



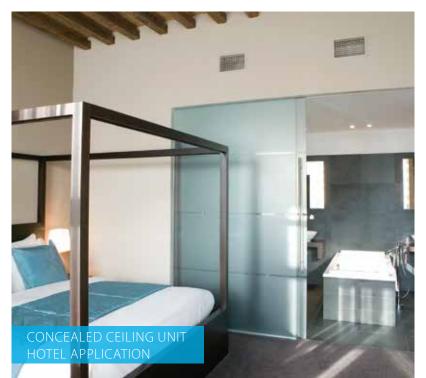
# VRV Product catalogue 2015 for installers



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









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### VRV, the solution for the commercial sector

Daikin VRV systems can be customised to meet the comfort and energy efficiency requirements of any commercial building.

### VRV IV standard & technologies

Unique and patented technologies that make the difference.

### Benefits

Daikin VRV IV systems are quick and simple to customise, commission and service, and they offer the end user perfect reliable comfort and control tailored to their needs.

### Outdoor unit product range

Daikin outdoor units offer a solution for everyapplication or climate condition.

### Indoor units

Daikin indoor units are designed to blend in with any décor, from modern to classical, and are silent and comfortable in operation.

### Hot water

Efficient hot water production for underfloor heating, radiators and air handling units, or for producing hot water for sinks, baths and showers.

### 5 Biddle Air Curtains

Quick and easy to install, Biddle air curtains are extremely efficient and have a payback time of under 18 months compared to electrical air curtains.

### Ventilation and Air Handling 182

Daikin offers the widest range of ventilation and air handling units for a healthy and comfortable environment.

### 30 Control Systems

216

176

Daikin's control systems range from building management systems to simple remote controls which are easy to use and offer smart energy management.

### 40 Options and Accessories 238

We offer a full range of options and accessories which allow our systems to be customised to meet different customer requirements.

### Literature overview

257

Discover all our commercial and technical documentation.

100

# Why choose Daikin

Our promise is to ensure that your customers can depend on Daikin for the ultimate in comfort, so that they are free to focus on their own working and home lives.

A REAL PROPERTY AND A REAL PROPERTY.

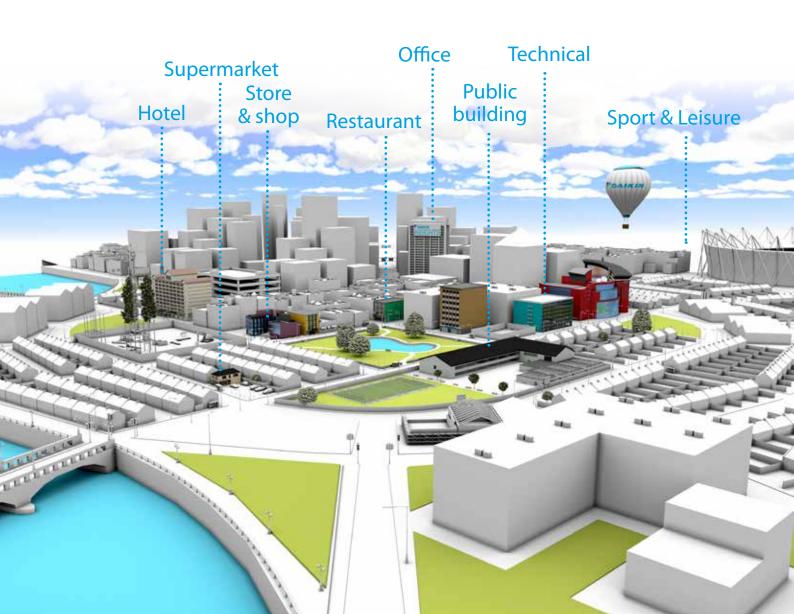
We promise to dedicate ourselves to technological excellence, a design focus and the highest quality standards so that your customers can trust and rely on the comfort we deliver.

Our promise to the planet is absolute. Our products are at the forefront of **low energy consumption** and we continuously **innovate to reduce the environmental impact** of HVACR solutions further.

We lead where others follow. We will continue our global leadership in HVACR solutions as our specialist expertise in all market sectors combined with 90 years' experience enable us to deliver added value in long-lasting relationships based on trust, respect and credibility.

# VRV The solution for the commercial sector

Daikin's VRV technology leads the way in customisation to match individual commercial building requirements in comfort and energy efficiency. Flexible to cover all applications and climate conditions, VRV has the unique products that make the difference for you and your customers.





# VRV IV sets the standard ... again

## Why choose VRV?

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

- > Over 90 years of expertise in heat pumps
- > Designed for and produced in Europe

### • Unique outdoor unit range covering all applications and climate conditions

### • Unique products that make the difference

#### in efficiency

- > Variable Refrigerant Temperature leading to the highest seasonal efficiency
- > Round flow cassette with auto cleaning panel

#### in comfort

- > Variable Refrigerant Temperature preventing cold draughts
- > True continuous heating, during defrost
- > 15 class units for small, well insulated rooms (cassette, wall, concealed ceiling models)
- > Low sound indoor and outdoor units

### in design

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

#### in installation

- > Automatic refrigerant charge and refrigerant containment check
- > 4-way blow ceiling suspended cassette (FXUQ)
- > plug & play Daikin air handling unit
- > Total solution incl. low and high temperature hydro box, Biddle air curtains, etc.

#### in control

- > Intelligent Touch manager cost-effiective mini BMS integrating all pillars
- > Easy integrating in third party BMS
- > Dedicated control solutions for applications such as technical cooling, shops, hotels, ...

### • Top reliability

- > True technical cooling
- > Gas-cooled PCB
- > Most extensive testing before new units leave the factory (copy!)
- > Widest support network and after sales service
- > All spare parts available in Europe

The VRV air conditioning system is the world's first individual air conditioning system with variable refrigerant flow control and was commercialised by Daikin in 1982. VRV is the trademark of Dakin Industries Ltd, which is derived from the technology we call "variable refrigerant volume".



## VRV IV standards

### Variable refrigerant temperature

- > Customize your VRV for best seasonal efficiency & comfort
- > Up to 28% higher seasonal efficiency (ESEER)
- > First weather dependent VRV
- > No more cold draft by supply of high outblow temperatures

### Continuous comfort

> True/real continuous heating makes VRV IV the best alternative to traditional heating systems

### VRV configurator

 software for the fastest and most accurate commissioning, configuration and customisation

### Total solution

- > one supplier for heating, cooling, ventilation, hot water, Biddle air curtains and control
- > combine both residential and VRV indoor units
- Free combination of outdoor units to meet installation space or efficiency requirements

### Outdoor unit display for quick on-site settings



Heat pump Heat recovery Replacement Water cooled

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## Benefits for installers

Daikin VRV IV sets the standard with latest technology and time saving commissioning & servicing

- Simplified and time saving commissioning with VRV configurator
- Remote refrigerant containment check
- → One supplier = one point of contact
- Many options to meet customer requirements

## Benefits for consultants

Daikin's VRV IV technology leads the way in customisation to match individual building requirements in comfort and energy, facilitating reduced capital and running costs

- > Ecological design
- > Ideal for reaching top BREEAM/EPDB levels
- No more cold draughts with higher evaporation temperatures up to 11 or 16°C, making VRV IV an ideal alternative to water-based systems
- Unique specification for monovalent heating

### Benefits for owners

VRV IV is the ultimate in customised comfort and intelligent control tailored to your individual needs and to maximise energy efficiency

- Annual cost savings up to 28% (compared with VRV III)
- No more cold draughts with variable refrigerant temperature
- Single point of contact for the design and maintenance of your climate control system
- Integrated system allows maximum energy efficiency for the end user
- Multiple systems can be managed in exactly the same way for key accounts



# Digital tools

- > Visit the website: http://www.daikineurope.com/vrv-iv
- > Download simulation or selection software: Go to extranet.daikineurope.com > Software downloads > sales supporting apps

#### Solutions seasonal simulator

With this software tool you can simulate and the seasonal efficiency, the annual power consumption and CO<sub>2</sub> emission for a given climate, load profile (cooling, heating, heat recovery, covalent, bivalent...) and (combination of) system(s). With its intuitive and graphical appealing interface, a simulation can be made in a matter of minutes. The solution basket system enables you to compare

### Xpress, Quick Quotation tool

Xpress is a software tool that allows creating on the spot quotations for a Daikin VRV system. It provides a result in 6 steps to enable a professional budget quotation:

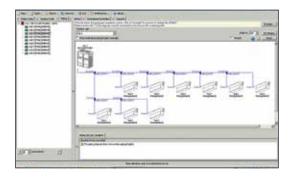
- > Select indoor units
- > Connect outdoor units to indoor units
- Automatic generation of piping diagram with joints
- > Automatic generation of wiring diagram
- Select possible centralised control systems
- > Visualise result in MS Word, MS Excel and AutoCAD

#### **Ventilation Xpress**

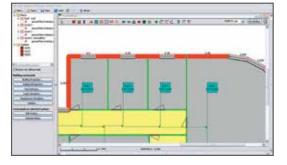
Selection tool for ventilation devices (VAM, VKM). The selection is based on given supply/extract airflows (including fresh up), and given ESP of the supply/extract ducting:



the results of several system configurations. Optionally, a return on investment calculation can be made. The outcome of the simulation can be exported to a printable report. The tool is available both for Windows PC and Tablet (iPad).



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



The VRV Pro selection program is a true VRV design tool. The program 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.

VRV Pro, Design tool

Windows95, Windows98, WindowsNT, Windows2000, WindowsXP, Windows Vista and Windows 7 are registered trademarks of Microsoft corporation.

## Your References

### Porta Fira

"This project reinforces Daikin's position as a leader in the air conditioning of large-scale structures, able to provide solutions that stand out not only for their accuracy and reliability, but also for their energy efficiency."



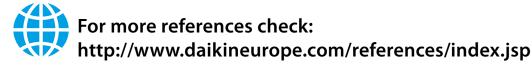


### Eiffage Energie & Thermie

"The customer choose Daikin for the user comfort we offer with the VRV IV with continuous heating. Next to that the design aspect was important. Therefor the fully flat cassette in combination with Split wall mounted units were installed. Together with the ease of installation Daikin offered the best solution for the customer."







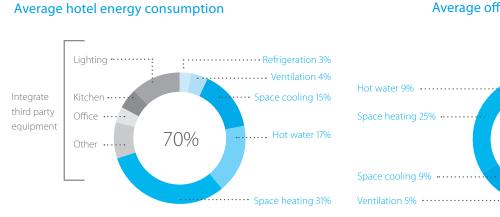
# The total solution



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

- > Heating and cooling for year round comfort
- > Hot water for efficient production of hot water
- Underfloor heating /cooling for efficient space heating/cooling
- > **Ventilation** for high quality environments
- > Air curtains for optimum air separation
- > **Controls** for maximum operating efficiency

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



### Average office energy consumption

. . . . .

48%

..... Other

• Office

··· Lighting

equipment

Integrate

third party

equipment

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

### Heating and cooling



- > Combine VRV indoor units with other stylish indoor units in one system
- > New round flow cassette sets the standard for efficiency and comfort

### Intelligent control systems



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

### Biddle air curtain



- > Payback time less than 1 year compared to electrical air curtain
- > A highly efficient solution for doorway climate separation



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

- Tapwater for cleaning

- Showers

- Sinks

> Hot water from 25 °C to 80 °C

**VRV Intro** 



Low-temperature hydrobox

> Highly efficient space heating through:

- Underfloor heating

- Heat pump convector

- Low temperature radiators

> Hot water from 25 °C to 45 °C

High temperature hydrobox<sup>\*</sup>

\*only for connection to VRV heat recovery

> efficient hot water production for:





# **VRV** for offices and banks

### Efficiency in the workplace



Efficient building and facilities management are key to minimising operational costs

### Our office solution offers:

- > Significantly reduced costs for hot water and heating by re-using heat recovered from areas requiring cooling
- > Unique fully flat cassette integrating fully flat into architectural ceilings
- > Intelligent sensors - maximise efficiency by switching of the unit if there is nobody in the meeting room - maximise comfort by directing the air flow from people to avoid cold draught
- > Complete Daikin mini BMS for office building management with Intelligent Touch Manager
- > Plug & play connection to air handling units for a healthier office atmosphere
- > Hot water production for sinks and underfloor heating
- > True reliable technical cooling down to -20°C, including duty/standby function





https://www.youtube.com/ DaikinEurope



**VRV** for hotels Hospitality with economy



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

### Our hotel solution offers:

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



https://www.youtube.com/ DaikinEurope







VRV for retail Reducing retail costs



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

### Our retail solutions offer:

> Compact inverter heat pump technology

- > Flexible installation: the outdoor unit can be installed outdoors to maximise hospitality space or indoors to minimise external space or noise in city centres
- > Unique round flow cassettes with autocleaning panel saving up to 50% of energy use compared to standard cassette units
- > Easy to use remote control with lock-key function to avoid improper use
- > Individual control of each indoor unit or shop zone
   > Savings on runningcost via pre/post trade modes,
- limiting energy use by lights, air conditioning, ... > The most efficient open-door solution with Biddle
- air curtains



VRV for residential use

There is no place like home



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

#### Our residential solution offers:

- Lower CO2 emissions compared to traditional heating systems
- Compact outdoor unit design with a low sound level
- > Whisper-quiet indoor units down to 19dBA
- › Daikin Emura, iconic design wall mounted unit
- Unique Nexura floor standing unit offering the feel of a radiator with the efficiency of a heat pump
- Units to be concealed in the wall or ceiling to make them completely unnoticed
- > User-friendly, intuitive control
- Up to 9 indoor units that can be connected to one outdoor unit



https://www.youtube.com/ DaikinEurope



Upgrade R-22 and R-407C systems quick and qualitatively with...

VRV Replacement solutions:

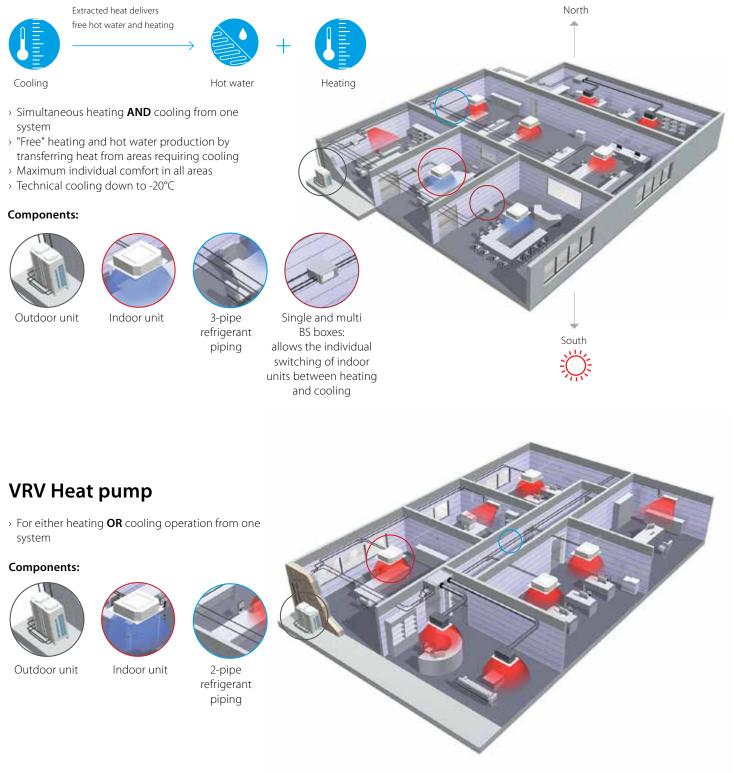
- ightarrow Keep your customers operational
- even during system replacement
- $\rightarrow$  Less installation time
- Lower installation costs
- > Replace non-Daikin systems
- > Automatic refrigerant charge and pipe cleaning

# Which VRV

outdoor system offers me the best solution?

# Heat recovery or heat pump?

## **VRV Heat recovery**



# Air cooled or water cooled?

## Air Cooled

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

### Components:





Outdoor unit

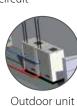
Indoor unit Refrigerar



### Water Cooled

- Suitable for multi-storey and large buildings because of the hardly unlimited possibilities of water piping
- > Not affected by outdoor temperature/climate conditions
- Reduce CO<sub>2</sub> emmisions thanks to the use of geothermal energy as a renewable energy source
- > Allows heat recovery in the entire building thanks to the storage of energy in the water circuit

### Components:



Indoor unit



Refrigerant piping

(Geothermal) water loop



### **Outdoor units**

# Products overview **VRV**

		Product name		4	5	6	8	10	12	13	14	16	18	20	22	24	20	20	30
VRV IV heat recovery	<ul> <li>&gt; The perfect personal comfort for guests/tenants via simultaneous cooling and heating</li> <li>&gt; Incorporates VRV IV standards &amp; technologies such as Variable Refrigerant temperature and continuous heating</li> <li>&gt; Allows technical cooling</li> </ul>	reyq-t <b>VRV IV</b>					•	•	•	•	•	•	•	•	•	•	•	•	•
VRV IV heat pump with continuous heating	Daikin's optimum solution with top comfort         > Continuous heating during defrost         > Covers all thermal needs of a building via a single point of contact: accurate temperature control, ventilation, hot water, air handling units and Biddle air curtains         > Connectable to stylish indoor units (Daikin Emura, Nexura)         > Incorporates VRV IV standards & technologies such as Variable Refrigerant temperature and continuous heating	RYYQ-T VRV IV					•	•	•		•	•	•	•	•	•	•	•	•
		RXYQ-T(9) <b>VRV IV</b>					•	•	•		•	•	•	•	•	•	•	•	•
II.2	> Space saving design	RXYSQ- P8V1/P8Y1	00	•	•	•													
VRVI	temperature control, ventilation, air handling units and Biddle air curtains > Either connect VRV of stylish indoor units (Daikin Emura, Nexura)	launch autumn 2015 RXYSQ-TV1/TY1 YRY IV S-series	00	•	•	•	•	•	•										
VRVIV-S series Compact	<ul> <li>Compact and lightweight single fan design saves space and is easy to install</li> <li>Covers all thermal needs of a building via a single point of contact: accurate temperature control, ventilation, air handling units and Biddle air curtains</li> <li>Either connect VRV of stylish indoor units (Daikin Emura, Nexura)</li> </ul>	launch autumn 2015 RXYSCQ-TV1 YRY IV S-series Compact	0	•	•														
ill h opti eat	> Extended operation range down to -25°C in heating	RTSYQ-PA						•			•	•		•					
Classic		RXYCQ-A VRV Classic					•	•	•		•	•	•	•					
atre	> No interuption of daily business while replacing your system	RQCEQ-P* VRVIII-Q						•		•		•	•	•	•	•	•	•	•
ieat pum	<ul> <li>&gt; Up to 80% more efficient than R-22 systems</li> <li>&gt; No interuption of daily business while replacing your system</li> <li>&gt; Replace Daikin and other manufacturers systems safely</li> </ul>	RXYQQ-T* VRV IV Q-series			•		•	•	•		•	•	•	•	•	•	•	•	•
Water cooled VRV IV	<ul> <li>energy source</li> <li>No need for an external heating or cooling source when used in geothermal mode</li> <li>Covers all thermal needs of a building via a single point of contact: accurate temperature control, ventilation, hot water, air handling units and Biddle air curtains</li> <li>Compact &amp; lightweight design can be stacked for maximum space saving</li> <li>Incorporates VRV IV standards &amp; technologies such as Variable Refrigerant temperature</li> <li>Variable Water Flow control option increases flexibility and control</li> </ul>	RWEYQ-T* YRY IV W-series	1				•	•				•	•	•		•	•	•	•
	Water cooled VRV IV heat pump heatrecovery VRV Classic pump, optimised series ser	<ul> <li>Prec heating and not were includined in eccurry</li> <li>Prec heating and not were including in a single point of contact: accurate temperature control, ventilation, hot water, air handling units and Biddle air curatains</li> <li>Procement Were heating and not were including via a single point of contact: accurate temperature control, ventilation, hot water, air handling units and Biddle air curatains</li> <li>Procemate Were via transe</li> <li>Procemate Were via transe</li> <li>Procemate Were via the ecologies such as Variable Refrigerant temperature</li> <li>Procemate VIV V standards &amp; technologies such as Variable Refrigerant temperature</li> <li>Procemate VIV V standards &amp; technologies such as Variable Refrigerant temperature</li> <li>Procemater VIV V standards &amp; technologies such as Variable Refrigerant temperature</li> <li>Process all thermal needs of a building via a single point of contact: accurate temperature control, ventilation, in handling units and Biddle air curatains</li> <li>Process all thermal needs of a building via a single point of contact: accurate temperature control, ventilation, ath handling units</li></ul>	Yree Hearing and hol water through near recovery     Yree Hearing and hol water through t	and the intermediate intermediate intermologies such as intermediate cost of public index intermologies such as intermediate intermediate intermediate intermediate intermediate intermologies such as intermediate intermediat	• The metanging and is water introgrammed and is simulationess cooling and interview is simulation to the market            Outer statistic cooling is a simulation of the market           Description interview is simulation in the simulation into the simulatinto the sinthe simulation into the simulation into the	and the state and and the state and and plane are leader by an influences according and in	The metal plant of the sector of the se	and the set of the set o	and one of the strategy and the strategy interface stree structure structur	and the second secon	and output of the second se	and a brief of the set o	Base Service       Provide and provide stranger field service stranger stranger service stranger field service stranger	a manual priority of pr	and a standard method which introduces and the second standard intervence inter	and process of the standard and process on the matter of the standard and process on the standard and process on the standard and process on the standard and process of the standard and process o	a manual set in the set	Image: Program (1)       Program (1	and provide provide under the distribution of the distr

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32	34	36	38	40	42	44	46	48	50	52	5		VRV IV Heat Recovery REYQ-T	5 0	⊆ x	5	н О	Ξ Ο	AI O	A X	O	ī Standard total system connection ratio limit: 50 ~ 130%
													with only VRV indoor units	√		-	-	_	-		-	
													with LT/HT Hydroboxes	$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$				ī Max 32 indoor units, even on 16HP and larger systems ī Total system connection ratio up to 200% possible
													HRV units VAM-, VKM-	$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		$\checkmark$	
•	•	•	•	•	•	•	•	•	•	•		•	AHU connection EKEXV + EKEQMCB	$\checkmark$				$\checkmark$	$\checkmark$		$\checkmark$	i Dedicated systems (with only ventilation units) not allowed – a mix with standard VRV indoor units is allways neccessary
													Biddle air curtain CYV-DK-	$\checkmark$				$\checkmark$	$\checkmark$		$\checkmark$	
											T		VRV IV Heat Pump RYYQ-T / RXYQ-T(9)	0	0	0	x	0	0	0	0	ī Standard total system connection ratio limit: 50 ~ 130%
													with only VRV indoor units	$\checkmark$								ī 200% total system connection ratio possible under special circumstances
													with residential indoor units	$\checkmark$	✓			$\checkmark$				ī Only single-module systems (RYYQ 8~20 T / RXYQ 8~20 T)
•	•	•	•	•	•	•	•	•	•	•		• +	with LT Hydroboxes	√		$\checkmark$		√				i Max 32 indoor units, even on 16HP, 18HP and 20HP systems i Max 32 indoor units, even on 16HP and larger systems
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												+	AHU connection EKEXV + EKEQFCB	•				•	•	$\checkmark$	•	
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											+	-	VRV III-S Mini VRV RXYSQ-P8	0	0	x	x	, 0	•	x	•	ī Standard total system connection ratio limit: 50 ~ 130%
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													with Split indoor units		$\checkmark$							
													VRV III Cold Region RTSYQ-PA	✓	×	x	×	~	~	×	~	ī Standard total system connection ratio limit: 50 ~ 130%
													VRV Classic RXYCQ-A	✓	×	x	×	~	x	x	x	i Standard total system connection ratio limit: 50 ~ 120% i In case of using at least one FXFQ20~25 indoor units on 8HP or 10HP models, the maximum connection ratio is 100%.
													<b>VRV III-Q Replacement H/R</b> RQCEQ-P	√	×	x	x	~	x	x	x	ī Standard total system connection ratio limit: 50 ~ 130%
•	•	•	•	•	•								<b>VRV IV-Q Replacement H/P</b> RXYQQ-T	$\checkmark$	x	x	×	~	~	x	~	ī Standard total system connection ratio limit: 50 ~ 130%
													<b>VRV IV-W Water-cooled VRV</b> RWEYQ-T	~	×	×	×	~	~	x	✓	ī Standard total system connection ratio limit: 50 ~ 130%

 $\mathbf{O}$  ... connection of indoor unit possible, but not neccessarily simultaneously with other allowed indoor units  $\checkmark$  ... connection of indoor unit possible even simultaneously with other checked units in the same row  $\mathbf{x}$  ... connection of indoor not possible on this outdoor unit system

VRV Intro

### Indoor units

# Products overview **VRV**

Capacity class (kW)

INIQUE INIQUE ully flat assette -way blow eiling nounted assette eiling nounted orner assette mall oncealed	<ul> <li>360° air discharge for optimum efficiency and comfort</li> <li>Auto cleaning function ensures high efficiency</li> <li>Intelligent sensors save energy and maximize comfort</li> <li>Flexibility to suit every room layout</li> <li>Lowest installation height in the market!</li> <li>Unique design that integrates fully flat into the ceiling</li> <li>Perfect integration in standard architectural ceiling tiles</li> <li>Blend of iconic design and engineering excellence</li> <li>Intelligent sensors save energy and maximize comfort</li> <li>Small capacity unit developed for small or well-insulated rooms</li> <li>Flexibility to suit every room layout</li> <li>Thin, lightweight design installs easily in narrow ceiling spaces</li> <li>Depth of all units is 620mm, ideal for narrow ceiling spaces</li> <li>Flexibility to suit every room layout</li> <li>Reduced energy consumption thanks to DC fan motor</li> <li>The flaps close entirely when the unit is not operating</li> <li>Optimum comfort with automatic air flow adjustment to the requirer</li> <li><b>1-way blow unit for corner installation</b></li> <li>Compact dimensions enable installation in narrow ceiling voids</li> <li>Flexible installation thanks to different air discharge options</li> </ul>	FXC	li li		•	•			•	•		•	•		
INIQUE ully flat assette 	<ul> <li>Perfect integration in standard architectural ceiling tiles</li> <li>Blend of iconic design and engineering excellence</li> <li>Intelligent sensors save energy and maximize comfort</li> <li>Small capacity unit developed for small or well-insulated rooms</li> <li>Flexibility to suit every room layout</li> <li>Thin, lightweight design installs easily in narrow ceiling spaces</li> <li>Depth of all units is 620mm, ideal for narrow ceiling spaces</li> <li>Flexibility to suit every room layout</li> <li>Reduced energy consumption thanks to DC fan motor</li> <li>The flaps close entirely when the unit is not operating</li> <li>Optimum comfort with automatic air flow adjustment to the requiree</li> <li>I-way blow unit for corner installation</li> <li>Compact dimensions enable installation in narrow ceiling voids</li> <li>Flexible installation thanks to different air discharge options</li> </ul>	FXZ	Q-A		•	•	•	•	•						
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mall oncealed			-MA							•					
eiling unit	<ul> <li>Discretely concealed in the ceiling: only the grilles are visible</li> <li>Flexible installation as the air suction direction can be altered from r bottom suction</li> </ul>	FXDC ear to	2-M9	1		•	•								
lim oncealed eiling unit	<ul> <li>Compact dimensions enable installation in narrow ceiling voids</li> <li>Medium external static pressure up to 44Pa</li> <li>Only grilles are visible</li> <li>Small capacity unit developted for small of well-insulated rooms</li> </ul>	FXD	Q-A		•	•	•	•	•	•					
oncealed eiling unit vith medium	<ul> <li>&gt; Slimmest unit in class, only 245mm</li> <li>&gt; Low operating sound level</li> <li>&gt; Medium external static pressure up to 150Pa facilitates using flexible varying lengths</li> <li>&gt; Automatic air flow adjustment function measures the air volume and</li> </ul>	ducts of FXS	Q-A		•	•	•	•	•	•		•	•	•	
oncealed eiling unit	<ul> <li>Optimum comfort guaranteed no matter the length of ductwork or grilles, thanks to automatic air flow adjustment</li> <li>Reduced energy consumption thanks to DC fan motor</li> </ul>	FXM	Q-P7						•	•		•	•		
eiling unit	> Only grilles are visible	FXMQ	-MA9												•
oncealed eiling unit ⁄ith high fficiency	<ul> <li>Automatic air flow adjustment function guarantees comfort</li> <li>Easy installation in narrow ceilings (245mm height)</li> <li>High external static pressure up to 270Pa facilitates using flexible durvarying lengths</li> </ul>	cts of FXT	Q-A						•	•		•			
nounted	<ul> <li>&gt; Flat, stylish front panel is more easy to clean</li> <li>&gt; Small capacity unit developted for small of well-insulated rooms</li> <li>&gt; Reduced energy consumption thanks to DC fan motor</li> </ul>		Q-P		•	•	•	•	•	•					
uspended nit	<ul> <li>&gt; Ideal for comfortable air flow in wide rooms thanks to Coanda effect</li> <li>&gt; Rooms with ceilings up to 3.8m can be heated or cooled very easily!</li> <li>&gt; Can easily be installed in both new and refurbishment projects</li> <li>&gt; Can even be mounted in corners or narrow spaces without any prob</li> </ul>	FXH	Q-A							•		•			
-way blow eiling uspended	<ul> <li>Rooms with ceilings up to 3.5m can be heated up or cooled down ve</li> <li>Can easily be installed in both new and refurbishment projects</li> <li>Flexibility to suit every room layout</li> </ul>	ery easily!	Q-A									•			
tanding nit	<ul> <li>Can be installed in front of glass walls or free standing as both the fre the back are finished</li> <li>Ideal for installation beneath a window</li> <li>Requires very little installation space</li> </ul>		Q-Р			•				•					
oncealed oor tanding nit	<ul> <li>Discretely concealed in the wall, leaving only the suction and discharg visible</li> <li>Can even be installed underneath a window</li> <li>Requires very little installation space as the depth is only 200mm</li> </ul>		Q-A	-		•			•	•					
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(1) Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB, outdoor temperature: 35°CDB, equivalent refrigerant piping: 5m, level difference: 0m (2) Nominal heating capacities are based on: indoor temperature: 20°CDB, outdoor temperature: 7°CDB, 6°CWB, equivalent refrigerant piping: 5m, level difference: 0m



# Stylish indoor units OVErview

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

portiono	TO COMPILATION RESTICTIONS								Capa	city clas	s (kW)	RYYQ-T	RXYQ-T(9)	RXYSQ-P8V1 <sup>3</sup>	RXYSQ-P8Y1 <sup>3</sup>
Туре	Model	Product name		15	20	25	35	42	50	60	71	RYY	RXY	RXY	RXY
Ceiling mounted	Round flow cassette (incl. auto-cleaning function')	FCQG-F					•		•	•				~	~
cassette	Fully flat cassette	FFQ-C				•	•		•	•				~	~
	Small concealed ceiling unit	FDBQ-B				•								$\checkmark$	~
Concealed ceiling	Slim concealed ceiling unit	FDXS-F(9)				•	•		•	•				~	~
	Concealed ceiling unit with inverter-driven fan	FBQ-D					•		•	•				~	~
	Daikin Emura Wall mounted unit	FTXG-LW/LS			•	•	•		•			$\checkmark$	$\checkmark$	$\checkmark$	~
Wall mounted	Wall mounted unit	CTXS-K FTXS-K		•	•	•	•	•	•			$\checkmark$	$\checkmark$	$\checkmark$	~
	Wall mounted unit	FTXS-G								•	•	$\checkmark$	$\checkmark$	$\checkmark$	~
Ceiling suspended	Ceiling suspended unit	FHQ-C					•		•	•				~	~
	Nexura floor standing unit	FVXG-K				•	•		•			~	~	~	~
Floor standing	Floor standing unit	FVXS-F				•	•		•			~	~	~	~
	Flexi type unit	FLXS-B(9)	1			•	•		•	•		~	$\checkmark$	~	$\checkmark$

<sup>1</sup> Decoration panel BYCQ140CG + BRC1E52A/B needed

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

 $^{\scriptscriptstyle 3}~$  For RXYSQ units a mix of RA indoor units and VRV indoor units is not allowed.

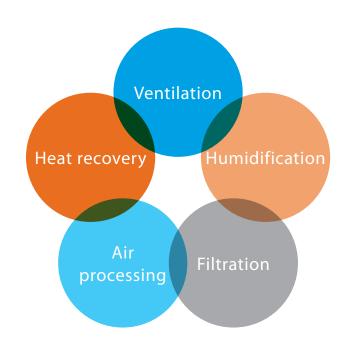
VRV Intro

Connectable outdoor unit

# Ventilation range

# Five components of indoor air quality

- > Ventilation: ensures the provision of fresh air
- Heat recovery: recovers heat and moisture from the outgoing air to maximise comfort and efficiency
- Air processing: heats or cools incoming fresh air maximising comfort and minimizing the load on the air conditioning installation
- > **Humidification:** optimises the balance between indoor and outdoor humidity
- > **Filtration:** removes dust, pollution and odours from the air



Air flow rate (m<sup>3</sup>/h)\*

Туре	Product name	Model	0	200	400	600	800	1,000	2,000	4,000 6	,000 8,	,000	140,0	00 Components of indoor air quality
	VAM-FA/FB	Ventilation with heat recovery as standard > Energy saving ventilation > Maximise floor space for furniture, decoration and fittings > Free cooling > Reduced energy consumption thanks to DC inverter fan motor > Optional CO <sub>2</sub> sensor saves energy while improving indoor air quality												Ventilation Heat recovery
Heat reclaim ventilation	VKM-GB	Pre heating or cooling of fresh air for lower load on the air conditioning system           > Energy saving ventilation           > Creates a high quality indoor environment           > Maximise floor space for furniture, decoration and fittings           > Free cooling           > Reduced energy consumption thanks to DC inverter fan motor											,	Ventilation Heat recovery Air processing
	VKM-GBM	Pre heating, cooling and humidification for optimum comfort > Energy saving ventilation > Creates a high quality indoor environment > Balance your indoor humidity level > Maximise floor space for furniture, decoration and fittings > Free cooling											; ;	Ventilation Heat recovery Air processing Humidification
Air handling units	DX total fresh air package	Fully customised solution for ventilation and air handling Inverter technology Heat pump and heat recovery Provides virtually free heating Room temperature via Daikin control Large range of expansion valve kits										**	) ) )	Ventilation Heat recovery Air processing Humidification Filtration

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

\*\* Daikin AHU connected to Daikin chiller solution

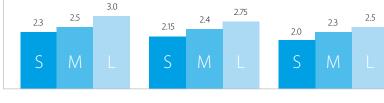
# Additional options

## Biddle air curtain range

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

### Air curtain size selector

Door height (m)



with ground floor only

**Favourable** Covered shopping mall or revolving door entrance **Normal** No opposite open doors, little direct wind, building

### Unfavourable

Location at a corner or square, multiple floors and/ or open stairwell

# Hydrobox range

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

# Network solutions

Туре		ITC	ITM	DMS-IF	BACNET
	Layout screen		•		
Screen	Touch screen	•	•		
	Mini BMS for heating, air conditioning applied systems and refrigeration units (BACnet and WAGO)		•		
Integration	3rd party equipment integration (BACnet and WAGO)		•		
	Basic control functions: on/off, temp, setting, air flow sttings	•	•	•	•
	Refrigerant containment check		•		
	Temperature limitation	•	•		
Cantural	Setback		•		
Control	Automatic changeover	•	•		
	Weekly schedule and special day pattern	•	•		
	Timer extension		•		
	Forced off	•	•	•	•
	Basic control functions: ON/OFF status, operation mode, set point temp.	•	•	•	•
	Filter status	•	•	•	•
Monitoring	Malfunction code	•	•	•	•
	History (operation, malfunction)	•	•		
	Visualisation	•	•		
	PPD	•	•		•
Options	Web access and control	•	Std		
	HTTP option	•			
	Interlock	•	•		
	Pre-cool/heat		•		
0.1	Sliding temperature		•		
Other	Free cooling	•	•		
	ACNSS connection Air Conditionning Network Service System	•	•	•	•
	Maximum indoor unit groups	64	2560	64	4x64

> A payback time of less than 1.5 years compared to electrical air curtains

VRV Intro

- > Easy and quick installation
- Maximum energy efficiency thanks to rectifier technology
- > 85% air separation efficiency
- Cassette model (C): mounted into a false ceiling leaving only the decoration panel visible
- Free-hanging model (F): easy wall mounted installation
- > Recessed model (R) : neatly concealed in the ceiling

Capacity class (kW)

21

# VRV IV standard & technologies

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

2

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DAIKIN

VRY IV

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# VRV IV =

# 3 revolutionary standards

- > Variable refrigerant temperature
- Continuous comfort during defrost
- > VRV configurator

# + unique VRV IV core technologies

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

# Variable refrigerant temperature



## Customise your VRV for best seasonal efficiency and comfort

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

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

## How does it work?

#### **VRF** standard

Capacity is controlled only with the variance of the inverter compressor

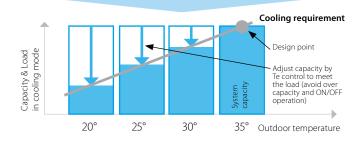
### **Daikin VRV IV**

Variable Refrigerant Temperature control for energy saving in partial load condition. The capacity is controlled by the inverter compressor AND variation of the evaporating (Te) and condensing (Tc) temperature of the refrigerant in order to achieve the highest seasonal efficiency.

