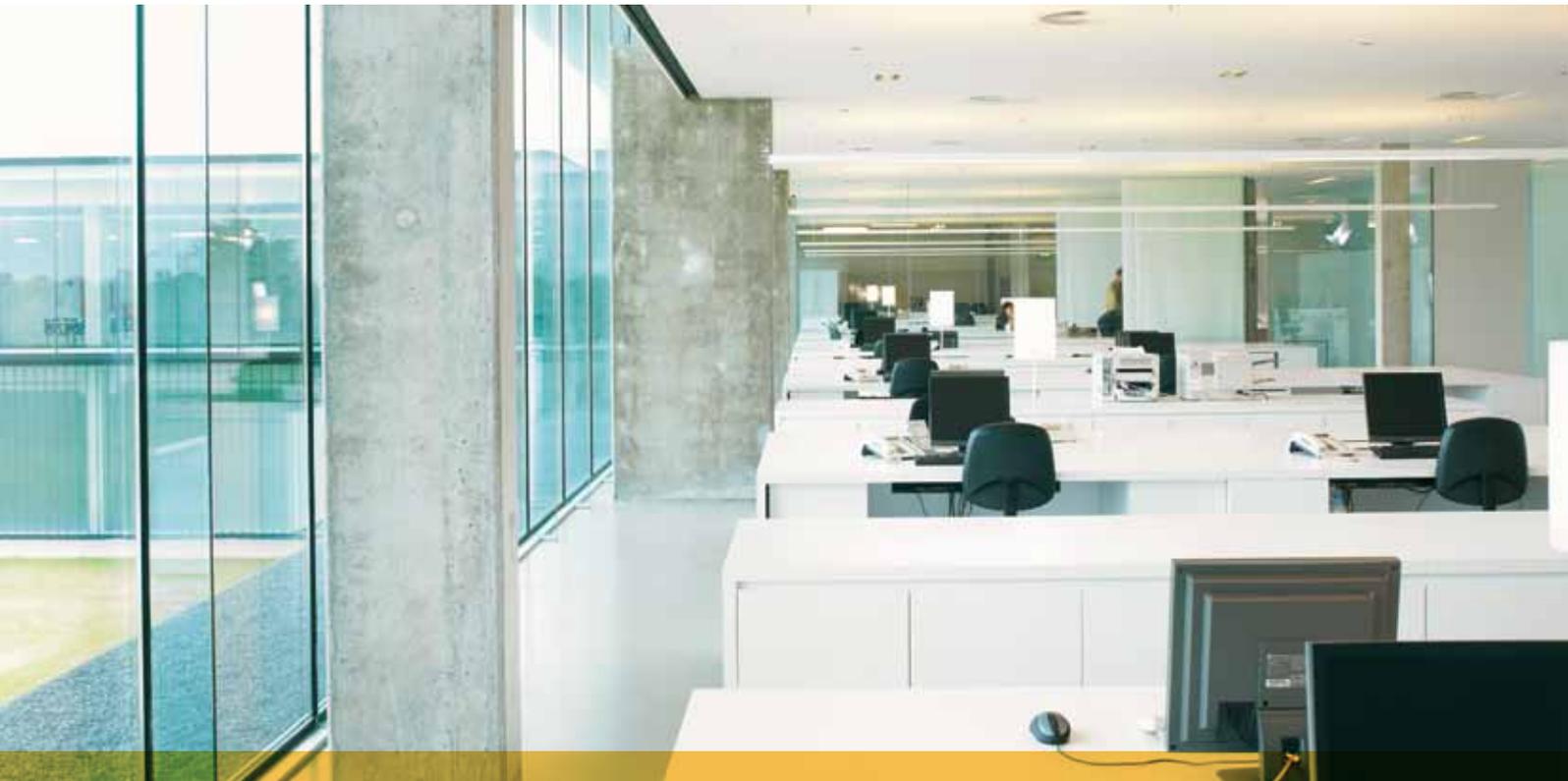




# Catalogue

All Seasons  
° CLIMATE COMFORT

- Heating
- Air Conditioning**
- Applied Systems
- Refrigeration



## BENEFITS FOR **BUILDING OWNERS**

With Daikin's proprietary inverter technology and cutting-edge control technology for refrigerant, the VRV<sup>III</sup> air conditioning system operates with outstanding efficiency. This contributes to high energy savings, which **GREATLY REDUCES YOUR RUNNING COSTS** and facilitates better building management.

## BENEFITS FOR **CONSULTANT AND DESIGN OFFICES**

Daikin's VRV<sup>®</sup> systems include indoor and outdoor units available in a wide range of models for various building sizes and installation conditions. Long refrigerant piping lengths and other features put few restrictions on design for **GREAT FLEXIBILITY** in meeting needs of the building.

## BENEFITS FOR **INSTALLERS**

Daikin offers a compact design for VRV<sup>®</sup> outdoor units by further optimising equipment functions, exceeding the norm for air conditioning systems. Compact units **FACILITATE INSTALLATION** in limited areas, such as rooftops, and take up less effective space. Easier installation work realises **FAST COMPLETION** with time to spare.

## BENEFITS FOR **END USERS**

To provide a **COMFORTABLE AIR ENVIRONMENT**, Daikin offers air treatment systems beyond mere air conditioning. As well as bringing air to a comfortable temperature, the air quality can be improved with ventilation, humidification, and other processes. **EASE OF USE** is realised through advanced, centralised control systems.



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Daikin Europe N.V.

## ABOUT DAIKIN

Daikin has a worldwide reputation based on 85 years' experience in the successful manufacture of high quality air conditioning equipment for industrial, commercial and residential use.

### Daikin quality

Daikin's much envied quality quite simply stems from the close attention paid to design, production and testing as well as aftersales support. To this end, every component is carefully selected and rigorously tested to verify its contribution to product quality and reliability.

## ENVIRONMENTAL AWARENESS

### Air Conditioning and the Environment

Air conditioning systems provide a significant level of indoor comfort, making **optimum working and living conditions** possible in the most extreme climates.

In recent years, motivated by a global awareness of the need to reduce the burdens on the environment, Daikin has invested enormous efforts in limiting the negative effects associated with the production and the operation of air conditioners.

Hence, models with **energy saving** features and improved **eco-production** techniques have seen the light of day, making a significant contribution to limiting the impact on the environment.



This sign highlights features where Daikin has invested into technologies to reduce the impact of air conditioning on the environment.

This sign can be found on pages: p 7, 22, 26, 30, 31, 34, 35, 42, 46, 70, 73



# VRV® AN ENERGY EFFICIENT APPROACH

Widely acknowledged as the **most advanced system** of its type on the market, VRV® represents a powerful combination of advanced inverter and heat pump technologies. As a reverse cycle heat pump, it can provide a **complete indoor environment** obviating the need for a separate heating system and offering output efficiency gains of up to 4:1 compared to fossil fuel based heating systems.

VRV® can switch from cooling to heating or supply both at the same time to different parts of a building. In its **heat recovery** format, heat exhausted from indoor units in the cooling cycle is merely transferred to units in areas requiring heat, **maximising energy efficiency**, reducing electricity costs and leading to **partload efficiencies up to 9<sup>1</sup>**.

Cutting edge performance figures such as these are achieved primarily as a result of the system's **inverter** controlled compressor, which modulates refrigerant flow to match required cooling and heating loads at any time. This enables system start up time to set point temperature to be reduced by about 33% and evens out room temperature fluctuations. It also reduces stop/start cycles and regulates power input and operating capacity to suit outdoor temperature variations. In short, it enhances energy efficiency and user comfort, **cuts CO<sub>2</sub> emissions** and returns **energy savings** some 30% greater than can be achieved with fixed speed control systems<sup>2</sup>.

## With the environment in mind

Daikin's internationally acknowledged environmental awareness is reflected in the launch of the remarkable replacement VRV® - replacing existing R-22 installations. As usual, Daikin has pre-empted environmental legislation banning R-22. The replacement VRV® underpins the company's philosophy of combining **high system efficiencies with energy saving and environmentally conscious solutions**. To this end the system is designed to operate at the lower pressures required by R-22 piping without compromising high efficiency levels. With a COP of 3.98 and an EER of 4.00, the efficiency of, for example, a 10HP R-410A system is some 40% greater than that of its R-22 equivalent it is replacing.

Leakage prevention is supported by the use of **brazed joints** in place of flanged and flared connections before the shut off valves as well as by brazed pressure sensors and electronic gauges instead of sensors and gauge ports. There is also on average, **10% less refrigerant content** in VRV®III compared to similar sized VRV®II systems.

Finally, considerable attention has been afforded to RoHS regulations concerning phasing out the use of lead, cadmium, hexavalent chromium, mercury, PBBs and PBDEs, including their use in components sourced from outside suppliers.

<sup>1</sup> REYQ8P8 50% cooling – 50% heating load. Conditions: outdoor temperature 11°CDB, indoor temperature: 18°CWB, 22°CDB.

<sup>2</sup> Case study Daikin on Sky Air inverter versus non-inverter.

# OVER 25 YEARS OF VRV® HISTORY



**R-22**

The original **VRV®** air conditioning system **developed by Daikin Industries Ltd.** in 1982 is **introduced into Europe** in VRV® standard format. VRV® D series can supply conditioned air from up to 6 indoor units connected to a single outdoor unit.



1987

1991

1994



1998

2003



2004



2005



In anticipation of phase out dates for all CFC based equipment, Daikin Europe steps up the production of VRV® air conditioning units using **R-407C**.



**R-407C**

Daikin Europe celebrates its 25th anniversary with the award of an **ISO14001 environmental certificate** and the introduction of VRV® Inverter series with R-407C, in cooling only or heat pump format. As many as 16 indoor units can be connected to 1 single outdoor unit.

A further step forward is taken in 1991 with the introduction of the **VRV® heat recovery** system, offering simultaneous cooling and heating from different indoor units on the same refrigeration circuit.



Consistent high quality and efficiency lead to the wide-spread acceptance of the VRV® concept and Daikin becomes the first Japanese air conditioning manufacturer to be awarded the **ISO9001** certification. Daikin applies yet another quantum leap to VRV® technology: the VRV® Inverter-H series, operate up to 16 indoor units from just 1 outdoor unit.



**R-410A**



Daikin introduces the VRV®II, the **world's first R-410A** operated variable refrigerant flow system. Available in cooling only, heat pump and heat

recovery versions, the system, which represents a considerable advance over earlier VRV® systems, demonstrates Daikin's innovative application of new technology. No less than **40 indoor units** in heat recovery as well as heat pump format can be connected to a single refrigerant circuit.

Daikin has extended the operational scope of its acclaimed VRV®II inverter driven dx air conditioning system, with a new **water cooled** version, **VRV®-WII**. Available in 10, 20 and 30HP models, the system operates on R-410A refrigerant and is available in both **heat pump** and **heat recovery** versions.

NEW „„

# 2010

Daikin has extended its VRV® range with the innovative replacement VRV® – a highly cost effective replacement for VRV® systems still operating on the soon to be banned R-22 refrigerant. This cost effective upgrade is possible because VRV®III-Q outdoor units can be installed using existing piping and in some cases existing indoor units. The system, among the first of its type, comes in heat pump and heat recovery models with capacities between 5 and 30HP and offers drastically increased efficiencies and considerable reductions in energy consumption compared to R-22 systems.



2006-2007

⋮

Daikin has announced the third generation of its much acclaimed VRV® range with the extensively re engineered **VRV®III**. Available in heat recovery, heat pump and cooling versions, VRV®III incorporates all the best features of earlier VRV® systems. However, it also possesses a considerable number of new design, installation and maintenance refinements as **automatic charging and testing**.

Up to **64 indoor units** can be connected to one system.



2008

⋮

Daikin introduces a new heat pump range optimised for heating (VRV®III-C). This new range has an **extended operation range down to -25°C** and has a greatly improved COP in low ambient temperatures, with the newly developed 2-stage compressor system.



2009

⋮



Daikin has extended the VRV®III range with the re-engineered water cooled VRV®-WIII, which is available in 9 different outdoor combinations from 8 to 30HP. A **geothermal** version is also available now. This system uses geothermal heat as a **renewable energy** source and can operate down to -10°C in heating mode.



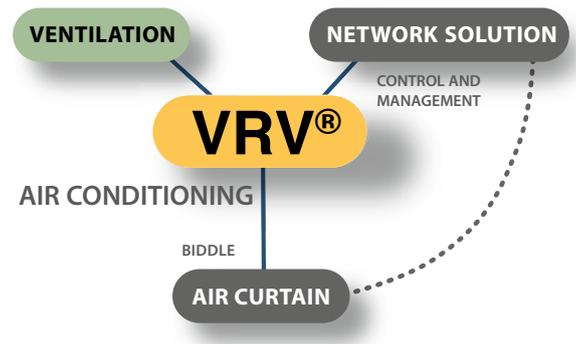
## WHAT IS **Hi-VRV** ?

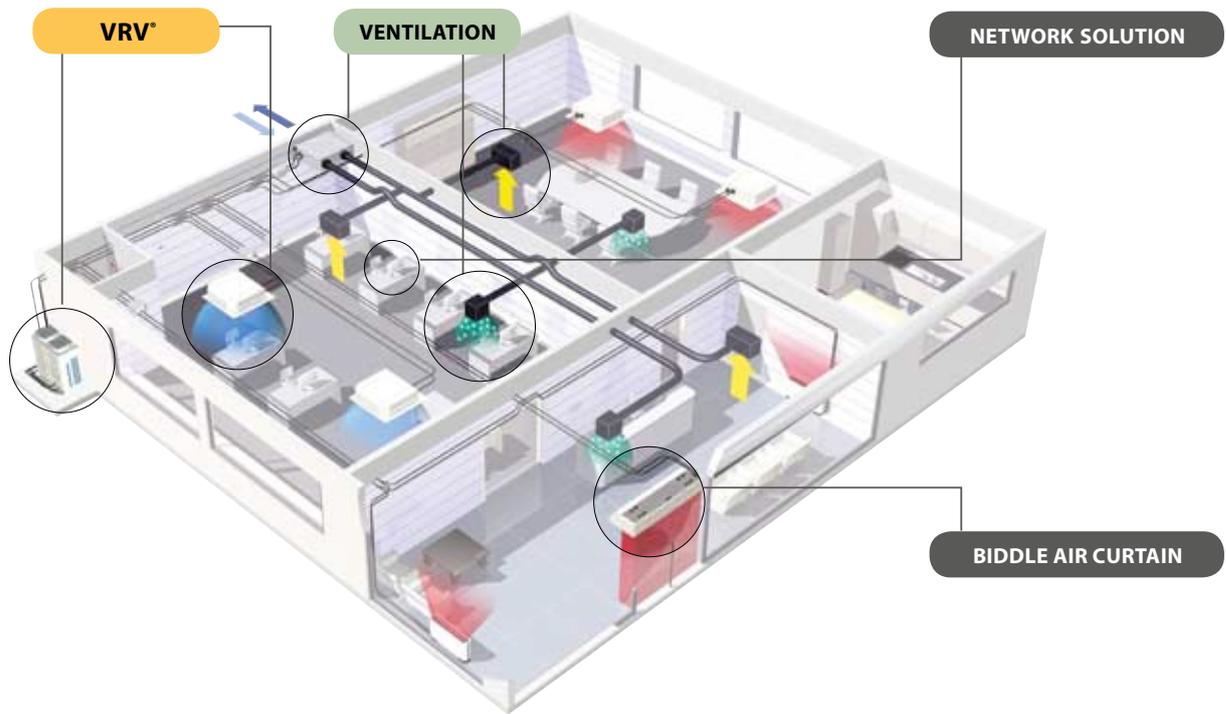
It is now accepted that the high heat gains generated by large areas of glazing in modern buildings can only be dissipated by air conditioning. Air conditioning in fact, is now perceived as an integral component of all architectural concepts that seek to provide a balanced and comfortable indoor environment. Thermal loadings are increasing still further by electronic office equipment and even in winter, temperatures can rise to uncomfortable levels. Cooling and heating demand can also fluctuate significantly throughout the day depending on a building's orientation and the number and location of its occupants.

### **A TOTAL INDOOR ENVIRONMENT SYSTEM**

End users however, expect far more than simply cooling and heating from their environment. Clearly, the most satisfactory solution is a 'total indoor environment' system which, can not only provide energy efficient temperature and humidity control but also fresh air and indoor/outdoor climate separation inherent in the new and advanced Biddle air curtain range. All these primary disciplines of course, must be regulated by sensitive state of the art central management or stand alone control systems. Only the Daikin Hi-VRV system can adequately meet all these requirements.

A built-in innovative selection programme – Daikin's top of the range software package in fact – enables the HI-VRV's multitude of features and capabilities to be exploited to the full on a step by step basis, providing the end user a comprehensive level of overall system regulation and flexibility unmatched within the building services industry.





### VARIABLE REFRIGERANT VOLUME

- › Available in heat recovery, heat pump and cooling only formats.
- › A rapid response system in which up to 64 indoor units can operate on the same refrigerant circuit.
- › An inverter driven compressor enables the output of the outdoor unit to be modulated and to control each zone individually.

### VENTILATION

Daikin offers a variety of solutions for the provision of fresh air to offices, hotels, stores and other commercial outlets – each one complementary to and as flexible as the VRV system itself.

Available systems:

- › Heat reclaim ventilation
- › Outdoor air processing unit
- › VRV air handling applications

### BIDDLE AIR CURTAIN

- › One of the first air curtain/heat recovery/heat pump combinations on the market due to the remarkable synergy between Daikin and Biddle.
- › Highly efficient solution to combat the issue of indoor/outdoor climate separation.

### NETWORK SOLUTION

**DS-net**

**Intelligent Controller**

**Intelligent Manager**

**LonWorks Interface**

**BACnet Interface**

Basic solution for control and management of up to 2,000 indoor units (Sky Air and VRV).

Allows detailed and easy monitoring and operation of VRV systems (maximum 2 x 64 control groups).

The ideal solution for full control and management of maximum 1,024 VRV indoor units.

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

Integrated control system for seamless connection between VRV and BMS systems.

# WHICH VRV® OUTDOOR SYSTEM OFFERS ME THE BEST SOLUTION?

## AIR COOLED OUTDOOR SYSTEMS

### VRV® HEAT RECOVERY



- › For simultaneous heating and cooling from one system
- › Heat exhausted from indoor units in the cooling cycle is merely transferred to units in areas requiring heat, maximising energy efficiency, reducing electricity costs and leading to high partload efficiencies (up to 9<sup>1</sup>).
- › Operation range in cooling down to -20°C (technical cooling)
- › 'High sensible mode', allows the VRV® system to work with increased sensible capacity in cooling mode resulting in higher efficiency and improved comfort.

STANDARD SERIES	OPTIMISED SOLUTIONS
<b>SMALL FOOTPRINT COMBINATION</b> › Optimized footprint within heat recovery range	<b>HIGH COP COMBINATION</b> › Top energy efficiency in Daikin heat recovery range

<sup>1</sup> REYQ8P8 50% cooling – 50% heating load. Conditions: outdoor temperature 11°CDB, indoor temperature 18°CWB, 22°CDB.

### VRV® HEAT PUMP



- › For either heating or cooling operation from one system

STANDARD SERIES	OPTIMISED SOLUTIONS
<b>SMALL FOOTPRINT COMBINATION</b> Optimized footprint within heat pump range	<b>HIGH COP COMBINATION</b> › Top energy efficiency in Daikin heat pump range
<b>VRV® HEAT PUMP WITH CONNECTION TO STYLISH INDOOR UNITS</b> › Innovative VRV® technology combined with stylish and silent indoor units	<b>VRV® HEAT PUMP OPTIMISED FOR HEATING</b> › First system in the industry developed for heating operation at low ambient conditions. › Extended operation range for heating down to -25°C › Stable heating capacity and high efficiencies at low ambient temperatures (COP > 3 at -10°C outdoor temperature)
<b>VRV®III-S HEAT PUMP</b> › Especially designed for small capacities › Space saving design	

### REPLACEMENT VRV®



- › Cost-effective upgrade from R-22/R-407C to R-410A
- › Increased energy efficiency compared to R-22/R-407C systems
- › Fast installation compared to total system replacement (re-use of existing piping and in some cases indoor units)
- › Available in heat recovery and heat pump

### VRV® COOLING ONLY

- › For cooling only operation from one system.

# WATER COOLED OUTDOOR SYSTEMS

- › Allows heat recovery within the total building, thanks to the storage of energy in the water circuit.
- › Compact design and stacked configuration possible.
- › Suitable for multi-storey and large buildings because of the hardly unlimited possibilities of water piping.
- NEW › 'High sensible mode', allows the VRV® system to work with increased sensible capacity in cooling mode resulting in higher efficiency and improved comfort.

## VRV-W HEAT RECOVERY



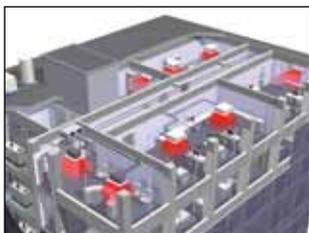
### STANDARD SERIES

- › For simultaneous heating and cooling from one refrigerant system

### GEOHERMAL SERIES

- › No need for an external heating or cooling source
- › Heating with ground sourced water as a renewable energy source
- › Extension of the operation range of inlet water temperature down to -10°C in heating mode

## VRV-W HEAT PUMP



### STANDARD SERIES

- › For either heating or cooling operation from one refrigerant system

### GEOHERMAL SERIES

- › No need for an external heating or cooling source
- › Heating with ground sourced water as a renewable energy source
- › Extension of the operation range of inlet water temperature down to -10°C in heating mode



# OVERVIEW OUTDOOR UNIT RANGE

System	Type	Product name	4	5	6	8	10	12	14	16	18
Cooling capacity (kW) <sup>1</sup>			11.2	14.0	15.5	22.4	28.0	33.5	40.0	45.0	49.0
Heating capacity (kW) <sup>2</sup>			12.5	16.0	18.0	25.0	31.5	37.5	45.0	50.0	56.5
AIR COOLED	HEAT RECOVERY	<b>VRV</b> REYHQ-P High COP combination									
		<b>VRV</b> REYQ-P8/P9 Small footprint combination									
	HEAT PUMP	<b>VRV</b> RXYHQ-P8 High COP combination									
		<b>VRV III-C</b> RTSYQ-P Heat pump optimised for heating									
		<b>VRV</b> RXYQ-P(A)/P8(A) Small footprint combination									
		<b>VRV</b> RXYQ-PR Heat pump with connection to stylish indoor units									
		<b>VRV III-S</b> RXYSQ-PAV (Single phase)									
		<b>VRV III-S</b> RXYSQ-PAY (Three phase)									
	COOLING ONLY	<b>VRV</b> RXQ-P-P(A)									
	Cooling capacity (kW) <sup>3</sup>						22.4	26.7			44.8
Heating capacity (kW) <sup>4</sup>						25.0	31.5			50.0	56.5
WATER COOLED	STANDARD SERIES H/R - H/P	<b>VRV-WIII</b> RWEYQ-P									
	GEOHERMAL SERIES H/R - H/P	<b>VRV-WIII</b> RWEYQ-PR									
System	Type	Product name	4	5	6,5	7,5	10	13	14	16	18
Capacity class				140	180		280	360		460	500
Cooling capacity (kW) <sup>1</sup>											
Heating capacity (kW) <sup>2</sup>											
NEW,,  NEW,,	REPLACEMENT VRV® HEAT RECOVERY - HEAT PUMP	<b>VRV III-Q</b> RQ(C)EQ-P VRV®III-Q - H/R									
		<b>VRV III-Q</b> RQ(C)YQ-P/RQYP-A VRV®III-Q - H/P									

<sup>1</sup> Nominal cooling capacities are based on : indoor temperature : 27°CDB, 19°CWB, inlet water temperature : 30°C, equivalent refrigerant piping : 7.5m, 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 : 7.5m, level difference : 0m.







				Capacity						
Type	Model	Product name		20	25	35	42	50	60	71
NEW »» CEILING MOUNTED CASSETTE	Roundflow ceiling mounted cassette (incl. autoclean function <sup>2</sup> )	FCQ-C8								
	4-way blow ceiling mounted cassette	FFQ-BV								
CONCEALED CEILING	Small concealed ceiling unit	FDBQ-B								
	Slim concealed ceiling unit	FDXS-E/C								
	Inverter driven concealed ceiling unit	FBQ-C								
NEW »» WALL MOUNTED	Wall mounted unit	FTXG-J CTXG-J								
	Wall mounted unit	FTXS-G								
	Wall mounted unit	FTXS-F								
CEILING SUSPENDED	Ceiling suspended unit	FHQ-B								
FLOORSTANDING	Floor standing unit	FVXS-F								
	Flexi type unit	FLXS-B								

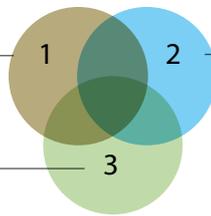
<sup>1</sup> The indoor units in the table above are only connectable to RXYQ-PR

<sup>2</sup> Decoration panel BYCQ140CG + BRC1E51A needed



# OVERVIEW VENTILATION RANGE

**Ventilation:** provision of fresh air



**Humidification:** optimise the balance between indoor and outdoor humidity

**Air processing:** optimise the balance between indoor and outdoor fresh air temperature

Type	name	Components of indoor air quality	Image	Air flow rate (m³/h)												
				0	200	400	600	800	1,000	1,500	2,000	4,000	6,000	8,000		
HEAT RECLAIM VENTILATION <sup>1</sup>	VAM-FA	1 Ventilation		[Bar chart showing range from 0 to 2,000 m³/h]												
	VKM-GM	1 Ventilation 2 Humidification 3 Air processing		[Bar chart showing range from 400 to 800 m³/h]												
	VKM-G	1 Ventilation 3 Air processing		[Bar chart showing range from 400 to 800 m³/h]												
OUTDOOR AIR PROCESSING UNIT <sup>2</sup>	FXMQ-MF	1 Ventilation 3 Air processing		[Bar chart showing range from 1,000 to 2,000 m³/h]												
VRV <sup>3</sup> AIR HANDLING APPLICATIONS <sup>4</sup>	EKEXV-kit	1 Ventilation 3 Air processing		[Bar chart showing range from 1,500 to 8,000 m³/h]												

<sup>1</sup> VKM-GM and VKM-G are not connectable to RXYQ-PR

<sup>2</sup> Not connectable to RXYQ-PR and VRV<sup>3</sup>III-S (RXYQ-PAV, RXYQ-PAY)

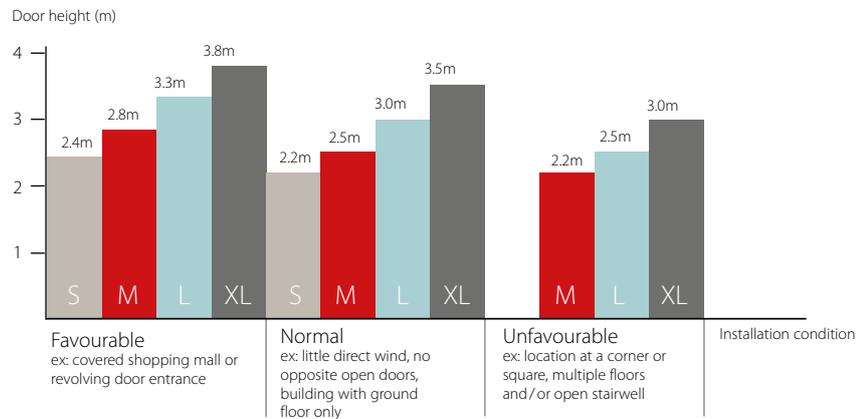
<sup>3</sup> Air flow rate is a calculated indication only, based on the following values: heating capacity EKEXV-kit \* 200m<sup>3</sup>/h

<sup>4</sup> The ventilation range is not connectable to RXYQ-PR

# OVERVIEW BIDDLE AIR CURTAIN RANGE

Type	Name	
BIDDLE COMFORT AIR CURTAIN (CA) FREE HANGING	CAVS/M/L/XL-DK-F	
BIDDLE COMFORT AIR CURTAIN (CA) CASSETTE	CAVS/M/L/XL-DK-C	
BIDDLE COMFORT AIR CURTAIN (CA) RECESSED	CAVS/M/L/XL-DK-R	

## BIDDLE COMFORT AIR CURTAIN RANGE



# OVERVIEW NETWORK SOLUTIONS

	Control				Monitoring				Options				Other control functions													
	Basic control functions: ON/OFF, temp. Setting, air flow settings	Automatic changeover	Weekly schedule control	Fire emergency stop control	Basic monitoring functions: ON/OFF status, operation mode, set point temp.	Indication filter replacement	Malfunction code	Password security	Touch screen	Daily/monthly/yearly reports	Control via GSM	Graphical report	Visualisation	Ppd	Web access & control	Http option	Eco mode	Pre cooling / heating	0°Δ Between cooling & heating	Power limit control	Sliding t° avoids overcooling via sensor	Free cooling changeover	ACNSS connection air conditioning network service system	Scheduling presets (programs)	User friendliness	Max. Indoors groups
DS-NET													+												+	4x10
INTELLIGENT TOUCH CONTROLLER													++											8	+++	2x64
INTELLIGENT MANAGER													+++											128	+++	1024
DMS-IF <sup>1</sup>													N/A												N/A	64
BACNET <sup>2</sup>													N/A												N/A	4x64

<sup>1</sup> Gateway for Lonworks networks

<sup>2</sup> Gateway for BACnet networks



# POWERFUL SELECTION PROGRAMMES

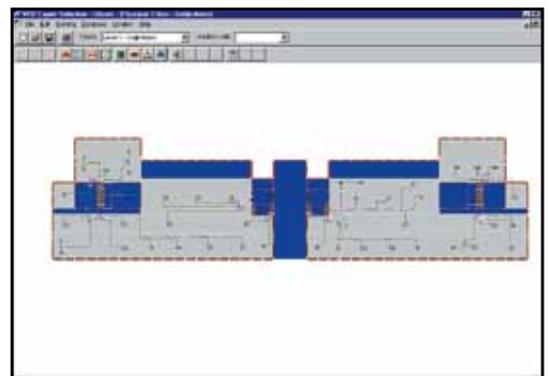
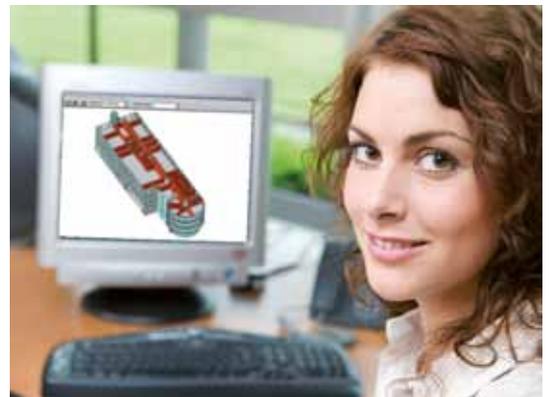
## 1. VRV® PRO, DESIGN TOOL

### FEATURES:

The VRV® Pro selection programme is a true VRV® design tool. The programme enables VRV® air conditioning systems to be engineered in a precise and economical way, taking into account the realtime thermal properties of any building. By calculating annual energy consumptions, it gives the designer the possibility to make accurate selections and get competitive quotations for each project. Moreover, it ensures optimum operating cycles and maximum energy efficiency.

**1. VRV® Pro Quick:** With a limited number of building properties, this mode allows to design the piping system using the available load calculation that was obtained from another party.

**2. VRV® Pro Expert:** To be able to make an accurate load calculation, a more extensive number of building properties is needed. After this calculation, the appropriate units are selected and a temperature simulation can be done. Next to the detailed report, there is a lot of additional, valuable information in the programme about energy consumption, related electricity expenses and behaviour of the VRV® System.

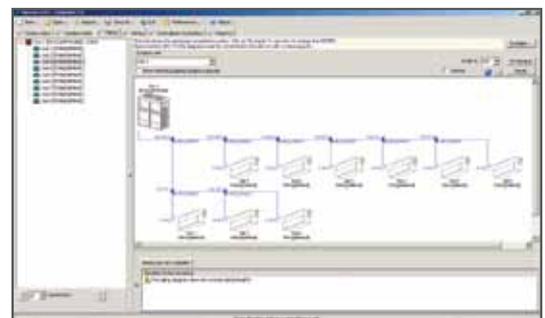




## 2. XPRESS, QUICK QUOTATION TOOL

Xpress is a software tool that allows creating on the spot quotations for a Daikin VRV<sup>®</sup> or CMS System. It provides a result in 7 steps to enable a professional budget quotation:

1. Select indoor units
2. Connect outdoor units to indoor units
3. Automatic generation of piping diagram with joints
4. Automatic generation of wiring diagram
5. Select possible centralised control systems
6. Visualise result in MS Word, MS Excel and AutoCAD
7. Save project



The Daikin Europe Academy offers specialised training courses to teach designers how to work with VRV<sup>®</sup> Pro. After this training, all attendees receive a renewable licence for 1 year. For more information about these trainings and to get your free copy of Xpress, please contact the local Daikin representative.

# AIR COOLED VRV<sup>®</sup> OUTDOOR SYSTEMS

Air cooled VRV<sup>®</sup> air conditioning was introduced to Europe by Daikin in 1987 and since then has undergone considerable development in performance, capacity, energy efficiency and environmental acceptability. Internationally regarded as one of the most **SOPHISTICATED AND VERSATILE** system of its type on the market, VRV<sup>®</sup> has in fact, become the benchmark for technologically advanced, high efficiency commercial and industrial air conditioning.

Available in third generation, heat recovery, heat pump, cold climate, mini and cooling only versions, the VRV<sup>®</sup> system is **EXTREMELY FLEXIBLE** with an operational capacity range of 5 (14.0kW) to 54HP (170.0kW) (heat pump small footprint combination) and 8 (22.4kW) to 48HP (151.0kW) (heat recovery small footprint combination) in capacity increments of just 2HP. VRV<sup>®</sup> system versatility is also underlined by its operating temperature ranges of -5°C to 46°C in cooling (VRV<sup>®</sup>III-S) and -25°C to 15°C in heating (VRV<sup>®</sup>III-C).



VRV® HEAT RECOVERY -  
HIGH COP AND SMALL FOOTPRINT COMBINATION



VRV®III-S HEAT PUMP



VRV® HEAT PUMP -  
HIGH COP AND SMALL FOOTPRINT COMBINATION  
VRV® COOLING ONLY



REPLACEMENT VRV®III HEAT RECOVERY AND HEAT PUMP



VRV® HEAT PUMP OPTIMISED FOR HEATING



VRV® HEAT PUMP WITH CONNECTION TO STYLISH INDOOR UNITS

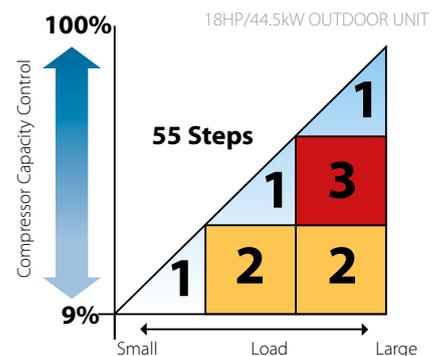
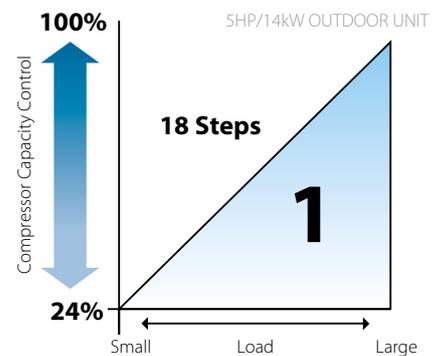
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## BENEFITS FOR BUILDING OWNERS

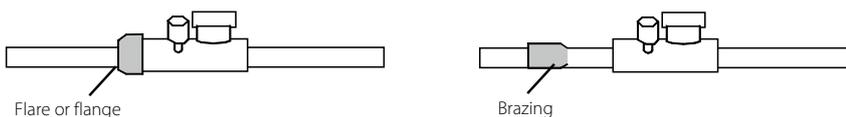
### ENERGY SAVING AND INDIVIDUAL ZONE CONTROL - INVERTER TECHNOLOGY

The linear VRV® system makes use of a variable Proportional Integral (PI) control system which uses refrigerant pressure sensors to give added control over inverter and ON/OFF control compressors in order to abbreviate control steps into smaller units to provide precise control in both small and larger areas. This in turn enables individual control of up to 64 indoor units of different capacity and type at a connection ratio of 50~130 % in comparison with outdoor units capacity. 5HP outdoor units use inverter control compressors only. 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.



### 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.



### AHEAD OF ENVIRONMENTAL LEGISLATION - ROHS COMPLIANCE

Restriction of Hazardous Substances in electrical and electronic equipment (2002/95/EC). Hazardous substances include Lead (Pb), Cadmium (Cd), Hexavalent Chromium (Cr6+), Mercury (Hg), Polybrominated biphenyls (PBB), Polybrominated diphenylether (PBDE). Although RoHS regulations are only applicable to small and large household equipment, Daikin environmental policy nevertheless ensures that VRV® will be totally in line with RoHS.

## A LONG LASTING INVESTMENT - ANTI COROSION 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.



## Improvement in corrosion resistance

Corrosion resistance rating		
	Non-treated	Anti-corrosion treated
Salt corrosion	1	5 to 6
Acid rain	1	5 to 6

## Performed tests:

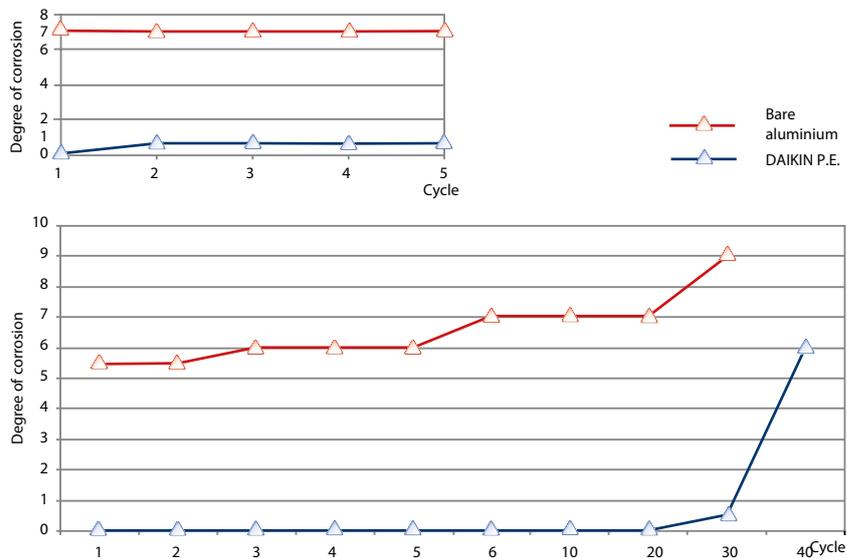
VDA Wechseltest

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 (SO<sub>2</sub>)

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



## DUTY CYCLING

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

Multiple outdoor units systems



## LOW INSTALLATION COST - 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).



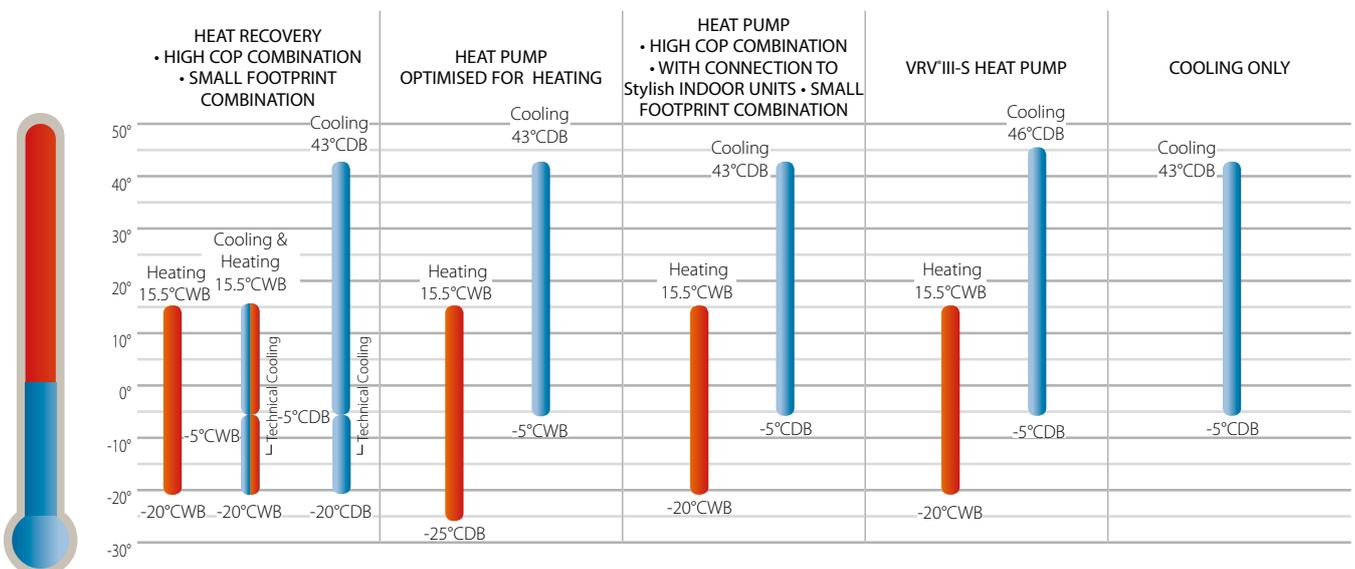
# BENEFITS FOR DESIGN OFFICES AND CONSULTANTS

## A SOLUTION FOR EVERY CLIMATE - WIDE OPERATION RANGE

The VRV® system can be installed practically anywhere.

Advanced PI(Proportional Integral) control of the outdoor unit enables VRV® series to operate at outdoor ambients up to 43°C (VRV®III-S up to 46°C) in cooling mode and down to -20°C (VRV®III-C down to -25°C) in heating mode.

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>.



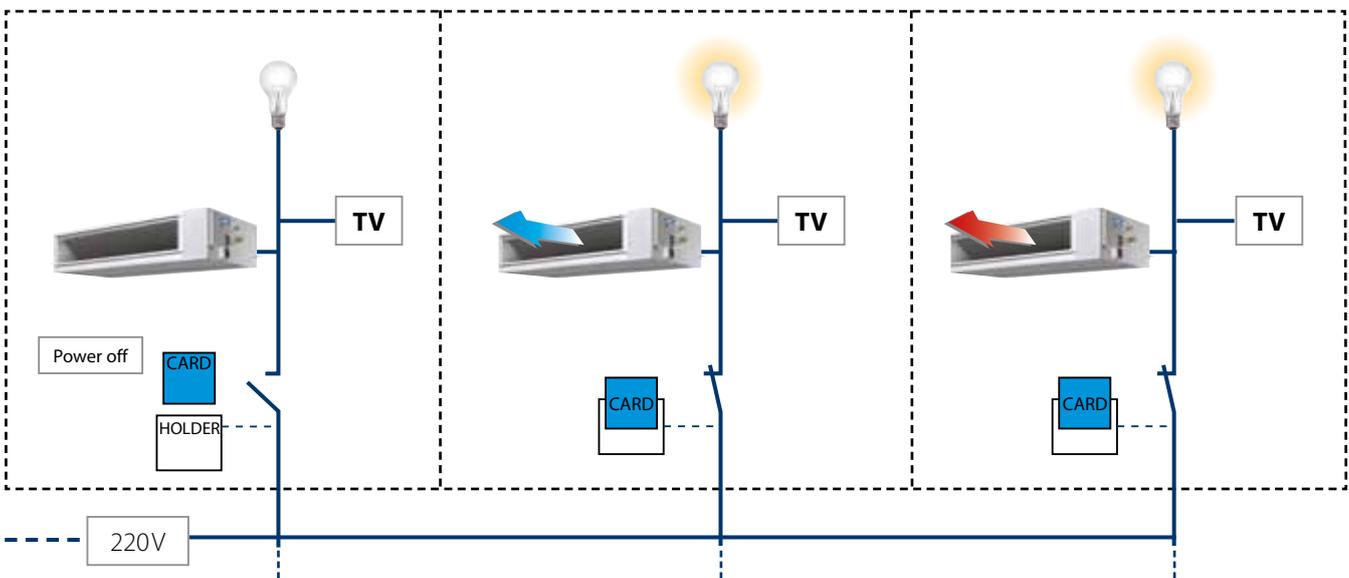
<sup>1</sup> Contact your local dealer for more information and restrictions

## MULTIPLE TENANTS, ONE OUTDOOR UNIT - MULTI TENANT FUNCTION

This 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 fuse can be turned off when leaving a hotel room, when a part of the office building is closed, ...

\* This option is available on the following indoor units: FXFQ-P9, FXZQ-M9, FXDQ-M9, FXDQ-PB, FXDQ-NB, FXSQ-P, FXMQ-P7, FXAQ-PV, FXLQ-P  
Consult the accessories table of the indoor units on necessary options.

### Typical hotel application



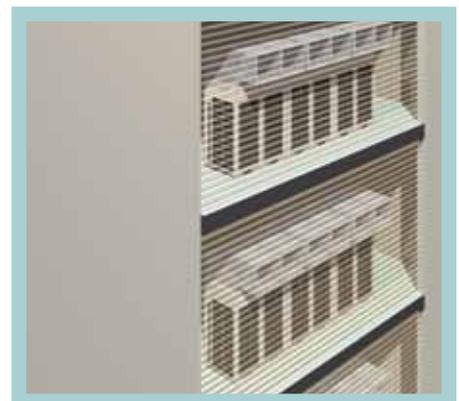
### NO STRUCTURAL REINFORCEMENT NECESSARY

Thanks to the vibration-free and sufficient light (max. 585kg for a 18HP unit) construction of the outdoor units, floors do not need to be reinforced, reducing the overall cost of the building.



### INDOOR INSTALLATION

The VRV®III optimised fan blade shape increases output and reduces pressure loss. Together with the high ESP setting (ESP up to 78pa), this makes the VRV® outdoor unit ideal for indoor installation and the use with ducts.





## BENEFITS FOR INSTALLERS



### **EASY INSTALLATION - REFRIGERANT CONTAINMENT CHECK<sup>1</sup>**

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

- › outdoor temperature
- › reference system temperatures
- › reference pressure temperatures
- › refrigerant density
- › types and number of indoor units

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.

<sup>1</sup> Not available on VRV<sup>®</sup> heat pump with connection to stylish indoor units and VRV<sup>®</sup>III-S



### **EASY REPLACEMENT - REFRIGERANT RECOVERY FUNCTION**

The refrigerant recovery function enables all expansion valves to be opened. In this way the refrigerant can be drained from the piping system.

### **SHORT INSTALLATION TIME**

Thanks to small refrigerant pipes and REFNET piping options, the VRV<sup>®</sup> piping system can be installed very easily and quickly. Installation of the VRV<sup>®</sup> system can also 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.

## AUTOMATIC CHARGE FUNCTION

### Conventional Way:

1. calculation of additional refrigerant charging volume
2. charging the unit with additional refrigerant
3. measuring the weight of the cylinder
4. judgment based on pressure (test operation)



### VRV®

With VRV® however, these 4 steps are omitted since the VRV® unit can be charged automatically with the necessary amount of refrigerant via a push button on the PCB. Automatic charging will cease once the appropriate amount of refrigerant has been transferred.

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

\* 10°C for heat pump for cold regions

\* Function not available on VRV® heat pump with connection to stylish indoor units

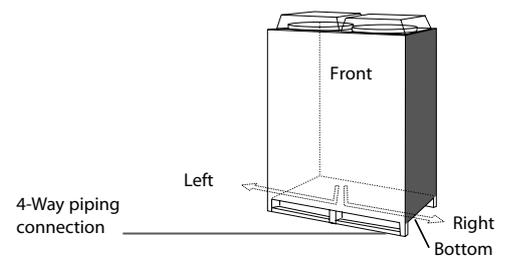
## AUTOMATIC TEST

When refrigerant charging has ceased, pushing the test operation button on the PCB will initiate a check on the wiring, shut off valves, sensors and refrigerant volume. This test ceases automatically when completed.

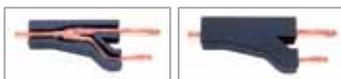
## REFRIGERANT PIPING

### 4-way piping connection

VRV® series not only offer the possibility to run piping from the front, but also from the left, right or bottom, thus providing greater freedom of layout.



## DAIKIN UNIFIED REFNET PIPING



REFNET joint

Attached insulators for REFNET joint



REFNET header

Attached insulators for REFNET header



REFNET joint

T-joint

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

The use of REFNET piping in combination with electronic expansion valves, results in a dramatic reduction in imbalance in refrigerant flowing between indoor units, despite the small diameter of the piping.

REFNET joints and headers (both accessories) can cut down on installation work and increase system reliability.

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.

## MODULAR DESIGN

Modular design enables units to be joined together in rows with an outstanding degree of uniformity. The design of the outdoor units is sufficiently compact 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.

## EASY WIRING - "SUPER WIRING" SYSTEM

### Simplified wiring

A Super Wiring system is used to enable the shared use of wiring between indoor units, outdoor units and the centralised remote control.

