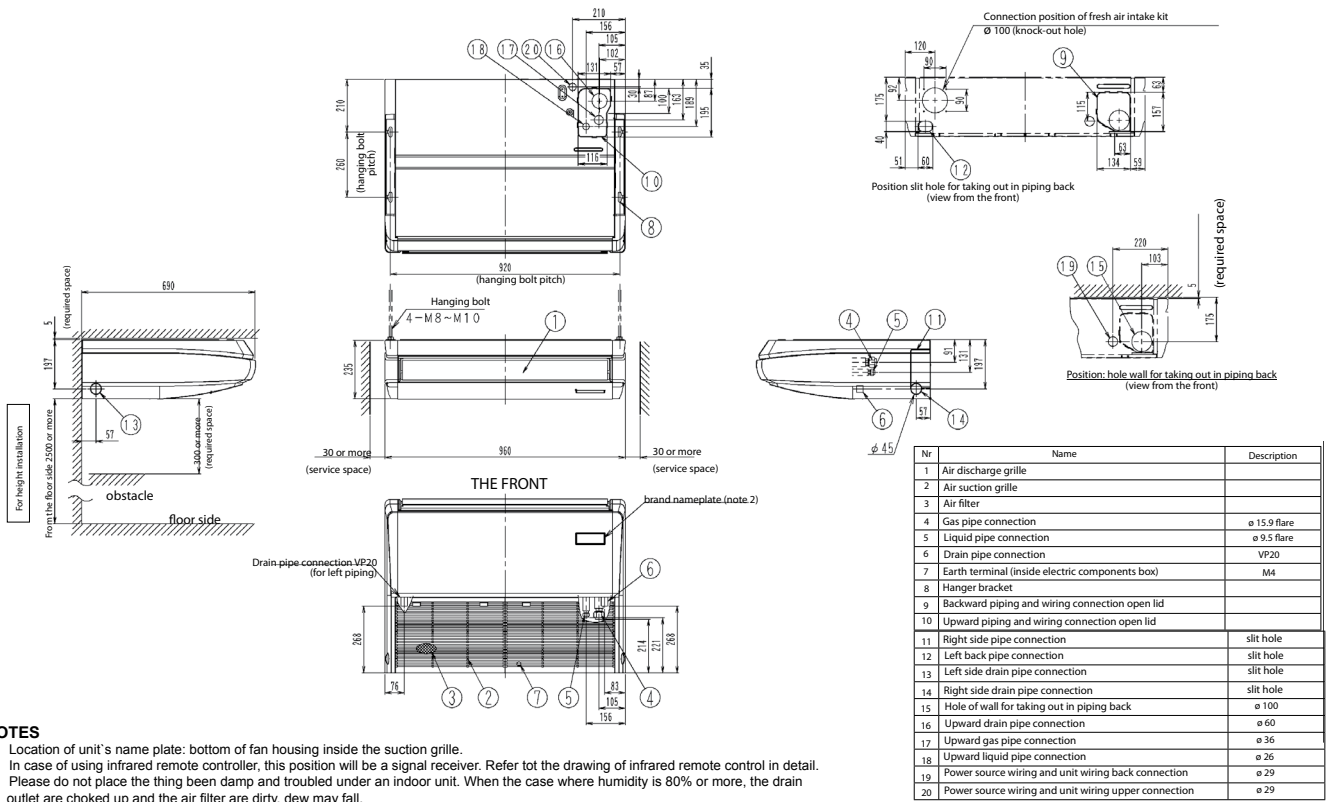
NOTES

1. The mark  $\Rightarrow$  shows the piping direction.
2. Do not place any objects under the indoor unit. In case of high humidity (>80%), clogged drain outlets or dirty air filters, condensate may drop out.

3D111368



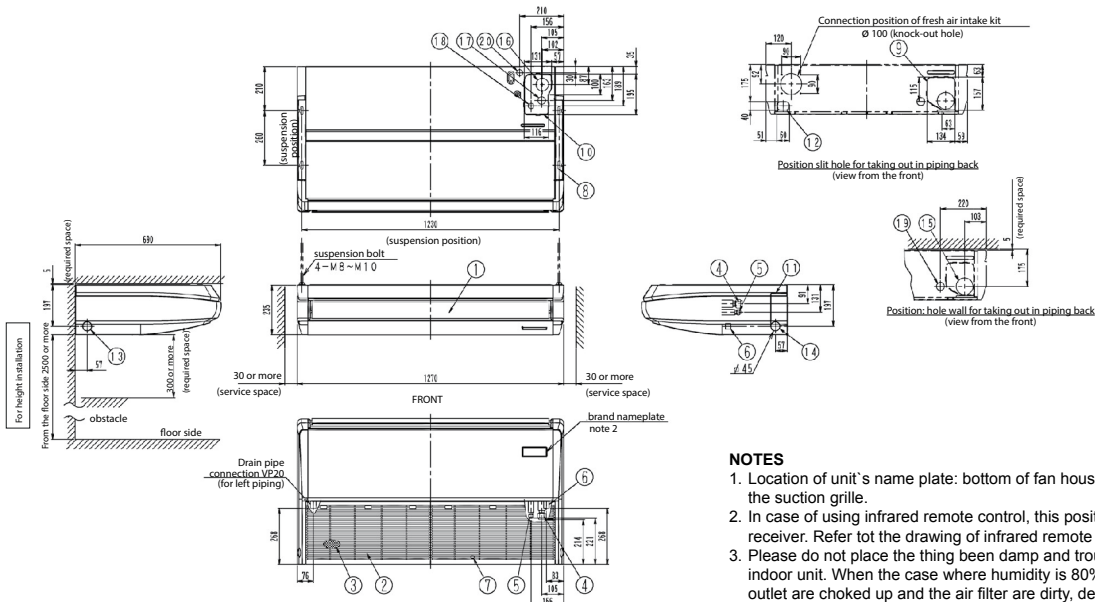
**FXHQ32A**



- NOTES**
1. Location of unit's name plate: bottom of fan housing inside the suction grille.
  2. In case of using infrared remote controller, this position will be a signal receiver. Refer to the drawing of infrared remote control in detail.
  3. Please do not place the thing been damp and troubled under an indoor unit. When the case where humidity is 80% or more, the drain outlet are choked up and the air filter are dirty, dew may fall.

3D080029

**FXHQ63A**



- NOTES**
1. Location of unit's name plate: bottom of fan housing inside the suction grille.
  2. In case of using infrared remote control, this position will be a signal receiver. Refer to the drawing of infrared remote control in detail.
  3. Please do not place the thing been damp and troubled under an indoor unit. When the case where humidity is 80% or more, the drain outlet are choked up and the air filter are dirty, dew may fall.

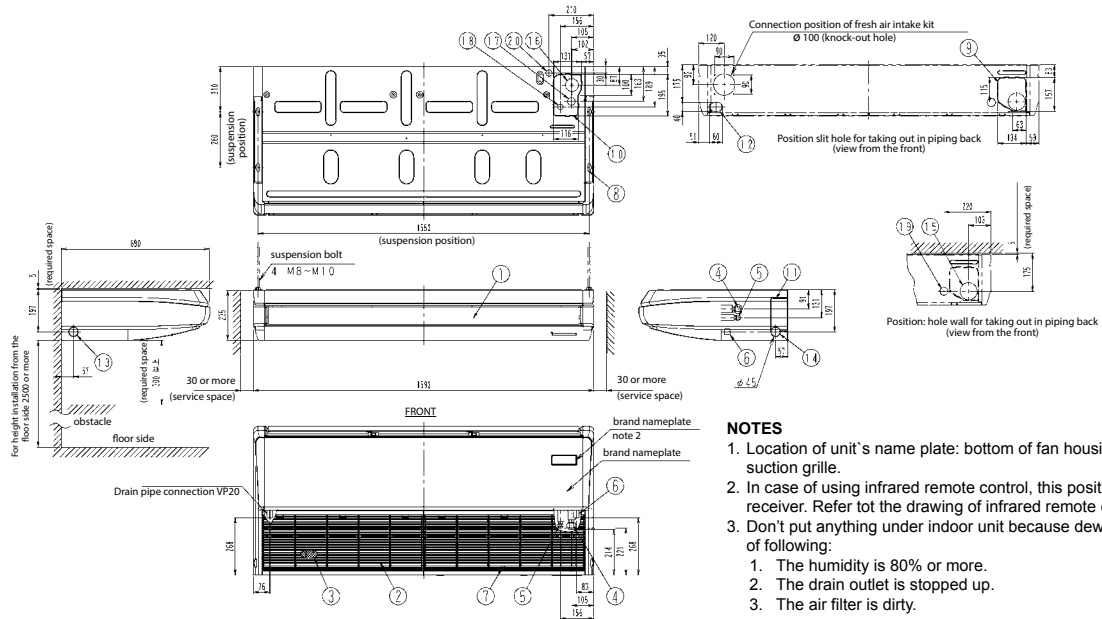
Nr	Name	Description
1	Air discharge grille	
2	Air suction grille	
3	Air filter	
4	Gas pipe connection	ø 15.9 flare
5	Liquid pipe connection	ø 9.5 flare
6	Drain pipe connection	VP20
7	Earth terminal (inside electric components box)	M4
8	Hanger bracket	
9	Backward piping and wiring connection open lid	
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

3D069632A

Detailed technical drawings

FXHQ100A



NOTES

1. Location of unit's name plate: bottom of fan housing inside the suction grille.
2. In case of using infrared remote control, this position will be a signal receiver. Refer to the drawing of infrared remote control in detail.
3. Don't put anything under indoor unit because dew may fall by reason of following:
  1. The humidity is 80% or more.
  2. The drain outlet is stopped up.
  3. The air filter is dirty.

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



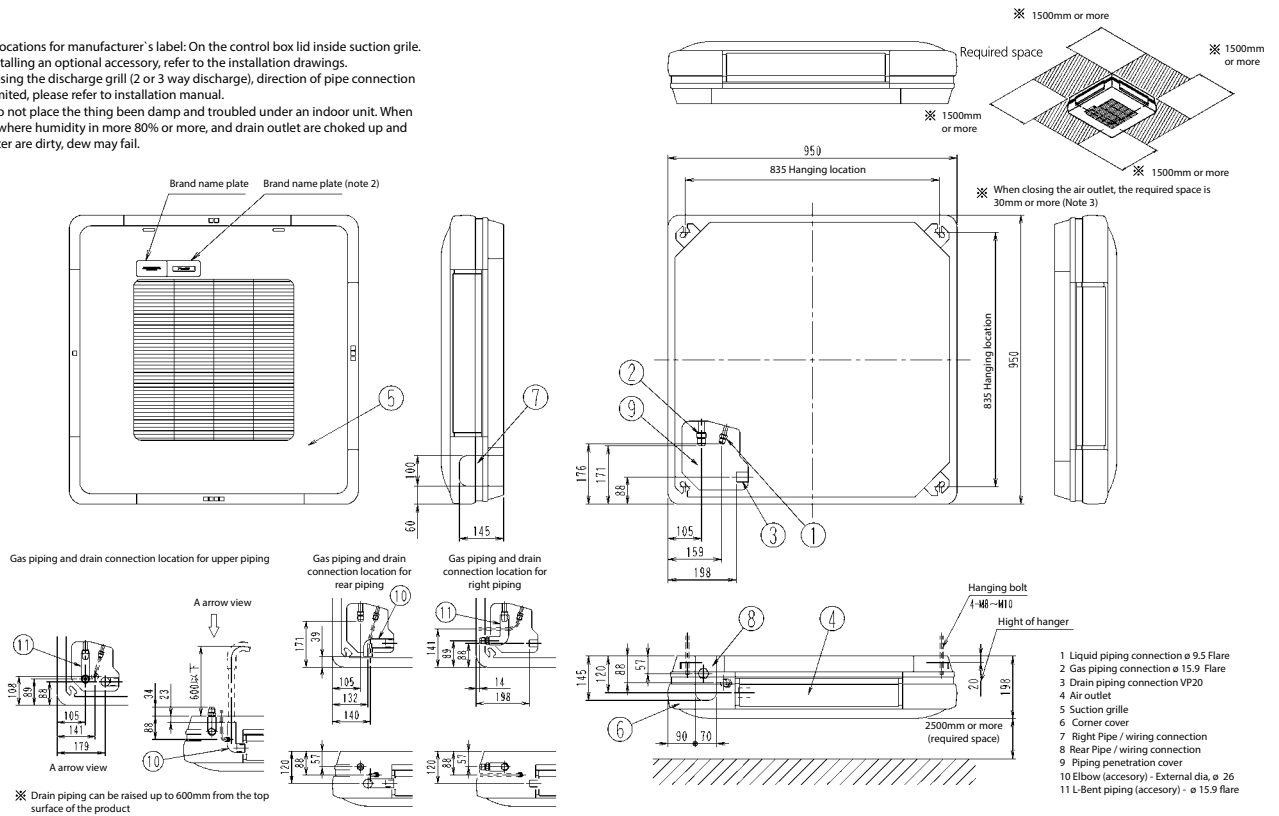


**FXUQ-A**

**Notes:**

1. Sticking locations for manufacturer's label: On the control box lid inside suction grille.
2. When installing an optional accessory, refer to the installation drawings.
3. When closing the discharge grill (2 or 3 way discharge), direction of pipe connection will be limited, please refer to installation manual.
4. Please do not place the thing been damp and troubled under an indoor unit. When the case where humidity in more 80% or more, and drain outlet are choked up and the air filter are dirty, dew may fail.

(Unit: mm)

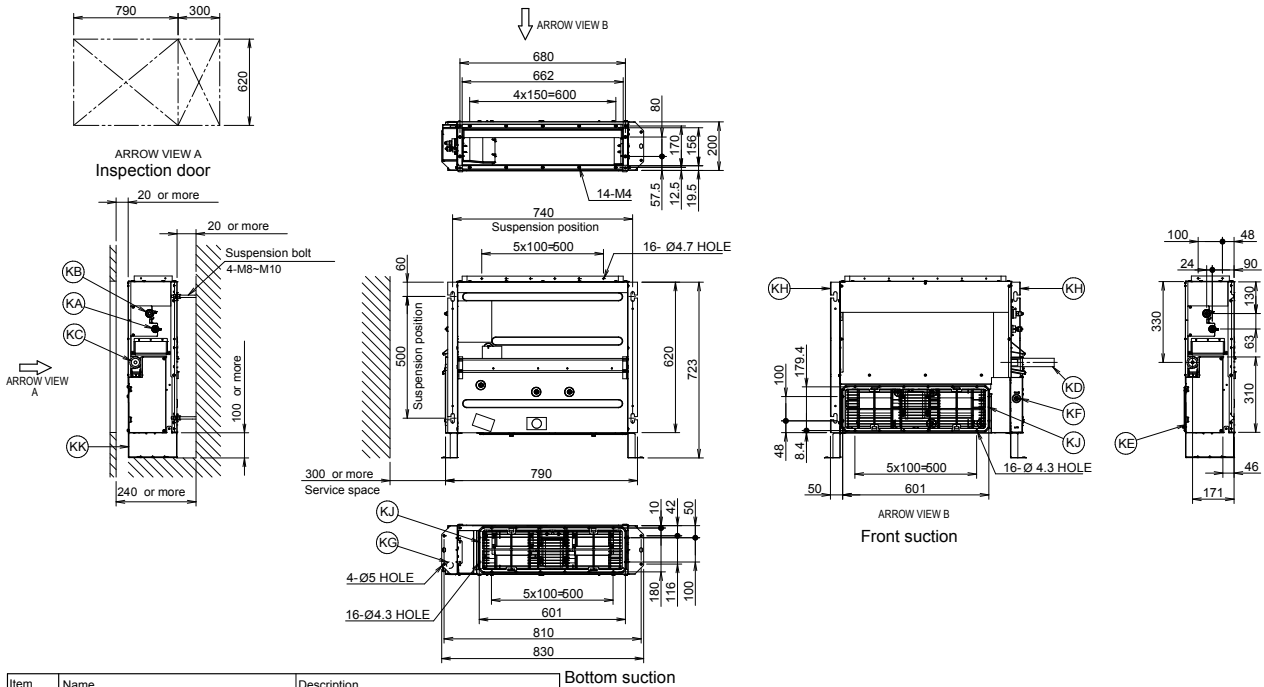


- 1 Liquid piping connection ø 9.5 Flare
- 2 Gas piping connection ø 15.9 Flare
- 3 Drain piping connection VP20
- 4 Air outlet
- 5 Suction grille
- 6 Corner cover
- 7 Right Pipe / wiring connection
- 8 Rear Pipe / wiring connection
- 9 Piping penetration cover
- 10 Elbow (accessory) - External dia. ø 26
- 11 L-Bent piping (accessory) - ø 15.9 flare

3D080135



**FXNQ20-32A**

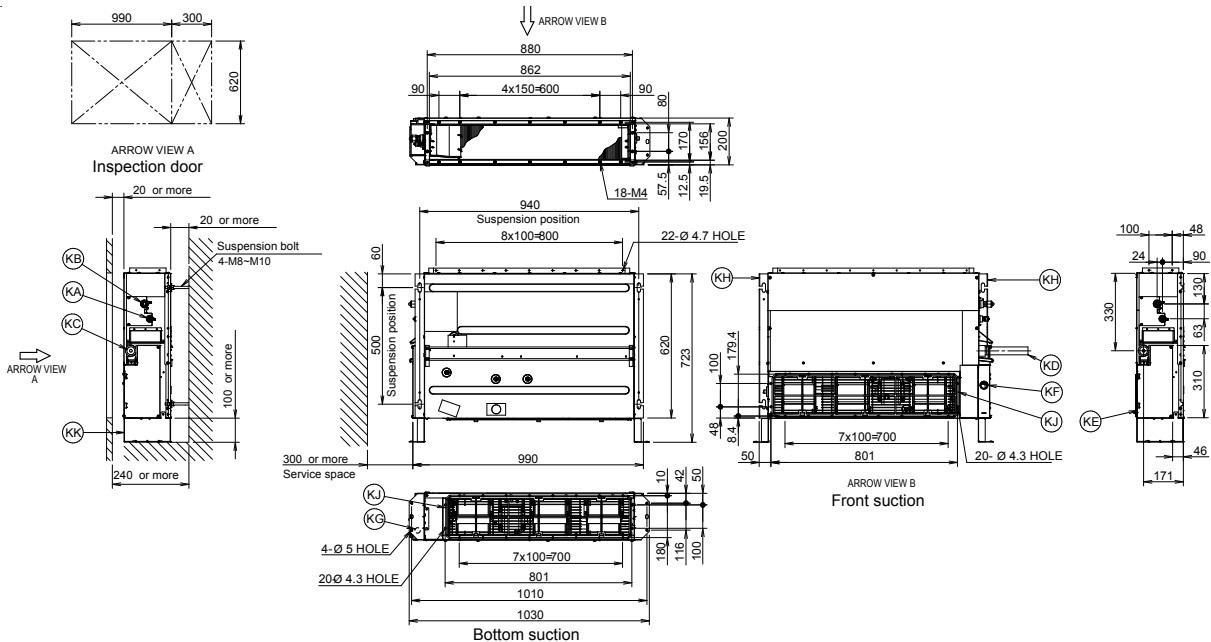


Item	Name	Description
KA	Liquid pipe connection port	Ø6.40 flared connection
KB	Gas pipe connection port	Ø12.70 flared connection
KC	Drain pipe connection	VP20 (OD Ø26, ID Ø20)
KD	Drain hose	ID Ø25
KE	Control box	/
KF	Transmission line	/
KG	Power supply connection	/
KH	Suspension bracket	/
KJ	Air filter	/
KK	Mounting foot	/

Notes  
 1. When installing optional accessories, refer to their respective documentation.  
 2. The ceiling depth varies according to the documentation of the specific system.

**3D096749A**

**FXNQ40-50A**



Item	Name	Description
KA	Liquid pipe connection port	Ø6.4 flared connection
KB	Gas pipe connection port	Ø12.70 flared connection
KC	Drain pipe connection	VP20 (OD Ø26, ID Ø20)
KD	Drain hose	ID Ø25
KE	Control box	/
KF	Transmission line	/
KG	Power supply connection	/
KH	Suspension bracket	/
KJ	Air filter	/
KK	Mounting foot	/

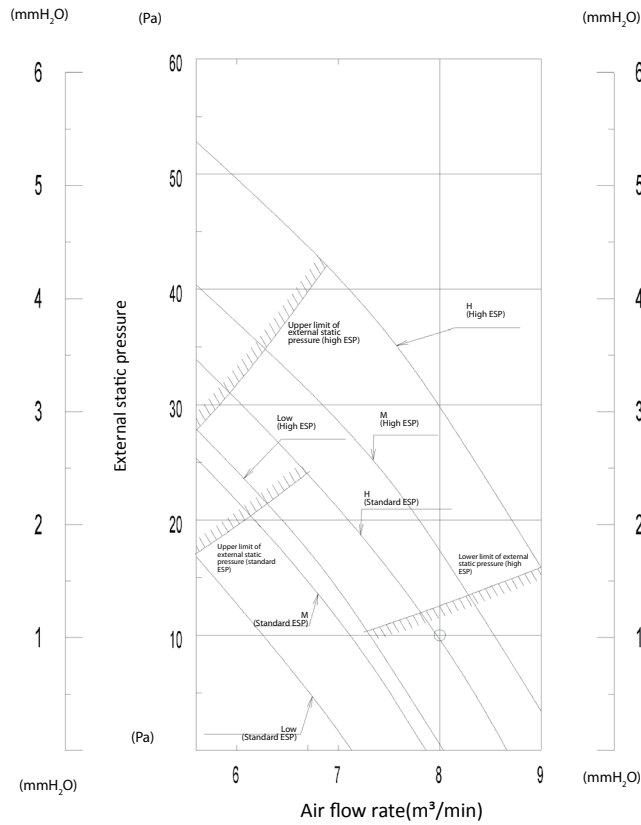
Notes  
 1. When installing optional accessories, refer to their respective documentation.  
 2. The ceiling depth varies according to the documentation of the specific system.