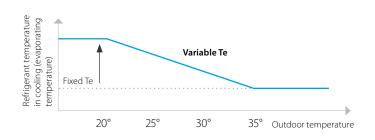


Calculate the benefit of variable refrigerant temperature for your project in our seasonal solutions calculator:

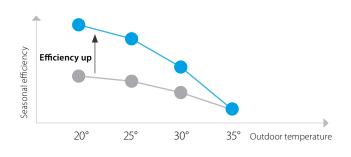
http://extranet.daikineurope.com/en/software/ downloads/solutions-seasonal-simulator/default.jsp The colder it gets, the lower the load on the building and the lower the capacity need



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



A higher refrigerant temperature results in a higher seasonal efficiency and higher comfort



## Success story

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

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

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

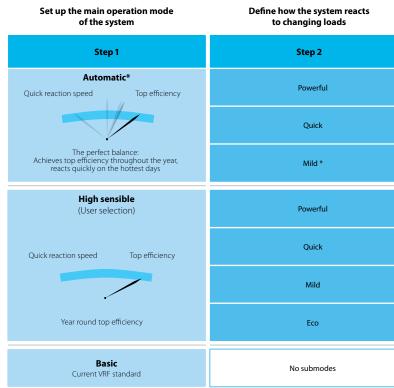
# How effective is the VRV IV heat pump technology?

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

# Different modes to maximise efficiency and comfort

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

# How to set the different modes?



\* Factory setting

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





Patents
Where a quick increase of load is expected such as conference rooms. Quick reaction speed to changing load has priority, with temporarily colder outblow as a result.
Same as above but slower response than the powerful mode.
This mode would be suitable for most office applications and it is the factory set mode. The perfect balance: Slower reaction speed with top efficiency
Gives customer choice for fixing coil temperature which avoids cold draughts. A quick reaction speed to changing load has priority, with temporarily colder outblow as a result.
Same as above but slower response.
The air off temperature remains fairly constant. Suitable for low ceiling rooms.
Coil temperature would not change due to fluctuating load. Suitable for computer rooms. Suitable for low ceiling rooms.
This is how most other VRF systems work and can be used for all general type of applications. Suitable for computer rooms. Suitable for low ceiling rooms.

### Measured data

### Fashion store Unterhaching (Germany)

- > Floor space: 607m<sup>2</sup>
- > Energy cost: 0,18 €/kWh
- System taken into account for consumption:
   VRV IV heat pump with continuous heating
  - Round flow cassettes (without auto cleaning panel)
     VAM for ventilation (2x VAM2000)
  - VAIM TOP VENTILATION (2X VAIM200
  - Biddle Air curtain.

# Continuous heating

# during defrost mode

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

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

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

Defrosting can take over 10 minutes (depending on the size of the system) and occurs mostly between -7 and  $+7^{\circ}$ C when there is most moisture in the air, which freezes to the coil, and this has a significant impact on the perceived indoor comfort levels and runningcosts.

The VRV IV has changed the heating paradigm by providing heat even during defrost operation thus eliminating the temperature drop inside and providing comfort at all times.

# How does it work?

### Heat accumulating element

For the VRV IV heat pump single models a unique heat-accumulating element is used. This element, based upon phase change materials, provides the energy to defrost the outdoor unit. The energy needed for defrosting is stored in the element during normal heating operation.

The outdoor unit coil is defrosted ...

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

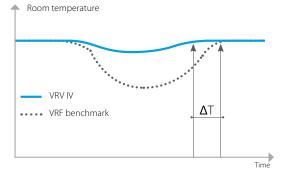
... while indoors a comfortable temperature is maintained.





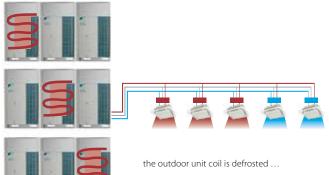


https://www.youtube.com/ DaikinEurope



### Alternate defrost

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



... one at the time ..

 $\ldots$  so indoors a comfortable temperature is maintained

# Configurator

# software

Software for simplified commissioning, configuration and customisation

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



Check on You Tube

https://www.youtube.com/ DaikinEurope

### Simplified commissioning

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

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



Simplified commissioning

\_\_\_\_\_, ◀\_\_\_\_\_

Retrieve initial system settings



User friendly interface instead of push buttons

### Simplified servicing

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

- > easy-to-read error report
- clear menu indicating quick and easy on-site settings
- indication of basic service parameters to quickly check basic functions: high pressure, low pressure, frequency ans operation time history of compressors, temperature of discharge/suction pipe.





3 digit 7-segment display

# Unique VRV IV core technologies

oatents



Newly developed compressor

### Full inverter

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

### Reluctance brushless DC motor

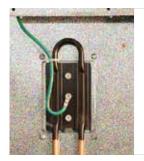
- increased efficiency compared to AC motors by simultaneously using normal and reluctance torque
- Powerful neodymium magnets efficiently generate high torque
- > High-pressure oil reduces thrust losses

### High efficiency J-type 6-pole motor

> 50% stronger magnetic field and higher rotation efficiency

### Thixocasting process

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



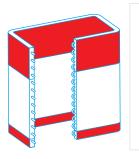
### Refrigerant-cooled PCB

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



10

patents



# 4-sided, 3-row heat exchanger

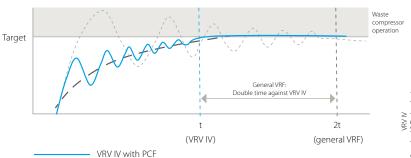
 Heat exchange surface up to 50% larger
 (up to 235m<sup>2</sup>), leading to 30% more efficiency

### UNIQUE

# Predictive Control Function (PCF)

- > Reaches the target capacity/refrigerant temperature faster
- > Reaches the target without overshooting, so there is no waste, leading to improved efficiency
- > Three capacity settings give more precise control for user comfort

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



----- General VRF with PI control

Target capacity/refrigerant temperature

#### VRV IV: PCF

Compressor works with predictive data for the control

> result: quick convergence to the target temperature and reduction of waste operation of the compressor Half time against general VRF

General VRF: Pi control

Compressor works with feedback only for the control

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

## DC fan motor

### UNIQUE

### Outer rotor DC motor for higher efficiency

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

### Sine wave DC inverter

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

### DC fan motor

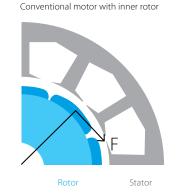
The use of a DC fan motor offers substantial improvements in operating efficiency compared to conventional AC motors, especially during low speed rotation.

## E-Pass heat exchanger

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

## I-demand function

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

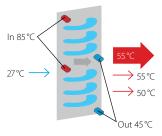


Daikin outer rotor

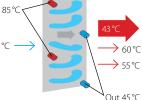


Standard heat exchanger

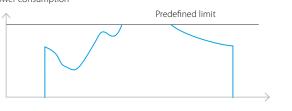








Power consumption



27

VRV IV itandard & Technologies

# The VRV benefits

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

# VRV Latest technology, highest efficiency

### VRV, a total commercial solution

Drastically reducing your running costs Top reliability	32 32
Up to 6 times greater resistance against corrosion	32
Comfort guaranteed at all times	37
Maximum flexibility	36
Fast installation and commissioning Easy servicing	38 38

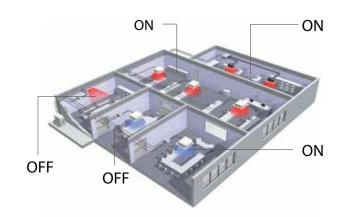
31

Benefits

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

## Precise zone control

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



Hydrophilic film

Corrosion-resistant Acrylic resin

Aluminium

## Anti Corrosion Treatment

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

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

### Performed tests:

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

### Kesternich test (SO2)

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

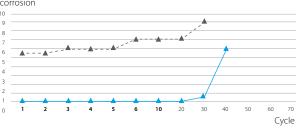


Heat exchanger

An anti-corrosion heat exchanger cutaway view



Degree of corrosion



**3enefits** 

## All inverter compressors

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

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

# Duty Cycling extends operation life

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

# Sequential Start

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

### Top quality Only brazed connections

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



Brazing

# Comfort guaranteed at all times

# Smart Control brings comfort

### Stable room temperature

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

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

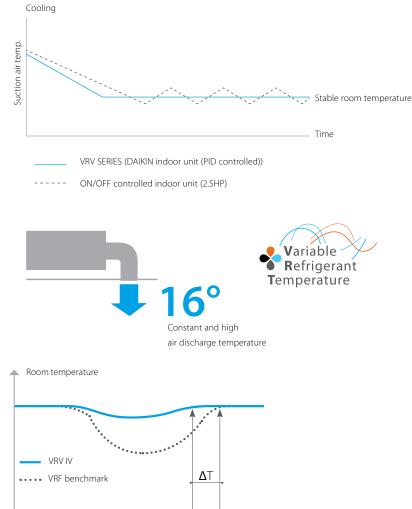
### No more cold draught

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



### **During defrost**

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



# Back-up function

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



Single outdoor unit with multiple compressors



Time

Multi outdoor unit system

# Low indoor unit operation sound level

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

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

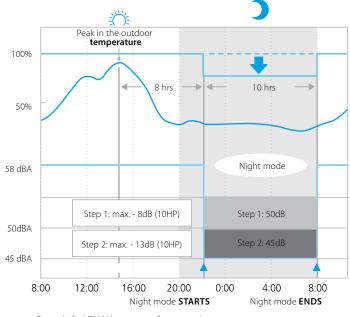
## Daikin indoor units:



## Night quiet mode

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





Example for VRV IV heat pump, factory setting.

## Wide operation range

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

Maximum flexibility

Our geothermal water cooled units are not influenced by external conditions and can be operated in the most extreme climats.



Cooling mode

Heating mode

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

### Flexible piping design

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

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

#### **VRV IV example**

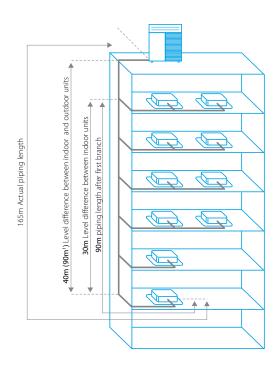
Total piping length	1000m
Longest length actual (Equivalent)	165m (190m)
Longest length after first branch	90m <sup>1</sup>
Level difference between indoor and outdoor units	90m <sup>1</sup>
Level difference between indoor units	30m

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

### Indoor installation

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

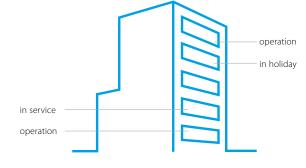
Indoor installation leads to less piping length, lower installation costs, increased efficiency and better visual aesthetics.





# Multiple tenants, one outdoor unit

The multi tenant function ensures that the entire VRV system does not shut down when the main power supply of an indoor is switched off. This means that the indoor unit's main power supply can be turned off when a part of the building is closed, is being serviced without affecting the rest of the building.



#### 2 solutions according to the needs:

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



# No structural reinforcement necessary

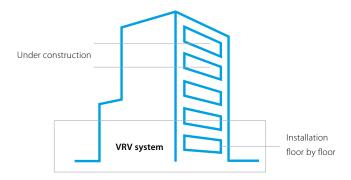
Thanks to the vibration-free and sufficient light construction of the outdoor units, floors do not need to be reinforced, reducing the overall cost of the building when compared to a chiller.



max. 398kg for a 20HP unit

#### Phased installation

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

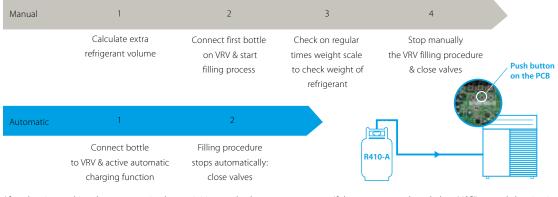


# Fast installation and commissioning

Easy servicing

### Automatic charging & testing

#### Efficient use of time



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

# Did you know .

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

- \* 10°C for heat pump for cold regions
- \* Not available for VRV Classic and VRV IV W-series



### Easy compliance to F-gas regulation

#### Remote refrigerant containment check

Perform the refrigerant containment check remotely via Intelligent Touch Manager.



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

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

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

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



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



Check the report once the check has been done.

Not available on VRVIII-S or in combination when one or more RA indoor units, hydroboxes, ... are connected Next to remote checking, the function can also be activated on-site via a push button on the PCB.

### VRV configurator software

For simplified commissioning, configuration and customisation



User friendly interface instead of push buttons

3 digit 7-segment display

# Compact design

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



# Daikin unified REFNET piping



T-joint

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

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

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



**REFNET** joint



REFNET header

#### Easy wiring -"Super Wiring" System

#### Simplified wiring

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

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

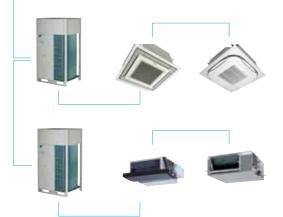
#### Cross wiring check

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

#### Auto Address Setting Function

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







# VRV Outdoor Systems

For every application a solution

# Overview of functions

	VRV IV Heat recovery	VRV IV heat pump with continous heating	VRV IV heat pump without continous heating	VRV III-S	VRV III-C	VRV Classic	Replacement VRV IV heat pump	Replacement VRV III Heat recovery	Water cooled VRV IV
	p 44	p 54	p 54	p 62	p 70	p 76	p 81	p 81	p 92
Variable Refrigerant Temperature	•	•	•	×	×	×	•	×	•
Continuous heating (heat accumulating element)	×	•	×	×	×	×	×	×	-
Continuous heating (alternate defrost)	•	•	×	×	×	×	×	×	-
VRV configurator	•	•	•	×	×	×	•	×	٠
7 segment indicator	•	•	•	×	×	×	•	×	×
Automatic refrigerant charge	•	•	•	•	•	×	•	•	×
Refrigerant containment check	•	•	•	٠	•	×	×	×	×
Night quiet mode	•	•	•	٠	•	×	•	•	-
Low noise function	•	•	•	٠	•	•	•	•	-
Connectable to stylish indoor units (Daikin Emura, Nexura)	×	•	•	•	×	×	×	×	×
Connectable to LT hydrobox for hot water	•	•	•	×	×	×	×	×	×
Connectable to HT hydrobox for hot water	•	×	×	×	×	×	×	×	×
Full inverter compressors	•	•	•	٠	×	×	•	•	٠
Gas cooled PCB	•	•	•	×	×	×	•	×	×
4 side heat exchanger	•	•	•	×	×	×	•	×	-
Reluctance brushless DC compressor	•	•	•	•	•	•	•	•	•
Sine wave DC inverter	•	•	•	•	•	•	•	•	•
DC fan motor	•	•	•	•	•	•	•	•	-
E-pass heat exchanger	•	•	•	•	•	•	•	•	-
I demand function	•	•	•	•	•	×	•	•	×
Manual demand function	•	•	•	•	•	•	•	•	•





BREEAM ® EXCELLENT OFFICE BUILDING WATERCOOLED VRV











# VRV IV heat recovery Best efficiency and comfort solution





### VRV IV standards:

# Variable refrigerant temperature

Customize your VRV for best seasonal efficiency & comfort

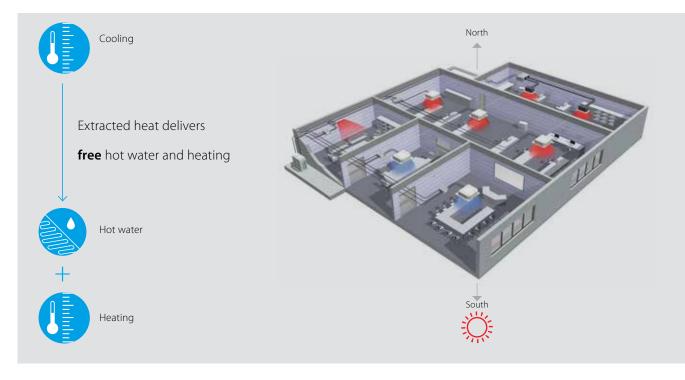
# Continuous heating

The new standard in heating comfort

### VRV configurator

Software for simplified commissioning, configuration and customisation

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



# "Free" heat and hot water production

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

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

# Improved efficiency

In heat-recovery operation the VRV IV is up to 15% more efficient. In full-load operation the seasonal efficiency is even as much as 28% more efficient than the VRV III thanks to variable refrigerant temperature.

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

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

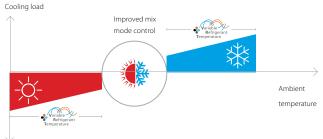
# Wide heating operation range

VRV IV heat recovery has a standard operation range down to -20°C in heating. It can also provide cooling down to -20°C for technical server rooms (field setting).

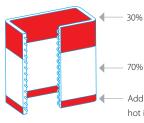
#### Maximum comfort

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

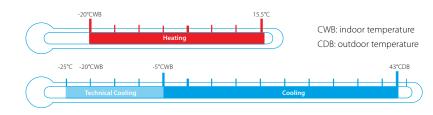
- For hotel owners, this means a perfect environment for guests as they can freely choose between cooling or heating.
- > For offices, it means a perfect working indoor climate for both north and south-facing offices.



✓ Heating load



Additionally the bottom of the heat exchanger is continuously hot in heating operation preventing frost accumulation



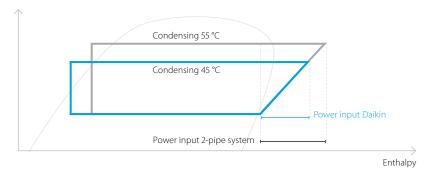
# Advantages of 3-pipe technology

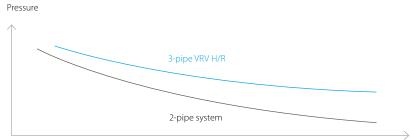
Pressure

### More "free" heat

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

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





Pipe length

### Lower pressure drop means more efficiency

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

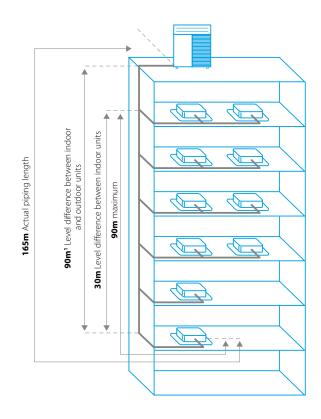
# Freely combine outdoor units

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

# Flexible piping design

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

<sup>1</sup> Outdoor unit in highest position



# Fully redesigned BS boxes

### Maximum design flexibility and installation speed

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

#### Single port

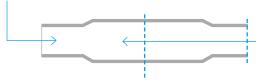
- > Unique to the market
- > Compact and light to install
- > No drain piping needed
- > Ideal for remote rooms
- > Technical cooling function
- > Connect up to 250 class unit (28 kW)
- > Allows multi-tenant applications

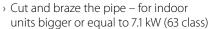
#### Multi port: 4 - 6 - 8 - 10 - 12 - 16

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

#### Faster installation thanks to open connection

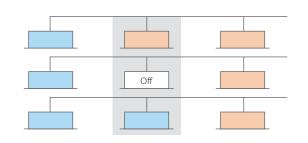
> No need to cut the pipe before brazing - for indoor units smaller or equal to 5.6 kW (50 class)





#### Maximum comfort at all times

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





BS1Q 10, 16, 25 A

BS 16 O14 A

BS 10, 12 O14 A

### **VRV IV heat recovery**

#### Best efficiency & comfort solution

- > Fully integrated solution with heat recovery for maximum efficiency!
- Covers all thermal needs of a building via a single point of contact: accurate temperature control, ventilation, hot water, air handling units and Biddle air curtains
- > "Free" heating and hot water through heat recovery
- The perfect personal comfort for guests/tenants via simultaneous cooling and heating
- Incorporates VRV IV standards & technologies: Variable
   Refrigerant Temperature, continuous heating, VRV configurator,
   7 segment display and full inverter compressors, 4-side heat
   exchanger, refrigerant cooled PCB, new DC fan motor
- $\,$  > Operation range down to -20°C for technical cooling operation such as server rooms
- > Contains all standard VRV features

Outdoor system				REYQ	8T		10T	12		14T		16T	18T		20T
Capacity range				HP	8		10	12		14		16	18		20
Cooling capacity	Nom.			kW	22.4 (1)	(2)	28.0 (1) (2)	33.5 (1	1) (2)	40.0 (1) (2)	45.0	) (1) (2)	50.4		56.0
Heating capacity	Nom.			kW	22.4 (3)	(4)	28.0 (3) (4)	33.5 (3	3) (4)	40.0 (3) (4)	45.0	) (3) (4)	50.4		56.0
	Max.			kW	25.0		31.5	37.	5	45.0	5	50.0	56.5		63.0
Power input - 50Hz	Cooling	Nom.		kW	5.31 (1) / 4.	56 (2)	7.15 (1) / 6.19 (2	2) 9.23 (1) /	8.31 (2)	10.7 (1) / 9.61	(2) 12.8 (1	) / 11.9 (2)	15.2		18.6
	Heating	Nom.		kW	4.75 (3) / 4.	47 (4) 🦸	6.29 (3) / 5.47 (4	) 8.05 (3) /	6.83 (4)	9.60 (3) / 9.37	(4) 11.2 (3	) / 9.88 (4)	12.3		14.9
		Max.		kW	5.51		7.38	9.4	3	11.3	1	2.9	14.3		17.5
EER					4.22 (1) / 4.	92 (2) 3	3.92 (1) / 4.52 (2	2) 3.63 (1) /	4.03 (2)	3.74 (1) / 4.16	(2) 3.52 (1	) / 3.79 (2)	3.32		3.01
COP - Max.					4.54		4.27		3.9	8	3	3.88	3.95		3.60
COP - Nom.					4.72 (3) / 5.	01 (4) 4	4.45 (3) / 5.12 (4	4) 4.16 (3) /	4.90 (4)	4.17 (3) / 4.27	(4) 4.02 (3	) / 4.56 (4)	4.10		3.76
ESEER					7.41		7.37	6.8	4	7.05	e	5.63	6.26		5.68
Maximum number of	f connectable indooi	r units								64 (5)					
Indoor index	Min.				100		125	15	0	175		200	225		250
connection	Nom.				200		250	30	0	350	4	400	450		500
	Max.				260		325	39	0	455		520	585		650
Dimensions	Unit	HeightxWi	dthxDepth	mm			1,685x930x76	5				1,685x1,2	40x765		
Weight	Unit			kg	210			218		304		305		337	
Fan	Air flow rate	Cooling	Nom.	m³/min	162		175	18	5	223		260	251		261
Sound power level	Cooling	Nom.		dBA	78		79		81			86	i		88
Sound pressure level	Cooling	Nom.		dBA		58	3		61			64	65		66
		Night	Level 1	dBA	56		58	58	3	58		58	60		60
		Quiet	Level 2	dBA	55		54	54	L I	52		52	52		52
		Mode	Level 3	dBA	53		52	52	2	47		47	48		48
Operation range	Cooling	Min.~Max.		°CDB					· · ·	-5.0~43.0					
	Heating	Min.~Max.		°CWB						-20~15.5					
Refrigerant	Type / GWP								1	R-410A / 2,08	7.5				
5	Charge			kg/TCO,	9.7/20.	2	9.8/20.5	9.9/2				11.8/2	24.6		
Piping connections	Liquid	OD		mm		9.5	2			12.7				15.9	
	Gas	OD		mm	19.1		22.2				2	28.6			
	Discharge gas	OD		mm	15.9			19.1				22.2			28.6
	Total piping length	System	Actual	m						1,000					
Power supply	Phase/Frequency/			Hz/V						3N~/50/380-4	115				
Current - 50Hz	Maximum fuse an			A	20			25		32		40	)		50
<b>0</b>		• • •		DEVO	107	4.07		107			0.4T	0.CT		207	
Outdoor system	0.11	1.1.4		REYQ	10T	13T	16T	18T	20T	22T	24T	26T	28T	30T	32T
System	Outdoor unit moo				REM		REYQ8T	REYQ8T	05	REYQ10T	REYQ8T	DEV/01 4T	REYQ12T		REYQ16
	• • • • • • • • • • • • • • •				DEMOST		REYUNI	REYQ10T		YQ12T	REYQ16T	REYQ14T	KEYQ161	REYQ18T	REYQ16
·	Outdoor unit moo				REMQ5T			10			24	20	20	20	22
Capacity range				HP	10	13	16	18	20	22	24	26	28	30	32
Capacity range Cooling capacity	Nom.			kW	10 28.0	13 36.4	16 44.8	50.4	55.9	61.5	67.4	73.5	78.5	83.9	90.0
Capacity range	Nom. Nom.			kW kW	10 28.0 28.0	13 36.4 36.4	16 44.8 44.8	50.4 50.4	55.9 55.9	61.5 61.5	67.4 67.4	73.5 73.5	78.5 78.5	83.9 83.9	90.0 90.0
Capacity range Cooling capacity Heating capacity	Nom. Nom. Max.	lule 2		kW kW kW	10 28.0 28.0 32.0	13 36.4 36.4 41.0	16           44.8           44.8           50.0	50.4 50.4 56.5	55.9 55.9 62.5	61.5 61.5 69.0	67.4 67.4 75.0	73.5 73.5 82.5	78.5 78.5 87.5	83.9 83.9 94.0	90.0 90.0 100.0
Capacity range Cooling capacity	Nom. Nom. Max. Cooling	lule 2 Nom.		kW kW kW kW	10 28.0 28.0 32.0 6.34	13 36.4 36.4 41.0 8.48	16           44.8           44.8           50.0           3	50.4 50.4 56.5 12.46	55.9 55.9 62.5 14.54	61.5 61.5 69.0 16.38	67.4 67.4 75.0 18.11	73.5 73.5 82.5 19.93	78.5 78.5 87.5 22.03	83.9 83.9 94.0 24.43	90.0 90.0 100.0 25.6
Capacity range Cooling capacity Heating capacity	Nom. Nom. Max.	lule 2 Nom. Nom.		kW kW kW kW	10 28.0 28.0 32.0 6.34 5.42	13 36.4 36.4 41.0 8.48 7.46	16           44.8           44.8           50.0           10.62           9.50	50.4 50.4 56.5 12.46 11.04	55.9 55.9 62.5 14.54 12.80	61.5 61.5 69.0 16.38 14.34	67.4 67.4 75.0 18.11 15.95	73.5 73.5 82.5 19.93 17.65	78.5 78.5 87.5 22.03 19.25	83.9 83.9 94.0 24.43 20.35	90.0 90.0 100.0 25.6 22.4
Capacity range Cooling capacity Heating capacity Power input - 50Hz	Nom. Nom. Max. Cooling	lule 2 Nom.		kW kW kW kW	10 28.0 28.0 32.0 6.34 5.42 6.50	13 36.4 36.4 41.0 8.48 7.46 8.76	16           4         44.8           4         44.8           0         50.0           3         10.62           5         9.50           5         11.02	50.4 50.4 56.5 12.46 11.04 12.89	55.9 55.9 62.5 14.54 12.80 14.94	61.5 61.5 69.0 16.38 14.34 16.81	67.4 67.4 75.0 18.11 15.95 18.41	73.5 73.5 82.5 19.93 17.65 20.73	78.5 78.5 87.5 22.03 19.25 22.33	83.9 83.9 94.0 24.43 20.35 23.73	90.0 90.0 100.0 25.6 22.4 25.8
Capacity range Cooling capacity Heating capacity Power input - 50Hz EER	Nom. Nom. Max. Cooling	lule 2 Nom. Nom.		kW kW kW kW	10           28.0           28.0           32.0           6.34           5.42           6.50           4.42	13 36.4 36.4 41.0 8.48 7.46 8.76 4.29	16           4         44.8           4         44.8           50.0         50.0           8         10.62           5         9.50           5         11.02           9         4.22	50.4 50.4 56.5 12.46 11.04 12.89 4.04	55.9 55.9 62.5 14.54 12.80 14.94 3.84	61.5 61.5 69.0 16.38 14.34 16.81 3.75	67.4 67.4 75.0 18.11 15.95 18.41 3.72	73.5 73.5 82.5 19.93 17.65 20.73 3.69	78.5 78.5 87.5 22.03 19.25 22.33 3.56	83.9 83.9 94.0 24.43 20.35 23.73 3.43	90.0 90.0 100.0 25.6 22.4 25.8 3.52
Capacity range Cooling capacity Heating capacity Power input - 50Hz EER COP - Max.	Nom. Nom. Max. Cooling	lule 2 Nom. Nom.		kW kW kW kW	10           28.0           32.0           6.34           5.42           6.50           4.42           4.92	13 36.4 36.4 41.0 8.48 7.46 8.76 4.29 4.68	16           4         44.8           4         44.8           50.0         3           10.62         9.50           5         9.50           5         11.02           9         4.22           3         4.54	50.4 50.4 56.5 12.46 11.04 12.89 4.04 4.38	55.9 55.9 62.5 14.54 12.80 14.94 3.84 4.18	61.5 61.5 69.0 16.38 14.34 16.81 3.75 4.10	67.4 67.4 75.0 18.11 15.95 18.41 3.72 4.07	73.5 73.5 82.5 19.93 17.65 20.73 3.69 3.98	78.5 78.5 87.5 22.03 19.25 22.33 3.56 3.92	83.9 83.9 94.0 24.43 20.35 23.73 3.43 3.96	90.0 90.0 100.0 25.6 22.4 25.8 3.52 3.88
Capacity range Cooling capacity Heating capacity Power input - 50Hz EER COP - Max. COP - Nom.	Nom. Nom. Max. Cooling	lule 2 Nom. Nom.		kW kW kW kW	10           28.0           32.0           6.34           5.42           6.50           4.42           4.92           5.17	13 36.4 36.4 41.0 8.48 7.46 8.76 4.29 4.68 4.88	16           4         44.8           50.0         3           10.62         9.50           5         11.02           0         4.22           3         4.54	50.4 50.4 56.5 12.46 11.04 12.89 4.04 4.38 4.57	55.9 55.9 62.5 14.54 12.80 14.94 3.84 4.18 4.37	61.5           61.5           69.0           16.38           14.34           16.81           3.75           4.10           4.29	67.4 67.4 75.0 18.11 15.95 18.41 3.72 4.07 4.23	73.5 73.5 82.5 19.93 17.65 20.73 3.69 3.98 4.16	78.5 78.5 87.5 22.03 19.25 22.33 3.56 3.92 4.08	83.9           83.9           94.0           24.43           20.35           23.73           3.43           3.96           4.12	90.0 90.0 100.0 25.6 22.4 25.8 3.52 3.88 4.02
Capacity range Cooling capacity Heating capacity Power input - 50Hz EER COP - Max. COP - Nom. ESEER - Automatic	Nom. Nom. Max. Cooling	lule 2 Nom. Nom.		kW kW kW kW	10           28.0           28.0           32.0           6.34           5.42           6.50           4.42           4.92           5.17           7.77	13 36.4 36.4 41.0 8.48 7.46 8.76 4.29 4.68 4.88 7.54	16           4         44.8           4         44.8           0         50.0           3         10.62           5         9.50           5         11.02           9         4.22           3         4.54           3         4.72           4         7.41	50.4           50.4           56.5           12.46           11.04           12.89           4.04           4.38           4.57           7.38	55.9 55.9 62.5 14.54 12.80 14.94 3.84 4.18 4.37 7.06	61.5 61.5 69.0 16.38 14.34 16.81 3.75 4.10 4.29 7.07	67.4 67.4 75.0 18.11 15.95 18.41 3.72 4.07 4.23 6.87	73.5 73.5 82.5 19.93 17.65 20.73 3.69 3.98 4.16 6.95	78.5 78.5 87.5 22.03 19.25 22.33 3.56 3.92 4.08 6.72	83.9           83.9           94.0           24.43           20.35           23.73           3.43           3.96           4.12           6.48	90.0 90.0 100.0 25.6 22.4 25.8 3.52 3.88 4.02 6.63
Capacity range Cooling capacity Heating capacity Power input - 50Hz EER COP - Max. COP - Nom. ESEER - Automatic ESEER - Standard	Nom. Nom. Max. Cooling Heating	Nom. Nom. Max.		kW kW kW kW	10           28.0           32.0           6.34           5.42           6.50           4.42           4.92           5.17	13 36.4 36.4 41.0 8.48 7.46 8.76 4.29 4.68 4.88	16           4         44.8           4         44.8           0         50.0           3         10.62           5         9.50           5         11.02           9         4.22           3         4.54           3         4.72           4         7.41	50.4 50.4 56.5 12.46 11.04 12.89 4.04 4.38 4.57	55.9 55.9 62.5 14.54 12.80 14.94 3.84 4.18 4.37	61.5           61.5           69.0           16.38           14.34           16.81           3.75           4.10           4.29           7.07           5.54	67.4 67.4 75.0 18.11 15.95 18.41 3.72 4.07 4.23	73.5 73.5 82.5 19.93 17.65 20.73 3.69 3.98 4.16	78.5 78.5 87.5 22.03 19.25 22.33 3.56 3.92 4.08	83.9           83.9           94.0           24.43           20.35           23.73           3.43           3.96           4.12	90.0 90.0 100.0 25.6 22.4 25.8 3.52 3.88 4.02
Capacity range Cooling capacity Heating capacity Power input - 50Hz EER COP - Max. COP - Nom. ESEER - Automatic ESEER - Standard Maximum number of	Nom. Nom. Max. Cooling Heating	Nom. Nom. Max.		kW kW kW kW	10 28.0 28.0 32.0 6.34 5.42 6.50 4.42 4.92 5.17 7.77 6.55	13 36.4 36.4 41.0 8.48 7.46 8.76 4.29 4.68 4.88 7.54 6.36	16           4         44.8           4         44.8           0         50.0           3         10.62           5         9.50           5         11.02           0         4.22           3         4.54           3         4.72           4         7.41           5         6.25	50.4           50.4           56.5           12.46           11.04           12.89           4.04           4.38           4.57           7.38           5.98	55.9 55.9 62.5 14.54 12.80 14.94 3.84 4.18 4.37 7.06 5.68	61.5           61.5           69.0           16.38           14.34           16.81           3.75           4.10           4.29           7.07           5.54           64	67.4 67.4 75.0 18.11 15.95 18.41 3.72 4.07 4.23 6.87 5.46	73.5 73.5 82.5 19.93 17.65 20.73 3.69 3.98 4.16 6.95 5.41	78.5 78.5 87.5 22.03 19.25 22.33 3.56 3.92 4.08 6.72 5.23	83.9 94.0 24.43 20.35 23.73 3.43 3.96 4.12 6.48 5.03	90.0 90.0 100.0 25.6 22.4 25.8 3.52 3.88 4.02 6.63 5.14
Capacity range Cooling capacity Heating capacity Power input - 50Hz EER COP - Max. COP - Max. COP - Nom. ESEER - Automatic ESEER - Standard Maximum number of Indoor index	Nom. Nom. Max. Cooling Heating	Nom. Nom. Max.		kW kW kW kW	10 28.0 28.0 32.0 6.34 5.42 6.50 4.42 4.92 5.17 7.77 6.55 	13 36.4 36.4 41.0 8.48 7.46 8.76 4.29 4.68 4.88 7.54 6.36	16           4         44.8           4         44.8           50.0         50.0           8         10.62           5         9.50           5         11.02           9         4.22           8         4.54           8         4.72           4         7.41           5         6.25           5         200	50.4 50.4 56.5 12.46 11.04 12.89 4.04 4.38 4.57 7.38 5.98 225	55.9 55.9 62.5 14.54 12.80 14.94 3.84 4.18 4.37 7.06 5.68 250	61.5           61.5           69.0           16.38           14.34           16.81           3.75           4.10           4.29           7.07           5.54           64           275	67.4 67.4 75.0 18.11 15.95 18.41 3.72 4.07 4.23 6.87 5.46 300	73.5 73.5 82.5 19.93 17.65 20.73 3.69 3.98 4.16 6.95 5.41 325	78.5 78.5 87.5 22.03 19.25 22.33 3.56 3.92 4.08 6.72 5.23 350	83.9           83.9           94.0           24.43           20.35           23.73           3.43           3.96           4.12           6.48           5.03	90.0 90.0 100.0 25.6 22.4 25.8 3.52 3.88 4.02 6.63 5.14 400
Capacity range Cooling capacity Heating capacity Power input - 50Hz EER COP - Max. COP - Nom. ESEER - Automatic ESEER - Standard Maximum number of	Nom. Nom. Max. Cooling Heating	Nom. Nom. Max.		kW kW kW kW	10 28.0 28.0 32.0 6.34 6.50 4.42 4.92 5.17 7.77 6.5 125 250	13 36.4 36.4 41.0 8.48 7.46 8.76 4.29 4.68 4.88 7.54 6.36 	16           4         44.8           4         44.8           0         50.0           3         10.62           5         9.50           5         11.02           0         4.22           3         4.54           3         4.72           4         7.41           5         6.25           5         200           0         400	50.4 50.4 56.5 12.46 11.04 12.89 4.04 4.38 4.04 4.38 4.57 7.38 5.98 225 450	55.9 55.9 62.5 14.54 12.80 14.94 3.84 4.18 4.37 7.06 5.68 250 500	61.5 61.5 69.0 16.38 14.34 16.81 3.75 4.10 4.29 7.07 5.54 64 275 550	67.4 67.4 75.0 18.11 15.95 18.41 3.72 4.07 4.23 6.87 5.46 300 600	73.5 73.5 82.5 19.93 17.65 20.73 3.69 3.98 4.16 6.95 5.41 325 650	78.5 78.5 87.5 22.03 19.25 22.33 3.56 3.92 4.08 6.72 5.23 350 700	83.9 83.9 94.0 24.43 20.35 23.73 3.43 3.96 4.12 6.48 5.03 375 750	90.0 90.0 100.0 25.6 22.4 25.8 3.52 3.88 4.02 6.63 5.14 400 800
Capacity range Cooling capacity Heating capacity Power input - 50Hz EER COP - Max. COP - Max. COP - Nom. ESEER - Automatic ESEER - Standard Maximum number of Indoor index connection	Nom. Nom. Max. Cooling Heating f connectable indoor Min. Nom. Max.	Nom. Nom. Max.		kW kW kW kW kW	10 28.0 28.0 32.0 6.34 5.42 6.50 4.42 4.92 5.17 7.77 6.55 125 250 325	13 36.4 36.4 41.0 8.48 7.46 8.76 4.29 4.68 4.88 7.54 6.36	16           4         44.8           4         44.8           50.0         50.0           3         10.62           5         9.50           5         11.02           9         4.22           8         4.54           3         4.72           4         7.41           5         6.25           5         200           0         400           5         520	50.4 50.4 56.5 12.46 11.04 12.89 4.04 4.38 4.57 7.38 5.98 225	55.9 55.9 62.5 14.54 12.80 14.94 3.84 4.18 4.37 7.06 5.68 250 500 650	61.5 61.5 69.0 16.38 14.34 16.81 3.75 4.10 4.29 7.07 5.54 64 275 550 715	67.4 67.4 75.0 18.11 15.95 18.41 3.72 4.07 4.23 6.87 5.46 300	73.5 73.5 82.5 19.93 17.65 20.73 3.69 3.98 4.16 6.95 5.41 325	78.5 78.5 87.5 22.03 19.25 22.33 3.56 3.92 4.08 6.72 5.23 350 700 910	83.9 83.9 94.0 24.43 20.35 23.73 3.43 3.96 4.12 6.48 5.03 750 975	90.0 90.0 100.0 25.6 22.4 25.8 3.52 3.88 4.02 6.63 5.14 400
Capacity range Cooling capacity Heating capacity Power input - 50Hz EER COP - Max. COP - Max. COP - Nom. ESEER - Automatic ESEER - Standard Maximum number of Indoor index	Nom. Nom. Max. Cooling Heating f connectable indoor Min. Nom. Max.	Nom. Nom. Max. r units		kW kW kW kW kW	10 28.0 28.0 32.0 6.34 5.42 4.92 5.17 7.77 6.55 	13 36.4 36.4 41.0 8.48 7.46 8.76 4.29 4.68 4.88 7.54 6.36 	16           4         44.8           4         44.8           0         50.0           3         10.62           5         9.50           5         11.02           0         4.22           3         4.54           3         4.72           4         7.41           5         6.25           5         200           0         400	50.4 50.4 56.5 12.46 11.04 12.89 4.04 4.38 4.57 7.38 5.98 225 450 585	55.9 55.9 62.5 14.54 12.80 14.94 3.84 4.18 4.37 7.06 5.68 250 500 650	61.5 61.5 69.0 16.38 14.34 16.81 3.75 4.10 4.29 7.07 5.54 64 275 550	67.4 67.4 75.0 18.11 15.95 18.41 3.72 4.07 4.23 6.87 5.46 300 600	73.5 73.5 82.5 19.93 17.65 20.73 3.69 3.98 4.16 6.95 5.41 325 650	78.5 78.5 87.5 22.03 19.25 22.33 3.56 3.92 4.08 6.72 5.23 350 700 910	83.9 83.9 94.0 24.43 20.35 23.73 3.43 3.96 4.12 6.48 5.03 375 750	90.0 90.0 100.0 25.6 22.4 25.8 3.52 3.88 4.02 6.63 5.14 400 800
Capacity range Cooling capacity Heating capacity Power input - 50Hz EER COP - Max. COP - Max. COP - Nom. ESEER - Automatic ESEER - Standard Maximum number of Indoor index connection	Nom. Nom. Max. Cooling Heating f connectable indoor Min. Nom. Max. Liquid Gas	Nom. Nom. Max. r units OD OD		kW kW kW kW kW mm	10 28.0 28.0 32.0 6.34 5.42 6.50 4.42 4.92 5.17 7.77 6.55 125 250 325 9.52 22.2	13 36.4 36.4 41.0 8.48 7.46 8.76 4.29 4.68 4.88 7.54 6.36 162.5 325.0 422.5	16           4         44.8           4         44.8           0         50.0           3         10.62           5         9.50           5         11.02           0         4.22           3         4.54           3         4.72           4         7.41           5         6.25           5         200           0         400           5         520           12.7	50.4 50.4 56.5 12.46 11.04 12.89 4.04 4.38 4.57 7.38 5.98 225 450 585 28.6	55.9 55.9 62.5 14.54 12.80 14.94 3.84 4.18 4.37 7.06 5.68 250 500 650	61.5 61.5 69.0 16.38 14.34 16.81 3.75 4.10 4.29 7.07 5.54 64 275 550 715	67.4 67.4 75.0 18.11 15.95 18.41 3.72 4.07 4.23 6.87 5.46 300 600	73.5 73.5 82.5 19.93 17.65 20.73 3.69 3.98 4.16 6.95 5.41 325 650 845	78.5 78.5 87.5 22.03 19.25 22.33 3.56 3.92 4.08 6.72 5.23 350 700 910	83.9 83.9 94.0 24.43 20.35 23.73 3.43 3.96 4.12 6.48 5.03 750 975	90.0 90.0 100.0 25.6 22.4 25.8 3.52 3.88 4.02 6.63 5.14 400 800
Capacity range Cooling capacity Heating capacity Power input - 50Hz EER COP - Max. COP - Max. COP - Nom. ESEER - Automatic ESEER - Standard Maximum number of Indoor index connection	Nom. Nom. Max. Cooling Heating f connectable indoor Min. Nom. Max. Liquid Gas Discharge gas	Nom. Nom. Max. r units OD OD OD		kW kW kW kW kW	10 28.0 28.0 32.0 6.34 5.42 4.92 5.17 7.77 6.55 	13 36.4 36.4 41.0 8.48 7.46 8.76 4.29 4.68 4.88 7.54 6.36 162.5 325.0 422.5	16           4         44.8           4         44.8           50.0         50.0           3         10.62           5         9.50           5         11.02           9         4.22           3         4.54           3         4.72           4         7.41           5         6.25           5         200           0         400           5         520           12.7         22	50.4 50.4 56.5 12.46 11.04 12.89 4.04 4.38 4.57 7.38 5.98 225 450 585	55.9 55.9 62.5 14.54 12.80 14.94 3.84 4.18 4.37 7.06 5.68 250 500 650	61.5 61.5 69.0 16.38 14.34 16.81 3.75 4.10 4.29 7.07 5.54 64 275 550 715	67.4 67.4 75.0 18.11 15.95 18.41 3.72 4.07 4.23 6.87 5.46 300 600	73.5 73.5 82.5 19.93 17.65 20.73 3.69 4.16 6.95 5.41 325 650 845 28.6	78.5 78.5 87.5 22.03 19.25 22.33 3.56 3.92 4.08 6.72 5.23 350 700 910 11 34.9	83.9 83.9 94.0 24.43 20.35 23.73 3.43 3.96 4.12 6.48 5.03 750 975	90.0 90.0 100.0 25.6 22.4 25.8 3.52 3.88 4.02 6.63 5.14 400 800
Capacity range Cooling capacity Heating capacity Power input - 50Hz EER COP - Max. COP - Max. COP - Nom. ESEER - Automatic ESEER - Standard Maximum number of Indoor index connection	Nom. Nom. Max. Cooling Heating f connectable indoor Min. Nom. Max. Liquid Gas	Nom. Nom. Max. r units OD OD OD System	Actual	kW kW kW kW kW mm	10 28.0 28.0 32.0 6.34 5.42 6.50 4.42 4.92 5.17 7.77 6.55 125 250 325 9.52 22.2	13 36.4 36.4 41.0 8.48 7.46 8.76 4.29 4.68 4.88 7.54 6.36 162.5 325.0 422.5	16           4         44.8           4         44.8           0         50.0           3         10.62           5         9.50           5         11.02           0         4.22           3         4.54           3         4.72           4         7.41           5         6.25           5         200           0         400           5         520           12.7	50.4 50.4 56.5 12.46 11.04 12.89 4.04 4.38 4.57 7.38 5.98 225 450 585 28.6	55.9 55.9 62.5 14.54 12.80 14.94 3.84 4.18 4.37 7.06 5.68 250 500 650	61.5 61.5 69.0 16.38 14.34 16.81 3.75 4.10 4.29 7.07 5.54 64 275 550 715	67.4 67.4 75.0 18.11 15.95 18.41 3.72 4.07 4.23 6.87 5.46 300 600	73.5 73.5 82.5 19.93 17.65 20.73 3.69 3.98 4.16 6.95 5.41 325 650 845 28.6 1,0	78.5 78.5 87.5 22.03 19.25 22.33 3.56 3.92 4.08 6.72 5.23 350 700 910	83.9 83.9 94.0 24.43 20.35 23.73 3.43 3.96 4.12 6.48 5.03 750 975	90.0 90.0 100.0 25.6 22.4 25.8 3.52 3.88 4.02 6.63 5.14 400 800