This system makes it easy for the user to retrofit the existing system with a centralised remote control, simply by connecting it to the outdoor units.

Thanks to a non polarity wiring system, incorrect connections become impossible and installation time is reduced.

Furthermore, outdoor units have power connection outlets on side and front, resulting in easier installation and maintenance and saving space when rows of units are connected together.



### Cross wiring check

The cross wiring check facility available on the VRV® is the first of its type in the industry to warn operatives of connection errors in inter unit wiring and piping. This function identifies and alerts system errors by means of on/off LEDs on the outdoor unit's PC boards.

### 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.

## EASY MAINTENANCE

### Self Diagnostic Function

This function operated via push button on the PCB, speeds up troubleshooting and should be used for start-up and maintenance. Disconnected thermistors, faulty solenoid valves or motor operated valves, compressor malfunctions, communication errors, etc can be diagnosed quickly.



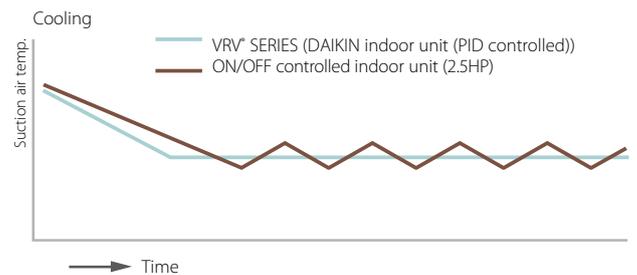




## BENEFITS FOR END USERS

### SMART CONTROL BRINGS COMFORT

An electronic expansion valve, using PID (Proportional Integral Differential) 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.

### COMFORT GUARANTEED AT ALL TIME - BACK-UP FUNCTION

In the event of a compressor malfunction, the remotely controlled or field set back-up function in the outdoor unit in question will allow emergency operation of another compressor, or another outdoor unit module in case of a multi system, in order to maintain 8 hour maximum interim capacity.



Single outdoor unit with multiple compressors

Multi outdoor unit system

### LOW INDOOR UNIT OPERATION SOUND LEVEL

- › Continuous research by Daikin into reducing operation sound levels has resulted in the development of a purpose designed inverter scroll compressor and fan.
- › Daikin indoor units have very low sound operation levels, down to 25dB(A).

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



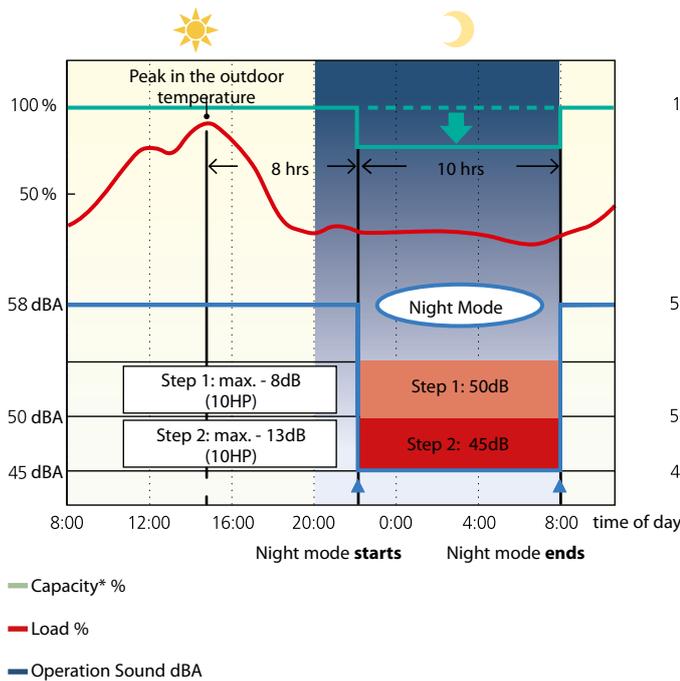
## SILENT MODE

### Outdoor Units

Quietness is another important feature. To reduce noise and ensure comfortable operation, the latest technologies and features have been applied to the outdoor units.

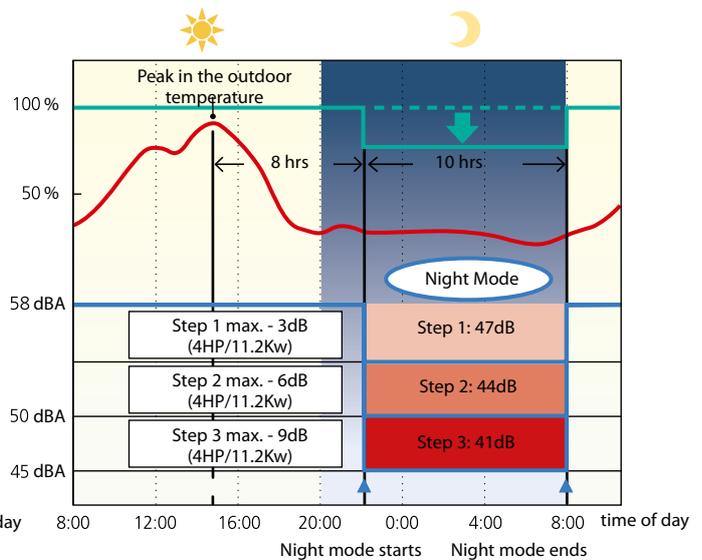
#### VRV® air cooled units

Night quiet function (max. -8dBA)



#### VRV®III-S air cooled units

Night quiet function (max. -8dBA)



Notes:

This function is available for on site setting.

The relationship between outdoor temperature (load) and time shown in the graph is merely an example.

During the night the sound level of the outdoor unit can be reduced for a certain period: starting time and ending time can be put in 2 modes<sup>1</sup> with low sound level at night:

#### › Mode 1 Automatic mode

Set on the outdoor PCB. Time of maximum temperature is memorised. The low operating mode will become active 8 hours<sup>2</sup> after the peak temperature in the daytime and operation will return to normal after 10 hours<sup>3</sup>.

#### › Mode 2 Customized mode

Starting and ending times can be put in. (External control adapter for outdoor unit, DTA104A61 or DTA104A62 and a separately ordered timer are necessary.)

Notes:

<sup>1</sup> Determine which mode to select depending on the climatic characteristics of each country.

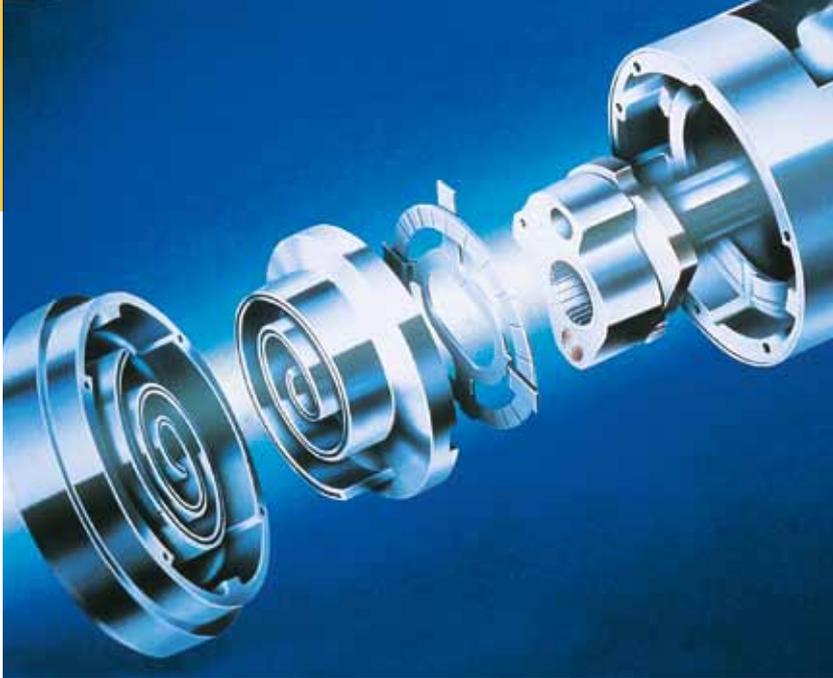
<sup>2</sup> Initial setting. Can be selected from 6, 8 and 10 hours.

<sup>3</sup> Initial setting. Can be selected from 8, 9 and 10 hours.

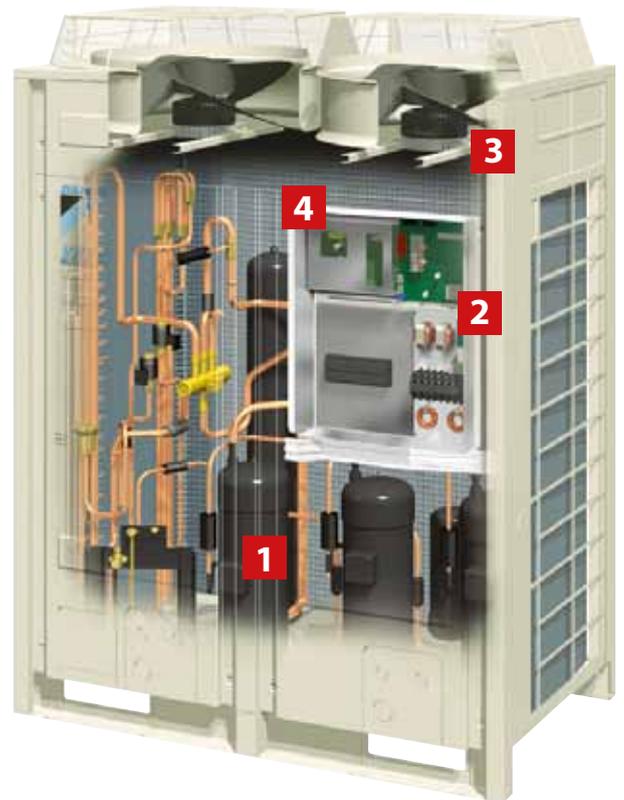
### Effect on capacity (cooling) when using silent mode

	Soundlevel		5HP	8HP	10HP	12HP	14HP	16HP	18HP
Step 1	50dB	Capacity (kW)	14.7	19.9	19.9	20.9	19.9	20.1	20.2
			100%	98%	78%	69%	55%	49%	44%
Step 2	45dB	Capacity (kW)	11.9	15.1	15.1	15.6	15.5	15.6	15.6
			93%	74%	59%	51%	43%	38%	34%

\* Data applicable for standard air cooled units



## ADVANCED AIR COOLED VRV® TECHNOLOGIES:



### **1 RELUCTANCE BRUSHLESS DC COMPRESSOR**

- › The reluctance brushless DC motor provides significant increases in efficiency compared to conventional AC inverter motors, simultaneously using 2 different forms of torque (normal and reluctance torque) to produce extra power from small electric currents.
- › **The motor comprises powerful neodymium magnets**, that efficiently generate high torque. These magnets make a major contribution to the energy saving characteristics of the motor.
- › **High thrust mechanism (VRV® heat pump and cooling only)**  
By introducing high pressure oil, the reactive force from the fixed scroll is added to the internal force, thereby reducing thrust losses. This results in improved efficiency and suppressed sound level.





# VRV® HEAT RECOVERY

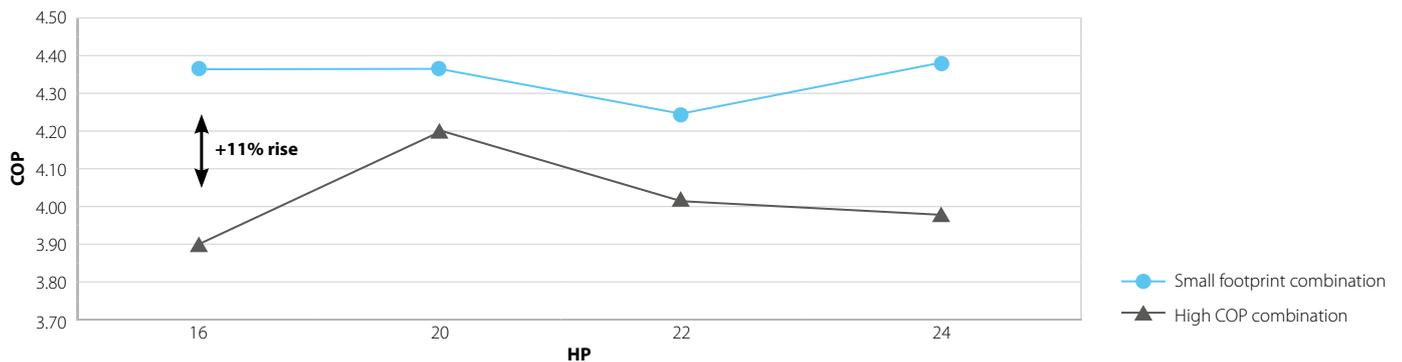
## HIGH COP AND SMALL FOOTPRINT COMBINATION

### › BENEFITS



#### TOP ENERGY EFFICIENCY

The high COP combination has a top energy efficiency within the Daikin heat recovery range. It is up to 11% more efficient, compared to the small footprint combination.



HP		16	20	22	24
<b>High COP combination</b>	combination	8 + 8	8 + 12	10 + 12	12 + 12
	COP	4.36	4.36	4.24	4.37
	EER	4.29	4.04	3.84	3.89
<b>Small footprint combination</b>	combination	16	8 + 12	10 + 12	12 + 12
	COP	3.90	4.12	4.03	3.97
	EER	3.19	3.77	3.61	3.49



## HIGH SENSIBLE MODE – YOUR SYSTEM OPTIMISED FOR THE EUROPEAN CLIMATE

The high sensible mode on the VRV® outdoor units optimises the working of the units for the European climate. This optimisation has the following benefits:

### Higher energy efficiency

As no energy is wasted on unnecessary dehumidification anymore the system will work more efficient in cooling operation.

### Higher comfort for the end-user

Thanks to the higher evaporation temperature also the discharge temperature of the indoor units will increase in cooling mode, providing a higher comfort.

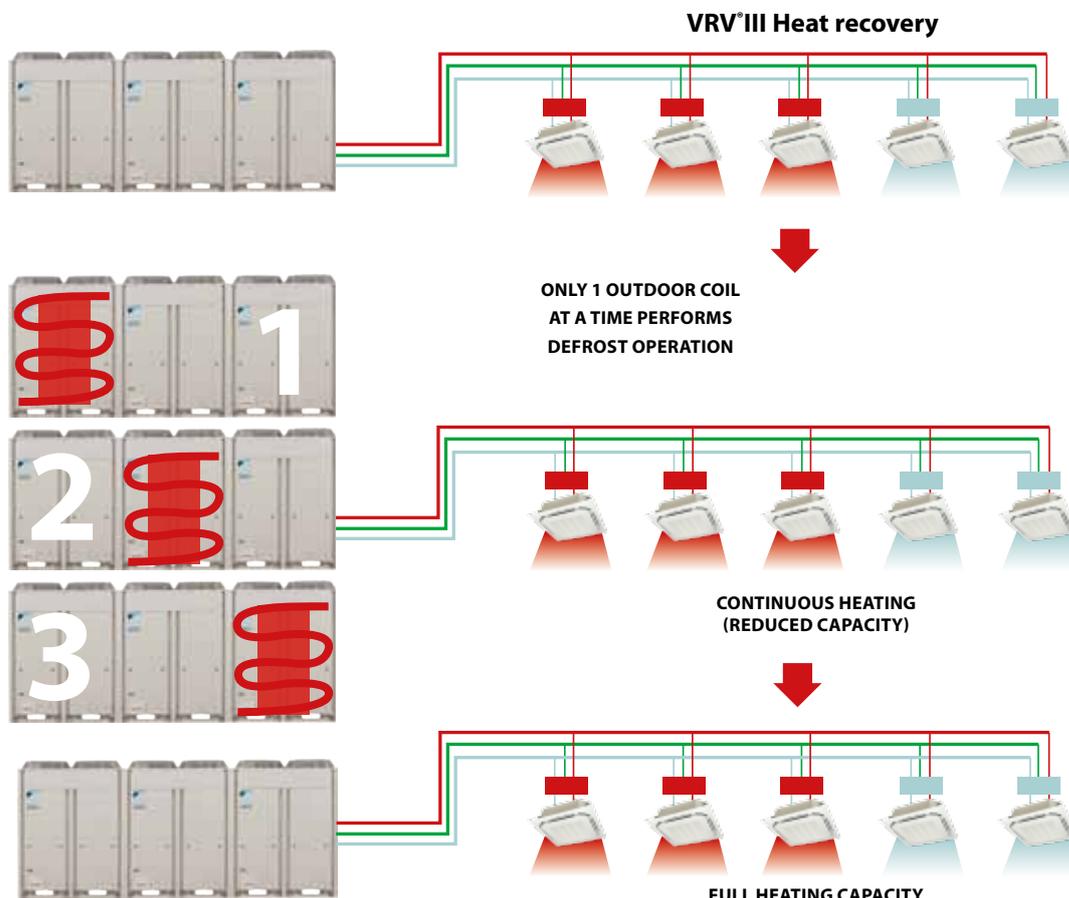
## CONTINUOUS HEATING DURING DEFROST

Ensuring the highest comfort level during defrost and oil return

### Benefits of the system

- › High comfort
  - No cold draft during defrost & oil return
  - No big temperature fluctuations in the room
- › Higher integrated heating capacity (indoor units continue to deliver heating)
  - Continuous heating during defrost results in a higher integrated heating capacity and much higher comfort levels for the users.

\* Only available for multi combination heat recovery systems (REYQ18-48P8/9, REYHQ16-24P)



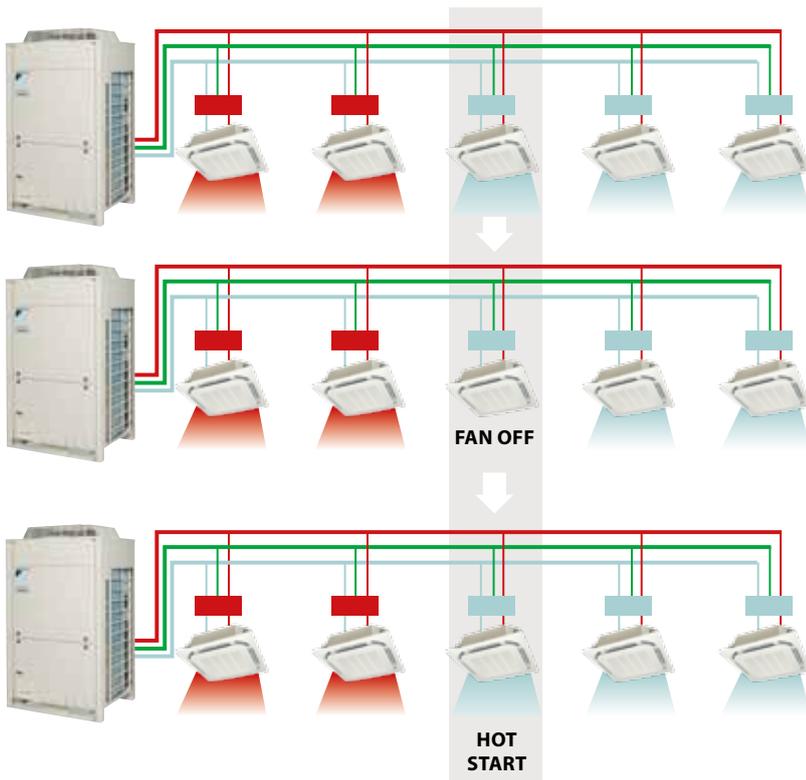
## INDIVIDUAL COMFORT THANKS TO VRV®III BS BOX

Individual change over from cooling to heating or vice versa of the indoor units is possible. This means that all indoor units who do not change over continue to provide optimum comfort for the users during this process.



## VRV®III

With the VRV®III BS box, the other indoor units can keep heating while the target indoor units are switched from cooling to heating.



## FLEXIBLE PIPING DESIGN

VRV® offers an extended piping length of 165m (190m equivalent piping length) with a total system piping length of 1,000m.

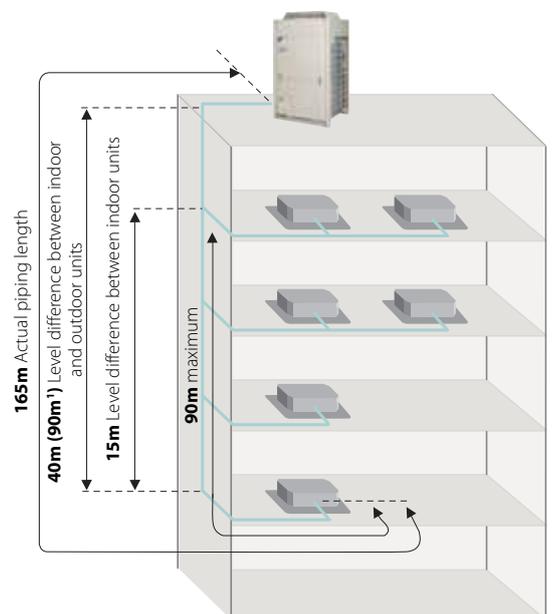
In case the outdoor unit is located above the indoor unit the height difference is 50m standard. It can be extended to 90m<sup>1</sup>.

In case the outdoor unit is located below the indoor unit, the height difference is 40m standard. Height differences up to maximum 90m are possible<sup>1</sup>.

After the first branch, the difference between the longest piping length and the shortest piping length can be maximum 40m, provided that the longest piping length amounts to maximum 90m.

<sup>1</sup> For more information, please contact your local Daikin dealer.

<sup>1</sup> Branch selectors (BS units) are not taken into account, as their installation does not influence the piping design.





## › SPECIFICATIONS

### VRV® Heat recovery - High COP combination

REYHQ-P				16	20	22	24	
Outdoor unit modules				REM08P9		REM10P8	REMHQ12P8	
Capacity range				HP	16	20	22	24
Capacity	cooling	nom.	kW	45.0	56.0	61.5	67.0	
	heating	nom.	kW	50.0	62.5	69.0	75.0	
Power input	cooling	nom.	kW	10.5	13.9	16.0	17.2	
	heating	nom.	kW	11.5	14.3	16.3	17.2	
EER	cooling			4.29	4.04	3.84	3.89	
COP	heating			4.36		4.24	4.37	
Max n° of indoor units to be connected				26	32	35	39	
Indoor index connection	minimum			200	250	275	300	
	standard			400	500	550	600	
	maximum			520	650	715	780	
Dimensions	unit	height	mm	1,680				
		width	mm	930+930	930+1,240		1,240+1,240	
		depth	mm	765				
Weight			kg	198 + 198	198 + 331	247 + 331	331 + 331	
Sound power	cooling	nom.	dB(A)	82	85		87	
Sound pressure		nom.	dB(A)	62	64		66	
Fan	type			Propeller				
	Air flow rate (nominal at 230V)	cooling	m³/min	180 + 180	180 + 230	180 + 230	230 + 230	
	external static pressure (max.)			Pa	78			
Compressor	motor	type		Hermetically sealed scroll compressor				
Operation range	cooling	min. - max.	°CDB	-5 ~ 43				
	heating	min. - max.	°CWB	-20 ~ 15				
Refrigerant	type			R-410A				
	charge			kg	8.2 + 8.2	8.2 + 11.7	9.0 + 11.7	11.7 + 11.7
	control			Electronic expansion valve				
Refrigerant oil	type			Synthetic (ether) oil				
	charge			kg	1.4 + 1.4	1.4 + 2.5	1.8 + 2.5	2.5 + 2.5
Piping connections	liquid			mm	12.7	15.9		
	gas			mm	28.6		34.9	
	discharge gas			mm	22.2	28.6		
	pressure			mm	19.1			
	max. total length			m	1,000			
	max. length between			OU-IU	165 (actual length)			
	level difference			OU-IU	50 (outdoor unit in highest position) (optional: 90)			
Power Supply				3 ~, 400V, 50Hz				

#### Notes:

Nominal cooling capacities are based on : indoor temperature : 27°CDB, 19°CWB, outdoor temperature : 35°CDB, equivalent refrigerant piping : 7.5m, level difference : 0m.

Nominal heating capacities are based on : indoor temperature : 20°CDB, 6°CWB, outdoor temperature : 7°CDB, 6°CWB, equivalent refrigerant piping : 7.5m, level difference : 0m

Sound power level is an absolute value that a sound source generates.

Sound pressure level is a relative value, depending on the distance and acoustic environment. For more details, please refer to sound level drawings.

Sound values are measured in a semi-anechoic room.



## VRV® Heat recovery - Small footprint combination

REYQ-P8/P9				8	10	12	14	16	18	20	22	24	26	28	
Outdoor unit modules	REYQ8P9			1											
	REYQ10P8				1										
	REYQ12P9					1					Not Applicable				
	REYQ14P8						1								
Outdoor unit modules	REYQ16P8							1							
	REMQ8P9								1	1					
	REMQ10P8								1		1		1		
	REMQ12P8			Not Applicable							1	1	2		1
REMQ14P8															
REMQ16P8													1	1	
Capacity range				HP	8	10	12	14	16	18	20	22	24	26	28
Capacity	cooling	nom.	kW	22.4	28.0	33.5	40.0	45.0	50.4	55.9	61.5	67.0	73.0	78.5	
	heating	nom.	kW	25.0	31.5	37.5	45.0	50.0	56.5	62.5	69.0	75.0	81.5	87.5	
Power input	cooling	nom.	kW	5.20	7.09	8.72	11.4	14.1	12.7	14.9	17.0	19.2	21.6	23.8	
	heating	nom.	kW	5.71	7.38	8.84	11.0	12.8	13.4	15.2	17.1	18.9	20.6	22.3	
EER	cooling			4.31	3.95	3.84	3.51	3.19	3.97	3.75	3.62	3.49	3.38	3.30	
COP	heating			4.38	4.27	4.24	4.09	3.91	4.20	4.12	4.04	3.97	3.96	3.92	
Max. number of connectable indoor units				13	16	19	22	26	29	32	35	39	42	45	
Indoor index connection	minimum			100	125	150	175	200	225	250	275	300	325	350	
	standard			200	250	300	350	400	450	500	550	600	650	700	
	maximum			260	325	390	455	520	585	650	715	780	845	910	
Dimensions	unit	height	mm	1,680	1,680	1,680	1,680	1,680	1,680	1,680	1,680	1,680	1,680	1,680	
		width	mm	1,300	1,300	1,300	1,300	1,300	930 + 930	930 + 930	930 + 930	930 + 930	930 + 1,240	930 + 1,240	
		depth	mm	765	765	765	765	765	765	765	765	765	765	765	
Weight			kg	331	331	331	339	339	204 + 254	204 + 254	254 + 254	254 + 254	254 + 334	254 + 334	
Sound power	cooling	nom.	dBA	78	78	80	83	84	81	83	83	83	83	83	
Sound pressure		nom.	dBA	58	58	60	62	63	61	62	63	63	63	63	
Fan	type			Propeller fan											
	air flow rate			190	190	210	235	240	180 + 185	180 + 200	185 + 200	200 + 200	185 + 230	200 + 230	
external static pressure (max.)				78											
Compressor				Hermetically sealed scroll compressor											
Operation range	cooling	min. - max.	°CDB	-5 ~ 43											
	heating	min. - max.	°CWB	-20 ~ 15.5											
Refrigerant	type			R-410A											
	charge	kg		10.3	10.6	10.8	11.1	11.1	8.2 + 9.0	8.2 + 9.1	9.0 + 9.1	9.1 + 9.1	9.0 + 11.7	9.1 + 11.7	
control				Electronic expansion valve											
Refrigerant oil	type			Synthetic ether oil											
	charge	l		*	*	*	*	*	8.2	8.4	10.4	10.6	12.6	12.8	
Piping connections	liquid	mm		9.52	9.52	12.7	12.7	12.7	15.9	15.9	15.9	15.9	19.1	19.1	
	gas	mm		19.1	22.2	28.6	28.6	28.6	28.6	28.6	28.6	34.9	34.9	34.9	
	discharge gas	mm		15.9	19.1	19.1	22.2	22.2	22.2	28.6	28.6	28.6	28.6	28.6	
	pressure equalizer tube	mm		None	None	None	None	None	19.1	19.1	19.1	19.1	19.1	19.1	
	max. total length	m		1,000											
	max. length between OU-UU	m		165 (actual length)											
level difference OU-UU	m		50 (outdoor unit in highest position) (optional: 90)												
Power supply				3~, 380-415V, 50Hz											

\* Information was not available at time of publication

REYQ-P8/P9				30	32	34	36	38	40	42	44	46	48	
Outdoor unit modules	REYQ8P9													
	REYQ10P8													
	REYQ12P9							Not Applicable						
	REYQ14P8													
	REYQ16P8													
Outdoor unit modules	REMQ8P9					1	1							
	REMQ10P8					1		1		1				
	REMQ12P8						1	1	2		1			
	REMQ14P8			1								1		
	REMQ16P8			1	2	1	1	1	1	2	2	2	3	
Capacity range				HP	30	32	34	36	38	40	42	44	46	48
Capacity	cooling	nom.	kW	85.0	90.0	95.4	101	107	112	118	124	130	135	
		heating	nom.	kW	95.0	100	107	113	119	125	132	138	145	150
Power input	cooling	nom.	kW	26.6	28.4	26.9	29.1	31.2	33.4	35.8	38.0	40.8	42.6	
		heating	nom.	kW	24.2	25.8	26.3	28.1	30.0	31.8	33.5	35.2	37.1	38.7
EER	cooling			3.20	3.17	3.56	3.48	3.43	3.35	3.30	3.26	3.19	3.17	
COP	heating			3.93	3.88	4.04	4.02	3.97	3.93	3.94	3.92	3.91	3.88	
Max. number of connectable indoor units				48	52	55	58	61	64	64	64	64	64	
Indoor index connection	minimum			375	400	425	450	475	500	525	550	575	600	
	standard			750	800	850	900	950	1000	1050	1100	1150	1200	
	maximum			975	1,040	1,105	1,170	1,235	1,300	1,365	1,430	1,495	1,560	
Dimensions	height		mm	1,680	1,680	1,680	1,680	1,680	1,680	1,680	1,680	1,680	1,680	
	width		mm	1,240 + 1,240	1,240 + 1,240	930 + 930 + 1,240	930 + 930 + 1,240	930 + 930 + 1,240	930 + 930 + 1,240	930 + 1,240 + 1,240	930 + 1,240 + 1,240	1,240 + 1,240 + 1,240	1,240 + 1,240 + 1,240	
	depth		mm	765	765	765	765	765	765	765	765	765	765	
Weight			kg	334 + 334	334 + 334	204 + 254 + 334	204 + 254 + 334	254 + 254 + 334	254 + 254 + 334	254 + 334 + 334	254 + 334 + 334	334 + 334 + 334	334 + 334 + 334	
Sound power	cooling	nom.	dB(A)	83	83	84	85	85	85	85	85	85	85	
Sound pressure		nom.	dB(A)	63	63	64	64	65	65	65	65	65	65	
Fan	type			Propeller fan										
	air flow rate			230 + 230	230 + 230	180 + 185 + 230	180 + 200 + 230	185 + 200 + 230	200 + 200 + 230	185 + 230 + 230	200 + 230 + 230	230 + 230 + 230	230 + 230 + 230	
	external static pressure (max.)			78										
Compressor	type			Hermetically sealed scroll compressor										
Operation range	cooling	min.-max.	°CDB	-5 ~ 43										
	heating	min.-max.	°CWB	-20 ~ 15.5										
Refrigerant	type			R-410A										
	charge		kg	11.7 + 11.7	11.7 + 11.7	8.2 + 9.0 + 11.7	8.2 + 9.1 + 11.7	9.0 + 9.1 + 11.7	9.1 + 9.1 + 11.7	9.0 + 11.7 + 11.7	9.1 + 11.7 + 11.7	11.7 + 11.7 + 11.7	11.7 + 11.7 + 11.7	
	control			Electronic expansion valve										
Refrigerant oil	type			Synthetic ether oil										
	charge		l	14.9	15.0	15.7	15.9	17.9	18.1	20.1	20.3	22.4	22.5	
Piping connections	liquid		mm	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	
	gas		mm	34.9	34.9	34.9	41.3	41.3	41.3	41.3	41.3	41.3	41.3	
	discharge gas		mm	28.6	28.6	28.6	28.6	34.9	34.9	34.9	34.9	34.9	34.9	
	pressure equalizer tube		mm	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	
	max. total length			1,000										
	max. length between		OU-IU	m										
level difference		OU-IU	m											
			50 (outdoor unit in highest position) (optional: 90)											
Power supply				W1										
				3~, 380-415V, 50Hz										

Notes:

Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB • outdoor temperature: 35°CDB • equivalent refrigerant piping: 7.5m • level difference: 0m

Nominal heating capacities are based on: indoor temperature: 20°CDB • outdoor temperature: 7°CDB/6°CWB • equivalent refrigerant piping: 7.5m • level difference: 0m

## Individual Branch Selector for VRV® Heat Recovery

### BSVQ-P8



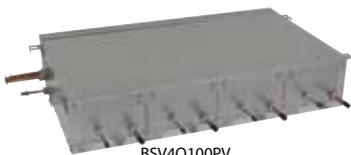
BSVQ100P8

- › High comfort levels: individual control and change over of 1 group of indoor units
- › Maximum design flexibility because individual and multi boxes can be combined in one system
- › Low built-in height
- › No drain piping needed
- › Allows multi tenant applications (option PCB required)

				BSVQ100P8	BSVQ160P8	BSVQ250P8
Maximum capacity index of connectable indoor units				20 < x ≤ 100	100 < x ≤ 160	160 < x ≤ 250
Maximum number of connectable indoor units				5	8	8
Power input	Cooling		kW	0.005		
	Heating		kW	0.005		
Dimensions	Unit	HxWxD	mm	207x388x326		
	Weight	Unit	kg	14	15	
Piping connections	Outdoor Unit	Liquid/Gas/ Discharge Gas	Type	Braze connection		
			ø mm	9.52 / 15.9 / 12.7		9.52 / 22.2 / 19.1
	Indoor Unit	Liquid/Gas	Type	Braze connection		
			ø mm	9.52 / 15.9		9.52 / 22.2
Power supply				1~/220-240V/50Hz		

## Multi Branch Selector for VRV® Heat Recovery

### BSV4/6Q-PV



BSV4Q100PV

- › Rapid installation resulting from less brazing points and wiring
- › High comfort levels: individual control and change over of up to 4 or 6 groups of indoor units
- › Maximum design flexibility because individual and multi boxes can be combined in one system
- › Low built-in height
- › No drain piping needed

				BSV4Q100PV	BSV6Q100PV
Maximum capacity index of connectable indoor units				400	600
Maximum capacity index of connectable indoor units per branch					100
Number of branches				4	6
Maximum number of connectable indoor units				20	30
Maximum number of connectable indoor units per branch				5	
Power input	Cooling		kW	0.020	0.030
	Heating		kW	0.020	0.030
Dimensions	Unit	HxWxD	mm	209x1,053x635	
	Weight	Unit	kg	60	89
Piping connections	Outdoor Unit	Liquid/Gas/ Discharge Gas	Type	Braze connection	
			ø mm	12.7 / 28.6 / 19.1	
	Indoor Unit	Liquid/Gas	Type	Braze connection	
			ø mm	9.5 / 15.9	
Power supply				1~/220-240V/50Hz	



## › ACCESSORIES

VRV <sup>®</sup> Heat recovery Stand alone combinations		REYQ8P9 REYQ10P8	REYQ12P9 REYQ14-16P8
REFNET header		KHRQ23M29H	
		-	KHRQ23M64H
		-	KHRQ23M75H
REFNET joint		KHRQ23M20T	
		KHRQ23M29T9	
		-	KHRQ23M64T
Central drain pan kit (see note 2)		KWC25C450	
Digital pressure gauge kit (see note 3)		BHGP26A1	
BS Box for H/R		BSVQ100P8B, BSVQ160P8B, BSVQ250P8B	
Central BS Box for H/R		BSV4Q100PV, BSV6Q100P	
Sound reduction kit for BSVQ Box (note 4)		EKBSVQLNP	
Wind cover (note 5)	Full set	KPS25C450	
	Top/discharge	KPS25C450T	
	Rear/Suction	KPS25C450B	
	Left/Suction	KPS26C504L	
	Right/Suction	KPS26C504R	

VRV <sup>®</sup> Heat recovery Multi combinations (Combinations of REMQ8-16P8/P9 and REMHQ12P)		REMQ8P9 REMQ10P8	REMQ12P9	REMHQ12P9 REMQ14-16P8	REYQ18-48P8/P9 REYHQ16-24P
REFNET header		KHRQ23M29H			
		-	KHRQ23M64H		KHRQ23M75H
			-		
REFNET joint		KHRQ23M20T			
		KHRQ23M29T9			
		-	KHRQ23M64T		KHRQ23M75T
Outdoor unit multi piping connection kit	for 2 outdoor units		-		BHFQ23P907
	for 3 outdoor units		-		BHFQ23P1357
Central drain pan kit (see note 2)		KWC26C280		KWC26C450	
Digital pressure gauge kit (see note 3)		BHGP26A1			
BS Box for H/R		BSVQ100P8B, BSVQ160P8B, BSVQ250P8B			
Central BS Box for H/R		BSV4Q100PV, BSV6Q100PV			
Sound reduction kit for BSVQ Box (note 4)		EKBSVQLNP			
Wind cover (note 5)	Full set	KPS26C280		KPS26C504	-
	Top/discharge	KPS26C280T		KPS26C504T	-
	Rear/Suction	KPS26C280B		KPS26C504B	-
	Left/Suction		KPS26C504L		-
	Right/Suction		KPS26C504R		-

Notes:

- All options are kits
- Central drain pan kit shall be combined based on the outdoor multi connection table
- Only 1 option per installation is needed
- Only available for standard BSVQ boxes (not possible for central BSVQ). Allows to reduce operating sound of BSVQ box (requires 1 sound kit per BSVQ box)
- Only required for technical cooling (outdoor temperature < 5°C). For more information contact your local dealer



# VRV® HEAT PUMP

## HIGH COP COMBINATION

### › BENEFITS



#### TOP ENERGY EFFICIENCY

The high COP combination has a top energy efficiency within the Daikin heat pump range. It is up to 16% more efficient compared to the small footprint combination.

HP		12	16	18	20	22	24	26	28	30	32	34	36
<b>High COP combination</b>	combination	12	8 + 8	8 + 10	8 + 12	10 + 12	8 + 8 + 8	8 + 8 + 10	8 + 10 + 10	8 + 10 + 12	8 + 12 + 12	10 + 12 + 12	12 + 12 + 12
	COP	4.37	4.50	4.27	4.42	4.24	4.50	4.34	4.44	4.31	4.40	4.29	4.37
	EER	3.89	4.29	4.00	4.05	3.84	4.29	4.09	4.12	3.96	3.99	3.85	3.89
<b>Small footprint combination</b>	combination	12	16	18	8 + 12	10 + 12	12 + 12	8 + 18	10 + 18	12 + 18	14 + 18	16 + 18	18 + 18
	COP	3.97	3.88	3.69	4.18	4.04	3.97	3.94	3.83	3.81	3.83	3.79	3.69
	EER	3.48	3.17	3.02	3.80	3.62	3.49	3.41	3.26	3.20	3.11	3.09	3.02

+16%

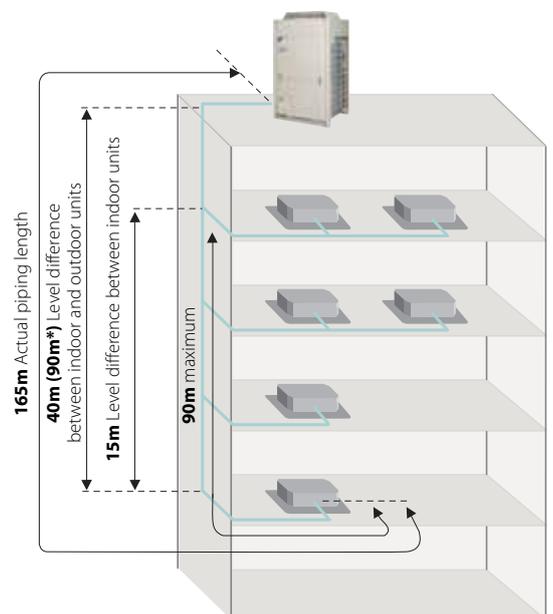
### FLEXIBLE PIPING DESIGN

VRV®III offers an extended piping length of 165m (190m equivalent piping length) with a total system piping length of 1,000m.

In case the outdoor unit is located above the indoor unit the height difference is 50m standard. It can be extended to 90m\*.

In case the outdoor unit is located below the indoor unit, the height difference is 40m standard. Height differences up to maximum 90m are possible\*.

After the first branch, the difference between the longest piping length and the shortest piping length can be maximum 40m, provided that the longest piping length amounts to maximum 90m.



\* For more information, please contact your local Daikin dealer.

## › SPECIFICATIONS

### VRV® Heat pump - High COP combination

<b>RXYHQ-P8</b>				<b>12</b>	<b>16</b>	<b>18</b>	<b>20</b>	<b>22</b>	<b>24</b>	
Outdoor unit modules	RXYQ8P8				2	1	1		3	
	RXYQ10P					1		1		
	RXYHQ12P8			1			1	1		
Capacity range			HP	12	16	18	20	22	24	
Capacity	cooling	nom.	kW	33.5	45.0	49.0	55.9	61.5	67.0	
	heating	nom.	kW	37.5	50.0	56.5	62.5	69.0	75.0	
Power input	cooling	nom.	kW	8.61	10.49	12.25	13.80	16.02	15.62	
	heating	nom.	kW	8.58	11.11	13.23	14.14	16.27	16.67	
EER	cooling			3.89	4.29	4.00	4.05	3.84	4.29	
COP	heating			4.37	4.50	4.27	4.42	4.24	4.50	
Max n° of indoor units to be connected				19	26	29	32	35	39	
Indoor index connection	minimum			150	200	225	250	275	300	
	standard			300	400	450	500	550	600	
	maximum			390	520	585	650	715	780	
Dimensions	unit	height	mm	1,680						
		width	mm	1,240	930 + 930	930 + 930	930+1,240		930+930+930	
		depth	mm	765						
Weight	unit	kg	281	187+187	187+240	187+281	240+281	187+187+187		
Sound power	cooling	nom.	dBA	80	82	82	83			
Sound pressure		nom.	dBA	60		61	62			
Fan	type			Propeller						
	air flow rate (nominal at 230V)	cooling	m³/min	233	171 + 171	171 + 185	171 + 233	185 + 233	171 + 171 + 171	
		heating	m³/min	233	171 + 171	171 + 185	171 + 233	185 + 233	171 + 171 + 171	
external static pressure (MAX)			Pa	78						
Compressor	type			Hermetically sealed scroll compressor						
Operation range	cooling	min. - max.	°CDB	-5.0 ~ 43.0						
	heating	min. - max.	°CWB	-20.0 ~ 15.0						
Refrigerant	type			R-410A						
	charge		kg	10	7.7 + 7.7	7.7 + 8.4	7.7 + 10	8.4 + 10	7.7 + 7.7 + 7.7	
	control			Expansion valve (electronic type)						
Refrigerant Oil	type			Synthetic (ether) oil						
	charged Volume			l	4.8	2.1 + 2.1	2.1 + 4.3	2.1 + 4.8	4.3 + 4.8	2.6 + 2.6 + 2.6
Piping Connections	liquid		mm	12.7	12.7	15.9	15.9	15.9	15.9	
	gas		mm	28.6	28.6	28.6	28.6	28.6	34.9	
	max. total length			m	1,000					
	max. length between			OU-IU	165 (actual length)					
	level difference			OU-IU	50 (outdoor unit in highest position) (optional: 90)					
Power supply				3N~, 400V, 50Hz						

#### Notes:

Nominal cooling capacities are based on : indoor temperature : 27°CDB, 19°CWB, outdoor temperature : 35°CDB, equivalent refrigerant piping : 7.5m, level difference : 0m.

Nominal heating capacities are based on : indoor temperature : 20°CDB, outdoor temperature : 7°CDB, 6°CWB, equivalent refrigerant piping : 7.5m, level difference : 0m

Sound level of a multi system is determined by the individual outdoor unit and installation condition

The refrigerant charge of the system must be less than 100 kg. This means that in case the calculated refrigerant charge is equal to or more than 95 kg, you must divide your multiple outdoor system into smaller independent systems, each containing less than 95 kg refrigerant charge.

For factory charge, refer to the namplate of the unit.



<b>RXYHQ-P8</b>				<b>26</b>	<b>28</b>	<b>30</b>	<b>32</b>	<b>34</b>	<b>36</b>	
Outdoor unit modules	RXYQ8P8			2	1	1	1			
	RXYQ10P			1	2	1		1		
	RXYHQ12P8					1	2	2	3	
Capacity range			HP	26	28	30	32	34	36	
Capacity	cooling	nom.	kW	71.4	77.0	82.5	89.0	94.0	98.0	
	heating	nom.	kW	81.5	88.0	94.0	102.0	107.0	113.0	
Power input	cooling	nom.	kW	17.46	18.69	20.83	22.31	24.42	25.19	
	heating	nom.	kW	18.78	19.82	21.81	23.18	24.94	25.86	
EER	cooling			4.09	4.12	3.96	3.99	3.85	3.89	
COP	heating			4.34	4.44	4.31	4.40	4.29	4.37	
Max n° of indoor units to be connected				42	45	48	52	55	58	
Indoor index connection	minimum			325	350	375	400	425	450	
	standard			650	700	750	800	850	900	
	maximum			845	910	975	1,040	1,105	1,170	
Dimensions	unit	height	mm	1,680						
		width	mm	930+930+930		930+930+1,240		930+1,240+1,240		1,240+1,240+1,240
		depth	mm	765						
Weight	unit			kg	187+187+240	187+240+240	187+240+281	187+281+281	240+281+281	281+281+281
Sound power	cooling	nom.	dBa	83				85		
Sound pressure		nom.	dBa	62	63		64		65	
Fan	type			Propeller						
	air flow rate (nominal at 230V)	cooling	m³/min	171 + 171 + 185	171 + 185 + 185	185 + 185 + 233	171 + 233 + 233	185 + 233 + 233	233 + 233 + 233	
		heating	m³/min	171 + 171 + 185	171 + 185 + 185	185 + 185 + 233	171 + 233 + 233	185 + 233 + 233	233 + 233 + 233	
external static pressure (MAX)			Pa	78						
Compressor	type			Hermetically sealed scroll compressor						
Operation range	cooling	min. - max.	°CDB	-5.0 ~ 43.0						
	heating	min. - max.	°CWB	-20.0 ~ 15.0						
Refrigerant	type			R-410A						
	charge control			kg	7.7 + 7.7 + 8.4	7.7 + 8.4 + 8.4	7.7 + 8.4 + 10	7.7 + 10 + 10	8.4 + 10 + 10	10 + 10 + 10
				Expansion valve (electronic type)						
Refrigerant Oil	type			Synthetic (ether) oil						
	charged volume			l	2.6 + 2.6 + 4.3	2.6 + 4.3 + 4.3	2.6 + 4.3 + 4.8	2.6 + 4.8 + 4.8	4.3 + 4.8 + 4.8	4.8 + 4.8 + 4.8
Piping Connections	liquid			mm	19.1	19.1	19.1	19.1	19.1	19.1
	gas			mm	34.9	34.9	34.9	34.9	34.9	41.3
	max. total length			m	1,000					
	max. length between			OU-IU	165 (actual length)					
level difference			OU-IU	50 (outdoor unit in highest position) (optional: 90)						
Power supply				3N~ / 400V / 50Hz						

Notes:

Nominal cooling capacities are based on : indoor temperature : 27°CDB, 19°CWB, outdoor temperature : 35°CDB, equivalent refrigerant piping : 7.5m, level difference : 0m.

Nominal heating capacities are based on : indoor temperature : 20°CDB, outdoor temperature : 7°CDB, 6°CWB, equivalent refrigerant piping : 7.5m, level difference : 0m

Sound level of a multi system is determined by the individual outdoor unit and installation condition

The refrigerant charge of the system must be less than 100 kg. This means that in case the calculated refrigerant charge is equal to or more than 95 kg, you must divide your multiple outdoor system into smaller independent systems, each containing less than 95 kg refrigerant charge. For factory charge, refer to the namplate of the unit.