**3D096749**





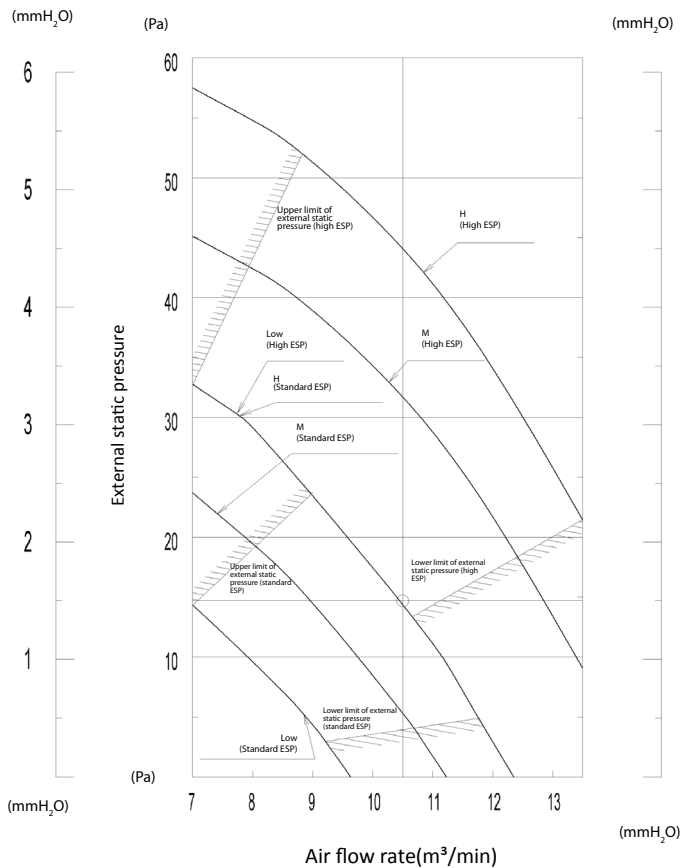
### FXNQ32A



- 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.

3D081425B

### FXNQ40A

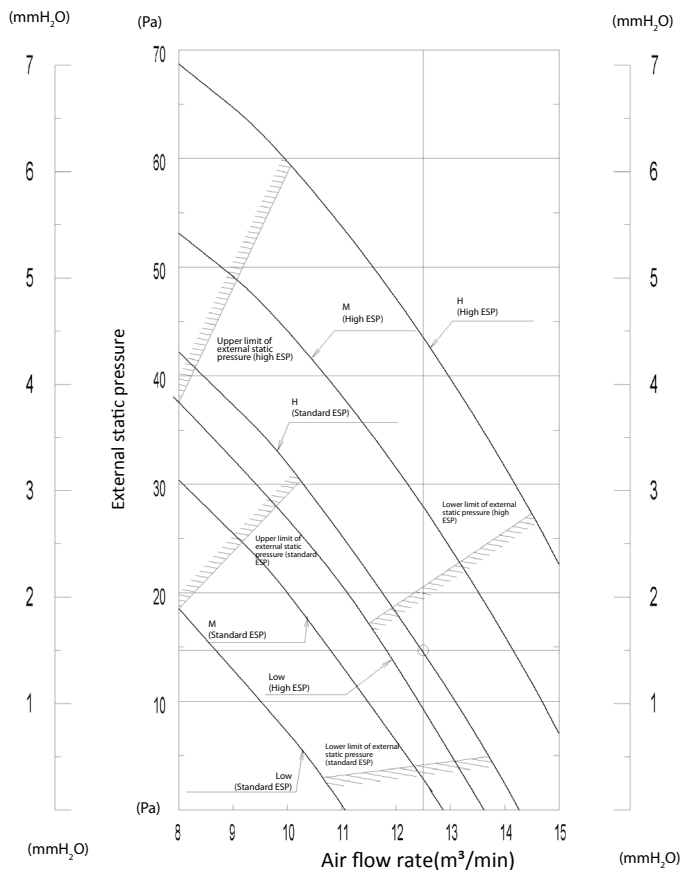


- Notes:
1. Remote controller can be used to switch between 'HIGH' and 'LOW'.
  2. The air flows is set to 'STANDARD' before leaving the factory. It is possible to switch between 'STANDARD ESP' and 'HIGH ESP' by remote controller.

3D081426B



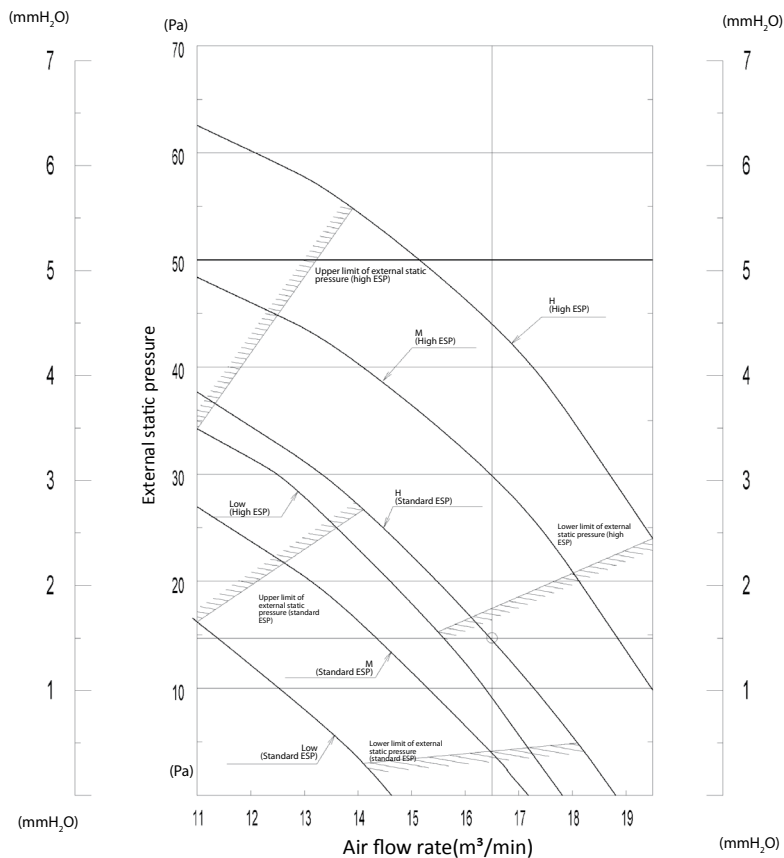
**FXNQ50A**



- 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.

3D081427B

**FXNQ63A**

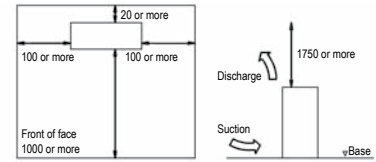
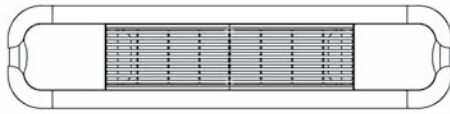


- Notes:
1. Remote controller can be used to switch between 'HIGH' and 'LOW'.
  2. The air flows is set to 'STANDARD' before leaving the factory. It is possible to switch between 'STANDARD ESP' and 'HIGH ESP' by remote controller.

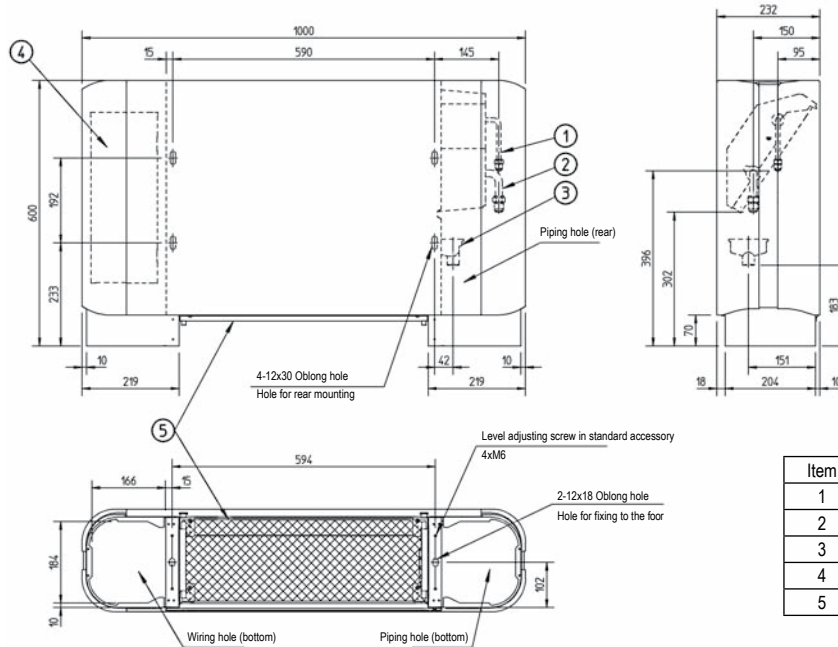
3D081429B



### FXLQ20-25P



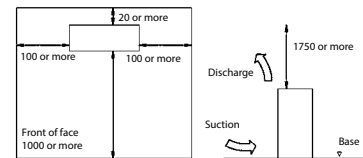
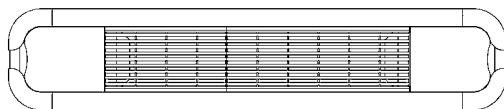
Required installation space



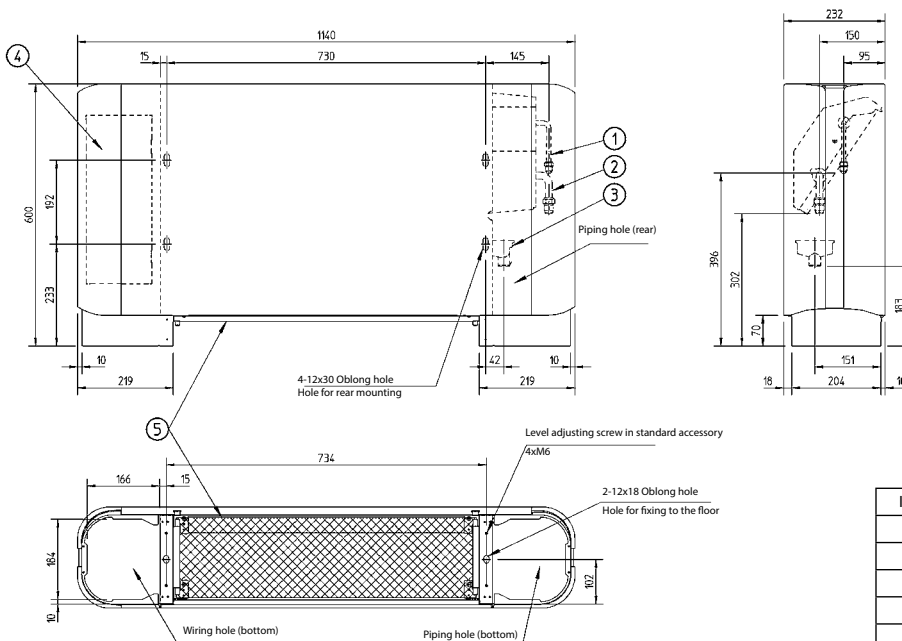
Item	Name	Description
1	Liquid pipe connection	Ø6.4 Flare connection
2	Gas pipe connection	Ø12.7 Flare connection
3	Drain pipe connection	O.D.Ø21
4	Switch box	
5	Air filter	

3TW32294-1

### FXLQ32-40P



Required installation space

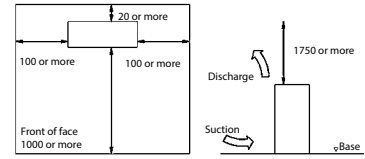
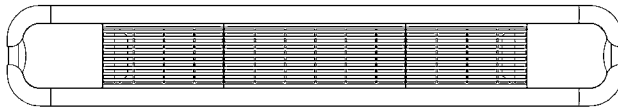


Item	Name	Description
1	Liquid pipe connection	Ø6.4 Flare connection
2	Gas pipe connection	Ø12.7 Flare connection
3	Drain pipe connection	O.D. Ø21
4	Switch box	
5	Air filter	

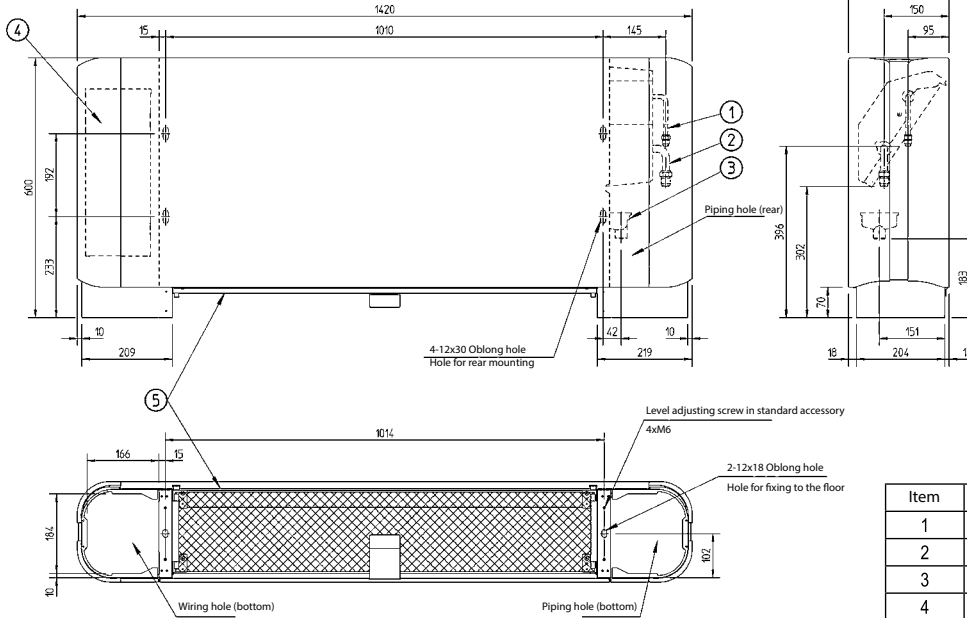
3TW32314-1



**FXLQ50-63P**



Required installation space



Model	A	B
FXL050	Ø6.4	Ø12.7
FXL063	Ø9.5	Ø15.9

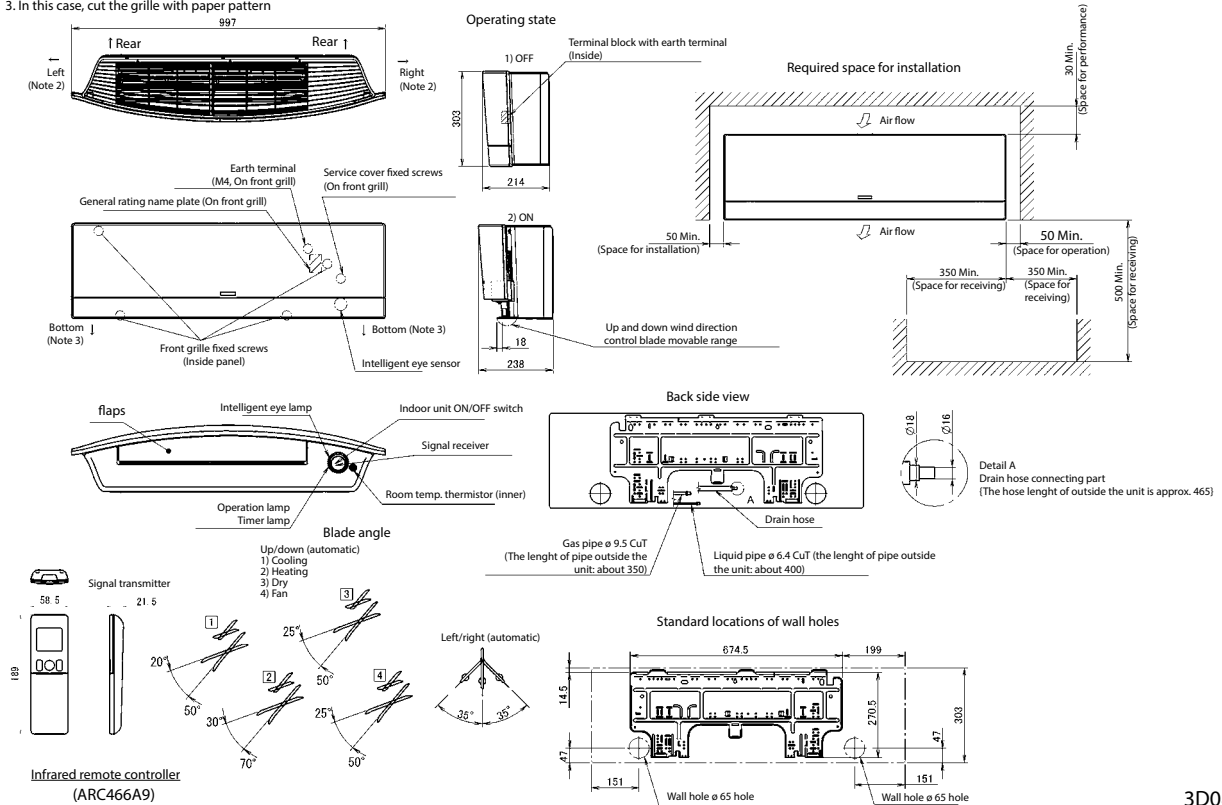
Item	Name	Description
1	Liquid pipe connection	ØA Flare connection
2	Gas pipe connection	ØB Flare connection
3	Drain pipe connection	O.D. Ø21
4	Switch box	
5	Air filter	



### Detailed technical drawings

## FTXG20-35LW/S

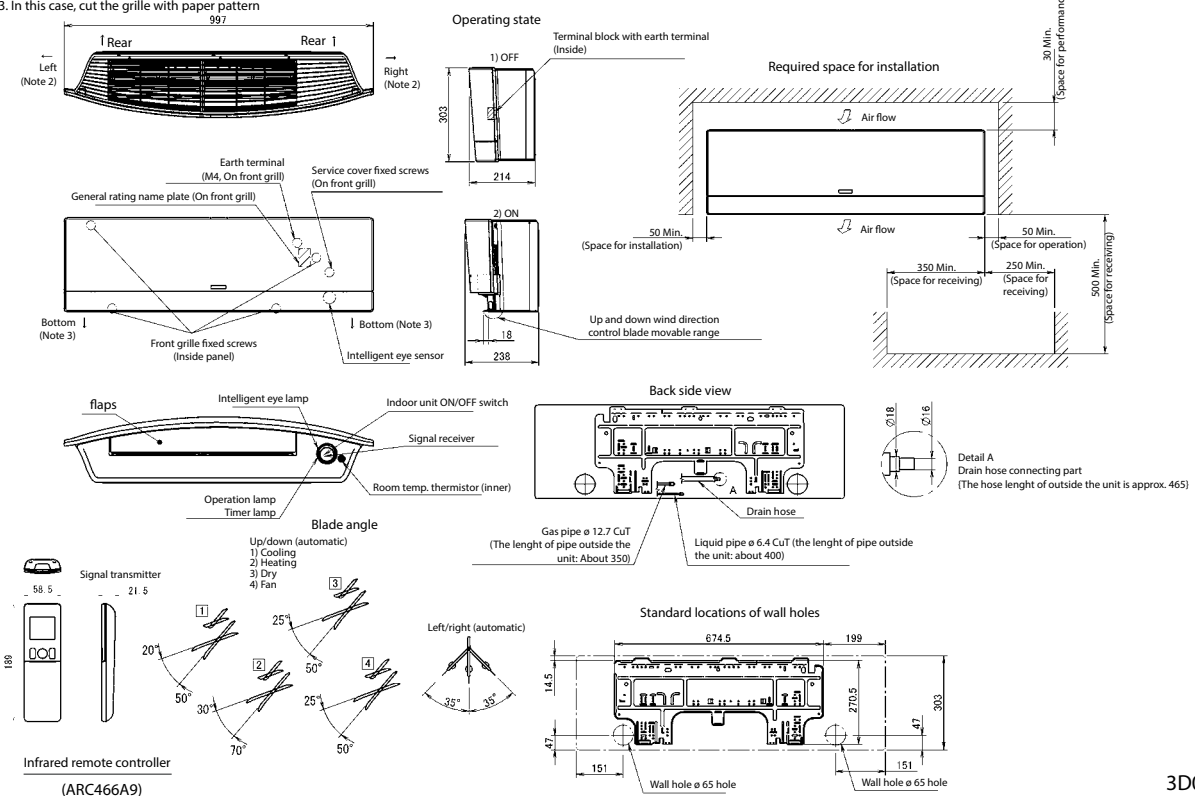
- Note)
1. The mark (→) shows piping direction
  2. In this case, require grille option
  3. In this case, cut the grille with paper pattern



3D085835

## FTXG50LW/S

- Note)
1. The mark (→) shows piping direction
  2. In this case, require grille option
  3. In this case, cut the grille with paper pattern