YRY IV

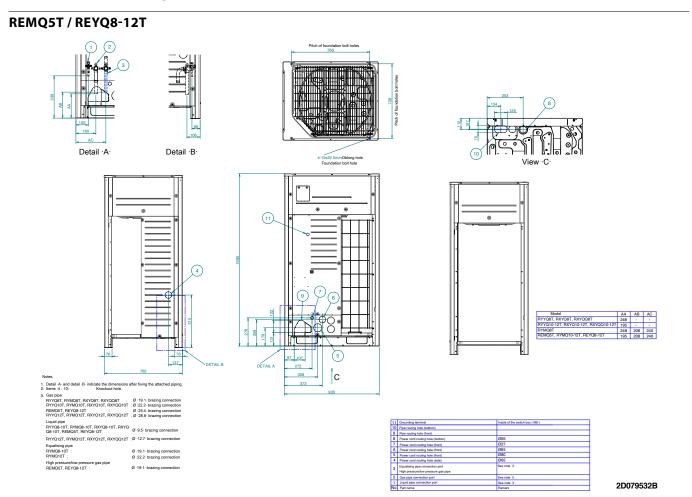




Outdoor system				REYQ	34T	36T	38T	40T	42T	44T	46T	48T	50T	52T	54T
System	Outdoor unit mod	dule 1			REY	Q16T	REYQ8T	REY	REYQ10T REYQ12		REYQ14T	REYQ16T			REYQ18T
	Outdoor unit mod	lule 2			REYQ18T	REYQ20T	REYO	REYQ12T			REYQ16T			REYQ18T	
	Outdoor unit mod	lule 3				-	REYC	Q18T			REYQ16T			REY	Q18T
Capacity range				HP	34	36	38	40	42	44	46	48	50	52	54
Cooling capacity	Nom.			kW	95.4	101.0	106.3	111.9	118.0	123.5	130.0	135.0	140.4	145.8	151.2
Heating capacity	Nom.			kW	95.4	101.0	106.3	111.9	118.0	123.5	130.0	135.0	140.4	145.8	151.2
	Max.			kW	106.5	113.0	119.0	125.5	131.5	137.5	145.0	150.0	156.5	163.0	169.5
Power input - 50Hz	Cooling	Nom.		kW	28.0	31.4	29.74	31.58	32.75	34.83	36.3	38.4	40.8	43.2	45.6
	Heating	Nom.		kW	23.5	26.1	25.10	26.64	28.69	30.45	32.00	33.6	34.7	35.8	36.9
		Max.		kW	27.2	30.4	29.24	31.11	33.18	35.23	37.1	38.7	40.1	41.5	42.9
EER					3.41	3.22	3.57	3.54	3.60	3.55	3.58	3.52	3.44	3.38	3.32
COP - Max.					3.92	3.72	4.07	4.03	3.96	3.90	3.91	3.88	3.90	3.93	3.95
COP - Nom.					4.06	3.87	4.24	4.20	4.11	4.	06	4.02	4.05	4.07	4.10
ESEER - Automatic					6.43	6.06	6.66	6.68	6.79	6.68	6.75	6.63	6.49	6.37	6.26
ESEER - Standard					4.97	4.70	5.25	5.20	5.28	5.20	5.23	5.14	5.03	4.93	4.84
Maximum number o	f connectable indoo	r units								64					
Indoor index	Min.				425	450	475	500	525	550	575	600	625	650	675
connection	Nom.				850	900	950	1,000	1,050	1,100	1,150	1,200	1,250	1,300	1,350
	Max.				1,105	1,170	1,235	1,300	1,365	1,430	1,495	1,560	1,625	1,690	1,755
Piping connections	Liquid	OD		mm						19.1					
	Gas	OD		mm	34.9					41	1.3				
	Discharge gas OD mr			mm	28	3.6					34.9				
	Total piping length	m						1,000							
Current - 50Hz	Maximum fuse amps (MFA)				80 100 125										
Continuous heating										v					

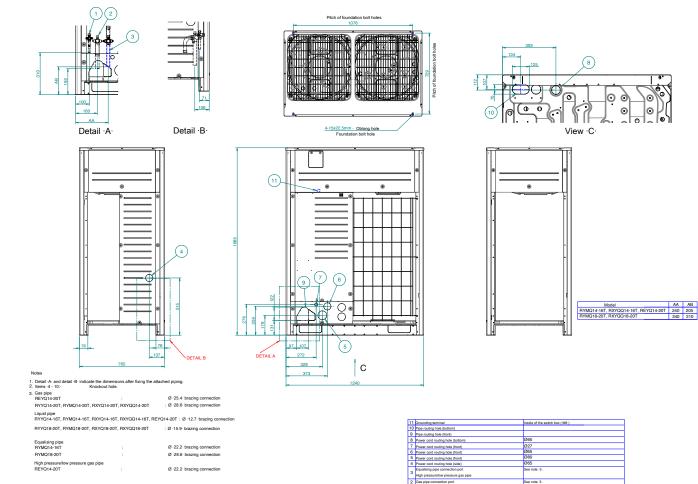
Outdoor unit modu	le			REMQ	5T
Dimensions	Unit	HeightxWid	lthxDepth	mm	1,685x930x765
Weight	Unit			kg	210
Fan	Air flow rate	Cooling	Nom. r	n³/min	162
Sound power level	Cooling	Nom.		dBA	77
Sound pressure level	Cooling	Nom.		dBA	56
Operation range	Cooling	Min.~Max.		°CDB	-5.0~43.0
	Heating	Min.~Max.		°CWB	-20~15.5
Refrigerant	Type / GWP				R-410A / 2,087.5
	Charge		kg/	TCO <sub>2</sub> Eq	9.7/20.2
Power supply	Phase/Frequen	cy/Voltage		Hz/V	3N~/50/380-415
Current - 50Hz	Maximum fuse	amps (MFA)		A	20

(1) Nominal cooling capacities are based on: indoor temperature: 27%CDB, 19%CWB, outdoor temperature: 35%CDB, equivalent refrigerant piping: 5m, level difference: 0m. Data for standard efficiency series. (2) Nominal cooling capacities are based on: indoor ture 7°CDB, 6°CWB, equivalent refrigerant piping: 5m, level difference: 0m. Data for high efficiency series, Eurovent certified. (3) Nominal heating capacities are based on: indoor temperature: 20°CDB, outdoor temperature: 7°CDB, 6°CWB, equivalent refrigerant piping: 5m, level differency series. (4) Nominal heating capacities are based on: indoor temperature: 20°CDB, 6°CWB, equivalent refrigerant piping: 5m, level differency series. (4) Nominal heating capacities are based on: indoor temperature: 20°CDB, 6°CWB, equivalent refrigerant piping: 5m, level difference: 0m. Data for high efficiency series, Eurovent certified. (5) Actual number of connectable indoor units depends on the indoor unit type (VRV indoor, Hydrobox, RA indoor, etc.) and the connection ratio restriction for the system (50% <= CR <= 130%)

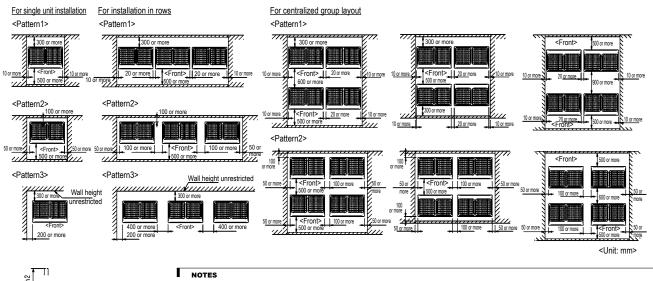


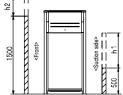
REYQ14-20T

50



#### **REYQ-T**





- 1. Heights of walls in case of Patterns 1 and 2:
- Front: 1500mm Suction side: 500mm
- Side: Height unrestricted
- Side: Tregin unestituded Installation space as shown on this drawing is based on the cooling operation at 35 degrees outdoor air temperature. When the design outdoor air temperature exceeds 35 degrees or the load exceeds maximum ability because of much generation load of heat in all outdoor units, take the suction side space
- If the above wall heights are exceeded then h2/2 and h1/2 should be added to the front and success of machine and success of

# Individual branch selector for VRV IV heat recovery

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



Indoor unit				BS	1Q10A	1Q16A	1Q25A				
Power input	Cooling	Nom.		kW		0.005					
	Heating	Nom.		kW		0.005					
Maximum number o	f connectable indo	or units			5		8				
Maximum capacity ir	mum capacity index of connectable indoor units			15 < x ≤ 100	100 <x≤160< td=""><td>160<x≤250< td=""></x≤250<></td></x≤160<>	160 <x≤250< td=""></x≤250<>					
Dimensions	ensions Unit HeightxWidthxDepth mm			mm		207x388x326					
Weight	Unit			kg	1	12	15				
Casing	Material				Galvanised steel plate						
Piping connections	Outdoor unit	Liquid	Type/OD	mm		Brazing connection/9.5					
		Gas	Type/OD	mm	Brazing con	nection/15.9	Brazing connection/22.2				
		Discharge gas	Type/OD	mm	Brazing con	nection/12.7	Brazing connection/19.1				
	Indoor unit	Liquid	Type/OD	mm		Brazing connection/9.5					
		Gas	Type/OD	mm	Brazing con	nection/15.9	Brazing connection/22.2				
Sound absorbing thermal insulation				Foamed polyurethane Flame-resistant needle felt							
Power supply Phase/Frequency/Voltage Hz/V			Hz/V	1~/50/220-240							
Total circuit	Maximum fuse a	mps (MFA)		A		15					

#### BS-Q14A

# Multi branch selector for VRV IV heat recovery

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



Indoor unit				BS	4Q14A	6Q14A	8Q14A	10Q14A	12Q14A	16Q14A		
Power input	Cooling	Nom.		kW	0.043	0.064	0.086	0.107	0.129	0.172		
	Heating	Nom.		kW	0.043	0.064	0.086	0.107	0.129	0.172		
Maximum number o	f connectable indo	or units			20	30	40	50	60	64		
Maximum number o	f connectable indo	or units per bra	nch				5					
Number of branches					4	6	8	10	12	16		
Maximum capacity ir	ndex of connectable	e indoor units			400	600		7	50			
Maximum capacity ir	ndex of connectable	e indoor units p	er branch				14	0				
Dimensions	Unit	HeightxWid	lthxDepth	mm	298x370x430	298x5	80x430	298x8	20x430	298x1,060x430		
Weight	Unit	-		kg	17	24	26	35	38	50		
Casing	Material				Galvanised steel plate							
Piping connections	Outdoor unit	Liquid	OD	mm	9.5	12.7	12.7 / 15.9	15.9	15.9 / 19.1	19.1		
		Gas	OD	mm	22.2 / 19.1	28.6 / 22.2	28.6	28.6	/ 34.9	34.9		
		Discharge gas	OD	mm	19.1 / 15.9	19.1 / 22.2	19.1 / 22.2 / 28.6		28.6	-		
	Indoor unit	Liquid	OD	mm			9.5 /	6.4				
		Gas	OD	mm			15.9 /	12.7				
	Drain				VP20 (I.D. 20/O.D. 26)							
Sound absorbing the	und absorbing thermal insulation					Urethane foam, polyethylene foam						
Power supply	Phase/Frequency	y/Voltage		Hz/V	1~/50/220-440							
Total circuit	Maximum fuse a	mps (MFA)		A			15	5				

# Individual branch selector for VRV heat recovery

- > Allows individual cool / heat switching 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)
- > Connectable to VRV W-IV series (RWEYQ-T)

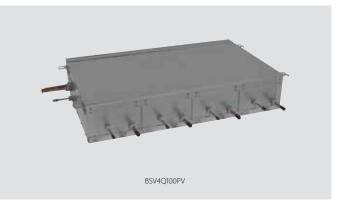


Indoor unit				BSVQ	100P9B	160P9B	250P9B		
Power input	Cooling	Nom.		kW		0.005			
	Heating	Nom.		kW		0.005			
Maximum number o	f connectable indo	or units			6	8	3		
Maximum capacity in	ndex of connectable	e indoor units			15 < x ≤ 100	100 <x≤160< td=""><td>160<x≤250< td=""></x≤250<></td></x≤160<>	160 <x≤250< td=""></x≤250<>		
Dimensions	Unit	HeightxWid	dthxDepth	mm		207x388x326			
Weight	Unit			kg	1.	2	15		
Casing	Material				Galvanised steel plate				
Piping connections	Outdoor unit	Liquid	Type/OD	mm		Brazing connection/9.5			
		Gas	Type/OD	mm	Brazing conr	nection/15.9	Brazing connection/22.2		
		Discharge gas	Type/OD	mm	Brazing connection/12.7	Brazing connection/12.7	Brazing connection/19.1		
	Indoor unit	Liquid	Type/OD	mm		Brazing connection/9.5			
		Gas	Type/OD	mm	Brazing connection/15.9	Brazing connection/15.9	Brazing connection/22.2		
Sound absorbing thermal insulation					Foamed polyurethane Flame-resistant needle felt				
Power supply	ply Phase/Frequency/Voltage Hz/V			Hz/V	1~/50/220-240				
Total circuit	Maximum fuse a	mps (MFA)		A	15				

#### BSV4Q-PV/BSV6Q-PV

# Multi branch selector for VRV heat recovery

- Faster installation thanks to a reduced number of brazing points and wiring
- Allows individual cool / heat switching for 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
- > Connectable to VRV W-IV series (RWEYQ-T)



Indoor unit			BSV4Q-PV/BS	SV6Q-PV	4Q100PV	6Q100PV			
Power input	Cooling	Nom.		kW	0.020	0.030			
	Heating	Nom.		kW	0.020	0.030			
Maximum number o	f connectable indo	or units			24	36			
Maximum number o	f connectable indo	or units per bra	nch		6	5			
Number of branches					4	6			
Maximum capacity in	ndex of connectable	e indoor units			400	600			
Maximum capacity in	ndex of connectable	e indoor units p	er branch		10	00			
Dimensions	Unit	HeightxWi	dthxDepth	mm	209x1,053x635	209x1,577x635			
Weight	Unit			kg	60	89			
Casing	Material				Galvanised	steel plate			
Piping connections	Outdoor unit	Liquid	Type/OD	mm	Brazing connection/12.7	Brazing connection/15.9			
		Gas	Type/OD	mm	Brazing con	nection/28.6			
		Discharge gas	Type/OD	mm	Brazing connection/19.1	Brazing connection/28.6			
	Indoor unit	Liquid	Type/OD	mm	Brazing con	nection/9.5			
		Gas	Type/OD	mm	Brazing con	nection/15.9			
Sound absorbing the	Sound absorbing thermal insulation				Foamed polyurethane Flame-resistant needle felt				
Power supply Phase/Frequency/Voltage Hz/V				Hz/V	1~/50/220-240				
Total circuit	Maximum fuse a	mps (MFA)		А	1	5			

# VRV IV heat pump Daikin's optimum solution with top comfort



Control systems

Biddle Air curtain for VRV (CYV)

Air curtain







#### VRV IV standards:

#### Variable refrigerant temperature

Customize your VRV for best seasonal efficiency & comfort

# Continuous heating

The new standard in heating comfort

### VRV configurator

Software for simplified commissioning, configuration and customisation

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



# Wide range of indoor units

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



#### Connectable indoor units

	15 CLASS	20 CLASS	25 CLASS	35 CLASS	42 CLASS	50 CLASS	60 CLASS	71 CLASS
Daikin Emura – Wall mounted unit		FTXG20LW FTXG20LS	FTXG25LW FTXG25LS	FTXG35LW FTXG35LS		FTXG50LW FTXG50LS		
Wall mounted unit	CTXS15K	FTXS20K	FTXS25K	FTXS35K CTXS35K	FTXS42K	FTXS50K	FTXS60G	FTXS71G
Nexura – Floor standing unit			FVXG25K	FVXG35K		FVXG50K		
Floor standing unit			FVXS25F	FVXS35F		FVXS50F		
Flexi type unit			FLXS25B	FLXS35B9		FLXS50B	FLXS60B	

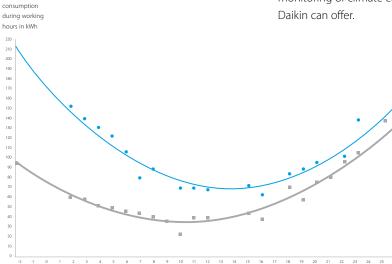
# vrv iv proven in practice: 40% more efficient

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

# Results: up to 60% less energy consumed

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

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



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

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

#### Measured data

#### Fashion store Unterhaching (Germany)

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

Average daily



# Free combination of outdoor units

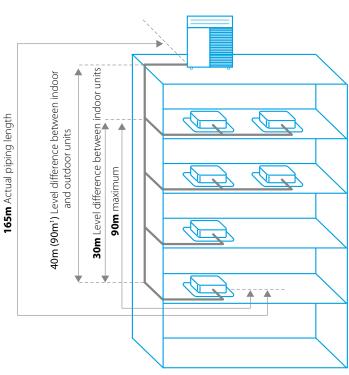
Freely combine outdoor units to optimise for small footprint, continuous heating, highest efficiency or any other combination

### Flexible piping design

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

1 Contact your local dealer for more information and restrictions

2 in case outdoor unit is located below indoor units



Outdoor system

Capacity range

### **VRV IV heat pump**

#### Daikin's optimum solution with top comfort

- > Covers all thermal needs of a building via a single point of contact: accurate temperature control, ventilation, hot water, air handling units and Biddle air curtains
- > Wide range of indoor units: possibility to combine VRV with stylish indoor units (Daikin Emura, Nexura, ...)

RYYQ/RXYQ

HP

8T/8T9

8

10T

10

12T

12

> Incorporates VRV IV standards & technologies: Variable Refrigerant Temperature, continuous heating, VRV configurator, 7 segment display and full inverter compressors, 4-side heat exchanger, refrigerant cooled PCB, new DC fan motor