## › ACCESSORIES

<b>VRV HEAT PUMP</b>		<b>12</b>	<b>16-36</b>
Cool/heat selector			KRC19-26A6
Fixing box			KJB111A
REFNET header			KHRQ22M29H
			KHRQ22M64H
		-	KHRQ22M75H
REFNET joint			KHRQ22M20T
			KHRQ22M29T9
			KHRQ22M64T
		-	KHRQ22M75T
Outdoor unit multi connection kit	for 2 outdoor units	-	BHFQ22P1007
	for 3 outdoor units	-	BHFQ22P1517
Central drain pan kit		KWC26B450	see note 2
Digital pressure gauge kit		BHGP26A1	see note 3
Increase height difference between indoor & outdoor to 90m (see note 5)		EKLD90P12	see note 4

1 All options are kits

2 Central drain pan kit shall be combined based on the outdoor unit combination table

3 Only 1 option per installation is needed

4 1 option per module is required

5 The option should be installed inside the outdoor unit, only needed in case outdoor unit is installed above indoor



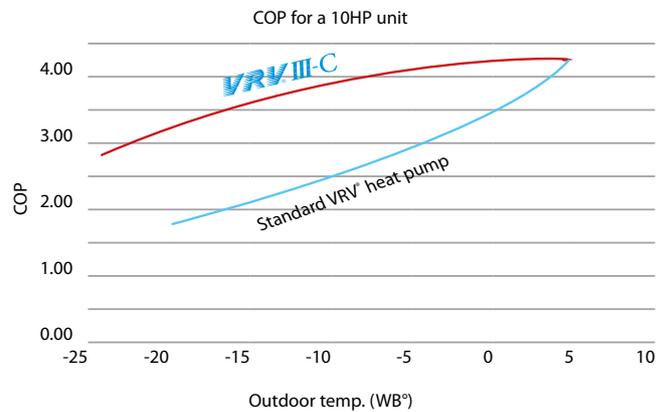
## VRV® HEAT PUMP OPTIMISED FOR HEATING (VRV®III-C)

### › BENEFITS



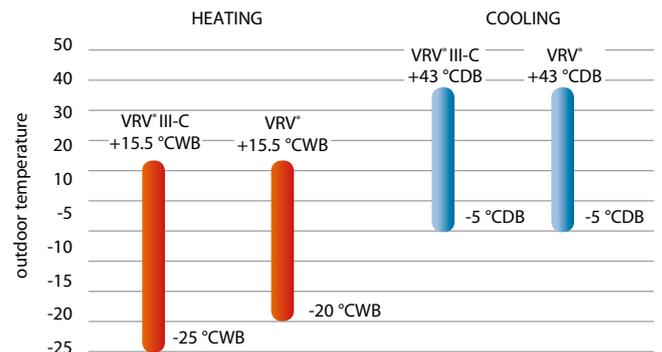
#### HIGH COP AT LOW AMBIENTS

The use of two stage compression technology results in improved energy saving performance at low ambients, with a COP of more than 3.0 at  $-10^{\circ}\text{C}$  outdoor ambient for the entire range (up to 3.8 for a 10HP unit). Annual power costs are therefore, considerably lower than those of the standard heat pump.



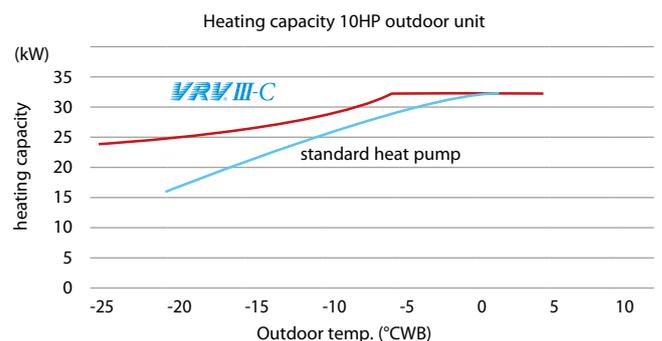
#### WIDE HEATING OPERATION RANGE

VRV®III-C is the first system on the market with a standard operation range down to  $-25^{\circ}\text{CWB}$  outdoor ambient in heating and can also provide cooling down to  $-5^{\circ}\text{CDB}$  outdoor ambient.



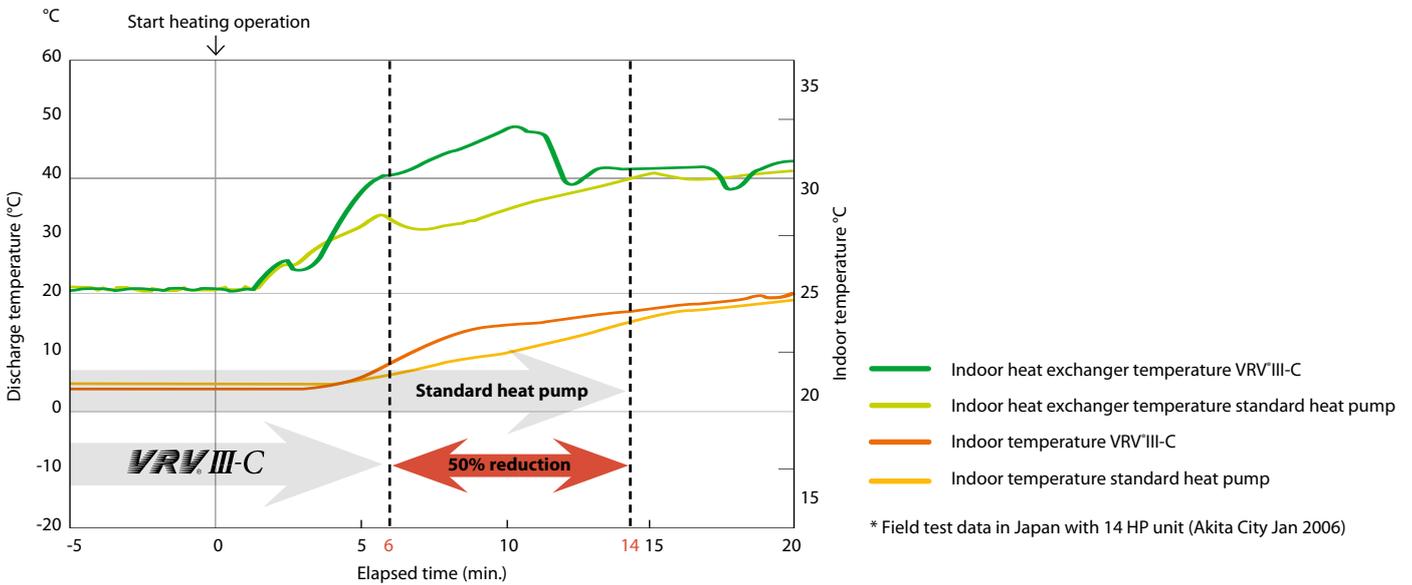
#### STABLE HEATING CAPACITY

VRV®III-C has a stable heating capacity, even in low ambients, making it suitable for single source heating. The heating capacity is 130% in comparison with the standard VRV® heating capacity under similar conditions



## HIGH HEAT UP SPEED

Heat up time is dramatically reduced, particularly under low ambient conditions. The required time for the indoor unit heat exchanger discharge temperature to reach 40°C has been reduced by 50%.



## SHORT DEFROST TIME

The time required for defrost is reduced to 4 minutes – less than half that of the standard VRV III system (10 minutes), leading to a more stable interior indoor temperature and considerably improved comfort levels.

\* Field test data in Japan with 10 HP unit (Akita City Jan 2006)

## FLEXIBLE PIPING DESIGN

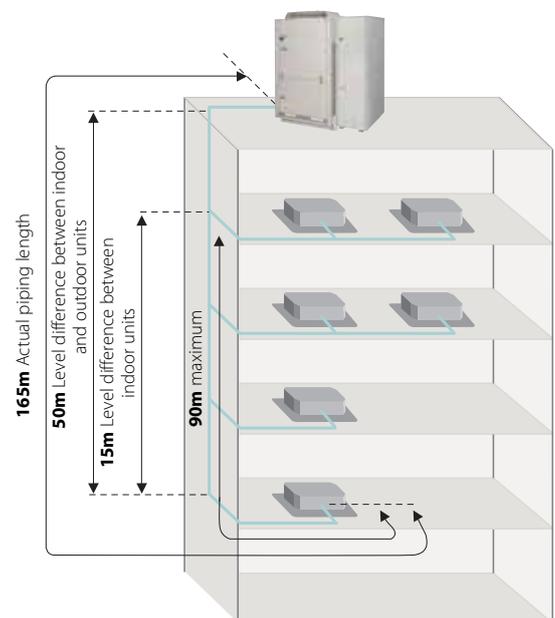
VRV III-C offers an extended piping length of 165m (190m equivalent piping length) with a total system piping length of 500m.

If the outdoor unit is located above the indoor unit, the height difference is 50m.

If the outdoor unit is located below the indoor unit, the height difference is 40m.

The distance between the outdoor unit and the function unit should be a maximum of 10m (13m equivalent piping length).

After the first branch, the difference between the longest piping length and the shortest piping length can be a maximum 40m, provided that the longest piping length amounts to a maximum of 90m.

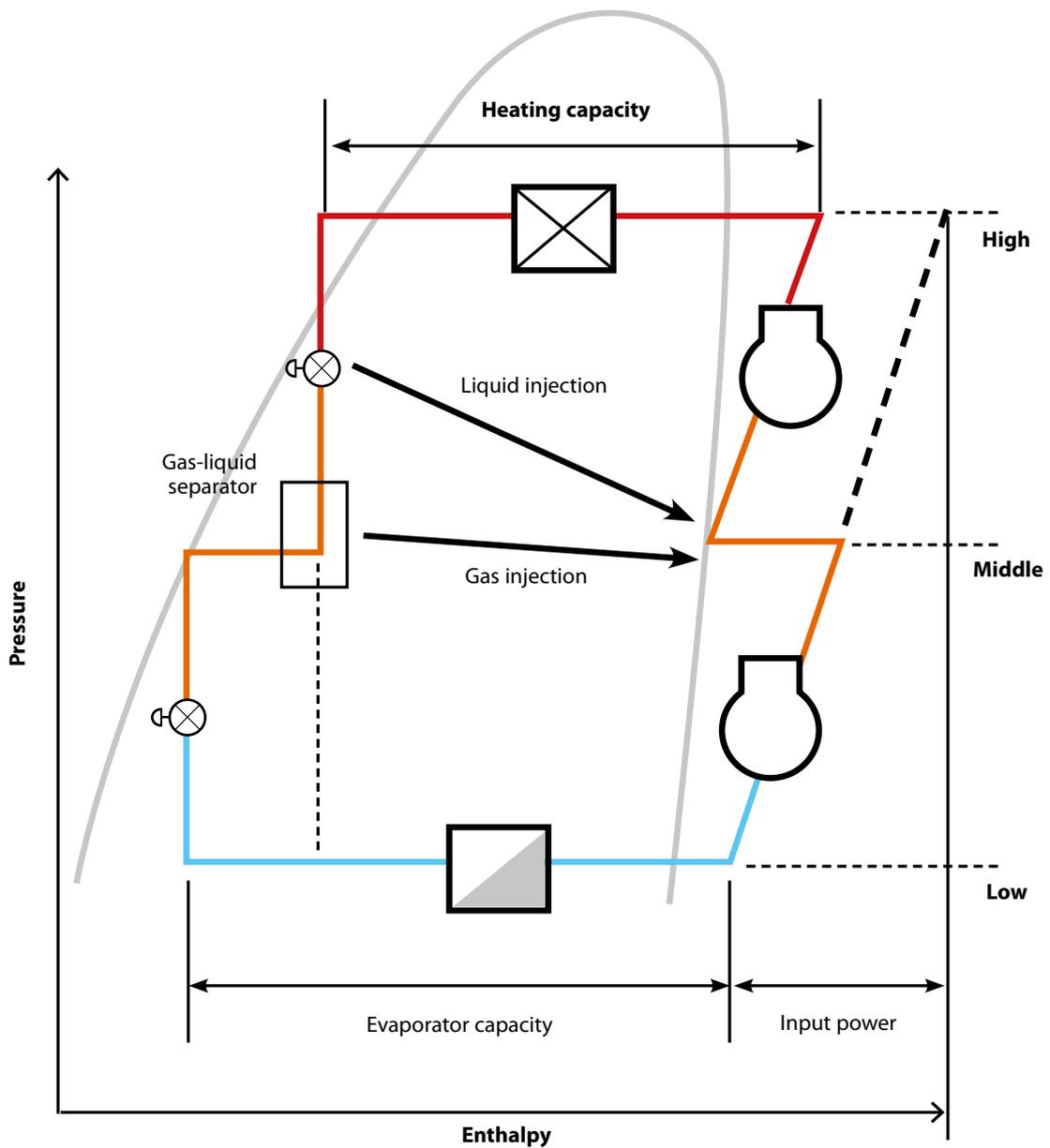


## › UNIQUE TECHNOLOGIES

### TWO STAGE COMPRESSION

Two stage compression technology enables the system to create higher pressures resulting in a higher heating capacity under low ambient conditions. The second inverter compressor (located in the function unit) is specially designed to provide higher pressures.

After heat is exchanged in the indoor unit, gas and liquid are separated at the gas-liquid separator. This enables the refrigerant in gas condition to be recovered and transmitted direct to the high pressure compressor.



## › SPECIFICATIONS

### VRV® Heat pump optimised for heating

System				RTSYQ10P	RTSYQ14P	RTSYQ16P	RTSYQ20P
Outdoor unit modules				RTSQ10P	RTSQ14P	RTSQ16P	RTSQ8P
				-	-	-	RTSQ12P
Function unit				BTSQ20P	BTSQ20P	BTSQ20P	BTSQ20P
Capacity range			HP	10	14	16	20
Capacity	cooling (outdoor temp. 27°CDB)		kW	28.0	40.0	45.0	56.0
	heating (outdoor temp. 7°CDB/6°CWB)		kW	31.5	45.0	50.0	63.0
	heating (outdoor temp. -10°CWB)		kW	28.0	40.0	45.0	56.0
Power input	cooling	nom.	kW	7.90	12.6	14.9	15.4
	heating	nom.	kW	7.70	11.3	12.9	15.3
EER	cooling			3.54	3.17	3.02	3.64
COP	heating			4.09	3.98	3.88	4.12
Max n° of indoor units to be connected				16	22	26	32
Indoor index connection	minimum			125	175	200	250
	standard			250	350	400	500
	maximum			325	455	520	650
Dimensions	unit	height	mm	1,680			
		width	mm	930	1,240		930 + 930
		depth	mm	765			
	function unit	height	mm	1,570			
		width	mm	460			
		depth	mm	765			
Weight	unit		kg	257	338	344	205 + 257
	function unit		kg	110			
Sound power	cooling	nom.	dB(A)	62	63	65	65
Sound pressure		nom.	dB(A)	60	61	63	63
Heat Exchanger	tube type			Cross fin coil			
Fan	type			Propeller			
	air flow rate (nominal at 230V)	cooling	m³/min	185	233	239	185+200
		heating	m³/min	185	233	239	185+200
	external static pressure (max)			Pa	78		
Compressor	type			Hermetically sealed scroll compressor			
	starting method			Soft start			
Operation range	cooling	min. - max.		°CDB		-5~46	
	heating	min. - max.		°CWB		-25~15.5	
Refrigerant	type			R-410A			
	charge	kg		10.5	11.7	11.7	9.4+10.9
	control			Expansion valve (electronic type)			
Refrigerant Oil	type			5			
	charged volume			5			
Piping connections	liquid (OD)	diameter (OD)	mm	9.52	12.7	12.7	15.9
	gas	diameter (OD)	mm	22.2	28.6	28.6	28.6
	oil equalizing	diameter (OD)	mm	-	-	-	19.1
	max. total length			500			
	max. length between		OU-IU	165 (actual length)			
	level difference		OU-IU	50 (outdoor unit in highest position)			
Power Supply				3~, 380-415V, 50Hz			

- Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB; outdoor temperature 35°CDB; equivalent piping length: 7.5m; level difference 0m; function unit length: 6m
- Nominal heating capacities are based on: indoor temperature: 20°CDB; outdoor temperature 7°CDB,6°CWB; equivalent piping length: 7.5m; level difference 0m; function unit length: 6m
- Nominal heating capacities are based on: indoor temperature: 20°CDB; outdoor temperature -10°CWB; equivalent piping length: 7.5m; level difference 0m; function unit length: 6m
- RTSYQ10P combined with 5x FXFQ50P, RTSYQ14P combined with 7x FXFQ50P, RTSYQ16P combined with 8x FXFQ50P, RTSYQ20P combined with 10x FXFQ50P
- data not available at time of publication

## › ACCESSORIES

		RTSYQ10P	RTSYQ14P RTSYQ16P	RTSYQ20P
Distributive piping	Refnet header	KHRQ22M29H (max.4 branch)		
		KHRQ22M29H (max.8 branch) <sup>1</sup>		
		KHRQ22M64H (max.8 branch)		
	Refnet joint	KHRQ22M20T		
		KHRQ22M29T9		
		-	KHRQ22M64T	
		-	KHRQ22M75T	
Snowbreak hood <sup>2</sup>	Kit (inlet + outlet)	KPS26C280	KPS26C504	KPS26C280*
	Air outlet	KPS26C280T	KPS26C504T	KPS26C280T*
	Left side air inlet	KPS26C504L	KPS26C504L	KPS26C504L*
	Right side air inlet	KPS26C504R	KPS26C504R	KPS26C504R*
	Back side air inlet	KPS26C280B	KPS26C504B	KPS26C280B*
Outdoor unit multi connection piping kit		-	-	BHFQ22P1007

Note: <sup>1</sup> ø25.4 gas pipe in KHRQ22M29H is not available for DENVrefnet. This is only required for the 10HP model using size up AND with an indoor connection ratio of less than 80%

<sup>2</sup> Snowbreak hoods are field supply. For technical drawings and more information contact your local Daikin dealer. Snowbreak hoods are advised to be installed when regular snowfall occurs.



## SMALL FOOTPRINT COMBINATION

### › BENEFITS

#### COMPACT COMBINATIONS PROVIDE THE SMALLEST FOOTPRINT

Compact combinations from 5 to 54 HP provide the smallest footprint. Up to 33% less installation space needed compared to the high COP combination.

HP	12	16	18	20	22	24	26	28	30	32	34	36
<b>Small footprint combination Footprint [m<sup>2</sup>]</b>	0.71	0.95	0.95	1.42	1.42	1.42	1.66	1.66	1.66	1.90	1.90	1.90
<b>High COP combination Footprint [m<sup>2</sup>]</b>	0.95	1.42	1.42	1.66	1.66	2.13	2.13	2.13	2.37	2.61	2.61	2.85
<b>Footprint ratio</b>	75%	67%	67%	86%	86%	67%	78%	78%	70%	73%	73%	67%

**33%** less space needed

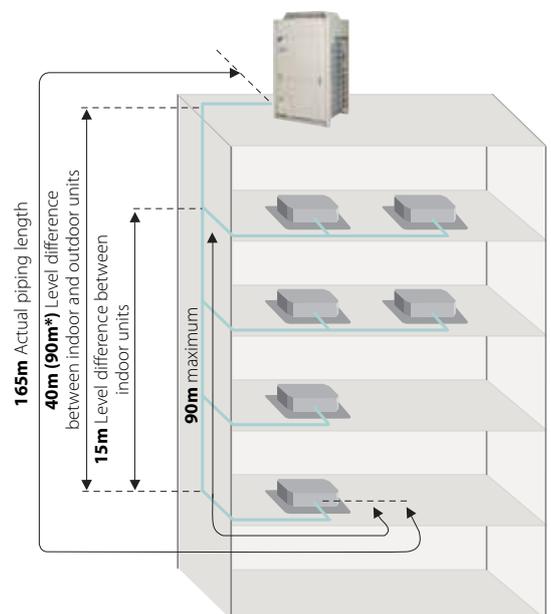
#### FLEXIBLE PIPING DESIGN

VRV® offers an extended piping length of 165m (190m equivalent piping length) with a total system piping length of 1,000m.

In case the outdoor unit is located above the indoor unit the height difference is 50m standard. It can be extended to 90m\*.

In case the outdoor unit is located below the indoor unit, the height difference is 40m standard. Height differences up to maximum 90m are possible\*.

After the first branch, the difference between the longest piping length and the shortest piping length can be maximum 40m, provided that the longest piping length amounts to maximum 90m.



\* For more information, please contact your local Daikin dealer.

## › SPECIFICATIONS

### VRV® Heat pump - Small footprint combination

RXVQ-P(A)/P8(A)				5	8	10	12	14	16	18
Outdoor unit modules	RXVQ5P			1						
	RXVQ8P8				1					
	RXVQ10P					1				
	RXVQ12P						1			
	RXVQ14PA							1		
	RXVQ16PA								1	
	RXVQ18PA									1
Capacity range			HP	5	8	10	12	14	16	18
Capacity	cooling	nom.	kW	14.0	22.4	28.0	33.5	40.0	45.0	49.0
	heating	nom.	kW	16.0	25.0	31.5	37.5	45.0	50.0	56.5
Power input	cooling	nom.	kW	3.52	5.22	7.42	9.62	12.40	14.20	16.20
	heating	nom.	kW	4.00	5.56	7.70	9.44	11.30	12.90	15.30
EER	cooling			3.98	4.29	3.77	3.48	3.23	3.17	3.02
COP	heating			4.00	4.50	4.09	3.97	3.98	3.88	3.69
Max n° of indoor units to be connected				8	13	16	19	23	26	29
Indoor index connection	minimum			62.5	100	125	150	175	200	225
	standard			125	200	250	300	350	400	450
	maximum			162.5	260	325	390	455	520	585
Dimensions	unit	height	mm	1,680	1,680	1,680	1,680	1,680	1,680	1,680
		width	mm	635	930	930	930	1,240	1,240	1,240
		depth	mm	765	765	765	765	765	765	765
Weight	unit		kg	159	187	240	240	316	316	324
Sound power	cooling	nom.	dB(A)	72	78	78	80	80	80	83
Sound pressure		nom.	dB(A)	54.0	57.0	58.0	60.0	60.0	60.0	63.0
Fan	type			Propeller						
	air flow rate (nominal at 230V)	cooling	m³/min	95	171	185	196	233	233	239
		heating	m³/min	95	171	185	196	233	233	239
external static pressure (MAX)			Pa	78						
Compressor	type			Hermetically sealed scroll compressor						
Operation range	cooling	min. - max.	°CDB	-5.0 ~ 43.0						
	heating	min. - max.	°CWB	-20.0 ~ 15.0						
Refrigerant	type			R-410A						
	charge		kg	6.2	7.7	8.4	8.6	11.3	11.5	11.7
	control			Expansion valve (electronic type)						
Refrigerant Oil	type			Synthetic (ether) oil						
	charged Volume			l	1.7	2.1	3.9	3.9	5.7	5.7
Piping Connections	liquid		mm	9.52	9.52	9.52	12.7	12.7	12.7	15.9
	gas		mm	15.9	19.1	22.2	28.6	28.6	28.6	28.6
	max. total length			m	1,000	1,000	1,000	1,000	1,000	1,000
	max. length between			OU-IU	165 (actual length)					
level difference			OU-IU	50 (outdoor unit in highest position) (optional: 90)						
Power supply				3N~, 400V, 50Hz						

#### Notes:

Nominal cooling capacities are based on : indoor temperature : 27°CDB, 19°CWB, outdoor temperature : 35°CDB, equivalent refrigerant piping : 7.5m, level difference: 0m.

Nominal heating capacities are based on : indoor temperature : 20°CDB, outdoor temperature : 7°CDB, 6°CWB, equivalent refrigerant piping : 7.5m, level difference: 0m

Sound power level is an absolute value that a sound source generates.

Sound pressure level is a relative value, depending on the distance and acoustic environment.

Sound values are measured in a semi-anechoic room.



RXYQ-P(A) / P8(A)				20	22	24	26	28	30	32	34	36	
Outdoor unit modules	RXYQ8P8			1			1						
	RXYQ10P				1			1					
	RXYQ12P			1	1	2			1				
	RXYQ14PA									1			
	RXYQ16PA										1		
RXYQ18PA						1	1	1	1	1	1	2	
Capacity range				HP	20	22	24	26	28	30	32	34	36
Capacity	cooling	nom.	kW	55.9	61.5	67.0	71.4	77.0	82.5	89.0	94.0	98.0	
		nom.	kW	62.5	69.0	75.0	81.5	88.0	94.0	102.0	107.0	113.0	
Power input	cooling	nom.	kW	14.71	16.99	19.20	20.94	23.62	25.78	28.62	30.42	32.45	
		nom.	kW	14.95	17.08	18.89	20.69	22.98	24.67	26.63	28.23	30.62	
EER	cooling			3.80	3.62	3.49	3.41	3.26	3.20	3.11	3.09	3.02	
COP	heating			4.18	4.04	3.97	3.94	3.83	3.81	3.83	3.79	3.69	
Max n° of indoor units to be connected				32	35	39	42	45	49	52	55	58	
Indoor index connection	minimum			250	275	300	325	350	375	400	425	450	
	standard			500	550	600	650	700	750	800	850	900	
	maximum			650	715	780	845	910	975	1,040	1,105	1,170	
Dimensions	unit	height	mm	1,680									
		width	mm	930 + 930			930 + 1,240			1,240 + 1,240			
		depth	mm	765									
Weight				kg	187 + 240	240 + 240		187 + 324	240 + 324		316 + 324	324 + 324	
Sound power	cooling	nom.	dB(A)	83				85				86	
Sound pressure		nom.	dB(A)	62	63		64	65			66		
Fan	type			Propeller									
	air flow rate (nominal at 230V)	cooling	m³/min	171 + 196	185 + 196	196 + 196	171 + 239	185 + 239	196 + 239	233 + 239	233 + 239	239 + 239	
		heating	m³/min	171 + 196	185 + 196	196 + 196	171 + 239	185 + 239	196 + 239	233 + 239	233 + 239	239 + 239	
external static pressure (MAX)			Pa	78									
Compressor type				Hermetically sealed scroll compressor									
Operation range	cooling	min. - max.	°CDB	-5.0 ~ 43.0									
	heating	min. - max.	°CWB	-20.0 ~ 15.0									
Refrigerant	type			R-410A									
	charge		kg	7.7 + 8.6	8.4 + 8.6	8.6 + 8.6	7.7 + 11.7	8.4 + 11.7	8.6 + 11.7	11.3 + 11.7	11.5 + 11.7	11.7 + 11.7	
control				Expansion valve (electronic type)									
Refrigerant Oil	type			Synthetic (ether) oil									
	charged volume			2.1 + 3.9	3.9 + 3.9	3.9 + 3.9	2.1 + 5.8	3.9 + 5.8	3.9 + 5.8	5.7 + 5.8	5.7 + 5.8	5.8 + 5.8	
Piping Connections	liquid		mm	15.9	15.9	15.9	19.1	19.1	19.1	19.1	19.1	19.1	
	gas		mm	28.6	28.6	34.9	34.9	34.9	34.9	34.9	34.9	41.3	
	max. total length			m	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	
	max. length between level difference		OU-IU	m	165 (actual length)								
level difference				OU-IU	50 (outdoor unit in highest position) (optional: 90)								
Power supply				3N~, 400V, 50Hz									

Notes:

Nominal cooling capacities are based on : indoor temperature : 27°CDB, 19°CWB, outdoor temperature : 35°CDB, equivalent refrigerant piping : 7.5m, level difference: 0m.

Nominal heating capacities are based on : indoor temperature : 20°CDB, outdoor temperature : 7°CDB, 6°CWB, equivalent refrigerant piping : 7.5m, level difference: 0m

Sound level of a multi system is determined by the individual outdoor unit and installation condition

The refrigerant charge of the system must be less than 100 kg. This means that in case the calculated refrigerant charge is equal to or more than 95 kg,

you must divide your multiple outdoor system into smaller independent systems,

each containing less than 95 kg refrigerant charge. For factory charge, refer to the namplate of the unit.

RXYQ-P(A)/P8(A)				38	40	42	44	46	48	50	52	54	
Outdoor unit modules	RXYQ8P8			1			1						
	RXYQ10P				1			1					
	RXYQ12P			1	1	2			1				
	RXYQ14PA									1			
	RXYQ16PAA										1		
RXYQ18PA			1	1	1	2	2	2	2	2	2	3	
Capacity range				HP	38	40	42	44	46	48	50	52	54
Capacity	cooling	nom.	kW	105.0	111.0	116.0	120.0	126.0	132.0	138.0	143.0	147.0	
	heating	nom.	kW	119.0	126.0	132.0	138.0	145.0	151.0	158.0	163.0	170.0	
Power input	cooling	nom.	kW	30.61	33.23	35.37	36.92	39.75	42.04	44.81	46.58	48.68	
	heating	nom.	kW	30.13	32.39	34.20	35.94	38.26	39.95	41.91	43.47	45.95	
EER	cooling			3.43	3.34	3.28	3.25	3.17	3.14	3.08	3.07	3.02	
COP	heating			3.95	3.89	3.86	3.84	3.79	3.78	3.77	3.75	3.70	
Max n° of indoor units to be connected				61	64	64	64	64	64	64	64	64	
Indoor index connection	minimum			475	500	525	550	575	600	625	650	675	
	standard			950	1,000	1,050	1,100	1,150	1,200	1,250	1,300	1,350	
	maximum			1,235	1,300	1,365	1,430	1,495	1,560	1,625	1,690	1,755	
Dimensions	unit	height	mm	1,680									
		width	mm	930 + 930 + 1,240			930 + 1,240 + 1,240			1,240 + 1,240 + 1,240			
		depth	mm	765									
Weight			kg	187+240+324	240 + 240 + 324	187+324+324	240 + 324 + 324	316 + 324 + 324	324+324+324				
Sound power	cooling	nom.	dB(A)	86				87				88	
Sound pressure		nom.	dB(A)	66				67				68	
Fan	type			Propeller									
	air flow rate (nominal at 230V)	cooling	m³/min	171 + 196 + 239	185 + 196 + 239	196 + 196 + 239	171 + 239 + 239	185 + 239 + 239	196 + 239 + 239	233 + 239 + 239	233 + 239 + 239	239 + 239 + 239	
		heating	m³/min	171 + 196 + 239	185 + 196 + 239	196 + 196 + 239	171 + 239 + 239	185 + 239 + 239	196 + 239 + 239	233 + 239 + 239	233 + 239 + 239	239 + 239 + 239	
external static pressure (MAX)			Pa	78									
Compressor	type			Hermetically sealed scroll compressor									
Operation range	cooling	min. - max.	°CDB	-5.0 ~ 43.0									
	heating	min. - max.	°CWB	-20.0 ~ 15.0									
Refrigerant	type			R-410A									
	charge		kg	7.7+8.6+11.7	8.4+8.6+11.7	8.6+8.6+11.7	7.7+11.7+11.7	8.4+11.7+11.7	8.6+11.7+11.7	11.3+11.7+11.7	11.5+11.7+11.7	11.7+11.7+11.7	
Refrigerant Oil	control			Expansion valve (electronic type)									
	type			Synthetic (ether) oil									
Piping Connections	charged volume			l	2.9+3.9+5.8	3.9+3.9+5.8	3.9+3.9+5.8	2.1+5.8+5.8	3.9+5.8+5.8	3.9+5.8+5.8	5.7+5.8+5.8	5.7+5.8+5.8	5.8+5.8+5.8
	liquid	diameter (OD)		mm	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1
		gas	diameter (OD)		mm	41.3	41.3	41.3	41.3	41.3	41.3	41.3	41.3
	max. total length			m	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
	max. length between		OU-IU	m	165 (actual length)								
level difference		OU-IU	m	50 (outdoor unit in highest position) (optional: 90)									
Power supply				3N~, 400V, 50Hz									

Notes:

Nominal cooling capacities are based on : indoor temperature : 27°CDB, 19°CWB, outdoor temperature : 35°CDB, equivalent refrigerant piping: 7.5m, level difference: 0m.

Nominal heating capacities are based on : indoor temperature : 20°CDB, outdoor temperature : 7°CDB, 6°CWB, equivalent refrigerant piping: 7.5m, level difference: 0m

Sound level of a multi system is determined by the individual outdoor unit and installation condition. The refrigerant charge of the system must be less than 100 kg. This means that in case the calculated refrigerant charge is equal to or more than 95 kg, you must divide your multiple outdoor system into smaller independent systems, each containing less than 95 kg refrigerant charge. For factory charge, refer to the nameplate of the unit.



## › ACCESSORIES

<b>VRV<sup>1</sup> HEAT PUMP</b>	<b>RXYQ5P</b>	<b>RXYQ8P8</b> <b>RXYQ10P</b>	<b>RXYQ12P</b>	<b>RXYQ14-18PA</b>	<b>RXYQ20-54P(A)/P8(A)</b>
Cool/heat selector			KRC19-26A6		
Fixing box			KJB111A		
REFNET header			KHRQ22M29H		
	-	-		KHRQ22M64H	
	-	-	-	-	KHRQ22M75H
REFNET joint			KHRQ22M20T		
	-	-		KHRQ22M29T9	
	-	-		KHRQ22M64T	
	-	-	-	-	KHRQ22M75T
Outdoor unit multi connection kit					
for 2 outdoor units	-	-	-	-	BHFQ22P1007
for 3 outdoor units	-	-	-	-	BHFQ22P1517
Central drain pan kit	KWC26B160	KWC26B280	KWC26B280	KWC26B450	see note 2
Digital pressure gauge kit					BHGP26A1 see note 3
Increase height difference between indoor & outdoor to 90m (see note 5)	-	EKLD90P12	EKLD90P12	EKLD90P18	see note 4

1 All options are kits

2 Central drain pan kit shall be combined based on the outdoor unit combination table

3 Only 1 option per installation is needed

4 1 option per module is required

5 The option should be installed inside the outdoor unit, only needed in case outdoor unit is installed above indoor



# VRV® HEAT PUMP WITH CONNECTION TO STYLISH INDOOR UNITS

## › BENEFITS

- › Innovative VRV® technology combined with the stylish and silent indoor units. Ideal for luxury hotels or spaces where you want to add a stylish touch to the indoor environment.
- › Connectable to all multi indoor units.
- › Via the BP box (BPMKS967B2/B3) up to 29 indoor units are connectable to an 18HP outdoor unit.
- › For more information on compatible VRV® features contact your local dealer.
- › To be ordered on project base only.

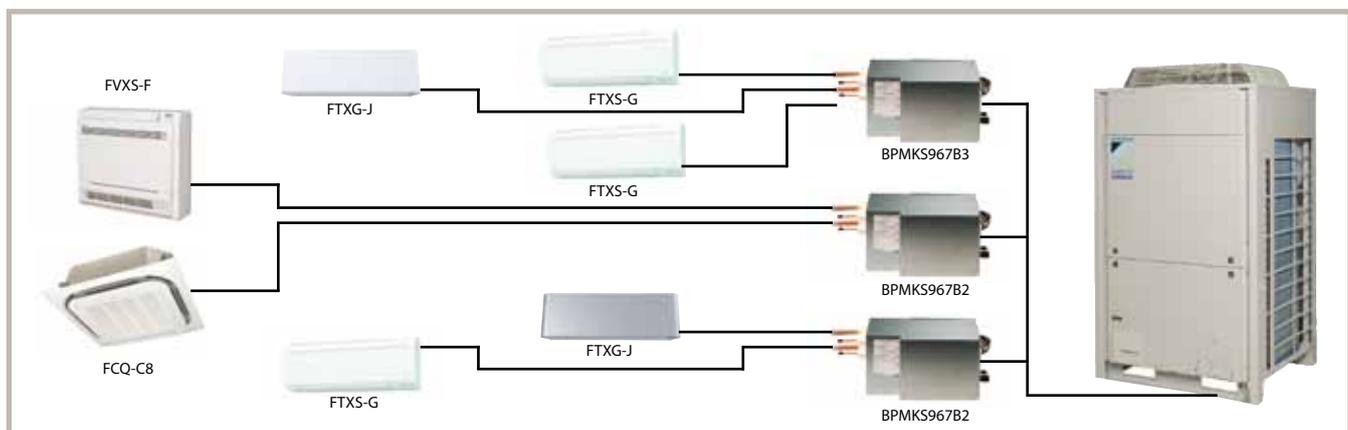
Including connection to new Daikin Emura



## CONNECTABLE INDOOR UNITS

Capacity

Model	Product name	20	25	35	42	50	60	71
Roundflow ceiling mounted cassette (incl. auto cleaning function <sup>3</sup> )	FCQ-C8							
4-way blow ceiling mounted cassette	FFQ-BV							
Small concealed ceiling unit	FDBQ-B							
Slim concealed ceiling unit	FDXS-E/C							
Inverter driven concealed ceiling unit	FBQ-C							
Wall mounted unit	FTXG-J CTXG-J							
Wall mounted unit	FTXS-G							
Wall mounted unit	FTXS-F							
Ceiling suspended unit	FHQ-B							
Floor standing unit	FVXS-F							
Flexi type unit	FLXS-B							



<sup>1</sup> The indoor units in the table above are only connectable to RXYQ-PR

<sup>2</sup> Minimum - maximum connection ratio: 80 - 130%

<sup>3</sup> Decoration panel BYCQ140CG + BRC1E51A needed

## › SPECIFICATIONS

### VRV® Heat pump with connection to stylish indoor units

RXYQ-PR				8	10	12	14	16	18	
Capacity range				HP	8	10	12	14	16	18
Capacity	cooling	nom.	kW	22.4	28.0	33.5	40.0	45.0	49.0	
	heating	nom.	kW	25.0	31.5	37.5	45.0	50.0	56.5	
Power input	cooling	nom.	kW	5.22	7.42	9.62	12.40	14.20	16.2	
	heating	nom.	kW	5.56	7.70	9.44	11.30	12.90	15.30	
EER	cooling			4.29	3.77	3.48	3.23	3.17	3.02	
COP	heating			4.50	4.09	3.97	3.98	3.88	3.69	
Max n° of indoor units to be connected					13	16	19	23	26	29
Indoor index connection	minimum			160	200	240	280	320	360	
	standard			200	250	300	350	400	450	
	maximum			260	325	390	455	520	585	
Dimensions	unit	height	mm	1,680						
		width	mm	930			1,240			
		depth	mm	765						
Weight	unit		kg	187	240		316		324	
Sound power	cooling	nom.	dB(A)	78		80		83		
Sound pressure		nom.	dB(A)	57	58	60		63		
Fan	type			Propeller						
	air flow rate (nominal)	cooling	m³/min	171	185	196	233		239	
		heating	m³/min	171	185	196	233		239	
external static pressure (max)			Pa	78						
Compressor	type			Hermetically sealed scroll compressor						
Operation range	cooling	min. - max.	°CDB	-5.0 ~ 43.0						
	heating	min. - max.	°CWB	-20.0 ~ 15.0						
Refrigerant	type			R-410A						
	charge			kg	7.7	8.4	8.6	11.3	11.5	11.7
Refrigerant Oil	control			Expansion valve (electronic type)						
	type			Synthetic (ether) oil						
Piping Connections	charged volume			l	2.1	4.3		6.6		6.7
	liquid			mm	9.52		12.7		15.9	
Piping Connections	gas			mm	19.1	22.2	28.6			
	max. total length			m	135					
	max. length between level difference			OU-IU	Please refer to the piping design on the next page					
level difference			OU-IU	40 (outdoor unit in highest position)						
Power supply				3N~, 50Hz, 400V						

#### Notes:

Nominal cooling capacities are based on : indoor temperature: 27°CDB, 19°CWB, outdoor temperature: 35°CDB, equivalent refrigerant piping: 7.5m, level difference: 0m.

Nominal heating capacities are based on: indoor temperature: 20°CDB, outdoor temperature: 7°CDB, 6°CWB, equivalent refrigerant piping : 7.5m, level difference : 0m

Sound power level is an absolute value that a sound source generates.

Sound pressure level is a relative value, depending on the distance and acoustic environment. For more details, please refer to sound level drawings.

Sound values are measured in a semi-anechoic room.

### BP Box for connection to stylish indoor units

Branch provider		BPMKS967B2	BPMKS967B3	
Max. n° of indoor units to be connected		2	3	
Max. indoor unit connectable capacity		kW	14.2 (7.1 + 7.1)	20.8 (6.0 + 7.1 + 7.1)
Dimensions (Height x Width x Depth)		mm	180 x 294 x 350	
Weight		kg	7.5	8

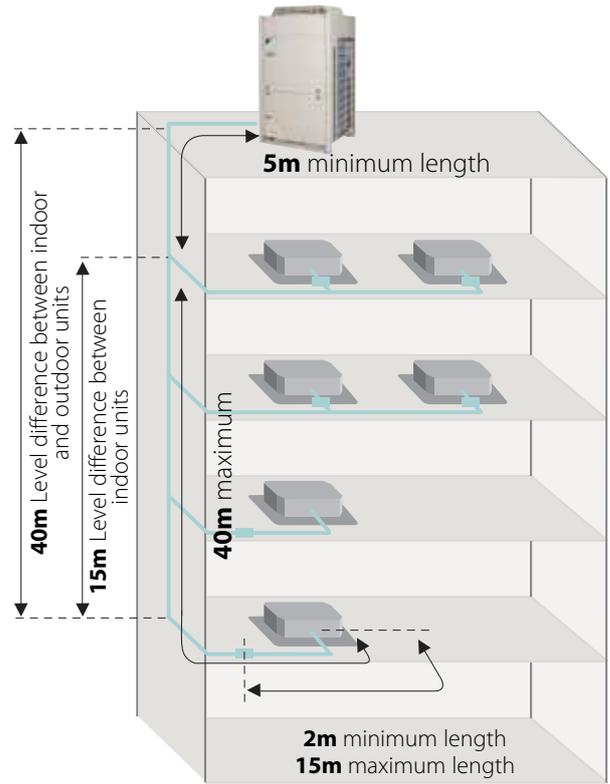
## PIPING DESIGN

The VRV® heat pump with connection to stylish indoor units offers a total system piping length of 135 m. (Total main piping length ≤ 55m (between outdoor and BP box) + Total branch piping length ≤ 80m (between BP box and indoor)).

The minimum piping length between the outdoor unit and the first branch is 5m. The minimum piping length between the BP box and the indoor unit is 2m, the maximum length is 15m.

After the first branch, the longest piping length is 40m.

The height difference between the outdoor and indoor unit or BP box can be maximum 40m.



## › ACCESSORIES

VRV® HEAT PUMP	RXYQ8PR RXYQ10PR	RXYQ12PR	RXYQ14-18PR
Cool/heat selector		KRC19-26A6	
Fixing box		KJB111A	
REFNET header	-	KHRQ22M29H	KHRQ22M64H
REFNET joint		KHRQ22M20T	
		KHRQ22M29T9	
	-		KHRQ22M64T
Central drain pan kit		KWC26B280	KWC26B450
Digital pressure gauge kit		BHGP26A1	
BP Box for connection to stylish indoor units		BPMKS967B2, BPMKS967B3	

1 All options are kits

2 Central drain pan kit shall be combined based on the outdoor unit combination table

3 Only 1 option per installation is needed

4 1 option per module is required

5 The option should be installed inside the outdoor unit, only needed in case outdoor unit is installed above indoor



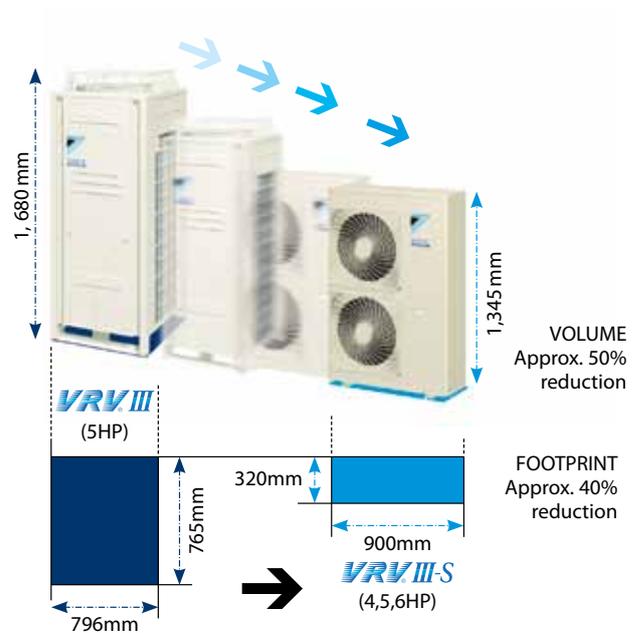


## VRV®III-S HEAT PUMP OPTIMISED DESIGN FOR SMALL CAPACITIES

### › BENEFITS

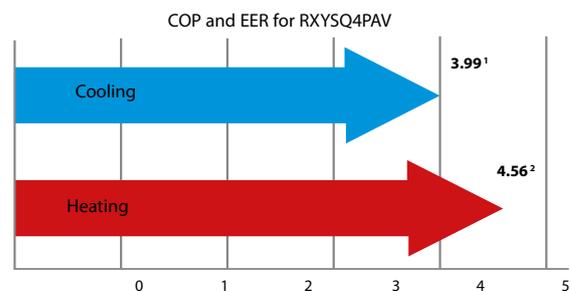
#### SPACE SAVING DESIGN

The VRV<sup>III</sup>-S is slimmer and more compact, resulting in significant savings in installation space.



#### HIGH COP VALUES

A major feature of VRV<sup>III</sup>-S 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

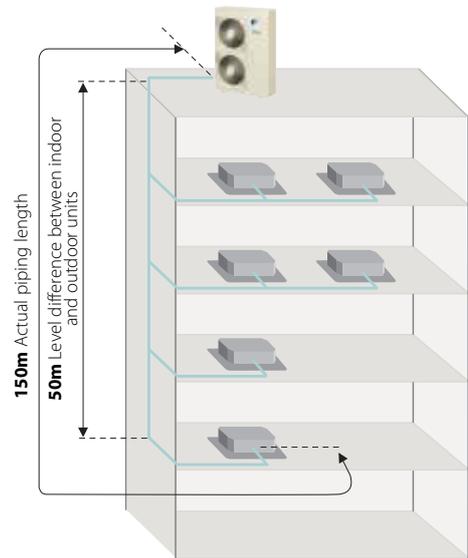
The VRV<sup>®</sup>III-S provides the long piping length possibility of 150m<sup>1</sup> (175m equivalent piping length), with a total piping length of 300m. If the outdoor unit is installed above the indoor units, the height difference can be up to a maximum of 50m<sup>2</sup>.

These generous allowances facilitate an extensive variety of system designs.

Notes:

<sup>1</sup> 40 m when the outdoor unit is installed below indoor units.

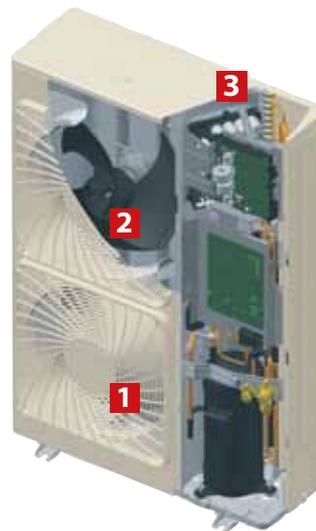
<sup>2</sup> Maximum piping length between the indoor unit and the first branch is 40 m.



## › ADVANCED TECHNOLOGIES

### 1 SUPER AERO GRILLE

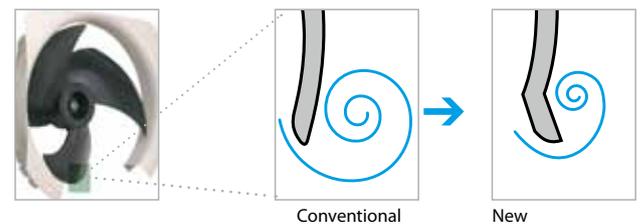
The spiral shaped ribs are aligned with the direction of discharge flow in order to minimise turbulence and reduce noise.



### 2 SMOOTH AIR INLET BELL MOUTH AND AERO SPIRAL FAN

These features assist in significantly reducing noise. Guides are added to the bell mouth intake to reduce turbulence in the air flow generated by fan suction. The aero spiral fan features fan blades with bent blade edges, further reducing turbulence.

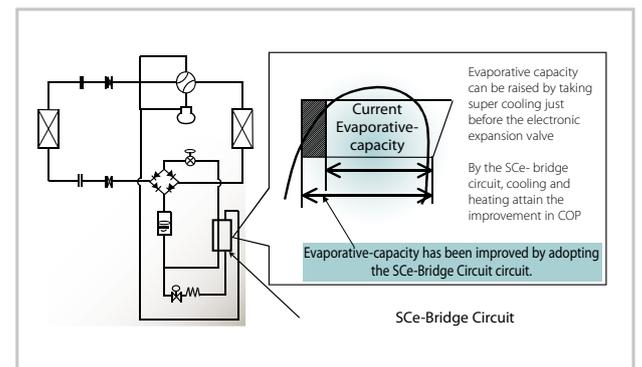
Aero spiral fan blade tips



Escaping edges are sucked in by the bent blade edges, reducing overall turbulence.

### 3 E-BRIDGE CIRCUIT

Prevents accumulation of liquid refrigerant in the condenser. This results in more efficient use of the condenser surface under all conditions and leads in turn to better energy efficiency. Increased evaporative capacity stems from the newly developed refrigeration circuit, the S<sub>Ce</sub>-bridge circuit, which adds super cooling prior to the expansion cycle. By adopting this circuit, the COPs in both cooling and heating have been drastically improved.