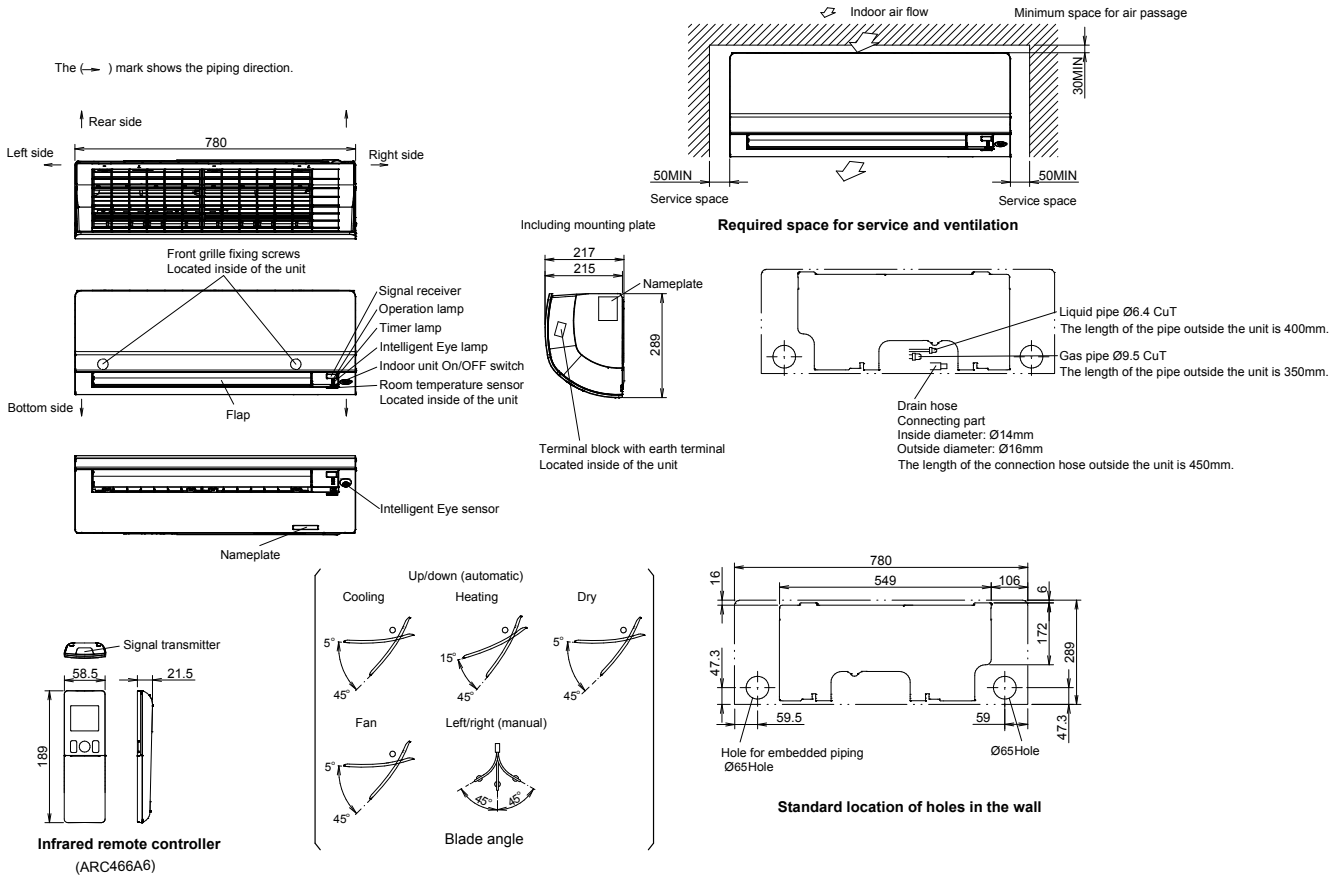


3D085836



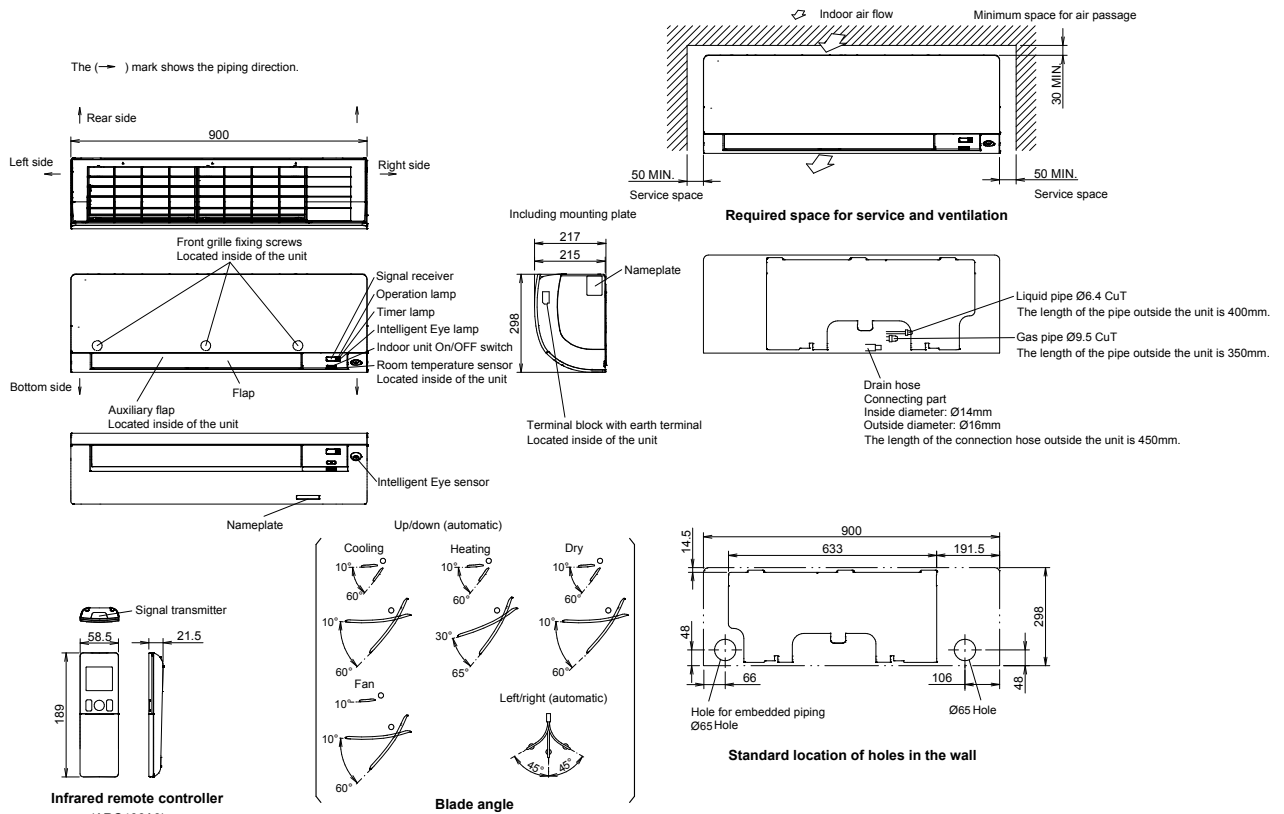


**CTXS15-35K / FXTS20-25K**



3D092255

**FTXS35-42K**

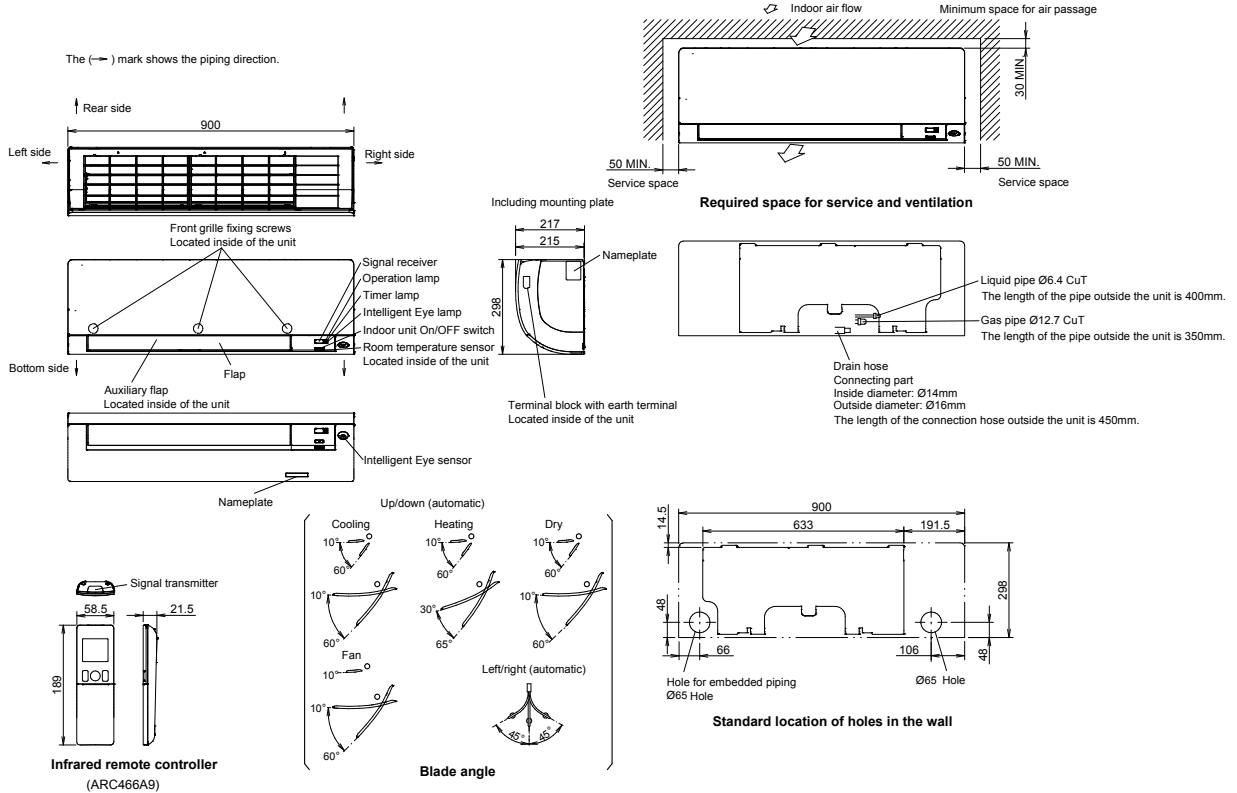


3D092256



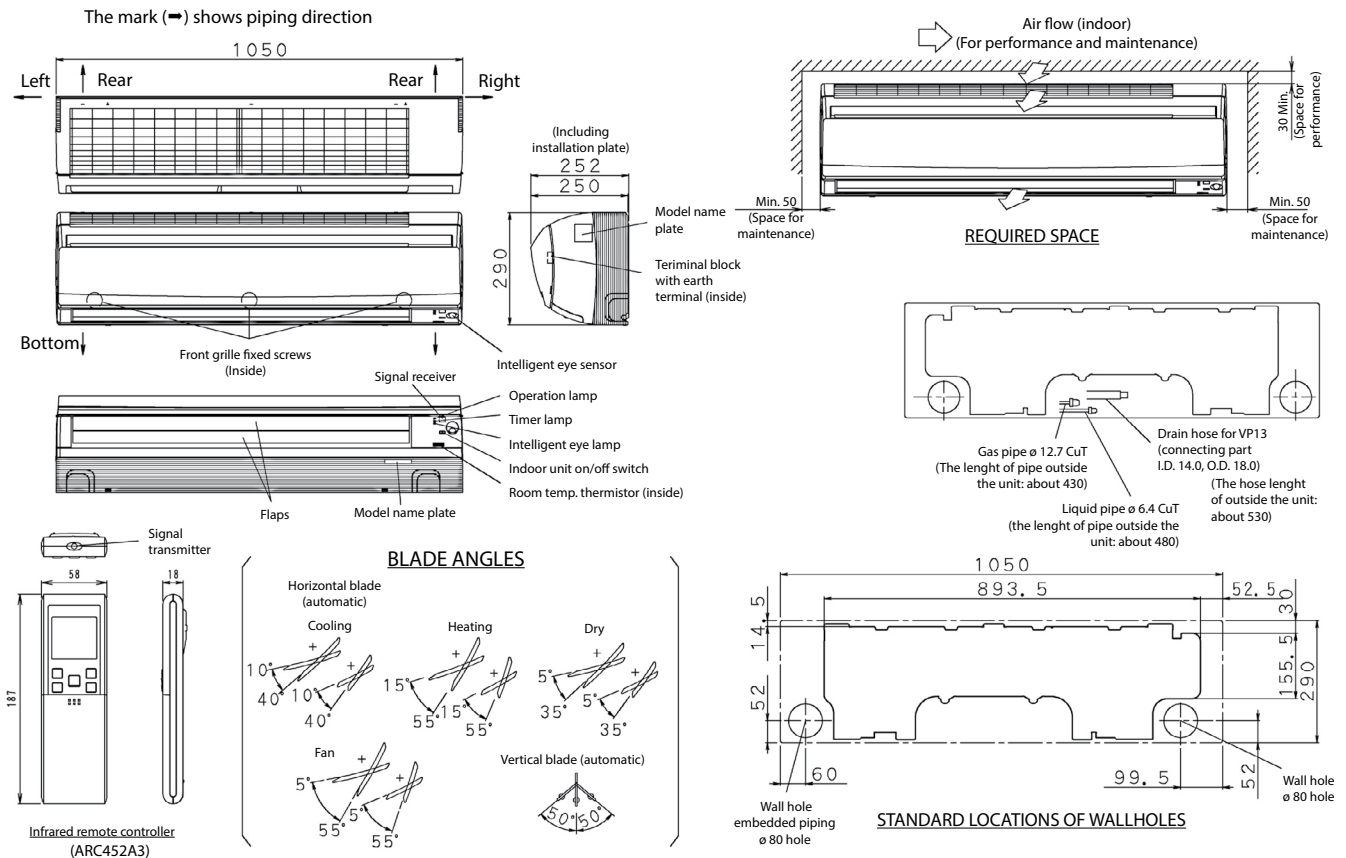
Detailed technical drawings

FTXS50K



3D092257

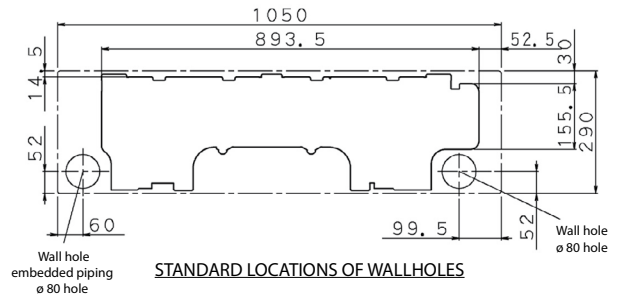
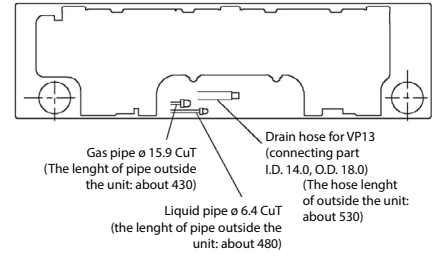
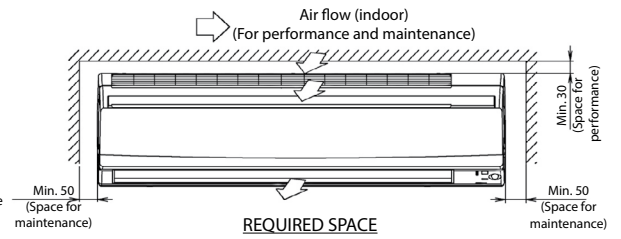
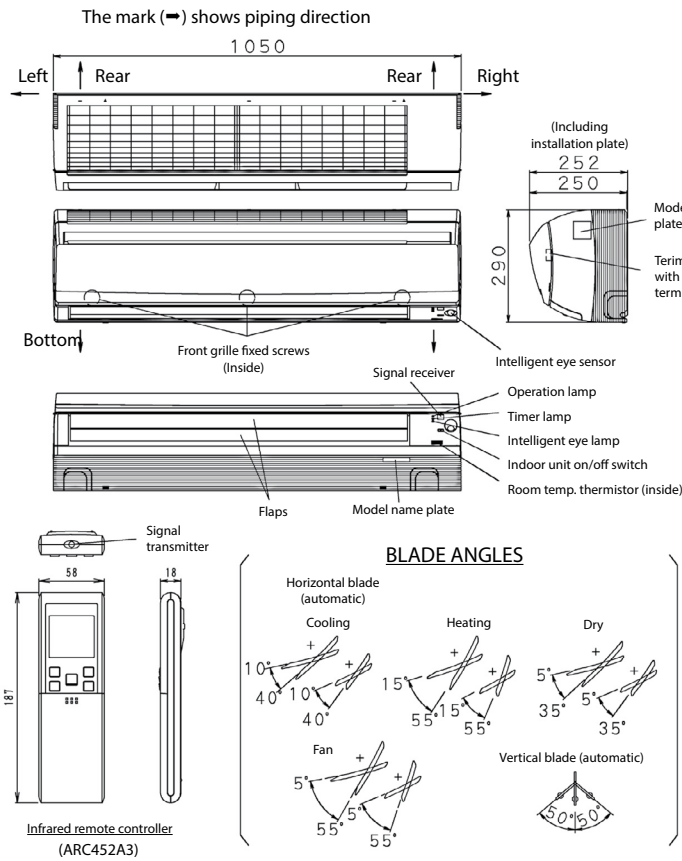
FTXS60G



3D065514



**FTXS71G**

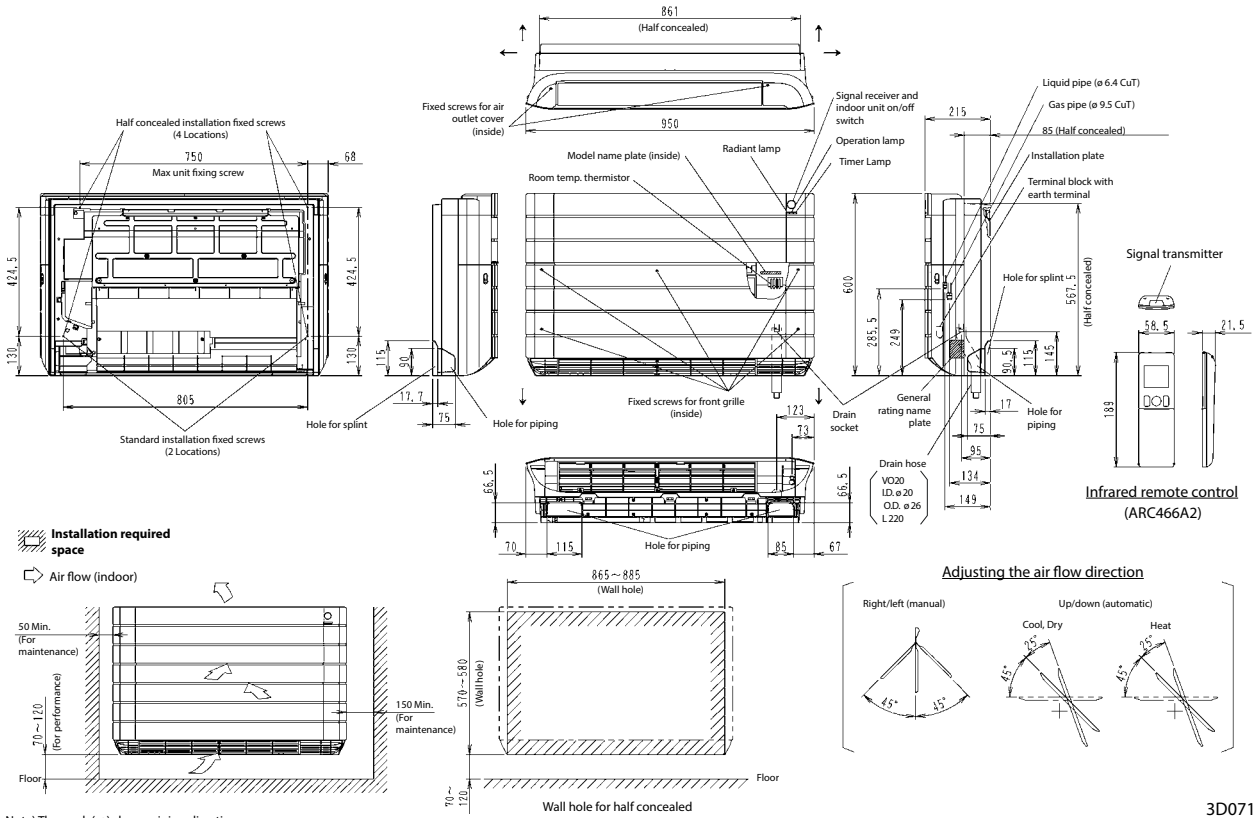


3D065515



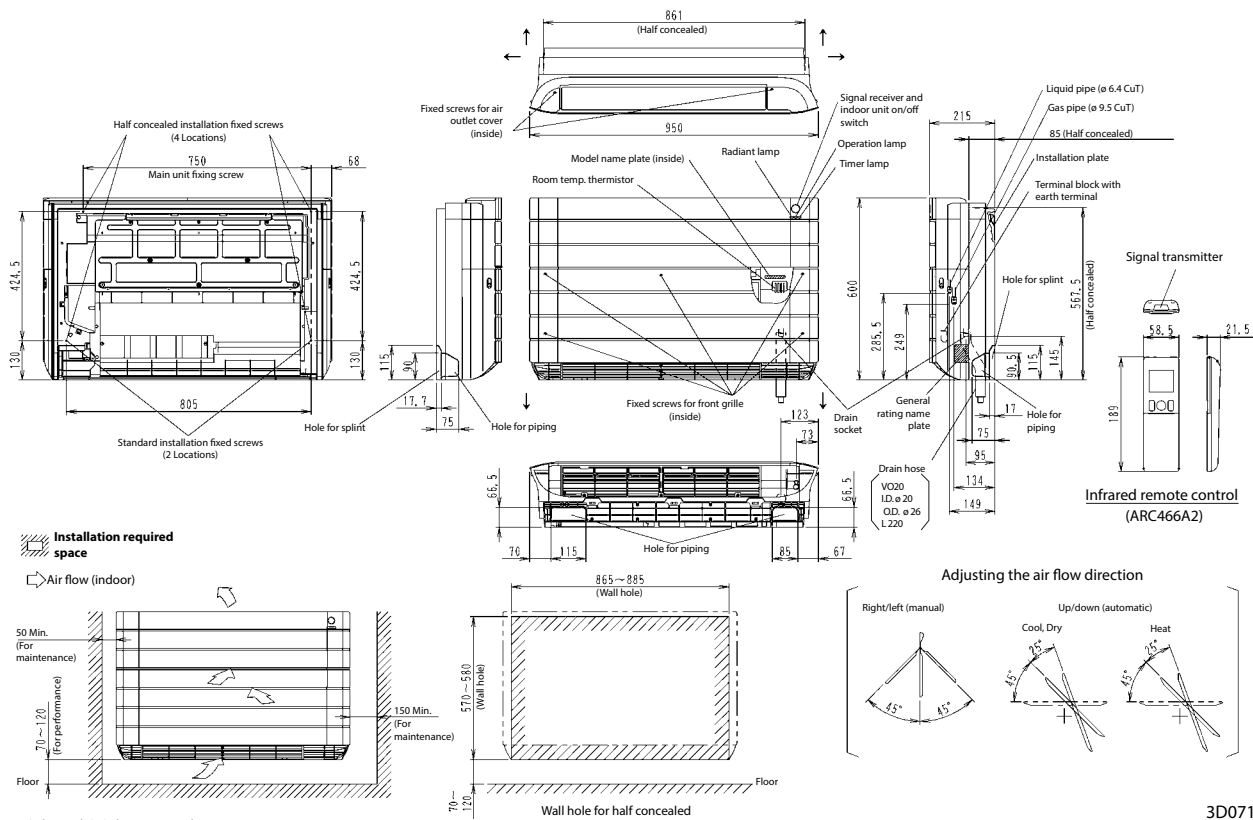
Detailed technical drawings

FVXG25-35K



3D071595

FVXG50K



3D071596



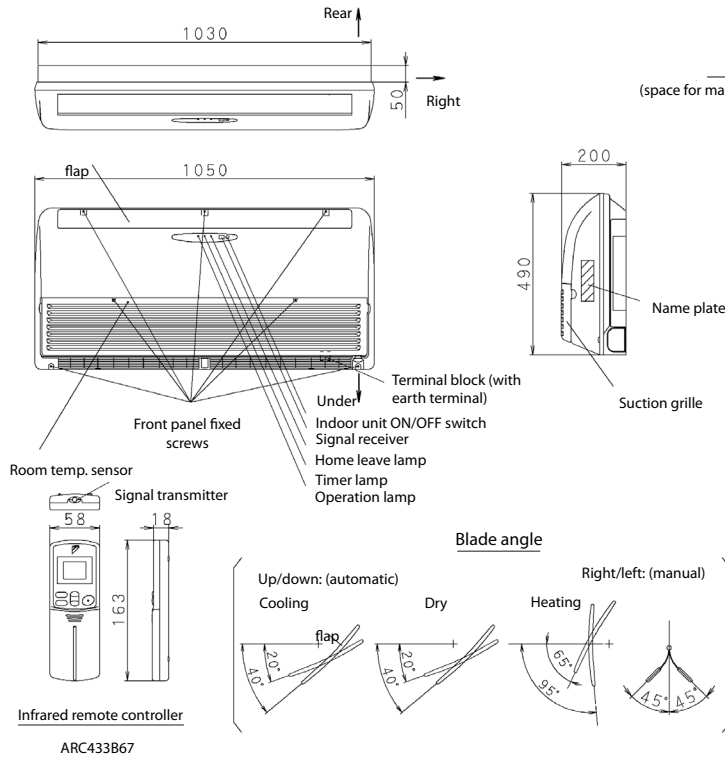


### Detailed technical drawings

## FLXS25-35B(9)

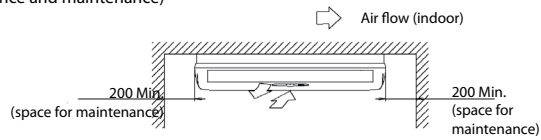
#### Ceiling suspended installation

The mark (→) shows piping direction

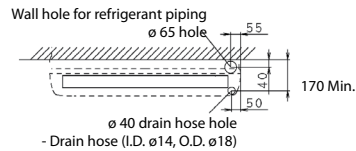


#### Required space (Ceiling suspended)

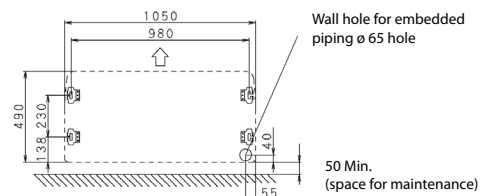
(for performance and maintenance)