16T

16

18T

18

20T

20

> Available as heating only by irreversible field setting

14T

14

> Contains all standard VRV features

			HP	8	10		12	14	16		18	20
Cooling capacity	Nom.		kW	22.4 (1) / 22.4 (2	28.0 (1) / 2	28.0 (2) 33	3.5 (1) / 33.5 (2)	40.0 (1) / 40.0 (2)	45.0 (1) / 45	5.0 (2) 50	).4 (1)	56.0 (1)
Heating capacity	Nom.		kW	22.4 (3) / 22.40 (	4) 28.0 (3) / 2	8.00 (4) 33.	.5 (3) / 33.50 (4)	40.0 (3) / 40.0 (4)	45.0 (3) / 45	5.0 (4) 50	).4 (3)	56.0 (3)
	Max.		kW	25.0 (3)	31.5	(3)	37.5 (3)	45.0 (3)	50.0 (3	3) 56	5.5 (3)	63.0 (3)
Power input - 50Hz	Cooling	Nom.	kW	5.21 (1) / 4.47 (2	.) 7.29 (1) / 6	6.32 (2) 8.9	98 (1) / 8.09 (2)	11.0 (1) / 9.88 (2)	13.0 (1) / 12	.10 (2) 15	5.0 (1)	18.5 (1)
	Heating	Nom.	kW	4.75 (3) / 4.47 (4	4) 6.29 (3) / 5	5.47 (4) 7.7	77 (3) / 6.59 (4)	9.52 (3) / 9.30 (4)	11.1 (3) / 9	9.8 (4) 12	2.6 (3)	14.5 (3)
		Max.	kW	5.51 (3)	7.38	(3)	9.10 (3)	11.2 (3)	12.8 (3	3) 14	l.6 (3)	17.0 (3)
EER				4.30 (1) / 5.01 (2	) 3.84 (1) / 4	4.43 (2) 3.7	73 (1) / 4.14 (2)	3.64 (1) / 4.05 (2)	3.46 (1) / 3.	73 (2) 3.3	36 (1)	3.03 (1)
ESEER - Automatic				7.53	7.2	0	6.96	6.83	6.50	6	5.38	5.67
ESEER - Standard				6.37	5.6	7	5.50	5.31	5.05	4	4.97	4.42
COP - Max.				4.54 (3)	4.27	(3)	4.12 (3)	4.02 (3)	3.91 (3	3) 3	3.87	3.71
COP - Nom.				4.72 (3) / 5.01 (4	4) 4.45 (3) /	5.12 (4) 4.3	31 (3) / 5.08 (4)	4.20 (3) / 4.30 (4)	4.05 (3) / 4.	.59 (4) 4	4.00	3.86
Maximum number of	f connectable indoo	r units						64 (5)		i.		
Indoor index connection	Min./Nom./Max.			100/200/260	125/250	0/325 1	50/300/390	175/350/455	200/400/	/520 225/4	450/585	250/500/650
Dimensions	Unit	HeightxWid	lthxDepth mm	İ	1,685x93	0x765			1,6	585x1,240x76	5	
Weight	Unit		kg	243		252		3	56		391	
Fan	Air flow rate	Cooling	Nom. m <sup>3</sup> /min	162	175	5	185	223	260		251	261
Sound power level	Cooling	Nom.	dBA	78	79		8	1		86		88
Sound pressure level	Cooling	Nom.	dBA		58		6	1	64		65	66
Operation range	Cooling	Min.~Max.	°CDB					-5~43				
	Heating	Min.~Max.	°CWB					-20~15.5				
Refrigerant	Type							R-410A				
licingerant	Charge		kg	5.9	6		6.3	10.3	10.4	1	11.7	11.8
	enarge		tCO <sub>2</sub> eq	12.3	12.	5	13.2	21.5	21.7		24.4	24.6
	GWP		100204	12.05			10.2	2,087.5	2/			2.110
Piping connections	Liquid	OD	mm		9.52			12.7			15.9	
riping connections	Gas	OD	mm	19.1	22.	2		12.7	28.6		13.	
	Total piping length	System	Actual m	15.1	22	-		1,000	20.0			
Power supply	Phase/Frequency/		Hz/V					3N~/50/380-415				
Current - 50Hz	Maximum fuse an		A	20	25			2	,	40		50
Current Jonz							J	2		-0		50
	indvinnann rabe an	105 (11171)		20	25							
Outdoor system		nps (mi 71)					28T	30T	32T	34T	36T	387/3879
			RYYQ/RXYQ	22T	24T/24T9	26T	28T	30T	32T	<b>34T</b>	36T	38T/38T9
	Outdoor unit moc	dule 1		<b>22T</b> 10T	2 <b>4T/24T9</b> 8T	26T	12T			16T		8T
	Outdoor unit moo Outdoor unit moo	dule 1 dule 2		22T	24T/24T9			<b>30T</b>	<b>32T</b> 16T		<b>36T</b>	8T 10T
System	Outdoor unit moc	dule 1 dule 2	RYYQ/RXYQ	<b>22T</b> 10T 12T	2 <b>4T/24T9</b> 8T 16T	<b>26T</b> 14T	12T 16T	18T	16T	16T 18T	20T	8T 10T 20T
System Capacity range	Outdoor unit moc Outdoor unit moc Outdoor unit moc	dule 1 dule 2	RYYQ/RXYQ HP	22T 10T 12T 22	24T/24T9 8T 16T 24	<b>26T</b> 14T 26	12T 16T 28	18T - - 30	16T 32	16T 18T 34	20T 36	8T 10T 20T 38
System Capacity range Cooling capacity	Outdoor unit moc Outdoor unit moc Outdoor unit moc Nom.	dule 1 dule 2	RYYQ/RXYQ HP kW	22T 10T 12T 22 61.5	24T/24T9 8T 16T 24 67.4	<b>26T</b> 14T 26 73.5	12T 16T 28 78.5	18T 	16T 32 90.0	16T 18T 34 95.4	20T 36 101.0	8T 10T 20T 38 106.3
System Capacity range Cooling capacity	Outdoor unit moc Outdoor unit moc Outdoor unit moc Nom. Nom.	dule 1 dule 2	RYYQ/RXYQ HP kW kW	22T 10T 12T 22 61.5 61.5	24T/24T9 8T 16T 24 67.4 67.4	26T 14T 26 73.5 73.5	12T 16T 28 78.5 78.5	18T 	16T 32 90.0 90.0	16T 18T 34 95.4 95.4	20T 36 101.0 101.0	8T 10T 20T 38 106.3 106.3
System Capacity range Cooling capacity Heating capacity	Outdoor unit moo Outdoor unit moo Outdoor unit moo Nom. Nom. Max.	dule 1 dule 2 dule 3	RYYQ/RXYQ HP kW kW kW	22T 10T 12T 22 61.5 61.5 69.0	24T/24T9 8T 16T 24 67.4 67.4 75.0	26T 14T 26 73.5 73.5 82.5	12T 16T 28 78.5 78.5 78.5 87.5	18T 30 83.9 83.9 94.0	16T 32 90.0 90.0 100.0	16T 18T 34 95.4 95.4 106.5	20T 36 101.0 101.0 113.0	8T 10T 20T 38 106.3 106.3 119.0
System Capacity range Cooling capacity Heating capacity	Outdoor unit moo Outdoor unit moo Outdoor unit moo Nom. Nom. Max. Cooling	dule 1 dule 2 dule 3 Nom.	RYYQ/RXYQ HP kW kW kW kW kW kW	22T 10T 12T 22 61.5 61.5 69.0 16.27	24T/24T9 8T 16T 24 67.4 67.4 67.4 75.0 18.2	26T 14T 26 73.5 73.5 82.5 20.0	12T 16T 28 78.5 78.5 87.5 87.5 22.0	30 83.9 83.9 94.0 24.0	16T 32 90.0 90.0 100.0 26.0	16T 18T 34 95.4 95.4 106.5 28.0	20T 36 101.0 101.0 113.0 31.5	8T 10T 20T 38 106.3 106.3 119.0 29.2
System Capacity range Cooling capacity Heating capacity	Outdoor unit moo Outdoor unit moo Outdoor unit moo Nom. Nom. Max.	dule 1 dule 2 dule 3 Nom. Nom.	RYYQ/RXYQ HP kW kW kW kW kW kW	22T 10T 12T 22 61.5 69.0 16.27 14.06	247/24T9 8T 16T 24 67.4 67.4 67.4 75.0 18.2 15.85	26T 14T 26 73.5 73.5 82.5 20.0 17.29	12T 16T 28 78.5 78.5 87.5 22.0 18.87	30 83.9 83.9 94.0 24.0 20.4	16T 32 90.0 90.0 100.0 26.0 22.2	16T 18T 34 95.4 95.4 106.5 28.0 23.7	20T 36 101.0 101.0 113.0 31.5 25.6	8T           10T           20T           38           106.3           119.0           29.2           25.1
System Capacity range Cooling capacity Heating capacity Power input - 50Hz	Outdoor unit moo Outdoor unit moo Outdoor unit moo Nom. Nom. Max. Cooling	dule 1 dule 2 dule 3 Nom.	RYYQ/RXYQ HP kW kW kW kW kW kW	22T 10T 12T 22 61.5 61.5 69.0 16.27 14.06 16.48	247/24T9 8T 16T 24 67.4 67.4 67.4 75.0 18.2 15.85 18.31	26T 14T 26 73.5 73.5 82.5 20.0 17.29 20.30	12T 16T 28 78.5 78.5 87.5 22.0 18.87 21.90	18T 30 83.9 94.0 24.0 20.4 23.7	16T 32 90.0 90.0 100.0 26.0 22.2 25.6	16T 18T 95.4 95.4 106.5 28.0 23.7 27.4	20T 36 101.0 101.0 113.0 31.5 25.6 29.8	8T           10T           20T           38           106.3           106.3           29.2           25.1           29.2
System Capacity range Cooling capacity Heating capacity Power input - 50Hz EER	Outdoor unit moo Outdoor unit moo Outdoor unit moo Nom. Nom. Max. Cooling	dule 1 dule 2 dule 3 Nom. Nom.	RYYQ/RXYQ HP kW kW kW kW kW kW	22T 10T 12T 22 61.5 61.5 69.0 16.27 14.06 16.48 3.77	247/24T9 8T 16T 24 67.4 67.4 67.4 75.0 18.2 15.85 18.31 3.70	26T 14T 26 73.5 73.5 82.5 20.0 17.29 20.30 3.68	12T 16T 28 78.5 78.5 87.5 22.0 18.87 21.90 3.57	18T 30 83.9 94.0 24.0 20.4 23.7 3.5	16T 32 90.0 90.0 100.0 26.0 22.2 25.6 3.46	16T 18T 95.4 95.4 106.5 28.0 23.7 27.4 3.4	20T 36 101.0 101.0 113.0 31.5 25.6 29.8 3.21	8T           10T           20T           38           106.3           106.3           29.2           25.1           29.2           3.6
System Capacity range Cooling capacity Heating capacity Power input - 50Hz EER ESEER - Automatic	Outdoor unit moo Outdoor unit moo Outdoor unit moo Nom. Nom. Max. Cooling	dule 1 dule 2 dule 3 Nom. Nom.	RYYQ/RXYQ HP kW kW kW kW kW kW	22T 10T 12T 22 61.5 69.0 16.27 14.06 16.48 3.77 7.07	24T/24T9 8T 16T 24 67.4 67.4 67.4 67.4 75.0 18.2 15.85 18.31 3.70 6.81	26T 14T 26 73.5 73.5 82.5 20.0 17.29 20.30 3.68 6.89	12T 16T 28 78.5 78.5 87.5 22.0 18.87 21.90 3.57 6.69	18T           30           83.9           94.0           24.0           20.4           23.7           3.5           6.60	16T 32 90.0 90.0 100.0 26.0 22.2 25.6 3.46 6.50	16T 18T 34 95.4 106.5 28.0 23.7 27.4 3.4 6.44	20T 36 101.0 101.0 113.0 31.5 25.6 29.8 3.21 6.02	8T 10T 20T 38 106.3 106.3 119.0 29.2 25.1 29.2 25.1 29.2 3.6 6.36
System Capacity range Cooling capacity Heating capacity Power input - 50Hz EER ESEER - Automatic ESEER - Standard	Outdoor unit moo Outdoor unit moo Outdoor unit moo Nom. Nom. Max. Cooling	dule 1 dule 2 dule 3 Nom. Nom.	RYYQ/RXYQ HP kW kW kW kW kW kW	22T 10T 12T 22 61.5 61.5 69.0 16.27 14.06 16.48 3.77 7.07 5.58	24T/24T9 8T 16T 24 67.4 67.4 67.4 75.0 18.2 15.85 18.31 3.70 6.81 5.42	26T 14T 26 73.5 73.5 82.5 20.0 17.29 20.30 3.68 6.89 5.39	12T 16T 28 78.5 78.5 22.0 18.87 21.90 3.57 6.69 5.23	18T           30           83.9           94.0           24.0           20.4           23.7           3.5           6.60           5.17	16T 32 90.0 90.0 100.0 26.0 22.2 25.6 3.46 6.50 5.05	16T 18T 34 95.4 106.5 28.0 23.7 27.4 3.4 6.44 5.01	20T 36 101.0 113.0 31.5 25.6 29.8 3.21 6.02 4.68	8T           10T           20T           38           106.3           106.3           19.0           29.2           25.1           29.2           3.6           6.36           5.03
System Capacity range Cooling capacity Heating capacity Power input - 50Hz EER ESEER - Automatic ESEER - Standard COP - Max.	Outdoor unit moo Outdoor unit moo Outdoor unit moo Nom. Nom. Max. Cooling	dule 1 dule 2 dule 3 Nom. Nom.	RYYQ/RXYQ HP kW kW kW kW kW kW	22T 10T 12T 22 61.5 61.5 69.0 16.27 14.06 16.48 3.77 7.07 5.58 4.19	24T/24T9 8T 16T 24 67.4 67.4 75.0 18.2 15.85 18.31 3.70 6.81 5.42 4.10	26T 14T 26 73.5 73.5 82.5 20.0 17.29 20.30 3.68 6.89 5.39 4.06	12T 16T 28 78.5 78.5 87.5 22.0 18.87 21.90 3.57 6.69 5.23	18T           30           83.9           94.0           24.0           20.4           23.7           3.5           6.60           5.17           4.00	16T 32 90.0 90.0 100.0 22.2 25.6 3.46 6.50 5.05 3.91	16T 18T 34 95.4 95.4 106.5 28.0 23.7 27.4 3.4 6.44 5.01 3.9	20T 36 101.0 111.0 31.5 25.6 29.8 3.21 6.02 4.68 3.79	8T           10T           20T           38           106.3           106.3           119.0           29.2           25.1           29.2           3.6           6.36           5.03           4.1
System Capacity range Cooling capacity Heating capacity Power input - 50Hz EER ESEER - Automatic ESEER - Standard COP - Max. COP - Nom.	Outdoor unit moo Outdoor unit moo Outdoor unit moo Nom. Nom. Max. Cooling Heating	Jule 1 Jule 2 Jule 3 Nom. Nom. Max.	RYYQ/RXYQ HP kW kW kW kW kW kW	22T 10T 12T 22 61.5 61.5 69.0 16.27 14.06 16.48 3.77 7.07 5.58	24T/24T9 8T 16T 24 67.4 67.4 67.4 75.0 18.2 15.85 18.31 3.70 6.81 5.42	26T 14T 26 73.5 73.5 82.5 20.0 17.29 20.30 3.68 6.89 5.39 4.06	12T 16T 28 78.5 78.5 22.0 18.87 21.90 3.57 6.69 5.23	18T           30           83.9           94.0           24.0           20.4           23.7           3.5           6.60           5.17           4.00           4.1	16T 32 90.0 90.0 100.0 26.0 22.2 25.6 3.46 6.50 5.05	16T 18T 34 95.4 106.5 28.0 23.7 27.4 3.4 6.44 5.01	20T 36 101.0 113.0 31.5 25.6 29.8 3.21 6.02 4.68	8T           10T           20T           38           106.3           106.3           19.0           29.2           25.1           29.2           3.6           6.36           5.03
System Capacity range Cooling capacity Heating capacity Power input - 50Hz EER ESEER - Automatic ESEER - Standard COP - Max. COP - Nom. Maximum number of	Outdoor unit moc Outdoor unit moc Outdoor unit moc Nom. Max. Cooling Heating f connectable indoor	Jule 1 Jule 2 Jule 3 Nom. Nom. Max.	RYYQ/RXYQ HP kW kW kW kW kW kW	22T 10T 12T 22 61.5 69.0 16.27 14.06 16.48 3.77 7.07 5.58 4.19 4.37	24T/24T9 8T 16T 24 67.4 67.4 75.0 18.2 15.85 18.31 3.70 6.81 5.42 4.10 4.2	26T 14T 26 73.5 73.5 82.5 20.0 17.29 20.30 3.68 6.89 5.39 4.06 25	12T 16T 28 78.5 78.5 87.5 22.0 18.87 21.90 3.57 6.69 5.23 4.16	18T           30           83.9           94.0           24.0           20.4           23.7           3.5           6.60           5.17           4.00           4.1           64	16T 32 90.0 100.0 26.0 22.2 25.6 3.46 6.50 5.05 3.91 4.05	16T 18T 34 95.4 95.4 106.5 28.0 23.7 27.4 3.4 6.44 5.01 3.9 4.0	20T 36 101.0 101.0 31.5 25.6 29.8 3.21 6.02 4.68 3.79 3.95	8T           10T           20T           38           106.3           119.0           29.2           25.1           29.2           3.6           6.36           5.03           4.1           4.2
System Capacity range Cooling capacity Heating capacity Power input - 50Hz EER ESEER - Automatic ESEER - Standard COP - Max. COP - Nom. Maximum number of Indoor index connection	Outdoor unit moc Outdoor unit moc Outdoor unit moc Nom. Max. Cooling Heating f connectable indoor Min./Nom./Max.	Jule 1 Jule 2 Jule 3 Nom. Nom. Max.	RYYQ/RXYQ HP kW kW kW kW kW kW	22T           10T           12T           22           61.5           69.0           16.27           14.06           16.48           3.77           7.07           5.58           4.19           4.37           275/550/715	24T/24T9 8T 16T 24 67.4 67.4 67.4 75.0 18.2 15.85 18.31 3.70 6.81 5.42 4.10 4.2 300/600/780	26T 14T 26 73.5 73.5 82.5 20.0 17.29 20.30 3.68 6.89 5.39 4.06 25	12T 16T 28 78.5 78.5 87.5 22.0 18.87 21.90 3.57 6.69 5.23 4.16	18T           30           83.9           94.0           24.0           20.4           23.7           3.5           6.60           5.17           4.00           4.1	16T 32 90.0 90.0 26.0 22.2 25.6 3.46 6.50 5.05 5.05 3.91 4.05	16T 18T 34 95.4 95.4 106.5 28.0 23.7 27.4 3.4 6.44 5.01 3.9 4.0	20T 36 101.0 101.0 31.5 25.6 29.8 3.21 6.02 4.68 3.79 3.95	8T           10T           20T           38           106.3           106.3           119.0           29.2           25.1           29.2           3.6           6.36           5.03           4.1           4.2
System Capacity range Cooling capacity Heating capacity Power input - 50Hz EER ESEER - Automatic ESEER - Standard COP - Max. COP - Max. COP - Nom. Maximum number of Indoor index connection	Outdoor unit moc Outdoor unit moc Outdoor unit moc Nom. Max. Cooling Heating f connectable indoor Min./Nom./Max. Liquid	Jule 1 Jule 2 Jule 3 Nom. Nom. Max. r units	RYYQ/RXYQ HP kW kW kW kW kW kW mm	22T           10T           12T           22           61.5           69.0           16.27           14.06           16.48           3.77           7.07           5.58           4.19           4.37           275/550/715           15.5	24T/24T9 8T 16T 24 67.4 67.4 67.4 75.0 18.2 15.85 18.31 3.70 6.81 5.42 4.10 4.2 300/600/780	26T 14T 26 73.5 73.5 82.5 20.0 17.29 20.30 3.68 6.89 5.39 4.06 25	12T 16T 28 78.5 78.5 87.5 22.0 18.87 21.90 3.57 6.69 5.23 4.16 5.23 5.25	18T           30           83.9           83.9           94.0           24.0           20.4           23.7           3.5           6.60           5.17           4.00           4.1           64           0           375/750/975	16T 32 90.0 100.0 26.0 22.2 25.6 3.46 6.50 5.05 3.91 4.05	16T 18T 34 95.4 95.4 106.5 28.0 23.7 27.4 3.4 6.44 5.01 3.9 4.0	20T 36 101.0 101.0 113.0 31.5 25.6 29.8 3.21 6.02 4.68 3.79 3.95 450/900/1,17	8T           10T           20T           38           106.3           119.0           29.2           25.1           29.2           3.6           6.36           5.03           4.1           4.2
System Capacity range Cooling capacity Heating capacity Power input - 50Hz EER ESEER - Automatic ESEER - Standard COP - Max. COP - Max. COP - Nom. Maximum number of Indoor index connection	Outdoor unit moc Outdoor unit moc Outdoor unit moc Nom. Nom. Max. Cooling Heating f connectable indoor Min./Nom./Max. Liquid Gas	Jule 1 Jule 2 Jule 3 Nom. Nom. Max. r units	RYYQ/RXYQ HP kW kW kW kW kW kW kW mm mm	22T           10T           12T           22           61.5           69.0           16.27           14.06           16.48           3.77           7.07           5.58           4.19           4.37           275/550/715	24T/24T9 8T 16T 24 67.4 67.4 67.4 75.0 18.2 15.85 18.31 3.70 6.81 5.42 4.10 4.2 300/600/780	26T 14T 26 73.5 73.5 82.5 20.0 17.29 20.30 3.68 6.89 5.39 4.06 25	12T 16T 28 78.5 78.5 87.5 22.0 18.87 21.90 3.57 6.69 5.23 4.16 5.23 5.25	18T       30       83.9       94.0       24.0       20.4       23.7       3.5       6.60       5.17       4.00       4.1       64       0       375/750/975       34.9	16T 32 90.0 90.0 26.0 22.2 25.6 3.46 6.50 5.05 5.05 3.91 4.05	16T 18T 34 95.4 95.4 106.5 28.0 23.7 27.4 3.4 6.44 5.01 3.9 4.0	20T 36 101.0 101.0 113.0 31.5 25.6 29.8 3.21 6.02 4.68 3.79 3.95 450/900/1,17	8T           10T           20T           38           106.3           119.0           29.2           25.1           29.2           3.6           6.36           5.03           4.1
Outdoor system System Capacity range Cooling capacity Heating capacity Power input - 50Hz EER ESEER - Automatic ESEER - Standard COP - Max. COP - Nom. Maximum number of Indoor index connection Piping connections Current - 50Hz	Outdoor unit moc Outdoor unit moc Outdoor unit moc Nom. Max. Cooling Heating f connectable indoor Min./Nom./Max. Liquid	Jule 1 Jule 2 Jule 3 Nom. Nom. Max. OD OD System	RYYQ/RXYQ HP kW kW kW kW kW kW mm	22T           10T           12T           22           61.5           69.0           16.27           14.06           16.48           3.77           7.07           5.58           4.19           4.37           275/550/715           15.5	24T/24T9 8T 16T 24 67.4 67.4 67.4 75.0 18.2 15.85 18.31 3.70 6.81 5.42 4.10 4.2 300/600/780	26T 14T 26 73.5 73.5 82.5 20.0 17.29 20.30 3.68 6.89 5.39 4.06 25 325/650/84:	12T 16T 28 78.5 78.5 87.5 22.0 18.87 21.90 3.57 6.69 5.23 4.16 5.23 5.25	18T           30           83.9           83.9           94.0           24.0           20.4           23.7           3.5           6.60           5.17           4.00           4.1           64           0           375/750/975	16T 32 90.0 100.0 26.0 22.2 25.6 3.46 6.50 5.05 3.91 4.05 400/800/1,040 19.1	16T 18T 34 95.4 95.4 106.5 28.0 23.7 27.4 3.4 6.44 5.01 3.9 4.0	20T 36 101.0 101.0 113.0 31.5 25.6 29.8 3.21 6.02 4.68 3.79 3.95 450/900/1,17	8T           10T           20T           38           106.3           119.0           29.2           25.1           29.2           3.6           6.36           5.03           4.1           4.2

YRY IV





System	Outdoor unit mod	lule 1			1	т	12T	14T		16T		18T
	Outdoor unit mod	lule 2			12T			16T			1	8T
	Outdoor unit mod	lule 3			18T		1	6T			18T	
Capacity range				HP	40	42	44	46	48	50	52	54
Cooling capacity	Nom.			kW	111.9	118.0	123.5	130.0	135.0	140.0	145.8	151.2
Heating capacity	Nom.			kW	111.9	118.0	123.5	130.0	135.0	140.0	145.8	151.2
	Max.			kW	125.5	131.5	137.5	145.0	150.0	156.0	163.0	169.5
Power input - 50Hz	Cooling	Nom.		kW	31.3	33.3	35.0	37.0	39.0	40.7	43.0	45.0
	Heating	Nom.		kW	26.7	28.49	29.97	31.72	33.3	34.6	36.3	37.8
		Max.		kW	31.1	32.98	34.70	36.8	38.4	40.0	42.0	43.8
EER					3.6	3.	54	3.51	3.46	3.44	3.4	3.40
ESEER - Automatic					6.74	6.65	6.62	6.60	6.50	6.46	6.42	6.38
ESEER - Standard					5.29	5.19	5.17	5.13	5.05	5.02	4.99	4.97
COP - Max.					4.0	3.99	3.96	3.94	3.91		3.90	
COP - Nom.					4.2	4.14	4.12	4.10	4	.05	4	.0
Maximum number of	connectable indoo	r units						6	54			
Indoor index connection	Min./Nom./Max.				500/1,000/1,300	525/1,050/1,365	550/1,100/1,430	575/1,150/1,495	600/1,200/1,560	625/1,250/1,625	650/1,300/1,690	675/1,350/1,755
Piping connections	Liquid	OD		mm				1	9.1			
	Gas	OD		mm				4	1.3			
	Total piping length	System	Actual	m				1,	000			
Current - 50Hz	Maximum fuse an	nps (MFA)		Α		1	00			1	25	-
Outdoor unit modu	le for RYYQ combir	ations		RYMQ	8T	10T	121	1	4T	16T	18T	20T
Dimensions	Unit	Height/Wig	dth/Depth	mm		1,685/930/	765			1,685/1,240	/765	
Weight	Unit			kg	188		195		309		319	1
Fan	Air flow rate	Cooling	Nom.	m³/min	162	175	185	; 2	23	260	251	261
Sound power level	Cooling	Nom.		dBA	78	79		81		86		88
Sound pressure level	Cooling	Nom.		dBA	1	58		61		64	65	66
Operation range	Cooling	Min.~Max.		°CDB				-5	~43			
	Heating	Min.~Max.		°CWB				-20	~15.5			
Refrigerant	Туре							R-4	10A			
	Charge			kg	5.9	6	6.3	1	0.3	10.4	11.7	11.8
				tCO <sub>2</sub> eq	12.3	12.5	13.2	2 2	1.5	21.7	24.4	24.6
	GWP			`				2,0	87.5			
Power supply	Phase/Frequency	Voltage		Hz/V				3N~/50	/380-415			
Current - 50Hz	Maximum fuse an	nps (MFA)		А	20	25		32		40		50

42T

44T

46T

48T

50T

52T

54T

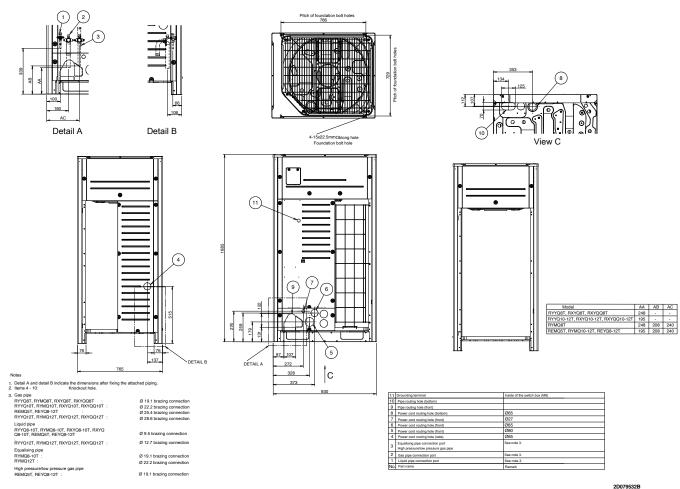
RYYQ/RXYQ

40T

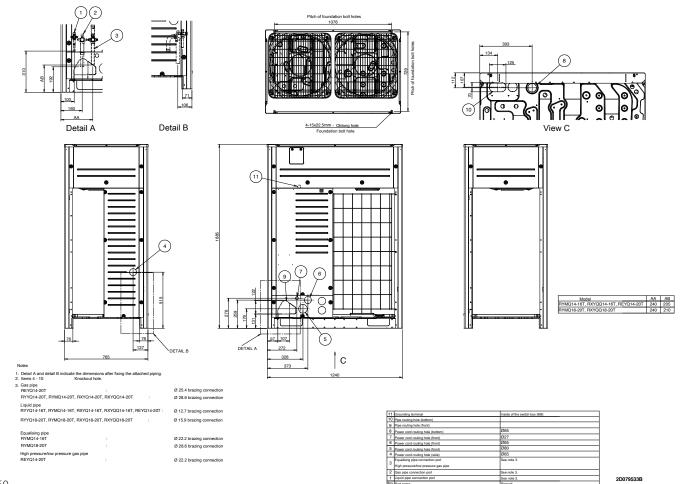
Outdoor system

(1) Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB, outdoor temperature: 35°CDB, equivalent refrigerant piping: 5m, level difference: 0m. Data for standard efficiency series (2) Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB, outdoor temperature: 27°CDB, 19°CWB, equivalent refrigerant piping: 5m, level difference: 0m. Data for high efficiency series, Eurovent certified (3) Nominal heating capacities are based on: indoor temperature: 27°CDB, 6°CWB, equivalent refrigerant piping: 5m, level difference: 0m. Data for standard efficiency series (4) Nominal heating capacities are based on: indoor temperature: 27°CDB, 6°CWB, equivalent refrigerant piping: 5m, level difference: 0m. Data for standard efficiency series (4) Nominal heating capacities are based on: indoor temperature: 27°CDB, 6°CWB, equivalent refrigerant piping: 5m, level difference: 0m. Data for standard efficiency series (4) Nominal heating capacities are based on: indoor temperature: 27°CDB, 6°CWB, equivalent refrigerant piping: 5m, level difference: 0m. Data for standard efficiency series (4) Nominal heating capacities are based on: indoor temperature: 27°CDB, 6°CWB, equivalent refrigerant piping: 5m, level difference: 0m. Data for standard efficiency series (4) Nominal heating capacities are based on: indoor temperature: 27°CDB, 6°CWB, equivalent refrigerant (5) Actual number of connectable indoor unit type (VRV indoor, Hydrobox, RA indoor, etc.) and the connection ratio restriction for the system (50% < CR < 130%) [The STANDARD ESEER value corresponds with normal VRV4 Heat Pump operation, not taking into account advanced energy saving operation functionality [The AUTOMATIC SEER value corresponds with normal VRV4 Heat Pump operation] (variable refrigerant temperature control operation)

#### RYYQ8-12T / RYMQ8-12T / RXYQ8-12T(9)



RYYQ14-20T / RYMQ14-20T / RXYQ14-20T

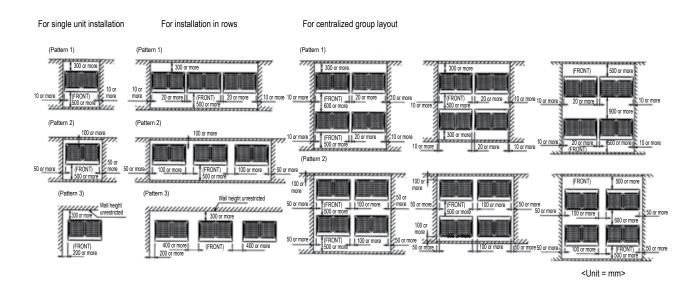


111111

<Front>

<Suction side>

#### RYYQ-T / RXYQ-T(9)

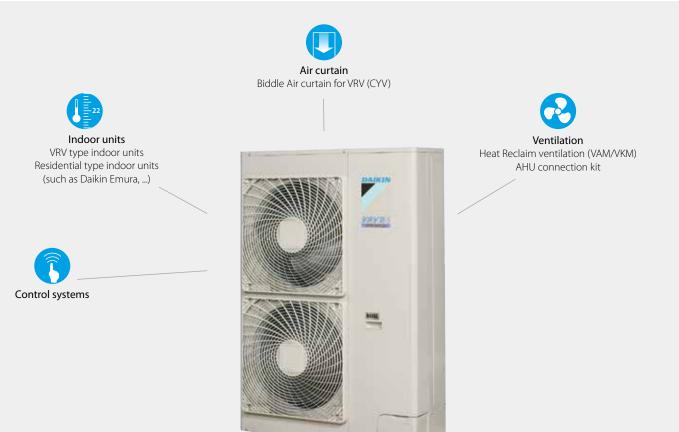


#### NOTES

- 1. Heights of walls in case of patterns 1 and 2: Front: 1500mm

  - Suction side: 500mm
  - Side: Height unrestricted
  - Installation space as shown on this drawing is based on the cooling operation at 35 degrees outdoor air temperature.
- When the design outdoor air temperature exceeds 35 degrees or the load exceeds maximum ability of much generation load of heat in all outdoor unit, take the suction side space more broadly than the space as shown on this drawing. 2. If the above wall heights are exceeded then h2/2 and h1/2 should be added to the front and suction side service spaces respectively as shown in the figure on the right.
- When installing the units most appropriate pattern should be selected from those shown above in order to obtain the best fit in the 3
- space available. Always keep in mind the need to leave enough space for a person to pass between units and wall and also for the air to circulate freely.
- (If more units are to be installed than are catered for in the above patterns your layout should take account of the possibility of short circuits).4. The units should be installed to leave sufficient space at the front for the on site refrigerant piping work to be carried out comfortably.

# VRV III-S heat pump Space saving solution without compromising on efficiency



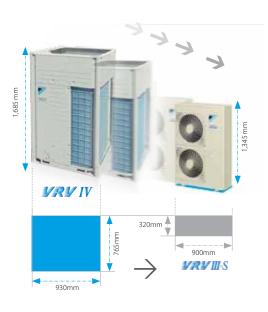
- > Automatic refrigerant charge
- > Refrigerant containment check
- > Night quiet mode
- > Low noise function
- > Full inverter compressors
- > Reluctance brushless DC compressor
- > Sine wave DC inverter
- > DC fan motor
- > E-pass heat exchanger
- > I demand function

### Space saving design

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

Volume: Approx. 70% reduction

Footprint: Approx. 60% reduction



### Wide range of indoor units

Connect VRV units...



... or stylish indoor units



### Connectable stylish indoor units

	15 CLASS	20 CLASS	25 CLASS	35 CLASS	42 CLASS	50 CLASS	60 CLASS	71 CLASS
Round flow cassette				FCQG35F		FCQG50F	FCQG60F	
Fully flat cassette			FFQ25C	FFQ35C		FFQ50C	FFQ60C	
Small concealed ceiling unit			FDBQ25B					
Slim concealed ceiling unit			FDXS25F	FDXS35F		FDXS50F9	FDXS60F	
Concealed ceiling unit with inverter driven fan				FBQ35D		FBQ50D	FBQ60D	
Daikin Emura – Wall mounted unit		FTXG20LW	FTXG25LW	FTXG35LW		FTXG50LW		
Daikin Endra – Wairmounted unit		FTXG20LS	FTXG25LS	FTXG35LS		FTXG50LS		
Wall mounted unit	CTXS15K	FTXS20K	FTXS25K	FTXS35K CTXS35K	FTXS42K	FTXS50K	FTXS60G	FTXS71G
Ceiling suspended unit				FHQ35C		FHQ50C	FHQ60C	
Nexura – Floor standing unit			FVXG25K	FVXG35K		FVXG50K		
Floor standing unit			FVXS25F	FVXS35F		FVXS50F		
Flexi type unit			FLXS25B	FLXS35B9		FLXS50B	FLXS60B	

NEW

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

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

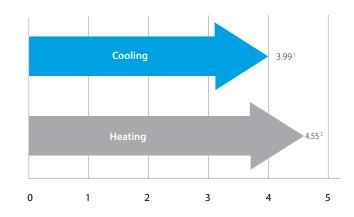
\* To connect stylish indoor units a BPMKS unit is needed



### High COP values

A major feature of VRVIII-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.

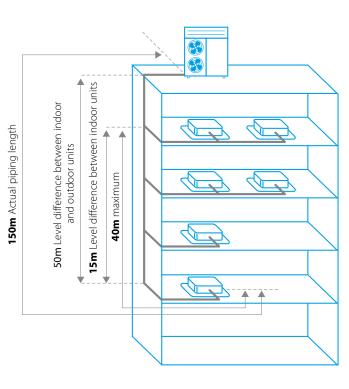
- <sup>1</sup> Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB, outdoor temperature: 35°C, equivalent refrigerant piping: 5m, level difference: 0m.
- <sup>2</sup> Nominal heating capacities are based on: indoor temperature: 20°CDB, outdoor temperature: 7°CDB, 6°CWB, equivalent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



# Flexible piping design

	VRV indoors connected	Stylish indoors connected
Total piping length	300m	250m
Longest length actual (Equivalent)	150m (175m)	
Minimum length between outdoor unit and first branch	-	5m
Minimum piping length between BP and indoor unit	-	2m
Maximum piping length between BP and indoor unit	-	15m
Longest length after first branch	40m	40m
Level difference between indoor and outdoor units	50m (40m <sup>1</sup> )	30m
Level difference between indoor units	15m	15m

<sup>1</sup> Outdoor unit in lowest position



# 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.

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

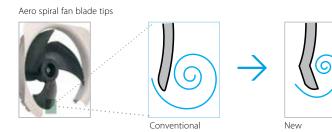
#### 3. e-Bridge circuit

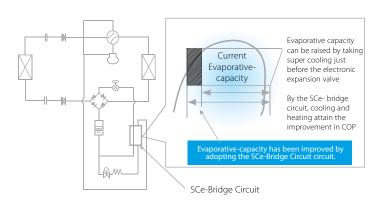
Prevents accumulation of liquid refrigerant in the condenser. This results in more efficient use of the condenser surface under all conditions and leads in turn to better energy efficiency. Increased evaporative capacity stems from

the newly developed refrigeration circuit, the SCebridge circuit, which adds super cooling prior to the expansion cycle. By adopting this circuit, the COPs in both coolingand heating have been drastically improved.



¥₹¥Ш-S







In 2015 our successful Mini VRV range gets a thorough update to make it even better suited for light commercial applications where space is limited and performance expectations are high.