## › SPECIFICATIONS

### VRV®III-S Heat pump - single phase (PAV), three phase (PAY)

RXYSQ-PAV / RXYSQ-PAY				4	5	6
Capacity range			HP	4	5	6
Capacity	cooling	nom.	kW	11.2	14.0	15.5
	heating	nom.	kW	12.5	16.0	18.0
Power input	cooling	nom.	kW	2.81 / 2.89	3.51 / 3.61	4.53 / 4.66
	heating	nom.	kW	2.74 / 2.82	3.86 / 3.97	4.57 / 4.70
EER	cooling			3.99 / 3.88	3.99 / 3.88	3.42 / 3.33
COP	heating			4.56 / 4.43	4.15 / 4.03	3.94 / 3.83
Max n° of indoor units to be connected				6	8	9
Indoor index connection	minimum			50	62.5	70
	standard			100	125	140
	maximum			130	162.5	182
Dimensions	unit	height	mm		1,345	
		width	mm		900	
		depth	mm		320	
Weight	unit		kg		125/120	
Sound power	cooling	nom.	dB(A)	66	67	69
Sound pressure	cooling	nom.	dB(A)	50	51	53
	heating	nom.	dB(A)	52	53	55
Fan	type				Propeller	
	air flow rate (nominal at 230V)	cooling	m/min	106	106	106
		heating	m/min	102	105	105
External static pressure					-	
Compressor	type				Hermetically sealed scroll compressor	
Operation range	cooling	min. - max.	°CDB		-5.0 ~ 46.0	
	heating	min. - max.	°CWB		-20.0 ~ 15.5	
Refrigerant	type				R-410A	
	charge		kg		4.0	
	control				Expansion valve (electronic type)	
Refrigerant Oil	type				Daphne FVC68D	
	charged	Volume	l		1.5	
Piping Connections	liquid		mm	9.52		9.52
	gas		mm	15.9		19.1
	max. total length		m		300	
	max. length between	OU-IU	m		150 (actual length)	
	level difference	OU-IU	m		50 (outdoor unit in highest position)	
Power supply					1~, 220-240V, 50Hz / 3~, 380-415V, 50Hz	

#### Notes:

Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB, outdoor temperature: 30°C, equivalent refrigerant piping: 7.5m, level difference: 0m.

Nominal heating capacities are based on: indoor temperature: 20°CDB, outdoor temperature: 7°CDB, 6°CWB, equivalent refrigerant piping: 7.5m, level difference: 0m.

Sound power level is an absolute value that a sound source generates.

Sound pressure level is a relative value, depending on the distance and acoustic environment. For more details, please refer to sound level drawings.

Sound values are measured in a semi-anechoic room.

## › ACCESSORIES

	RXYSQ4PAV / RXYSQ4PAY	RXYSQ5PAV / RXYSQ5PAY	RXYSQ6PAV / RXYSQ6PAY
Cool/heat selector		KRC19-26A6	
Fixing box		KJB111A	
Refnet header		KHRQ22M29H	
Refnet joint		KHRQ22M20T	
Central drain plug		KKPJ5F180	



# VRV®III-Q - REPLACEMENT VRV®

## THE DAIKIN SOLUTION TO R-22 PHASE OUT

Due to significant developments in heat pump technology, older systems of air conditioning run less efficiently than those available today. Furthermore the use of R-22 will be soon banned in Europe. To upgrade R-22 systems as cost effective as possible, Daikin replacement VRV® units can be installed using existing pipe-work.

### WHAT IS R-22 AND WHY IS IT PHASED-OUT IN EUROPE?

R-22 is a hydrochlorofluorocarbon (HCFC) which was commonly used in air conditioning systems. When R-22 is released into the air, the ultraviolet rays of the sun cause it to decompose and chlorine is released in the stratosphere. Chlorine reacts with ozone, reducing the amount of the ozone. Due to ozone layer depletion, harmful ultraviolet

rays reach the surface of the earth giving rise to a number of health and environmental issues. The international community therefore, signed the Montreal Protocol to phase out ozone depletion materials by 2030. The European Union however, decided to ban R-22 already in 2015.

### When will R-22 be banned in europe?



<sup>1</sup> Recycled: re-use of R-22 following a basic cleaning process by the same undertaking that carried out the recovery (can be done by installer)  
 Reclaimed: reprocessed R-22 in order to meet the equivalent performance of virgin R-22 (by specialized company)

## WHAT IS THE IMPACT ON AN R-22 INSTALLATION?

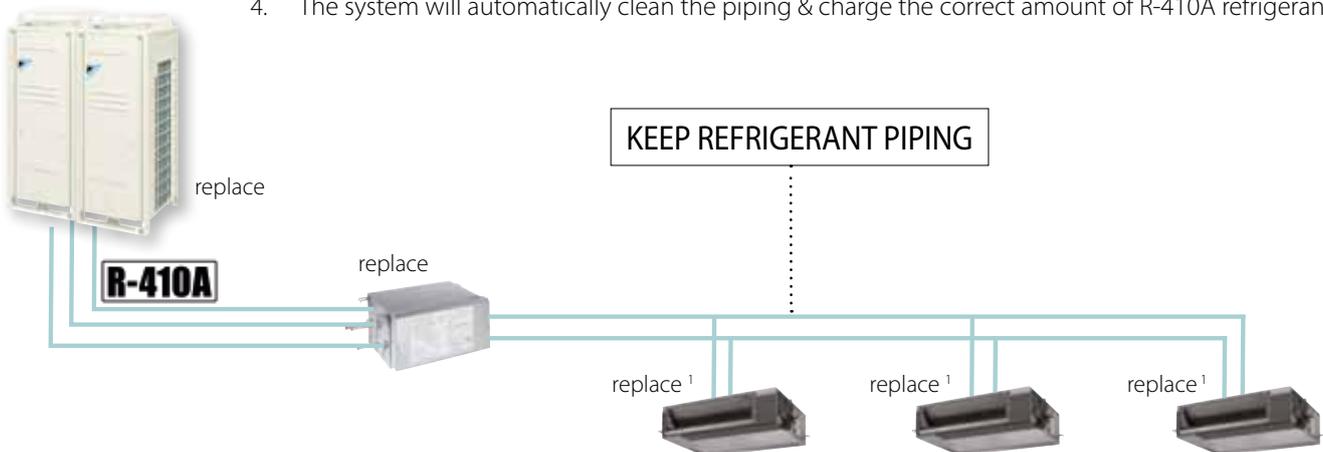
The R-22 phase-out regulation will impact on all currently operating R-22 systems, although reliable R-22 equipment does not need to be replaced immediately because maintenance can be carried out with recycled or reclaimed R-22 until January 1st, 2015. However, currently not enough R-22 is reclaimed or recycled to cover the demand, supply shortages and price increases are expected. If there is no reclaimed or recycled R-22

available, certain repairs (for example: compressor change) are no longer possible and considerable air conditioning system downtime can occur. It is therefore worthwhile to consider a replacement system before 2015, especially for air conditioning systems with a large impact on the daily running of the business.

## WHAT SHOULD BE REPLACED?

Replace your R-22 / R-407C outdoor unit with R-410A technology, but keep your refrigerant piping and in some cases your indoor units<sup>1</sup>. In case your indoor units can remain, works only need to be carried out at the outdoor unit and not inside your building (in case of a heat pump installation).

1. Replace outdoor unit
2. Replace BS-boxes (in case of H/R)
3. Replace indoor units (check with your local dealer if needed)
4. The system will automatically clean the piping & charge the correct amount of R-410A refrigerant



<sup>1</sup> Check with your local dealer if indoor units need to be replaced.

## › BENEFITS

### FAST INSTALLATION

It is not necessary to remove the existing piping and even the indoor units can remain (depending on type of indoor unit). This means work only has to be carried out at the outdoor unit and not inside your building in case of a heat pump installation. The outdoor unit automatically charges the refrigerant and cleans the refrigerant piping. This unique Daikin feature makes the installation time even shorter.

### NO LIMITATIONS ON SYSTEM HISTORY

As a result of the combined automatic charging and refrigerant pipe cleaning function, it is possible to ensure a clean piping network, even when a compressor breakdown has previously occurred.

In this way all correct installed R-22 and R-407C VRV® systems can be replaced.

### LIMITED AND PLANNED-DOWNTIME

As the refrigerant piping can be maintained the installation is less intrusive and less time consuming than for a completely new system. Moreover, downtime can be carefully planned: whereas if a problem occurs when not enough reclaimed R-22 is available, a long and unplanned downtime can be the result.

### LIMITED AND PHASED INVESTMENT COST

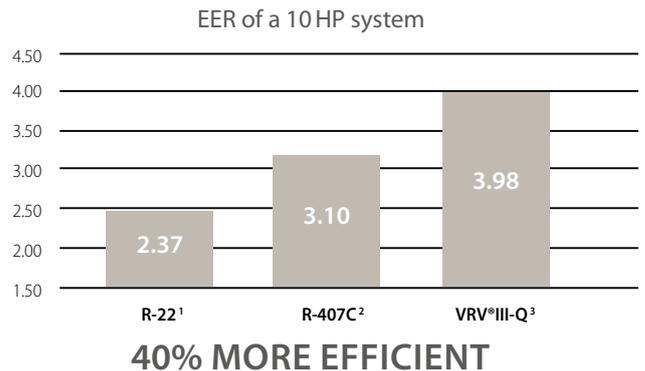
It is possible to spread the various stages of replacement over a certain period of time because the indoor units can remain in most cases. The air conditioning replacement therefore, can be incorporated in the general refurbishment schedule of the building and the investment cost can be spread. A further reduction in installation cost can be achieved by maintaining the old refrigerant copper pipe work.

### ENVIRONMENTAL AWARENESS

R-410A not only has a zero ozone depletion potential, it is also proven to be more energy efficient than R-22.

## HIGH EFFICIENCY

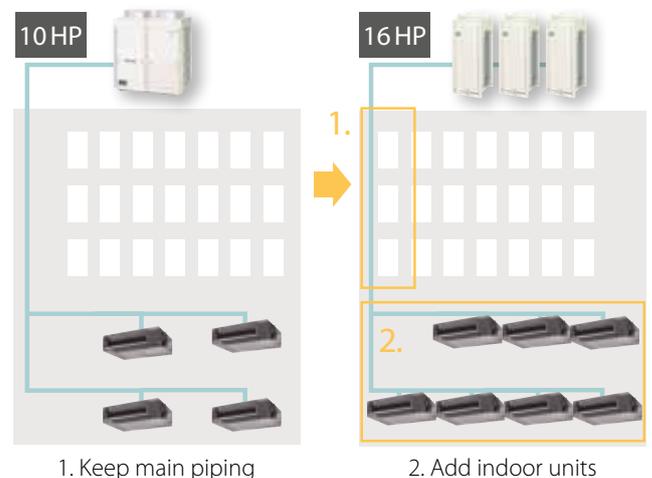
Upgrading an old R-22 system to a Replacement VRV® system will result in increased system efficiency. Efficiency gains of more than 40% in cooling can be realized, by virtue of technological developments in current heat pump technology and the more efficient R-410A refrigerant. Increased energy efficiency equals lower energy consumption, subsequent lower energy costs and lower CO<sub>2</sub> emissions.



<sup>1</sup> R-22: RSXY10KA7    <sup>2</sup> R-407C: RSXYP10L7    <sup>3</sup> R-410A: RQYQ280P

## POSSIBILITY TO INCREASE CAPACITY

Cooling loads often increase subsequent to the initial installation of the air conditioning system. The Replacement VRV®(VRV®III-Q) enables system capacity to be increased without changing the refrigerant piping (depending on system characteristics). For example: It is possible to install a 16 HP Replacement VRV® on the refrigerant piping of an R-22 10 HP system.

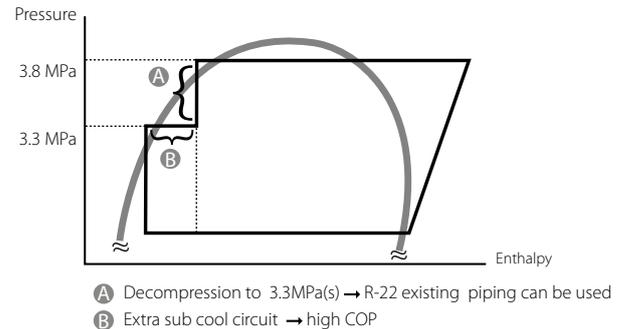


1. Keep main piping
2. Install indoor units with a higher total capacity

## › TECHNOLOGIES

### REDUCED PRESSURE

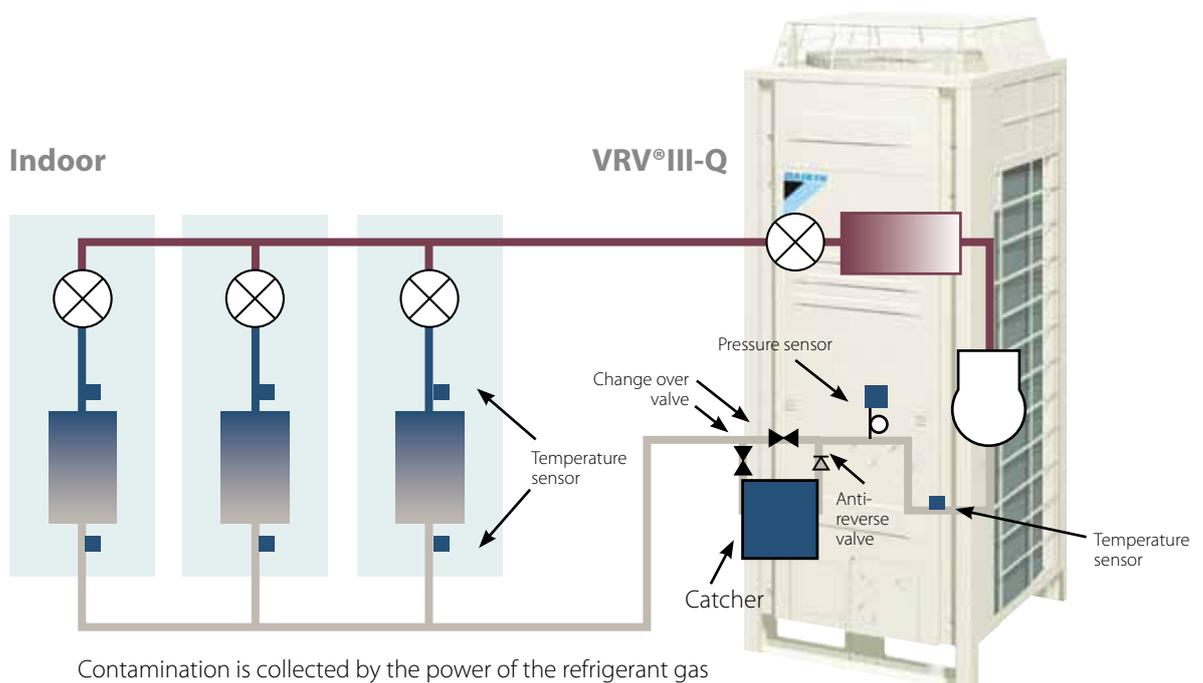
As R-22 VRV® systems used to work on a lower pressure than R-410A systems; thus the copper refrigerant piping was also designed for these lower pressures. Therefore the Replacement VRV® (VRV®III-Q) must operate at lower pressures than the standard VRV®III series. However thanks to the sub cool circuit a high efficiency level can be kept even with the lower pressures.



### REFRIGERANT PIPE CLEANING

When replacing an air conditioning system, the piping is normally replaced as well since traces of old refrigerant and oil mixed with the oil and refrigerant of the new system can cause the equipment to malfunction.

In order to allow re-use of existing R-22 piping with an R-410A system Daikin developed a technology to capture and retain the contamination left in the refrigerant piping. During the charging of the system, R-410A refrigerant starts circulating through the copper piping collecting the contamination left in the refrigerant piping. The refrigerant including the remaining oil from the R-22 system is filtered in the outdoor unit and the contamination is deposited in the outdoor unit. This process is executed only once and takes about 1 hour (depending on system characteristics). Daikin is the first manufacturer in the industry to develop this combination of automatic charging and refrigerant pipe cleaning function.



## › SPECIFICATIONS

### VRV®-Q - Replacement VRV® - Heat recovery

				RQCEQ-P										
				280	360	460	500	540	636	712	744	816	848	
Outdoor unit modules	RQEQ140P			2		2	1			1	1			
	RQEQ180P				2	1	2	3		2	1	1		
	RQEQ212P								3	1	2	3	4	
Capacity range	HP			10	13	16	18	20	22	24	26	28	30	
Capacity	cooling	nom.	kW	28.0	36.0	45.0	50.0	54.0	63.6	71.2	74.4	81.6	84.8	
	heating	nom.	kW	32.0	40.0	52.0	56.0	60.0	67.2	78.4	80.8	87.2	89.6	
Power input	cooling	nom.	kW	7.04	10.3	12.2	13.9	15.5	21.9	21.2	23.3	27.1	29.2	
	heating	nom.	kW	8.00	10.7	13.4	14.7	16.1	17.7	20.7	21.2	23.1	23.6	
EER	cooling			3.98	3.48	3.77	3.61	3.48	2.90	3.36	3.19	3.01	2.90	
COP	heating			4.00	3.72	3.89	3.80	3.72	3.79	3.80	3.81	3.77	3.79	
Max n° of indoor units to be connected				16	20	26	29	33	36	40	43	47	50	
Indoor index connection	minimum			14.0	18.0	23.0	25.0	27.0	31.8	35.6	37.2	40.8	42.4	
	standard			28.0	36.0	46.0	50.0	54.0	63.6	71.2	74.4	81.6	84.8	
	maximum			36.4	46.2	59.8	65.0	70.2	82.7	92.6	96.7	106	110	
Dimensions	unit	height	mm	1680										
		width	mm	635+ 635				635+ 635+ 635				635+ 635+ 635+ 635		
		depth	mm	765										
Weight	kg			175+ 175				175+ 175+175		179+ 179+179	175+175 +175+179	175+175 +179+179	175+179 +179+179	179+179+ 179+179
Sound pressure	cooling	nom.	dBa	57	61	61	62	63	64	63	64	65	66	
Fan	type			Propeller										
	Air flow rate (nominal at 230V)	cooling	m³/min	95+ 95	110+110	95+ 95 + 110	95+ 110+110	110+ 110+ 110		95+ 110+ 110+ 110		110+ 110+ 110+ 110		
	external static pressure (max.)			Pa	78									
Compressor	motor	type			Hermetically sealed scroll compressor									
Operation range	cooling	min. - max.	°CDB	-5~43										
	heating	min. - max.	°CWB	-20~15.5										
Refrigerant	type			R-410A										
	charge	kg		10.3+ 10.3	10.6+ 10.6	10.3+10.3 +10.6	10.3+10.6 +10.6	10.6+10.6 +10.6	11.2+11.2 +11.2	10.3+10.6 +10.6+11.2	10.3+10.6 +11.2+11.2	10.6+11.2 +11.2+11.2	11.2+11.2 +11.2+11.2	
	control			Electronic expansion valve										
Piping connections	liquid	mm		9.52	12.7			15.9				19.1		
	gas	mm		22.2	25.4		28.6						34.9	
	discharge gas	mm			19.1		22.2				25.4		28.6	
	pressure equiliser tube	mm			-	-	-	-	-	-	-	-	-	
	max. total length			m	300									
	max. length between level difference			OU-IU m	120 (actual length)									
level difference			OU-IU m	50 (outdoor unit in highest position)										
Power Supply	3~. 400V. 50Hz													

#### Notes:

Nominal cooling capacities are based on : indoor temperature: 27°CDB, 19°CWB, outdoor temperature: 35°CDB, equivalent refrigerant piping: 7.5m, level difference: 0m.

Nominal heating capacities are based on: indoor temperature: 20°CDB, outdoor temperature: 7°CDB, 6°CWB, equivalent refrigerant piping : 7.5m, level difference : 0m

## › ACCESSORIES

VRV®III-Q - REPLACEMENT VRV® - HEAT RECOVERY	RQCEQ280PY1 RQCEQ360PY1	RQCEQ460PY1 RQCEQ500PY1	RQCEQ540PY1 RQCEQ636PY1	RQCEQ712PY1 RQCEQ744PY1 RQCEQ816PY1 RQCEQ848PY1
Fixing box	KJB111A			
Outdoor unit multi connection piping kit	BHFP26P36C	BHFP26P63C		BHFP26P84C

## › SPECIFICATIONS

### VRV®-Q - Replacement VRV® - Heat pump

				RQYQ-P		RQCYQ-P				RQYP-A						
				140	180	280	360	460	500	540	615	680	730	785	850	
Outdoor unit modules	RQYQ140P			1		2		2	1							
	RQYQ180P				1		2	1	2	3						
	RQYP280A										1	1	1			
	RQYP335A										1			1		
	RQYP400A											1		1		
	RQYP450A												1	1		
Capacity range				HP	5	6.5	10	13	16	18	20	22	24	26	28	30
Capacity	cooling	nom.	kW	14.0	18.0	28.0	36.0	46.0	50.0	54.0	61.5	68.0	73.0	78.5	85.0	
	heating	nom.	kW	16.0	20.0	32.0	40.0	52.0	56.0	60.0	69.0	76.5	81.5	87.5	95.0	
Power input	cooling	nom.	kW	3.52	5.17	7.04	10.3	12.2	13.9	15.5	17.7	19.2	21.2	23.7	25.2	
	heating	nom.	kW	4.00	5.37	8.00	10.7	13.4	14.7	16.1	18.8	20.8	22.2	23.8	25.8	
EER	cooling			3.98	3.48	3.98	3.48	3.77	3.61	3.48	3.47	3.54	3.44	3.31	3.37	
COP	heating			4.00	3.72	4.00	3.72	3.89	3.80	3.72	3.67	3.68	3.67	3.68	3.68	
Max n° of indoor units to be connected					8	10	16	20	26	29	33	36	40	43	46	48
Indoor index connection	minimum			7.0	9.0	14.0	18.0	23.0	25.0	27.0	30.8	34.0	36.5	39.3	42.5	
	standard			14.0	18.0	28.0	36.0	46.0	50.0	54.0	61.5	68.0	73.0	78.5	85.0	
	maximum			18.2	23.4	36.4	46.2	59.8	65.0	70.2	80.0	88.4	94.9	102	111	
Dimensions	unit	height	mm	1680												
		width	mm	635	635+ 635		635+ 635+ 635			930+ 930	930+1,240			1,240+1,240		
		depth	mm	765												
Weight				kg	175	175	175+175		175+175+175			292+292	292+384		384+384	
Sound pressure				nom.	dB	54	58	57	61		62	63	62		63	
Fan	type			Propeller												
	Air flow rate (nominal at 230V)	cooling	m³/min	95	110	95+ 95	110+110	95+ 95+110	95+ 110+110	110+ 110+110	185+200	185+233	185+233	200+233	233+233	
	external static pressure (max.)			Pa	78											
Compressor				motor	Hermetically sealed scroll compressor											
Operation range	cooling	min. - max.	°CDB	-5~43												
	heating	min. - max.	°CWB	-20~15.5												
Refrigerant	type			R-410A												
	charge	control		kg	11.1	11.1	11.1+ 11.1		11.1+11.1+ 11.1			*	*	*	*	*
					Electronic expansion valve											
Piping connections	liquid			mm	9.52		12.7		15.9			19.1				
	gas			mm	15.9	19.1	22.2	25.4	28.6			31.8				
	max. total length			m	300											
	max. length between			OU-IU	120 (actual length)											
level difference			OU-IU	50 (outdoor unit in highest position)												
Power Supply				3~, 400V, 50Hz												

\* Data not available at time of publication

## › ACCESSORIES

VRV®III-Q - REPLACEMENT VRV® - HEAT PUMP	RQYQ140PY1	RQYQ180PY1	RQCYQ280PY1 RQCYQ360PY1	RQCYQ460PY1 RQCYQ500PY1	RQCYQ540PY1
Cool / Heat selector	KRC19-26A				
Fixing box	KJB111A				
Outdoor unit multi connection piping kit	-	-	BHFP22P36C	BHFP22P54C	



## VRV® COOLING ONLY

### › BENEFITS

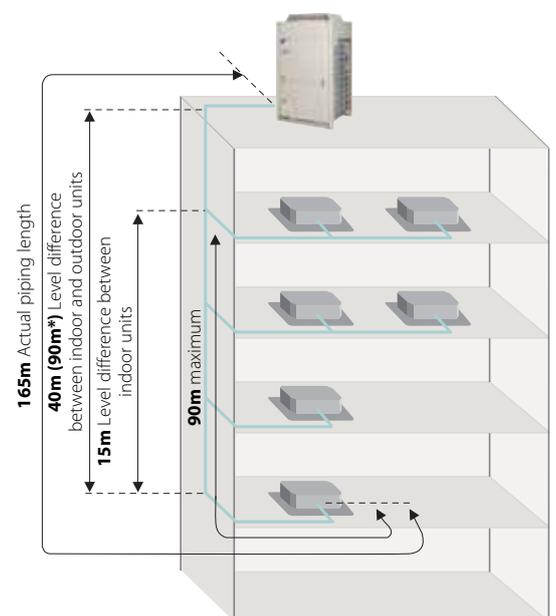
#### FLEXIBLE PIPING DESIGN

VRV® offers an extended piping length of 165m (190m equivalent piping length) with a total system piping length of 1,000m.

In case the outdoor unit is located above the indoor unit the height difference is 50m standard. It can be extended to 90m\*.

In case the outdoor unit is located below the indoor unit, the height difference is 40m standard. Height differences up to maximum 90m are possible\*.

After the first branch, the difference between the longest piping length and the shortest piping length can be maximum 40m, provided that the longest piping length amounts to maximum 90m.



\* For more information, please contact your local Daikin dealer.

## › SPECIFICATIONS

### VRV® Cooling only

<b>RXQ-P(A)</b>				<b>5</b>	<b>8</b>	<b>10</b>	<b>12</b>	<b>14</b>	<b>16</b>	<b>18</b>	
Capacity range			HP	5	8	10	12	14	16	18	
Capacity	cooling	nom.	kW	14.0	22.4	28.0	33.5	40.0	45.0	49.0	
Power input	cooling	nom.	kW	3.52	5.22	7.42	9.62	12.40	14.20	16.20	
EER	cooling			3.98	4.29	3.77	3.48	3.23	3.17	3.02	
Max n° of indoor units to be connected				8	13	16	19	23	26	29	
Indoor index connection	minimum			62.5	100	125	150	175	200	225	
	standard			125	200	250	300	350	400	450	
	maximum			162.5	260	325	390	455	520	585	
Dimensions	unit	height	mm	1,680	1,680	1,680	1,680	1,680	1,680	1,680	
		width	mm	635	930	930	930	1,240	1,240	1,240	
		depth	mm	765	765	765	765	765	765	765	
Weight	unit			kg	159	187	240	240	316	324	
Sound power	cooling	nom.		dB(A)	72	78	78	80	80	83	
Sound pressure		nom.		dB(A)	54.0	57.0	58.0	60.0	60.0	63.0	
Fan	type			Propeller							
	air flow rate (nominal at 230V)	cooling	m³/min	95	171	185	196	233	233	239	
	external static pressure (MAX)			Pa	78						
Compressor	type			Hermetically sealed scroll compressor							
Operation range	cooling	min. - max.		°CDB							
Refrigerant	type			R-410A							
	charge			kg	6.2	7.7	8.4	8.6	11.3	11.5	11.7
	control			Expansion valve (electronic type)							
Refrigerant Oil	type			Synthetic (ether) oil							
	charged Volume			l	1.7	2.1	3.9	3.9	5.7	5.7	5.8
Piping Connections	liquid			mm	9.52	9.52	9.52	12.7	12.7	12.7	15.9
	gas			mm	15.9	19.1	22.2	28.6	28.6	28.6	28.6
	max. total length			m	1,000	1,000	1,000	1,000	1,000	1,000	1,000
	max. length between			OU-IU	m						
	level difference			OU-IU	m						
Power supply				50 (outdoor unit in highest position) (optional: 90)							
				3N~, 400V, 50Hz							

Notes:

Nominal cooling capacities are based on : indoor temperature : 27°CDB, 19°CWB, outdoor temperature : 35°CDB, equivalent refrigerant piping : 7.5m, level difference: 0m.

Sound power level is an absolute value that a sound source generates.

Sound pressure level is a relative value, depending on the distance and acoustic environment.

Sound values are measured in a semi-anechoic room.

## › ACCESSORIES

<b>VRV® COOLING ONLY</b>	<b>RXQ5P</b>	<b>RXQ8P</b>	<b>RXQ12P</b>	<b>RXQ14-18PA</b>
		<b>RXQ10P</b>		
Fixing box	KJB111A			
REFNET header	-	-	KHRQ22M29H	
REFNET joint	KHRQ22M20T			
	-	KHRQ22M29T9		
	-	KHRQ22M64T		
Central drain pan kit	KWC26B160	KWC26B280	KWC26B280	KWC26B450
Digital pressure gauge kit	BHGP26A1			
Increase height difference between indoor & outdoor to 90m (see note 3)	-	EKLD90P12	EKLD90P12	EKLD90P18

1 All options are kits

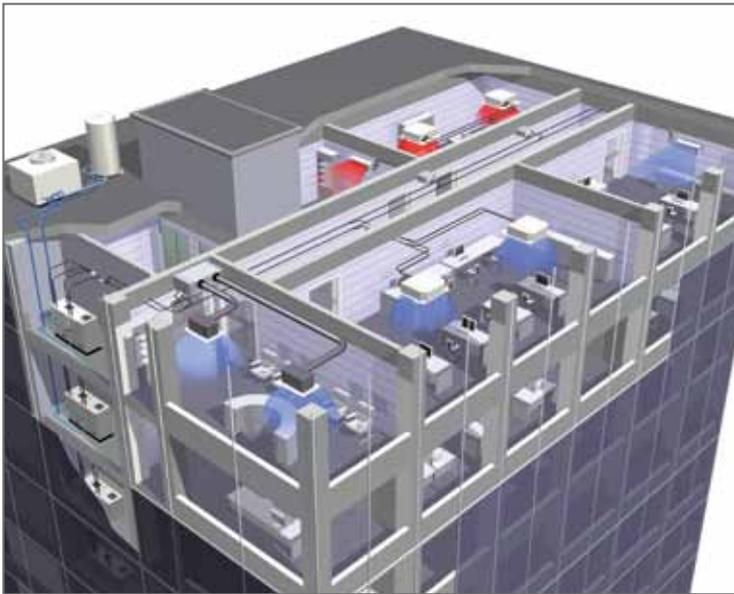
2 Central drain pan kit shall be combined based on the outdoor unit combination table

3 The option should be installed inside the outdoor unit, only needed in case outdoor unit is installed above indoor

# WATER COOLED VRV® OUTDOOR SYSTEMS

Despite the remarkable energy efficiency and installation flexibility of the air cooled VRV®, there are some applications for which the water cooled version provides a more economic and sustainable solution. These apply primarily to **MULTI STOREY HIGH RISE COMPLEXES** in which maximum refrigerant pipe distances can sometimes invalidate the use of an air cooled system. Further situations which are ideal for water cooled VRV® use include buildings lacking adequate roof or external space for outdoor condensing units and projects with particularly stringent noise regulations.

The water cooled VRV® is now available in 9 models between 8 and 30 HP, in heat recovery, heat pump and most recently, **GEOHERMAL** variants. The fast growing geothermal sector in fact, provides an ideal opportunity for ground source heat pumps and offers considerably future potential for its use in very low carbon installations.



STANDARD SERIES



GEOHERMAL SERIES

BENEFITS

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ADVANCED VRV® TECHNOLOGIES

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VRV®-W STANDARD SERIES -  
HEAT RECOVERY AND HEAT PUMP

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VRV®-W GEOHERMAL SERIES -  
HEAT RECOVERY AND HEAT PUMP

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## BENEFITS

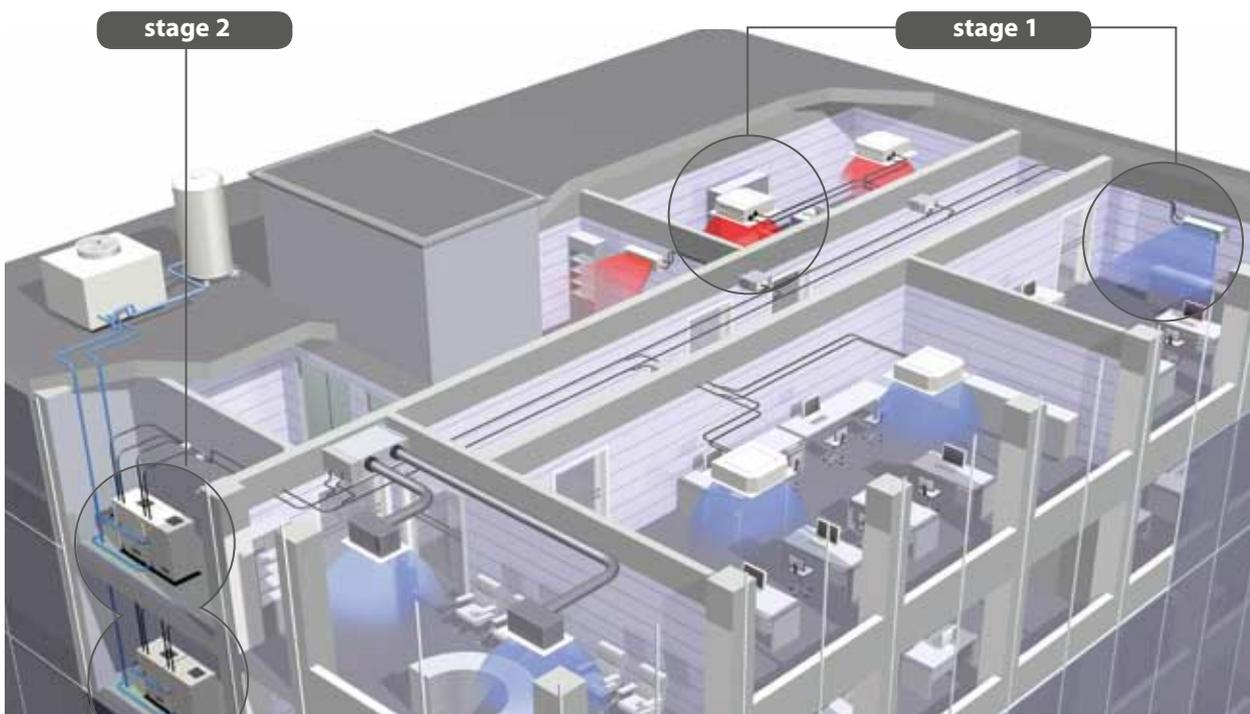


### HIGH ENERGY EFFICIENCIES RESULTS FROM 2-STAGE HEAT RECOVERY

VRV<sup>®</sup>-W benefits from a 2-stage heat recovery facility. The first stage is achieved within the refrigerant system and applies to heat recovery units only. Heat exhausted from indoor units in cooling mode is merely transferred to units in areas requiring heating, maximising energy efficiency and reducing electricity costs.

### Heat recovery also available on heat pump units

Second stage heat recovery is achieved within the water loop between the water cooled outdoor units. Two-stage heat recovery substantially improves energy efficiency and represents an ideal solution to the requirements of modern office buildings, in which some areas may require cooling even in winter, depending on the degree of sunshine at the time and the number of individuals in the room.



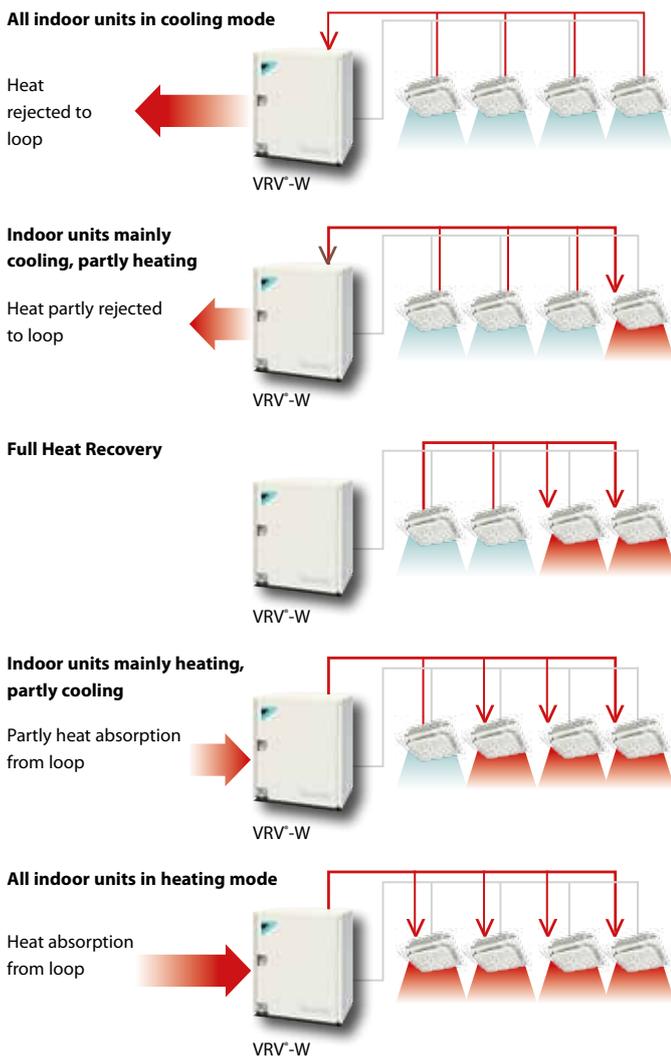
## Stage 1: For heat recovery

### Simultaneous heating and cooling within the refrigerant system.

When mainly cooling is required, the system recycles heat exhausted from the cooling operation for heating purposes.

When mainly heating is required, the system uses cooled post-heating operation refrigerant for cooling. Efficiency improves the more simultaneous operation is performed.

### Heat recovery between indoor units



\* Above system configurations are for illustration purposes only.

## Stage 2: For heat recovery and heat pump!

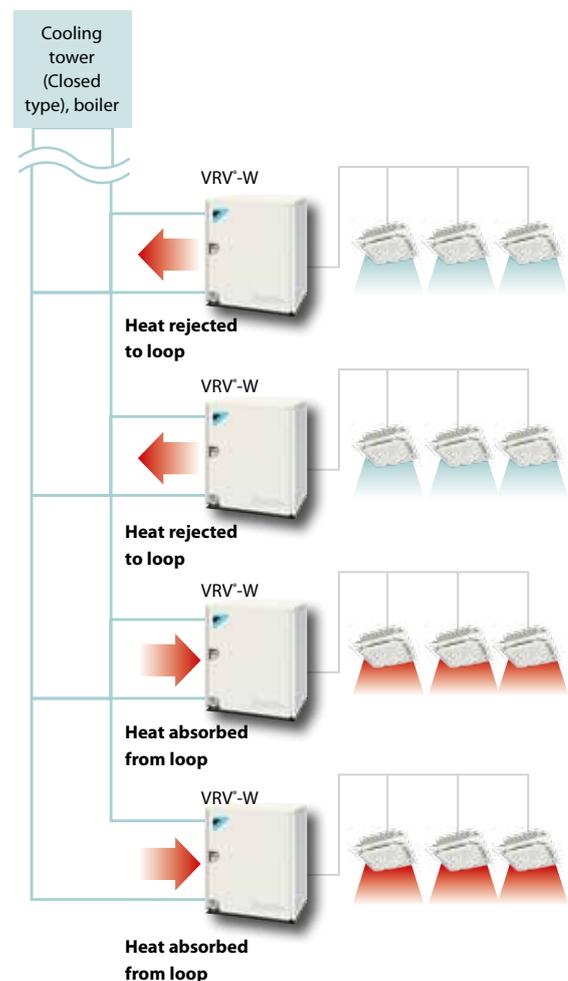
### Heat recovery between the water cooled outdoor units

#### For heat recovery and heat pump units!

Heat recovery is also available between systems connected to the same water loop. These systems exchange heat via water, increasing energy efficiency.

### Heat recovery between outdoor units

(Heat recovery and heat pump)



## FLEXIBLE PIPING DESIGN

### Flexible water piping

Water cooled VRV<sup>®</sup> uses water as its heat source, so it is optimal for large buildings, including tall, multi-storey buildings, because the system can tolerate water pressure of up to 1.96 MPa.

Furthermore, if the currently installed heat source's water temperature is between 10°C and 45°C, it may be possible to use the existing water pipe work and heat source. This alone makes it an ideal system solution for building refurbishment projects.

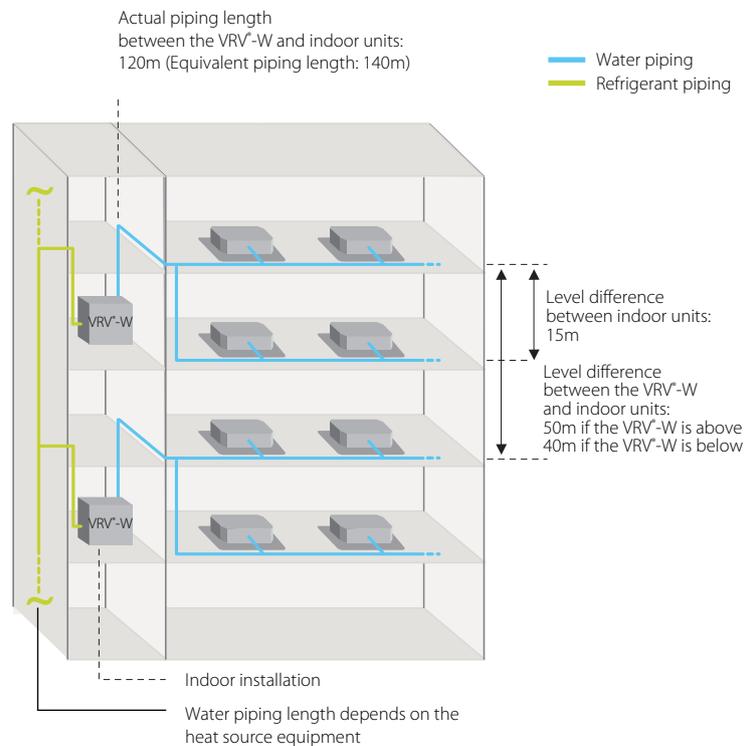
Because the system is water cooled, outdoor air temperature does not affect its heating capacity. In addition, water cooling means no defrost operation is required, and the resultant rapid start-up time assures quick and comfortable heating, even in cold environment.

### Long refrigerant piping length

Considerable flexibility is available within the refrigerant circuit since up to 120m actual piping length and 50m\* (if the VRV<sup>®</sup>-W outdoor unit is above the indoor units) in height can exist between the VRV<sup>®</sup>-W outdoor units and indoor units.

Water piping does not intrude on the occupied spaces, so there are no leakage problems.

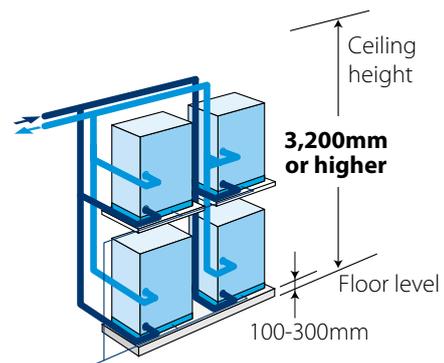
\* 40m if the VRV<sup>®</sup>-W outdoor unit is below the indoor units.



## SPACE SAVING - STACKED CONFIGURATION

The adoption of a new water heat exchanger and optimization of the refrigerant control circuit has resulted in the industry's most compact and lightweight design. The unit weight of 149kg\* and height of 1,000mm makes installation easy. Stacked configuration is also possible, contributing further to space savings.

\* for 8HP unit



Stacked configuration is possible.



## YOUR SYSTEM OPTIMISED FOR THE EUROPEAN CLIMATE - HIGH SENSIBLE MODE

The high sensible mode on the VRV® outdoor units optimises the working of the units for the European climate. This optimisation has the following benefits:

### Higher energy efficiency

As no energy is wasted on unnecessary dehumidification anymore the system will work more efficient in cooling operation.

### Higher comfort for the end-user

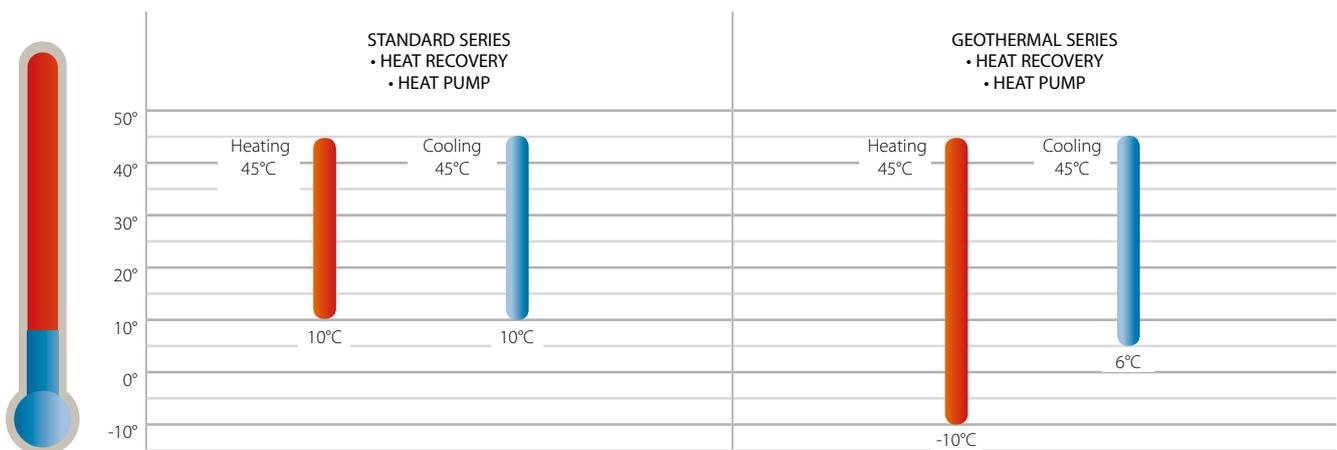
Thanks to the higher evaporation temperature also the discharge temperature of the indoor units will be increased in cooling mode, providing a higher comfort.

### WIDE OPERATION RANGE

Standard water cooled outdoor units have a wide operation range of between 10°C & 45°C inlet water temperature, both in heating and cooling.

For the geothermal series the operation range is extended even more, down to -10°C\* in heating and 6°C in cooling mode.

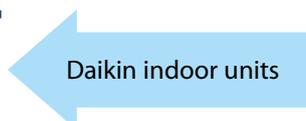
\* Ethylene glycol should be added to the water when the water inlet temperature is below 5°C

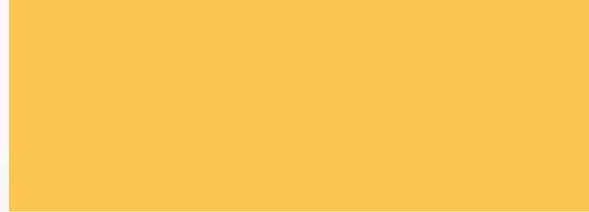


### LOW INDOOR UNIT OPERATION SOUND LEVEL

- › Continuous research by Daikin into reducing operation sound levels has resulted in the development of a purpose designed inverter scroll compressor and fan.
- › Daikin indoor units have very low sound operation levels, down to 25dB(A)

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



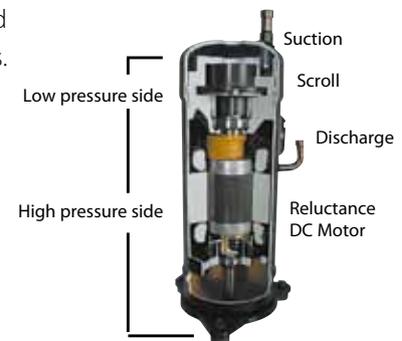
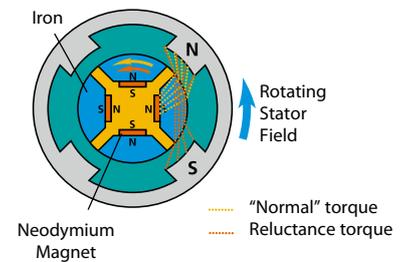


# ADVANCED WATER COOLED VRV® TECHNOLOGIES



## 1 RELUCTANCE BRUSHLESS DC COMPRESSOR

- › The reluctance brushless DC motor provides significant increases in efficiency compared to conventional AC inverter motors, simultaneously using 2 different forms of torque (normal and reluctance torque) to produce extra power from small electric currents.
- › **The motor comprises powerful neodymium magnets**, that efficiently generate high torque. These magnets make a major contribution to the energy saving characteristics of the motor.
- › **High thrust mechanism**  
By introducing high pressure oil, the reactive force from the fixed scroll is added to the internal force, thereby reducing thrust losses. This results in improved efficiency and suppressed sound level.



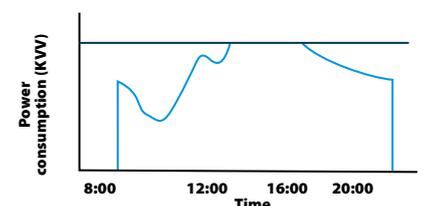
## 2 SINE WAVE DC INVERTER

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



## 3 I-DEMAND FUNCTION

- › The newly introduced current sensor minimizes the difference between the actual power consumption and the predefined power consumption.