Liquid pipe (ø 6.4 CuT)  
Gas pipe (ø 9.5 CuT)



#### Standard locations of wall holes



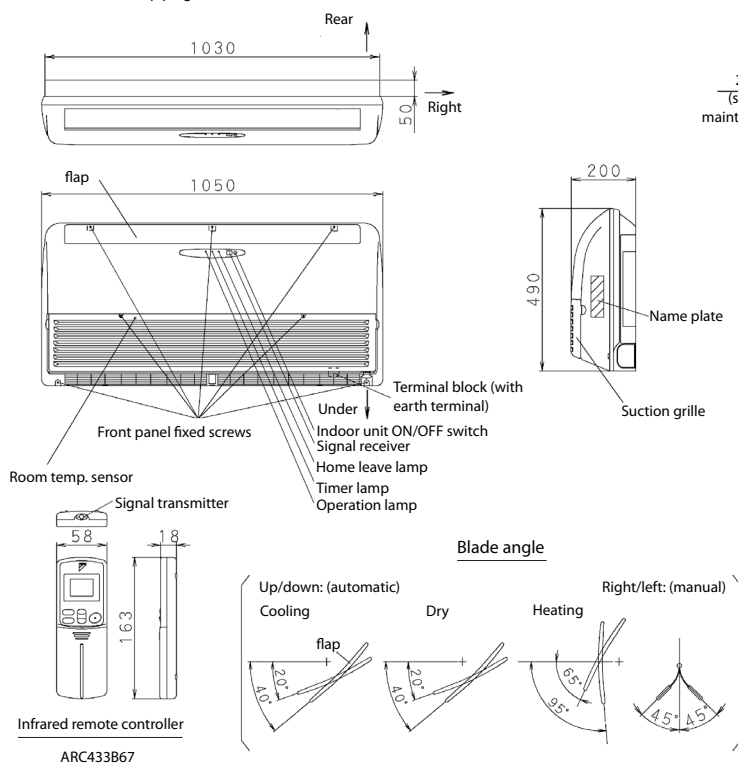
#### Locations of suspension bolts

3D033694G

## FLXS50-60B

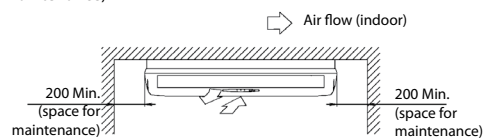
#### Ceiling suspended installation

The mark (→) shows piping direction

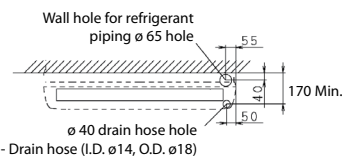


#### Required space (Ceiling suspended)

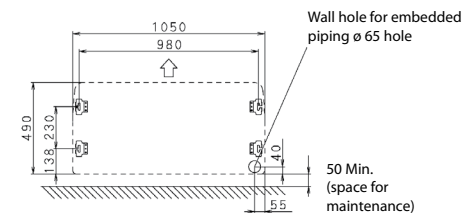
(for performance and maintenance)



- Liquid pipe (ø 6.4 CuT)  
- Gas pipe (ø 12.7 CuT)



#### Standard locations of wall holes



#### Locations of suspension bolts

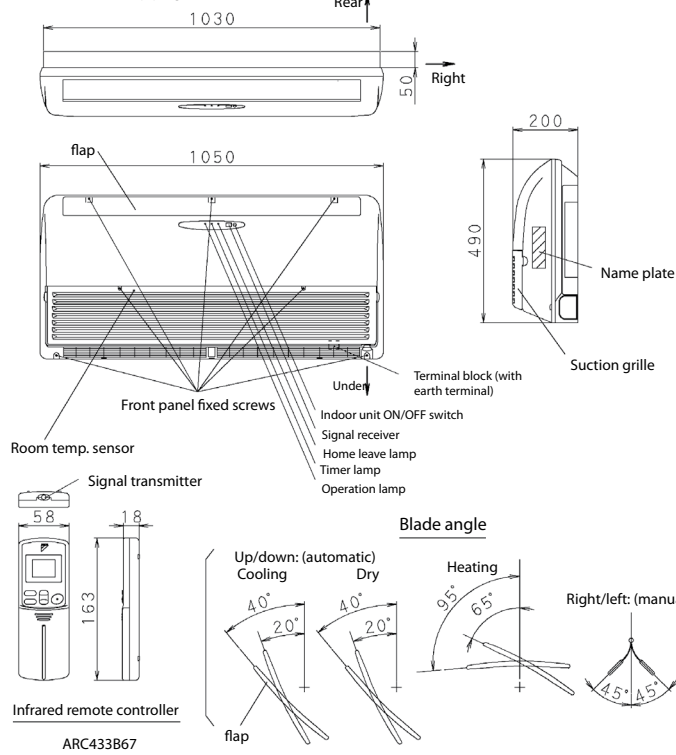
3D050610B



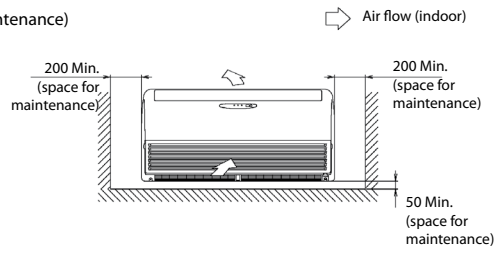
### FLXS25-35B(9)

#### Floor level installation

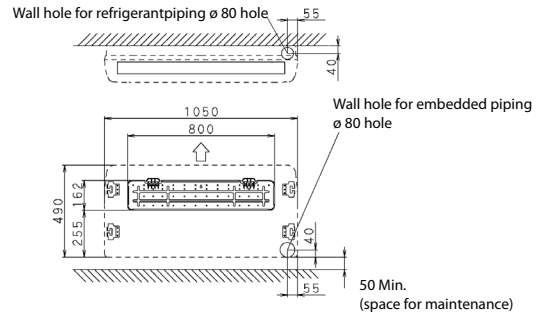
The mark (→) shows piping direction



#### Required space (for performance and maintenance)



- Liquid pipe (ø 6.4 CuT)
- Gas pipe (ø 9.5 CuT)
- Drain hose (I.D. ø14, O.D. ø18)



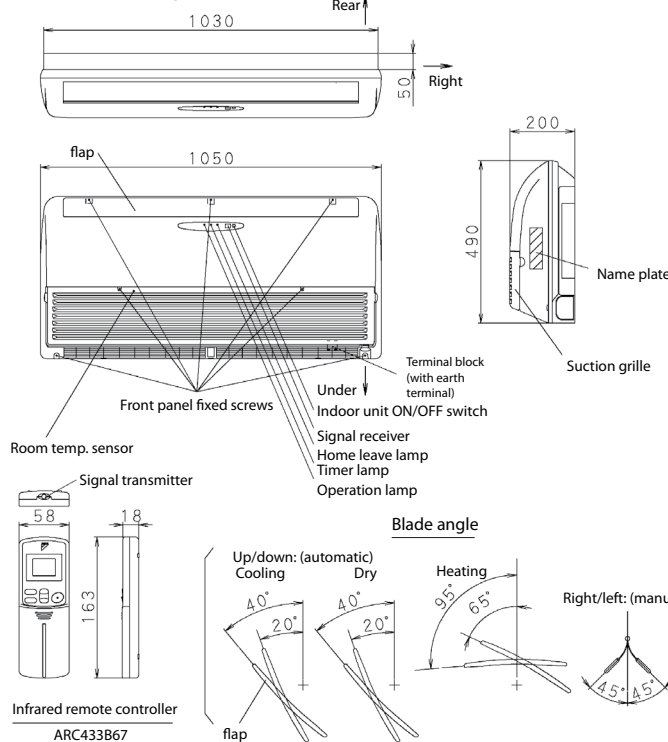
Standard locations of wall holes

3D033695H

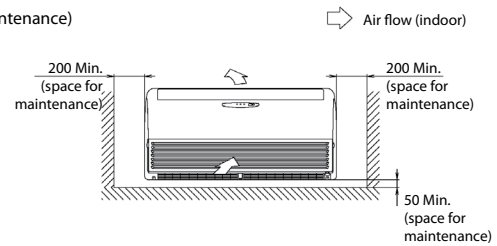
### FLXS50-60B

#### Floor level installation

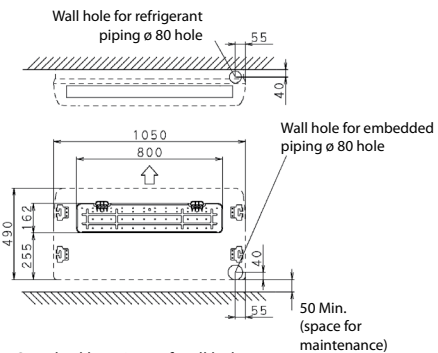
The mark (→) shows piping direction



#### Required space (for performance and maintenance)



- Liquid pipe (ø 6.4 CuT)
- Gas pipe (ø 12.7 CuT)
- Drain hose (I.D. ø14, O.D. ø18)



Standard locations of wall holes

3D050615B



# Technical drawings hot water

HXY-A

287

HXHD-A

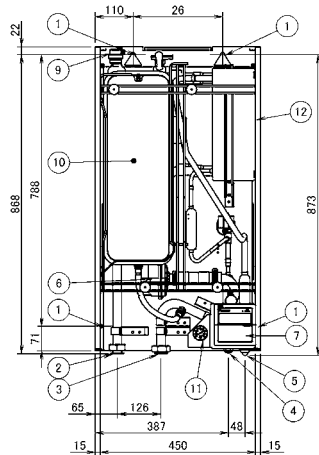
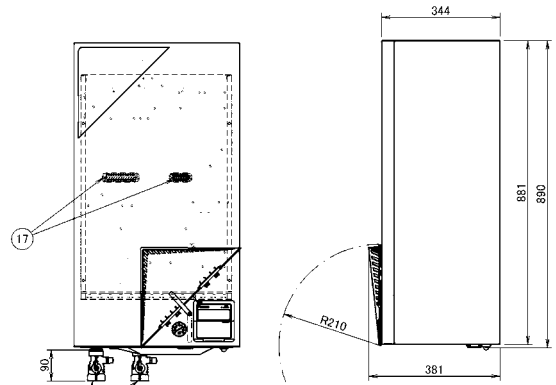
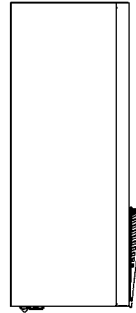
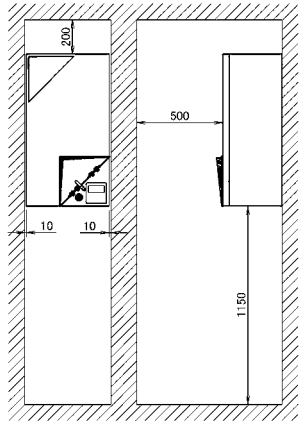
288



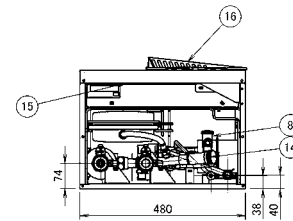


**HXY-A8**

Required space for service and ventilation

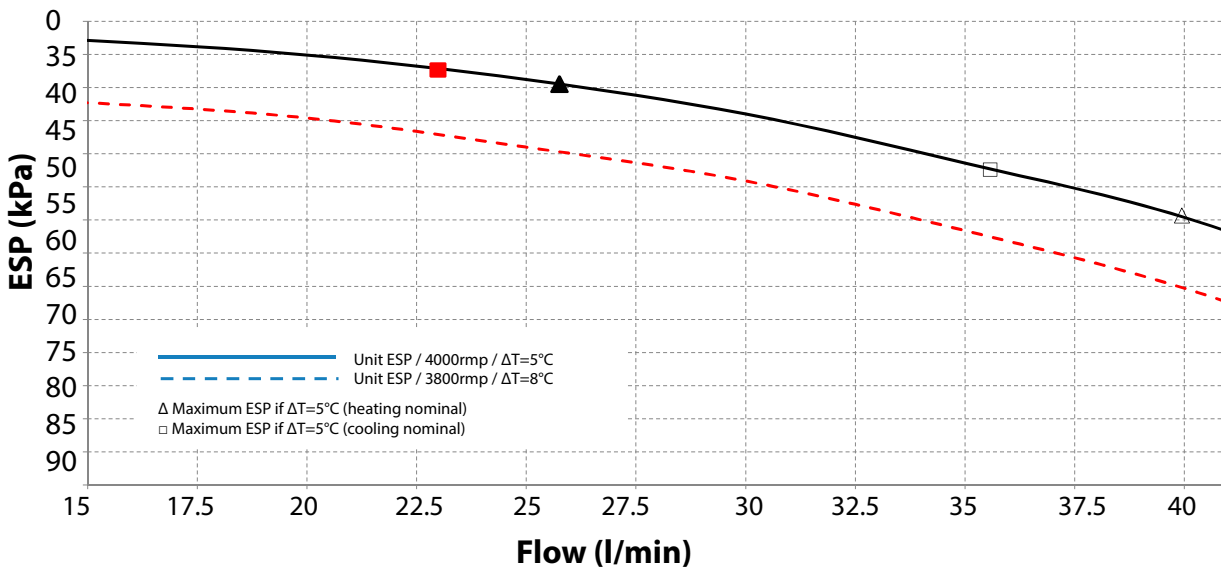


- ① Hole (Ø12) for fixation to the wall
- ② Water out connection (1-1/4" F BSP)
- ③ Water in connection (1-1/4" F BSP)
- ④ Refrigerant liquid connection Ø9.52 (flare)
- ⑤ Refrigerant suction connection Ø15.9 (flare)
- ⑥ Pump
- ⑦ User interface
- ⑧ Safety valve (pressure)
- ⑨ Air purge
- ⑩ Expansion vessel
- ⑪ Pressure gauge
- ⑫ Heat exchanger (refrigerant / water)
- ⑬ Shut off valve with drain / fill valve (1-1/4" F BSP) (included accessory)
- ⑭ Water filter
- ⑮ Power supply / Communication wire entrance
- ⑯ Service door
- ⑰ Switchbox terminals



3D079938

**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.

3D097625

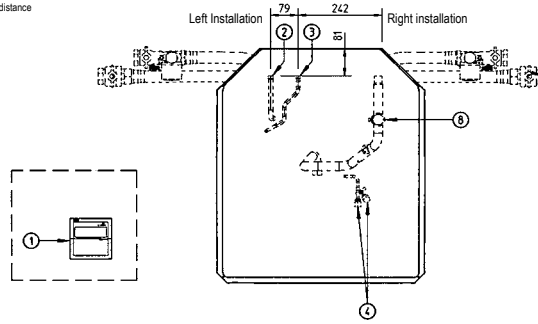
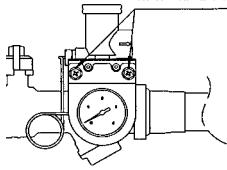


### Detailed technical drawings

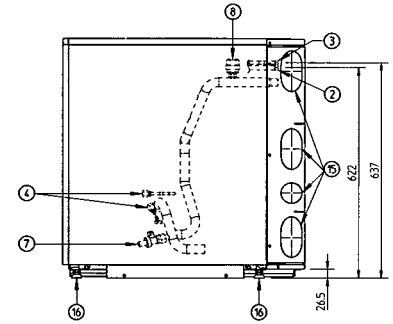
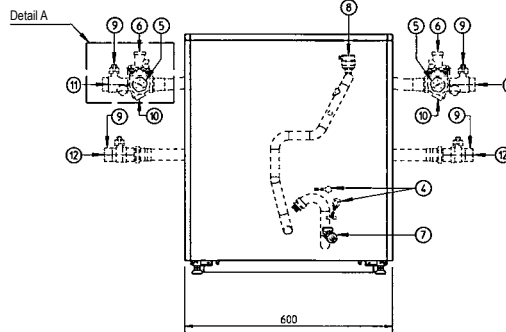
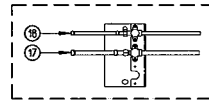
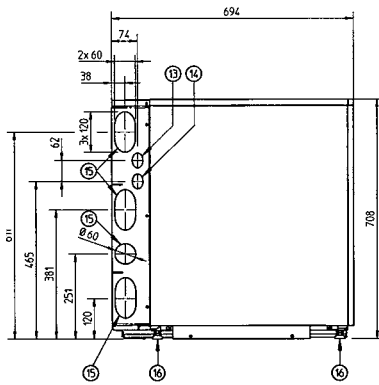
## HXHD-A8

Detail A  
Scale 1/3

If required (e.g. Wall fixation)  
Pressure gauge can be removed from waterfilter, maximum distance  
between waterfilter and pressure gauge ± 600 mm



1	Remote control (delivered as accessory) Installation location is outside the unit
2	Discharge pipe connection $\phi 12.7$ solder (R410a)
3	Liquid pipe connection $\phi 9.5$ solder (R410a)
4	R134a Service ports 5/16" are (2x)
5	Pressure gauge
6	Blow off valve
7	Drain valve water circuit
8	Air purge
9	Shut-off valves (2x)
10	Water filter
11	Water in connection G 1" (female)
12	Water out connection G 1" (female)
13	Control wiring intake (knock-out hole $\phi 37$ )
14	Power supply wiring intake (knock-out hole $\phi 37$ )
15	Knock-out holes for refrigerant piping and water piping
16	Levelling feet
17	Discharge stop valve $\phi 12.7$ solder (R410a)
18	Liquid stop valve $\phi 9.5$ solder (R410a)



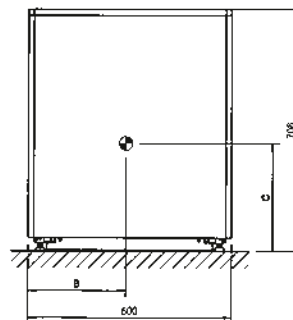
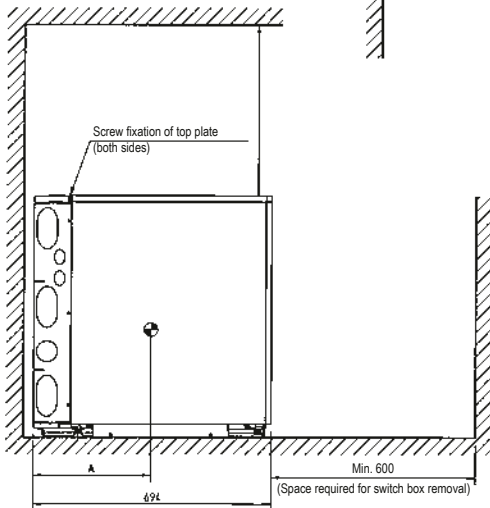
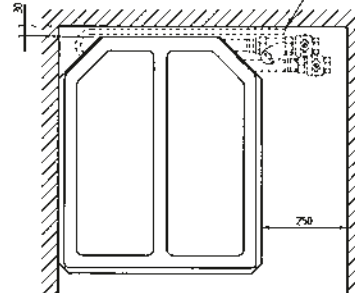
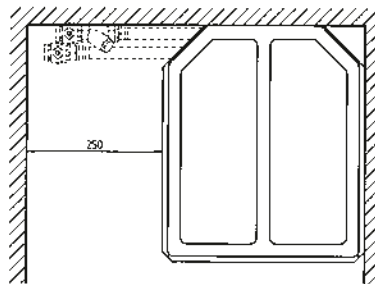
3TW59914-1B(1)