- › Variable Refrigerant Temperature
- Connect a wide range of up to 9 indoor units: either connect VRV or stylish indoor units (Daikin Emura, Nexura, ...)
- > All indoor units can be individually controlled
- Connects to all VRV control, ventilation, air handling units and Biddle air curtains
- > Space saving design
- > More flexibility through extension of the range

#### Preliminary



- > The most compact VRV
- > Low height resulting in minimum visual impact
- Lightweight reduces installation time and manpower to an absolute minimum
- › Available in single phase



4-5 HP

4-5-6-8-10-12 HP

Available in single phase and three phase
 Extended range with 8, 10 and 12 HP unit for bigger applications with space limitations









**V**₹VⅢ-S

#### **VRVIII-S heat pump**

# Space saving solution without compromising on efficiency

- > For residential and light commercial applications
- > Wide range of indoor units: either connect VRV or stylish indoor units such as Daikin Emura, Nexura ...
- > Energy efficient heating system based on air source heat pump technology, lowering energy bills and CO, emmisions
- Connect up to 9 indoor units, which can all be individually controlled
- Possibility to combine different types of indoor units: wall mounted, floor standing, concealed ceiling, ceiling suspended, round flow or 4-way blow cassettes
- > 3 steps in night quiet mode: step 1: 47dBA, step 2: 44 dBA, step 3: 41 dBA
- > Contains all standard VRV features



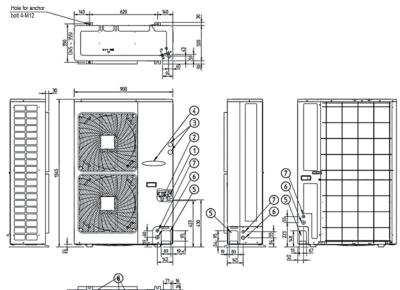
RXYSQ-P8V / RXYSQ-P8Y

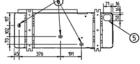
Outdoor unit			RXYSO	4P8V1	5P8V1	6P8V1	4P8Y1	5P8Y1	6P8Y1	
Capacity range			HF	4	5	6	4	5	6	
Cooling capacity	Nom.		kW	12.6	14.0	15.5	12.6	14.0	15.5	
Heating capacity	Nom.		kW	14.2	16.0	18.0	14.2	16.0	18.0	
Power input - 50Hz	Cooling N	lom.	kW	3.24	3.51	4.53	3.33	3.61	4.66	
	Heating N	lom.	kW	3.12	3.86	4.57	3.21	3.97	4.70	
EER				3.89	3.99	3.42	3.78	3.88	3.33	
COP				4.55	4.15	3.94	4.42	4.03	3.83	
Maximum number of	connectable indoor uni	its		8 (1) / 8 (2)	10(1)/9(2)	12 (1) / 9 (2)	8 (1) / 8 (2)	10 (1) / 9 (2)	12 (1) / 9 (	
Indoor index	Min.			50	62.5	70	50	62.5	70	
connection	Nom.						-			
	Max.			130	162.5	182	130	162.5	182	
Dimensions	Unit H	leightxWidthx	Depth mr	1,345x900x320						
Weight	Unit		kç			1:	20			
Fan	Air flow rate C	Cooling No	om. m³/mir			1(	06			
Sound power level	Cooling N	lom.	dBA	66	67	69	66	67	69	
Sound pressure level	Cooling N	lom.	dBA	50	51	53	50	51	53	
	Heating N	lom.	dBA	52	53	55	52	53	55	
Operation range	Cooling N	/lin.~Max.	°CDE			-5~	-46			
	Heating N	/lin.~Max.	°CWE			-20~	·15.5			
Refrigerant	Type / GWP				R-410A / 2,087.5					
	Charge		kg/TCO <sub>2</sub> E	4		4.0	/8.4			
Piping connections	Liquid O	DD	mm			9.	52			
	Gas O	DD	mm	15.9	/ 19.1	19.1	15.9	/ 19.1	19.1	
	Total piping length S	ystem Ad	tual m	300/115	300 / 135	300 / 145	300 / 115	300 / 135	300 / 145	
Power supply	Phase/Frequency/Vol	tage	Hz/\		1N~/50/220-240		3N~/50/380-415			
Current - 50Hz	iOHz Maximum fuse amps (MFA) A				32.0 16.0					

(1) In case VRV indoor units are connected (2) In case RA indoors are connected

#### RXYSQ-P8V1

#### RXYSQ-P8V1

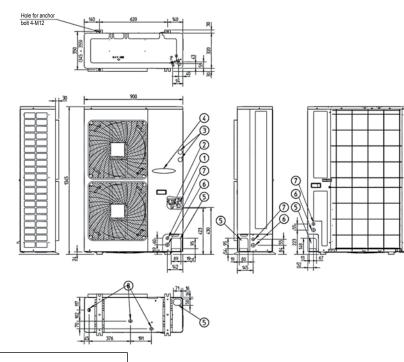




1	Gas pipe connection A					
2	Liquid connection pipe Ø9.5 flare					
3	Service port (in the unit) (2x)					
4	Electronic connection and grounding terminal M5 (in switch box)	MODEL	A			
5	Refrigerant piping intake	MODEL	With RA connection	With VRV correction		
6	Power supply wiring intake (knock hole Ø34)	RXYSQ4P8V1	Ø19.1 Brazing	Ø15.9 Flare		
7	Control wiring intake (knock hole Ø27)	RXYSQ5P8V1	Ø19.1 Brazing	Ø15.9 Flare		
8	Drain outlet	RXYSQ6P8V1	Ø19.1 Brazing	Ø19.1 Brazing		

3TW30374-1B

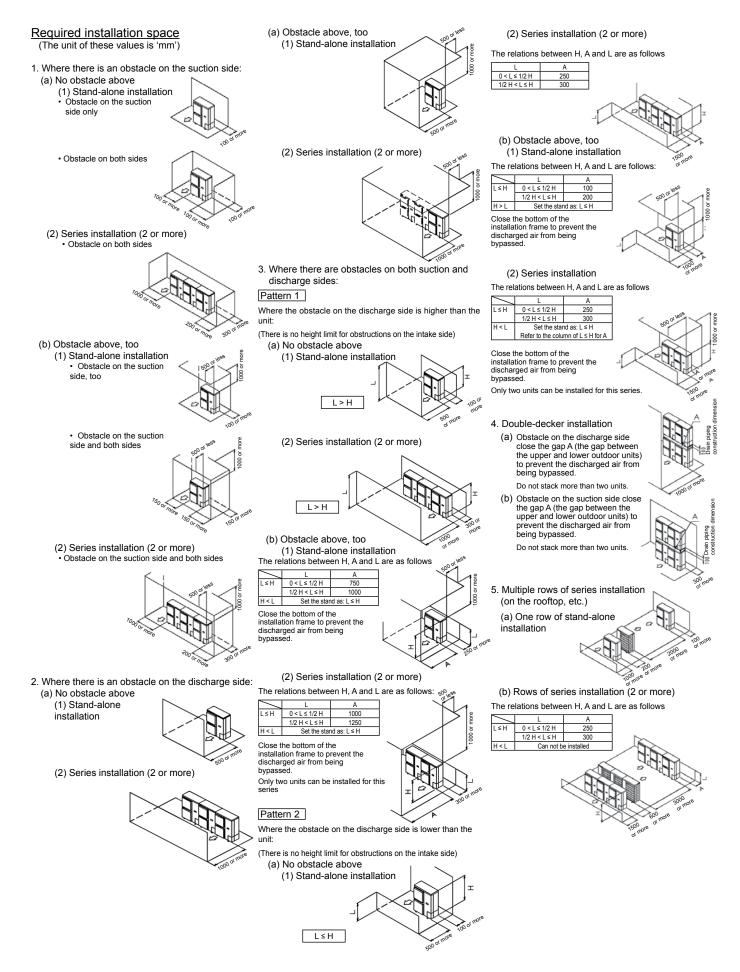
#### RXYSQ-P8Y1



1	Gas pipe connection A					
2	Liquid connection pipe Ø9.5 flare					
3	Service port (in the unit) (2x)					
4	Electronic connection and grounding terminal M5 (in switch box)	MODEL	A			
5	Refrigerant piping intake	MODEL	With RA connection	With VRV correction		
6	Power supply wiring intake (knock hole Ø34)	RXYSQ4P8Y1	Ø19.1 Brazing	Ø15.9 Flare		
7	Control wiring intake (knock hole Ø27)	RXYSQ5P8Y1	Ø19.1 Brazing	Ø15.9 Flare		
8	Drain outlet	RXYSQ6P8Y1	Ø19.1 Brazing	Ø19.1 Brazing		

3TW30374-1B

#### RXYSQ-P8V1 / / RXYSQ-PY1



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# VRVIII-C VRV heat pump where heating is priority without compromising on efficiency

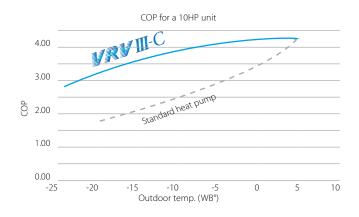


- > Automatic refrigerant charge
- > Refrigerant containment check
- > Night quiet mode
- > Low noise function
- > Reluctance brushless DC compressor
- > Sine wave DC inverter
- > DC fan motor
- > E-pass heat exchanger
- > I demand function



### High COP at low ambients

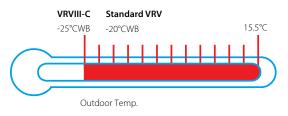
The use of two stage compression technology results in improved energy saving performance at low ambients, with a COP of more than 3.0 at -10°C outdoor ambient for the entire range.



# Wide heating operation range

VRVIII-C has a standard operation range down to -25 °CWB outdoor ambient in heating and can also provide cooling down to - 5 °CDB outdoor ambient.

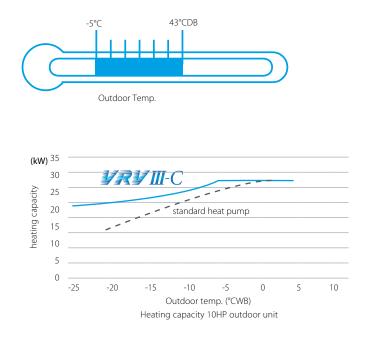
#### Heating mode



#### Stable heating capacity

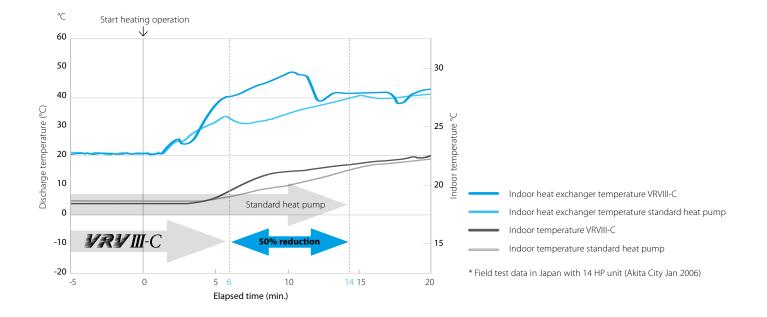
VRVIII-C has a stable heating capacity, even in low ambients, making it suitable for single source heating. The heating capacity is 130% in comparison with the standard VRV heating capacity under similar conditions.

#### Cooling mode



### 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 VRVIII system (10 minutes), leading to a more stable interior indoor temperature and considerably improved comfort levels.

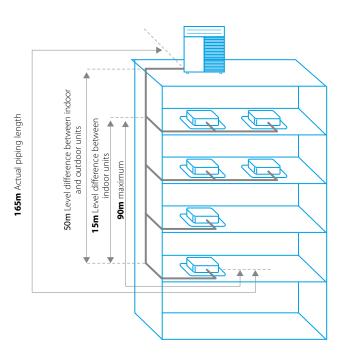
\* Field test data in Japan with 10 HP unit (Akita City Jan 2006)

### Flexible piping design

Total piping length	500m
Longest length actual (Equivalent)	165m (190m)
Longest length between outdoor unit and function unit	10m
Longest length after first branch	40m (90m <sup>1</sup> )
Level difference between indoor and outdoor units	50m (40m²)
Level difference between indoor units	30m

1 Contact your local dealer for more information and restrictions

2 In case outdoor unit is located below indoor units



# **VRVⅢ**-C

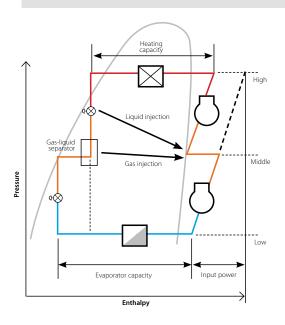
# VRVIII heat pump, optimised for heating

Where heating is priority without compromising on efficiency

- First system in the industry developed for heating operation in low ambient conditions, making it suitable for single source heating
- > Extended operation range down to -25°C in heating
- Stable heating capacity and high COP values at low ambients thanks to the two stage compression technology (COP values of 3.0 and more at -10°C)
- > Improved comfort thanks to shorter defrost time
- > Shorter heat up time compared to standard VRVIII heat pump
- > Contains all standard VRV features



RTSYQ14-16PA



### Two stage compression

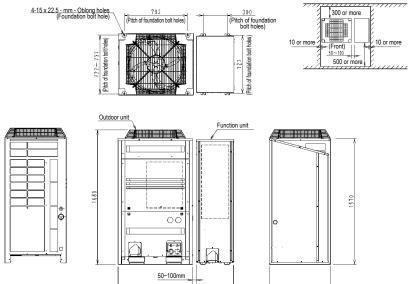
Two stage compression technology enables the system to create higher pressures resulting in a higher heating capacity under low ambient conditions. The second inverter compressor (located in the function unit) is specially designed to provide higher pressures. After heat is exchanged in the indoor unit,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

Outdoor system				RTSYQ	10PA	14PA	16PA	20PA		
System	Outdoor unit mod	lule 1			RTSQ10PAY1	RTSQ14PAY1	RTSQ16PAY1	RTSQ8PAY1		
	Outdoor unit mod	lule 2								
	Function unit					BTSC	20PY1			
Capacity range				HP	10	14	16	20		
Cooling capacity	Nom.			kW	28.0	40.0	45.0	56.0		
Heating capacity	Nom.			kW	31.5 / 28.0	45.0 / 40.0	50.0 / 45.0	63.0 / 55.9		
Power input - 50Hz	Cooling	Nom.		kW	7.90	12.6	14.9	15.4		
	Heating	Nom.		kW	7.78 / 8.18	11.4 / 12.8	13.0 / 15.0	15.4 / 18.7		
EER					3.54	3.17	3.02	3.64		
COP					4.05 / 3.42	3.95 / 3.13	3.85 / 3.00	4.09 / 2.99		
Maximum number o	f connectable indooi	r units			21	30	34	43		
Indoor index	Min.			1	125	175	200	250		
connection	Nom.				250	350	400	500		
	Max.				325	455	520	650		
Sound pressure level	Cooling	Max./Nom.		dBA	62/60	63/61	65/	63		
Piping connections	Liquid	OD		mm	9.52	1	2.7	15.9		
	Gas	OD		mm	22.2					
	Oil equalizing	OD		mm		19.1				
	Total piping length	System	Actual	m		5	00			
Current - 50Hz	Maximum fuse an	nps (MFA)		A	25	35	40	50		

Outdoor unit modu	le				BTSQ20P	RTSQ8PA	RTSQ10PA	RTSQ12PA	RTSQ14PA	RTSQ16PA	
Dimensions	Unit	HeightxWid	lthxDepth	mm	1,570x460x765		1,680x930x765		1,680x1,	240x765	
Weight	Unit			kg	110	205	25	57	338	344	
Fan	Air flow rate	Cooling	Nom.	m³/min	-	185 200		233	239		
Sound power level	Cooling	Nom.		dBA	-						
Operation range	Cooling	Min.~Max.		°CDB	-5~43						
	Heating	Min.~Max.		°CWB	-25~15.5						
Refrigerant	Type / GWP				R-410A / 2,087.5						
	Charge	Charge kg/TCO,Eq				9.4/19.6	10.5/21.9	10.9/22.8	11.7	/24.4	
Power supply	Phase/Frequence	y/Voltage		Hz/V			3~/50/3	380-415			
Current - 50Hz	Maximum fuse a	amps (MFA)		A	20		25		35	40	

#### **RTSYQ10PA**

#### RTSYQ10PA



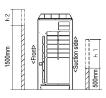
#### NOTES

- Heights of walls in case of Patterns 1 and 2: Front: 1500mm 1
  - Suction side: 500mm

Side: Height unrestricted Installation space to be shown in this drawing is based on the cooling operation at 35 degrees outdoor air temperature. When the design outdoor air temperature exceeds 35 degrees or the load exceeds maximum ability because of much generation load exceeds maximum ability because of much generation load of heat in all outdoor unit, take the suction side space more broadly than the space to be shown in this drawing. If the above wall heights are exceeded then h2/2 and h1/2 should be added to the front and suction side service spaces respectively as shown in the figure on the right.

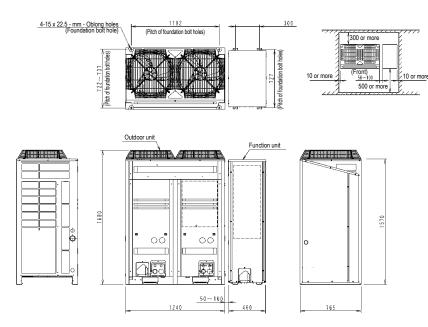
- 2.
- When installing the units most appropriate pattern should be selected from those shown above in order to obtain the best fit in the space available always bearing in mind the need to leave enough space for a person to pass between units and wall and for the air to circulate freely. (If more units are to be installed than are catered for in 3. the above patterns your layout should take account of the possibility of short circuits.)
- The units should be installed to leave sufficient space at the front for the on site refrigerant piping work to be
- carried out comfortably.
  In case there expected heavy snow, prepare some countermeasures recommended as follows:
  1) Outdoor and Function unit must be installed on a foundation (field supply) in order to secure a distance of 200-300mm or more between the bottom frame and the snow-laid ground surface. Install a snowbreak hood (option) and remove its back
- 2) side air inlet grill. Air outlet of snowbreak hood must face at right angle or
- lower level than the winter wind, in case a snowbreak hood is installed at the air outlet of the unit.
- In case there expected to freeze of exhausted water from de-frost operation due to the cold outdoor temperature in winter time, secure a sufficient space between the bottom frame and the foundation. (500-1000mm is suggested as an appropreate distance.)

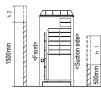
3D076286



System	Outdoor unit	DWG. No.	Function unit	DWG. No.
RTSYQ10PA	RTSQ10PA	3D076289	BTSQ20P	3D060838

#### RTSYQ14,16PA



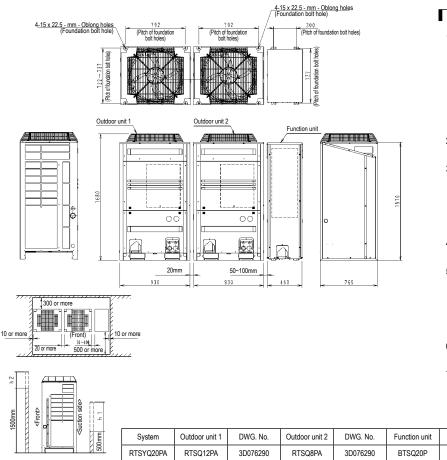


System	Outdoor unit	DWG. No.	Function unit	DWG. No.
RTSYQ14PA	RTSQ14PA	3D076291	BTSQ20P	3D060838
RTSYQ16PA	RTSQ16PA	3D076291	BTSQ20P	3D060838

#### NOTES

- Heights of walls in case of Patterns 1 and 2: Front: 1500mm Suction side: 500mm
  - Side: Height unrestricted
  - Side: Height unrestricted Installation space to be shown in this drawing is based on the cooling operation at 35 degrees outdoor air temperature. When the design outdoor air temperature exceeds 35 degrees or the load exceeds maximum ability because of much generation load of heat in all outdoor unit, take the suction side space more broadly than the space to be shown in this drawing. If the above wall heights are exceeded then h2/2 and h1/2 should be added to the front and suction side service spaces respectively as shown in the figure on the right. When installing the units most appropriate pattern should
- 2
- When installing the units most appropriate pattern should be selected from those shown above in order to obtain 3 be selected from those shown above in order to obtain the best fit in the space available always bearing in mind the need to leave enough space for a person to pass between units and wall and for the air to circulate freely. (If more units are to be installed than are catered for in the above patterns your layout should take account of the possibility of short circuits.) The units should be installed to leave sufficient space to the for the set of the prover dependence of the patterns when the set of the patterns when the set of the
- 4. at the front for the on site refrigerant piping work to be
- carried out comfortably. In case there expected heavy snow, prepare some countermeasures recommended as follows: 5. 1) Outdoor and Function unit must be installed on a foundation (field supply) in order to secure a distance of 200-300mm or more between the bottom frame and the
- snow-laid ground surface. 2) Install a snowbreak hood (option) and remove its back side air inlet grill.
- Air outlet of snowbreak hood must face at right angle or lower level than the winter wind, in case a snowbreak 6
- hood is installed at the air outlet of the unit. In case there expected to freeze of exhausted water from de-frost operation due to the cold outdoor temperature in winter time, secure a sufficient space between the bottom frame and the foundation. (500-1000mm is suggested as an appropriate distance) 7. an appropreate distance.)

#### RTSYQ20PA



#### NOTES

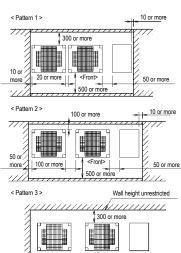
- 1. Heights of walls in case of Patterns 1 and 2: Front: 1500mm
- Suction side: 500mm Side: Height unrestricted

Installation space to be shown in this drawing is based on the cooling operation at 35 degrees outdoor air temperature. When the design outdoor air temperature exceeds 35 degrees or the load exceeds maximum ability because of much generation load of heat in all outdoor unit, take the suction side space more broadly than the

- unit, take the social side space more broadly than the space to be shown in this drawing. If the above wall heights are exceeded then h2/2 and h1/2 should be added to the front and suction side service spaces respectively as shown in the figure on the right. 2
- When installing the units most appropriate pattern should be selected from those shown above in order to obtain 3 the best fit in the space available always bearing in mind the need to leave enough space for a person to pass between units and wall and for the air to circulate freely. (If more units are to be installed than are catered for in the above patterns your layout should take account of the possibility of short circuits.)
- The units should be installed to leave sufficient space at the front for the on site refrigerant piping work to be 4
- carried out comfortably.5. In case there expected heavy snow, prepare some countermeasures recommended as follows: 1) Outdoor and Function unit must be installed on a foundation (field supply) in order to secure a distance of 200-300mm or more between the bottom frame and the
- snow-laid ground surface. 2) Install a snowbreak hood (option) and remove its back side air inlet grill. 6. Air outlet of snowbreak hood must face at right angle or
- lower level than the winter wind, in case a snowbreak hood is installed at the air outlet of the unit.
- In case there expected to freeze of exhausted water from de-frost operation due to the cold outdoor temperature in 7. winter time, secure a sufficient space between the bottom frame and the foundation. (500-1000mm is suggested as an appropreate distance.)

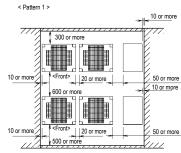
#### **RTSYQ-PA**

#### For single unit installation

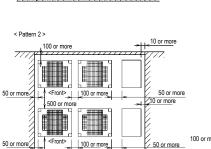


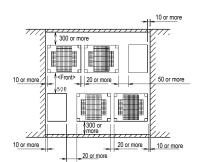
<Front>

200 or more



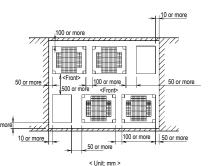
For installation in rows





DWG. No.

3D060838



#### NOTES

Heights of walls in case of Patterns 1 and 2:

400 or more

200 or more

Front: 1500 mm Suction side : 500 mm

Side: Height unrestricted

Installation space to be shown in this drawing is based on the cooling operation at 35 degrees outdoor air temperature. When the design outdoor air temperature exceeds 35 degrees or the load exceeds maximum ability because of much generation load of heat in all outdoor unit, take the suction side space more broadly than the space to be shown in this drawing

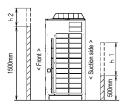
500 or mo

2. If the above wall heights are exceeded then h2/2 and h1/2 should be added to the front and suction side service spaces respectively as shown in the figure on the right

When installing the units most appropriate pattern should be selected from those shown above in order to obtain the best fit in the space available always bearing in mind the need to leave enough space for a person to pass between units and wall and for the air to circulate freely. (If more units are to be installed than are catered for in the above patterns your layout should take 3 account of the possibility of short circuits.)

The units should be installed to leave sufficient space at the front for the on site refrigerant piping work to be carried out comfortably. 4.

5 Installation of snowbreak hood (field supply; ask you dealer for details) is recommended in case there expected an effect from snow and space between outdoor unit and function unit is more than 100 mm



# VRV Classic heat pump RXYCQ-A For standard cooling & heating requirements

<image><image><image><image><image><section-header><section-header>

- > Low noise function
- > Reluctance brushless DC compressor
- > Sine wave DC inverter
- > DC fan motor
- > E-pass heat exchanger
- > Manual demand function



# Benefits

- For projects with standard cooling & heating requirements
- > Fits any building as also indoor installation is possible as a result of high external static pressure of up to 78.4 Pa. Indoor installation leads to less piping length, lower installation costs, increased efficiency and better visual aesthetics
- > The ability to control each conditioned zone

individually keeps VRV system running costs to an absolute minimum

- > Spread your installation cost by phased installation
- Connectable to all standard VRV indoor units, controls and ventilation

### Flexible piping design

Total piping length	300m
Longest length actual (Equivalent)	135m (155m)
Longest length after first branch	40m (90m¹)
Level difference between indoor and outdoor units	30m
Level difference between indoor units	15m

1 Contact your local dealer for more information and restrictions

# **VRV** Classic

#### Classic VRV configuration

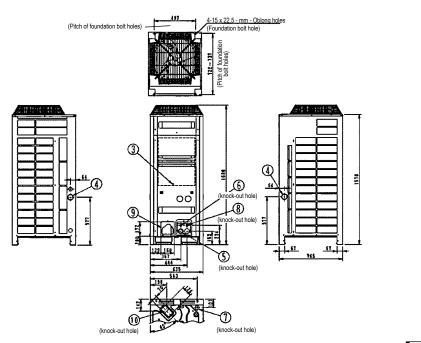
- > For standard cooling & heating requirements
   > Connectable to all standard VRV indoor units, controls and ventilation
- > Contains all standard VRV features

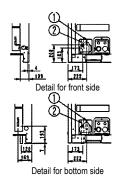




Outdoor unit				RXYCQ	8A	10A	12A	14A	16A	18A	20A
Capacity range				HP	8	10	12	14	16	18	20
Cooling capacity	Nom.			kW	20.0	25.0	30.0	35.0	40.0	45.0	50.4
Heating capacity	Nom.			kW	22.4	28.0	33.6	31.5	44.8	50.4	56.5
Power input - 50Hz	Cooling	Nom.		kW	6.60	6.74	8.77	11.4	12.9	15.0	17.9
	Heating	Nom.		kW	5.80	7.00	8.62	8.18	11.8	13.8	16.1
EER					3.03	3.71	3.42	3.07	3.10	3.00	2.81
COP					3.86	4.00	3.90	3.85	3.80	3.65	3.50
Maximum number of	f connectable indooi	r units						64			
Indoor index	Min.				100	125	150	175	200	225	250
connection	Nom.				200	250	300	350	400	450	500
	Max.				200	250	360	420	480	540	600
Dimensions	Unit	HeightxWio	dthxDepth	mm	1,680x635x765		1,680x930x765			1,680x1,240x76	5
Weight	Unit			kg	159	187	2	40 316			324
Fan	Air flow rate	Cooling	Nom.	m³/min	95	171	185	196 233		239	
Sound power level	Cooling	Nom.		dBA	78		81		8	36	88
Sound pressure level	Cooling	Nom.		dBA	58	59	6	51	64	65	66
Operation range	Cooling	Min.~Max.		°CDB	-5~43						
	Heating	Min.~Max.		°CWB				-20~15.5			
Refrigerant	Type / GWP				R-410A / 2,087.5						
	Charge			kg	6.2	7.7	8.4	8.6	11.3	11.5	17.7
	Charge			TCO,Eq	12.9	16.1	17.5	18	23.6	24	24.4
Piping connections	Liquid	OD		mm		9.52			12.7		15.9
	Gas	OD		mm	15.9	19.1	22.2		2	3.6	
	Total piping length	System	Actual	m				300			
Power supply	Phase/Frequency/	Voltage		Hz/V				3N~/50/380-415			
Current - 50Hz	Maximum fuse an	nps (MFA)		A	16		25			40	

#### **RXYCQ8A**





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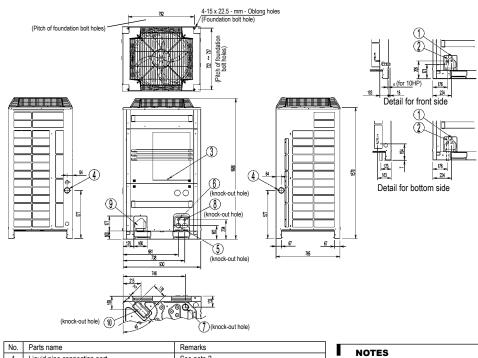
No.	Parts name	Remarks
1	Liquid pipe connection port	ø 9.5 Brazing connection
2	Gas pipe connection port	ø 15.9 Brazing connection
3	Grounding terminal	Inside of switch box (M8)
4	Power cord routing hole (side)	ø 62
5	Power cord routing hole (front)	ø 45
6	Power cord routing hole (front)	ø 27
7	Power cord routing hole (bottom)	ø 50
8	Wire routing hole (front)	ø 27
9	Pipe routing hole (front)	
10	Pipe routing hole (bottom)	

#### NOTES

1. Detail for front side and detail for bottom side indicate the dimensions after fixing the attached piping.

#### 3D080764

#### RXYCQ10-14A



Parts name	Remarks	
Liquid pipe connection port	See note 2	
Gas pipe connection port	See note 2	
Grounding terminal	Inside of switch box (M8)	
Power cord routing hole (side)	ø 62	
Power cord routing hole (front)	ø 45	
Power cord routing hole (front)	ø 27	
Power cord routing hole (bottom)	ø 65.5	
Wire routing hole (front)	ø 27	
Pipe routing hole (front)		
Pipe routing hole (bottom)		
	Liquid pipe connection port Gas pipe connection port Grounding terminal Power cord routing hole (side) Power cord routing hole (front) Power cord routing hole (front) Power cord routing hole (front) Wire routing hole (front) Pipe routing hole (front)	Liquid pipe connection port     See note 2       Gas pipe connection port     See note 2       Grounding terminal     Inside of switch box (M8)       Power cord routing hole (side)     ø 62       Power cord routing hole (front)     ø 45       Power cord routing hole (bottom)     ø 65.5       Wire routing hole (front)     ø 27       Pipe routing hole (front)     ø 27

1. Detail for front side and detail for bottom side indicate the dimensions after fixing the attached piping.

2. Gas pipe:

ø 19.1 Brazing connection: RXYCQ10 ø 22.2 Brazing connection: RXYCQ12

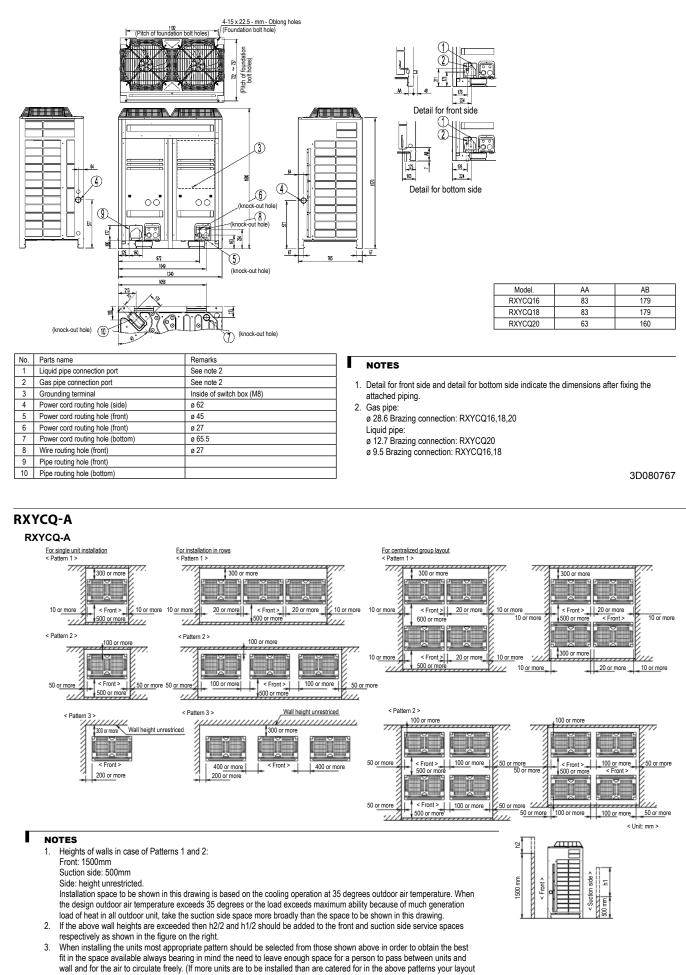
ø 28.6 Brazing connection: RXYCQ14

Liquid pipe:

ø 9.5 Brazing connection: RXYCQ10, RXYCQ12

ø 28.6 Brazing connection: RXYCQ14

#### RXYCQ16-20A



should take account of the possibility of short circuits.) 4. The units should be installed to leave sufficient space at the front for the on site refrigerant piping work to be carried out comfortably.

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





### Heat pump Variable refrigerant temperature

Customize your VRV for best seasonal efficiency & comfort

# VRV configurator

#### Software for simplified commissioning, configuration and customisation

- > 7 segment indicator
- > Automatic refrigerant charge
- > Night quiet mode
- > Low noise function
- > Full inverter compressors
- > Gas cooled PCB

- › 4 side heat exchanger
- > Reluctance brushless DC compressor
- > Sine wave DC inverter
- > DC fan motor
- > E-pass heat exchanger
- > I demand function

# **V**₹VⅢ-Q

#### Heat pump & Heat recovery

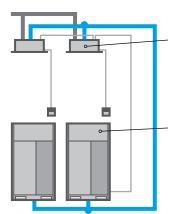
- › Automatic refrigerant charge
- > Night quiet mode
- > Low noise function
- > Full inverter compressors
- Reluctance brushless DC compressor
- > Sine wave DC inverter
- > DC fan motor
- > E-pass heat exchanger
- > I demand function

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

# The phase-out period for R-22 is over. Act now!

#### R-22 ban in Europe

Service and maintenance with R-22 will be prohibited after january 1st, 2015, meaning repairs will be impossible to R-22 systems. Avoid unexpected downtime for your customers and replace these systems now!