## INDIVIDUAL COMFORT THANKS TO VRV®III BS BOX

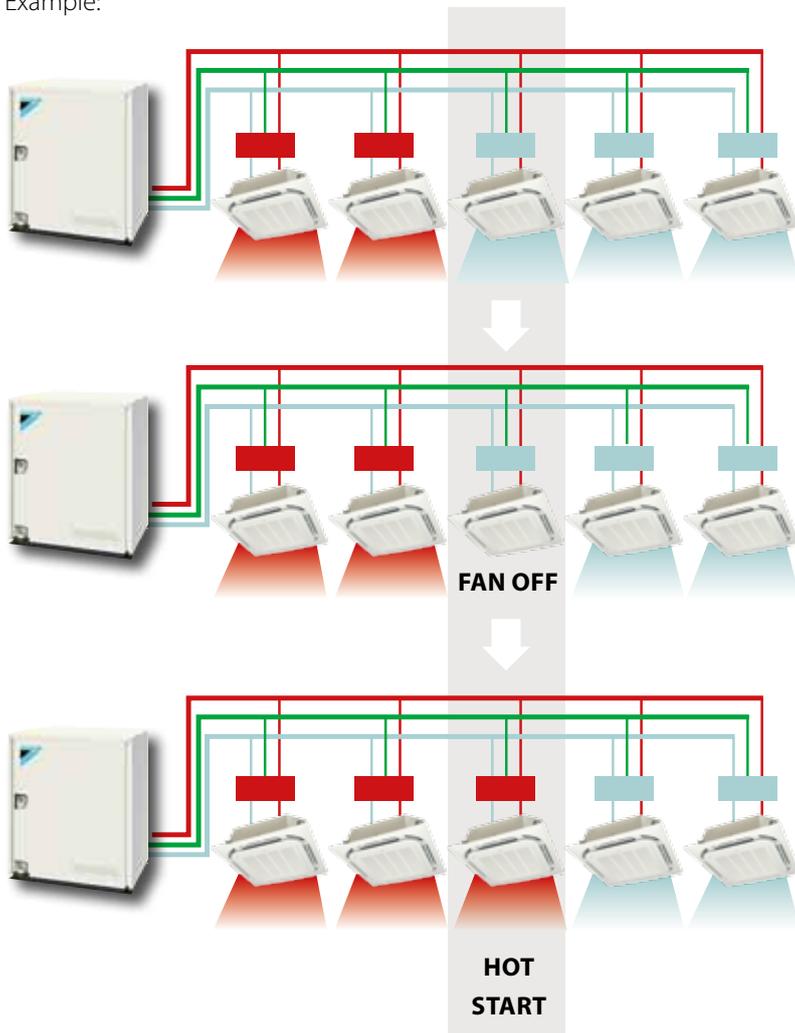
Individual change over from cooling to heating or vice versa of the indoor units is possible. This means that all indoor units who do not change over continue to provide optimum comfort for the users during this process.



## VRV®III

With the VRV®III BS box, the other indoor units can keep heating while the target indoor units are switched from cooling to heating.

Example:





# STANDARD SERIES

## › SPECIFICATIONS

### VRV®-W Standard series - Heat recovery - Heat Pump

RWEYQ-P		8	10	16	18	20	24	26	28	30		
Outdoor unit modules	RWEYQ8P	1	-	2	1	-	3	2	1	-		
	RWEYQ10P	-	1	-	1	2	-	1	2	3		
Capacity range		HP	8	10	16	18	20	24	26	28	30	
Capacity	cooling	nom. kW	22.4	26.7	44.8	49.1	53.4	67.2	71.5	75.8	80.1	
	heating	nom. kW	25.0	31.5	50.0	56.5	63.0	75.0	81.5	88.0	94.5	
Power input	cooling	nom. kW	4.55	6.03	9.10	10.6	12.1	13.7	15.1	16.6	18.1	
	heating	nom. kW	4.24	6.05	8.48	10.3	12.1	12.7	14.5	16.3	18.2	
EER	cooling		4.92	4.43	4.92	4.63	4.43	4.91	4.74	4.57	4.43	
COP	heating		5.90	5.21	5.90	5.49	5.21	5.91	5.62	5.40	5.21	
Max. n° of indoor units to be connected			13	16	26	29	32	36	36	36	36	
Indoor index connection	minimum		100	125	200	225	250	300	325	350	375	
	standard		200	250	400	450	500	600	650	700	750	
	maximum		260	325	520	585	650	780	845	910	975	
Dimensions	Unit	Height	mm 1,000									
		Width	780	780	780 + 780	780 + 780	780 + 780	780 + 780 + 780	780 + 780 + 780	780 + 780 + 780	780 + 780 + 780	
		Depth	mm 550									
Weight	Unit	kg	149	150	149 + 149	150 + 149	150 + 150	149 + 149 + 149	150 + 149 + 149	150 + 150 + 149	150 + 150 + 150	
Sound pressure	Cooling	nom. dBA	50	51	53	54	54	55	55	55	56	
Heat Exchanger	Type	Stainless steel plate										
Compressor	Type	Hermetically sealed scroll compressor										
Inlet water temperature	cooling	°C	10~45									
	heating	°C	10~45									
Refrigerant	Name		R-410A									
	Charge	kg	3.5	4.2	3.5 + 3.5	4.2 + 3.5	4.2 + 4.2	3.5 + 3.5 + 3.5	4.2 + 3.5 + 3.5	4.2 + 4.2 + 3.5	4.2 + 4.2 + 4.2	
	Control		Expansion valve (electronic type)									
Refrigerant Oil	Name		Synthetic (ether) oil									
	Liquid	mm	9.52	9.52	12.7	15.9	15.9	15.9	19.1	19.1	19.1	
Piping connections	Gas <sup>5</sup>	mm	19.1	22.2	28.6	28.6	28.6	34.9	34.9	34.9	34.9	
	Discharge Gas <sup>5</sup>	mm	15.9	19.1	22.2	22.2	22.2	28.6	28.6	28.6	28.6	
	Discharge Gas <sup>6</sup>	mm	19.1	22.2	28.6	28.6	28.6	34.9	34.9	34.9	34.9	
	max. total length		m	300								
	max. length between	OU-IU	m	150 (actual length)								
	level difference	OU-IU	m	50 (outdoor unit in highest position)								
Power Supply			3N~, 380-415V, 50Hz									

Notes:

<sup>1</sup> Nominal cooling capacities are based on : indoor temperature : 27°CDB, 19°CWB, inlet water temperature : 30°C, equivalent refrigerant piping : 7.5m, level difference : 0m.

<sup>2</sup> Nominal heating capacities are based on : indoor temperature : 20°CDB, inlet water temperature : 20°C, equivalent refrigerant piping : 7.5m, level difference : 0m

<sup>3</sup> Hold ambient temperature at 0-46°C and humidity at 80%RH or less. Heat rejection from the casing: 0.64kW/8HP

<sup>4</sup> Hold ambient temperature at 0-40°C and humidity at 80%RH or less. Heat rejection from the casing: 0.71kW/10HP

<sup>5</sup> In case of heat recovery

<sup>6</sup> In case of heat pump

› For more information on BS boxes, please refer to page 40

## › ACCESSORIES

VRV <sup>®</sup> -W HEAT RECOVERY - STANDARD SERIES		RWEYQ8P	RWEYQ10P	RWEYQ16P	RWEYQ18P	RWEYQ20P	RWEYQ24P	RWEYQ26P	RWEYQ28P	RWEYQ30P	
Fixing box		KJB111A									
REFNET header		KHRQ23M29H									
		-	KHRQ23M64H								
		-	KHRQ23M75H								
REFNET joint		KHRQ23M20T									
		KHRQ23M29T9									
		-	KHRQ23M64T								
		-	KHRQ23M75T								
Outdoor unit multi piping connection kit	for 2 outdoor units	-	BHFP26MA56				-				
	for 3 outdoor units		-					BHFP26MA84			
Strainer kit		BWU26A15									
		BWU26A20									
External control adapter for outdoor unit		DTA104A62									

VRV <sup>®</sup> -W HEAT PUMP - STANDARD SERIES		RWEYQ8P	RWEYQ10P	RWEYQ16P	RWEYQ18P	RWEYQ20P	RWEYQ24P	RWEYQ26P	RWEYQ28P	RWEYQ30P	
Cool/Heat selector		KRC19-26A									
Fixing box		KJB111A									
REFNET header		KHRQ22M29H									
		-	KHRQ22M64H								
		-	KHRQ22M75H								
REFNET joint		KHRQ22M20T									
		KHRQ22M29T9									
		-	KHRQ22M64T								
		-	KHRQ22M75T								
Outdoor unit multi piping connection kit	for 2 outdoor units	-	BHFP22MA56				-				
	for 3 outdoor units		-					BHFP22MA84			
Strainer kit		BWU26A15									
		BWU26A20									
External control adapter for outdoor unit		DTA104A62									



# GEOHERMAL SERIES

## › BENEFITS

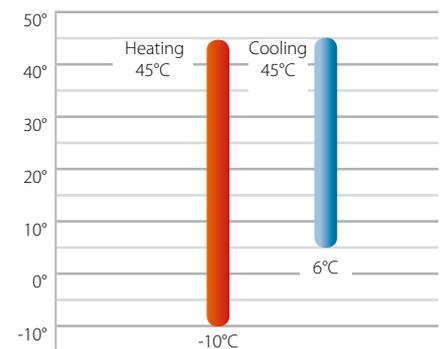
### HEATING WITH GROUND SOURCED WATER AS A RENEWABLE ENERGY SOURCE

This water cooled system uses the renewable energy from ground water, water from lakes, rivers, ...  
 Because the temperature of for example ground water remains relatively constant during the year, this systems has a superior efficiency, even in the most extreme outdoor temperatures.

### EXTENDED OPERATION RANGE

The water cooled geothermal series have an inlet water temperature down to  $-10^{\circ}\text{C}$ \* in heating, extending the water cooled application range.

\* Ethylene glycol should be added to the water when the water inlet tempetarure is below  $5^{\circ}\text{C}$



## › SPECIFICATIONS

### VRV®-W - Geothermal series - Heat recovery - heat pump

<b>RWEYQ-PR</b>				<b>8</b>	<b>10</b>		
Capacity range				8	10		
Capacity	cooling	nom.	HP	22.4	26.7		
	heating	nom.	kW	25.0	31.5		
Power input	cooling	nom.	kW	4.55	6.03		
	heating	nom.	kW	4.24	6.05		
EER				4.69	4.11		
COP				5.61	5.00		
Max. n° of indoor units to be connected				13	16		
Indoor index connection	minimum			100	125		
	maximum			200	250		
Dimensions	unit	Height	mm	1,000			
		Width	mm	780			
		Depth	mm	550			
Weight	unit			kg	149	150	
Sound pressure	cooling	nom.	dB	50	51		
Heat Exchanger		Type				Stainless steel plate	
Compressor		Type				Hermetically sealed scroll compressor	
Inlet water temperature	cooling			°C		6~45	
	heating			°C		-10~45	
Refrigerant	name				R-410A		
	charge			kg	3.5	4.2	
	control				Expansion valve (electronic type)		
Refrigerant Oil	name				Synthetic (ether) oil		
	Piping connections	liquid (OD)			mm	9.52	9.52
gas <sup>5</sup>				mm	19.1	22.2	
discharge Gas <sup>5</sup>				mm	15.9	19.1	
discharge Gas <sup>6</sup>				mm	19.1	22.2	
max. total length					m	300	
max. length between		OU-IU			m	150 (actual length)	
level difference		OU-IU			m	50 (outdoor unit in highest position)	
Power Supply						3N~, 380-415V, 50Hz	

Notes:

<sup>1</sup> Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB, inlet water temperature: 30°C, equivalent refrigerant piping: 7.5m, level difference: 0m.

<sup>2</sup> Nominal heating capacities are based on: indoor temperature: 20°CDB, inlet water temperature: 20°C, equivalent refrigerant piping: 7.5m, level difference: 0m

<sup>3</sup> Hold ambient temperature at 0-46°C and humidity at 80%RH or less. Heat rejection from the casing: 0.64kW/8HP

<sup>4</sup> Hold ambient temperature at 0-40°C and humidity at 80%RH or less. Heat rejection from the casing: 0.71kW/10HP

<sup>5</sup> In case of heat recovery

<sup>6</sup> In case of heat pump

## › ACCESSORIES

<b>VRV®-W HEAT RECOVERY - GEOTHERMAL SERIES</b>	<b>RWEYQ8PR</b>	<b>RWEYQ10PR</b>
Fixing box	KJB111A	
REFNET header	KHRQ23M29H	
REFNET joint	KHRQ23M20T	
	KHRQ23M29T9	
Strainer kit	BWU26A15	
	BWU26A20	
External control adapter for outdoor unit	DTA104A62	

## › ACCESSORIES

<b>VRV®-W HEAT PUMP - GEOTHERMAL SERIES</b>	<b>RWEYQ8PR</b>	<b>RWEYQ10PR</b>
Cool/Heat selector	KRC19-26A	
Fixing box	KJB111A	
REFNET header	KHRQ22M29H	
REFNET joint	KHRQ22M20T	
	KHRQ22M29T9	
Strainer kit	BWU26A15	
	BWU26A20	
External control adapter for outdoor unit	DTA104A62	

# INDOOR UNITS

As many as 64 separate indoor units can be operated from the single refrigerant circuit of a 54 HP VRV® heat pump system. In fact, the Daikin VRV® indoor unit range, one of the widest on the market, currently comprises **NO LESS THAN 26 DIFFERENT STYLISH AND ELEGANT MODELS IN 114 DIFFERENT VARIANTS** — all designed to maximise comfort, minimise operating noise and simplify installation and servicing.

VRV® indoor units are modern, technologically advanced and come in ceiling mounted cassette, concealed ceiling, ceiling suspended, wall mounted and floor standing models. The Roundflow cassette now includes an optional auto cleaning filter, which automatically cleans itself daily, leading to yearly energy savings of up to 10%. Dust from the filter is collected in the unit for removal by simple vacuum cleaning.

Designed to fit rooms of any size and shape, Daikin indoor units are also user friendly, quiet running, ultra reliable, easy to control and supply users with that relaxing 'extra something' to the indoor climate.



CEILING MOUNTED CASSETTES



CEILING SUSPENDED UNITS



CONCEALED CEILING UNITS



FLOOR STANDING UNITS



WALL MOUNTED UNITS



STYLISH INDOOR UNITS

CEILING MOUNTED CASSETTES

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CEILING SUSPENDED UNITS

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CONCEALED CEILING UNITS

P 94

FLOOR STANDING UNITS

P 112

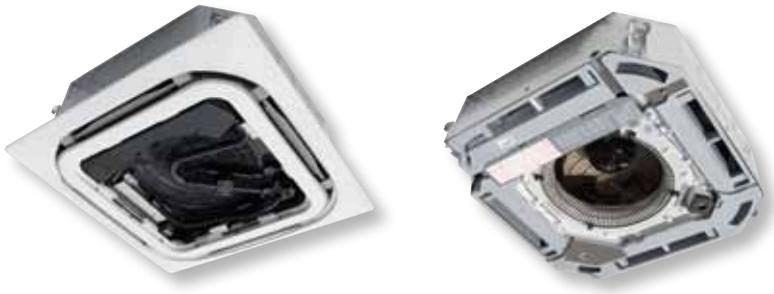
WALL MOUNTED UNITS

P 106

STYLISH INDOOR UNITS

CONNECTABLE TO VRV® HEAT PUMP RXYQ-PR

P 116

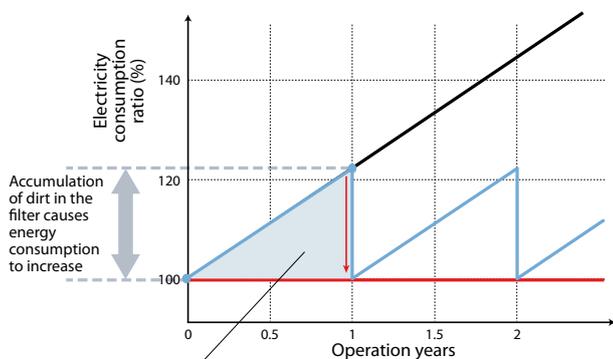


### Daikin introduces first auto cleaning cassette to European market

Daikin launches a new decoration panel for the round flow cassette, equipped with a special filter, which automatically cleans itself once a day. All dust coming from this filter is stored in the indoor unit and can be removed with a normal vacuum cleaner. With this decoration panel energy and maintenance costs will be lower and comfort will be increased.

### Higher efficiency and comfort from daily auto cleaning of the filter > Energy savings up to 10%

With a standard decoration panel the energy consumption of the unit increases slowly because dust accumulates in the filter. After the filter is cleaned the energy consumption is back at the level of installation. With the auto cleaning decoration panel the filter is cleaned everyday and therefore the energy consumption remains constant, resulting in an energy saving up to 10% compared to yearly filter cleaning.



Day 1: equal energy consumption  
After 1 year: > 20% increase in energy consumption  
=> An average increase of 10% in energy consumption on a yearly basis

- Filter is never cleaned
- Filter is cleaned once a year
- Filter is cleaned every day



## Easy removal of dust with a vacuum cleaner without opening the unit

- › Dust is stored in dust box
- › Emptying the dust box can be done with a vacuum cleaner
- › No rearrangement of shop interior etc to access the unit
- › Only a vacuum cleaner is required, no ladder or other equipment
- › Qualified personnel is not necessary
- › No manual cleaning – not required to touch the dust

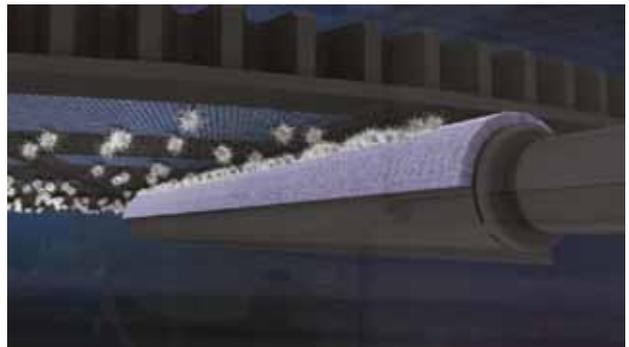
## Lower maintenance costs thanks to auto cleaning function

- › Less time needed for filter maintenance
- › Less qualified personnel required

## Detailed operation of the auto cleaning panel

### 1. Daily cleaning of the filter

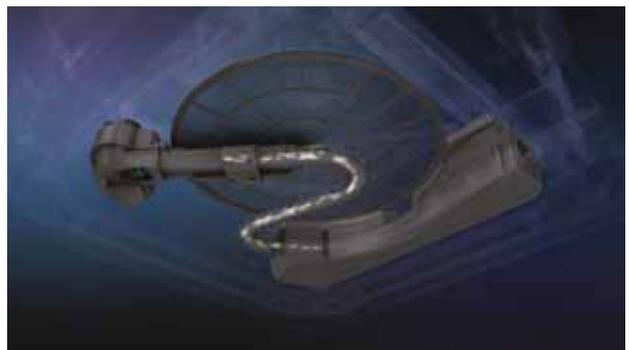
Once a day the rounded filter turns 360° to pass the special brush. The end-user can program this timing with the remote controller.



### 2. Auto cleaning cassette: operation

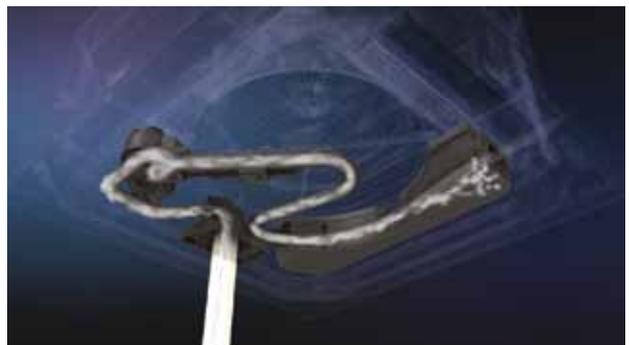
The caught dust is sent to the dust box by using the airflow of the indoor fan.

On average the dust box can contain the dust of 1 year for office applications and half a year for shop applications (depending on annual operation hours and shop type).



### 3. Auto cleaning cassette: Operation Removing dust with vacuum cleaner

- › Quick
- › Not necessary to touch dust
- › Not necessary to open panel



# FXFQ-P9

20-25-32-40-50-63-80-100-125

## Round Flow Ceiling Mounted Cassette

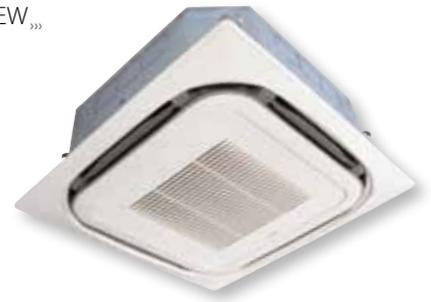


FXFQ20-63P9  
Standard panel in Pure White  
with grey louvres



FXFQ20-63P9  
Standard panel in Pure White,  
including white louvres

NEW<sup>3</sup>



FXFQ20-63P9  
Auto cleaning panel in Pure White



GOOD DESIGN  
AWARD  
IN JAPAN



BRC1E51A



BRC7F532

### Comfort & Efficiency

- › 360° air discharge ensures uniform air flow and temperature distribution
- › Modern style decoration panel is available in 3 different variations: Standard panel in white (RAL9010) with grey louvres, standard panel in full white (RAL9010) including white louvres and auto cleaning panel
- NEW<sup>3</sup> › For auto cleaning panel:
  - › Daikin introduces first auto cleaning cassette to European market
  - › Higher efficiency and comfort from daily auto cleaning of the filter
  - › Lower maintenance costs thanks to auto cleaning function
  - › Easy removal of dust with a vacuum cleaner without opening the unit
- › The use of inverter type outdoor units results in an air conditioning system with a high energy efficiency and very low sound level
- › Home leave operation saves energy during absence
- › Fresh air intake: up to 20% (optional kit required)
- › Comfortable horizontal air discharge ensures draughtfree operation and prevents ceiling soiling
- › 23 different air flow patterns possible

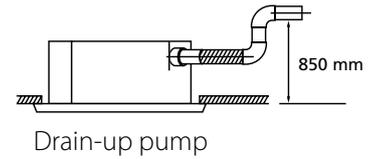
<sup>1</sup> To be able to control BYCQ140CGW1 wired remote control BRC1E51A is needed. Not compatible with VRV<sup>®</sup>III-S and infrared remote control.

<sup>2</sup> Not connectable to RXYQ-PR



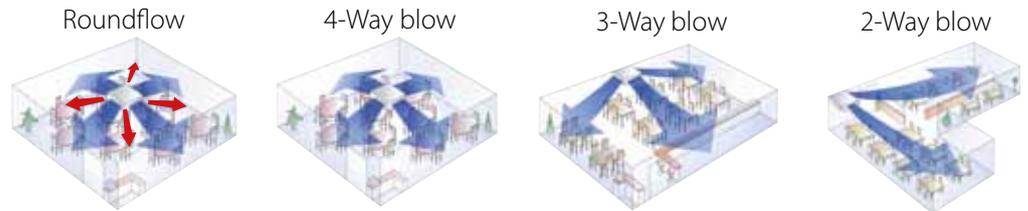
## Flexible Installation & Easy Maintenance

- › Reduced installation height:  
214mm for class 20-63
- › Drain-up pump with 850 mm lift fitted as standard
- › Easy visible drain check thanks to clear drain socket
- › Allows multi tenant applications (option PCB required)



## Examples of Airflow Patterns

360° radial round flow enables uniform air flow distribution



## SPECIFICATIONS

FXFQ-P9				20	25	32	40	50	63	80	100	125	
Cooling capacity	nom.	kW		2.2	2.8	3.6	4.5	5.6	7.1	9.0	11.2	14.0	
Heating capacity	nom.	kW		2.5	3.2	4.0	5.0	6.3	8.0	10.0	12.5	16.0	
Power input	cooling	nom.	kW	0.053			0.063	0.083	0.095	0.120	0.173	0.258	
	heating	nom.	kW	0.045			0.055	0.067	0.114	0.108	0.176	0.246	
Dimensions	(HxWxD)	mm		204 x 840 x 840						246 x 840 x 840		288 x 840 x 840	
Weight	unit	kg		20.0				21.0		24.0		26.0	
Casing	material			Galvanised steel									
Air Flow Rate	cooling	H / L	m <sup>3</sup> /min	12.5 / 9.0			13.5 / 9.0	15.5 / 10.0	16.5 / 11.0	23.5 / 14.5	26.5 / 17.0	33.0 / 20.0	
	heating	H / L	m <sup>3</sup> /min	12.5 / 9.0			13.5 / 9.0	15.0 / 9.5	17.5 / 12.0	23.5 / 14.5	28.0 / 17.5	33.0 / 20.0	
Sound power (nominal)	cooling	H / L	dBA	49			50	51	52	55	58	61	
		H / L											
Sound pressure	cooling	H / L	dBA	31 / 28			32 / 28	33 / 28	34 / 29	38 / 32	41 / 33	44 / 34	
	heating	H / L	dBA	31 / 28			32 / 28	33 / 28	36 / 30	38 / 32	42 / 34	44 / 34	
Refrigerant	name			R-410A									
Piping Connections	Liquid / Gas / Drain	diameter	mm	6.35 / 12.7 / VP25 (I.D.25/O.D.32)			6.4 / 12.7 / VP25 (I.D.25/O.D.32)			9.5 / 15.9 / VP25 (I.D.25/O.D.32)			
Air Filter				Resin net with mold resistance									
Drain-up Height		mm		850									
Decoration Panel	model			BYCQ140CW1 <sup>6</sup> / BYCQ140CW1W <sup>7</sup> / BYCQ140CGW1 <sup>8</sup>									
	colour			Pure white (RAL9010)									
	dimensions (HxWxD)	mm		50x950x950									
	weight	kg		5.5									
Power Supply				1~, 220-240V, 50Hz									

Notes:

- The sound pressure values are mentioned for a unit installed with rear suction
- The sound power level is an absolute value indicating the power with a sound source generates.
- Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB, outdoor temperature: 35°CDB, equivalent refrigerant piping: 5m, level difference: 0m.
- Nominal heating capacities are based on: indoor temperature: 20°CDB, outdoor temperature: 7°CDB, 6°CWB, equivalent refrigerant piping: 5m, level difference: 0m.
- Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.
- Pure white standard panel with grey louvers
- Pure white standard panel with white louvers
- Pure white auto cleaning panel to be able to control BYCQ140CGW1 wired remote control BRC1E51A is needed. Not compatible with VRV<sup>III</sup>-S and infrared remote control

## ACCESSORIES

FXFQ-P9				20	25	32	40	50	63	80	125	
Wired remote control				BRC1E51A / BRC1D52								
Infrared remote control	cooling only			BRC7F533F <sup>1</sup>								
	heat pump			BRC7F532F <sup>1</sup>								
Decoration panel				Refer to table above								
Replacement long life filter (non-woven type)				KAFP551K160								
Fresh air intake kit (20% fresh air intake) (chamber type)				KDDQ55C140 <sup>1</sup>								
Air discharge outlet sealing member				KDBHQ55C140								
PCB for multi tenant				DTA114A61 <sup>2</sup>								

<sup>1</sup> Option not available for BYCQ140CGW1

<sup>2</sup> Mounting plate KRP1H98 is required

# FXZQ-M9

20-25-32-40-50

## 4-Way Blow Ceiling Mounted Cassette 600 x 600mm



FXZQ20-50M9



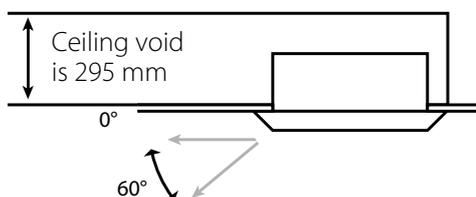
BRC1E51A



BRC7E530

### Comfort & Efficiency

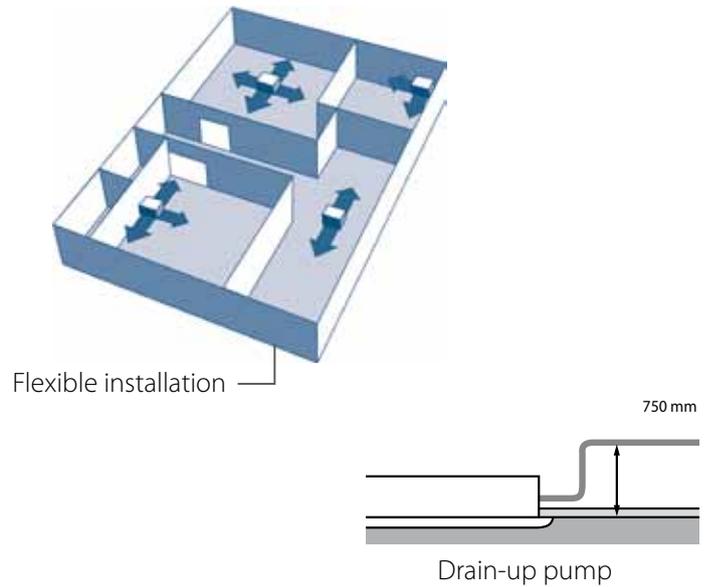
- › Modern style decoration panel in pure white (RAL9010)
- › The use of inverter type outdoor units results in an air conditioning system with a high energy efficiency and very low sound level
- › Home leave operation saves energy during absence
- › Whisper quiet operation: down to 25 dBA sound pressure level
- › Fresh air intake for healthy living
- › Comfortable air discharge ensures draught for operation and prevents ceiling soiling
- › Since the flaps can move to a 0° position, virtually no draught can be experienced



\* Not connectable to RXYQ-PR

## Flexible Installation & Easy Maintenance

- › Compact casing (575mm in width and depth) enables unit to fit flush into ceilings and match standard architectural modules, without cutting ceiling tiles.
- › Possibility to shut 1 or 2 flaps for easy installation in corners
- › The switch box can be reached by simply removing the suction grille; therefore maintenance can be done very easily
- › Drain-up pump with 750mm lift fitted as standard
- › Allows multi tenant applications (option required)



## SPECIFICATIONS

FXZQ-M9				20	25	32	40	50
Cooling capacity	nom.	kW		2.2	2.8	3.6	4.5	5.6
Heating capacity	nom.	kW		2.5	3.2	4.0	5.0	6.3
Power input	cooling	nom.	kW	0.073		0.076	0.089	0.115
	heating	nom.	kW	0.064		0.068	0.080	0.107
Dimensions (HxWxD)		mm	286x575x575					
Weight	unit	kg	18					
Casing	material		Galvanised steel plate					
Air flow rate	cooling	H/L	m <sup>3</sup> /min	9.0/7.0		9.5/7.5	11.0/8.0	14.0/10.0
Sound power level	cooling	H/L	dBA	47		49	53	58
Sound pressure level (220V)	cooling	H/L	dBA	30/25		32/26	36/28	41/33
Refrigerant type			R-410A					
Piping connections	liquid / gas / drain	mm	ø6.4 / ø12.7 / up 25 (ID ø20.0 - OD ø26.0)					
Air filter			Resin net with mold resistant					
Drain-up height		mm	750					
Decoration panel	model		BYFQ60B					
	colour		Pure white (RAL 9010)					
	dimensions (HxWxD)	mm	55x700x700					
	weight	kg	2.7					
Power supply			1~, 220-240V, 50Hz					

Notes:

<sup>1</sup> Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB • outdoor temperature: 35°CDB • equivalent piping length: 7.5m (horizontal).

<sup>2</sup> Nominal heating capacities are based on: indoor temperature: 20°CDB • outdoor temperature: 7°CDB, 6°CWB • equivalent piping length: 7.5m (horizontal).

<sup>3</sup> Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.

## ACCESSORIES

FXZQ-M9			20	25	32	40	50
Wired remote control			BRC1E51A / BRC1D52				
Infrared remote control	cooling only		BRC7E531				
	heat pump		BRC7E530				
Decoration panel			Refer to table above				
Sealing member of air discharge outlet			KDBH44BA60				
Panel spacer			KDBQ44B60				
Replacement long life filter			KAFQ441B60				
Fresh air intake kit	direct installation type		KDDQ44XA60				
Multi tenant option			EKMTAC				

# FXCQ-M8

20-25-32-40-50-63-80-125

4-Way Blow Ceiling Mounted Cassette  
600 x 600mm



FXCQ20-32M8



BRC1E51A



BRC7C62

## Comfort & Efficiency

- › The use of inverter type outdoor units results in an air conditioning system with a high energy efficiency and very low sound level
- › Home leave operation saves energy during absence
- › Auto-swing function ensures efficient air and temperature distribution and prevents ceiling soiling



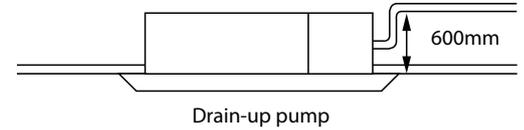
\* Not connectable to RXYQ-PR

## Filter

- › Standard long life filter

## Flexible Installation & Easy Maintenance

- › Easy to install: depth of all units is 600mm
- › Maintenance operations can be performed by simply removing the front panel
- › Drain-up pump with 600mm lift fitted as standard
- › Easy to clean flat suction grille
- › Detachable swing flaps



# SPECIFICATIONS

FXCQ-M8			20	25	32	40	50	63	80	125	
Cooling capacity	nom.	kW	2.2	2.8	3.6	4.5	5.6	7.1	9.0	14.0	
Heating capacity	nom.	kW	2.5	3.2	4.0	5.0	6.3	8.0	10.0	16.0	
Power input	cooling	nom. kW	0.077	0.092		0.130		0.161	0.209	0.256	
	heating	nom. kW	0.044	0.059		0.097		0.126	0.176	0.223	
Dimensions (HxWxD)		mm	305 x 780 x 600			305 x 995 x 600		305 x 1,180 x 600		305 x 1,670 x 600	
Weight	unit	kg	26			31	32	35	47	48	
Casing	material		Galvanised steel plate								
Air flow rate	cooling	H / L	m <sup>3</sup> /min	7 / 5	9 / 6.5		12 / 9		16.5 / 13	26 / 21	33 / 25
Sound power level	cooling	nom.	dBA	45	50		52		54	60	
Sound pressure level	cooling	H / L	dBA	33 / 28	35 / 29		35.5 / 30.5		38 / 33	40 / 35	45 / 39
Refrigerant type				R-410A							
Piping connections	liquid / gas / drain	mm	ø6.4 / ø12.7 / VP25 (ID 25 / OD 32)					ø9.5 / ø15.9 / VP25 (ID 25 / OD 32)			
Air filter			Resin net with mold resistant								
Drain-up height		mm	600								
Decoration panel	model		BYBC32GJW1			BYBC50GJW1		BYBC63GJW1	BYBC125GJW1		
	colour		Ivory white								
	dimensions (HxWxD)	mm	53 x 1,030 x 680			53 x 1,245 x 680		53 x 1,430 x 680		53 x 1,920 x 680	
	weight	kg	8			8.5		9.5		12	
Power supply			1~, 230V, 50Hz								

Notes:

Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB • outdoor temperature: 35°CDB • equivalent refrigerant piping: 8m • level difference: 0m.

Nominal heating capacities are based on: indoor temperature: 20°CDB • outdoor temperature: 7°CDB, 6°CWB • equivalent refrigerant piping: 8m • level difference: 0m.

Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.

# ACCESSORIES

FXCQ-M8		20	25	32	40	50	63	80	125	
Wired remote control		BRC1E51A / BRC1D52								
Infrared remote control	cooling only	BRC7C67								
	heat pump	BRC7C62								
Decoration panel		Refer to table above								
High efficiency filter 65% *1		KAFJ532G36			KAFJ532G56		KAFJ532G80	KAFJ532G160		
High efficiency filter 90% *1		KAFJ533G36			KAFJ533G56		KAFJ533G80	KAFJ533G160		
Filter chamber for bottom suction		KDDFJ53G36			KDDFJ53G56		KDDFJ53G80	KDDFJ53G160		
Replacement long life filter		KAFJ531G36			KAFJ531G56		KAFJ531G80	KAFJ531G160		

\*1 Filter chamber is required when installing a high efficiency filter.



FXKQ63MA



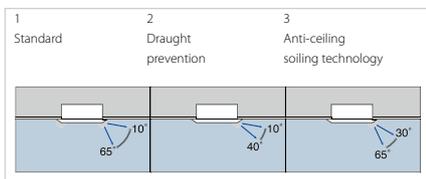
BRC1E51A



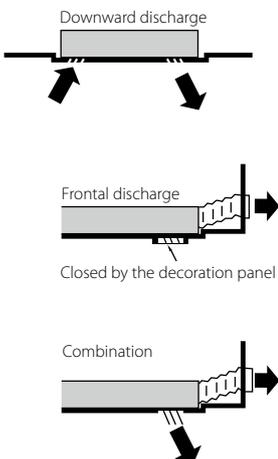
BRC4C61

### Comfort & Efficiency

- › The use of inverter type outdoor units results in an air conditioning system with a high energy efficiency
- › Home leave operation saves energy during absence
- › Comfortable horizontal air discharge ensures draughtfree operation and prevents ceiling soiling



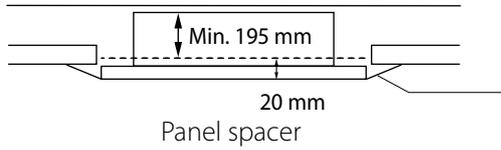
- › Optimum air flow conditions are created by either downward air discharge or frontal air discharge (via optional grille) or a combination of both



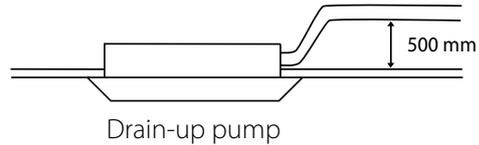
\* Not connectable to RXYQ-PR

## Flexible Installation

- › Compact dimensions, can easily be mounted in a narrow ceiling void (only 220 mm ceiling space required, 195 with panel spacer, available as accessory)



- › Drain-up pump with 500mm lift fitted as standard



## SPECIFICATIONS

FXKQ-MA				25	32	40	63
Cooling capacity		nom.	kW	2.8	3.6	4.5	7.1
Heating capacity		nom.	kW	3.2	4.0	5.0	8.0
Power input	cooling	nom.	kW	0.066		0.076	0.105
	heating	nom.	kW	0.046		0.056	0.085
Dimensions (HxWxD)			mm	215x1,110x710			215x1,310x710
Weight	unit		kg	31			34
Casing	material		Galvanised steel plate				
Air flow rate	cooling	H / L	m <sup>3</sup> /min	11 / 9		13 / 10	18 / 15
Sound power level	cooling	nom.		dBA			
Sound pressure level (220V)	cooling	H / L		38 / 33		40 / 34	42 / 37
Refrigerant type			R-410A				
Piping connections	liquid / gas / drain		mm	ø6.4 / ø12.7 / VP25 (ID 25 / OD 32)			ø9.5 / ø15.9 / VP25 (ID 25 / OD 32)
Air filter			Resin net with mold resistant				
Drain-up height			mm	500			
Decoration panel	model		BYK45FJW1		BYK71FJW1		
	colour		Ivory white				
	weight	kg		70x1,240x800			70x1,440x800
	dimensions (HxWxD)		mm		8.5		
Power supply			1~, 220-240V, 50Hz				

### Notes:

Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB • outdoor temperature: 35°CDB • equivalent refrigerant piping: 7.5m (horizontal).

Nominal heating capacities are based on: indoor temperature: 20°CDB • outdoor temperature: 7°CDB, 6°CWB • equivalent refrigerant piping: 7.5m (horizontal).

Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.

## ACCESSORIES

FXKQ-MA				25	32	40	63
Wired remote control			BRC1E51A / BRC1D52				
Infrared remote control	cooling only		BRC4C63				
	heat pump		BRC4C61				
Decoration panel			Refer to table above				
Panel spacer			KPBJ52F56		KPBJ52F80		
Replacement long life filter			KAFJ521F56		KAFJ521F80		
Air discharge grille			K-HV7AW		K-HV9AW		
Air discharge blind panel			KDBJ52F56W		KDBJ52F80W		
Flexible duct (with shutter)			KFDJ52F56		KFDJ52F80		

# FXDQ-M9

20-25

## Small Concealed Ceiling Unit



FXDQ20-25M9



BRC1E51A



BRC4C62

### Comfort & Efficiency

- › Designed for hotel bedrooms
- › Blends unobtrusively with any interior décor: only the suction and discharge grilles are visible
- › The use of inverter type outdoor units results in an air conditioning system with a high energy efficiency and very low sound level
- › Home leave operation saves energy during absence



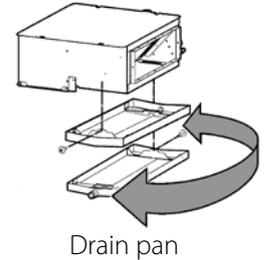
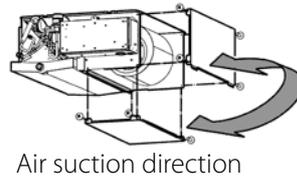
\* Not connectable to RXYQ-PR

## Filter

- › Standard air filter: removes airborne dust particles to ensure a steady supply of clean air

## Flexible Installation

- › Compact dimensions (230mm high & 652mm deep), can easily be mounted in a ceiling void
- › 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 the right of the unit
- › Allows multi tenant applications (option required)



# SPECIFICATIONS

FXDQ-M9				20	25
Cooling capacity		nom.	kW	2.2	2.8
Heating capacity		nom.	kW	2.5	3.2
Power input	cooling	nom.	kW		0.050
	heating	nom.	kW		0.050
Dimensions (HxWxD)			mm	230x502x652	
Weight	unit		kg	17	
Casing	material			Galvanised steel plate	
Air flow rate	cooling	H / L	m <sup>3</sup> /min	6.7/5.2	7.4/5.8
	heating	H / L	m <sup>3</sup> /min	6.7/5.2	7.4/5.8
External static pressure			Pa	-	-
Sound power level	cooling	nom.	dBA	50	
Sound pressure level	cooling	H / L	dBA	37/32	
	heating	H / L	dBA	37/32	
Refrigerant type				R-410A	
Piping connections	liquid/gas/drain		mm	ø6.4/ø12.7	
Air filter				Resin net with mold resistant	
Power supply				1~, 230V, 50Hz	

Notes :

<sup>1</sup> Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB • outdoor temperature: 35°CDB • equivalent refrigerant piping: 8m • level difference : 0m

<sup>2</sup> Nominal heating capacities are based on: indoor air temperature: 20°CDB • outdoor temperature: 7°CDB, 6°CWB • equivalent refrigerant piping: 8m • level difference : 0m

<sup>3</sup> Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.

# ACCESSORIES

FXDQ-M9			20	25
Wired remote control			BRC1E51A / BRC1D52 / BRC2C51 / BRC3A61	
Infrared remote control	cooling		BRC4C64	
	heating		BRC4C62	
Multi tenant option			EKMTAC	



FXDQ20-32PB



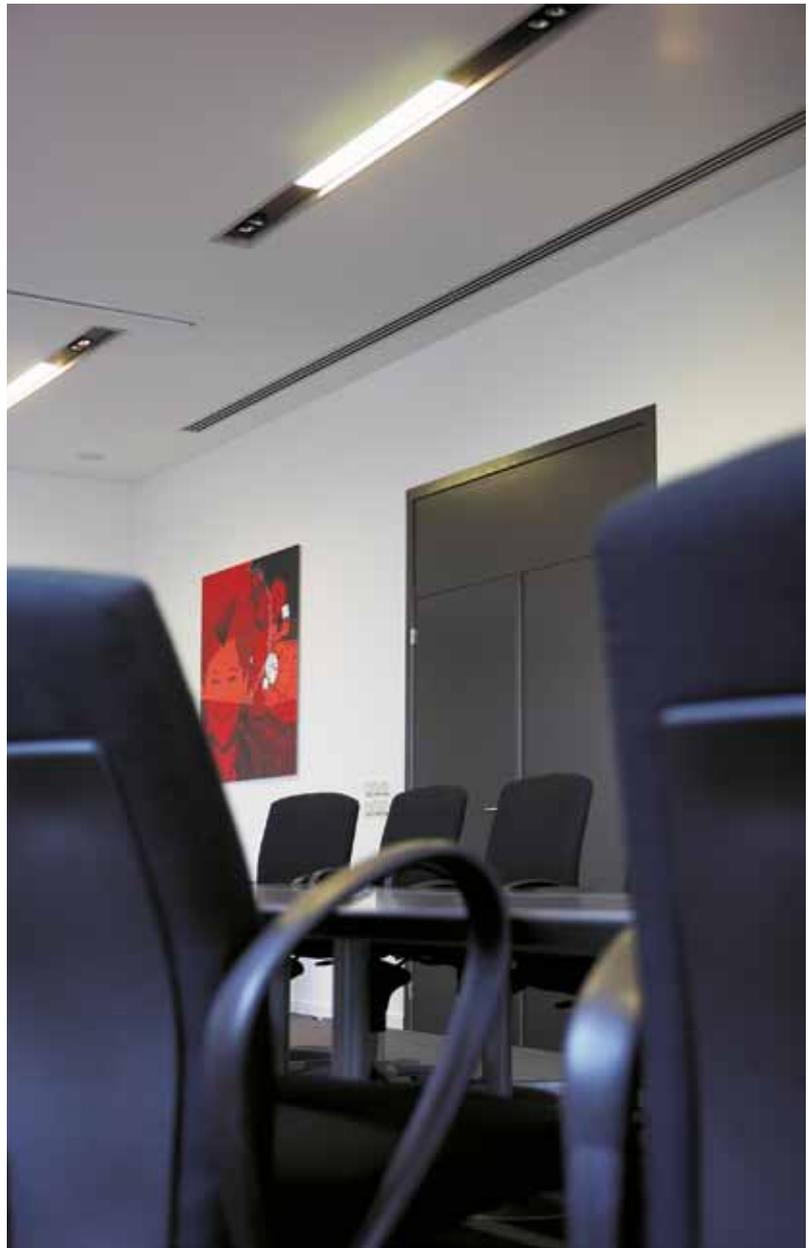
BRC1E51A



BRC4C62

### Comfort & Efficiency

- › Blends unobtrusively with any interior décor: only the suction and discharge grilles are visible
- › The use of inverter type outdoor units results in an air conditioning system with a high energy efficiency and very low sound level
- › Home leave operation saves energy during absence



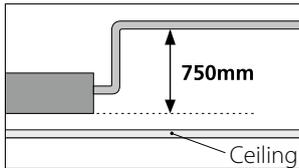
\* Not connectable to RXYQ-PR

## Filter

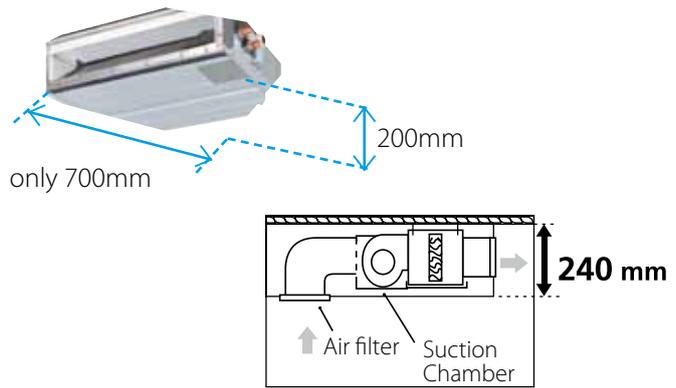
- Standard air filter: removes airborne dust particles to ensure a steady supply of clean air

## Flexible Installation

- Compact dimensions, can easily be mounted in a ceiling void of only 240mm
- Medium external static pressure facilitates unit use with flexible ducts of varying lengths
- Drain-up pump with 750mm lift fitted as standard
- Allows multi tenant applications (option required)



Drain-up pump



# SPECIFICATIONS

FXDQ-PB				20	25	32
Cooling capacity	nom.		kW	2.2	2.8	3.6
Heating capacity	nom.		kW	2.5	3.2	4.0
Power input	cooling	nom.	kW	0.086		0.089
	heating	nom.	kW	0.067		0.070
Dimensions (HxWxD)			mm	200 x 700 x 620		
Weight	unit		kg	23		
Casing	material			Galvanised steel plate		
Air flow rate	cooling	HH/H/M/L	m <sup>3</sup> /min	8.0 / 7.2 / - / 6.4		
External static pressure		high/standard/low	Pa	30 / 10 / -		
Sound power level	cooling	nom.	dBA	-		
Sound pressure level	cooling	HH/H/M/L	dBA	33 / 31 / - / 29		
Refrigerant type				R-410A		
Drain-up height			mm	750		
Piping connections	liquid / gas / drain		mm	ø6.4 / ø12.7 / VP20 (I.D. 20 / O.D. 26)		
Air filter				Removable, washable, mildew proof		
Power supply				1~ / 220-240V / 50Hz		

Notes:

<sup>1</sup> Nominal cooling capacities are based on: • Indoor temperature: 27°CDB, 19°CWB • Outdoor temperature: 35°CDB • Equivalent piping length: 7.5m (horizontal).

<sup>2</sup> Nominal heating capacities are based on: • Indoor temperature: 20°CDB • Outdoor temperature: 7°CDB, 6°CWB • Equivalent piping length: 7.5m (horizontal).

<sup>3</sup> Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.

<sup>4</sup> The sound pressure values are mentioned for a unit installed with rear suction.