## HXHD-A8

Left Installation

Right installation

Upwiring

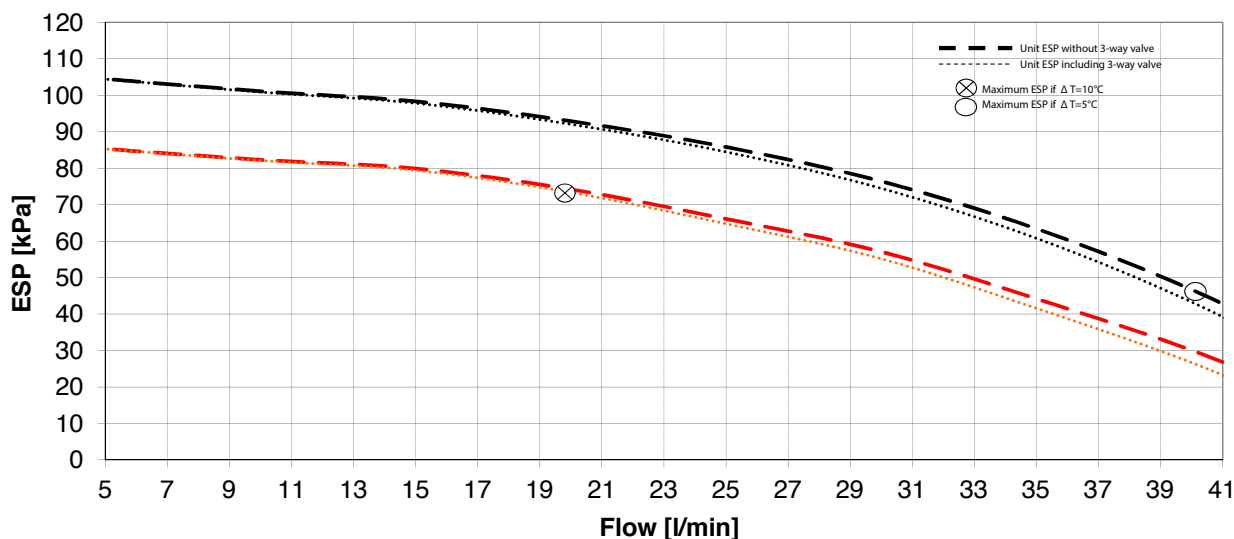


Model	A	B	C
HXHD-A8	355	270	300

3TW59914-1B(2)



### 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

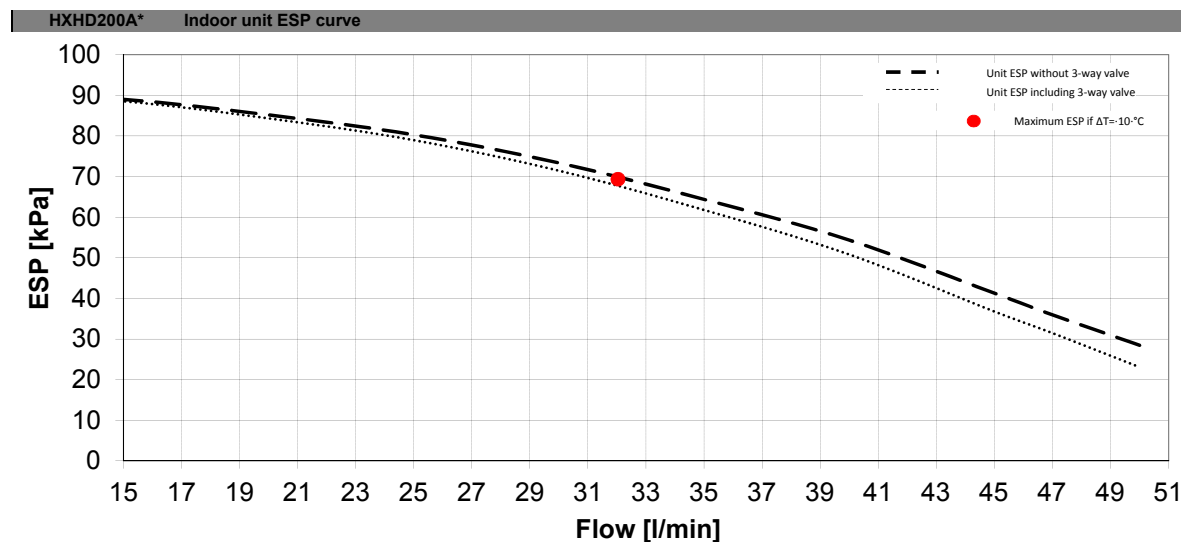
Flow: water flow through the unit

**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



**Notes**

1. 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 ΔT between the return water temperature and the leaving water temperature.
2. 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.

3D113718



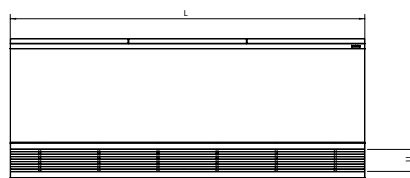
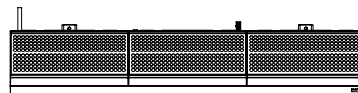
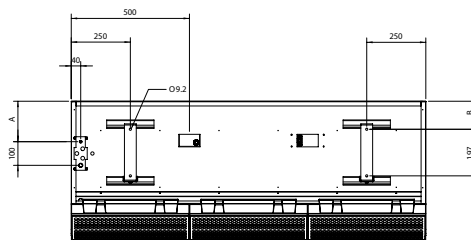
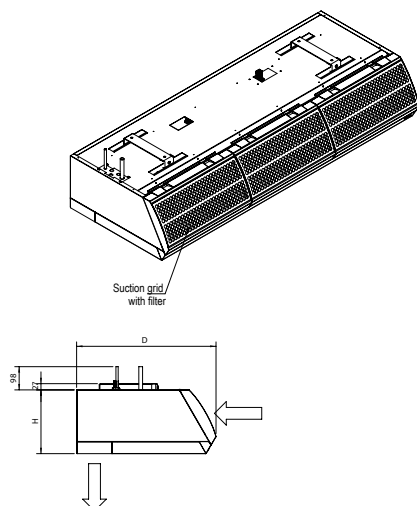
Technical drawings  
Biddle air curtains

CYVS\_DK / CYVM\_DK / CYVL\_DK

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CYVS\_DK\_FBN/FSN / CYVM\_DK\_FBN/FSN / CYVL\_DK\_FBN/FSN



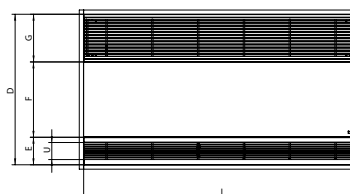
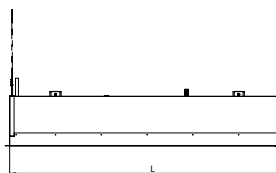
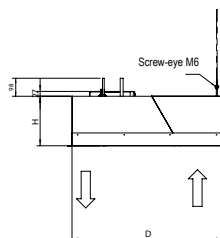
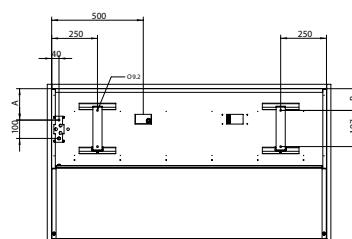
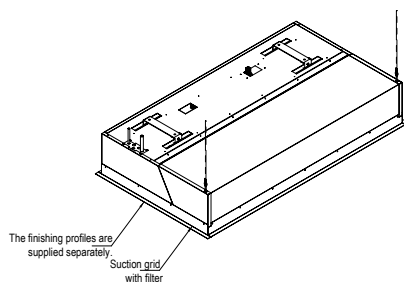
Type	L	H	D	U	A	B
CYVS-DK-FBN/FSN	1,000 - 1,500	270	590	93	171	119
CYVM-DK-FBN/FSN	2,000 - 2,500	370	774	124.5	245.5	200

CU0954X-000

REMARKS

- 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



Number of suction grids per device

Device length	Number	Suction grid length
1000 / 1500	1	1,000 / 1,500
2000 / 2500	2	1,000 / 1,250

\*1 drain grid per device

Type	L	H	D	U	A	B	E	F	G
CYVS-DK-CBN/CSN	1,000 - 1,500	270	821	93	171	119	250	411	260
CYVM-DK-CBN/CSN	2,000 - 2,500	370	1,105	124.5	245.5	200	181.5	563.5	360

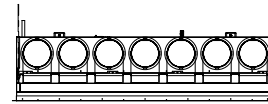
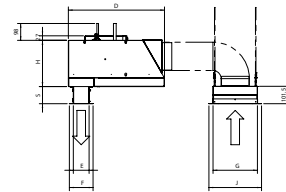
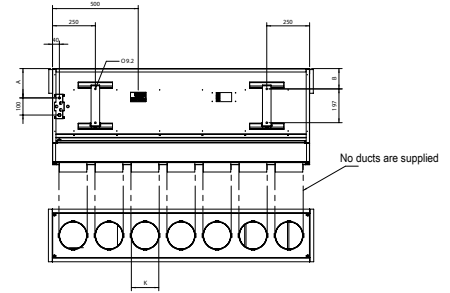
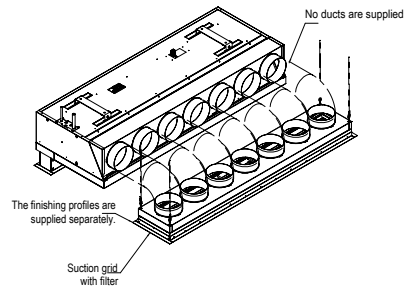
CU0955X-000

REMARKS

- The 2,500mm large devices have 3 suspension brackets, where the third bracket is mounted at half the length of the device.
- 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



Number of ducts per device

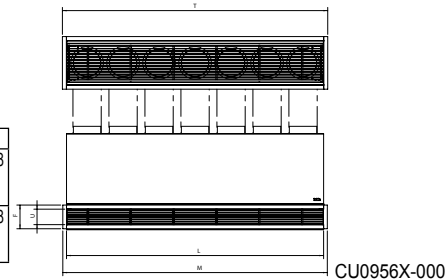
Type	1000	1500	2000	2500
CYVS-DK-RBN/RSN	5	7	10	12
CYVM-DK-RBN/RSN	5	7	10	12
CYVL-DK-RBN/RSN	3	5	6	8

Number of suction grids per device

Device length	Number	Suction grid length
1000 / 1500	1	1,000 / 1,500
2000 / 2500	2	1,000 / 1,250

\*1 drain grid per device

Type	L	H	D	S	U	A	B	E	F	G	J	K	M	T
CYVS-DK-RBN/RSN	1,000 - 1,500	270	561	80-125	90	171	119	92	139	260	308	Ø160	1044-1544 2044-2544	1048-1548 2048-2548
CYVM-DK-RBN/RSN	2,000 - 2,500	270	561	80-125	90	171	119	92	139	260	308	Ø160	1044-1544 2044-2544	1048-1548 2048-2548
CYVL-DK-RBN/RSN	1,000 - 1,500 2,000 - 2,500	370	745	80-125	121.5	245.5	200	123.5	170	360	408	Ø250	1044-1544 2044-2544	1048-1548 2048-2548



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.



Technical drawings

# Ventilation

VAM-FC / VAM-J

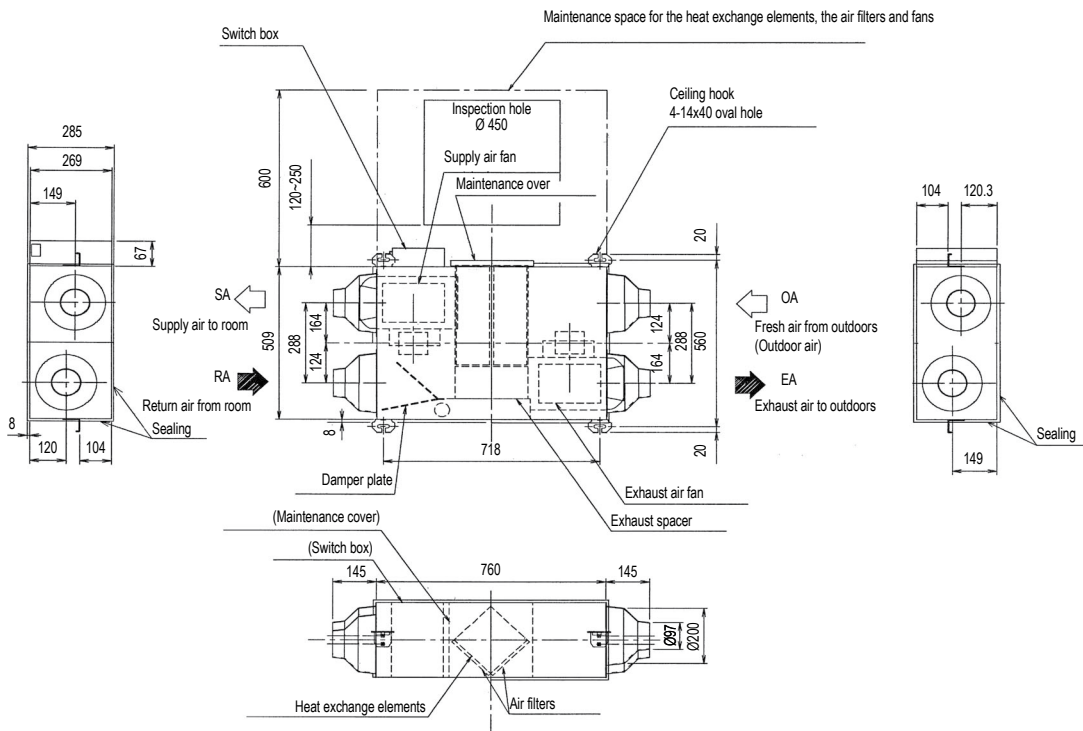
294

VKM-GB / VKM-GBM

302



VAM150FC

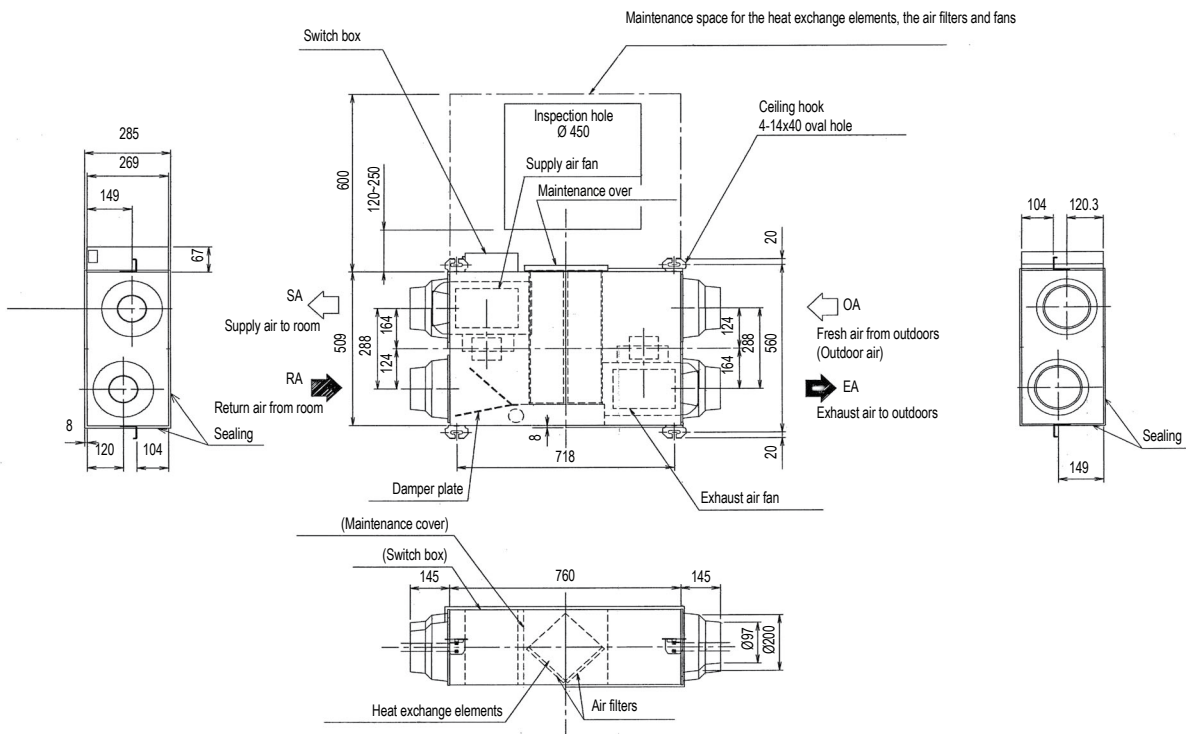


NOTE

- 1 Be sure to provide the inspection hole (450x450 mm) to inspect the air filters, the exchange elements and fans.

3TW27874-1

VAM250FC



NOTE

- 1 Be sure to provide the inspection hole (450x450 mm) to inspect the air filters, the exchange elements and fans.

3TW27884-1

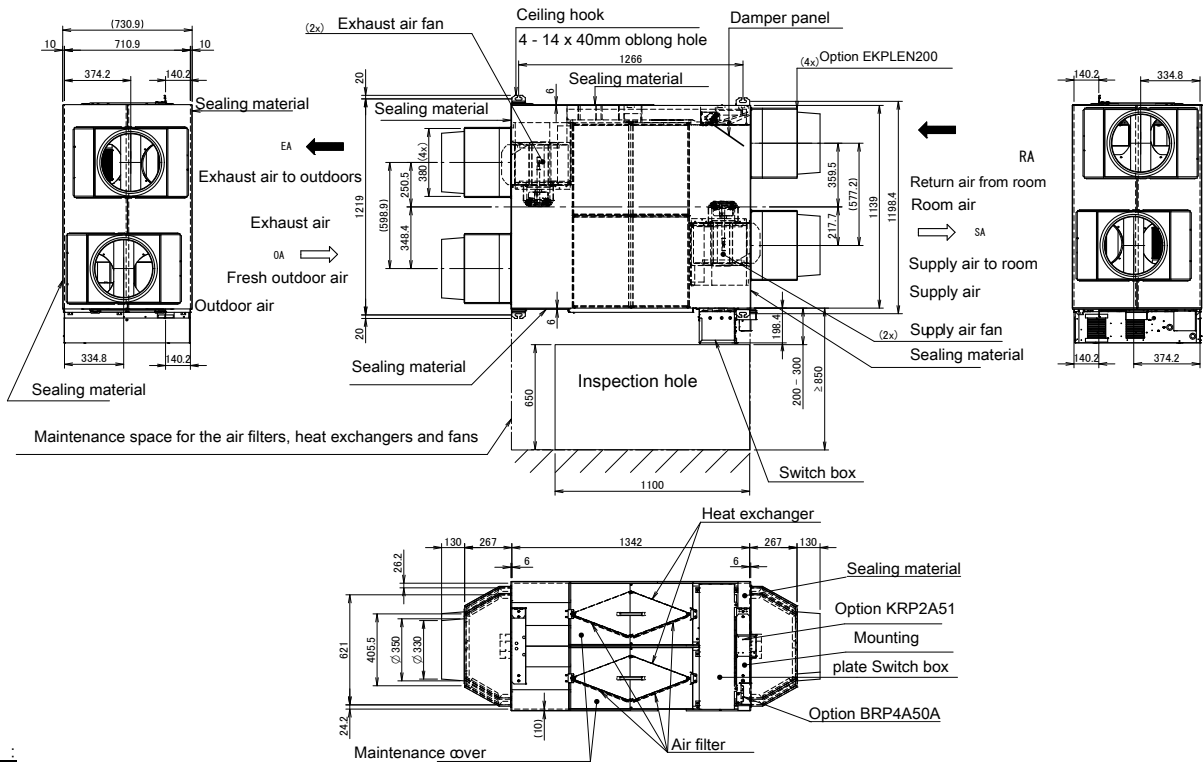








### VAM1500-2000J WITH PLENUMS

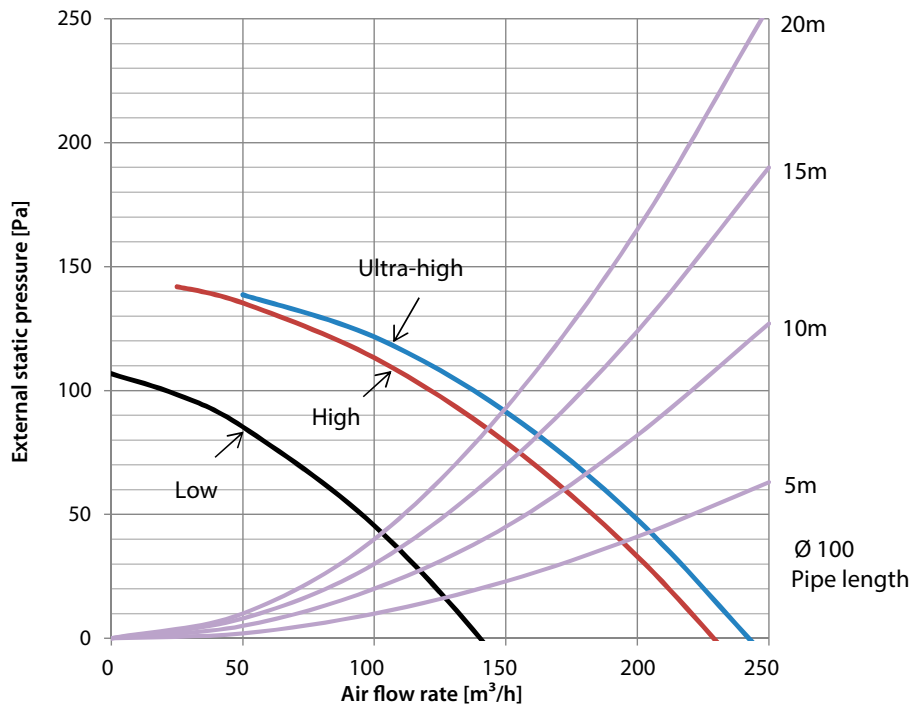


Notes :