#### The Daikin low-cost upgrade solution

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

#### Replace outdoor units

# These benefits willconvince your customer

### Always operational

#### Avoid loss of business

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

#### Quick and easy installation

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

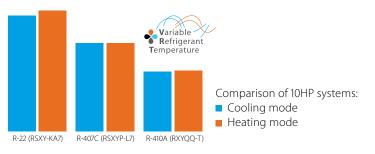
#### Smaller footprint, more performance

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

#### Lower long-term costs

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

Up to 48% less consumption





# VRV-Q benefits to increase your profit

# Optimise your business

#### Less installation time

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

#### Lower installation costs

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

#### Replace non-Daikin systems

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

#### Easy as one-two-three

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

# Automatic refrigerant charge

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

# Automatic pipe cleaning

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

### Compare installation steps

#### **Conventional solution**

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

#### VRV-Q

- 1 Recover refrigerant
- 2 Remove units

#### Re-use existing piping and wiring

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





#### One touch convenience:

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



VRVIII-Q



# **Replacement VRV**

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

- Cost-effective and fast replacement through re-use of exisiting piping
- > Up to 80% more efficient than R-22 systems
- > No interuption of daily business while replacing your system
- > Replace Daikin and other manufacturers systems safely
- > Automatic cleaning of refrigerant pipe work ensures a quality replacement
- > Possibility to increase capacity
- > Limited and phased investment cost
- Incorporates VRV IV standards & technologies: Variable Refrigerant Temperature, VRV configurator, 7 segment display and full inverter compressors, 4-side heat exchanger, refrigerant cooled PCB, new DC fan motor (for RXYQQ-T only)
- > Contains all standard VRV features



Outdoor system				RQCEQ	280P	360P	460P	500P	540P	636P	712P	744P	816P	848P
System	Outdoor unit mod	dule 1			RQEQ140P	RQEQ180P	RQEC	0140P	RQEQ180P	RQEQ212P	RQEC	140P	RQEQ180P	RQEQ212F
	Outdoor unit mod	dule 2			RQEQ140P	RQEQ180P	RQEQ140P	RQEO	Q180P	RQEQ212P	RQEC	180P	RQEC	212P
	Outdoor unit mod	dule 3				-		RQEQ180P	)	RQEQ212P	RQEQ180P RQEQ212P			
	Outdoor unit mod	dule 4									RQE	Q212P		
Capacity range				HP	10	13	16	18	20	22	24	26	28	30
Cooling capacity	Nom.			kW	28.0	36.0	45.0	50.0	54.0	63.6	71.2	74.4	81.6	84.8
Heating capacity	Nom.			kW	32.0	40.0	52.0	56.0	60.0	67.2	78.4	80.8	87.2	89.6
Power input - 50Hz	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					3.98	3.48	3.77	3.61	3.48	2.90	3.36	3.19	3.01	2.90
COP					4.00	3.72	3.89	3.80	3.72	3.79	3.80	3.81	3.77	3.79
Maximum number o	f connectable indoo	r units			21	28	34	39	43	47	52	56	60	64
Indoor index	Min.				140	180	230	250	270	318	356	372	408	424
connection	Nom.				280	360	5	00	540	636	712	744	816	848
	Max.				364	468	598	650	702	827	926	967.0	1,061	1,102
Sound pressure level	Cooling	Nom.		dBA	57	6	51	62	63	64	63	64	65	66
Piping connections	Liquid	OD		mm	9.52	9.52 12.7 15.9					19.1			
	Gas	OD		mm	22.2	25.4			28.6				34.9	
	Discharge gas	OD		mm	19	19.1 22.2			25.4		28	3.6		
	Total piping length	System	Actual	m	300			00						
Current - 50Hz	Maximum fuse an	nps (MFA)		A	30	40	50	6	60	70	8	0	9	0
Outdoor unit modu	le			RQEQ		140P 18			OP 212P					
Dimensions	Unit	HeightxWi	dthxDepth	mm					1,680x6	635x765				
Weight	Unit			kg				175					179	
Fan	Air flow rate	Cooling	Nom.	m³/min		95					110			
Sound power level	Cooling	Nom.		dBA						-				
Sound pressure level	Cooling	Nom.		dBA		54			5	8			60	
Operation range	Cooling	Min.~Max.		°CDB					-5	~43				
	Heating	Min.~Max.		°CWB					-20~	-15.5				
Refrigerant	Type / GWP				1				R-410A	/ 2,087.5				
	Charge			kg/TCO,Eq	1	10.3/21.	5		10.6	/22.1			11.2/23.4	
Power supply	Phase/Frequency	/Voltage		Hz/V					3~/50/	380-415				
Current - 50Hz	Maximum fuse an	nps (MFA)		A		15			2	20			22.5	

(1) Not Eurovent certified

**Replacement VRV** 

# **VRV IV** Q-series





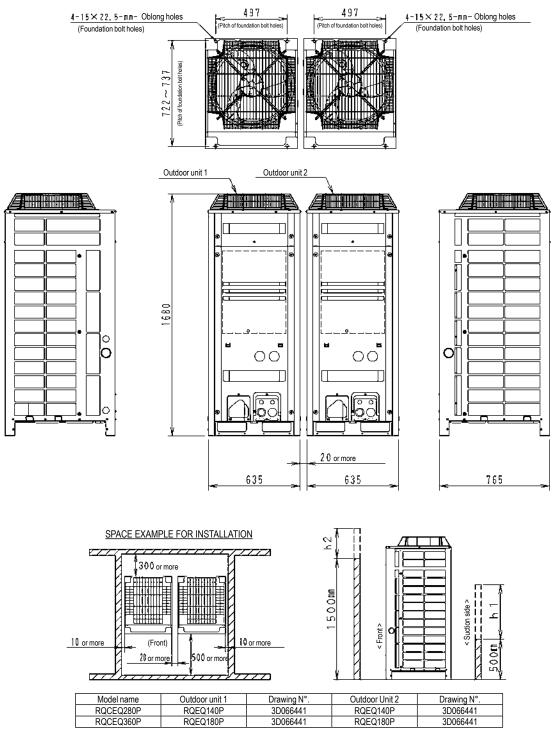
Outdoor system				RXYQQ	RQYQ140P	8T	10T	12T	14T	16T	18T	20T	22T	24T
System	Outdoor unit mod	lule 1							-				RXYQQ10T	RXYQQ8T
	Outdoor unit mod	lule 2			-				-				RXYQQ12T	RXYQQ16T
Capacity range				HP	5	8	10	12	14	16	18	20	22	24
Cooling capacity	Nom.			kW	14.0	22.4	28.0	33.5	40.0	45.0	50.4	56.0	61.5	67.4
Heating capacity	Max.			kW	16.0	25.0	31.5	37.5	45.0	50.0	50.4	63.0	69.0	75.0
Power input - 50Hz	Cooling	Nom.		kW	3.36	5.21	7.29	8.98	11.0	13.0	15.0	18.5	16.27	18.21
	Heating	Max.		kW	3.91	5.51	7.38	9.10	11.2	12.8	12.6	17.0	16.48	18.31
EER					4.17	4.30	3.84	3.73	3.64	3.46	3.36	3.03	3.78	3.70
ESEER					-	6.37 (1) / 7.53 (2)	5.67 (1) / 7.20 (2)	5.50 (1) / 6.96 (2)	5.31 (1) / 6.83 (2)	5.05 (1) / 6.50 (2)	4.00(1)/3.8	7 (2) 4.42 (1) / 5.67	(2) 5.58 (1) / 7.07 (2)	5.42 (1) / 6.81 (2)
COP					4.09	4.54	4.27	4.12	4.02	3.91	4.97	3.71	4.19	4.10
Maximum number of	connectable indoor	units			10				64 (3)				6	4 (3)
Indoor index	Min.				62.5	100	125	150	175	200	225	250	275	300
connection	Nom.				125	200	250	300	350	400	450	500	550	600
	Max.				162.5	260	325	390	455	520	585	650	715	780
Dimensions	Unit	HeightxWig	dthxDepth	mm	1,680x635x765	1	,685x930x7	55		1,685x1	,240x765			-
Weight	Unit			kg	175	187	1	94	3	05		314		-
Fan	Air flow rate	Cooling	Nom.	m³/min	95	162	175	185	223	260	251	261		-
Sound power level	Cooling	Nom.		dBA	-	78	79	8	31		86	88		-
Sound pressure level	Cooling	Cooling		dBA	54.0	5	8	e	51	64	65	66		-
	5	Night	Level 1	dBA	56	58	58	58	58	60	60	-		
		Quiet	Level 2	dBA	55	54	54	52	52	52	52	-		
		Mode	Level 3	dBA	53	52	52	47	47	48	48	-		
Operation range	Cooling	Min.~Max.		°CDB					~43					-
	Heating	Min.~Max.		°CWB	-20~15.5							-		
Refrigerant	Type / GWP				R-410A / 2,087.5						-			
<b>J</b>	Charge			kg/TCO,Eq	11.1/23.2	5.9/12.3	6/12.5	6.3/13.2	10.3/21.5	10.4/21.7	11.7/24	.4 11.8/24	.6	-
Piping connections	Liquid	OD			9.52		52	0.0, 10.2	12.7	1011/210	,2		15.9	
riping connections	Gas	OD		mm	15.9	19.1	22.2		12.7	2	8.6		15.5	34.9
	Total piping length	System	Actual	m	300	12.1	22.2			300	0.0			51.5
Power supply	Phase/Frequency/		netuui	Hz/V	3N~/50/380-415								_	
Current - 50Hz	Maximum fuse am			A	15	15 20 25 32 40 50							63	
current 50112	Maximum ruse un	105 (11177)			15	20	25	-	/2		10	50		05
Outdoor system				RXYOO	26T	28T	30T	32	т 3	4T	36T	38T	40T	42T
System	Outdoor unit mod	lule 1				RXYQQ12			-	QQ16T		RXYQQ8T	RXYQ	
5)5(011)	Outdoor unit mod				RXYQQ14T		T RXYQQ	18T RXYQ			YQQ20T	RXYQQ10T	RXYQQ12T	RXYQQ16T
	Outdoor unit mod					1		_				RXYQQ20T	RXYQQ18T	RXYQQ16T
Capacity range				HP	26	28	30	32	) :	34	36	38	40	42
Cooling capacity	Nom.			kW	73.5	78.5	83.5				101.0	106.4	111.5	118.0
Heating capacity	Max.			kW	82.5	87.5	93.5				113.0	119.5	125.0	131.5
Power input - 50Hz	Cooling	Nom.		kW	19.98	21.98	23.68				31.5	31.00	30.97	33.29
rowerinput sonz	Heating	Max.		kW	20.30	21.90	23.50				29.8	29.89	30.88	32.98
EER	····u	mun.		N/V	3.68	3.57	3.53			7.2 8.4	3.2	3.43	3.60	3.54
ESEER					5.39 (1) / 6.89 (2)						(1) / 6.02 (2)	5.03 (1) / 6.36 (2)	5.29(1)/6.74(2)	5.19(1)/6.65(2)
COP					4.06	4.00	3.98		3.9	, s. 11 (2) T.00	3.8	4.00	4.05	3.99
Maximum number of	connectable indoor	units			-1.00	00	5.90			+ (3)	5.0	1.00	1.05	5.99
Indoor index	Min.	units			325	350	375	40		25	450	475	500	525
connection	Nom.				650	700	750				900	950	1,000	1,050
	Max.				845	910	975	1.04			1.170	1,235	1,300	1,030
Sound power level	Cooling	Nom.		dBA	045	910	3/3	1,02	т <u>о</u> I,	-	1,170	1,233	1,300	دەد,،
Sound pressure level	Cooling	Nom.		dBA						-				
Dining connections	Liquid			UDA						-				

Piping connections Liquid OD mm 19.1 Gas OD mm 34.9 41.3 Total piping length System Actual 300 m Current - 50Hz Maximum fuse amps (MFA) А 63 80 100

(1) The STANDARD ESEER value corresponds with normal VRV4 Heat Pump operation, not taking into account advanced energy saving operation functionality (2) The AUTOMATIC SEER value corresponds with normal VRV4 Heat Pump operation, taking into account advanced energy saving operation functionality (2) The AUTOMATIC SEER value corresponds with normal VRV4 Heat Pump operation, taking into account advanced energy saving operation functionality (2) The AUTOMATIC SEER value corresponds with normal VRV4 Heat Pump operation, taking into account advanced energy saving operation functionality (2) The AUTOMATIC SEER value corresponds with normal VRV4 Heat Pump operation, taking into account advanced energy saving operation functionality (2) The AUTOMATIC SEER value corresponds with normal VRV4 Heat Pump operation, taking into account advanced energy saving operation functionality (2) The AUTOMATIC SEER value corresponds with normal VRV4 Heat Pump operation, taking into account advanced energy saving operation functionality (2) Automatic account advanced energy saving operation

#### RQCEQ280-360P

#### RQCEQ280-360P



# Unit:mm

1. Heights of walls

Front: 1500mm

Suction side: 500mm

Side: Height unrestricted

The installation space shown in this figure is based on the condition of cooling operation at the outdoor air temperature of 35°C.

- The installation space of suction side shown above must be expanded in the following case.
- Design outdoor temperature becomes over 35°C.
- Operating over Max. operating load

(In case of causing a heavy heating load at indoor unit side)

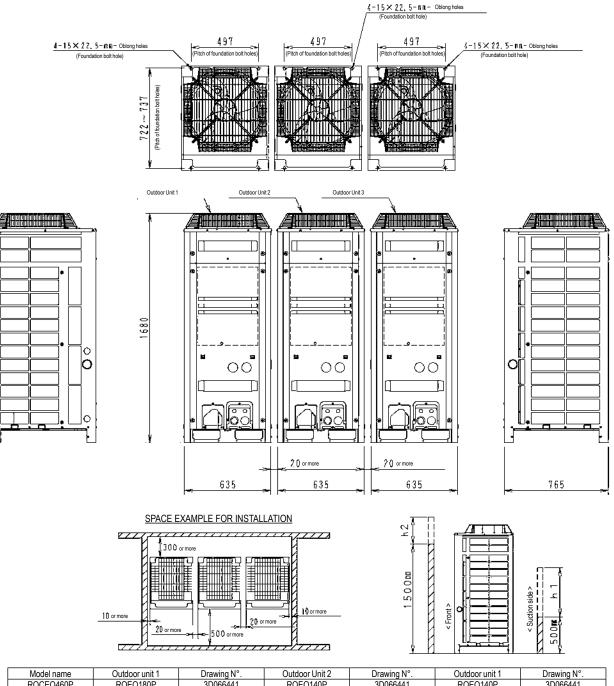
2. If the above wall heights are exceeded then h2/2 and h1/2 should be added to the front and suction side service spaces respectively as shown in the following figure.

3. When installing the units the most appropriate pattern should be selected from those shown above in order to obtain the best fit in the space available always bearing in mind the need to leave enough room for a parson to pass between nuits and wall for the air to circulate freely. (If more units are to be installed than are catered for in the above patterns your layout should take account of the possibility of short circuits.)

4. The units should be installed to leave sufficient space at the front for the on site refrigerant piping work to be carried out comfortably.

#### RQCEQ460-636P

#### RQCEQ460-636P



Unit:mm

Model name	Outdoor unit 1	Drawing N°.	Outdoor Unit 2	Drawing N°.	Outdoor unit 1	Drawing N°.
RQCEQ460P	RQEQ180P	3D066441	RQEQ140P	3D066441	RQEQ140P	3D066441
RQCEQ500P	RQEQ180P	3D066441	RQEQ180P	3D066441	RQEQ140P	3D066441
RQCEQ540P	RQEQ180P	3D066441	RQEQ180P	3D066441	RQEQ180P	3D066441
RQCEQ636P	RQEQ212P	3D066441	RQEQ212P	3D066441	RQEQ212P	3D066441

#### NOTES

1. Heights of walls

Front: 1500mm

Suction side: 500mm

Side: Height unrestricted

The installation space shown in this figure is based on the condition of cooling operation at the outdoor air temperature of 35°C.

- The installation space of suction side shown above must be expanded in the following case.
- Design outdoor temperature becomes over 35°C.
- Operating over Max. operating load

(In case of causing a heavy heating load at indoor unit side)

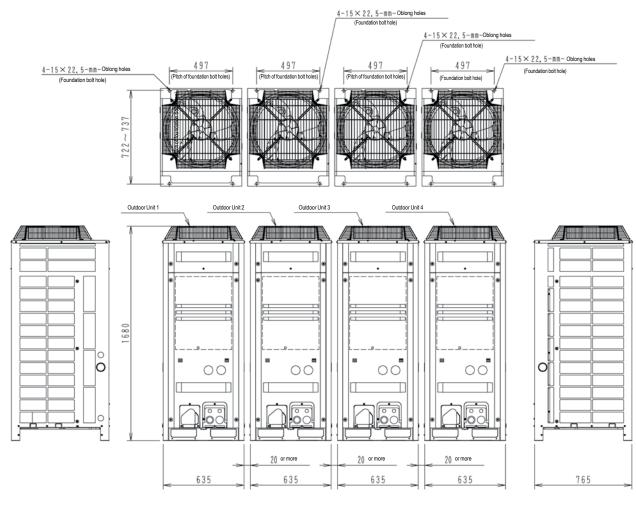
2. If the above wall heights are exceeded then h2/2 and h1/2 should be added to the front and suction side service spaces respectively as shown in the following figure.

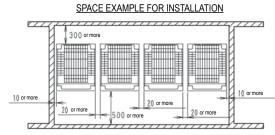
- 3. When installing the units the most appropriate pattern should be selected from those shown above in order to obtain the best fit in the space available always bearing in mind the need to leave enough room for a parson to pass between nuits and wall for the air to circulate freely. (If more units are to be installed than are catered for in the above patterns your layout should take account of the possibility of short circuits.)
- 4. The units should be installed to leave sufficient space at the front for the on site refrigerant piping work to be carried out comfortably.

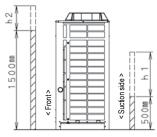
3D066860

#### RQCEQ721-848P

#### RQCEQ712-848P







#### Unit: mm

Model name	Outdoor unit 1	Drawing N°.	Outdoor Unit 2	Drawing N°.	Outdoor unit 3	Drawing N°.	Outdoor unit 4	Drawing N°.
RQCEQ712P	RQEQ212P	3D066441	RQEQ180P	3D066441	RQEQ180P	3D066441	RQEQ140P	3D066441
RQCEQ744P	RQEQ212P	3D066441	RQEQ212P	3D066441	RQEQ180P	3D066441	RQEQ140P	3D066441
RQCEQ816P	RQEQ212P	3D066441	RQEQ212P	3D066441	RQEQ212P	3D066441	RQEQ180P	3D066441
RQCEQ848P	RQEQ212P	3D066441	RQEQ212P	3D066441	RQEQ212P	3D066441	RQEQ212P	3D066441

#### NOTES

1. Heights of walls

Front: 1500mm

Suction side: 500mm

Side: Height unrestricted

The installation space shown in this figure is based on the condition of cooling operation at the outdoor air temperature of 35°C.

The installation space of suction side shown above must be expanded in the following case.

- Design outdoor temperature becomes over 35°C.

- Operating over Max. operating load

(In case of causing a heavy heating load at indoor unit side)

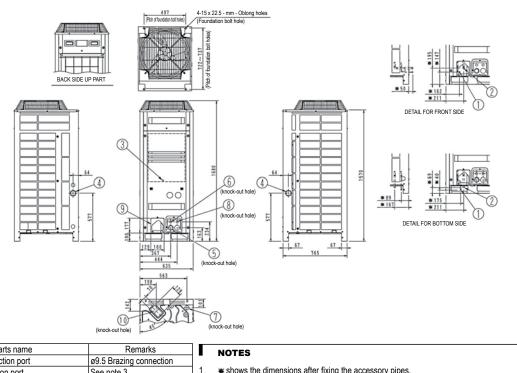
2. If the above wall heights are exceeded then h2/2 and h1/2 should be added to the front and suction side service spaces respectively as shown in the following figure.

3. When installing the units the most appropriate pattern should be selected from those shown above in order to obtain the best fit in the space available always bearing in mind the need to leave enough room for a parson to pass between nuits and wall for the air to circulate freely. (If more units are to be installed than are catered for in the above patterns your layout should take account of the possibility of short circuits.)

4. The units should be installed to leave sufficient space at the front for the on site refrigerant piping work to be carried out comfortably.

#### RQYQ140P

**—** 



No.	Parts name	Remarks
1	Liquid pipe connection port	ø9.5 Brazing connection
2	Gas pipe connection port	See note 3.
3	Grounding terminal	Inside of switch box (M8)
4	Power cord routing hole (side)	ø62
5	Power cord routing hole (front)	ø45
6	Power cord routing hole (front)	ø27
7	Power cord routing hole (bottom)	ø50
8	Wire routing hole (front)	ø27
9	Pipe routing hole (front)	See note 2.
10	Pipe routing hole (bottom)	See note 2.

 $\boldsymbol{\textbf{w}}$  shows the dimensions after fixing the accessory pipes.

For piping connection method (front and bottom sides) see the installation manual.

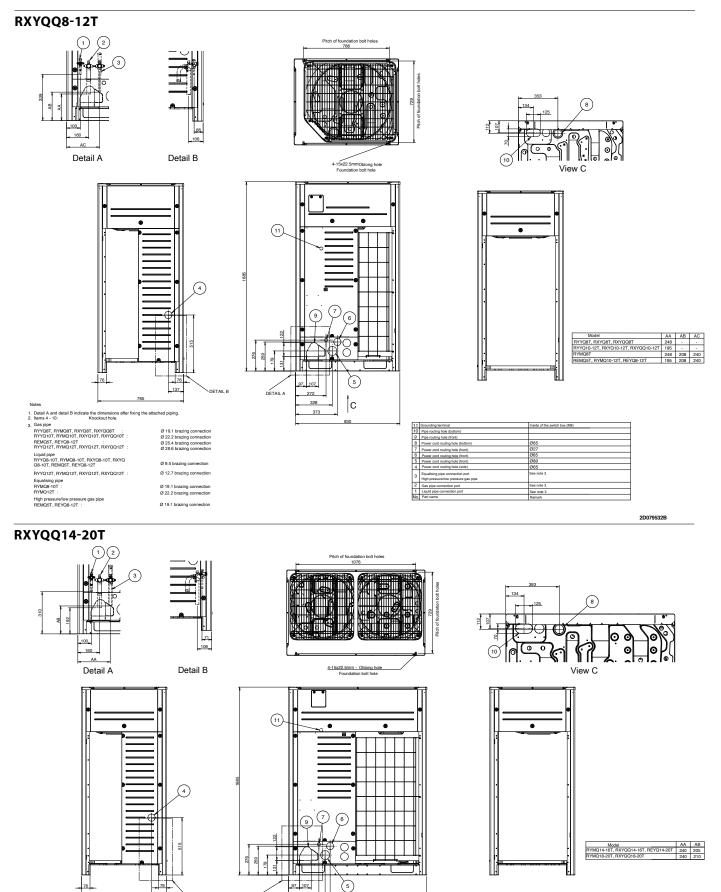
Gas pipe ø15.9 Brazing connection: RQYQ140P

2

3

3D066442

#### Detailed technical drawings



97 107

272

328

С

DETAIL A

1. Detail A and detail B indicate the dimensions after fixing the attached piping.
 2. Items 4 - 10: Knockout hole.
 Consider

765

<ol> <li>Gas pipe REYQ14-20T RYYQ14-20T, RYMQ14-20T, RXYQ1</li> </ol>	: 4-20T, RXYQQ14-20T :
Liquid pipe RYYQ14-16T, RYMQ14-16T, RXYQ1	4-16T, RXYQQ14-16T, REYQ14-20T :
RYYQ18-20T, RYMQ18-20T, RXYQ1	3-20T, RXYQQ18-20T :
Equalising pipe	
RYMQ14-16T	
RYMQ18-20T	
High pressure/low pressure gas pipe REYQ14-20T	

Ø 22.2 brazing connection Ø 28.6 brazing connection Ø 22.2 brazing connection

137

DETAIL B

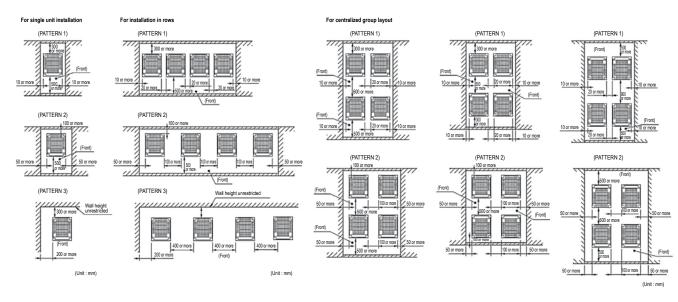
Ø 25.4 brazing connection Ø 28.6 brazing connection Ø 12.7 br

Ø 15.9 brazing connection

de of the sv ing hole (front) ord routing hole uting hole (side re gas pipe

#### RQYQ140P

#### RQYQ140P



3D066327

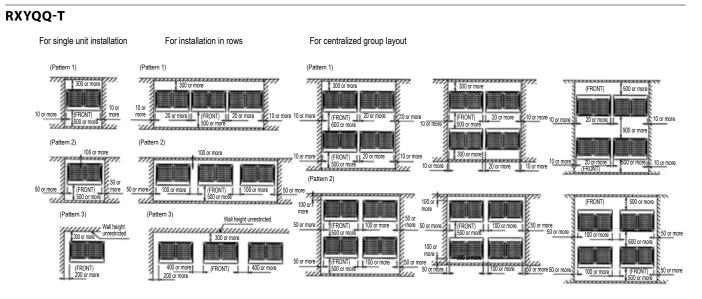
side)

2

1500mm

#### NOTES

- 1 Heights of walls in case of patterns 1 and 2: Front: 1500mm. Suction side: 500 mm. Side: Height unrestricted. Installation space to be shown in this drawing is based on the cooling operation at 35 degrees outdoor air temperature. When the design outdoor air temperatur exceeds 35 degrees or the load exceeds maximum ability because of much generation load heat in all outdoor unit, take the suction side space more broadly than the space to be shown in this drawing
- 2 If the above wall heights are exceeded then h2/2 and h1/2 should be added to the front and suction side service spaces respectively as shown in the figure on the right.
- 3 When installing the units the most appropriate pattern should be selected from those shown above in order to obtain the best fit in the space available always bearing in mind the need to leave enough room for a person to pass between units and wall and for the air to circulate freely. (If more units are to be installed than are catered for in the above patterns your layouts should take account of the possibility of short circuits.)
- 4 The units should be installed to leave sufficient space at the front for the on site refrigerant piping work to be carried out comfortably.



#### NOTES

1. Heights of walls in case of patterns 1 and 2:

Front: 1500mm

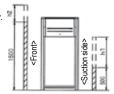
Suction side: 500mm

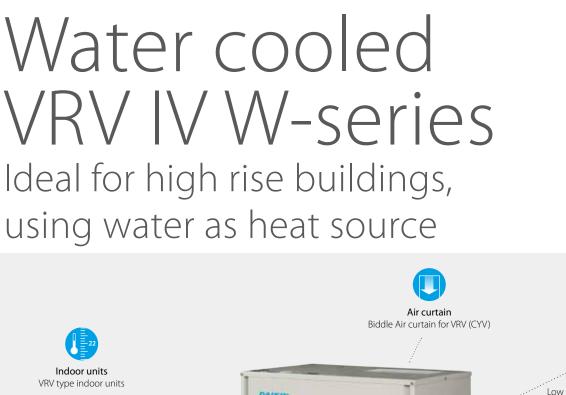
Side: Height unrestricted

Installation space as shown on this drawing is based on the cooling operation at 35 degrees outdoor air temperature.

When the design outdoor air temperature exceeds 35 degrees or the load exceeds maximum ability of much generation load of heat in all outdoor unit, take the suction side space more broadly than the space as shown on this drawing.

- 2. If the above wall heights are exceeded then h2/2 and h1/2 should be added to the front and suction side service spaces respectively as shown in the figure on the right.
- 3. When installing the units most appropriate pattern should be selected from those shown above in order to obtain the best fit in the space available. Always keep in mind the need to leave enough space for a person to pass between units and wall and also for the air to circulate freely. (If more units are to be installed than are catered for in the above patterns your layout should take account of the possibility of short circuits).
- 4. The units should be installed to leave sufficient space at the front for the on site refrigerant piping work to be carried out comfortably.





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Hot water Low temperature hydrobox





Control systems

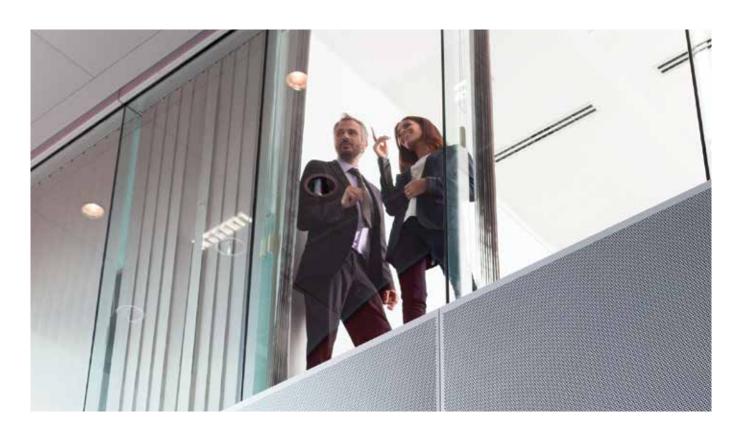
# VRV IV standards: Variable refrigerant temperature

Customize your VRV for best seasonal efficiency & comfort

- > Full inverter compressors
- > Reluctance brushless DC compressor
- > Sine wave DC inverter
- > Manual demand function
- > Geothermal operation







# Geothermal operation and advantages

Geothermal operation uses the more stable temperature of the ground around the building, eliminating the need for another heat source. It reduces  $CO_2$  emissions and is an infinitely renewable energy source.

# Efficiency not influenced by outdoor conditions

The water cooled VRV unit operates at a superior efficiency, even in the most extreme outdoor temperatures thanks to geothermal operation.

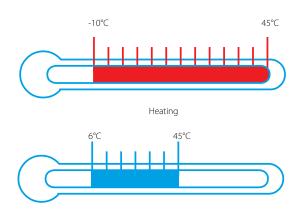
Because the temperature of ground water, lakes and rivers, remains relatively constant the year round, our water-cooled system maintains its superior efficiency, even in the most extreme outdoor temperatures, when the efficiency of air-cooled systems goes down. Outside temperature



### Wide operation range

Standard water cooled outdoor units have a wide operation range between  $10^{\circ}$ C & 45°C inlet water temperature, both in heating and cooling. In geothermal mode the operation range is extended even more, down to  $-10^{\circ}$ 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



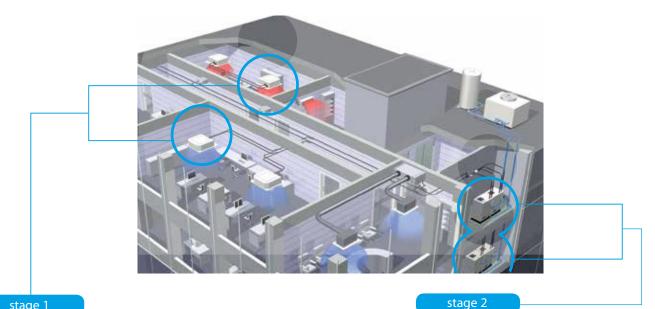
# High energy efficiencies results from 2-stage heat recovery

#### Stage 1: Heat recovery between indoor units in the same refrigerant circuit

Heat exhausted from indoor units in cooling mode is transferred to units in areas requiring heating, maximising energy efficiency and reducing electricity costs.

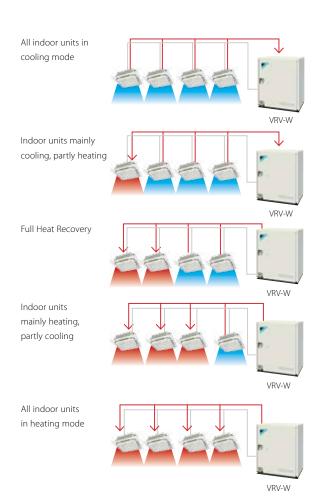
#### Stage 2: Heat recovery between the outdoor units via the water loop - also available on heat pump units!

Second stage heat recovery is achieved within the water loop between the water cooled outdoor units.

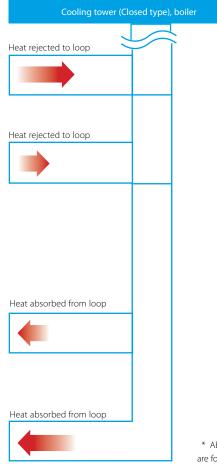


stage 1

#### Heat recovery between indoor units



#### Heat recovery between outdoor units (Heat recovery and heat pump)

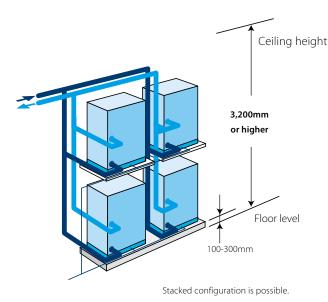


\* Above system configurations are for illustration purposes only.

# Space saving - Stacked configuration

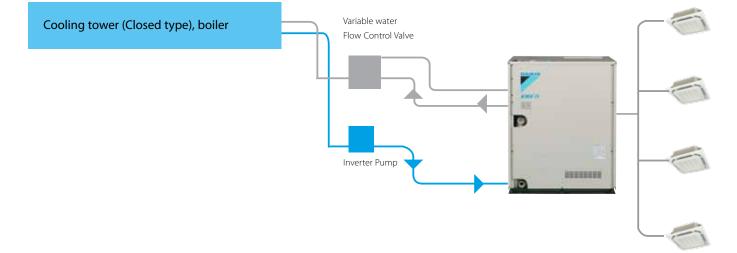
The adoption of a new water heat exchanger and optimization of the refrigerant control circuit has resulted in the industry's most compact and lightweight design. The unit weight of 149kg\* and height of 1,000 mm makes installation easy. Stacked configuration is also possible, contributing further to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

\* for 8HP unit



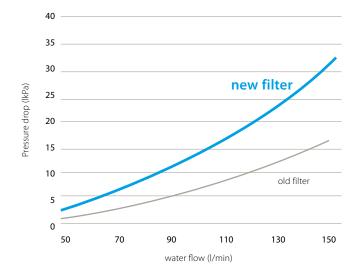
# Variable water flow control

The variable water flow control option reduces energy use by the circulation pump by reducing the water flow when possible and not using a fixed water flow all the time.



# Standard water strainer

A standard water strainer reduces installation time. The new filter also has less pressure drop at higher water flows.



# Flexible piping design

#### Flexible water piping

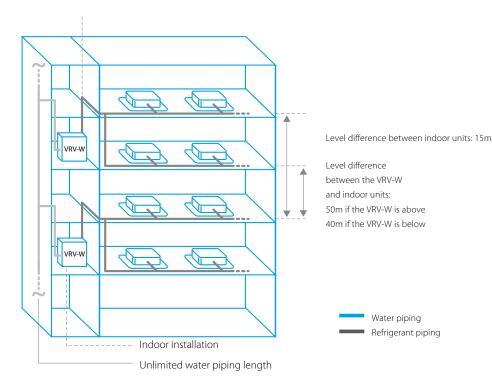
Water cooled VRV uses water as its heat source, so it is optimal for large buildings, including tall, multistorey buildings, because the system can tolerate water pressure of up to 1.96 MPa.

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 refubishment projects.

Total piping length	300m				
Longest length actual (Equivalent)	120m (140m)				
Longest length after first branch	40m (90m <sup>1</sup> )				
Level difference between indoor and outdoor units	50m (40m²)				
Level difference between indoor units	15m				

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

Actual piping length between the VRV-W and indoor units: 120m (Equivalent piping length: 140m)



# Park Phi, Enschede <mark>-</mark> The Netherlands

#### BREEAM excellent office building

For Gerard Schröder the choice for this system was an easy one: 'As far as I'm concerned, with the VRV Heat Recovery system, Daikin has the Rolls Royce in heat pump technology. If you want to build a sustainable office building, there really is no other alternative.'