# ACCESSORIES

FXDQ-PB		20	25	32
Wired remote control		BRC1E51A / BRC1D52 / BRC2C51 / BRC3A61		
Infrared remote control	cooling only	BRC4C64		
	heat pump	BRC4C62		
Insulation kit for high humidity		KDT25N32		
Multi tenant option		EKMTAC		

# FXDQ-NB

40-50-63

## Slim Concealed Ceiling Unit



FXDQ40-50NB



BRC1E51A



BRC4C62

### Comfort & Efficiency

- › Blends unobtrusively with any interior décor: only the suction and discharge grilles are visible
- › The use of inverter type outdoor units results in an air conditioning system with a high energy efficiency and very low sound level
- › Home leave operation saves energy during absence



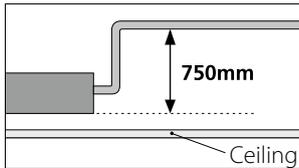
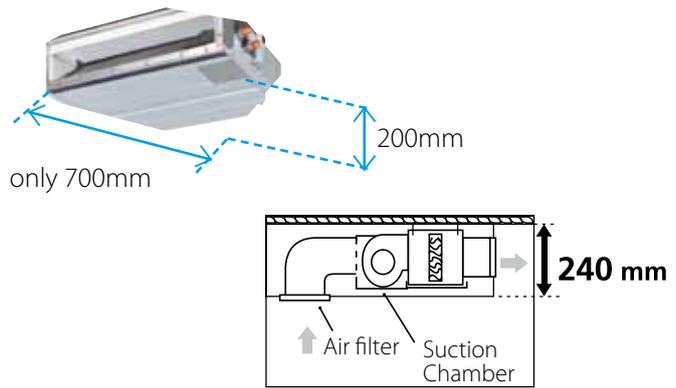
\* Not connectable to RXYQ-PR

## Filter

- Standard air filter: removes airborne dust particles to ensure a steady supply of clean air

## Flexible Installation

- Compact dimensions, can easily be mounted in a ceiling void of only 240mm
- Medium external static pressure facilitates unit use with flexible ducts of varying lengths
- Drain-up pump with 750mm lift fitted as standard
- Allows multi tenant applications (option required)



Drain-up pump

# SPECIFICATIONS

FXDQ-NB				40	50	63
Cooling capacity	nom.	kW		4.5	5.6	7.1
Heating capacity	nom.	kW		5.0	6.3	8.0
Power input	cooling	nom.	kW	0.160	0.165	0.181
	heating	nom.	kW	0.147	0.152	0.168
Dimensions (HxWxD)		mm		200 x 900 x 620		200 x 1.100 x 620
Weight	unit	kg		27	28	31
Casing	material			Galvanised steel plate		
Air flow rate	cooling	HH/H/M/L	m <sup>3</sup> /min	10.5 / 9.5 / - / 8.5	12.5 / 11.0 / - / 10.0	16.5 / 14.5 / - / 13.0
External static pressure		high/standard/low	Pa		44 / 15 / -	
Sound power level	cooling	nom.	dBA		-	
Sound pressure level	cooling	HH/H/M/L	dBA	34 / 32 / - / 30	35 / 33 / - / 31	36 / 34 / - / 32
Refrigerant type				R-410A		
Drain-up height		mm		750		
Piping connections	liquid / gas / drain	mm		ø6.4 / ø12.7 / VP 20 (I.D. 20/ O.D. 26)		ø9.5 / ø15.9 / VP 20 (I.D. 20/ O.D. 26)
Air filter				Removable, washable, mildew proof		
Power supply				1~, 220-240V, 50Hz		

Notes:

<sup>1</sup> Nominal cooling capacities are based on: • Indoor temperature: 27°CDB, 19°CWB • Outdoor temperature: 35°CDB • Equivalent piping length: 7.5m (horizontal).

<sup>2</sup> Nominal heating capacities are based on: • Indoor temperature: 20°CDB • Outdoor temperature: 7°CDB, 6°CWB • Equivalent piping length: 7.5m (horizontal).

<sup>3</sup> Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.

<sup>4</sup> The sound pressure values are mentioned for a unit installed with rear suction.

# ACCESSORIES

FXDQ-NB		40	50	63
Wired remote control		BRC1E51A / BRC1D52 / BRC2C51 / BRC3A61		
Infrared remote control	cooling only	BRC4C64		
	heat pump	BRC4C62		
Insulation kit for high humidity		KDT25N50		KDT25N63
Multi tenant option		EKMTAC		

# FXSQ-P

20-25-32-40-50-63-80-100-125-140

## Concealed Ceiling Unit With Inverter Driven Fan

NEW „„



FXSQ40-50P



BRC1E51A



BRC4C66

### Comfort & Efficiency

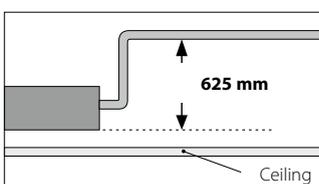
- › Reduction of power consumption of 20% (compared to previous series) through use of new DC fan
- › Improved comfort thanks to 3-step airflow control
- › Blends unobtrusively with any interior décor: only the suction and discharge grilles are visible
- › The use of an integrated inverter control ensures maximum comfort and efficiency
- › Home leave operation saves energy during absence

### Filter

- › Standard air filter: removes airborne dust particles to ensure a steady supply of clean air

### Flexible Installation

- NEW „„
- › External static pressure (ESP) up to 140 Pa facilitates the use with flexible ducts of varying lengths: ideal for shops and medium size offices
  - › Possibility to change ESP through wired remote control allows optimisation of the supply air volume
  - › Built-in drain pump as standard increases reliability of the drain system
  - › Allows multi tenant applications (option PCB required)
  - › Easy installation thanks to automatic air flow adjustment towards nominal air flow rate



Drain-up pump



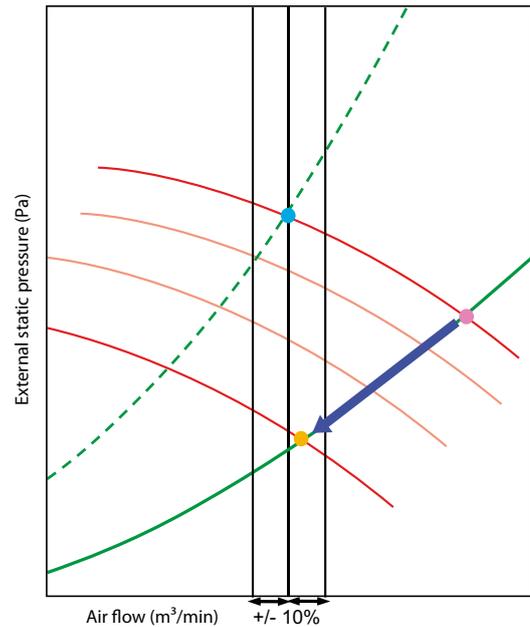
\* Not connectable to RXYQ-PR

## Easy installation thanks to automatic air flow adjustment towards nominal air flow: Installation made easier

### Reduced installation time

- › After installation, it is possible that the actual duct resistance is lower than expected at time of designing. As a consequence the air flow will be too high.
- › With the automatic air flow adjustment function the unit can adapt its fan speed to a lower curve, so the air flow decreases.
- › The air flow will always be within 10% of the rated air flow because of the amount of possible fan curves (more than 8 fan curves available per model).
- › Alternatively the installer can manually select a fan curve with the wired remote control.

	Fan characteristic curve
	Actual duct resistance curve
	Duct resistance curve at the time of designing
	Rated air flow
	Airflow without air flow automatic adjustment
	Actual airflow



## SPECIFICATIONS

NEW <sup>»»</sup>

FXSQ-P			20	25	32	40	50	63	80	100	125	140			
Cooling capacity	nom.	kW	2.2	2.8	3.6	4.5	5.6	7.1	9.0	11.2	14.0	16.0			
Heating capacity	nom.	kW	2.5	3.2	4.0	5.0	6.3	8.0	10.0	12.0	16.0	18.0			
Power Input	cooling	nom.	0.041		0.044	0.097		0.074	0.118	0.117	0.185	0.261			
	heating	nom.	0.029		0.032	0.085		0.062	0.106	0.105	0.173	0.249			
Dimensions (HxWxD)		mm	300x550x700			300x700x700			300x1,000x700			300x1,400x700			
Weight		kg	23			26			35			46			
Casing			Galvanised steel												
Air Flow Rate	cooling	H / L	m³/min		9 / 6.5	9.5 / 7		16 / 11		19.5 / 16	25 / 20	32 / 23	39 / 28	46 / 32	
	heating	H / L	m³/min		9 / 6.5	9.5 / 7		16 / 11		19.5 / 16	25 / 20	32 / 23	39 / 28	46 / 32	
External static pressure	high / standard / low	Pa	70 / 30 / -			100 / 30 / -			100 / 40 / -		120 / 40 / -	120 / 50 / -	140 / 50 / -		
Sound power level	cooling	nom.	dBA		51	52		58		56		62		67	
Sound pressure level	cooling	HH/H/M/L	dBA		- / 32 / - / 26	- / 33 / - / 27		- / 37 / - / 29		- / 37 / - / 30		- / 38 / - / 32		- / 40 / - / 33	- / 42 / - / 34
Refrigerant type			R-410A												
Piping connections	liquid / gas / drain	mm	6.35 / 12.7 / VP25 (O.D. 32 / I.D. 25)					9.52 / 15.9 / VP25 (O.D. 32 / I.D. 25)							
Decoration panel	model		BYBS32DJW1			BYBS45DJW1			BYBS71DJW1			BYBS125DJW1			
	colour		White (10Y9/0,5)												
	height x width x depth	mm	55 x 650 x 500			55 x 800 x 500			55 x 1,100 x 500			55 x 1,500 x 500			
	weight	kg	3.0			3.5			4.5			6.5			
Power Supply			1~, 50Hz, 220-240V												

Notes:

<sup>1</sup> Nominal cooling capacities measured at: indoor temperature 27°CDB/19°CWB, outdoor temperature 35°CDB, equivalent piping length: outdoor-BP 5m, BP-indoor 3m, level difference 0m

<sup>2</sup> Nominal heating capacities measured at: indoor temperature 20°CDB, outdoor temperature 7°CDB/6°CWB, equivalent piping length: outdoor-BP 5m, BP-indoor 3m level difference 0m

<sup>3</sup> Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat

<sup>4</sup> Sound pressure level measured at a certain distance from the unit

## ACCESSORIES

NEW <sup>»»</sup>

FXSQ-P			20	25	32	40	50	63	80	100	125	140		
Wired remote control			BRC1E51A, BRC1D52, BRC2C51, BRC3A61											
Infrared remote control	cooling only		BRC4C66											
	heat pump		BRC4C65											
Decoration panel			Refer to the table above											
Decoration panel option			EKBYBSD											
Air discharge adapter for round duct			KDAJ25K36			KDAJ25KA56			KDAJ25KA71			KDAJ25KA140		
PCB for multi tenant			DTA114A61*2											

Notes:

\*1. If installing a high efficiency filter in the unit, an assembly chamber for either bottom or rear suction is required.

\*2. Mounting plate KRP4A96 is required

# FXMQ-P7

20-25-32-40-50-63-80-100-125

## Concealed Ceiling Unit With Inverter Driven Fan

NEW „„



FXMQ50-80P7



BRC1E51A



BRC4C66

### Comfort & Efficiency

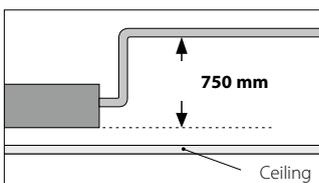
- › Reduction of power consumption of 20% (compared to previous series) through use of new DC fan
- › Improved comfort thanks to 3-step airflow control
- › Blends unobtrusively with any interior décor: only the suction and discharge grilles are visible
- › The use of inverter type outdoor units results in an air conditioning system with a high energy efficiency and very low sound level
- › Home leave operation saves energy during absence

### Filter

- NEW „„
- › Standard air filter: removes airborne dust particles to ensure a steady supply of clean air

### Flexible Installation

- NEW „„
- › Up to 200 Pa external static pressure (ESP) allows extensive ductwork runs and flexible application: ideal for use in large areas
  - › Possibility to change ESP through wired remote control allows optimisation of the supply air volume
  - › The air suction direction can be altered from rear to bottom suction
  - › Built-in drain pump as standard increases reliability of the drain system



Drain-up pump

- › Allows multi tenant applications (option PCB required)



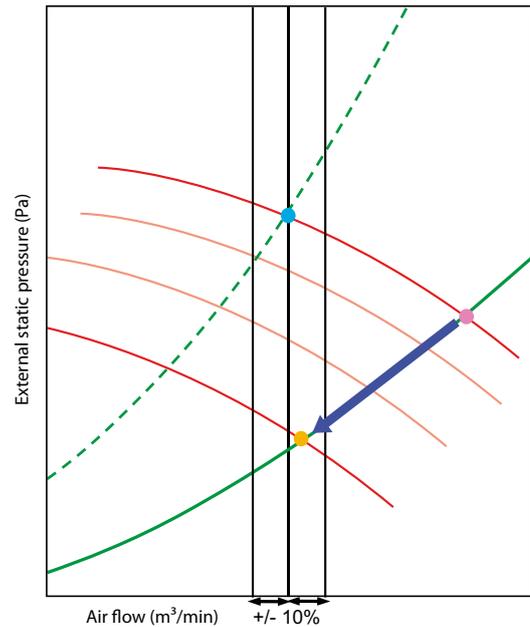
\* Not connectable to RXYQ-PR

## Easy installation thanks to automatic air flow adjustment towards nominal air flow: Installation made easier

### Reduced installation time

- › After installation, it is possible that the actual duct resistance is lower than expected at time of designing. As a consequence the air flow will be too high.
- › With the automatic air flow adjustment function the unit can adapt its fan speed to a lower curve, so the air flow decreases.
- › The air flow will always be within 10% of the rated air flow because of the amount of possible fan curves (more than 8 fan curves available per model).
- › Alternatively the installer can manually select a fan curve with the wired remote control.

	Fan characteristic curve
	Actual duct resistance curve
	Duct resistance curve at the time of designing
	Rated air flow
	Airflow without air flow automatic adjustment
	Actual airflow



## SPECIFICATIONS

FXMQ-P7				20	25	32	40	50	63	80	100	125
Cooling capacity	nom.	kW		2.2	2.8	3.6	4.5	5.6	7.1	9.0	11.2	14.0
Heating capacity	nom.	kW		2.5	3.2	4.0	5.0	6.3	8.0	10.0	12.5	16.0
Power input	cooling	nom.	kW	0.049	0.049	0.053	0.151	0.110	0.120	0.171	0.176	0.241
	heating	nom.	kW	0.037	0.037	0.041	0.139	0.098	0.108	0.159	0.164	0.229
Dimensions (HxWxD)		mm		300 x 550 x 700			300x700x700		300x1,000x700		300x1,400x700	
Weight	unit	kg		23			26		35		46	
Casing	material			Galvanised steel plate								
Air flow rate	cooling	H/L	m³/min	9 / 6.5	9 / 6.5	9.5 / 7	16 / 11	18 / 15	19.5 / 16	25 / 20	32 / 23	39 / 28
	heating	H/L	m³/min	9 / 6.5	9 / 6.5	9.5 / 7	16 / 11	18 / 15	19.5 / 16	25 / 20	32 / 23	39 / 28
External static pressure	high / standard	Pa		100/50			160/30		200/50			
Sound power level		dB(A)		56	56	57	65	61	64	67	65	70
Sound pressure level	cooling	H/M/L	dB(A)	33/31/29	33/31/29	34/32/30	39/37/35	41/39/37	42/40/38	43/41/39		44/42/40
	heating	H/M/L	dB(A)	33/31/29	33/31/29	34/32/30	39/37/35	41/39/37	42/40/38	43/41/39		44/42/40
Refrigerant type				R-410A								
Piping connections	liquid / gas / drain	mm		6.35 / 12.7 / VP25 (I.D. 25/O.D.32)					9.5 / 15.9 / VP25 (I.D. 25/O.D.32)			
Air filter				Resin net with mold resistance								
Decoration panel	model			BYBS32DJW1			BYBS45DJW1	BYBS71DJW1		BYBS125DJW1		
	colour			White (10Y9 / 0.5)								
	height x width x depth	mm		55x650x500			55x800x500	55x1,100x500		55x1,500x500		
	weight	kg		3.0			3.5	4.5		6.5		
Power supply				1~, 50Hz, 220-240V								

Notes:

<sup>1</sup> Nominal cooling capacities are based on : return air temperature : 27°CDB, 19°CWB, outdoor temperature : 35°CDB, external static pressure: 100Pa, equivalent refrigerant piping : 7.5m (horizontal)

<sup>2</sup> Nominal heating capacities are based on : return air temperature : 20°CDB, outdoor temperature : 7°CDB, 6°CWB, external static pressure: 100Pa, equivalent refrigerant piping : 7.5m (horizontal)

<sup>3</sup> Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.

## ACCESSORIES

FXMQ-P7				20	25	32	40	50	63	80	100	125
Wired remote control				BRC1E51A / BRC1D52 / BRC2C51								
Infrared remote control	cooling only			BRC4C65								
	heat pump			BRC4C65								
Decoration panel	model			Refer to table above								
	colour			White (10Y9 / 0.5)								
	height x width x depth	mm		55x650x500			55x800x500	55x1,100x500		55x1,500x500		
	weight	kg		3.0			3.5	4.5		6.5		
Decoration panel option				EKBYBSD								
Air discharge adapter for round duct				KDAJ25K36A			KDAJ25K56A	KDAJ25K71A		KDAJ25K140A		



FXMQ200-250MA



BRC1E51A



BRC4C66

### Comfort & Efficiency

- › Blends unobtrusively with any interior décor: only the suction and discharge grilles are visible
- › The use of inverter type outdoor units results in an air conditioning system with a high energy efficiency and very low sound level
- › Home leave operation saves energy during absence

### Flexible Installation

- › Up to 270 Pa external static pressure (ESP) allows extensive ductwork runs and flexible application: ideal for use in large areas
- › Up to 31.5 kW in heating mode



\* Not connectable to RXYQ-PR and VRV™III-S (RXYSQ-PAV, RXYSQ-PAVY)



## SPECIFICATIONS

FXMQ-MA				200	250
Cooling capacity		nom.	kW	22.4	28.0
Heating capacity		nom.	kW	25.0	31.5
Power input	cooling	nom.	kW	1.294	1.465
	heating	nom.	kW	1.294	1.465
Dimensions (HxWxD)			mm	470x1,380x1,100	
Weight	unit		kg	137	137
Casing	material			Galvanised steel plate	
Air flow rate	cooling	H / L	m <sup>3</sup> /min	58/50	72/62
External static pressure	high / stand. / low		Pa	221 / 132 / -	270 / 147 / -
Sound power level	cooling	nom.	dB(A)	-	
Sound pressure level	cooling	H / L	dB(A)	48/45	48/45
Refrigerant type				R-410A	
Piping connections	liquid / gas / drain		mm	ø9.5/ø19.1/PS1B	ø9.5/ø22.2/PS1B
Air filter				Note 4	
Power supply				1~, 220-240V, 50Hz	

### Notes:

<sup>1</sup> Nominal cooling capacities are based on : return air temperature : 27°CDB, 19°CWB, outdoor temperature : 35°CDB, external static pressure: 100Pa, equivalent refrigerant piping : 7.5m (horizontal)

<sup>2</sup> Nominal heating capacities are based on : return air temperature : 20°CDB, outdoor temperature : 7°CDB, 6°CWB, external static pressure: 100Pa, equivalent refrigerant piping : 7.5m (horizontal)

<sup>3</sup> Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.

<sup>4</sup> The air filter is not standard accessory, but please mount it in the duct system at the suction side. Select its colorimetric method (gravity method) 50% or more.

## ACCESSORIES

FXMQ-MA			200	250
Wired remote control			BRC1E51AI / BRC1D52 / BRC2C51 / BRC3A61	
Infrared remote control	cooling only		BRC4C66	
	heat pump		BRC4C65	
High efficiency filter 65%			KAFJ372L280	
High efficiency filter 90%			KAFJ373L280	
Filter chamber			KDJ3705L280	
Longlife replacement filter			KAFJ371L280	
Drain pump kit			KDU30L250VE	

NEW <sup>»</sup>



FXAQ40-63P



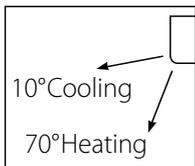
BRC1E51A



BRC7E618

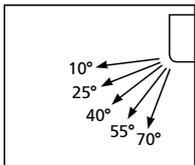
### Comfort & Efficiency

- NEW <sup>»</sup>
- › Modern style flat front panel
  - › Vertical auto-swing function moves the discharge flaps up and down for efficient air distribution throughout the room



Vertical auto-swing

- › 5 different discharge angles can be programmed via the remote control



5 discharge angles

- › The use of inverter type outdoor units results in an air conditioning system with a high energy efficiency and very low sound level
- › Home leave operation saves energy during absence

### Flexible Installation

- › Both horizontal flaps and front panel can easily be removed and washed
- › All maintenance operations can be carried out from the front of the unit
- › Ideal for refurbishment projects
- › Allows multi tenant applications (option PCB required)



\* Not connectable to RXYQ-PR



## SPECIFICATIONS

FXAQ-P				20	25	32	40	50	63	
Cooling capacity		nom.	kW	2.2	2.8	3.6	4.5	5.6	7.1	
Heating capacity		nom.	kW	2.5	3.2	4.0	5.0	6.3	8.0	
Power input	cooling	nom.	kW	0.019	0.028	0.030	0.020	0.033	0.050	
	heating	nom.	kW	0.029	0.034	0.035	0.020	0.039	0.060	
Dimensions (HxWxD)			mm	290x795x238			290x1,050x238			
Weight	unit		kg	11			14			
Casing	colour			White						
Air flow rate	cooling	H/L	m <sup>3</sup> /min	7.5/4.5	8/5	8.5/5.5	12/9	15/12	19/14	
Sound pressure level	cooling	nom.	dBA	35/29	36/29	37/29	39/34	42/36	46/39	
Sound power level	cooling	H/L	dBA	-						
Refrigerant type				R-410A						
Piping connections	liquid/gas/drain		mm	ø6.4/ø12.7/VP13 (ID13/OD18)					ø9.5/ø15.9/VP13 (ID13/OD18)	
Air filter				Resin net washable						
Power supply				1~, 220-240V, 50Hz						

Notes:

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

<sup>2</sup> Nominal heating capacities are based on: indoor temperature: 20°CDB • outdoor temperature: 7°CDB, 6°CWB • equivalent refrigerant piping: 5m (horizontal).

<sup>3</sup> Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.

## ACCESSORIES

FXAQ-P			20	25	32	40	50	63
Wired remote control			BRCE51A, BRC1D52					
Infrared remote control	cooling only		BRC7E619					
	heat pump		BRC7E618					
Drain pump kit			K-KDU572EVE					
PCB for multi tentant			DTA114A61					

# FXHQ-MA

32-63-100

## Ceiling Suspended Unit



FXHQ32MA



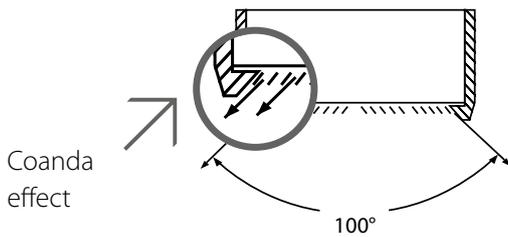
BRC1E51A



BRC7E63

### Comfort & Efficiency

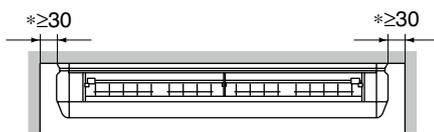
- › Wider air discharge thanks to Coanda effect: up to 100 degrees



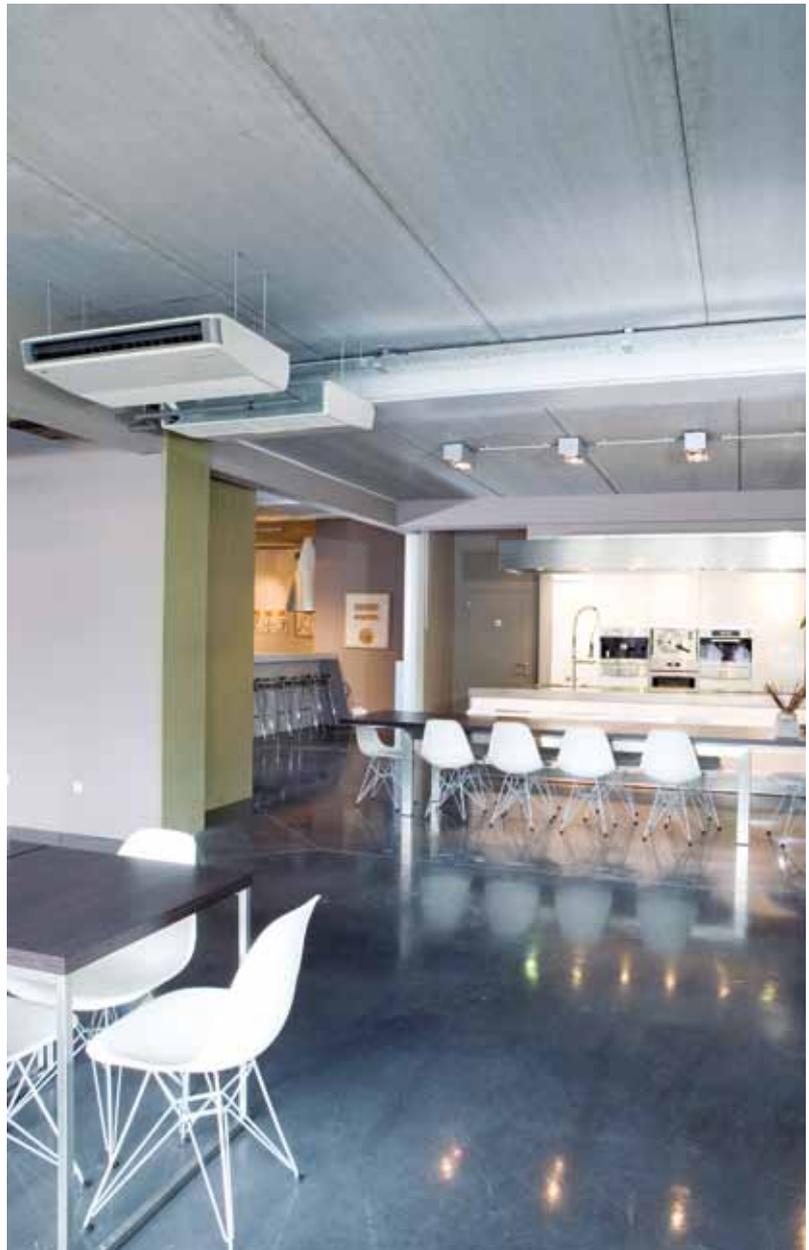
- › The use of inverter type outdoor units results in an air conditioning system with a high energy efficiency
- › Home leave operation saves energy during absence

### Flexible Installation & Easy Maintenance

- › Can be installed in both new and existing buildings.
- › Air flow distribution for ceiling heights up to 3.8m without loss of capacity
- › The unit can easily be mounted in corners and narrow spaces, as it only needs 30mm lateral service space



Lateral service space



\*Not connectable to RXYQ-PR



## SPECIFICATIONS

FXHQ-MA				32	63	100
Cooling capacity	nom.	kW		3.6	7.1	11.2
Heating capacity	nom.	kW		4.0	8.0	12.5
Power input	cooling	nom.	kW	0.111	0.115	0.135
	heating	nom.	kW	0.111	0.115	0.135
Dimensions (HxWxD)		mm		195 x 960 x 680	195 x 1,160 x 680	195 x 1,400 x 680
Weight	unit	kg		24	28	33
Casing	colour			Ivory white		
Air flow rate	H/L	m <sup>3</sup> /min		12/10	17.5/14	25/19.5
Sound power level		dB(A)		-		
Sound pressure level	H/L	dB(A)		36/31	39/34	45/37
Refrigerant type				R-410A		
Piping connections	liquid / gas / drain	mm		ø6.4 / ø12.7 / VP20 (ID20 / OD26)	ø9.5 / ø15.9 / VP20 (ID20 / OD26)	
Air filter				Resin net with mold resistant		
Power supply				1~, 220-240V, 50Hz		

Notes:

<sup>1</sup> Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB • outdoor temperature: 35°CDB • equivalent refrigerant piping: 7.5m (horizontal).

<sup>2</sup> Nominal heating capacities are based on: indoor temperature: 20°CDB • outdoor temperature: 7°CDB, 6°CWB • equivalent refrigerant piping: 7.5m (horizontal).

<sup>3</sup> Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.

## ACCESSORIES

FXHQ-MA		32	63	100
Wired remote control			BRC1E51A, BRC1D52	
Infrared remote control	cooling only		BRC7E66	
	heat pump		BRC7E63	
Drain pump kit		KDU50M60	KDU50M161	
Replacement long life filter	resin net	KAFJ501DA56	KAFJ501DA80	KAFJ501DA112
L-type piping kit	for forward direction	KHFP5M35	KHFP5M63	



FXUQ71MA



BEVQ71-125MA



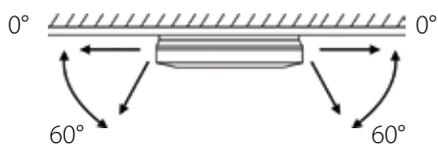
BRC1E51A



BRC7C528

### Comfort & Efficiency

- › Air can be discharged in any of 4 directions
- › The use of inverter type outdoor units results in an air conditioning system with a high energy efficiency
- › Home leave operation saves energy during absence
- › Auto-swing function ensures efficient air and temperature distribution
- › Air can be discharged at 5 different angles between 0 and 60 degrees

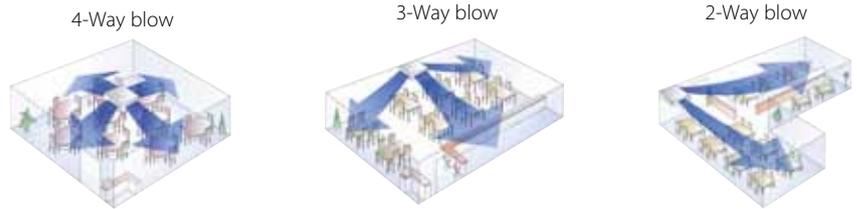


\* Not connectable to RXYQ-PR

## Flexible Installation & Easy Maintenance

- › Can be installed in both new and existing buildings
- › Possibility to shut 1 or 2 flaps for easy installation in corners
- › Air flow distribution for ceiling heights up to 3.5m without loss of capacity
- › Drain-up pump with 500mm lift fitted as standard
- › 5m maximum distance between FXUQ unit and junction box

## Examples of Airflow Patterns



## SPECIFICATIONS

FXUQ-MA				71	100	125
Cooling capacity	nom.	kW		8.0	11.2	14.0
Heating capacity	nom.	kW		9.0	12.5	14.0
Nominal input	cooling	kW		0.180	0.289	0.289
	heating	kW		0.160	0.269	0.269
Dimensions (HxWxD)			mm	165 x 895 x 895	230 x 895 x 895	230 x 895 x 895
Weight	unit	kg		25	31	31
Casing			colour	White		
Air flow rate				19 / 14	29 / 21	32 / 23
Sound power level	cooling	nom.	dBa	56.0	59.0	60.0
	cooling	H/L	dBa	40 / 35	43 / 38	44 / 39
Sound pressure level	heating	H/L	dBa	40 / 35	43 / 38	44 / 39
Refrigerant type				R-410A		
Piping connections	liquid / gas / drain	mm		ø9.5 / ø15.9 / (ID20 / OD 26)	ø9.5 / ø15.9 / (ID20 / OD 26)	ø9.5 / ø15.9 / (ID20 / OD 26)
Air filter				Resin net with mold resistant		
Power supply				1~, 230V, 50Hz		
Combination with junction box				BEVQ71MA	BEVQ100MA	BEVQ125MA

Notes:

<sup>1</sup> Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB • outdoor temperature: 35°CDB, 24°CWB, equivalent piping length 7.5m. Level difference: 0m

<sup>2</sup> Nominal heating capacities are based on: indoor temperature: 20°CDB, 15°CWB • outdoor temperature: 7°CDB, 6°CWB, equivalent piping length 7.5m. Level difference: 0m

<sup>3</sup> Capacities are net including a deduction for cooling (an addition for heating) for indoor fan motor heat.

## ACCESSORIES

FXUQ-MA				71	100	125
Wired remote control				BRC1ES1A / BRC1D52		
Infrared remote control	cooling only			BRC7C529		
	heat pump			BRC7C528		
Sealing member of air discharge outlet				KDBHJ49F80		KDBHJ49F140
Air discharge decoration panel				KDBTJ49F80		KDBTJ49F140
Vertical flap kit				KDGJ49F80		KDGJ49F140
Replacement long life filter				KAFJ495F140		
L-type connection piping kit				KHFP49M63		KHFP49M140

## JUNCTION BOX FOR CONNECTION TO VRV®

Junction box			BEVQ71MA	BEVQ100MA	BEVQ125MA
Dimensions	HxWxD	mm	100x350x225		
Weight			kg	3.0	3.5
Casing				Galvanised steel plate	
Power supply			VE	1~, 220-240V, 50Hz	

# FXLQ-P

20-25-32-40-50-63

## Floor Standing Unit

NEW »



FXLQ20-25P



BRC1E51A

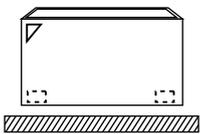
BRC7C62

### Comfort

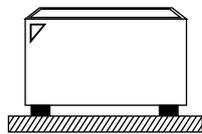
- NEW » Stylish modern casing: finished in pure white (RAL9010)
- NEW » Unit can be installed as free standing model by use of optional back plate
- » Ideal for installation beneath a window
- » The use of inverter type outdoor units results in an air conditioning system with a high energy efficiency
- » Home leave operation saves energy during absence

### Flexible Installation

- » Requires very little installation space, only 232 mm deep and 600 mm high
- » Running the pipes from connections at the back, enables the unit to be wall mounted which in turn allows cleaning beneath the unit where dust tends to accumulate



Wall mounted



Floor standing



\* Not connectable to RXYQ-PR

Detail of the FXLQ-P  
built-in wired remote  
control



## SPECIFICATIONS

FXLQ-P				20	25	32	40	50	63
Cooling capacity	nom.	kW		2.2	2.8	3.6	4.5	5.6	7.1
Heating capacity	nom.	kW		2.5	3.2	4.0	5.0	6.3	8.0
Power input	cooling	nom.	kW	0.049	0.049	0.090	0.090	0.110	0.110
	heating	nom.	kW	0.049	0.049	0.090	0.090	0.110	0.110
Dimensions (HxWxD)		mm		600x1,000x232			600x1,140x232		600x1,420x232
Weight	unit	kg		27			32		38
Casing	colour			Pure white (RAL9010) + Iron grey (RAL 7011)					
Air flow rate	cooling	H/L	m <sup>3</sup> /min	7/6	7/6	8/6	11/8.5	14/11	16/12
Sound power level	cooling	nom.	dB(A)	-					
Sound pressure level	cooling	H/L	dB(A)	35/32	35/32	35/32	38/33	39/34	40/35
Refrigerant type				R-410A					
Piping connections	liquid / gas / drain	mm		ø6.4/ø12.7 / ø21					ø9.5/ø15.9 / ø21
Air filter				Resin net with mold resistant					
Power supply				1~, 220-240V, 50Hz					

Notes:

<sup>1</sup> Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB • outdoor temperature: 35°CDB • equivalent refrigerant piping: 7.5m (horizontal).

<sup>2</sup> Nominal heating capacities are based on: indoor temperature: 20°CDB • outdoor temperature: 7°CDB, 6°CWB • equivalent refrigerant piping: 7.5m (horizontal).

<sup>3</sup> Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.

## ACCESSORIES

FXLQ-P				20	25	32	40	50	63
Wired remote control				BRC1E51A, BRC1D52, BRC2C51, BRC3A61					
Infrared remote control	cooling only			BRC4C64					
	heat pump			BRC4C62					
Long life replacement filter				KAFJ361K28		KAFJ361K45		KAFJ361K71	

# FXNQ-MA

20-25-32-40-50-63

## Concealed Floor Standing Unit



FXNQ20-25MA



BRC1E51A



BRC7C62

### Comfort

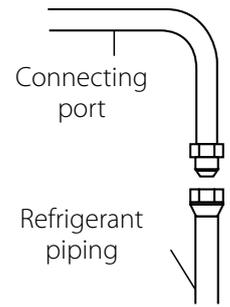
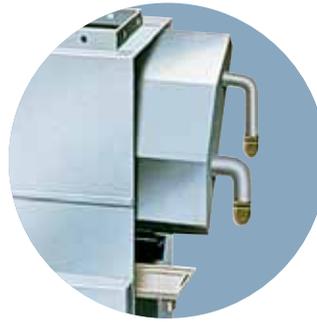
- › Ideal for installation below a window
- › Blends unobstrusively with any interior decor: only the suction and discharge grilles are visible
- › The use of inverter type outdoor units results in an air conditioning system with a high energy efficiency
- › Home leave operation saves energy during absence



\* Not connectable to RXYQ-PR

## Flexible Installation

- › Requires very little installation space, only 222 mm deep and 600 mm high
- › Running the pipes from connections at the back, enables the unit to be wall mounted which in turn allows cleaning beneath the unit where dust tends to accumulate
- › The connecting port faces downward, eliminating the need to attach auxiliary piping



## SPECIFICATIONS

FXNQ-MA			20	25	32	40	50	63	
Cooling capacity	nom.	kW	2.2	2.8	3.6	4.5	5.6	7.1	
Heating capacity	nom.	kW	2.5	3.2	4.0	5.0	6.3	8.0	
Power input	cooling	nom.	0.049	0.049	0.090	0.090	0.110	0.110	
	heating	nom.	0.049	0.049	0.090	0.090	0.110	0.110	
Dimensions (HxWxD)		mm	600 x 1,00 x 222			600 x 1,140 x 222		600 x 1,420 x 222	
Weight	unit	kg	19			23		27	
Casing	colour		Ivory white						
Air flow rate	cooling	H/L	m <sup>3</sup> /min	7/6	7/6	8/6	11/8.5	14/11	16/12
Sound power level	cooling	nom.	dB(A)	-					
Sound pressure level	cooling	H/L	dB(A)	35/32	35/32	35/32	38/33	39/34	40/35
Refrigerant type			R-410A						
Piping connections	liquid/gas/drain	mm	ø6.4/ø12.7 / 21					ø9.5/ø15.9 / 21	
Air filter			Resin net with mold resistant						
Power supply			1~, 220-240V, 50Hz						

Notes:

<sup>1</sup> Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB • outdoor temperature: 35°CDB • equivalent refrigerant piping: 8m • 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: 8m • level difference: 0m.

<sup>3</sup> Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.

<sup>4</sup> The sound pressure values are mentioned for a unit installed with rear suction.

## ACCESSORIES

FXNQ-MA			20	25	32	40	50	63
Wired remote control			BRC1E51ABRC1D52, BRC2C51, BRC3A61					
Infrared remote control	cooling only		BRC4C64					
	heat pump		BRC4C62					
Replacement long life filter			KAFJ361K28	KAFJ361K45	KAFJ361K71	KAFJ361K28	KAFJ361K45	KAFJ361K71



FTXG25,35J-W  
CTXG50J-W



FTXG25,35J-S  
CTXG50J-S



ARC466A1

### Comfort & Efficiency

- › Remarkable blend of iconic design and engineering excellence with an elegant finish in brushed aluminium or matt crystal white
- › Weekly timer can be set to start heating or cooling anytime on a daily or weekly basis
- › Comfort mode guarantees draught free operation by preventing that warm or cold air is directly blown on to the body
- › Indoor unit silent operation: "silent" buttons on the remote control lower the operating sound of the indoor unit by 3dBA
- › Movement sensor saves power consumption in unoccupied rooms: when the room is empty, the unit switches to economy mode after 20 minutes and restarts when a person enters the room
- › Night set mode saves energy by preventing overcooling or overheating during night time
- › Powerful mode can be selected for rapid heating or cooling; after the powerful mode is turned off, the unit returns to the preset mode

### Filter

- › Titanium apatite photocatalytic air purification filter removes airborne microscopic particles, powerfully decomposes odours and helps to prevent the propagation of bacteria, viruses, microbes to ensure a steady supply of clean air



\* Only connectable to RXYQ-PR



## SPECIFICATIONS

FTXG-J/CTXG-J				25	35	50
Dimensions (HxWxD)			mm	295x915x155		
Weight	unit		kg	11		
Casing	material			Matt crystal white or Brushed aluminium		
Air flow rate	cooling	H/M/L/SL	m <sup>3</sup> /min	8.8/6.8/4.7/3.8	10.1/7.3/4.6/3.9	10.5/8.7/6.9/5.9
	heating	H/M/L/SL	m <sup>3</sup> /min	9.6/7.9/6.2/5.4	10.8/8.6/6.4/5.6	11.4/9.8/8.1/7.1
Sound power level	cooling	H	dB(A)	54	58	64
Sound pressure level	cooling	H/M/L/SL	dB(A)	38/32/25/22	42/34/26/23	47/41/35/32
	heating	H/M/L/SL	dB(A)	39/34/28/25	42/36/29/26	47/41/35/32
Refrigerant type				R-410A		
Piping connections	liquid / gas / drain		mm	ø6.35 / ø9.52 / ø18.0		ø6.35 / ø12.7 / ø18.0
Air filter				Removable / washable / mildew proof		
Power supply				1~, 220-240V, 50Hz		

Note:  
Sound pressure level measured at a certain distance from the unit

## ACCESSORIES

FTXG-J/CTXG-J	25	35	50
Infrared remote control		ARC466A41	
Titanium apatite photocatalytic air purification filter (with frame)		*	
Titanium apatite photocatalytic air purification filter (without frame)		*	
Anti-theft protection for remote control		KKF910AA4	

\* Information not available at time of publication



FTXS20-50G



ARC452A3

### Comfort & Efficiency

- › 2 area intelligent eye: air flow is sent to the area in a room where no person is detected
- › Energy saving during standby mode: reduction of energy from 10W to 2W
- › Weekly timer: allows to program the unit on a weekly basis
- › ECONO mode decreases power consumption so that other appliances that need large power supply can be used
- › Night set mode saves energy by preventing overcooling or overheating during night time
- › Comfort mode guarantees draught free operation
- › Powerful mode can be selected for rapid cooling or heating
- › Whisper quiet operation: down to 22dBA sound pressure level
- › Indoor unit silent operation: "Silent" buttons on the remote control lower the operation sound of the indoor unit by 3dBA
- › 3D air flow combines vertical and horizontal auto-swing to circulate a stream of warm/cool air right to the corners of even large spaces

### Filter

- › Titanium apatite photocatalytic air purification filter absorbs microscopic particles, decomposes odours and even deactivates bacteria and viruses



\* Only connectable to RXYQ-PR



## SPECIFICATIONS

FTXS-G				20	25	35	42	50	60	71	
Dimensions (HxWxD)			mm	295x800x215					290x1,050x250		
Weight	unit		kg	9				10		12	
Casing	colour	White									
Air flow rate	cooling	H/M/L/SL	dBA	9.4/7.4/5.5/4.0	9.1/7.1/5.2/3.7	10.4/7.7/4.8/3.5	9.1/7.7/6.3/5.4	10.2/8.6/7.0/6.0	16.0/13.8/11.3/10.1	17.2/14.5/11.5/10.5	
	heating			9.9/8.2/6.5/5.5	9.8/7.9/6.2/5.2	10.6/8.5/6.4/5.4	11.2/9.4/7.7/6.8	11.0/9.3/7.6/6.7	17.2/14.9/12.6/11.3	19.5/16.7/14.2/12.6	
Sound power level	cooling	H	dBA	54	54	58	58	59	61	62	
Sound pressure level	cooling	H/M/L/SL	dBA	38/32/25/22	38/32/25/22	42/34/26/23	42/38/33/30	43/39/34/31	45/41/36/33	46/42/37/34	
	heating			38/33/28/25	39/34/28/25	42/36/29/26	42/38/33/30	44/39/34/31	44/40/35/32	46/42/37/34	
Refrigerant type				R-410A							
Piping connections		liquid / gas / drain	mm	ø6.35 / ø9.5 / 18				ø6.35 / ø12.7 / 18			
Air filter				Removable / washable / mildew proof							
Power supply				1~, 220-240V, 50Hz							

Note:  
Sound pressure level measured at a certain distance from the unit

## ACCESSORIES

FTXS-G	20	25	42	35	50	60	71
Infrared remote control	ARC452A3						
Titanium apatite photocatalytic air purification filter	KAF968A42			KAF952B42 (1)			
Anti-theft protection for remote control	KKF910A4			KKF917A4			

(1) standard accessory

# FVXS-F

25-35-50

## Floor Standing Unit Stylish Indoor Units for Connection to VRV® Heat Pump



FVXS-F



ARC452A1

### Comfort & Efficiency

- › Weekly timer: allows to program the unit on a weekly basis
- › Night set mode saves energy by preventing overcooling or overheating during night time
- › Powerful mode can be selected for rapid cooling or heating
- › Whisper quiet operation: down to 23 dBA sound pressure level
- › Vertical auto-swing function moves the discharge flaps up and down for efficient air distribution throughout the room
- › The use of inverter type outdoor units results in an air conditioning system with a high energy efficiency
- › Home leave operation saves energy during absence

### Filter

- › Titanium apatite photocatalytic air purification filter absorbs microscopic particles, decomposes odours and even deactivates bacteria and viruses

### Flexible Installation

- › Ideal for installation beneath a window
- › Can be installed against a wall or recessed



\* Only connectable to RXYQ-PR



## SPECIFICATIONS

FVXS-F				25	35	50
Dimensions (HxWxD)			mm	600x700x210		
Weight	unit		kg	14		
Casing	colour			White		
Air flow rate	cooling	H/M/L/SL	m <sup>3</sup> /min	8.2/6.5/4.8/4.1	8.5/6.7/4.9/4.5	10.7/9.2/7.8/6.6
	heating	H/M/L/SL	m <sup>3</sup> /min	8.8/6.9/5.0/4.4	9.4/7.3/5.2/4.7	11.8/10.1/8.5/7.1
Sound power level	cooling	H	dBA	54	55	56
Sound pressure level	cooling	H/M/L/SL	dBA	38/32/26/23	39/33/27/24	44/40/36/32
	heating	H/M/L/SL	dBA	38/32/26/23	39/33/27/24	45/40/36/32
Refrigerant type				R-410A		
Piping connections	liquid / gas / drain		mm	ø6.4 / ø9.5 / ø20.0		ø6.4 / ø12.7 / ø20.0
Air filter				Removable / washable / mildew proof		
Power supply				1~, 220-240V, 50Hz		

Note:  
Sound pressure level measured at a certain distance from the unit

## ACCESSORIES

FVXS-F	25	35	50
Infrared remote control		ARC425A1	
Titanium apatite photocatalytic air-purifying filter without frame (1)		KAF968A42	
Anti-theft protection for remote control		KKF936A4	

(1) standard accessory

# FCQ-C8

35-50-60

## Round Flow Ceiling Mounted Cassette Stylish Indoor Units for Connection to VRV® Heat Pump



FCQ-C8  
Standard panel in Pure White  
with grey louvres



FCQ-C8  
Standard panel in Pure White,  
including white louvres

NEW »»



FCQ-C8  
Auto cleaning panel in Pure White



BRC1E51A



BRC7F532

### Comfort & Efficiency

- › 360° air discharge ensures uniform air flow and temperature distribution
- › Modern style decoration panel is available in 3 different variations: Standard panel in white (RAL9010) with grey louvres, standard panel in full white (RAL9010) including white louvres and auto cleaning panel
- NEW »» › For auto cleaning panel:
  - › Daikin introduces first auto cleaning cassette to European market
  - › Higher efficiency and comfort from daily auto cleaning of the filter
  - › Lower maintenance costs thanks to auto cleaning function
  - › Easy removal of dust with a vacuum cleaner without opening the unit
- › The use of inverter type outdoor units results in an air conditioning system with a high energy efficiency and very low sound level
- › Home leave operation saves energy during absence
- › Fresh air intake: up to 20% (optional kit required)
- › Comfortable horizontal air discharge ensures draughtfree operation and prevents ceiling soiling
- › 23 different air flow patterns possible



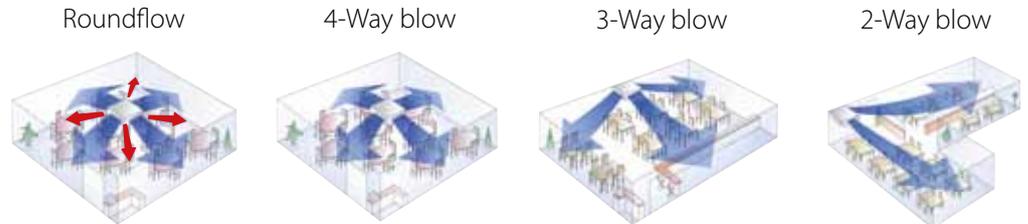
\* Only connectable to RXYQ-PR

## Flexible Installation & Easy Maintenance

- › Reduced installation height: 214mm for class 35-63
- › Standard connection to D3-net without the need of an adapter PCB
- › Easy condensate drain check