1. To allow for the inspection of the air filters, heat exchangers, and fans, be sure to provide the inspection hole.

**3D112818A**

### VAM150FC

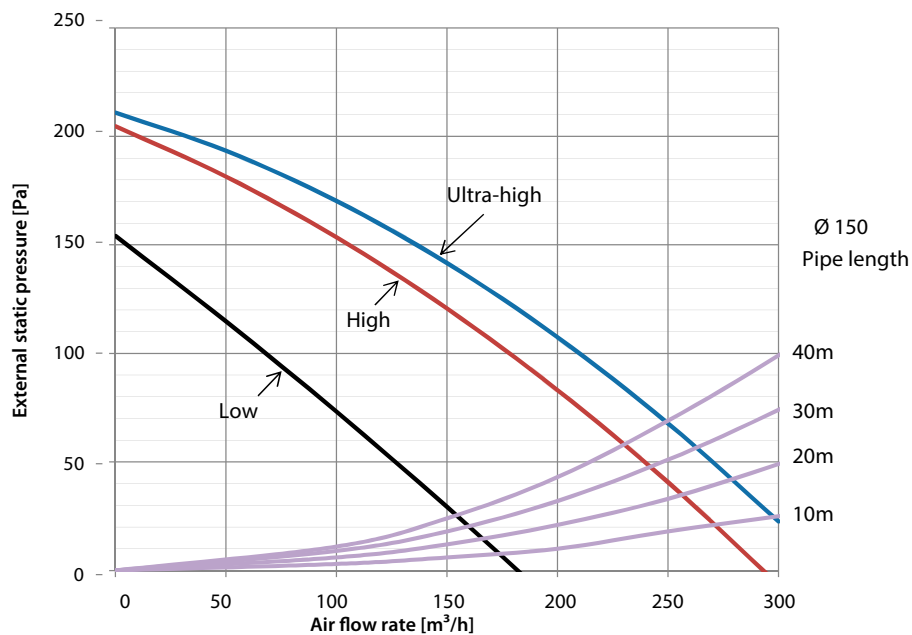


Notes

1. The fan speeds are valid for ·230-V, ·50-Hz power supply.



### VAM250FC

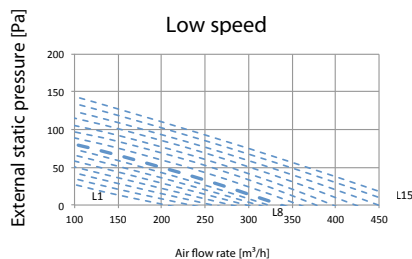
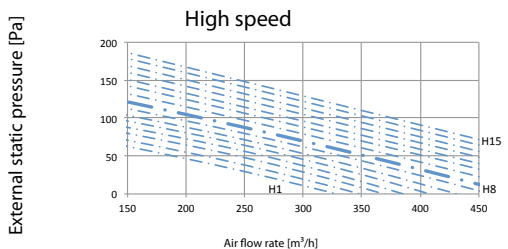
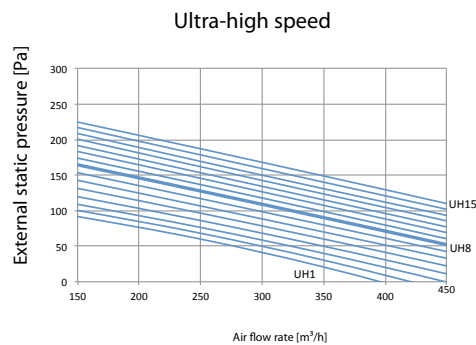
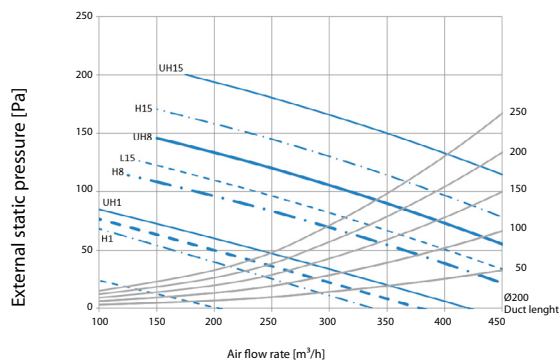


#### Notes

1. The fan speeds are valid for -230-V, -50-Hz power supply.

4D100380

### VAM350J



#### Notes

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-).

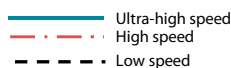
A= Exhaust air

OA= Outdoor air

RA= Room air

SA= Supply air

Measured according to JIS B 8628 - 2003.



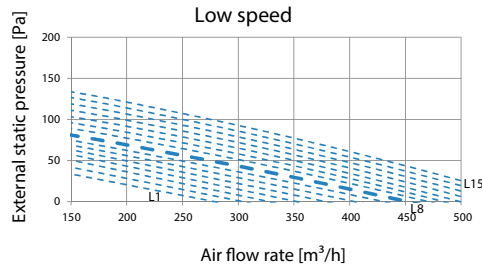
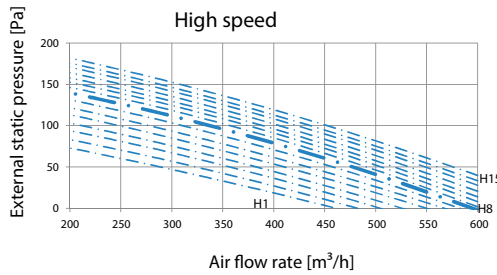
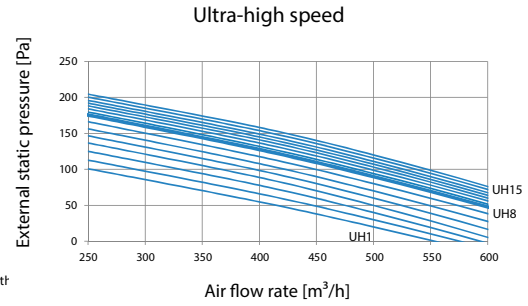
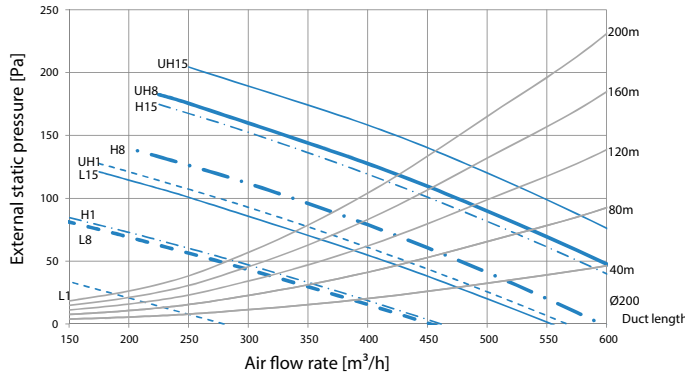
#### Legend

- 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

3D113493



### VAM500J



#### Notes

- The fan curves are determined with  $\cdot 1/3$  of the ESP on the outdoor side (EA & OA), and  $\cdot 2/3$  of the ESP on the indoor side (RA & SA).  
EA = Exhaust air  
OA = Outdoor air  
RA = Room air  
SA = Supply
- Measured according to JIS B 8628 - 2003.

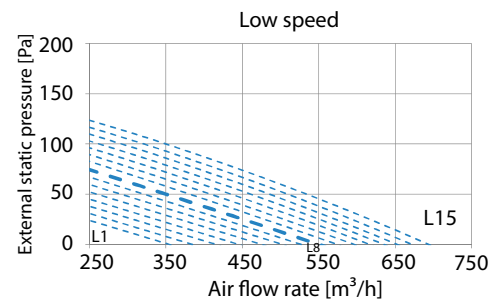
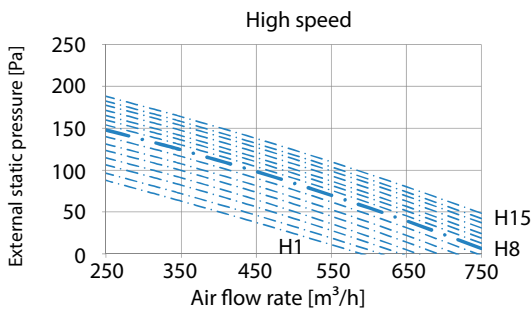
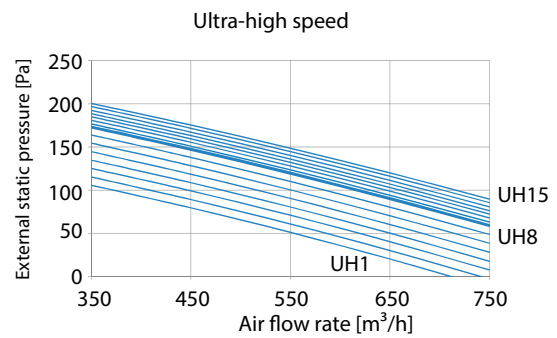
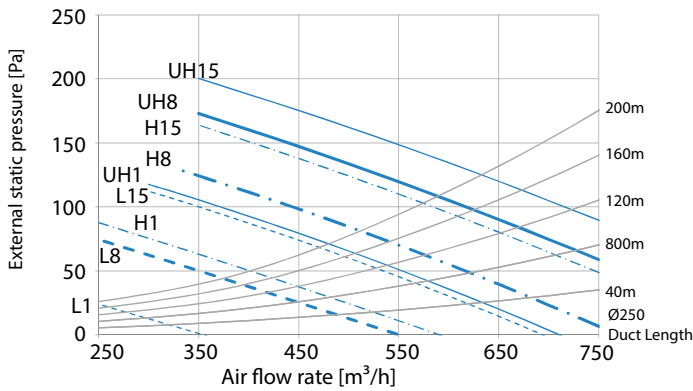
- Ultra-high speed
- - - High speed
- - - - Low speed

#### 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

3D113494

### VAM650J



#### Notes

- 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
- Measured according to JIS B 8628 - 2003.

- Ultra-high speed
- - - High speed
- - - - Low speed

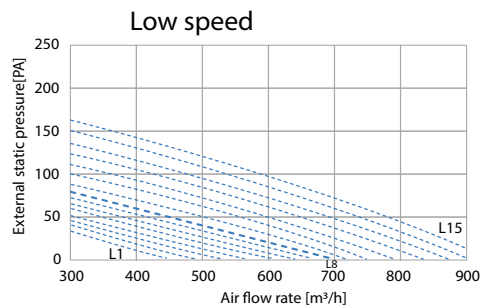
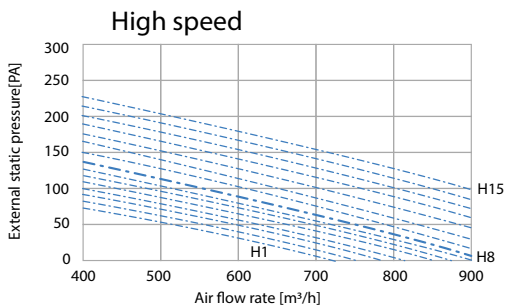
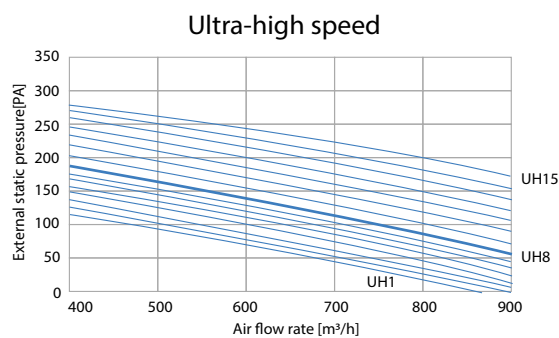
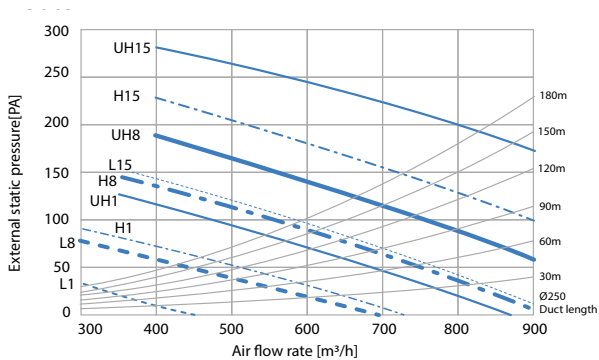
#### Legend

- 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**



Notes

- The fan curves are determined with  $\cdot 1/3$  of the ESP on the outdoor side (-EA & OA-), and  $\cdot 2/3$  of the ESP on the indoor side (-RA & SA).
- Measured according to JIS B 8628 - 2003.

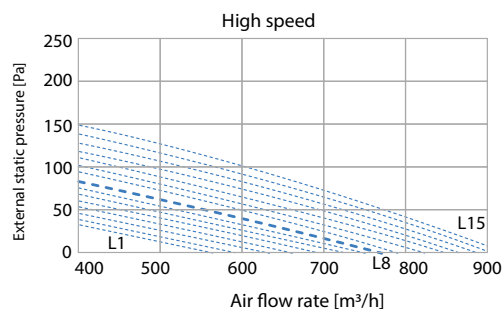
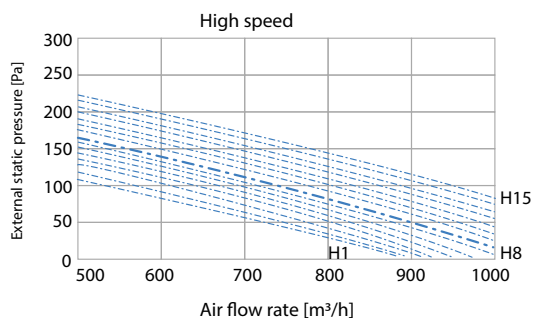
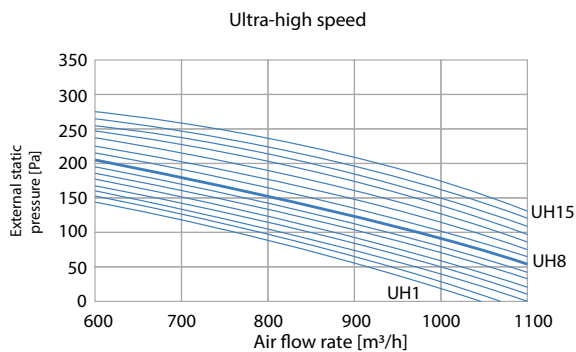
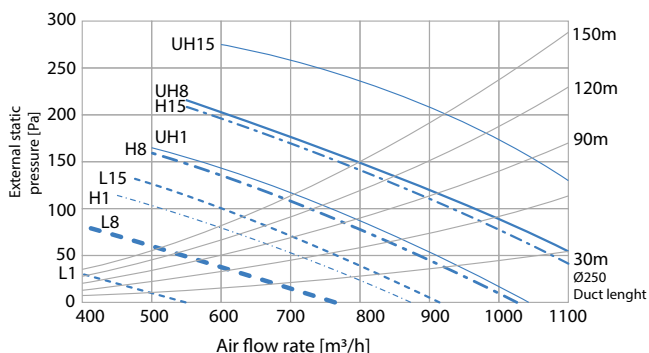


Legend

- 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

3D112837

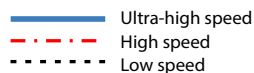
**VAM1000J**



Notes

- The fan curves are determined with  $\cdot 1/3$  of the ESP on the outdoor side (-EA & OA-), and  $\cdot 2/3$  of the ESP on the indoor side (-RA & SA).

- EA= Exhaust air
- OA = Outdoor air
- RA= Room air
- SA= Supply air



Legend

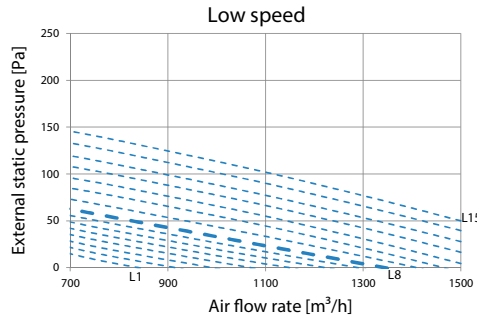
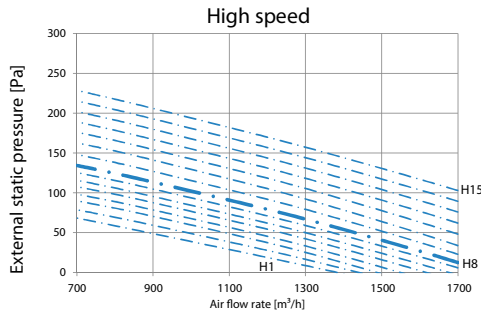
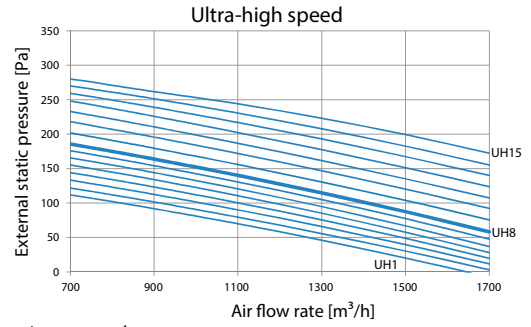
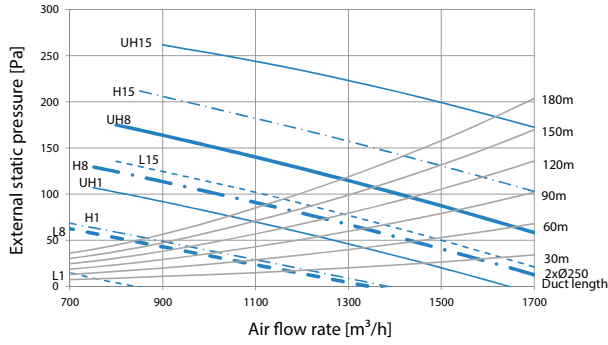
- L1 = Low speed lower limit
- LB = Low speed factory setting
- L15 = Low speed upper limit
- H1 = High speed lower limit
- H8 = High speed factory setting
- H15 = High speed upper limit
- UH1 = Ultra-high speed lower limit
- UH8 = Ultra-high speed factory setting
- UH15 = Ultra-high speed upper limit

- Measured according to JIS B 8628 - 2003.

3D112832



VAM1500J



Notes

- The fan curves are determined with  $\cdot 1/3$  of the ESP on the outdoor side (-EA & OA), and  $\cdot 2/3$  of the ESP on the indoor side (-RA & SA).
- Measured according to -JIS B 8628 - 2003-

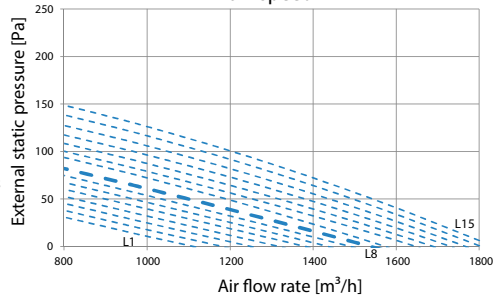
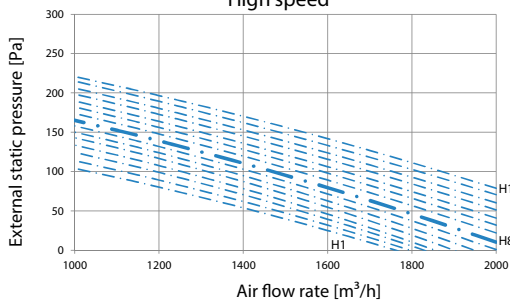
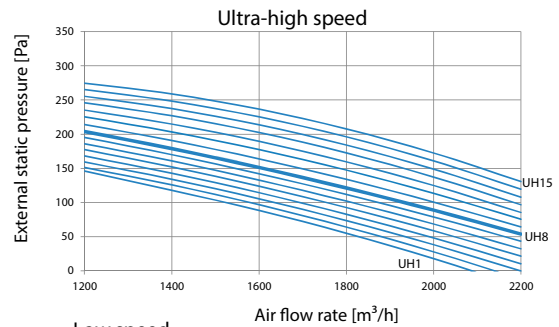
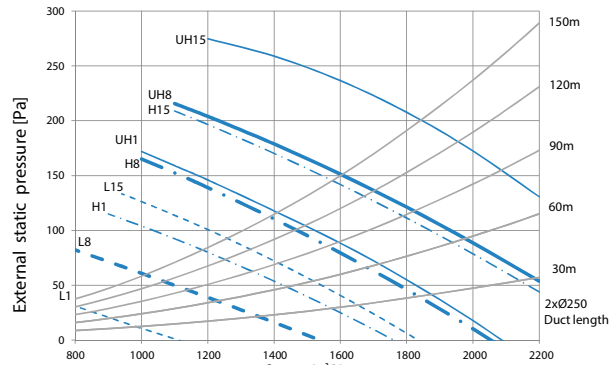
Legend