VRV-WIII geothermal system, Daikin Altherma HT, Sky Air, aircooled chiller with heat recovery, iManager, iTouch Manager, ACNSS

# PARK PHI BREAAM® EXCELLENT OFFICE BUILDING WATERCOOLED VRV

**R410A** 

LALLIN

# **VRV IV** water cooled series

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

- > Unified range for standard and geothermal series simplifies stock. Geothermal series reduce CO<sub>2</sub> emmisions thanks to the use of geothermal energy as a renewable energy source
- > No need for an external heating or cooling source when used in geothermal mode
- > Covers all thermal needs of a building via a single point of contact: accurate temperature control, ventilation, hot water, air handling units and Biddle air curtains
- > Compact & lightweight design can be stacked for maximum space saving
- > Incorporates VRV IV standards & technologies: Variable Refrigerant Temperature and full inverter compressors
- > 2-stage heat recovery: first stage between indoor units, second stage between outdoor units thanks to the storage of energy in the water circuit
- > Available in heat pump and heat recovery version
- > Variable Water Flow control option increases flexibility and control
- > Easy compliance with F-gas regulation thanks to automated refrigerant containment check
- > Contains all standard VRV features



VRV IV W. series

RWFYO8-10T



Standard operation



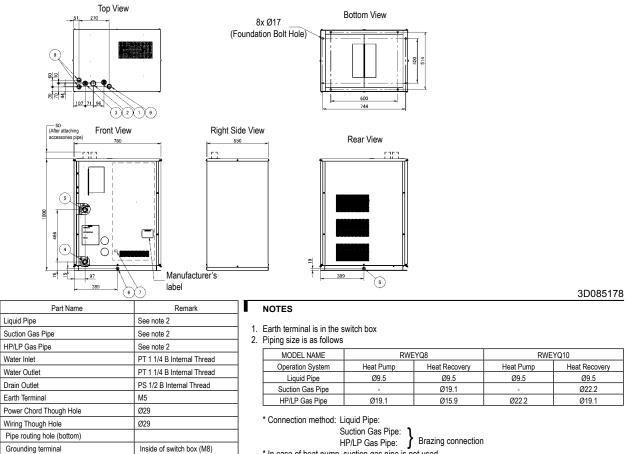
. Variable

Geothermal operation

Outdoor unit				RWEYQ	8T	10T	16T	18T	20T	24T	26T	28T	30T
System	Outdoor unit mod	lule 1			RWEYQ8T	RWEYQ10T	RWE	YQ8T	RWEYQ10T		RWEYQ8T	RWE           RWEYQ10T           28           78.4           88.0           91           16.7           116.2           16.3           5.43           5           700           910	RWEYQ10T
	Outdoor unit mod	lule 2				-	RWEYQ8T	RWE	YQ10T	RWE	YQ8T	RWE	YQ10T
System Capacity range Cooling capacity Heating capacity Power input - 50Hz EER COP Maximum number of Indoor index connection Dimensions Weight Fan Sound power level Sound pressure level	Outdoor unit mod				-			RWEYQ8T		RWEYQ10	Г		
Capacity range				HP	8	10	16	18	20	24	26	28	30
Cooling capacity	Nom.			kW	22.4	28.0	44.8	50.4	56.0	67.2	72.8	78.4	84.0
Heating capacity	Nom.			kW	25.0	31.5	50.0	56.5	63.0	75.0	81.5	88.0	94.5
Power input - 50Hz	Cooling	Nom.		kW	4.42	6.14	8.8	10.6	12.3	13.3	15.0	16.7	18.4
	Heating	Nom.		kW	4.21	6.00	8.4	10.2	12.0	12.6	14.4	16.2	18.0
EER					5.07	4.56	5.07	4.77	4.56	5.07	4.86	4.69	4.56
COP					5.94	5.25	5.94	5.53	5.25	5.94	5.65	5.43	5.25
Maximum number of	connectable indoo	r units							36				
Indoor index	Min.				100	125	200	225	250	300	325	350	375
connection	Nom.				200	250	400	450	500	600	650	700	750
	Max.				260	325	520	585	650	780	845	910	975
Dimensions	Unit	HeightxW	idthxDepth	mm	1,000x	780x550				-			
Weight	Unit			kg	1	37				-			
Fan	Air flow rate	Cooling	Nom.	m³/min					-				
Sound power level	Cooling	Nom.		dBA					-				
Sound pressure level	Cooling	Nom.		dBA	50	51	53		54		55		56
Operation range	Inlet water	Cooling	Min.~Max.	°CDB					10~45				
	temperature	Heating	Min.~Max.	°CWB					-10 / 10.0~45				
Refrigerant	Type / GWP								R-410A / 2,087	.5			
	Charge			kg/TCO <sub>2</sub> Eq	3.5/7.3	4.2/8.8	-	-	-	-	-	-	-
Piping connections	Liquid	OD		mm	9.	52	12.7		15.9			19.1	
	Gas	OD		mm	19.10 (1)	22.2 (1)		28.6 (1)			34.	9 (1)	
	Discharge gas	OD		mm	15.9 (2) / 19.10 (3)	19.1 (2) / 22.10 (3)	22	.2 (2) / 28.60	) (3)		28.6 (2)	/ 34.90 (3)	
	Water	Inlet/Outle	et			PT1 1/4B internal thread/PT1 1/4B internal thread							
	Total piping length	System	Actual	m					300				
Power supply	Phase/Frequency/	/Voltage		Hz/V					3N~/50/380-41	15			
Current - 50Hz	Maximum fuse an	nps (MFA)		A	1	20		32			5	50	

(1) In case of heat pump system, gas pipe is not used (2) In case of heat recovery system (3) In case of heat pump system (4) Not Eurovent certified

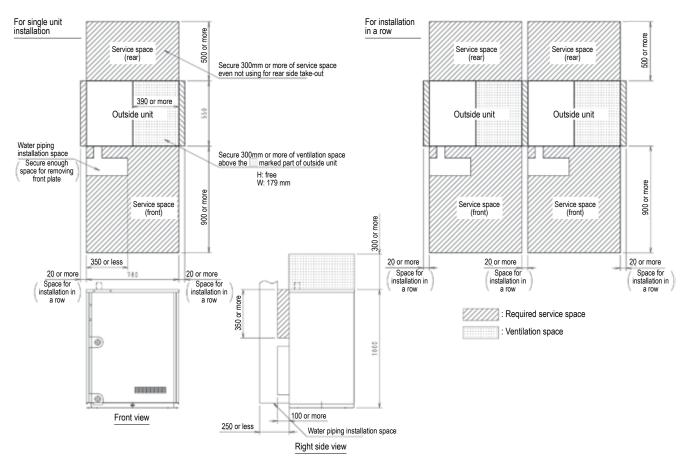
#### **RWEYQ-T**



\* In case of heat pump, suction gas pipe is not used.

#### **RWEYQ-T**

Item



# VRV Indoor units

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

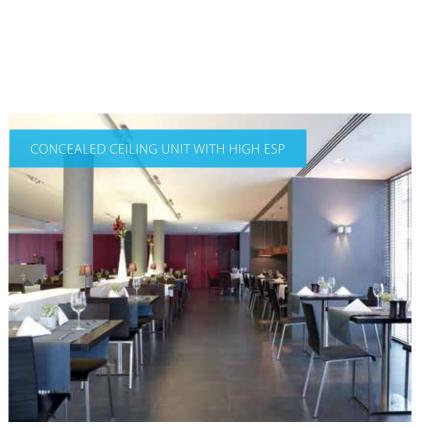
# VRV Indoor units

#### VRV indoor units

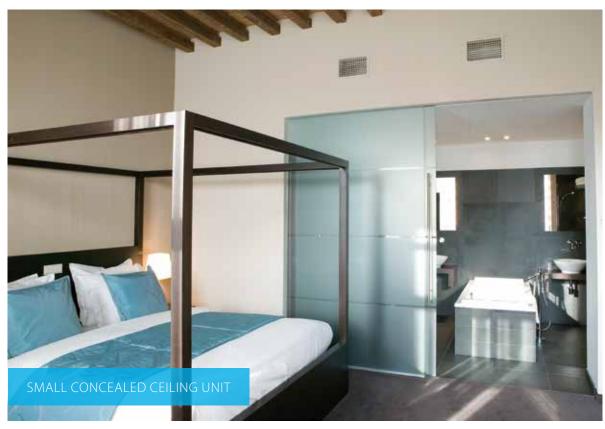
	Ceiling mounted cassette units	
	FXFQ-A	106
	FXZQ-A	110
	FXCQ-A	113
	FXKQ-MA	116
	Concealed ceiling units	
	FXDQ-M9	118
NEW	FXDQ-A	120
	FXSQ-A	126
	FXMQ-P7 / FXMQ-MA9	128
	Wall mounted unit	
	FXAQ-P	136
	Ceiling suspended units	
	FXHQ-A	140
	FXUQ-A	142
NEW	Floor standing units	
	FXNQ-A	144
	FXLQ-P	145

#### Stylish indoor units

BPMKS	149
Accessory to connect stylish indoor units	149
Wall mounted	
FTXG-LS/LW	151
CTXS-K / FTXS-K	154
Floor standing	
FVXG-K	158
FVXS-F	161
Flexi type unit	
FLXS-B(9)	163













# Benefits overview VRV indoor

	t		
		Inverter technology	In combination with inverter controlled outdoor units
	Ð	Home leave operation	During absence, indoor comfort levels can be maintained
	R	Fan only	The air conditioner can be used as fan, blowing air without cooling or heating
	*	Auto cleaning filter	The filter automatically cleans itself once a day. Simplicity of upkeep means optimum energy efficiency and maximum comfort without the need for expensive or time-consuming maintenance
		Floor and presence sensor	The presence sensor directs the air away from any person detected in the room. The floor sensor detects the average floor temperature and ensures an even temperature distribution between ceiling and floor
		Draught prevention	When starting to warm up or when the thermostat is off, the air discharge direction is set horizontally and the fan to low speed, to prevent draught. After warming up, air discharge and fan speed are set as desired
		Whisper quiet	Daikin indoor units are whisper quiet. Also the outdoor units are guaranteed not to disturb the quiet of the neightbourhood
	[A]	Auto cooling-heating changeover	Automatically selects cooling or heating mode to achieve the set temperature
		Air filter	Removes airborne dust particles to ensure a steady supply of clean air
contro		Dry programme	Allows humidity levels to be reduced without variations in room temperature
		Ceiling soiling prevention	The air discharge of the indoor unit is specially designed to prevent air being blown against the ceiling to prevent ceiling stains
		Ceiling soiling prevention Vertical auto swing	
			ceiling stains Possibility to select automatic vertical moving of the air discharge louvre, for uniform air flow and temperature
		Vertical auto swing	ceiling stains Possibility to select automatic vertical moving of the air discharge louvre, for uniform air flow and temperature distribution
		Vertical auto swing Fan speed steps	ceiling stains         Possibility to select automatic vertical moving of the air discharge louvre, for uniform air flow and temperature distribution         Multiple fan speeds to select, to optimize comfort levels         Individual flap control via the wired remote controller makes it simple to fix the position of each flap individually,
		Vertical auto swing Fan speed steps	ceiling stains         Possibility to select automatic vertical moving of the air discharge louvre, for uniform air flow and temperature distribution         Multiple fan speeds to select, to optimize comfort levels         Individual flap control via the wired remote controller makes it simple to fix the position of each flap individually,
		Vertical auto swing Fan speed steps Individual flap control	ceiling stains         Possibility to select automatic vertical moving of the air discharge louvre, for uniform air flow and temperature distribution         Multiple fan speeds to select, to optimize comfort levels         Individual flap control via the wired remote controller makes it simple to fix the position of each flap individually, to suit any new room configuration. Optional closure kits are available as well
		Vertical auto swing Fan speed steps Individual flap control Weekly timer	ceiling stains         Possibility to select automatic vertical moving of the air discharge louvre, for uniform air flow and temperature distribution         Multiple fan speeds to select, to optimize comfort levels         Individual flap control via the wired remote controller makes it simple to fix the position of each flap individually, to suit any new room configuration. Optional closure kits are available as well         Timer can be set to start and stop operation anytime on a daily or weekly basis
		Vertical auto swing Fan speed steps Individual flap control Weekly timer Infrared remote control	ceiling stains       Possibility to select automatic vertical moving of the air discharge louvre, for uniform air flow and temperature distribution         Multiple fan speeds to select, to optimize comfort levels         Individual flap control via the wired remote controller makes it simple to fix the position of each flap individually, to suit any new room configuration. Optional closure kits are available as well         Timer can be set to start and stop operation anytime on a daily or weekly basis         Infrared remote control with LCD to remotely control your indoor unit
		Vertical auto swing Fan speed steps Individual flap control Weekly timer Infrared remote control Wired remote control	ceiling stains       Control of the air discharge louvre, for uniform air flow and temperature distribution         Multiple fan speeds to select, to optimize comfort levels       Individual flap control via the wired remote controller makes it simple to fix the position of each flap individually, to suit any new room configuration. Optional closure kits are available as well         Timer can be set to start and stop operation anytime on a daily or weekly basis       Infrared remote control with LCD to remotely control your indoor unit         Wired remote control to remotely control your indoor unit       Strength of the set in the set i
		Vertical auto swing Fan speed steps Individual flap control Weekly timer Infrared remote control Wired remote control	ceiling stains       Control of the air discharge louvre, for uniform air flow and temperature distribution         Multiple fan speeds to select, to optimize comfort levels       Individual flap control via the wired remote controller makes it simple to fix the position of each flap individually, to suit any new room configuration. Optional closure kits are available as well         Timer can be set to start and stop operation anytime on a daily or weekly basis       Infrared remote control with LCD to remotely control your indoor unit         Wired remote control to remotely control your indoor unit       Strength of the material stop operation anytime on a daily or weekly basis
		Vertical auto swing Fan speed steps Individual flap control Weekly timer Infrared remote control Wired remote control Centralised control	ceiling stains       Possibility to select automatic vertical moving of the air discharge louvre, for uniform air flow and temperature distribution         Multiple fan speeds to select, to optimize comfort levels         Individual flap control via the wired remote controller makes it simple to fix the position of each flap individually, to suit any new room configuration. Optional closure kits are available as well         Timer can be set to start and stop operation anytime on a daily or weekly basis         Infrared remote control with LCD to remotely control your indoor unit         Wired remote control to remotely control your indoor unit         Centralised control to to control several indoor units from one single point
		Vertical auto swing Fan speed steps Individual flap control Weekly timer Infrared remote control Wired remote control Centralised control Auto-restart	ceiling stains       Control to remotely control your indoor unit         Possibility to select automatic vertical moving of the air discharge louvre, for uniform air flow and temperature distribution         Multiple fan speeds to select, to optimize comfort levels         Individual flap control via the wired remote controller makes it simple to fix the position of each flap individually, to suit any new room configuration. Optional closure kits are available as well         Timer can be set to start and stop operation anytime on a daily or weekly basis         Infrared remote control with LCD to remotely control your indoor unit         Wired remote control to remotely control your indoor unit         Centralised control to to control several indoor units from one single point         The unit restarts automatically at the original settings after power failure

Cei	iling mounte	ed cassette ur	nits	Concealed ceiling units							Wall mounted unit Ceiling suspended units			Floor standing units		
FXFQ-A	FXZQ-A	FXCQ-A	FXKQ-MA	FXDQ-M9	FXDQ-A	FXSQ-A	FXMQ-P7	FXMQ-MA9	FXTQ-A	FXAQ-P	FXHQ-A	FXUQ-A	FXNQ-A	FXLQ-P		
					-							5				
•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
•																
•	•															
				1	1	1	1	1	1							
•	•		•									•				
•	•	•			•	•		•	•							
•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
	1	1	1	1	1	]	1	1	1	1	1	1				
G1 F8 (optional)	G1	•	G1	•	•	G1 F8 (optional)	•	G1 F8 (optional)	•	•	G1	G1	G1	G1		
•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
•	•	•	•													
•	•	•	•							•		•				
3	3	3	2	2	3	3	3	2	3 (50~63) 2 (80~100)	2	3	3	2	2		
•	•											•				
•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
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•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
Standard	Standard	Standard	Standard		Standard	Standard	Standard	Optional	Standard (50~63) Optional (80~100)	Optional	Optional	Standard				
•	•	(●)	(●)	•	•	•	•	(•)	•	•	(●)	(●)	•	•		

# **FXFO-A**





# Round flow cassette

### Why choose a round flow cassette?

360° air discharge for optimum efficiency and comfort in shops, offices and restaurants.

Check on

Tube

https://www.youtube.com/ DaikinEurope

Unique auto-cleaning panel.

#### Unique functions which help save costs

> Daikin was the first company to launch a cassette using the round flow principle with sensors\* and a unique auto-cleaning panel\*.

#### ... More energy efficient than any other

- > The auto-cleaning panel\* means:
  - Running costs are reduced by 50% compared with standard solutions thanks to automatic daily filter cleaning. • Less time is required to

clean the filter: dust can



- be removed easily with a
- vacuum cleaner without opening the unit.
- > Thanks to presence sensor, the unit changes its setpoint or switches off completely, if there are no people in the room, resulting in energy savings of up to 27%.

#### ... And improved comfort

- > 360° air flow discharge pattern.
- > The presence sensor\* directs the air away from anyone it detects in the room.
- > The floor sensor\* detects the average floor temperature and ensures an even temperature distribution between the ceiling and the floor. Cold feet are history!

#### Flexible installation

> Flaps can be individually controlled or closed using the wired remote control, to suit room configuration.

Optional closure kits are also available.



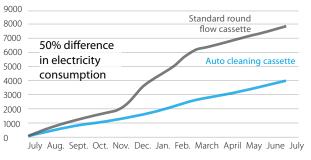
#### \* available as an option

### References

#### Wolverhampton, UK

Running costs were reduced by up to 50% compared with standard solutions thanks to daily filter cleaning.

Energy consumption (kWh)



Cumulative energy comparison over 12 months

### Benefits for the installer

# Benefits for the consultant

# Benefits for the end user > Designed for use in all types and sizes of commercial offices and



floor sensor



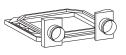
# Round flow cassette

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

- Daily automatic filter cleaning results in higher efficiency & comfort and lower maintenance costs
- Two optional intelligent sensors improve energy efficiency and comfort
- Individual flap control. Flexibility to suit every room layout without changing the location of the unit!
- Lowest installation height in the market: 214mm for class 20-63
- Modern style decoration panel is available in 3 different variations: white (RAL9010) with grey louvers, full white (RAL9010) or auto cleaning panel
- Reduced energy consumption thanks to specially developed small tube heat exchanger, DC fan motor and drain pump
- > Fresh air intake integrated in the same system thus reducing installation cost as no additional ventilation is required

Fresh air intake opening in casing





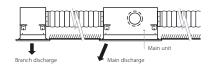
Optional fresh air intake kit

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

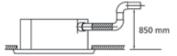
Allows larger quantities of fresh air to be brought in Distributes fresh air so it is most effectively pre-cooled / pre-heated



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



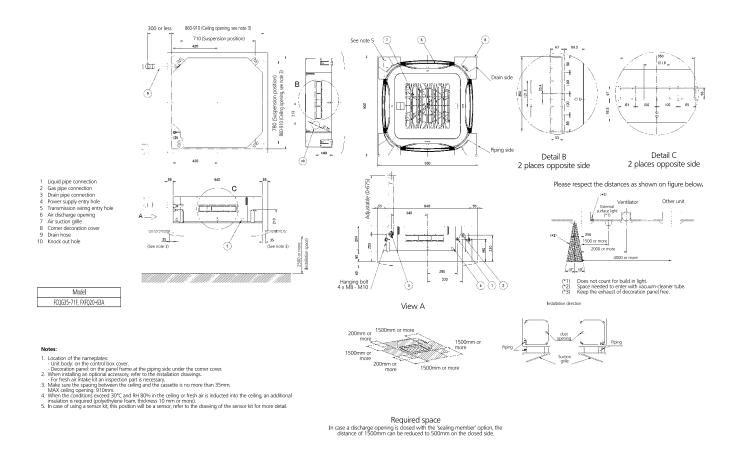
 Standard drain pump with 850mm lift increases flexibility and installation speed



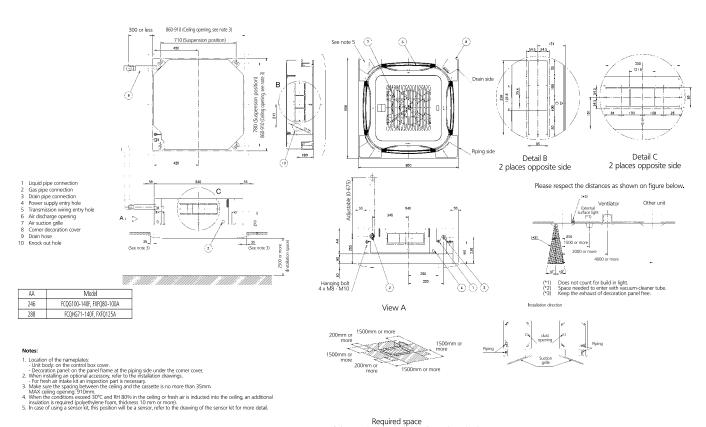
Indoor unit			FXFQ	20A	25A	32A	40A	50A	63A	80A	100A	125A	
Cooling capacity	Nom.		kW	2.2	2.8	3.6	4.5	5.6	7.1	9.0	11.2	14.0	
Heating capacity	Nom.		kW	2.5	3.2	4.0	5.0	6.3	8.0	10.0	12.5	16.0	
Power input - 50Hz	Cooling	Nom.	kW		0.	038		0.053	0.061	0.092	0.115	0.186	
	Heating	Nom.	kW		0.	038		0.053	0.061	0.092	0.115	0.186	
Dimensions	Unit	Height	mm			2	204			246 28			
		Width	mm					840			246 24 4 26.5/19.5/12.4 4 26.5/19.5/12.4 60/- 43/37/30		
		Depth	mm					840					
Weight	Unit		kg		19		20	2	21	2	24	26	
Casing	Material						Gal	vanised steel	plate				
Decoration panel	Model			BYCQ140D7W1									
	Colour						Pur	e White (RAL 9	9010)				
	Dimensions	HeightxWidthxDepth	mm					60x950x950		246 246 246 246 246 246 246 246 246 246			
	Weight		kg	5.4									
Decoration panel 2	Model BYCQ140D7W1W												
	Colour			Pure White (RAL 9010)									
	Dimensions	HeightxWidthxDepth	mm					60x950x950		10.0     12.5       0.092     0.115       0.092     0.115       24     24			
	Weight		kg					5.4			12.5 0.115 0.115 6 4 26.5/19.5/12.4 26.5/19.5/12.4 26.5/19.5/12.4 43/37/30 43/37/30 2		
Decoration panel 3	Model			BYCQ140D7GW1									
	Colour			Pure White (RAL 9010)									
	Dimensions	HeightxWidthxDepth	mm	145x950x950									
	Weight		kg					10.3					
Fan-Air flow rate -	Cooling	High/Nom./Low	m³/min		12.5/10.6/8.8	3	13.6/11.6/9.5	15.0/12.8/10.5	16.5/13.5/10.5	22.8/17.6/12.4	11.2       12.5       0.115       12.5       12.5       12.5       2       11.2       2       11.5       2       115       240       241       242       242       1124       255/195/124       1124       265/195/124       1124       265/195/124       1124       265/195/124       1124       265/195/124       1124       265/195/124       1124       265/195/124       1124       265/195/124       1124       265/195/124       1124       265/195/124       1124       265/195/124       1124       265/195/124       1124       265/195/124       1124       265/195/124       1124       1124       1124       1124       1124       1124       1124       1124       1124       1124       1124       1124       1124       1124       1124	33.0/26.5/19.9	
50Hz	Heating	High/Nom./Low	m³/min		12.5/10.6/8.8	3	13.6/11.6/9.5	15.0/12.8/10.5	16.5/13.5/10.5	22.8/17.6/12.4	26.5/19.5/12.4	33.0/26.5/19.9	
Air filter	Туре						Resin ne	et with mold r	esistance				
Sound power level	Cooling	High/Nom.	dBA		49/-		5	1/-	53/-	55/-	60/-	61/-	
Sound pressure level	Cooling	High/Nom./Low	dBA		31/29/28		33/	31/29	35/33/30	38/34/30	43/37/30	45/41/36	
	Heating	High/Nom./Low	dBA		31/29/28			31/29		38/34/30	43/37/30	45/41/36	
Refrigerant	Type / GWP							R-410A / 2.087	7,5				
Piping connections	Liquid	OD	mm			6.35							
	Gas	OD	mm	12.7						15	5.9		
	Drain		VP25 (O.D. 32 / I.D. 25)										
Power supply	Phase/Frequency	· ·	Hz/V				1~/	50/60/220-24	0/220				
Current - 50Hz	Maximum fuse a		A					16					
Control systems	Infrared remote			BRC7FA532F									
	Simplified wired rem	ote control for hotel applications						-					
	Wired remote co	ontrol					BRC	1D52 / BRC1E	52A/B				

BYCQ140D7W1 = pure white panel with grey louvers , BYCQ140D7W1W = pure white standard panel with white louvers, BYCQ140D7GW1 = Pure white auto cleaning panel The BYCQ140D7W1W has white insulations. Be informed that formations of dirt on white insulation is visibly stronger & that it is consequently not advised to install the decoration panel in environments exposed to concentrations of dirt.

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

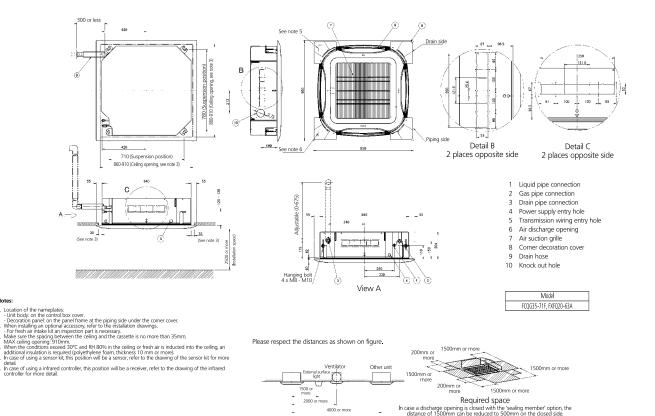


#### FXFQ80-125A WITH AUTO-CLEANING PANEL

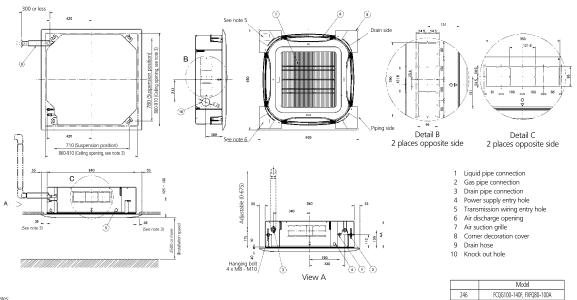


Required space In case a discharge opening is closed with the 'sealing member' option, the distance of 1500mm can be reduced to 500mm on the closed side.

#### **FXFQ20-63A WITH STANDARD PANEL**



#### **FXFQ80-125A WITH STANDARD PANEL**



6. li

- Notes:

  I. Location of the nameplates:

   Unit body, on the control look cover.

   Becoration panel: on the panel frame at the piping side under the comer cover.

  Decoration panel: on the panel frame at the piping side under the comer cover.

  Source of the panel: The best an impection part is necessary.

  Note such the passing between the ceiling and the castetie is no more than 35mm.

  MAX ceiling opening: 910mm.

  Note such the passing between the ceiling and the castetie is no more than 35mm.

  MAX ceiling opening: 910mm.

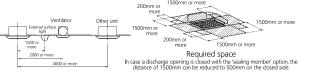
  Note such the passing between the ceiling and the castetie is no more than 35mm.

  MAX ceiling opening: 910mm.

  Source of using a sensor, the position will be a sensor, refer to the drawing of the sensor kit for more detail.

  Controller for more detail.

Please respect the distances as shown on figure.



1500mm or

288

FCQHG71-140F, FXFQ125A







# Fully Flat Cassette

Design & Genius in one



### Benefits for the installer

- > Unique product in the marke
- The user-friendly remote control, available in several languages, enables the easy set-up of sensor option and control of the individual flap position
- Meeting European design taste

## Benefits for the consultant

- > Unique product in the market
- Blends seamlessly in any modern office interior design
- Flexible usage of space thanks to individual flap control
- > Ideal product to improve BREEAM score/EPDB

## Benefits for the end

- Engineering excellence and unique design in one
- Most silent unit
- Perfect working conditions: no more cold draughts or cold feet
- Save up to 27% on your energy bill thanks to the optional sensors
- Flexible usage of space thanks to individua flap control
- > User-friendly remote control, available in several languages.

#### Unique design

- > Designed by German design office to fully meet the European taste.
- > Integrated Fully Flat into the ceiling.
- Fully integrated in the one ceiling tile, enabling lights, speakers and sprinklers to be installed in adjoining ceiling tiles.
- > Decoration panel available in 2 colours (white and white-silver).

#### Comfort through unique technology

#### Most silent cassette in the market (25dBA)

#### Presence sensor (optional)

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

#### Floor sensor (optional)

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

#### **Top efficiency**

- When the room is empty, the sensor option can adjust the set temperature or switch off the unit – saving up to 27% energy.
- Individual flap control: easily control one or more flaps via the wired remote controller (BRC1E52) when rearranging the room. When fully closing or blocking the flaps, the option "Sealing member of air discharge outlet" is needed.









### **Fully flat cassette**

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

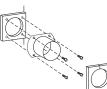
- > Remarkable blend of iconic design and engineering excellence
- > Two optional intelligent sensors improve energy efficiency and comfort
- > 15 class unit especially developed for small or well-insulated rooms, such as small offices.
- > Individual flap control. Flexibility to suit every room layout without changing the location of the unit!



- Reduced energy consumption thanks to specially developed small tube heat exchanger, DC fan motor and drain pump
   Fresh air intake integrated in the same system thus reducing
- installation cost as no additional ventilation is required Fresh air intake opening in casing Optional fresh air intake kit



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

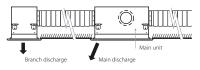


\* Allows larger quantities of fresh air to be

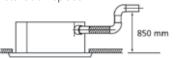
brought in



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

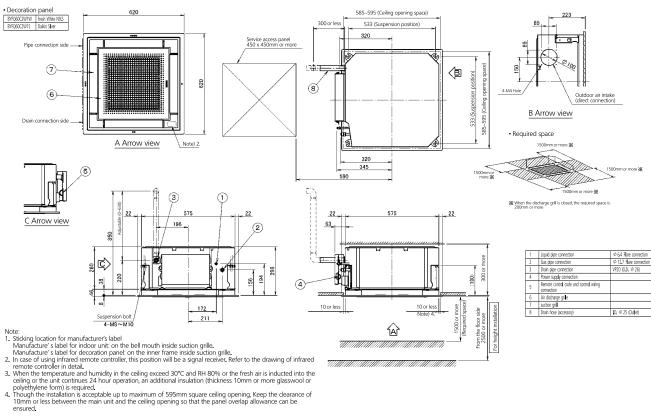


 Standard drain pump with 850mm lift increases flexibility and installation speed

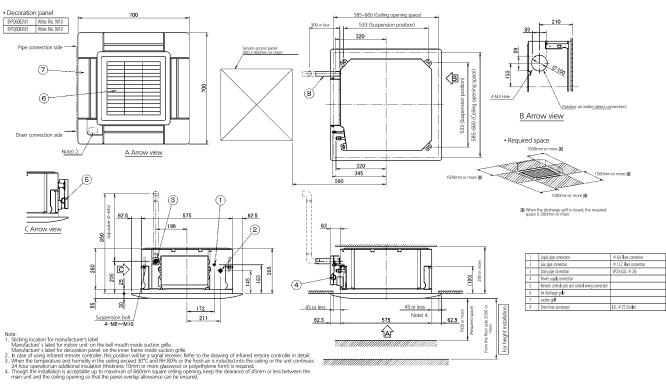


Indoor unit			FXZQ	15A	20A	25A	32A	40A	50A			
Cooling capacity	Nom.		kW	1.7	2.2	2.8	3.6	4.5	5.6			
Heating capacity	Nom.		kW	1.9	2.5	3.2	4.0	5.0	6.3			
Power input - 50Hz	Cooling	Nom.	kW		0.043		0.045	0.059	0.092			
	Heating	Nom.	kW		0.036		0.038	0.053	0.086			
Dimensions	Unit	Height	mm			2	60					
		Width	mm	575								
		Depth	mm	575								
Weight	Unit		kg	15.5 16.5 18.5								
Casing	Material					Galvanised	l steel plate					
Decoration panel	Model			BYFQ60CW								
	Colour			White (N9.5)								
	Dimensions	HeightxWidthxDepth	mm	46x620x620								
	Weight		kg			2	.8					
Decoration panel 2	Model			BYFQ60CS								
	Colour					White (NS	9.5) + Silver					
	Dimensions	HeightxWidthxDepth	mm			46x62	20x620					
	Weight		kg			2	.8					
	Model					BYFQ6	60B3W1					
	Colour			White (RAL9010)								
	Dimensions	HeightxWidthxDepth	mm	55x700x700								
	Weight		kg	2.7								
Fan-Air flow rate -	Cooling	High/Nom./Low	m³/min	8.5/7/6.5	8.7/7.5/6.5	9/8/6.5	10/8.5/7	11.5/9.5/8	14.5/12.5/10			
50Hz	Heating	High/Nom./Low	m³/min	8.5/7/6.5	8.7/7.5/6.5	9/8/6.5	10/8.5/7	11.5/9.5/8	14.5/12.5/10			
Air filter	Туре					Resin net with	mold resistance					
Sound power level	Cooling	High/Nom.	dBA	4	9/-	50/-	51/-	54/-	60/-			
Sound pressure level	Cooling	High/Nom./Low	dBA	31.5/28/25.5	32/29.5/25.5	33/30/25.5	33.5/30/26	37/32/28	43/40/33			
	Heating	High/Nom./Low	dBA	31.5/28/25.5	32/29.5/25.5	33/30/25.5	33.5/30/26	37/32/28	43/40/33			
Refrigerant	Type / GWP						/ 2.087,5					
Piping connections	Liquid	OD	mm				.35					
	Gas	OD	mm				2.7					
	Drain			VP20 (I.D. 20/O.D. 26)								
Power supply	Phase/Frequenc	y/Voltage	Hz/V	1~/50/220-240								
Current - 50Hz	Maximum fuse a		A				6					
Control systems	Infrared remote			BRC7F530W (white panel) / BRC7EB530 (standard panel) / BRC7F530S (grey panel)								
		note control for hotel applications										
	Wired remote co	ontrol				BRC1D52 /	BRC1E52A/B					

#### **FXZQ-A NEW PANEL**



**FXZQ-A OLD PANEL** 



4.