## Examples of Airflow Patterns

360° radial round flow enables uniform air flow distribution



## SPECIFICATIONS

FCQ-C8				35	50	60
Dimensions (HxWxD)			mm	204x840x840		
Weight	unit		kg	19		
Casing			material	Galvanised steel		
Air flow rate	cooling	H/L	m³/min	10.5 / 8.5	12.5 / 8.5	13.5 / 8.5
	heating	H/L	m³/min	12.5 / 10.0	12.5 / 8.5	13.5 / 8.5
Fan speed			steps	2		
Sound power level	cooling	H	dBA	49	49	51
Sound pressure level	cooling	H/L	dBA	31 / 27		33 / 28
	heating	H/L	dBA	31 / 27		33 / 28
Refrigerant type				R-410A		
Piping connections	liquid / gas / drain		mm	ø6.25 / ø9.52 / VP25 (ID ø25.0 - OD ø32.0)		
Air filter				Resin net with mold resistance		
Decoration panel	model			BYCQ140CW1 <sup>1</sup> / BYCQ140CW1W <sup>2</sup> / BYCQ140CGW1 <sup>3</sup>		
	colour			Pure white (RAL9010)		
	dimensions (HxWxD)		mm	50x950x950		
	weight		kg	5.5		
Power supply				1~, 220-240V, 50Hz		

Notes:

Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat

<sup>1</sup> Pure white standard panel with grey louvers

<sup>2</sup> Pure white standard panel with white louvers

<sup>3</sup> Pure white auto cleaning panel to be able to control BYCQ140CGW1 wired remote control BRC1E51A is needed. Not compatible with VRV<sup>III</sup>-S and infrared remote control

<sup>4</sup> Sound pressure level measured at a certain distance from the unit

## ACCESSORIES

FCQ-C8	35	50	60
Wired remote control	BRC1E51A / BRC1D52		
Infrared remote control	BRC7F532F <sup>1</sup>		
Decoration panel	Refer to table above		
Replacement long life filter (non-woven type)	KAFP551K160		
Fresh air intake kit (20% fresh air intake)	KDDQ55C140 <sup>1</sup>		
Air discharge outlet sealing member	KDBHQ55C140		

<sup>1</sup> Option not available for BYCQ140CGW1

# FFQ-BV

25-35-50-60

## 4-Way Blow Ceiling Mounted Cassette 600 x 600mm Stylish Indoor Units for Connection to VRV® Heat Pump



FFQ-BV



BRC1E51A



BRC7E530W

### Comfort & Efficiency

- › Modern style decoration panel in pure white (RAL9010)
- › The use of inverter type outdoor units results in an air conditioning system with a high energy efficiency and very low sound level
- › Home leave operation saves energy during absence
- › Whisper quiet operation: down to 24.5 dBA sound pressure level
- › Fresh air intake for healthy living
- › Comfortable horizontal air discharge ensures draught free operation and prevents ceiling soiling

### Flexible Installation & Easy Maintenance

- › Compact casing (575mm in width and depth) enables unit to fit flush into ceilings and match standard architectural modules, without cutting ceiling tiles



\* Only connectable to RXYQ-PR



## SPECIFICATIONS

FFQ-BV				25	35	50	60
Dimensions (HxWxD)			mm	286x575x575			
Weight			kg	17.5			
Casing		unit		Galvanised steel plate			
Air flow rate	cooling	H/L	m <sup>3</sup> /min	9/6.5	10/6.5	12/8	15/10
	heating	H/L	m <sup>3</sup> /min	9/6.5	10/6.5	12/8	15/10
Fan speed		material		2 steps (direct drive)			
Sound power level	cooling	H	dBA	46.5	49	53	58
Sound pressure level	cooling	H/L	dBA	29.5/24.5	32/25	36/27	41/32
	heating	H/L	dBA	29.5/24.5	32/25	36/27	41/32
Refrigerant type				R-410A			
Piping connections		liquid / gas / drain		mm		ø6.4 / ø12.7 / ø20.0	
Air filter				Removable / washable / mildew proof / long life			
Decoration panel	Model			BYFQ60B			
	Colour			Pure white (RAL9010)			
	Dimensions (HxWxD)		mm	55x700x700			
	Weight		kg	2.7			
Power supply				1~, 230V, 50Hz			

Note:  
Sound pressure level measured at a certain distance from the unit

## ACCESSORIES

FFQ-BV		25	35	50	60
Wired remote control		BRC1E51A / BRC1D52			
Infrared remote control		BRC7E530W			
Decoration panel		Refer to table above			
Long-life filter		KAFQ441BA60			
Fresh air intake kit	Direct installation type	KDDQ44XA60			
Sealing member of air discharge outlet		KDBH44BA60			
Panel spacer		KDBQ44B60			



FDBQ-B



BRC1E51A

### Comfort & Efficiency

- › Designed for hotel bedrooms
- › Blends unobtrusively with any interior décor: only the suction and discharge grilles are visible
- › The use of inverter type outdoor units results in an air conditioning system with a high energy efficiency and very low sound level
- › Home leave operation saves energy during absence
- › Whisper quiet operation: down to 28 dBA sound pressure level

### Filter

- › Standard air filter: removes airborne dust particles to ensure a steady supply of clean air

### Flexible Installation

- › Compact dimensions (230mm high & 652mm deep), can easily be mounted in a ceiling void



\* Only connectable to RXYQ-PR



## SPECIFICATIONS

<b>FDBQ-B</b>				<b>25</b>
Dimensions		HxWxD	mm	230x652x502
Weight	unit		kg	17.0
Casing	material			Galvanised steel plate
Air flow rate	cooling	H / L	m <sup>3</sup> /min	6.50 / 5.20
	heating	H / L	m <sup>3</sup> /min	6.95 / 5.20
External static pressure			Pa	-
Sound power level	cooling	H	dBA	55.0 / 49.0
Sound pressure level	cooling	H / L	dBA	35.0 / 28.0
	heating	H / L	dBA	35.0 / 29.0
Refrigerant type				R-410A
Piping connections	liquid / gas / drain		mm	6.4 / 9.5 / VP20 (ID21.6 - OD 27.2)
Air filter				Resin net with mold resistance
Power supply				1~, 220-240V, 50Hz

Note:  
Sound pressure level measured at a certain distance from the unit

## ACCESSORIES

<b>FDBQ-B</b>	<b>25</b>
Wired remote control	BRC1E51A / BRC1D52 / BRC2C51 / BRC3A61



FDXS25,35E



ARC433A8

**Comfort & Efficiency**

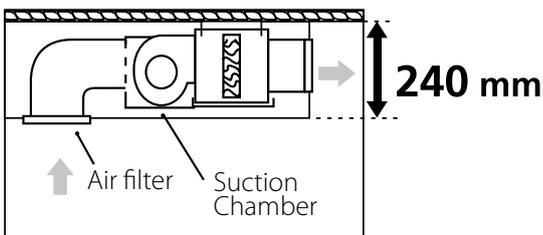
- › Blends unobtrusively with any interior décor: only the suction and discharge grilles are visible
- › The use of inverter type outdoor units results in an air conditioning system with a high energy efficiency and very low sound level
- › Home leave operation saves energy during absence
- › Night set mode saves energy by preventing overcooling or overheating during night time
- › Powerful mode can be selected for rapid cooling or heating
- › Quiet operation: down to 29dBA sound pressure level

**Filter**

- › Standard suction filter: removes airborne dust particles to ensure a steady supply of clean air

**Flexible Installation**

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



- › Medium external static pressure facilitates unit use with flexible ducts of varying lengths



\* Only connectable to RXYQ-PR



## SPECIFICATIONS

FDXS-E/C				25	35	50	60
Dimensions (HxWxD)			mm	200x700x620		200x1,100x620	
Weight	unit		kg	21		27	30
Casing			material	Galvanised steel plate			
Air flow rate	cooling	H / M / L / SL	m <sup>3</sup> /min	8.7 / 8.0 / 7.3 / 6.2	8.7 / 8.0 / 7.3 / 6.2	12.0 / 10.0 / 8.4	16.0 / 13.5 / 11.2
	heating	H / M / L / SL	m <sup>3</sup> /min	8.7 / 8.0 / 7.3 / 6.2	8.7 / 8.0 / 7.3 / 6.2	12.0 / 10.0 / 8.4	16.0 / 13.5 / 11.2
External static pressure		max.	Pa	30		-	
Sound power level	cooling	H	dBA	53	53	55	56
Sound pressure level	cooling	H / M / L / SL	dBA	35 / 33 / 31 / 29	35 / 33 / 31 / 29	37 / - / 33 / 31	38 / - / 34 / 32
	heating	H / M / L / SL	dBA	35 / 33 / 31 / 29	35 / 33 / 31 / 29	37 / - / 33 / 31	38 / - / 34 / 32
Refrigerant type				R-410A			
Piping connections	liquid / gas / drain		mm	ø6.4 / 9.5 / ID 20.0 - OD 26.0		ø6.4 / 12.7 / ID 20.0 - OD 26.0	
Air filter				Removable, washable, mildew proof			
Power supply				1~, 220-240, 50Hz			

Note:

<sup>1</sup> Sound pressure level measured at a certain distance from the unit

## ACCESSORIES

FDXS-E/C	25	35	50	60
Infrared remote control			ARC433A8	
Anti-theft protection for remote control			KKF917AA4	
Suction grille			KDG19A45	



FBQ35,50C



BRC1E51A

### Comfort & Efficiency

- › Reduction in power consumption thanks to DC inverter fans
- › Improved comfort thanks to 3-step airflow control
- › Blends unobtrusively with any interior décor: only the suction and discharge grilles are visible
- › The use of an integrated inverter control ensures maximum comfort and efficiency
- › Home leave operation saves energy during absence

### Filter

- › Standard air filter: removes airborne dust particles to ensure a steady supply of clean air

### Flexible Installation

- › Maximum external static pressure (ESP) is 100Pa
- › Possibility to change ESP through wired remote control allows optimisation of the supply air volume
- › Easy installation thanks to automatic air flow adjustment towards nominal air flow rate



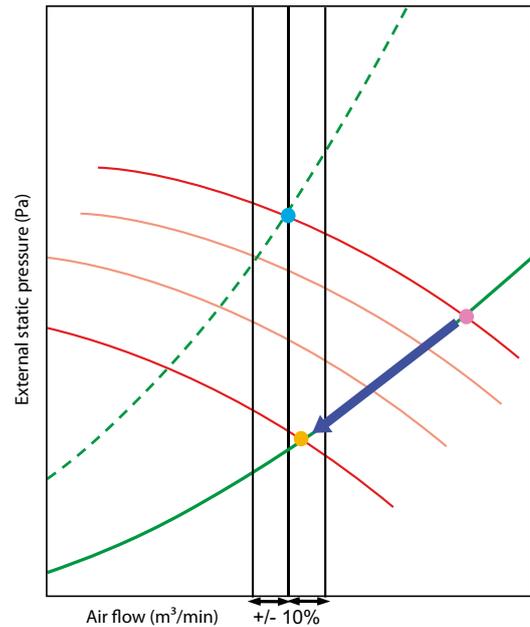
\* Only connectable to RXYQ-PR

## Easy installation thanks to automatic air flow adjustment towards nominal air flow: Installation made easier

### Reduced installation time

- › After installation, it is possible that the actual duct resistance is lower than expected at time of designing. As a consequence the air flow will be too high.
- › With the automatic air flow adjustment function the unit can adapt its fan speed to a lower curve, so the air flow decreases.
- › The air flow will always be within 10% of the rated air flow because of the amount of possible fan curves (more than 8 fan curves available per model).
- › Alternatively the installer can manually select a fan curve with the wired remote control.

	Fan characteristic curve
	Actual duct resistance curve
	Duct resistance curve at the time of designing
	Rated air flow
	Airflow without air flow automatic adjustment
	Actual airflow



## SPECIFICATIONS

FBQ-C				35	50	60
Dimensions (HxWxD)	mm			300x700x700		300x1,000x700
Weight	unit	kg		25	25	34
Casing	material			Galvanised steel plate		
Air flow rate	cooling	H/L	m³/min	16 / 11	16 / 11	18 / 15
	heating	H/L	m³/min	16 / 11	16 / 11	18 / 15
External static pressure	max.			100		
Fan speed	steps			10	10	8
Sound power level	cooling	H		63		57
	heating	H/L		37 / 29		37 / 29
Sound pressure level	cooling	H/L	dBA	37 / 29	37 / 29	37 / 29
	heating	H/L	dBA	37 / 29	37 / 29	37 / 29
Refrigerant type				R-410A		
Piping connections	liquid / gas / drain		mm	6.35 / 9.52 / VP25 (ID 25 - OD 32)		6.35 / 12.7 / VP25 (ID 25 - OD 32)
Air filter				Resin net with mold resistance		
Power supply				1~, 220-240V, 50/60Hz		

Note:

\* Sound pressure level measured at a certain distance from the unit

## ACCESSORIES

FBQ-C	35	50	60
Wired remote control	BRC1E51A, BRC1D52, BRC2C51, BRC3A61		
Infrared remote control	BRC4C65		
Decoration panel	BYBS45D		BYBS71D
Decoration panel option		EKBYSB	
Air discharge adapter for round duct	KDAJ25K56A		KDAJ25K71A



FHQ-B



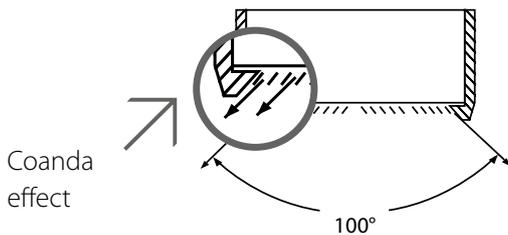
BRC1E51A



BRC7EA63W

**Comfort & Efficiency**

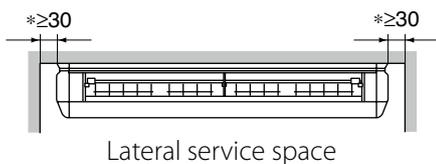
- › Wider air discharge thanks to Coanda effect: up to 100 degrees



- › The use of inverter type outdoor units results in an air conditioning system with a high energy efficiency
- › Home leave operation saves energy during absence

**Flexible Installation & Easy Maintenance**

- › Can be installed in both new and existing buildings.
- › Air flow distribution for ceiling heights up to 3.8m without loss of capacity
- › The unit can easily be mounted in corners and narrow spaces, as it only needs 30mm lateral service space



Lateral service space



\* Only connectable to RXYQ-PR



## SPECIFICATIONS

FHQ-B				35	50	60
Dimensions (HxWxD)			mm	195x960x680		195x1,160x680
Weight	unit		kg	24	25	27
Casing	colour					White
Air flow rate	cooling	H/L	m <sup>3</sup> /min	13/10	13/10	17/13
	heating	H/L	m <sup>3</sup> /min	13/10	13/10	16/13
Sound power level	cooling	H/L	dBA	53/48	54/49	55/49
	heating	H/L	dBA	37/32	38/33	39/33
Sound pressure level	cooling	H/L	dBA	37/32	38/33	39/33
	heating	H/L	dBA	37/32	38/33	39/33
Refrigerant type				R-410A		
Piping connections	liquid / gas / drain		mm	ø6.4 / ø9.5 / VP20 (ID ø20.0 - OD ø26.0)		ø6.4 / ø12.7 / VP20 (ID ø20.0 - OD ø26.0)
Power supply				1~, 230V, 50Hz		

Note:  
Sound pressure level measured at a certain distance from the unit

## ACCESSORIES

FHQ-B		35	50	60
Wired remote control		BRC1E51A / BRC1D52		
Infrared remote control		BRC7EA63W		
Replacement long life filter	resin net	KAF501DA56		KAFJ501DA80
Drain pump kit		KDU50M60		
L-type piping kit	upward direction	KHFP5M35	KHFP5M63	



FLXS-B



ARC433A6

### Comfort & Efficiency

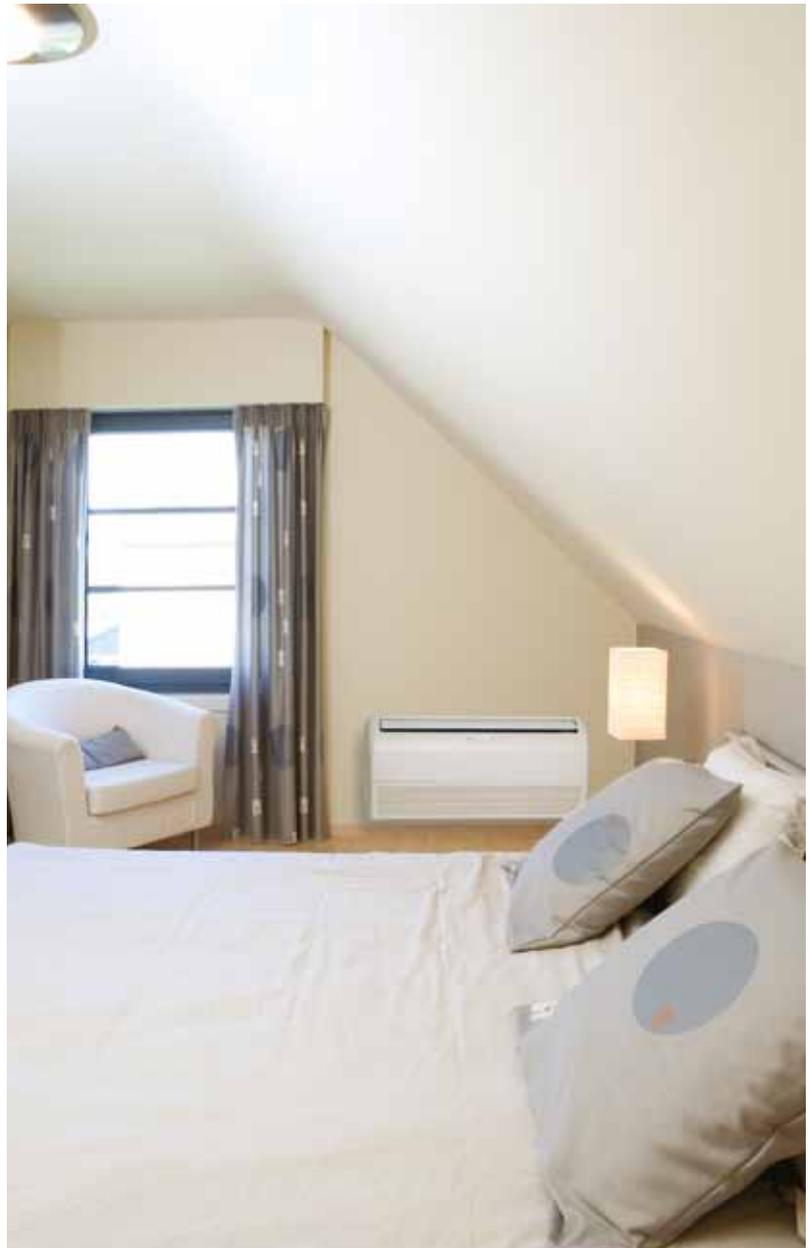
- › Can fit on either ceiling or lower wall. Its low height enables it to fit beneath a window
- › Night set mode saves energy by preventing overcooling or overheating during night time
- › Powerful mode can be selected for rapid cooling or heating
- › Whisper quiet operation: down to 28 dBA sound pressure level
- › Vertical auto-swing function moves the discharge flaps up and down for efficient air distribution throughout the room
- › The use of inverter type outdoor units results in an air conditioning system with a high energy efficiency
- › Home leave operation saves energy during absence

### Filter

- › Air purification filter with photocatalytic deodorising function: deodorises the air, powerfully decomposes cigarette and pet odours, removes house dust and pollen, deactivates bacteria and viruses

### Flexible Installation

- › Allows both ceiling suspended as floor standing installation.



\* Only connectable to RXYQ-PR



## SPECIFICATIONS

FLXS-B				25	35	50	60
Dimensions (HxWxD)			mm	490x1,050x200			
Weight	unit		kg	16	16	17	17
Casing colour		colour		Almond white			
Air flow rate	cooling	H/M/L/SL	m <sup>3</sup> /min	7.6/6.8/6.0/5.2	8.6/7.6/6.6/5.6	11.4/10.0/8.5/7.5	12.0/10.7/9.3/8.3
	heating	H/M/L/SL	m <sup>3</sup> /min	9.2/8.3/7.4/6.6	9.8/8.9/8.0/7.2	12.1/9.8/7.5/6.8	12.8/10.6/8.4/7.5
Sound power level	cooling	H	dBA	53	54	63	64
Sound pressure level	cooling	H/M/L/SL	dBA	37/34/31/28	38/35/32/29	47/43/39/36	48/45/41/39
	heating	H/M/L/SL	dBA	37/34/31/29	39/36/33/30	46/41/35/33	47/42/37/34
Refrigerant type				R-410A			
Piping connections	liquid / gas / drain		mm	ø6.4 / ø9.5 / ø18.0		ø6.4 / ø9.5 / ø20.0	
Air filter				Removable / washable / mildew proof			
Power supply				1~, 220-240 V, 50 Hz			

Notes:

<sup>1</sup> Nominal cooling capacities measured at: indoor temperature 27°CDB/19°CWB, outdoor temperature 35°CDB, equivalent piping length: outdoor-BP 5m, BP-indoor 3m, level difference 0m

<sup>2</sup> Nominal heating capacities measured at: indoor temperature 20°CDB, outdoor temperature 7°CDB/6°CWB, equivalent piping length: outdoor-BP 5m, BP-indoor 3m level difference 0m

<sup>3</sup> Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat

<sup>4</sup> Sound pressure level measured at a certain distance from the unit

## ACCESSORIES

FLXS-B	25	35	50	60
Infrared remote control			ARC433A5	
Photocatalytic deodorising filter (with frame)			KAZ917B41	
Photocatalytic deodorising filter (without frame)			KAZ917B42	
Air purification filter (with frame)			KAF925B41	
Air purification filter (without frame)			KAF925B42	
Anti-theft protection for remote control			KKF917AA4	

# BENEFITS OF BIDDLE AIR CURTAINS CONNECTED TO DAIKIN HEAT PUMPS

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

## **'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 economies, they also represent an **INVITATION FOR CUSTOMERS**, to enter a pleasant trading and working environment.

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

The stable store environment ensuing from efficient outdoor/indoor climate separation limits heat loss through the door opening and enhances the efficiency of the air conditioning system. By combining Biddle air curtains with highly efficient Daikin VRV® and ERQ heat pumps, users benefit from substantial energy savings of up to 72% compared to electric air curtains.

## **Short pay back period**

Energy savings accruing from the installation of this advanced equipment give rise to the remarkable payback period of less than **1.5 YEARS\*** with massive potential extra savings likely to stem from reductions in future energy bills.

## **Comfort through patented technology**

Customers and staff alike can enjoy maximum indoor comfort all year round, irrespective of external weather conditions resulting from the combined advanced rectifier technology and constant air velocity inherent in Biddle air curtains.

## **Easy installation**

Easy and fast installation of these systems not only reduces costs but makes expensive water systems, boilers and gas connection redundant. Furthermore, integrating a Biddle air curtain with a Daikin VRV® also eliminates the need to install multiple outdoor units, thereby reducing installation time and costs still further. This unrivalled combination in fact, enables Daikin to offer its customers the ultimate, environmentally conscious, **'TOTAL SOLUTION' PACKAGE**, comprising cooling, heating, outdoor-indoor climate separation and fresh air ventilation.

\* Compared to an electric curtain

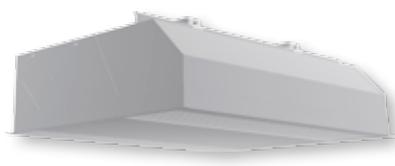
# WHICH AIR CURTAIN OFFERS ME THE BEST SOLUTION?

Biddle comfort air curtains come in door widths from 1 up to 2.5 meters. Below you can find an overview of the different versions and available door heights.

## BIDDLE COMFORT AIR CURTAIN (CA)



Free-Hanging (F)

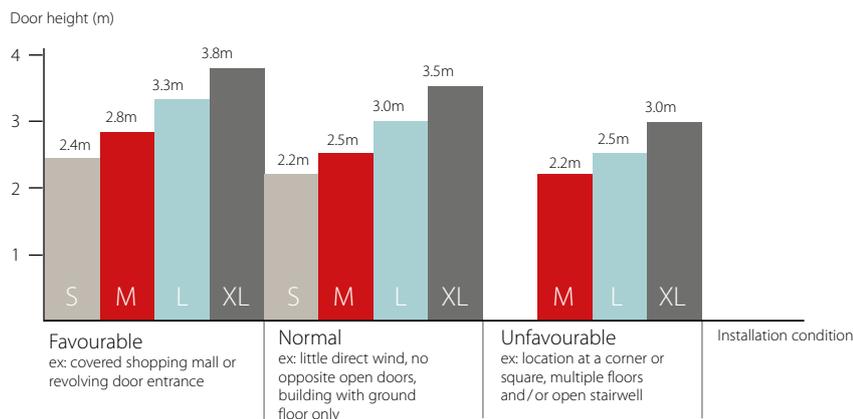


Cassette (C)



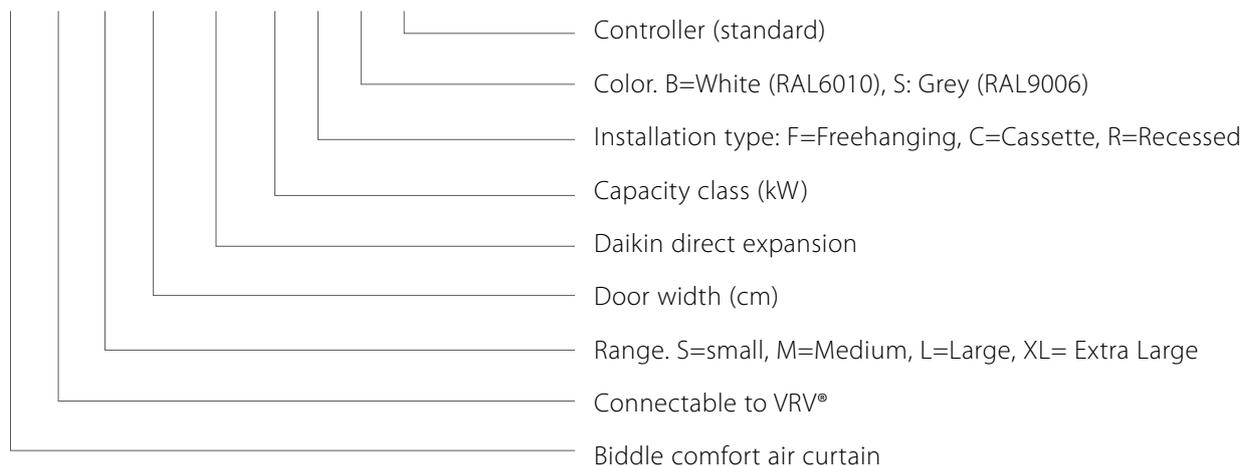
Recessed (C)

### BIDDLE COMFORT AIR CURTAIN RANGE



### BIDDLE COMFORT AIR CURTIAN NOMENCLATURE

CA V S 150 DK 80 F S C

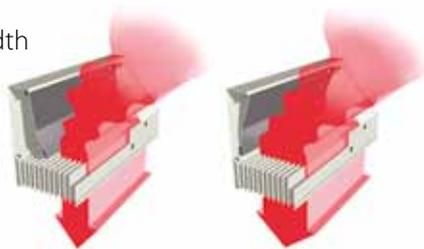




CAVM150DK80FSC

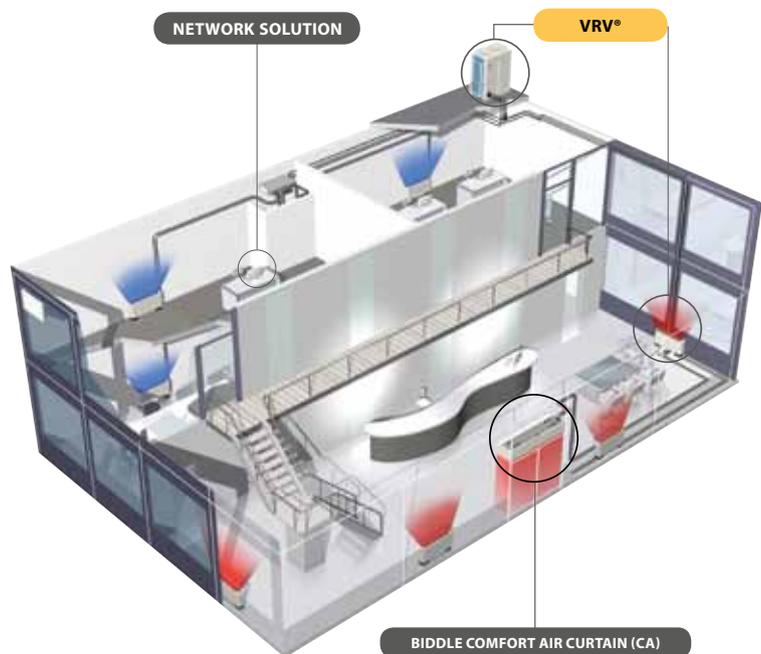
- › Connectable to VRV® heat recovery and heat pump
- › VRV® is among the first DX systems suitable for connection to air curtains
- › A payback period of less than 1.5 years compared to installing an electric air curtain
- › Provides virtually free air curtain heating via recovered heat from indoor units in cooling mode<sup>1</sup>
- › Easy and quick to install at reduced costs since no additional water systems, boilers and gas connections are required
- › All year round comfort ensured by the constant discharge velocity and adjustable jet airflow width (European patent)
- › 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

Adjustable airflow width



Rectifier technology





AIR CURTAIN SIZE			Small				Medium			
Heating capacity <sup>2</sup>		kW	6.0	7.5	9.7	13.3	7.7	9.4	12.1	16.8
Delta T <sup>2</sup>	Inlet = room temperature	K	20	17	16	18	15	14	16	
Power input (50Hz)	Fan only/Heating	kW	0.20	0.30	0.40	0.50	0.28	0.42	0.56	0.70
Maximum door width		m	1.0	1.5	2.0	2.5	1.0	1.5	2.0	2.5
Maximum door height	Favorable/Normal/Unfavorable conditions	m	2.4 / 2.2 / -				2.8 / 2.5 / 2.2			
Dimensions	Height	Unit F/C/R	270							
	Width	Unit F/C/R	1,123 / 1,000 / 1,048	1,623 / 1,500 / 1,548	2,123 / 2,000 / 2,048	2,623 / 2,500 / 2,548	1,123 / 1,000 / 1,048	1,623 / 1,500 / 1,548	2,123 / 2,000 / 2,048	2,623 / 2,500 / 2,548
	Depth	Unit F/C/R	590 / 821 / 561							
Weight	Unit F/C/R	kg	61 / 59 / 61	73 / 83 / 88	89 / 102 / 108	101 / 129 / 137	66 / 68 / 66	79 / 88 / 93	97 / 111 / 117	119 / 136 / 144
Casing	Colour		BC:RAL9010 / SC:RAL 9006							
Fan - Air flow rate - Heating <sup>2</sup>		m <sup>3</sup> /h	880	1,310	1,750	2,190	1,230	1,840	2,450	3,060
Refrigerant	Type		R-410A							
Sound pressure - Heating <sup>2</sup>		dBA	42	44	45	46	45	47	48	49
Piping connections	Liquid (OD) / Gas	mm	9.52 / 16.0							
Power Supply			1~230V/50Hz							

AIR CURTAIN SIZE			Large				XLarge			
			CAVL100DK125*BC*SC	CAVL150DK200*BC*SC	CAVL200DK250*BC*SC	CAVL250DK250*BC*SC	CAVL100DK125*BC*SC	CAVL150DK200*BC*SC	CAVL200DK250*BC*SC	CAVL250DK250*BC*SC
Heating capacity <sup>2</sup>		kW	12.5	18.8	24.0	25.8	14.7	22.0	27.8	29.6
Delta T <sup>2</sup>	Inlet = room temperature	K	17				15			
Power input (50Hz)	Fan only/Heating	kW	0.75	1.13	1.50	1.88	1.40	2.10	2.80	3.50
Maximum door width		m	1.0	1.5	2.0	2.5	1.0	1.5	2.0	2.5
Maximum door height	Favorable/Normal/Unfavorable conditions	m	3.3 / 3.0 / 2.5				3.8 / 3.5 / 3.5			
Dimensions	Height	Unit F/C/R	370							
	Width	Unit F/C/R	1,123 / 1,000 / 1,048	1,623 / 1,500 / 1,548	2,123 / 2,000 / 2,048	2,623 / 2,500 / 2,548	1,123 / 1,000 / 1,048	1,623 / 1,500 / 1,548	2,123 / 2,000 / 2,048	2,623 / 2,500 / 2,548
	Depth	Unit F/C/R	774 / 1,105 / 745							
Weight	Unit F/C/R	kg	83 / 81 / 83	108 / 118 / 141	137 / 151 / 155	166 / 190 / 196	69 / 84 / 86	102 / 123 / 146	130 / 160 / 164	162 / 198 / 204
Casing	Colour		BC:RAL9010 / SC:RAL 9006							
Fan - Air flow rate - Heating <sup>2</sup>		m <sup>3</sup> /h	1,730	2,600	3,470	4,340	2,800	4,190	5,590	6,990
Refrigerant	Type		R-410A							
Sound pressure - Heating <sup>2</sup>		dBA	51	53	54	55	56	58	59	60
Piping connections	Liquid (OD) / Gas	mm	9.52 / 16.0	9.52 / 19.0	9.52 / 22.0	9.52 / 22.0	9.52 / 16.0	9.52 / 19.0	9.52 / 22	
Power Supply			1~230V/50Hz							

<sup>1</sup> In case of connection to a VRV® heat recovery outdoor unit

<sup>2</sup> values measured at speed 4, installation level B

F: Freehanging model, C: Cassette model, R: Recessed model

# INTEGRATED VENTILATION

Daikin offers a variety of solutions for the provision of fresh air ventilation to offices, hotels, stores and other commercial outlets – each one complementary to and as flexible as the VRV® system itself.

## Heat Reclaim Ventilation

Proper ventilation is a key component of climate control in buildings, offices and shops. In its basic function, it ensures a flow of incoming fresh air and outgoing stale air. Our HRV (heat reclaim ventilation) solution can do much more. It can recover heat and **OPTIMISE THE BALANCE BETWEEN INDOOR AND OUTDOOR TEMPERATURE AND HUMIDITY**, thus reducing the load on the system and increasing efficiency.

## Outdoor air processing in a single unit

Our FXMQ-MF air processing solution uses heat pump technology to **COMBINE FRESH AIR TREATMENT AND AIR CONDITIONING IN A SINGLE SYSTEM**, thereby eliminating the usual design problems associated with balancing air supply and discharge. Total system cost is reduced and design flexibility enhanced because the airconditioning fan coil units and an outdoor air treatment unit can be connected to the same refrigerant line.

## VRV® air handling applications

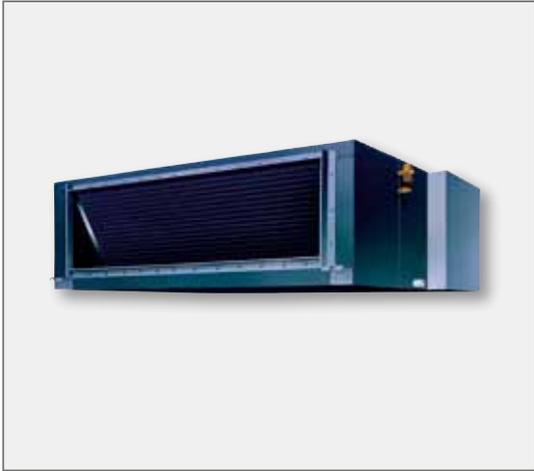
For medium and large commercial spaces, we offer a range of R-410A inverter condensing units that connect to air handling units. This approach combines the flexibility of our VRV® units with Air Handling Applications, resulting in a simple, reliable design for **OPTIMUM CONTROL OF INDOOR AIR QUALITY AND MAXIMUM EFFICIENCY**.



HEAT RECLAIM VENTILATION



VRV<sup>®</sup> AIR HANDLING APPLICATIONS

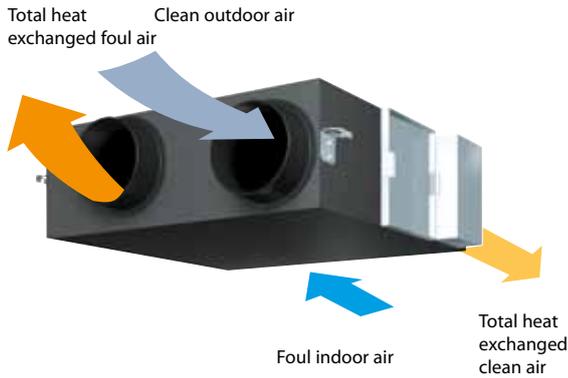


OUTDOOR AIR PROCESSING UNIT

HEAT RECLAIM VENTILATION P 142

OUTDOOR AIR PROCESSING UNIT P 146

VRV<sup>®</sup> AIR HANDLING APPLICATIONS P 148



The Daikin heat reclaim ventilation system modulates the temperature and humidity of incoming fresh air to match indoor conditions. A balance is thus achieved between indoor and outdoor ambients, enabling the cooling or heating load placed on the air conditioning system to be reduced significantly. HRV units can be controlled individually or integral with the Daikin VRV® or Sky Air series.

- › 9 models to choose from
- › Compact, energy saving ventilation
- › Specially developed heat exchange element with HEP (High Efficiency Paper)
- › Easy integration into the VRV® system
- › Connectable to current Daikin control systems

**DS-net**

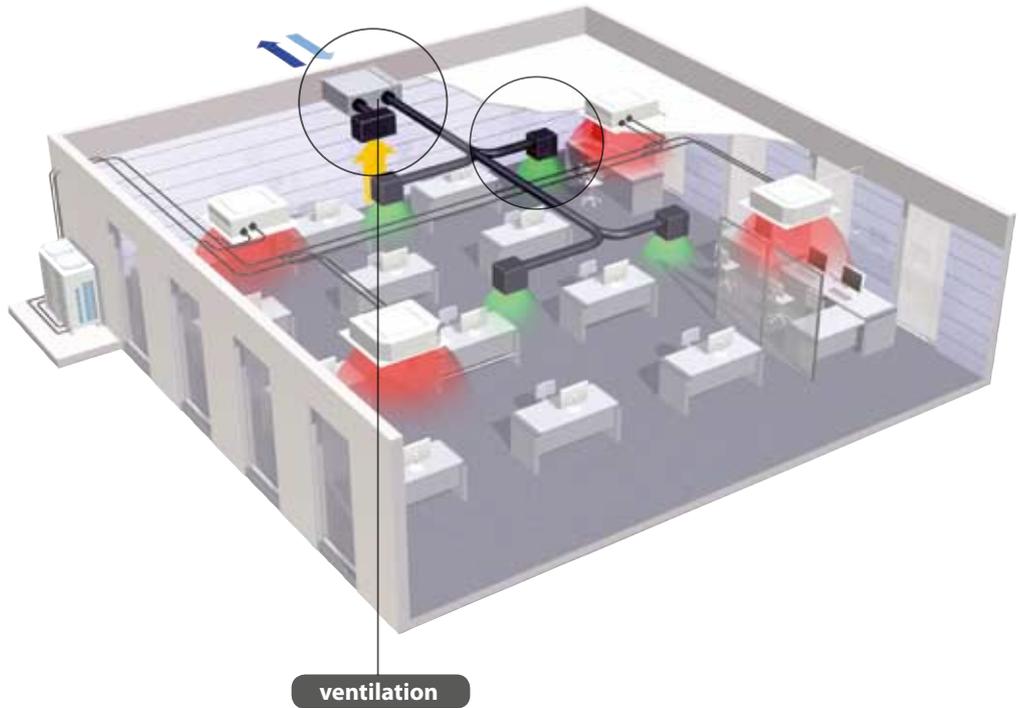
**Intelligent Controller**

**Intelligent Manager**

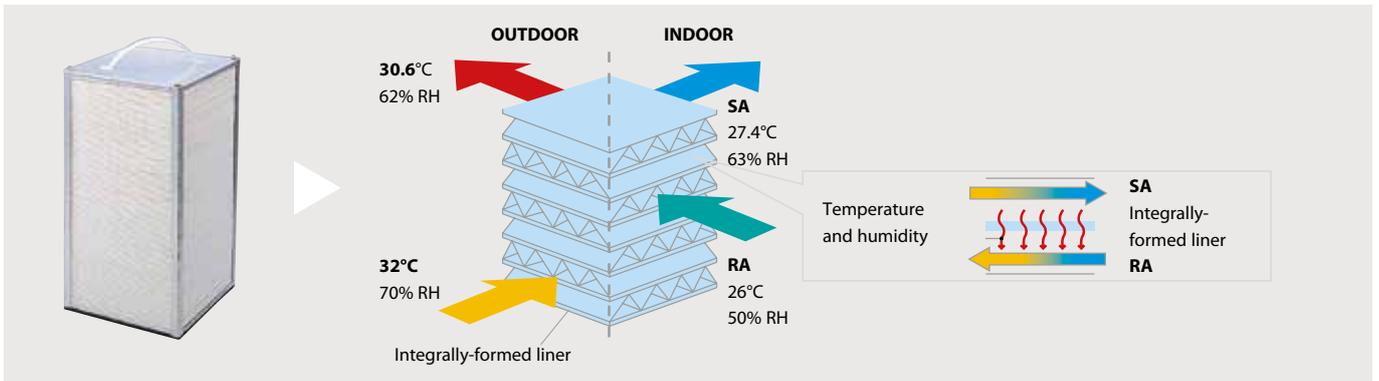
**LonWorks Interface**

**BACnet Interface**





High Efficiency Paper



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

<b>VAM-FA</b>				<b>VAM150FA</b>	<b>VAM250FA</b>	<b>VAM350FA</b>	<b>VAM500FA</b>	<b>VAM650FA</b>	<b>VAM800FA</b>	<b>VAM1000FA</b>	<b>VAM1500FA</b>	<b>VAM2000FA</b>
<b>VENTILATION</b>												
Air flow rate	HH	m <sup>3</sup> /h	150	250	350	500	650	800	1,000	1,500	2,000	
Sound pressure level (220V) <sup>1</sup>	HH	dBA	27	28	32	33	34.5	36	36	39.5	40	
External static pressure (max.)	HH	Pa	69	64	98	98	93	137	157	137	137	
Temperature exchange efficiency	HH	%	74	72	75	74	74	74	75	75	75	
Enthalpy exchange efficiency	cooling	HH	%	58	58	61	58	58	60	61	61	
	heating	HH	%	64	64	65	62	63	65	66	66	
Dimensions	height	mm	285	285	301	301	364	364	364	726	726	
	width	mm	776	776	828	828	1,004	1,004	1,004	1,514	1,514	
	depth	mm	525	525	816	816	868	868	1,156	868	1,156	
Weight	unit	kg	24	24	33	33	48	48	61	132	158	
Duct diameter		mm	Ø 100	Ø 150	Ø 150	Ø 200	Ø 200	Ø 250	Ø 250	Ø 350	Ø 350	
Operation range (Ambient)		°CDB	-15 ~ 50 (80% RH or less)									
Power supply			1~, 220-240V, 50Hz									

<sup>1</sup> Sound pressure level is measured in heat exchange mode.



- > Heat purge (economiser): heat accumulated indoors is discharged at night
- > Integration of humidification and air conditioning into HRV unit
- > Increased static pressure thanks to improved fan performance
- > Individual control via HRV remote control
- > Connectable to current Daikin control systems

**DS-net**

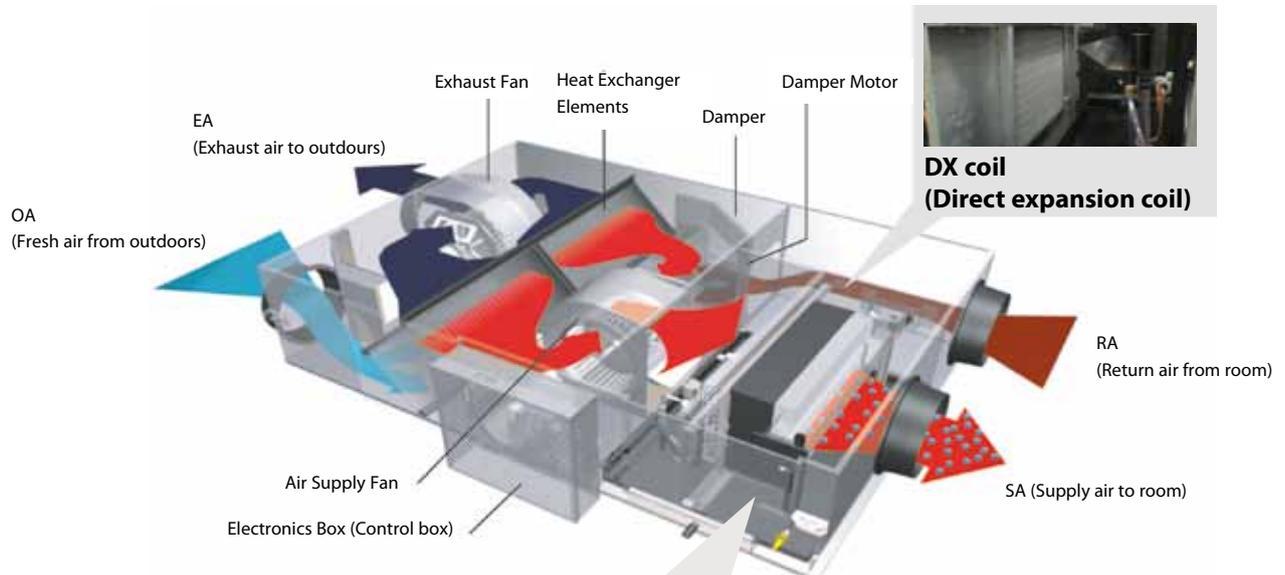
**Intelligent Touch Controller**

**Intelligent Manager**

**LonWorks Interface**

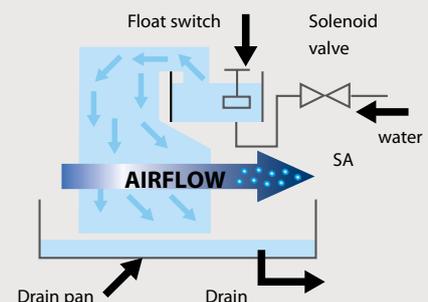
**BACnet Interface**

### 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

<sup>2</sup> Not connectable to RXYQ-PR



VKM-GM example

**Ventilation, humidification & air processing**

<b>VKM-GM</b>			<b>VKM50GM</b>	<b>VKM80GM</b>	<b>VKM100GM</b>
<b>VENTILATION, DX coil &amp; humidifier</b>					
Fresh air conditioning load	cooling	kW	4.71	7.46	9.12
	heating	kW	5.58	8.79	10.69
Air flow rate	HH / H / L	m <sup>3</sup> /h	500 - 500 - 440	750 - 750 - 640	950 - 950 - 820
Sound pressure level - 220V	HH / H / L	dBA	37 - 35 - 32	38.5 - 36 - 33	39 - 37 - 34
Sound pressure level - 240V	HH / H / L	dBA	38 - 36 - 34	40 - 37.5 - 35.5	40 - 38 - 35.5
Static pressure	HH / H / L	Pa	160 - 120 - 100	140 - 90 - 70	110 - 70 - 60
Temperature exchange efficiency	HH / H / L	%	76 - 76 - 77.5	78 - 78 - 79	74 - 74 - 76.5
Enthalpy exchange efficiency - cooling	HH / H / L	%	64 - 64 - 67	66 - 66 - 68	62 - 62 - 66
Enthalpy exchange efficiency - heating	HH / H / L	%	67 - 67 - 69	71 - 71 - 73	65 - 65 - 69
Humidifier type			Natural evaporating humidifier		
Humidification capacity		kg/h	2.7	4.0	5.4
Dimensions	height	mm	387	387	387
	width	mm	1,764	1,764	1,764
	depth	mm	832	1,214	1,214
Weight		kg	102	120	125
Unit ambient condition	around unit	°CDB		0~40 (80% or less)	
	outdoor air	°CDB		-15~40 (80% or less)	
	return air	°CDB		0~40 (80% or less)	
Power supply			1~, 220-240V, 50Hz		

<b>VKM-G</b>			<b>VKM50G</b>	<b>VKM80G</b>	<b>VKM100G</b>
<b>VENTILATION &amp; DX coil</b>					
Fresh air conditioning load	cooling	kW	4.71	7.46	9.12
	heating	kW	5.58	8.79	10.69
Air flow rate	HH / H / L	m <sup>3</sup> /h	500 - 500 - 440	750 - 750 - 640	950 - 950 - 820
Sound pressure level - 220V	HH / H / L	dBA	38 - 36 - 33.5	40 - 37.5 - 34.5	40 - 38 - 35
Sound pressure level - 240V	HH / H / L	dBA	39 - 37 - 35.5	41.5 - 39 - 37	41 - 39 - 36.5
Static pressure	HH / H / L	Pa	180 - 150 - 110	170 - 120 - 80	150 - 100 - 70
Temperature exchange efficiency	HH / H / L	%	76 - 76 - 77.5	78 - 78 - 79	74 - 74 - 76.5
Enthalpy exchange efficiency - cooling	HH / H / L	%	64 - 64 - 67	66 - 66 - 68	62 - 62 - 66
Enthalpy exchange efficiency - heating	HH / H / L	%	67 - 67 - 69	71 - 71 - 73	65 - 65 - 69
Dimensions	height	mm	387	387	387
	width	mm	1,764	1,764	1,764
	depth	mm	832	1,214	1,214
Weight		kg	96	109	114
Unit ambient condition	around unit	°CDB		0~40 (80% or less)	
	outdoor air	°CDB		-15~40 (80% or less)	
	return air	°CDB		0~40 (80% or less)	
Power supply			1~, 220-240V, 50Hz		



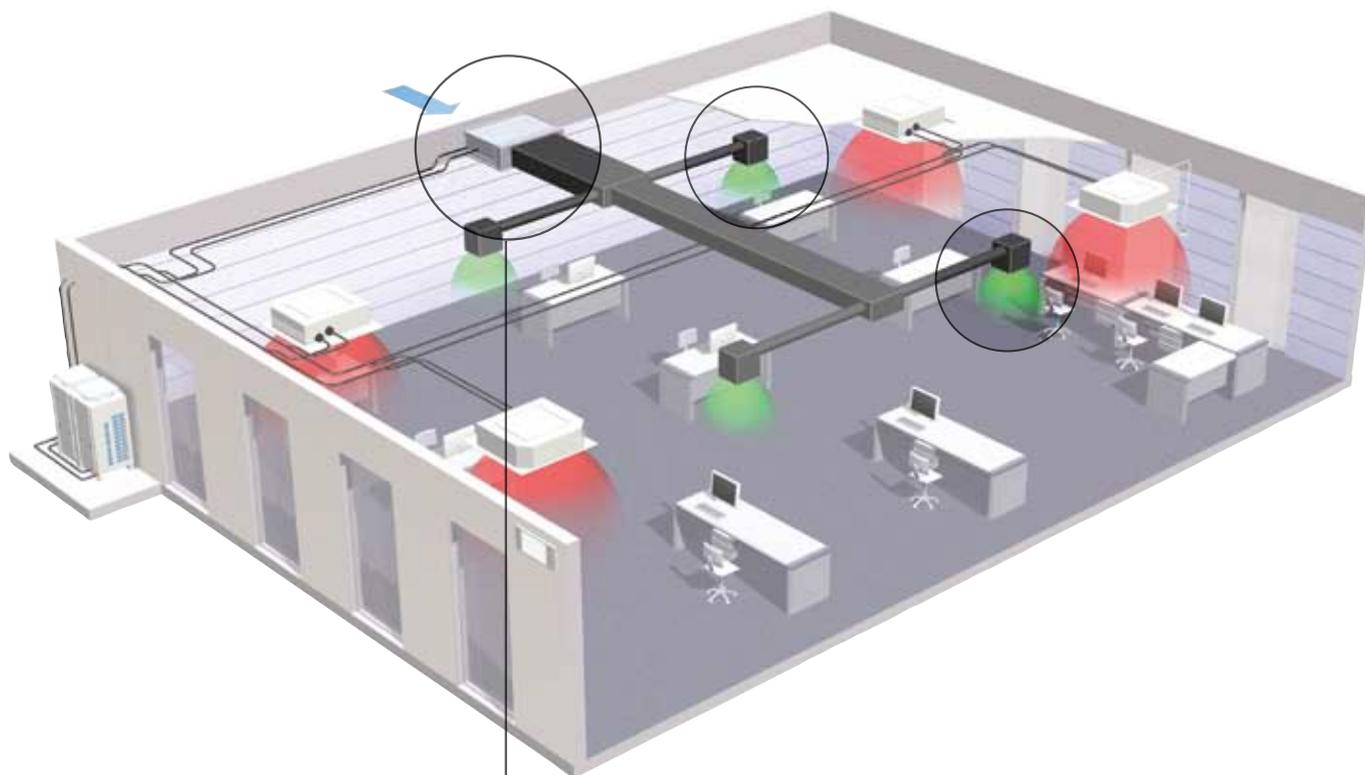
### Combined fresh air treatment and air conditioning via a single system

Both fresh air treatment and air conditioning can be achieved successfully in a single system via heat pump technology without the usual design problems associated with balancing air supply and discharge. Air conditioning fan coil units and an outdoor air treatment unit can be connected to the same refrigerant line, resulting in enhanced design flexibility and a significant reduction in total system costs.