- 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

- Ultra-high speed
- - - High speed
- - - Low speed

3D112838

VAM2000J



Notes

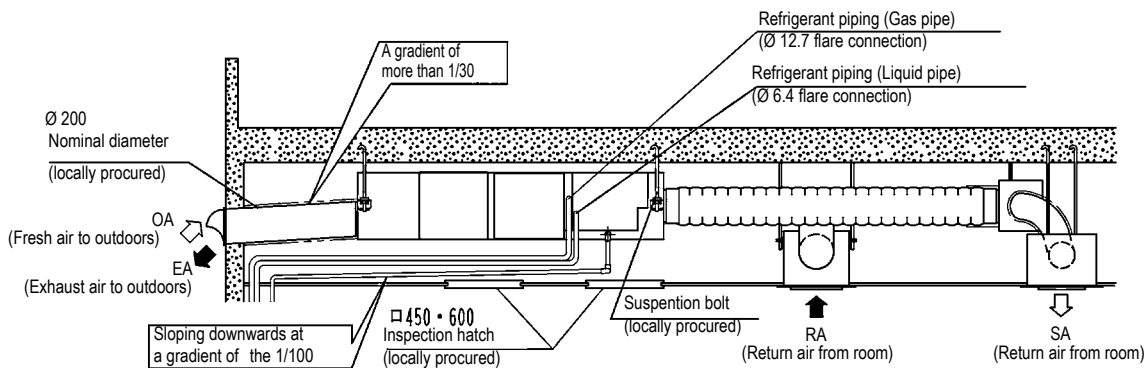
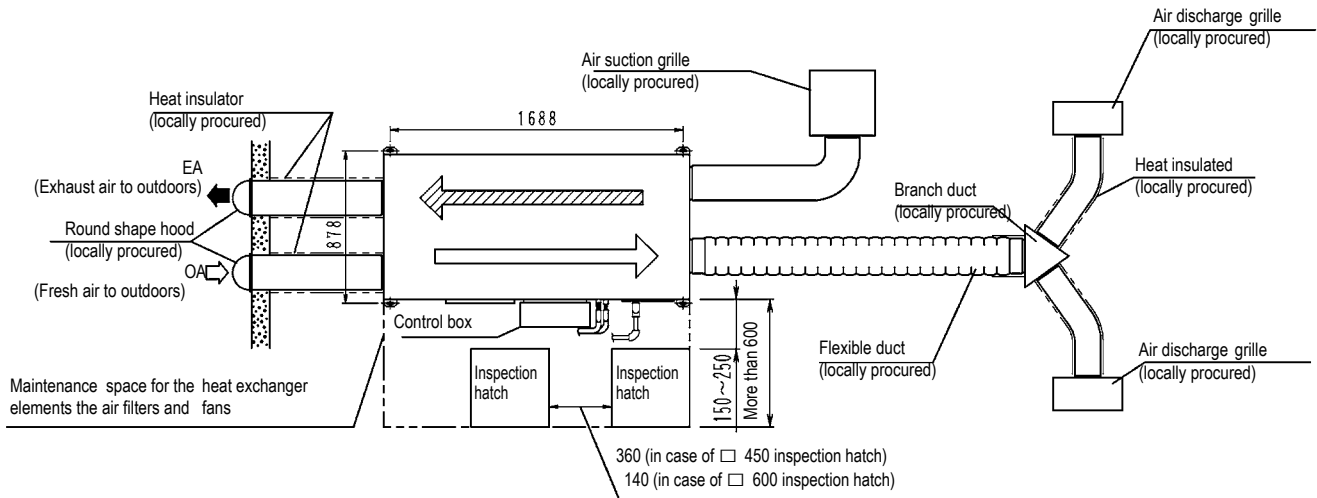
- The fan curves are determined with  $\cdot 1/3$  of the ESP on the outdoor side (-EA & OA), and  $\cdot 2/3$  of the ESP on the indoor side (-RA & SA).
- Measured according to -JIS B 8628 - 2003-

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

- Ultra-high speed
- - - High speed
- - - Low speed

3D112839

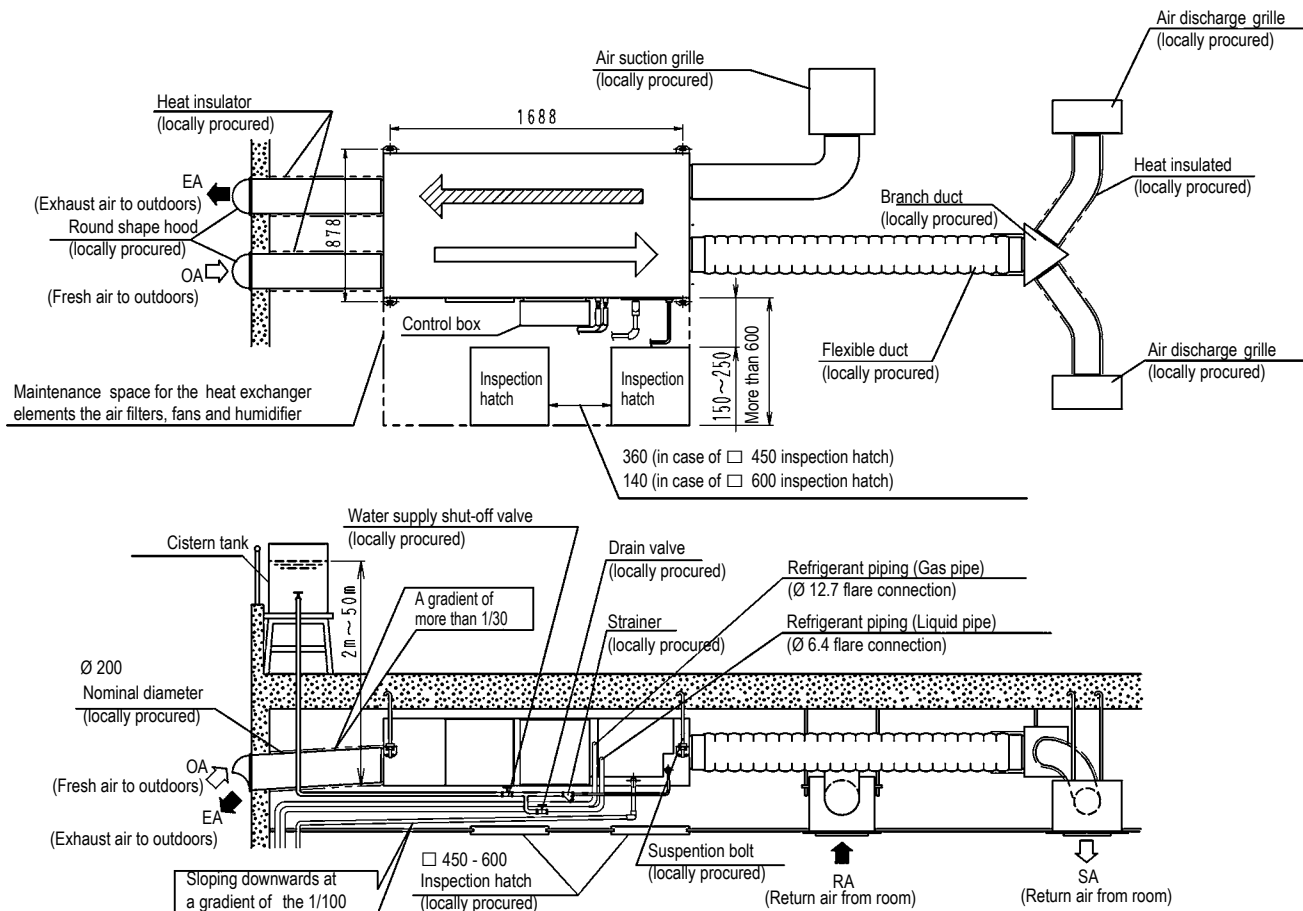
**VKM50GB**

**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 prevent the 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.

3D083014



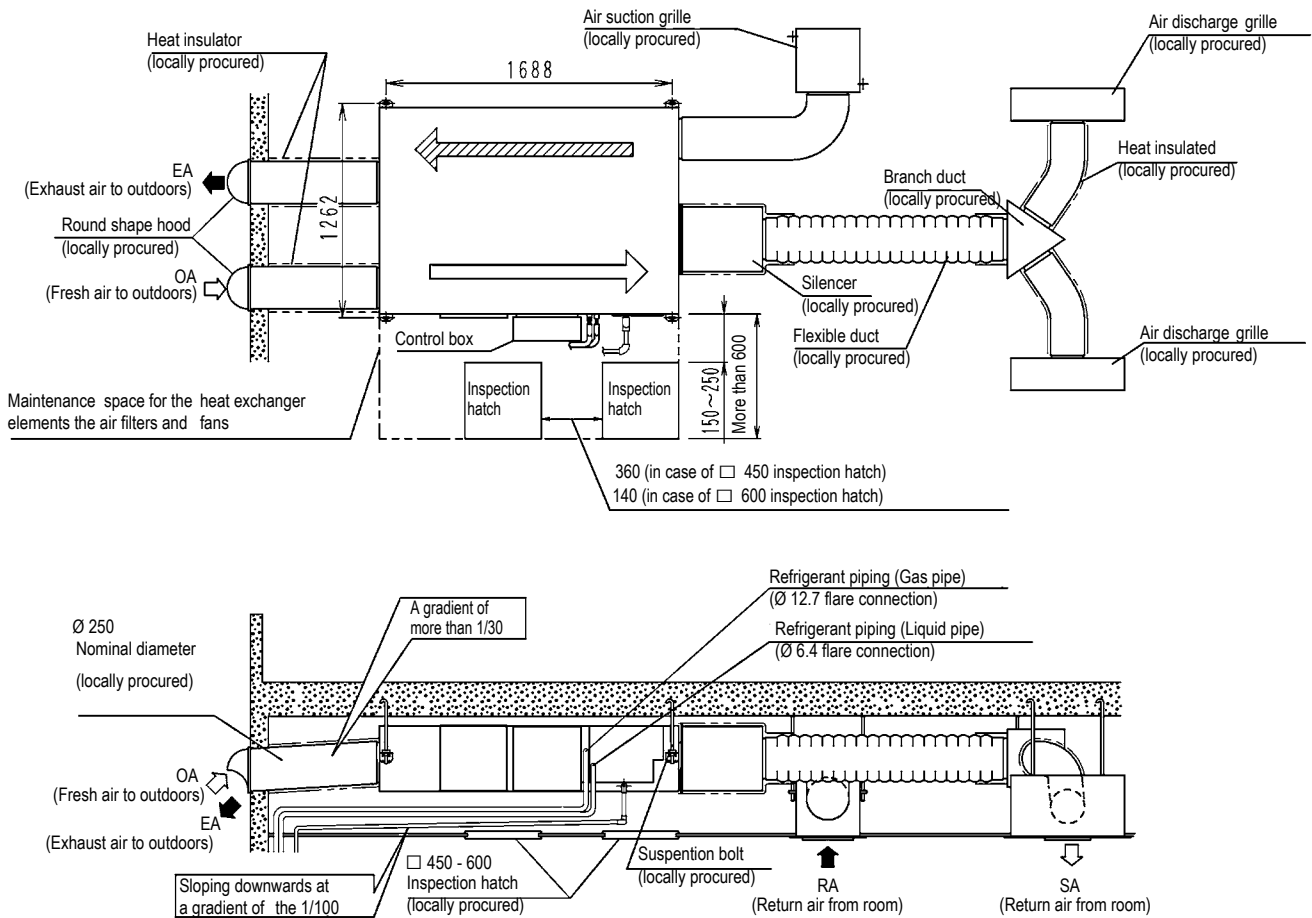
VKM50GBM



NOTES

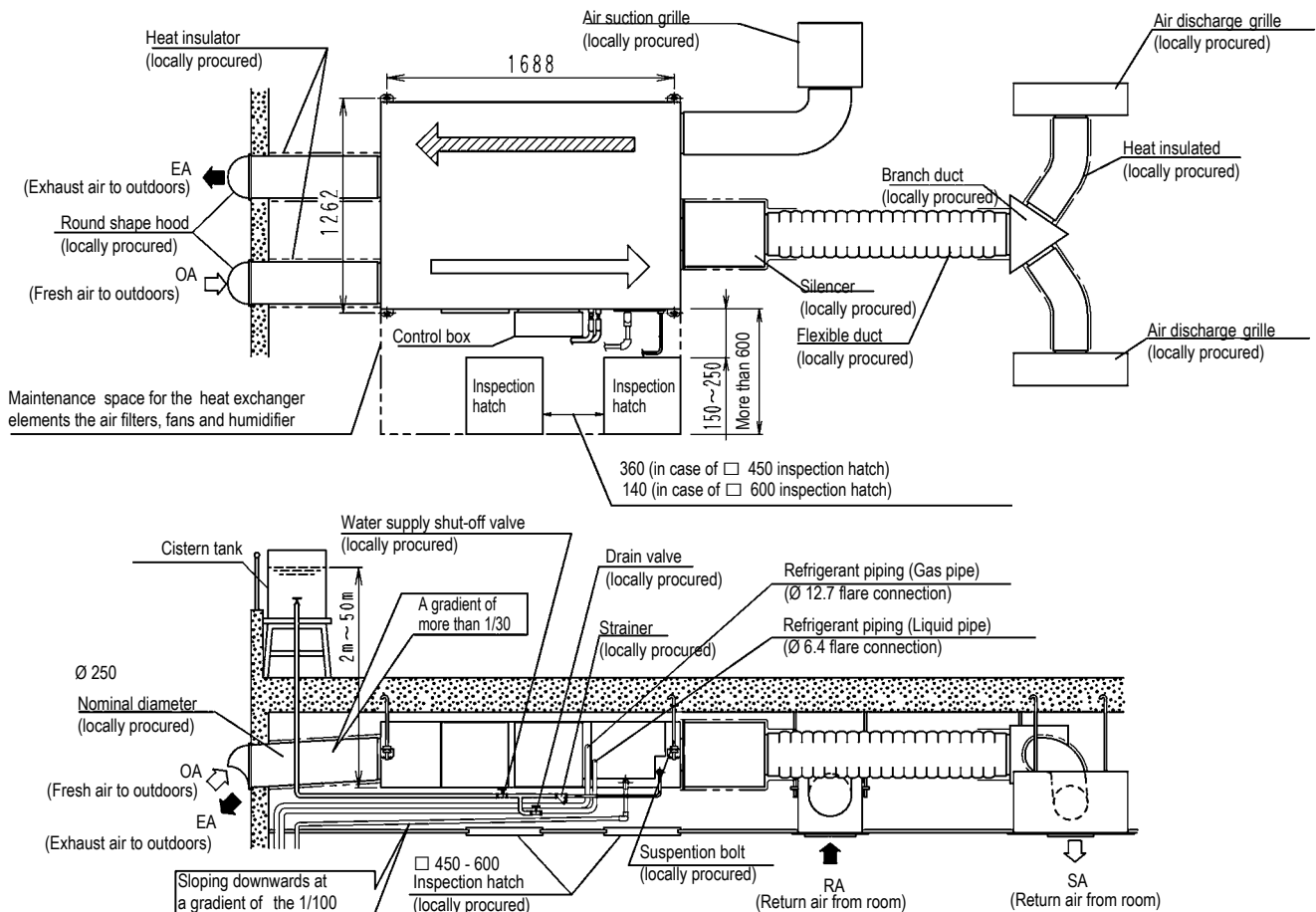
1. Leave space for servicing the unit and include inspection hatch. (Always open a hole on the side of the control box so that the air filters heat exchange elements, and fans can easily be inspected and serviced.)
2. Install the two outdoor ducts with down slope (slope of 1/30 or more) to prevent entry 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/cm<sup>2</sup> to 5 kg/cm<sup>2</sup>)
7. Make sure the supply water is between 5°C and 40°C in temperature.
8. 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 humidifier will not drop 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 will 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.
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 prevent the 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.

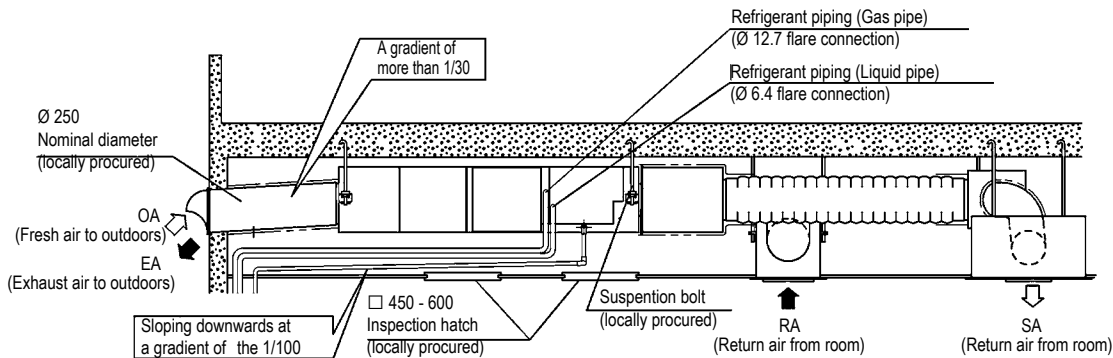
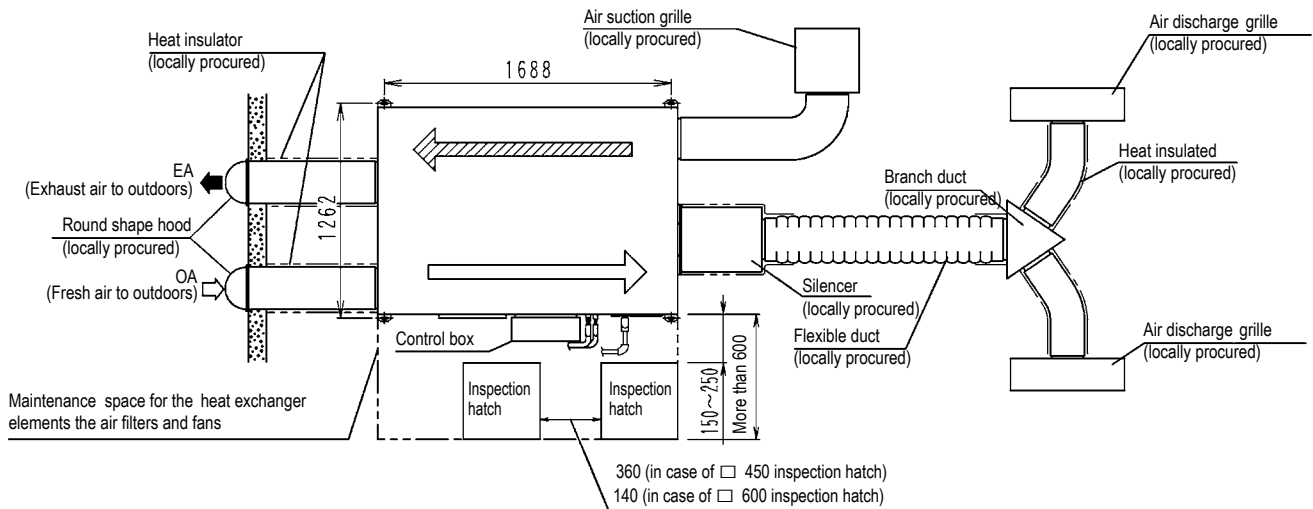
VKM80GBM



**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 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/cm<sup>2</sup> to 5 kg/cm<sup>2</sup>)
7. Make sure the supply water is between 5°C and 40°C in temperature.
8. 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 humidifier will not drop 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

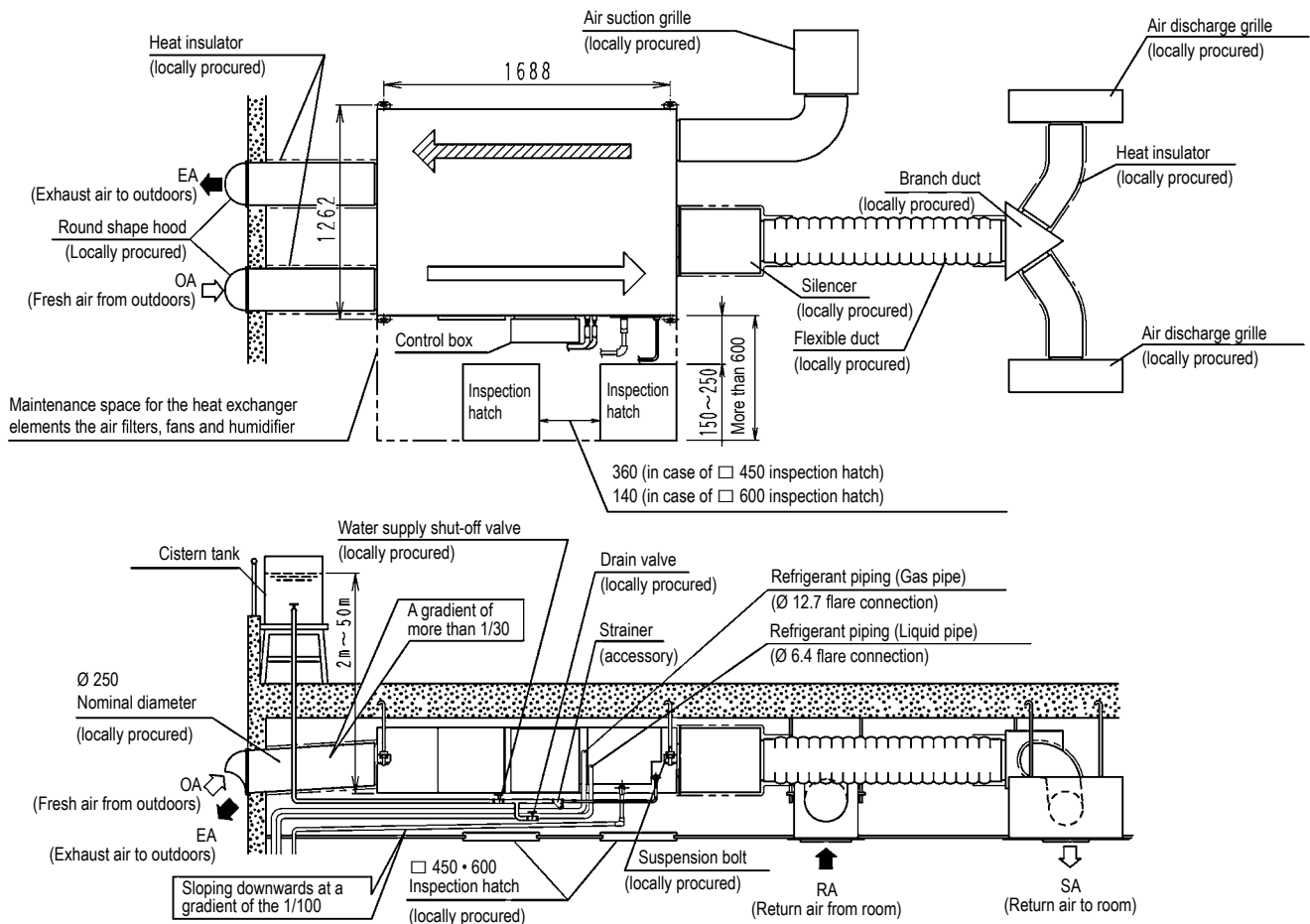


NOTES

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 prevent the 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.