- › 100% fresh air intake possible
- › Leaves maximum floor and wall space for furniture, decorations and fittings
- › Operation range: -5°C to 43°C
- › 225 Pa external static pressure allows extensive ductwork runs and flexible application: ideal for use in large areas
- › Drain pump kit available as accessory



<sup>1</sup> Not connectable to RXYQ-PR, VRV<sup>III</sup>-S (RXYSQ-PAV, RXYSQ-PAVY), and VRV<sup>®</sup> cooling only (RXQ-P(a))



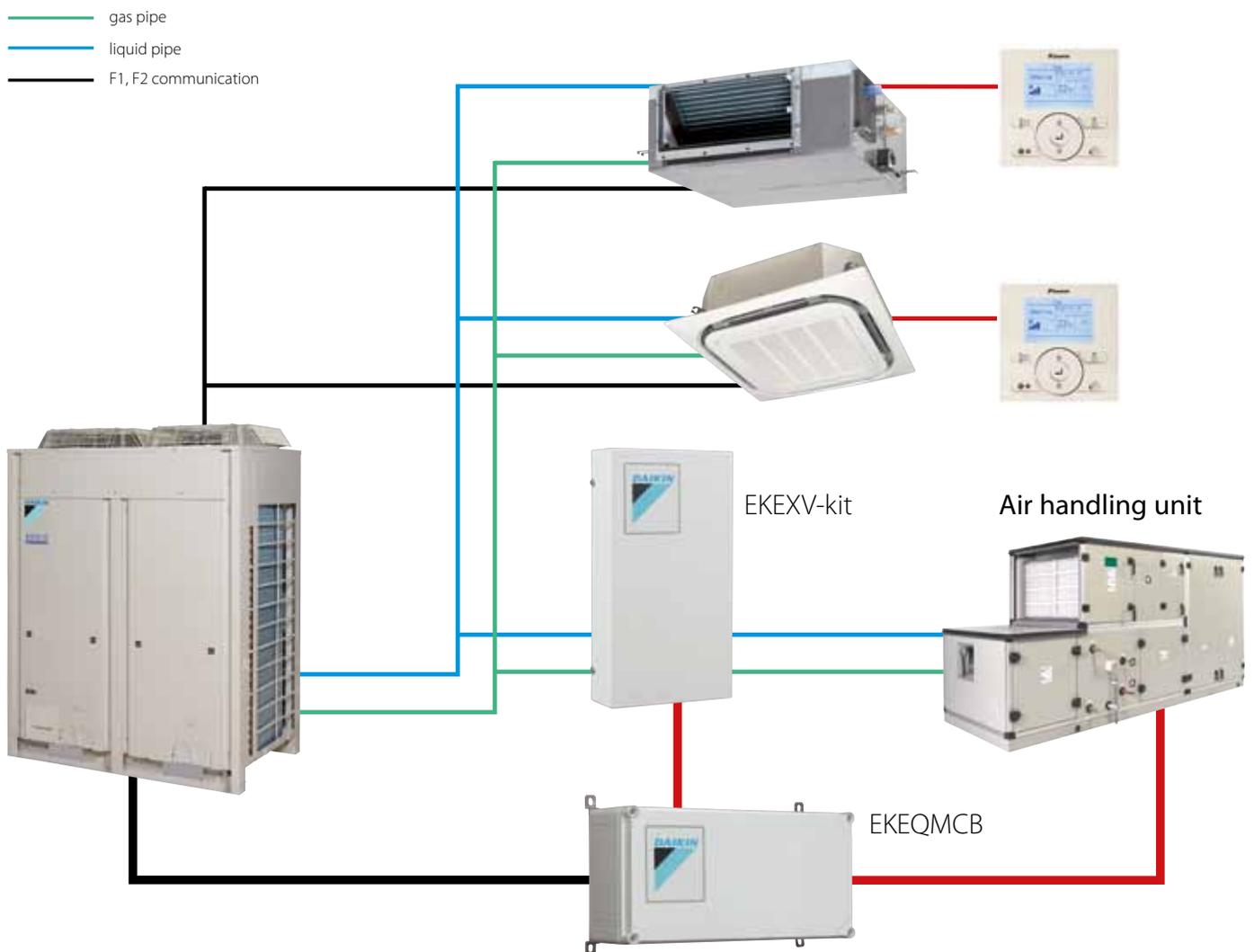
**Ventilation & air processing**

<b>FXMQ-MF</b>				<b>FXMQ125MF</b>	<b>FXMQ200MF</b>	<b>FXMQ250MF</b>
<b>Ventilation &amp; air processing</b>						
Capacity	cooling	nom.	kw	14.0	22.4	28.00
	heating	nom.	kw	8.9	13.9	17.40
Power Input	cooling	nom.	kw	0.359	0.548	0.638
	heating	nom.	kw	0.359	0.548	0.638
Dimensions	HxWxD		mm	470x744x1,100		470x1380x1,100
Weight			kg	86	123	
Air Flow Rate	cooling	medium	m <sup>3</sup> /min	18	28	35
	heating	medium	m <sup>3</sup> /min	18	28	35
External static pressure	Standard		Pa	185	225	205
Refrigerant				R-410A		
Sound Power	Cooling	Nominal	dB(A)	-		
Sound Pressure	Cooling	Nominal (220V)	dB(A)	42	47	
Piping Connections	liquid (od)/gas/drain		mm	9.5 / 15.9 / PS1B	9.5 / 19.1 / PS1B	9.5 / 22.2 / PS1B
Power Supply				1~, 220-240V/50Hz		

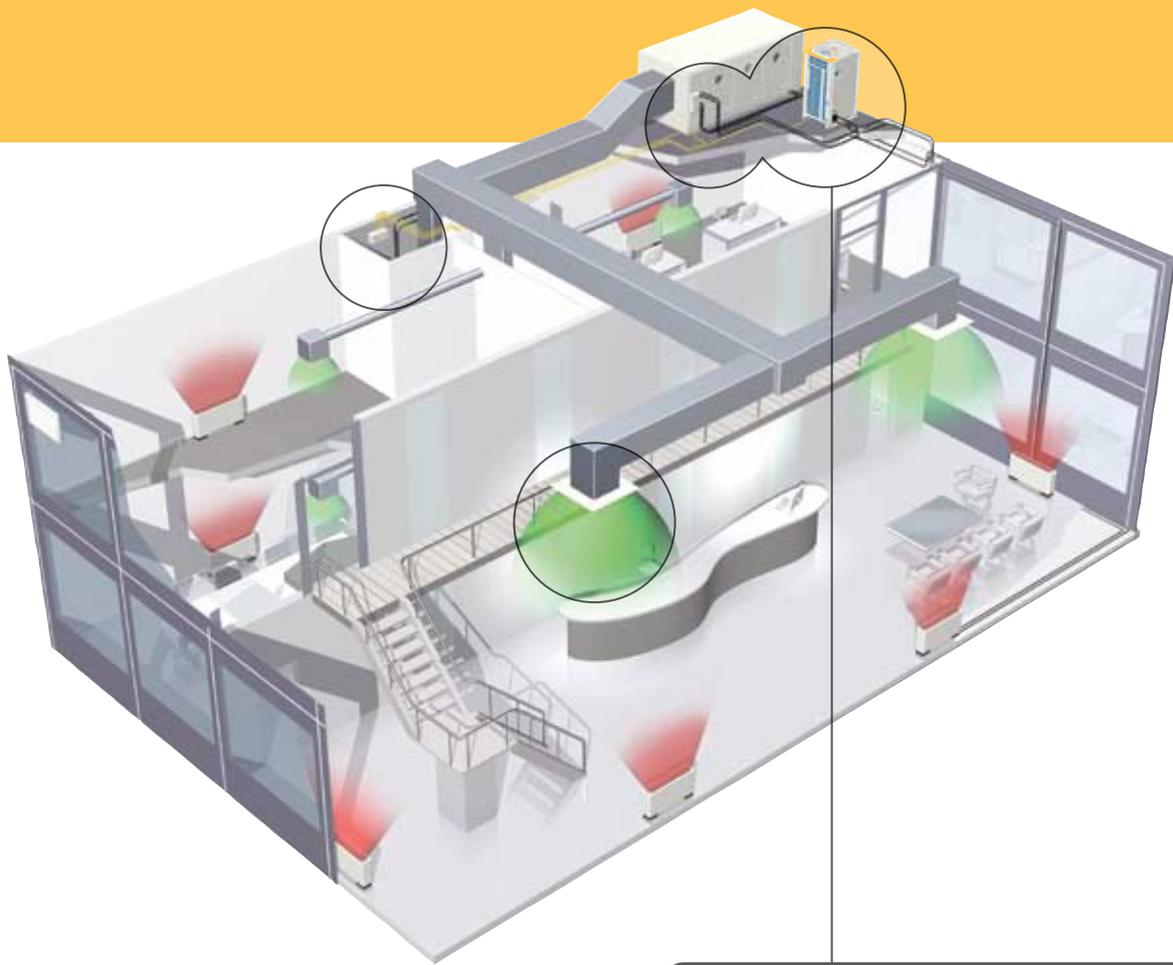


- › Inverter controlled units
- › Large capacity range (from 5 to 54HP)
- › Heat recovery, heat pump
- › R-410A
- › Control of room temperature via Daikin control (BRC1E51 or BRC1D52)
- › Large range of expansion valve kits available
- › Connectable to all VRV® heat recovery heat pump<sup>1</sup> and cooling only systems.

### System example:



<sup>1</sup> Not connectable to RXYQ-PR



Ventilation & air processing

EKEXV class	Allowed nominal heat exchanger capacity (kW)					
	Cooling (Evaporation temperature 6°C)			Heating (Condensing temperature 46°C)		
	Minimum	Standard	Maximum	Minimum	Standard	Maximum
50	5.0	5.6	6.2	5.6	6.3	7.0
63	6.3	7.1	7.8	7.1	8.0	8.8
80	7.9	9.0	9.9	8.9	10.0	11.1
100	10.0	11.2	12.3	11.2	12.5	13.8
125	12.4	14.0	15.4	13.9	16.0	17.3
140	15.5	16.0	17.6	17.4	18.0	19.8
200	17.7	22.4	24.6	19.9	25.0	27.7
250	24.7	28.0	30.8	27.8	31.5	34.7

# USER FRIENDLY CONTROL SYSTEMS

An air conditioning system will only operate as efficiently as its control system allows and the importance of precise, user friendly equipment is as relevant to simple residential room temperature controls as it is to full remote monitoring and regulation of large scale commercial buildings.

In order to keep pace with the technical advances inherent in modern air conditioning plus the urgent need to achieve higher energy efficiencies and manageable fuel costs, Daikin invests heavily in the research and production of similarly advanced and comprehensive methods of control.

In buildings with multiple air conditioning units that operate for long hours, system efficiency plays a paramount role in the pursuit of reduced energy consumption. **MAXIMUM EFFICIENCY** demands that maximum control of all aspects of system operation must be in harmony with important allied considerations such as round the clock monitoring, preventive maintenance, fault predictive analysis and rapid response in the event of malfunctions..

Daikin manufactures and markets an extensive portfolio of **STATE OF THE ART** computerised control systems that offer building owners, landlords and tenants comprehensive system cover backed up by vital data on operational performance and running costs on air conditioning systems of any size and complexity.



INDIVIDUAL CONTROL SYSTEMS



NETWORK SOLUTIONS



CENTRALISED CONTROL SYSTEMS

INDIVIDUAL CONTROL SYSTEMS P 152

CENTRALISED CONTROL SYSTEMS P 154

NETWORK SOLUTIONS P 155

# INDIVIDUAL CONTROL SYSTEMS

BRC4\*  
BRC7\*

ARC4\*



## INFRARED REMOTE CONTROL

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

**Display:** Operating mode, battery change, set temperature, air flow direction<sup>1</sup>, programmed time, fan speed, inspection/test operation<sup>2</sup>

<sup>1</sup> Not applicable for FXDQ, FXSQ, FXNQ, FBDQ, FDXS, FBQ

<sup>2</sup> For FX\*\* units only

<sup>3</sup> For all features of the remote control, refer to the operation manual

<sup>4</sup> BRC7\* is shown

BRC2C51



## SIMPLIFIED REMOTE CONTROL

Simple, compact and easy to operate unit, suitable for use in hotel bedrooms

**Operation buttons:** ON/OFF, operating mode selection, fan speed control, temperature setting

**Display:** Cool/heat changeover control, Heat Recovery Ventilation (HRV) in operation, set temperature, operating mode, centralised control indication, fan speed, defrost/hot start, malfunction adjustment, operating mode selection, fan speed control, filter sign reset, inspection test /operation

BRC3A61



## SIMPLIFIED BUILT-IN REMOTE CONTROL FOR HOTEL APPLICATIONS

Compact, user friendly unit, ideal for use in hotel bedrooms

**Operation buttons:** ON/OFF, fan speed control, temperature setting

**Display:** Heat Recovery Ventilation (HRV) in operation, set temperature, operating mode, centralised control indication, fan speed, defrost/hot start, malfunction

## BRC1E51A



### WIRED REMOTE CONTROL - BRC1E51A

User-friendly remote control with contemporary design

- › Easy to use: all main functions directly accessible
- › Easy setup: improved graphical user interface for advanced menu settings
- › Real time clock with auto update to daylight saving time
- › Schedule timer with holiday setting, improved weekly timer and home leave operation
- › Supports multiple languages (English, German, Dutch, Spanish, Italian, Portuguese, French, Greek, Russian, Turkish)\*
- › Built-in backup power: when a power failure occurs all settings remain stored up to 48 hours
- › Includes all available features for BRC1D52

## BRC1D52



### WIRED REMOTE CONTROL - BRC1D52

- › Schedule timer:
  - › Five day actions can be set as follows:
    - \* set point: unit is switched ON and normal operation is maintained
    - \* OFF: unit is switched OFF
    - \* limits: unit is switched ON and min./max. control (cf. limit operation for more details)
- › 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
- › Constantly monitoring of the system for malfunctions in a total of 80 components
- › Immediate display of fault location and condition
- › Reduction of maintenance time and costs
- › Display
- › Operating mode
- › Heat Recovery Ventilation (HRV) in operation
- › Cool / heat changeover control
- › Centralised control indication
- › Group control indication
- › Set temperature
- › Air flow direction
- › Programmed time
- › Inspection test / operation
- › Fan speed
- › Clean air filter
- › Defrost / hot start
- › Malfunction



# CENTRALISED CONTROL SYSTEMS

## 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 (up and down buttons are added for group selection)
- › Control of HRV air flow direction and air flow rate
- › Expanded timer function
- › Malfunction code display
- › 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)

## DST301B51



### SCHEDULE TIMER

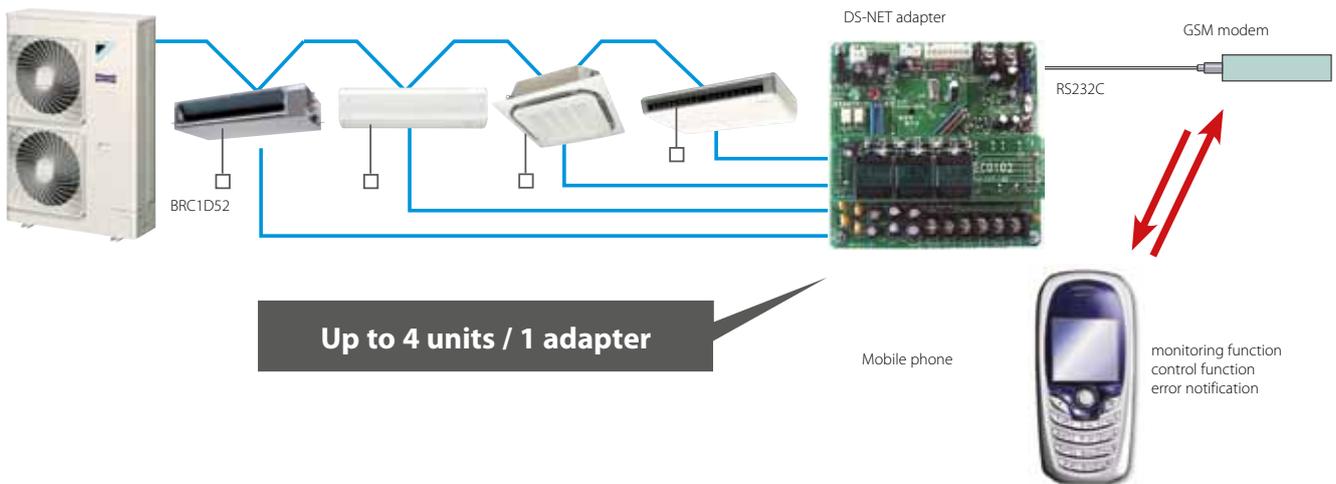
Enabling 64 groups to be programmed

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

# NETWORK SOLUTIONS



Basic solution for control of Sky Air® and VRV®



## FUNCTIONS

### 1. Monitoring Functions

You can monitor your air conditioning units by simply sending a text message with your mobile phone with the word "Report":

- › Start/stop
- › Operation mode (fan/cool/heat)
- › Temperature setting
- › Error code

### 2. Control Functions

You can control your air conditioning units by simply sending a text message via your mobile phone:

- › Start/stop
- › Operation mode (fan/cool/heat)
- › Temperature setting

### 3. Error Notification

When an error occurs, a text message will be sent automatically to your mobile phone (error notification).

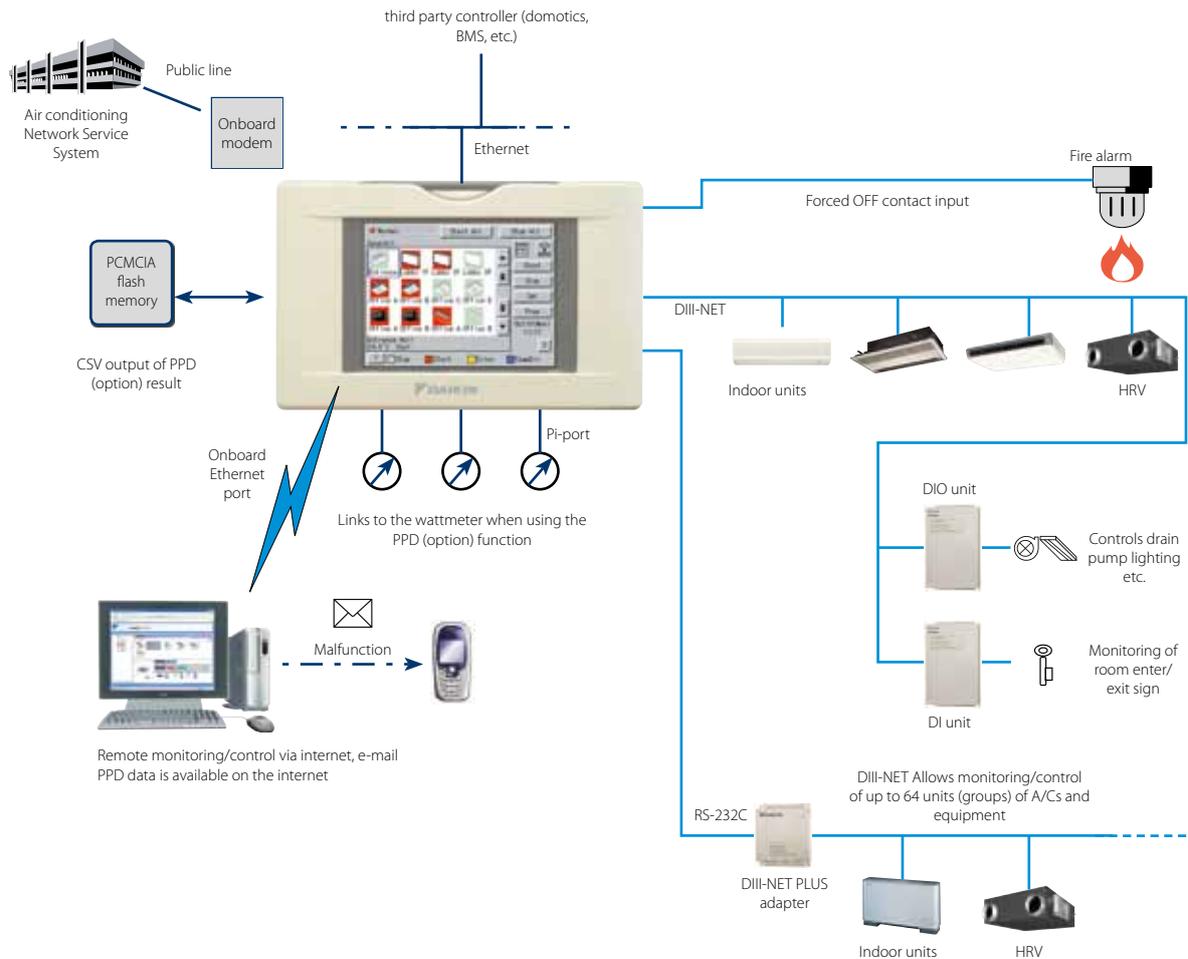
### 4. Stand alone operation

- › Rotation function
- › Backup operation function.

# NETWORK SOLUTIONS

## touch Intelligent Controller

Detailed & easy monitoring and operation of VRV® systems (max. 2 X 64 groups/indoor units).



### LANGUAGES

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

### SYSTEM LAYOUT

- › Up to 2 x 64 indoor units can be controlled
- › Onboard Ethernet port (web browser + e-mail)
- › Digital i/o contacts (option)
- › Touch panel (full colour LCD via icon display)

### MANAGEMENT

- › Web application & internet compatibility
- Monitoring & control according to user
- Remote monitoring & control of more than one building
- Remote monitoring & control of more than one building via internet
- › Power Proportional Distribution: PPD (option)
- › PPD data is available on the internet
- › Easy management of electricity consumption
- › Enhanced history function



## CONTROL

- › Individual control (set point, start/stop, fan speed) (max. 2 x 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
- › Error messages via e-mail & mobile phone (option)
- › Indication filter replacement
- › Multi PC

## 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

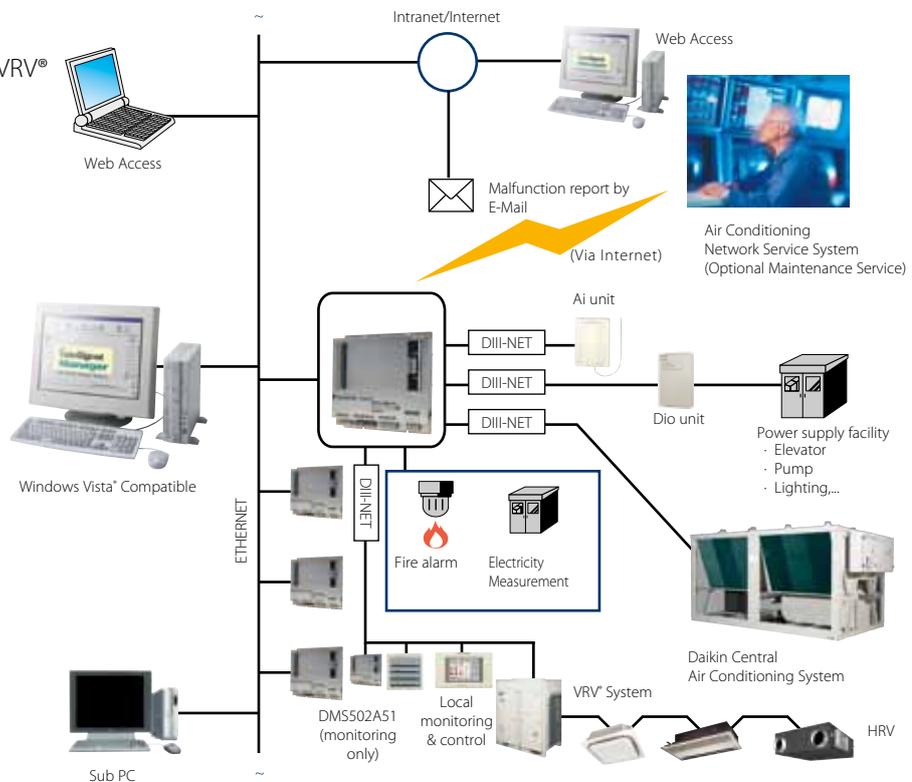
## CONNECTABLE TO

- › VRV®
- › HRV
- › Sky Air® (via interface adapter)
- › Split (via interface adapter)

# NETWORK SOLUTIONS

## Intelligent Manager

Full control and management of VRV® systems (Maximum 200 groups)



### LANGUAGES

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

### SYSTEM LAYOUT

- › Up to 1,024 indoor units can be controlled (by 4 iPUs)
- › Ethernet TCP/IP / 10 base / T communication
- › Integrated digital contacts on the Intelligent Processing Unit (iPU)
  - 20 general input ports
  - 2 digital outputs
- › Stand alone operation of the iPU for minimum 48 hours
- › Compatible with UPS shutdown software

### MANAGEMENT

- › Web access (option)
- › Power Proportional

### DISTRIBUTION (option)

- › Operational history management (start/stop, malfunction, operation hours)
- › Generation of reports (graphics & tables) (daily, weekly, monthly)
- › Peak load shedding
- › Advanced tenant management
- › Sliding temperature
- › Eco mode (option)
- › Pre-cooling and -heating function

### CONTROL

- › Individual control (setpoint, start/stop, fan speed) (max. 1,024 indoor units)
- › Group control (100 groups)
- › Schedule control (128 programs)
- › Fire emergency stop control (32 programs)
- › Interlocking control
- › Setpoint limitation
- › Automatic cooling/heating change-over
- › Power failure/release control
- › Temperature limit (automatic start)
- › Timer extension

### MONITORING

- › Visualisation via a Graphical User Interface (GUI) featuring free layout
- › Operation mode of indoor units
- › Fault indication
- › Indication filter replacement
- › Setpoint indication
- › Operation time monitoring
- › Multi PC
- › On-line help

### COST PERFORMANCE

- › Labour saving
- › Easy installation
- › Compact design: limited installation space
- › Overall energy saving

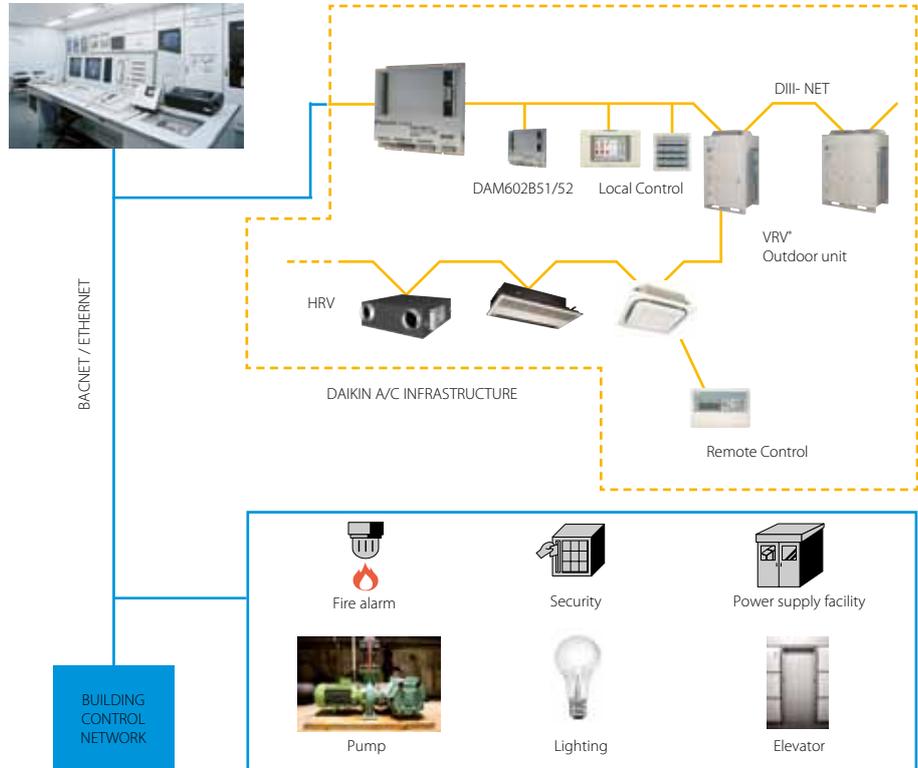
### CONNECTABLE TO

- › VRV®
- › HRV
- › Sky Air® (via interface adapter)
- › Split (via interface adapter)

# BACnet Interface

Integrated control system for seamless connection between VRV® and BMS systems

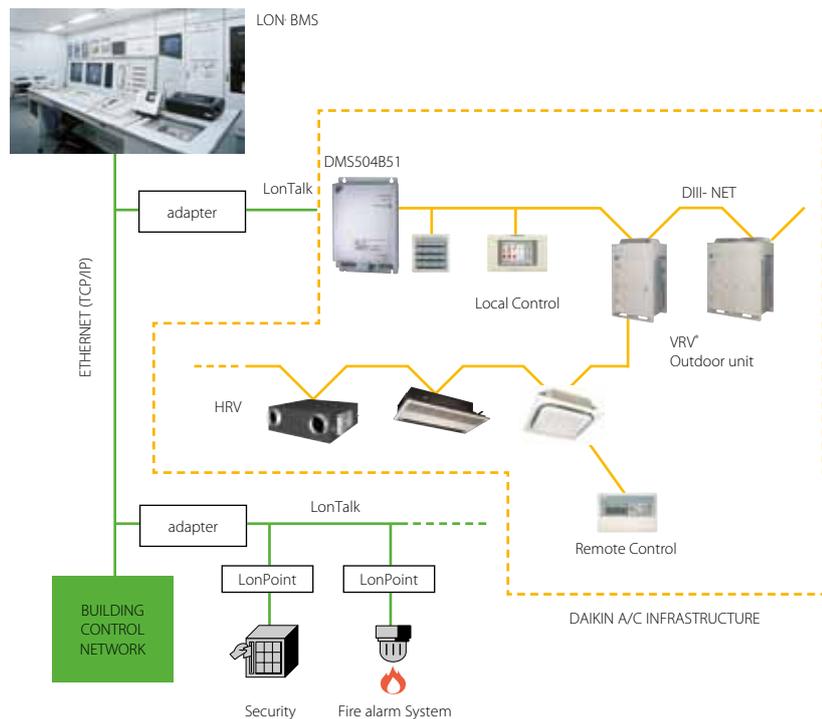
- › PPDdata is available on BMS system
- › Interface for BMS system
- › Communication via BACnet protocol (connection via Ethernet)
- › 256 units connectable per BACnet gateway
- › Unlimited sitesize
- › Easy and fast installation



# LonWorks Interface

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)
- › 64 units connectable per DMS-IF
- › Unlimited sitesize
- › Quick and easy installation



# ACCESSORIES

## INDIVIDUAL CONTROL SYSTEMS

DESCRIPTION	FXFQ	FXZQ	FXCQ	FXKQ	FXDQ-M9	FXDQ-PB FXDQ-NB	FXSQ	FXMQ-P7	FXMQ-MA	FXAQ	FXUQ	FXHQ	FXLQ	FXNQ	
Wired remote control	BRC1E51A / BRC1D52														
Infrared remote control	cooling only	BRC7F533F <sup>1</sup>	BRC7E531	BRC7C67	BRC4C63	BRC4C64	BRC4C64	BRC4C66	BRC4C66	BRC4C66	BRC7E619	BRC7C529	BRC7E66	BRC4C64	BRC4C64
	heat pump	BRC7F532F <sup>1</sup>	BRC7E530	BRC7C62	BRC4C61	BRC4C62	BRC4C62	BRC4C65	BRC4C65	BRC4C65	BRC7E618	BRC7C528	BRC7E63	BRC4C62	BRC4C62
Simplified remote control	-	-	-	-	BRC2C51	BRC2C51	BRC2C51	BRC2C51	BRC2C51	BRC2C51	-	-	-	BRC2C51	BRC2C51
Simplified remote control for hotel use	-	-	-	-	BRC3A61	BRC3A61	BRC3A61	BRC3A61	BRC3A61	BRC3A61	-	-	-	BRC3A61	BRC3A61

<sup>1</sup> Option not available in combination with BYCQ140CGW1

## CENTRALISED CONTROL SYSTEMS

DESCRIPTION	FXFQ	FXZQ	FXCQ	FXKQ	FXDQ-M9	FXDQ-PB FXDQ-NB	FXSQ	FXMQ-P7	FXMQ-MA	FXAQ	FXUQ	FXHQ	FXLQ	FXNQ
Centralised remote control	DCS302C51													
Unified ON/OFF control	DCS301B51													
Schedule timer	DST301B51													

## OTHERS

OTHERS	FXFQ	FXZQ	FXCQ	FXKQ	FXDQ-M9	FXDQ-PB FXDQ-NB	FXSQ	FXMQ-P7	FXMQ-MA	FXAQ	FXUQ	FXHQ	FXLQ	FXNQ
Wiring adapter <sup>6</sup>		KRP1B57 <sup>1</sup>		KRP1B61	KRP1B61	KRP1B56		KRP1C64 <sup>3</sup>	KRP1B61		KRP4A53	KRP1B3	KRP1B61	KRP1B61
Wiring adapter <sup>7</sup>	EKRP1C11 / KRP1C12 <sup>10</sup>		EKRP1B2		EKRP1B2 <sup>2</sup>		EKRP1B2A <sup>3</sup>	EKRP1B2A <sup>3</sup>						
Wiring adapter for electrical appendices (control and monitoring P1 P2)	KRP2A526 <sup>1</sup>	KRP2A52 <sup>1</sup>	KRP2A51 <sup>1</sup>	KRP2A61	KRP2A51	KRP2A53	KRP2A51	KRP2A51 <sup>3</sup>	KRP2A61	KRP2A51 <sup>1</sup>		KRP2A62 <sup>1</sup>	KRP2A51	KRP2A51
Wiring adapter for electrical appendices (control and monitoring F1 F2)	KRP4AA53 <sup>1</sup>	KRP4A53 <sup>1</sup>	KRP4A51 <sup>1</sup>	KRP4A51	KRP4A51	KRP4A54	KRP4A51	KRP4A51 <sup>3</sup>	KRP4A51	KRP4A51 <sup>1</sup>		KRP4A52 <sup>1</sup>	KRP4A51	KRP4A51
Remote sensor	KRCS01-4	KRCS01-1	KRCS01-1	KRCS01-1	KRCS01-1	KRCS01-1	KRCS01-4	KRCS01-1	KRCS01-1	KRCS01-1	KRCS01-1	KRCS01-1	KRCS01-1	KRCS01-1
Installation box / mounting plate for adapter PCB	KRP1H98 / KRP1J98 <sup>10</sup>	KRP1BA101	KRP1B96 <sup>4,5</sup>			KRP1BA101	KRP4A96 <sup>4,5</sup>	KRP4A96 <sup>4,5</sup>		KRP4A93 <sup>4,5</sup>	KRP1B97	KRP1C93 <sup>4</sup>		
Electrical box with earth terminalv (3 blocks)		KJB311A	KJB311A	KJB311A	KJB311A	KJB311A	KJB311A	KJB311A	KJB311A	KJB311A	KJB311A	KJB311A	KJB311A	KJB311A
Electrical box with earth terminal (2 blocks)	KJB212A	KJB212A	KJB212A	KJB212A	KJB212A	KJB212A	KJB212A	KJB212A	KJB212A	KJB212A	KJB212A	KJB212A	KJB212A	KJB212A
Noise filter (for electromagnetic interface only)		KEK26-1A	KEK26-1A	KEK26-1A	KEK26-1A	KEK26-1A	KEK26-1A		KEK26-1A	KEK26-1A	KEK26-1A	KEK26-1A	KEK26-1A	KEK26-1A
External control adapter (for C/H zone, input LNO & Demand)		DTA104A52	DTA104A51 <sup>1</sup>	DTA104A61	DTA104A61	DTA104A53	DTA104A61	DTA104A61	DTA104A61	DTA104A61		DTA104A62	DTA104A61	DTA104A61
Interface adapter for Sky Air® series (to connect Sky Air® indoor to F1 F2)											DTA102A52			
Connector for forced on/forced off											EKRORO			
Multi tenant option	DTA114A61 <sup>3</sup>	EKMTAC <sup>11</sup>			EKMTAC <sup>11</sup>	EKMTAC <sup>11</sup>	DTA114A61 <sup>3</sup>	DTA114A61		DTA114A61				

Notes

<sup>1</sup> Installation box is required

<sup>2</sup> Fixing box is KRP1A90

<sup>3</sup> Mounting plate KRP4A96 is required. Maximum 2 option PCB can be mounted.

<sup>4</sup> Up to 2 adapters can be fixed per installation box

<sup>5</sup> Only 1 installation box can be installed per indoor unit

<sup>6</sup> For output 4 signals: Hour meter, fan, auxiliary electric heater, humidifier

<sup>7</sup> For output 2 signals: Hour meter, fan

<sup>8</sup> Option not available in combination with BYCQ140CGW1

<sup>9</sup> When using decoration panel BYCQ140CGW1, wiring adapter KRP1C12 must be used

<sup>10</sup> When using decoration panel BYCQ140CGW1, installation box KRP1J98 must be used

<sup>11</sup> This kit contains parts to connect with 10 multi tenant indoor units



DESCRIPTION	FCQ-C8	FFQ-BV	FDBQ-B	FDXS-E/C	FBQ-C	FTXG-J/ CTXG-J	FTXS-G	FHQ-B	FVXS-F	FLXS-B
Wired remote control	BRC1E51A / BRC1D52	BRC1E51A / BRC1D52	BRC1E51A / BRC1D52	-	BRC1E51A / BRC1D52	-	-	BRC1E51A / BRC1D52	-	-
Infrared remote control	BRC7F532F <sup>1</sup>	BRC7E530W	-	ARC433A8	BRC4C65	ARC466A1	ARC452A3	BRC7AE63W	ARC452A1	ARC433A5
Simplified remote control	-	-	BRC2C51	-	BRC2C51	-	-	-	-	-
Simplified remote control for hotel use	-	-	BRC3A61	-	BRC3A61	-	-	-	-	-

<sup>1</sup> Option not available in combination with BYCQ140CGW1

DESCRIPTION	FCQ-C8	FFQ-BV	FDBQ-B	FDXS-E/C	FBQ-C	FTXG-E/ CTXG-E	FTXS-G	FHQ-B	FVXS-F	FLXS-B
Centralised remote control						DCS302C51 <sup>1</sup>				
Unified ON/OFF control						DCS301B51 <sup>1</sup>				
Schedule timer						DST301B51 <sup>1</sup>				

<sup>1</sup> Interface adapter to connect to F1F2 is needed for FCQ-C8, FFQ-BV, FBQ-C, FMQ-B

DESCRIPTION	FCQ-C8	FFQ-BV	FDBQ-B	FDXS-E/C	FBQ-C	FTXG-J/ CTXG-J	FTXS-G	FHQ-B	FVXS-F	FLXS-B
Wiring adapter <sup>5</sup>	KRP1BA57/KRP4AA53 <sup>1/7</sup>	KRP1B57 <sup>1</sup>	-	-	KRP1B5A54	-	-	KRP1B54	-	-
Wiring adapter <sup>6</sup>	EKRP1C11/KRP1C12 <sup>1/9</sup>	EKRP1B2 A	EKRP1B2	-	EKRP1B2A <sup>3</sup>	-	-	EKRP1B2	-	-
Wiring adapter external control and monitoring	KRP4AA53 <sup>1</sup>	KRP4A53 <sup>1</sup>	-	-	KRP4A51	-	-	KRP4A52 <sup>1</sup>	-	-
Remote sensor	KRCS01-4	KRCS01-1	-	-	-	-	-	-	-	-
Installation box / mounting plate for adapter PCB	KRP1H98/KRP1J98 <sup>8</sup>	KRP1B1A101	-	-	KRP4A96	-	-	KRP1C93 <sup>4</sup>	-	-
Interface adapter to connect indoor to F1 F2	-	DTA112B51	-	KRP928A2S	DTA112B51	KRP928A2S	KRP928A2S	DTA112B51	KRP928B(A)2S	KRP928A2S
Connector for forced on/forced off	EKRORO2	EKROROA	-	-	EKRORO3	-	-	EKROROA	-	-

Notes:

<sup>1</sup> Installation box is required

<sup>2</sup> Fixing box is KRP1A90

<sup>3</sup> Mounting plate KRP4A96 is required. Maximum 2 option PCB can be mounted.

<sup>4</sup> Up to 2 adapters can be fixed per installation box

<sup>5</sup> For output 4 signals: Hour meter, fan, auxiliary electric heater, humidifier

<sup>6</sup> For output 2 signals: Hour meter, fan

<sup>7</sup> Option not available for combination with BYCQ140CGW1

<sup>8</sup> When using BYCQ140CGW1, KRP1J98 must be used

<sup>9</sup> When using BYCQ140CGW1, KRP1C12 must be used



## DS-net

DESCRIPTION	REFERENCE	COMMENTS
DS-net adapter	DTA113B51	4 units can be connected per adapter, 40 units when 10 adapters are connected

## Intelligent touch Controller

DESCRIPTION	REFERENCE	COMMENTS
Intelligent Touch Controller	DCS601C51	2x64 units can be connected
Software	DCS002C51	Power Proportional Distribution (PPD) software
	DCS004A51	E-mail / Web software
	DCS007A51	HTTP option
Hardware	DCS601A52	DIII NET-Plus adapter
Touch-Pen	1264009	Spare part n° of Touch-Pen for Intelligent Touch Controller
Interface adapters	KRP928A25	For connection to Split units
	DTA102A52	For connection to R-22 / R-407C Sky Air units
	DTA112B51	For connection to R-410A Sky Air units
Digital input	DEC101A51	Input contacts: 8 inputs with additional error feedback
Digital input/output	DEC102A51	Input contacts: 8 outputs with additional error and ON/OFF feedback

DESCRIPTION	REFERENCE	COMMENTS
Intelligent Processing unit	DAM602B51	256 indoor units per IPU
	DAM602B52	128 indoor units per IPU
Software	IM3.XX	Up to 1,024 indoor units
Interface adapters	KRP928B25	For connection to Split units
	DTA102A52	For connection to R-407C/R-22 Sky Air units
	DTA112B51	For connection to R-410A Sky Air units
DIII Ai	DAM101A51	Outdoor temperature sensor
Digital input	DEC10151	Input contacts: 16 points
Digital input / output	DEC10251	Input contacts: 8 points; output contacts: 4 points
Power Proportional Distribution	DAM002A51	
ECO Mode	DAM003A51	
Web Acces Function	DAM004A51	

## LonWorks Interface

DESCRIPTION	REFERENCE	COMMENTS
LonWORKS networks compatible Gateway	DMS504B51	Up to 64 groups can be connected per DMS-IF
Interface adapters	KRP928A2S	For connection to Split units
	DTA102A52	For connection to R-407C/R-22 Sky Air units
	DTA112B51	For connection to R-410A Sky Air units

## BACnet Interface

DESCRIPTION	REFERENCE	COMMENTS
BACnet Gateway	DMS502A51	64 groups per Gateway
DIII board	DAM411B51	Extension of 2 x DIII lines (2 x 64) indoor units
Digital input/output	DAM412B51	For forced shutdown
Interface adapters	KRP928A2S	For connection to Split units
	DTA102A52	For connection to R-407C/R-22 Sky Air units
	DTA112B51	For connection to R-410A Sky Air units

## BMS: BUILDING MANAGEMENT SYSTEM

DESCRIPTION	REFERENCE	COMMENTS	
Contact / analog signal	Parallel interface - Basic unit	DPF201A51 enables ON/OFF command, operation and display of malfunction can be used in combination with up to 4 units.	
	Temperature measurement units	DPF201A52 enables temperature measurement output for 4 groups; 0~5VDC.»	
	Temperature setting units	DPF201A53 enables temperature setting input for 16 groups; 0~5VDC.»	
	Unification adapter for computerised control	DCS302A52 used for combining of air conditioning control computer and central remote controller (ON/OFF, display)	
	Wiring adapter for electrical appendices (1)	KRP2A51	simultaneously controls air conditioning control computer and up to 64 groups of indoor units.
		KRP2A52	
Wiring adapter for electrical appendices (2)	KRP4A51-53	to control the group of indoor units collectively, which are connected by the transmission wiring of remote controller.	
External control adapter for outdoor unit	DTA104A51	cooling/heating mode change over, demand control and low noise control are available between the plural outdoor units.	
	DTA104A52		
DIII-net expander adapter	DTA109A51	a maximum of 10 outdoors or 128 indoors can be connected to 1 DTA109A51	
		a maximum of 8 DTA109A51 can be connected to DIII-net	
Mounting kit	KRP4A92	for easy installation of the DTA109A51	



In all of us,  
a green heart



Daikin's unique position as a manufacturer of air conditioning equipment, compressors and refrigerants has led to its close involvement in environmental issues. For several years Daikin has had the intention to become a leader in the provision of products that have limited impact on the environment. This challenge demands the eco design and development of a wide range of products and an energy management system, resulting in energy conservation and a reduction of waste.

VRV® products are not within the scope of the Eurovent certification programme.



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