3D083016

VKM100GBM



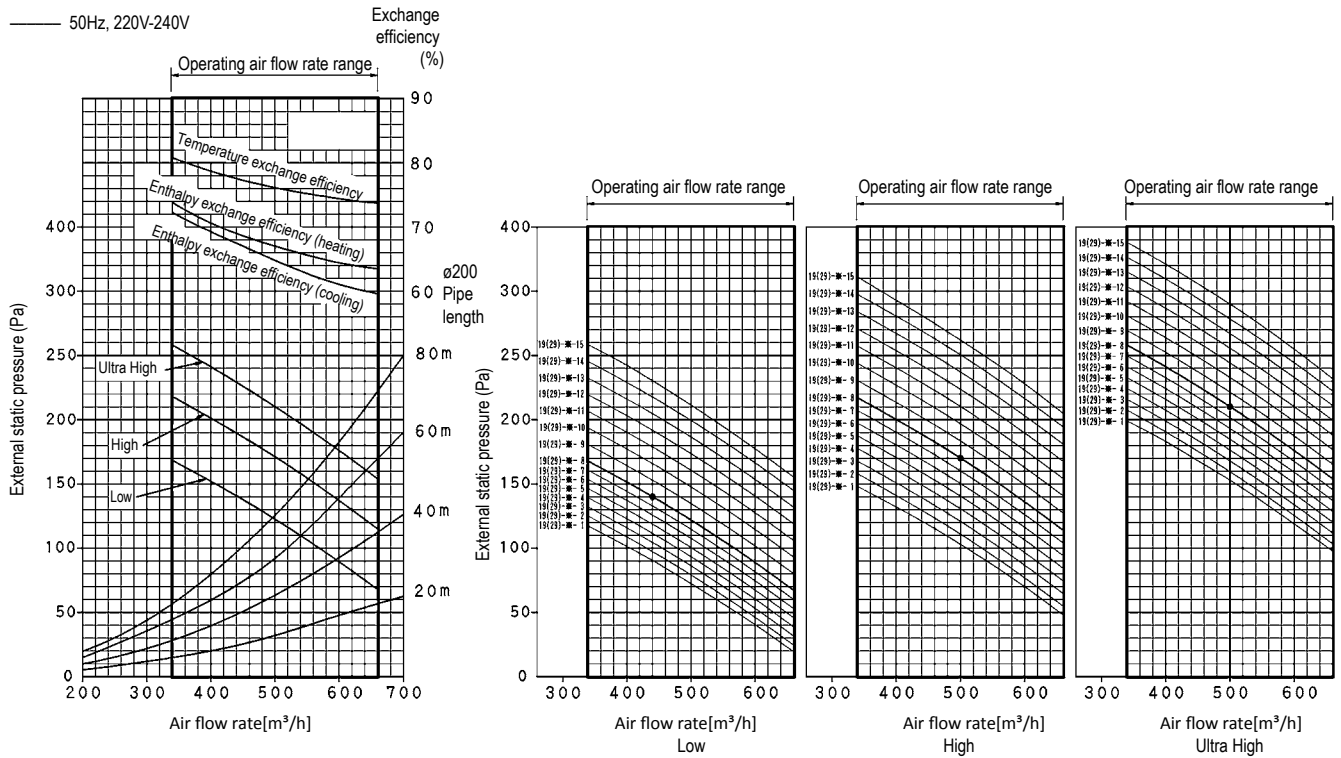
NOTES

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.)
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/cm<sup>2</sup> to 5 kg/cm<sup>2</sup>)
7. Make sure the supply water is between 5°C and 40°C in temperature.
8. 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 humidifier will not drop 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.)

3D083013



### VKM50GB

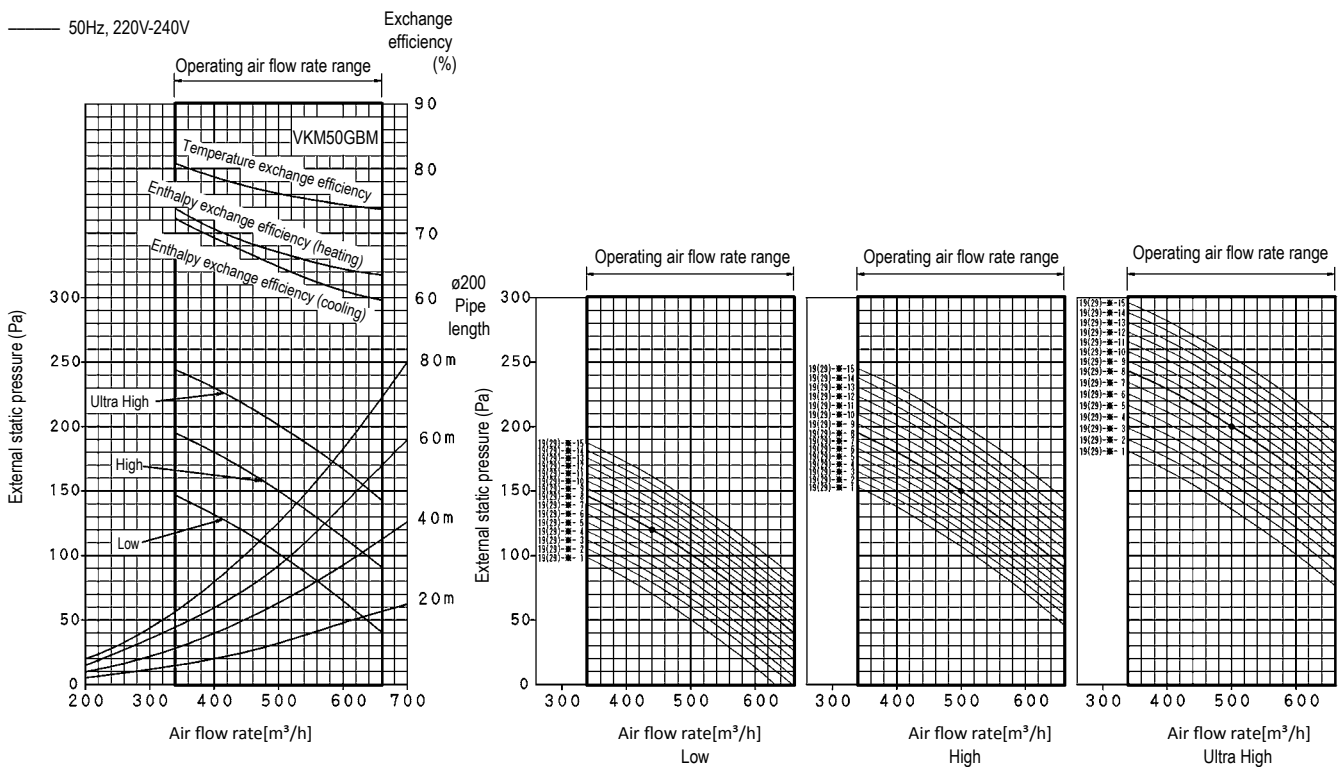


[Reading of Performance Characteristics]

- 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



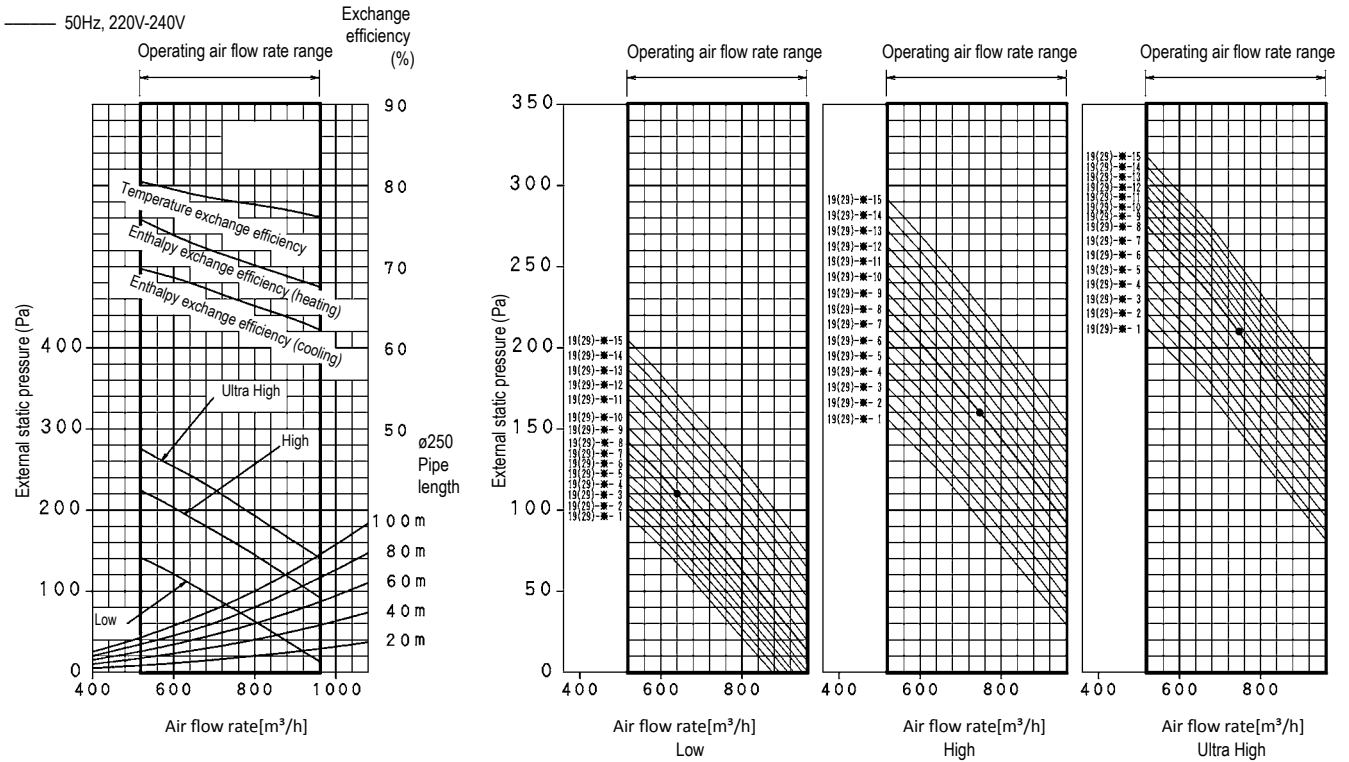
[Reading of Performance Characteristics]

- 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.

3D082901



**VKM80GB**



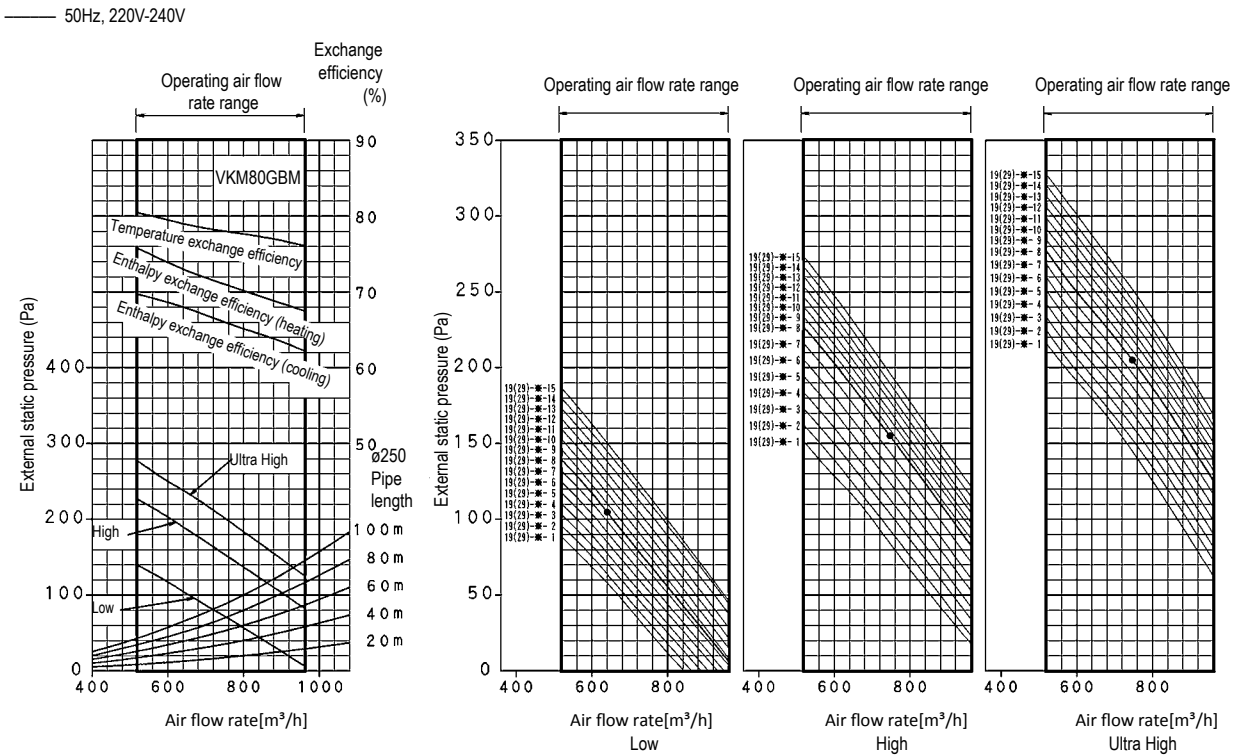
[Reading of Performance Characteristics]

- 1) For example: 19(29)-M-07  
Mode no. : 19(29)  
First code: M (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**



[Reading of Performance Characteristics]

- 1) For example: 19(29)-M-07  
Mode no. : 19(29)  
First code: M (Supply 「2」 Exhaust 「3」)  
Second code no. : 07

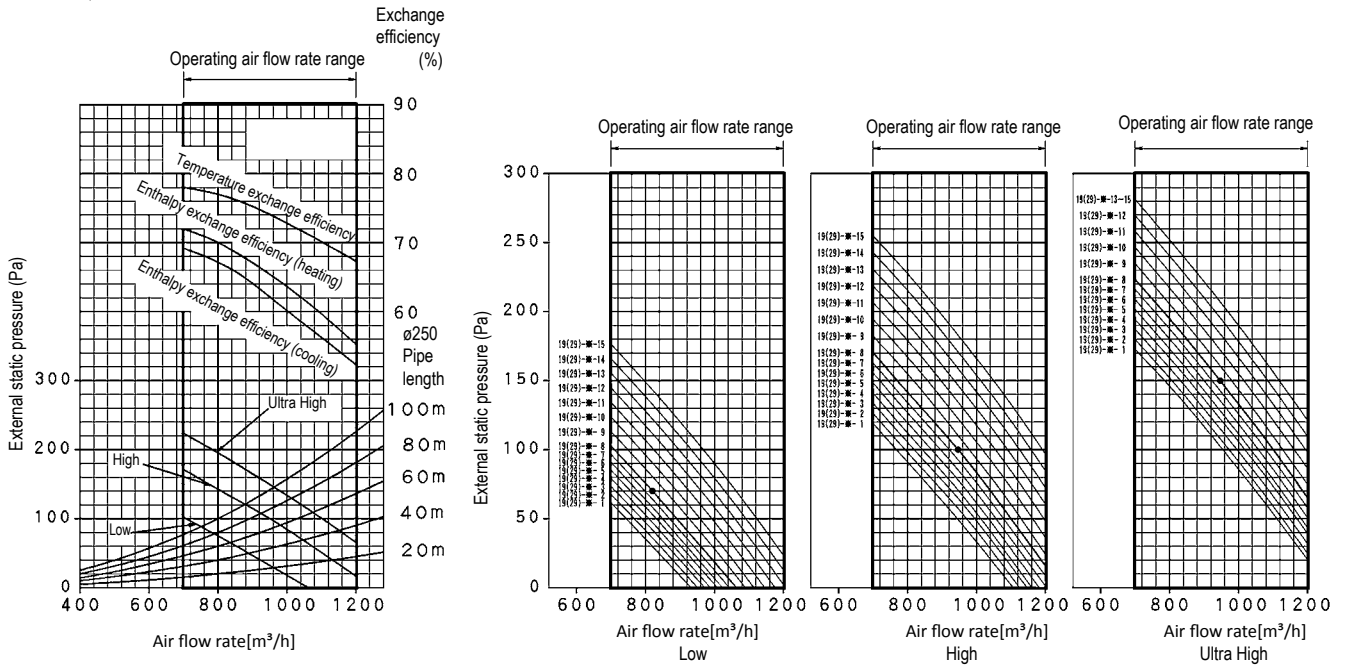
- 2) Rated point: ●
- 3) The characteristic of each tap becomes a setup of the characteristic of the same code number.

3D082902

Detailed technical drawings

VKM100GB

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

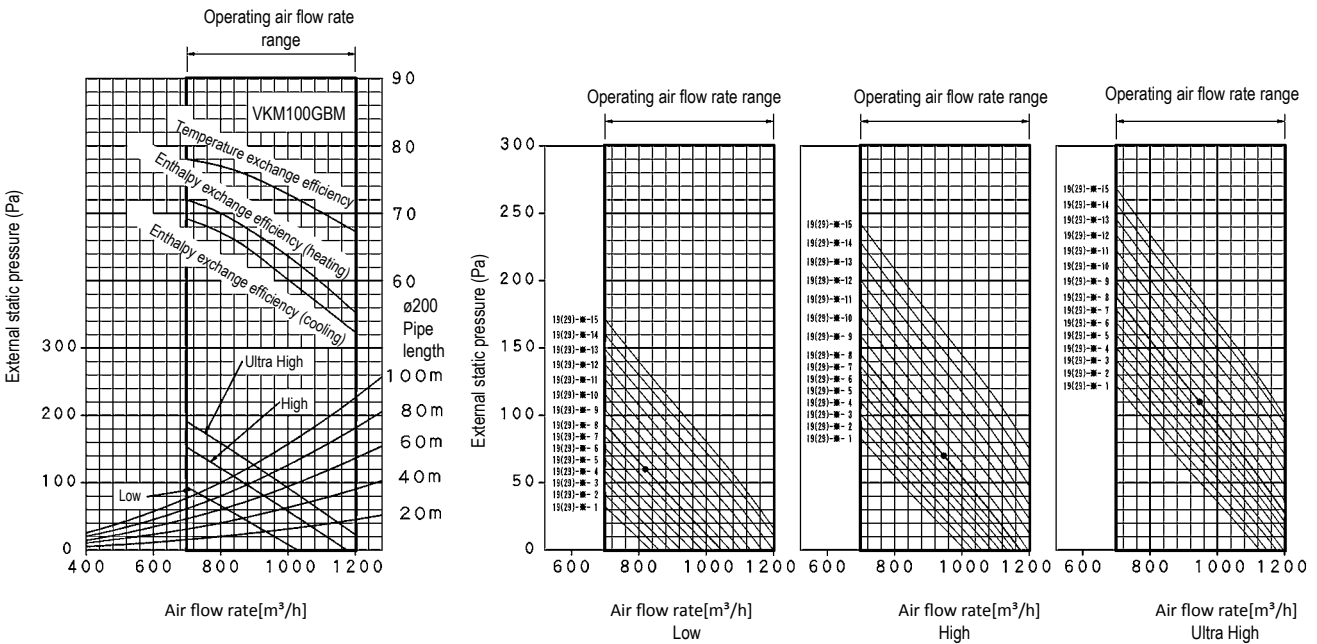
- 2) Rated point: ●
- 3) The characteristic of each tap becomes a setup of the characteristic of the same code number.

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

- 2) Rated point: ●
- 3) The characteristic of each tap becomes a setup of the characteristic of the same code number.

3D082903







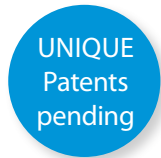
Auto cleaning filter  
for concealed ceiling units



Modular L  
Premium efficiency heat recovery unit

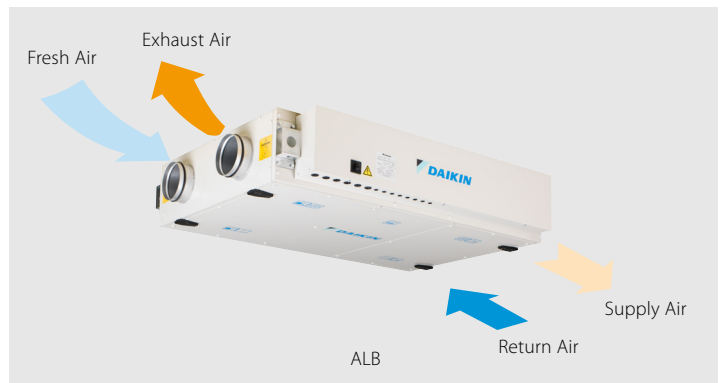
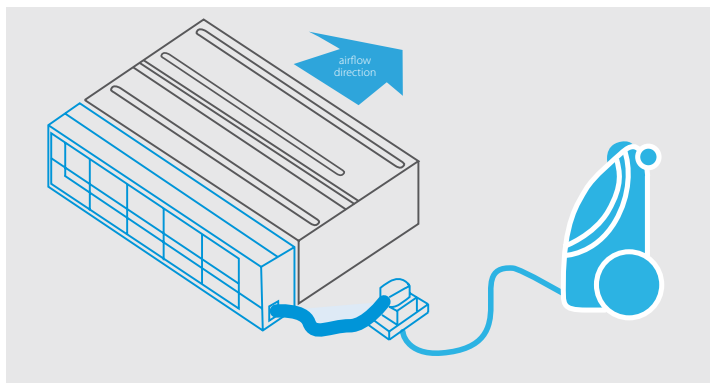
## A unique success story repeated

- ✓ Reduced running costs
- ✓ Improved room air quality
- ✓ Minimal time required for filter cleaning
- ✓ Unique technology

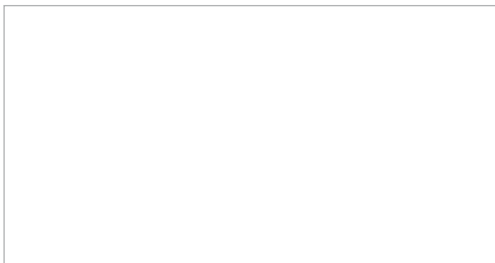


## Flexibility to meet your needs

- ✓ 6 Predefined sizes
- ✓ Compliant with VDI 6022
- ✓ Exceeding ERP 2018 requirement
- ✓ Plug & Play Controls



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