# 2-way blow ceiling mounted cassette

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

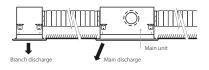
- > Depth of all units is 620mm, ideal for narrow corridors
- > Refurbishing the room ? With individual flap control, one or more flaps can be easily closed via the wired remote control
- Reduced energy consumption thanks to specially developed small tube heat exchanger, DC fan motor and drain pump
- > Fresh air intake integrated in the same systems thus reducing installation cost as no additional ventilation is required

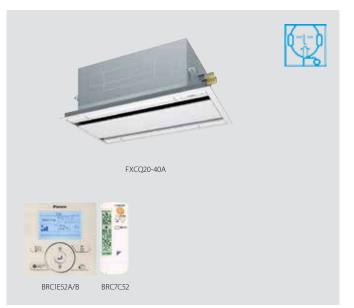
Fresh air intake opening in casing



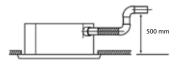
Brings in up to 10% of fresh air into the room

- Stylish unit blends easily with any interior. The flaps close entirely when the unit is not operating and there are no air intake grilles visible
- Optimum comfort guaranteed with automatic air flow adjustment to the required load
- Maintenance operations can be performed by removing the front panel
- Branch duct discharge allows to optimize air distribution in irregular shaped rooms or to supply air to small adjecent rooms



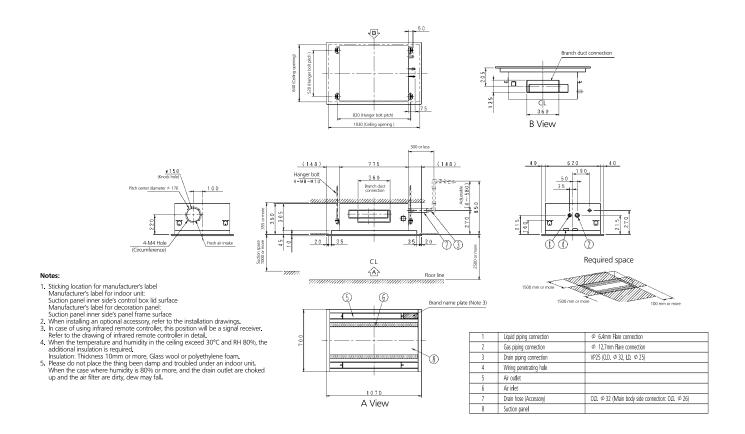


 Standard drain pump with 500mm lift increases flexibility and installation speed

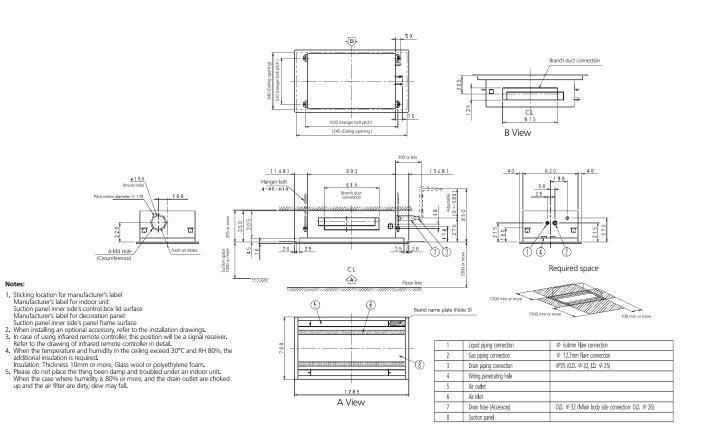


Indoor unit			FXCQ	20A	25A	32A	40A	50A	63A	80A	125A		
Cooling capacity	Nom.		kW	2.2	2.8	3.6	4.5	5.6	7.1	9.0	14.0		
Heating capacity	Nom.		kW	2.5	3.2	4.0	5.0	6.3	8.0	10.0	16.0		
Power input - 50Hz	Cooling	Nom.	kW	0.031	0.0	39	0.041	0.059	0.063	0.090	0.149		
	Heating	Nom.	kW	0.028	0.0	35	0.037	0.056	0.060	0.086	0.146		
Dimensions	Unit	Height	mm				30	05					
		Width	mm		77	'5		9	90	1,4	45		
		Depth	mm				62	20					
Weight	Unit		kg		1	9		22	25	33	38		
Casing	Material			Galvanised steel plate									
Decoration panel	Model				BYBCQ	40HW1		BYBCQ	63HW1	3HW1 BYBCQ125HW1			
	Colour						Fresh white	(6.5Y 9.5/0.5)	¥Y 9.5/0.5)				
	Dimensions	HeightxWidthxDepth	mm		55x1,0	70x700		55x1,2	85x700	55x1,74	40x700		
	Weight		kg	10				1	1	13			
Fan-Air flow rate - 50Hz	Cooling	High/Nom./Low	m³/min	10.5/9/7.5	11.5/	9.5/8	12/10.5/8.5	15/13/10.5	16/14/11.5	26/22.5/18.5	32/27.5/22.5		
Air filter	Туре						Resin net with I	mold resistance	2				
Sound power level	Cooling	Nom.	dBA				-	-					
Sound pressure level	Cooling	High/Nom./Low	dBA	32.0/30.0/28.0	34.0/31.0/29.0	34.0/32.0/30.0	36.0/33.0/31.0	37.0/35.0/31.0	39.0/37.0/32.0	42.0/38.0/33.0	46.0/42.0/38.0		
	Heating	High/Nom./Low	dBA	32.0/30.0/28.0	34.0/31.0/29.0	34.0/32.0/30.0	36.0/33.0/31.0	37.0/35.0/31.0	39.0/37.0/32.0	42.0/38.0/33.0	46.0/42.0/38.0		
Refrigerant	Type / GWP						R-410A	/ 2.087,5					
Piping connections	Liquid	OD	mm			6.35				9.52			
	Gas	OD	mm			12.7				15.9			
	Drain			VP25 (O.D. 32 / I.D. 25)									
Power supply	Phase/Frequenc	y/Voltage	Hz/V				1~/50/2	220-240					
Current - 50Hz	Maximum fuse a	imps (MFA)	A 16										
Control systems	Infrared remote	control		BRC7C52									
	Simplified wired rei	mote control for hotel applicatior	ıs	-									
	Wired remote co	ontrol				BRC1D52 / BRC1E52A/B							

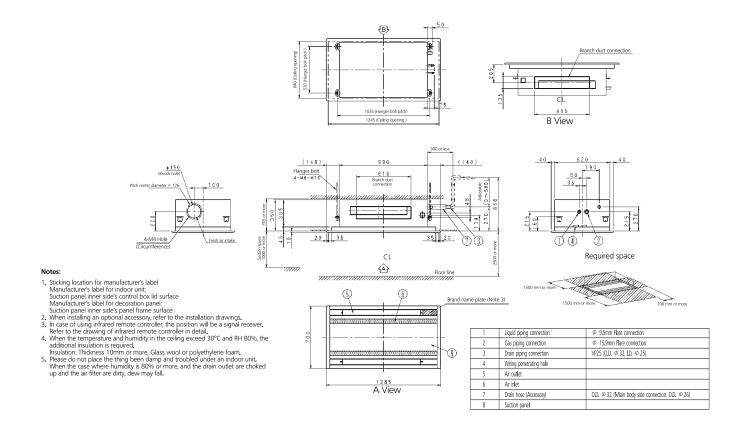
#### FXCQ20-40A



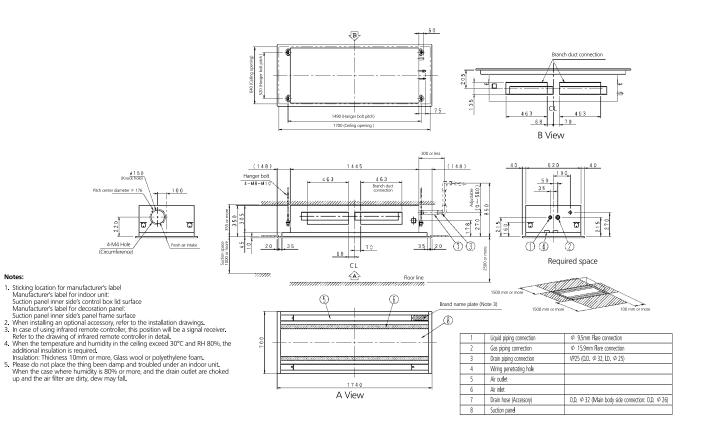
#### FXCQ50A



#### FXCQ63A



FXCQ80-125A

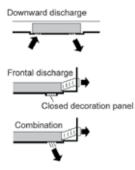


Indoor Units

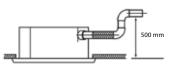
# Ceiling mounted corner cassette

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

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



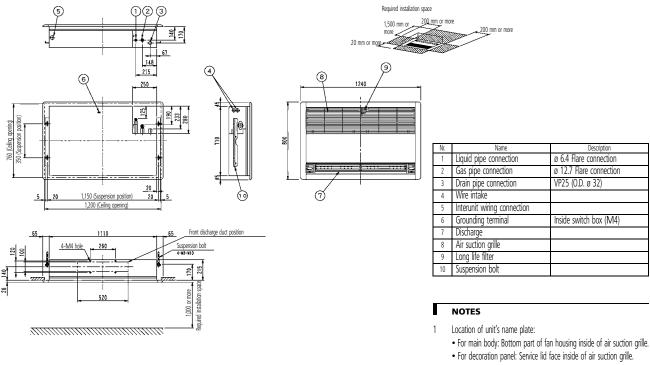
- Maintenance operations can be performed by removing the front panel
- Standard drain pump with 500mm lift increases flexibility and installation speed





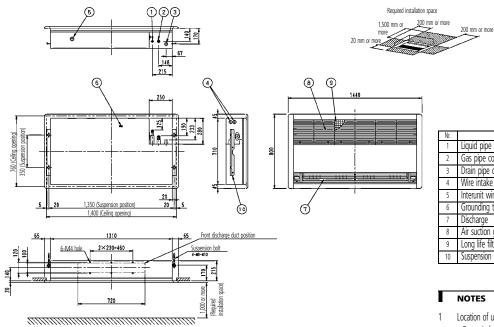
Indoor unit			FXKQ	25MA	32MA	40MA	63MA		
Cooling capacity	Nom.		kW	2.8	3.6	4.5	7.10		
Heating capacity	Nom.		kW	3.2	4.0	5.0	8.00		
Power input - 50Hz	Cooling	Nom.	kW	0.066 0.076			0.105		
	Heating	Nom.	kW	0.0	946	0.056	0.085		
Dimensions	Unit	Height	mm		2	215			
		Width	mm			1,310			
		Depth	mm		/10				
Weight	Unit		kg			34			
Casing	Material			Galvanised steel plate					
Decoration panel	Model				BYK71FJW1				
	Colour				W	'hite			
	Dimensions	HeightxWidthxDepth	mm		70x1,240x800		70x1,440x800		
	Weight		kg			9.5			
Fan-Air flow rate - 50Hz	Cooling	High/Low	m³/min	11	/9	13/10	18/15		
Air filter	Туре				Resin net with	mold resistance			
Sound power level	Cooling	Nom.	dBA			-			
Sound pressure level	Cooling	High/Low	dBA	38.0	/33.0	40.0/34.0	42.0/37.0		
Refrigerant	Type / GWP				R-410A	/ 2.087,5			
Piping connections	Liquid	OD	mm		6.35		9.52		
	Gas	OD	mm		12.7		15.9		
	Drain				VP25 (O.D	. 32 / I.D. 25)			
Power supply	Phase/Frequenc	y/Voltage	Hz/V	1~/50/60/220-240/220					
Current - 50Hz	Maximum fuse amps (MFA) A			15					
Control systems	Infrared remote	control		BRC4C61					
	Simplified wired re	mote control for hotel applicatio	ns	-					
	Wired remote co	ontrol			BRC1D52 /	BRC1E52A/B			

#### FXKQ25, 32, 40MA



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

#### FXKQ63MA



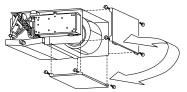
Nr.	Name	Description
1	Liquid pipe connection	ø 9.5 Flare connection
2	Gas pipe connection	ø 15.9 Flare connection
3	Drain pipe connection	VP25 (O.D. ø 32)
4	Wire intake	
5	Interunit wiring connection	
6	Grounding terminal	Inside switch box (M4)
7	Discharge	
8	Air suction grille	
9	Long life filter	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

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

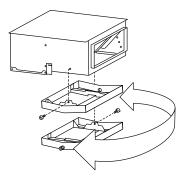
## Small concealed ceiling unit

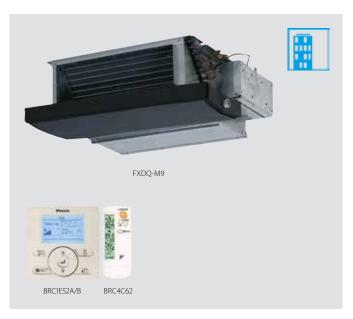
#### Designed for hotel applications

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



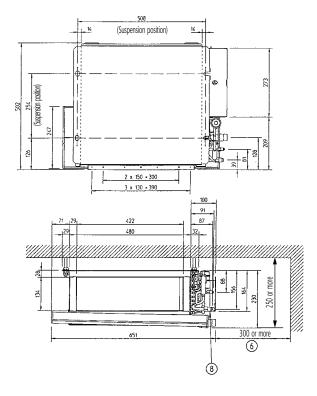
> For easy mounting, the drain pan can be located to the left or right of the unit



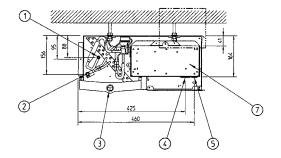


Indoor unit			FXDQ	20M9	25M9			
Cooling capacity	Nom.		kW	2.2	2.8			
Heating capacity	Nom.		kW	2.5	3.2			
Power input - 50Hz	Cooling	Nom.	kW	0.050				
	Heating	Nom.	kW	0.050				
Dimensions	Unit	Height	mm	230				
		Width	mm	502				
		Depth	mm	652				
Required ceiling void	>		mm	250				
Weight	Unit		kg	17				
Casing	Colour			Unpainte	d			
	Material			Galvanised s	teel			
50Hz H	Cooling	High/Low	m³/min	6.7/5.2	7.4/5.8			
	Heating	High/Low	m³/min	6.7/5.2	7.4/5.8			
Air filter	Туре			Resin net with mole	resistance			
Sound power level	Cooling	Nom.	dBA	50				
Sound pressure level	Cooling	High/Low	dBA	37/32				
	Heating	High/Low	dBA	37/32				
Refrigerant	Type / GWP			R-410A / 2.03	87,5			
Piping connections	Liquid	OD	mm	6.35				
	Gas	OD	mm	12.7				
	Drain			I.D. 21.6, O.D. 27.2				
Power supply	Phase/Frequer	ncy/Voltage	Hz/V	1~/50/230				
Current - 50Hz	Maximum fuse	e amps (MFA)	A	16				
Control systems	Infrared remote	e control		BRC4C62	2			
	Simplified wired	remote control for hotel a	oplications	BRC2E52C (heat recovery type) / BRC3E52C (heat pump type)				
	Wired remote of	control		BRC1D52 / BRC1E52A/B				

### FXDQ-M9



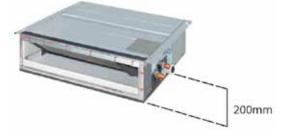
Nr	Part name
1	Liquid pipe connection (ø 6.35)
2	Gas pipe connection (ø 12.7)
3	Drain hole (o.d. ø 27.2 - i.d. ø 21.6)
4	Transmission wiring port
5	Power supply wiring port
6	Service space
7	Switch box
8	Nameplate



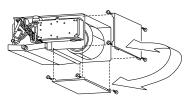
## Slim concealed ceiling unit

#### Slim design for flexible installation

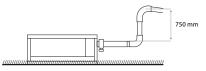
 Compact dimensions, can easily be mounted in a ceiling void of only 240mm

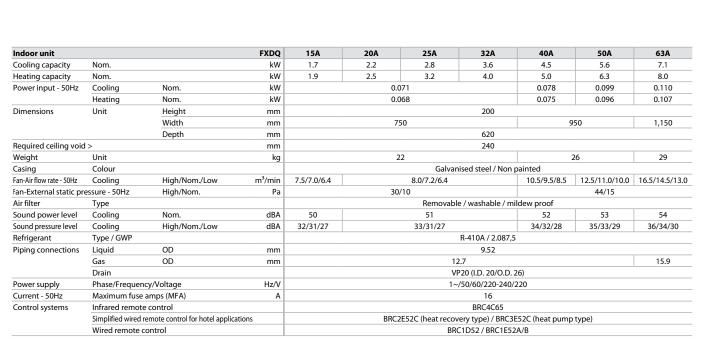


- Medium external static pressure up to 44Pa facilitates unit use with flexible ducts of varying lengths
- Discretely concealed in the ceiling: only the suction and discharge grilles are visible
- > 15 class unit especially developed for small or well-insulated rooms, such as hotel bedrooms, small offices, etc.
- Reduced energy consumption thanks to specially developed DC fan motor
- Flexible installation, as the air suction direction can be altered from rear to bottom suction



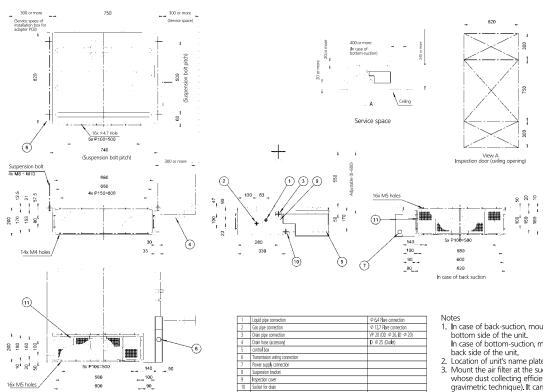
 Standard drain pump with 750mm lift increases flexibility and installation speed







#### **FXDQ15-32A**



Inspection cow

Air filter (ac

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

#### **FXDQ40-50A**

580

600

620

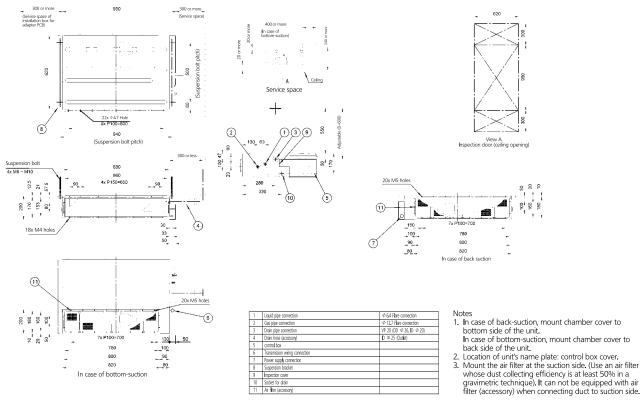
In case of bottom-suction

\_80\_

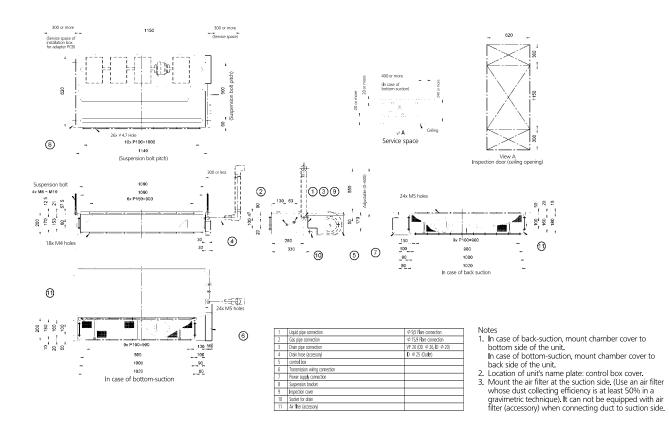
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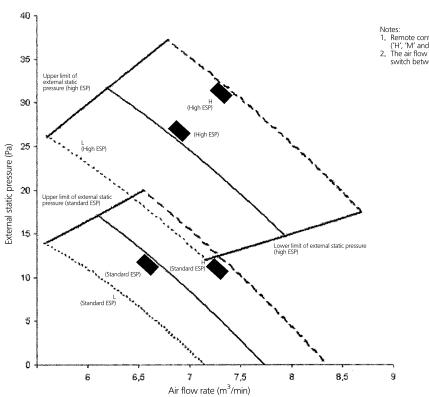
16x M5 holes



#### FXDQ63A

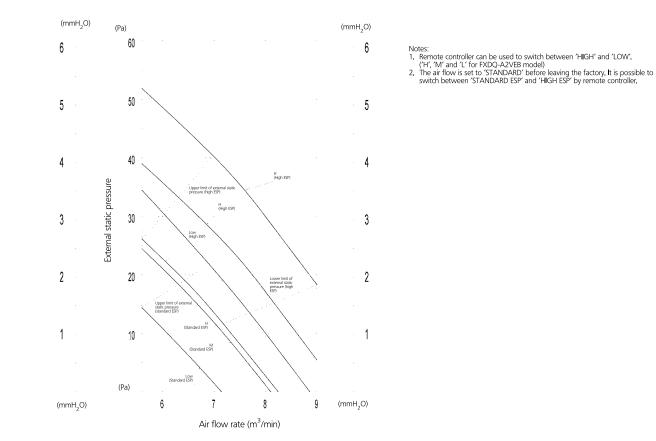


FXQQ15A

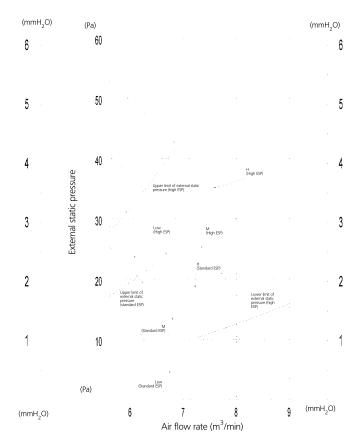


- Notes:
   Remote controller can be used to switch between 'HIGH' and 'LOW'. ('H', 'M' and 'L' for FXDQ-A2VEB model)
   The air flow is set to 'STANDARD' before leaving the factory. It is possible to switch between 'STANDARD ESP' and 'HIGH ESP' by remote controller.

#### FXDQ20-25A

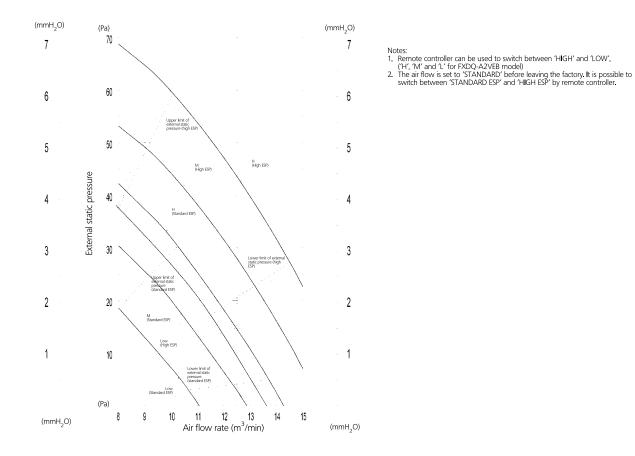


#### FXDQ40A

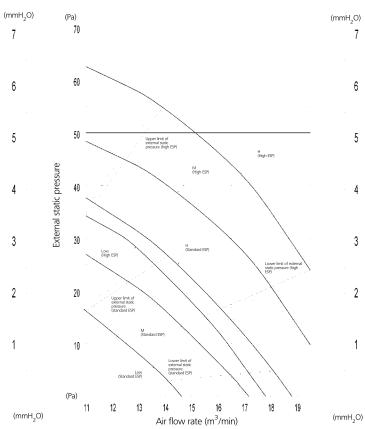


- Notes:
   Remote controller can be used to switch between 'HIGH' and 'LOW'. ('H', 'M' and 'L' for FXDQ-A2VEB model)
   The air flow is set to 'STANDARD' before leaving the factory. It is possible to switch between 'STANDARD ESP' and 'HIGH ESP' by remote controller.

#### FXDQ50A



#### FXDQ63A



### 7

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



### Concealed ceiling unit with medium ESP

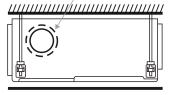
Slimmest yet most powerfull medium static pressure unit on the market

#### Unique features for FXSQ-A:

- > Slimmest unit in class, only 245mm (295mm built-in height)
- > Low operating sound level
- > Medium external static pressure up to 150Pa facilitates using flexible ducts of varying lengths
- > Automatic air flow adjustment function measures the air volume and static pressure and adjusts it towards the nominal air flow, whatever the length of duct, making installation easier and guaranteeing comfort. Moreover, the ESP can be changed via the wired remote control to optimize the supply air volume
- > Discretely concealed in the ceiling: only the suction and discharge grilles are visible
- > 15 class unit especially developed for small or well-insulated rooms, such as hotel bedrooms, small offices, etc.
- > Reduced energy consumption thanks to specially developed DC fan motor
- > Fresh air intake integrated in the same system thus reducing installation cost as no additional ventilation is required

Fresh air intake opening in casing

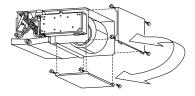
Fresh air intake position



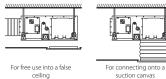
\* Brings in up to 10% of fresh air into the room



- > Flexible installation
- air suction direction can be altered from rear to bottom suction



- choice between free use or connection to optional suction grilles



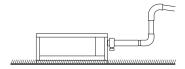


For free use into a false ceiling

For direct connection to Daikin panel (via EKBYBSD kit)

> Standard built-in drain pump increases flexibility and installation speed

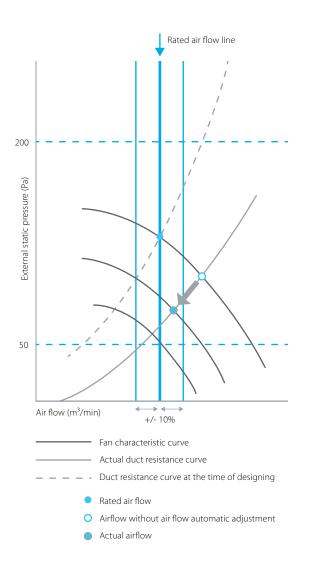
(not supplied by Daikin)





#### Automatic Airflow Adjustment function

- > Automatically selects the most appropriate fan curve to achieve the units' nominal air flow within  $\pm 10\%$
- > Why? After installation the real ducting will frequently differ from the initially calculated air flow resistance; the real air flow may be much lower or higher than nominal, leading to a lack of capacity or uncomfortable air temperature
- The automatic Airflow Adjustment function will adapt the unit's fan speed to any ducting automatically (10 or more fan curves are available on every model), making installation much faster



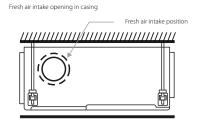
Indoor unit			FXSQ	15A	20A	25A	32A	40A	50A	63A	80A	100A	125A	140A
Cooling capacity	Nom.		kW	1.7	2.2	2.8	3.6	4.5	5.6	7.1	9.0	11.2	14.0	16.0
Heating capacity	Nom.		kW	1.9	2.5	3.2	4.0	5.0	6.3	8.0	10.0	10.0	26.0	18.0
Power input - 50Hz	Cooling	Nom.	kW		41		45	92	95	95	121	157	214	-
	Heating	Nom.	kW		38		42	89	92	92	118	154	211	-
Dimensions	Unit	Height	mm		2	45		24	45	2	45	2	45	245
		Width	mm		5	50		7	00	10	000	14	100	1550
		Depth	mm		8	00		8	00	8	00	8	00	800
Required ceiling void	>		mm						295					
Weight	Unit		kg		23,5		24	28,5	29	35,5	36,5	46	47	51
Casing	Colour								Not painte	ł				
	Material							Galva	nised stee	plate				
Decoration panel	Model													
	Colour													
	Dimensions	HeightxWidthxDepth	mm											
	Weight		kg											
Fan-Air flow rate -	Cooling	High/Nom./Low	m³/min	8.7/7.5/65	9/7	5/6.5	9.5/8/7	15/12.5/11	152/125/11	21/18/15	23/19.5/16	32/27/23	36/31.5/26	-
50Hz	Heating	High/Nom./Low	m³/min	8.7/7.5/6.5	9/7	5/6.5	9.5/8/7	15/12.5/11	15:2/12:5/11	21/18/15	23/19.5/16	32/27/23	36/31.5/26	-
Fan-External static pressure - 50Hz	High/Nom.		Pa					1.	50					-
Air filter	Туре							Resin net	with mold	resistance				
Sound power level	Cooling	High/Nom.	dBA		54		55	6	0	59	61	61	64	-
Sound pressure level	Cooling	High/Nom./Low	dBA	29.5/28/25	30/	28/25	31/29/26	35/3	2/29	33/30/27	35/32/29	36/34/31	39/36/33	-
	Heating	High/Nom./Low	dBA	31.5/29/26	32/	29/26	33/30/27	37/3	4/29	35/32/28	37/34/30	37/34/31	40/37/33	-
Refrigerant	Type / GWP							R	410A / 2078	3,5				
Piping connections	Liquid	OD	mm			Ø 6.35	(FLARE)				Ø	9.52 (FLAF	RE)	
	Gas	OD	mm			Ø 12.7	(FLARE)				Ø	15.9 (FLAF	RE)	
	Drain					VP2	) (EXTERNA	L DIA. 26. IN	ITERNAL DI	A. 20), drai	n height 62	5 mm		
Power supply	Phase/Frequenc	y/Voltage	Hz/V					50	Hz 220-24	0V				
Current - 50Hz	Maximum fuse a	mps (MFA)	A					1	6					-
Control systems	Infrared remote	control							BRC4C65					
	Simplified wired rem	note control for hotel applications				BI	RC2E52C (he	eat recovery	v type) / BR	C3E52C (he	at pump ty	pe)		
	Wired remote co	ontrol						BRC1E	052 / BRC11	52A/B				

# Concealed ceiling unit with high ESP

#### Ideal for large sized spaces

#### FXMQ-P: ESP up to 200

- > Automatic air flow adjustment function measures the air volume and static pressure and adjusts it towards the nominal air flow, whatever the length of duct, making installation easier and guaranteeing comfort. Moreover, the ESP can be changed via the wired remote control to optimize the supply air volume
- High external static pressure up to 200Pa facilitates extensive duct & grille network.
- Discretely concealed in the ceiling: only the suction and discharge grilles are visible
- Reduced energy consumption thanks to specially developed DC fan motor
- Fresh air intake integrated in the same system thus reducing installation cost as no additional ventilation is required





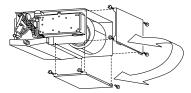
BRC1E52A/B BRC4C65

#### FXMQ-MA9: ESP up to 270

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

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

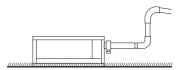
- > Flexible installation
- air suction direction can be altered from rear to bottom suction



- choice between free use or connection to optional suction grilles



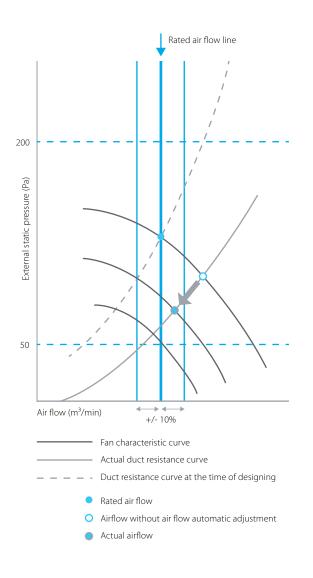
 Standard built-in drain pump increases flexibility and installation speed





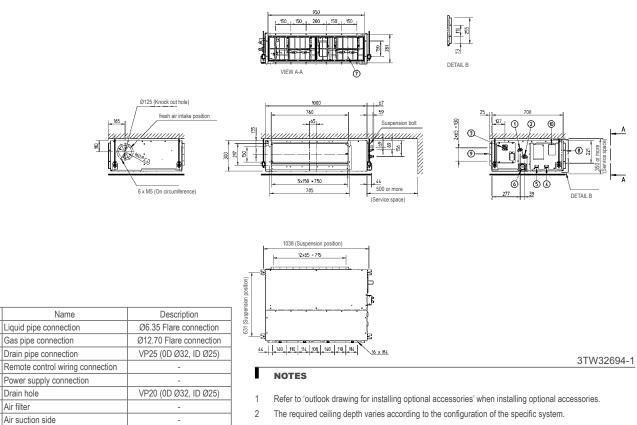
#### Automatic Airflow Adjustment function

- > Automatically selects the most appropriate fan curve to achieve the units' nominal air flow within  $\pm 10\%$
- > Why? After installation the real ducting will frequently differ from the initially calculated air flow resistance; the real air flow may be much lower or higher than nominal, leading to a lack of capacity or uncomfortable air temperature
- The automatic Airflow Adjustment function will adapt the unit's fan speed to any ducting automatically (10 or more fan curves are available on every model), making installation much faster



Indoor unit		FXMQ-P7/F	(MQ-MA9	50P7	63P7	80P7	100P7	125P7	200MA9	250MA9	
Cooling capacity	Nom.		kW	5.6	7.1	9.0	11.2	14.0	22.4	28.0	
Heating capacity	Nom.		kW	6.3	8.0	10.0	12.5	16.0	25.0	31.5	
Power input - 50Hz	Cooling	Nom.	kW	0.110	0.120	0.171	0.176	0.241	1.294	1.465	
	Heating	Nom.	kW	0.098	0.108	0.159	0.164	0.229	1.294	1.465	
Dimensions	Unit	Height	mm		300			47	70		
		Width	mm		1,000		1,4	100	1,380		
		Depth	mm	700				1,1	00		
Required ceiling void	>		mm			350			-		
Weight	Unit		kg		35		4	6	13	37	
Casing	Colour				Unpainted			-			
	Material				Ga	alvanised steel pl	ate				
Decoration panel	Model			BYBS71DJW1 BYBS125DJW1					-		
	Colour					White (10Y9/0.5)			-		
	Dimensions	HeightxWidthxDepth	mm		55x1,100x500		55x1,5	00x500	-X-	-x-	
	Weight		kg	4.5			6	.5			
Fan-Air flow rate -	Cooling	High/Nom./Low	m³/min	18/16.5/15	19.5/17.8/16	25/22.5/20	32/27.5/23	39/33.5/28	58/-/50	72/-/62	
50Hz	Heating	High/Nom./Low	m³/min	18/16.5/15	19.5/17.8/16	25/22.5/20	32/27.5/23	39/33.5/28	-/-	-/-	
Fan-External static pressure - 50Hz	High/Nom.		Pa			200/100			221/132	270/191	
Air filter	Туре				Resin ı	net with mold res	istance		-	-	
Sound power level	Cooling	High/Nom.	dBA	61/-	64/-	67/-	65/-	70/-	-,	-	
Sound pressure level	Cooling	High/Nom./Low	dBA	41/39/37	42/40/38	43/4	1/39	44/42/40	48/-	/45	
	Heating	High/Nom./Low	dBA	41/39/37	42/40/38	43/4	1/39	44/42/40	-/-	/-	
Refrigerant	Type / GWP						R-410A / 2.087,5				
Piping connections	Liquid	OD	mm	6.35			9.	52			
	Gas	OD	mm	12.7		1:	5.9		19.1	22.2	
	Drain				V		PS	1B			
Power supply	Phase/Frequenc	y/Voltage	Hz/V			1~	/50/60/220-240/2	220			
Current - 50Hz	Maximum fuse a	imps (MFA)	A	A 16				1	5		
Control systems	Infrared remote	control		BRC4C65							
	Simplified wired rem	note control for hotel applications			BRC	2E52C (heat recov	very type) / BRC3E	52C (heat pump	type)		
	Wired remote co	ontrol				BR	C1D52 / BRC1E52	A/B			

#### FXMQ50P7



3 For maintenance of the air filter, it is necessary to provide a service access panel. Refer to the 'filter installation method' drawing.

#### FXMQ63-80P7

Drain hole

Nameplate

Air discharge side

Air filter

Item

1

2

3

4

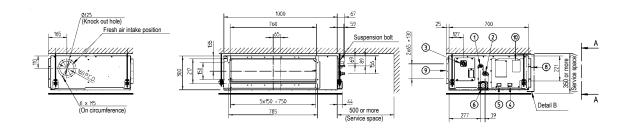
5 6

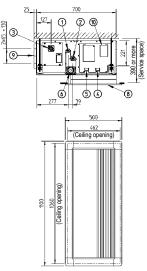
7

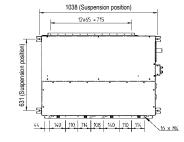
8

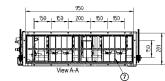
9

10









			255
Item	Name	Description	
1	Liquid pipe connection	ø 9.52 Flare connection	Detail B
2	Gas pipe connection	ø 15.90 Flare connection	
3	Drain pipe connection	VP25 (OD ø 32, ID ø 25)	
4	Remote control wiring connection	-	
5	Power supply connection	-	
6	Drain hole	VP25 (OD ø 32, ID ø 25)	
7	Air filter	-	
8	Air suction side	-	
9	Air discharge side	-	
10	Nameplate	-	

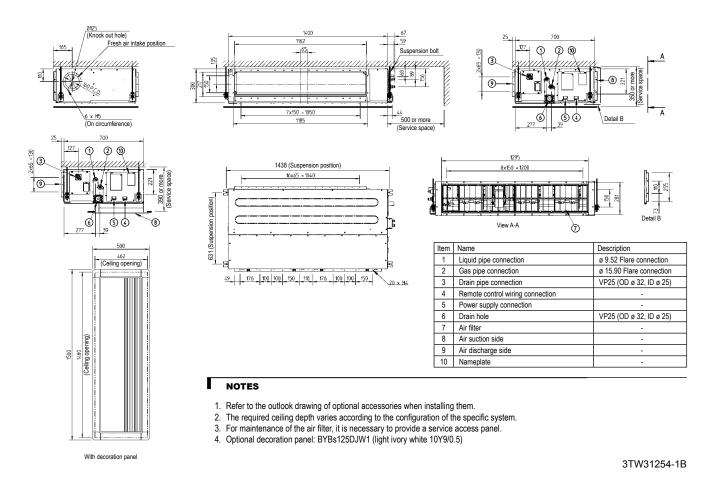
#### NOTES

- 1. Refer to the outlook drawing of optional accessories when installing them. 2. The required ceiling depth varies according to the configuration of the specific
- system. 3. For maintenance of the air filter, it is necessary to provide a service access
- panel.

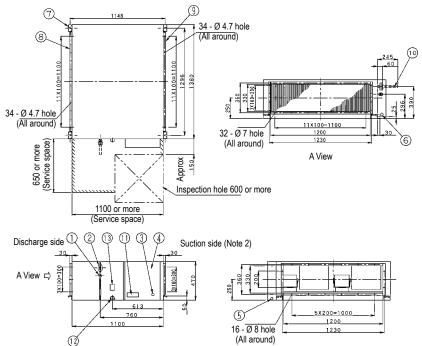
4. Optional decoration panel: BYBS71DJW1 (light ivory white 10Y9/0.5)

With decoration panel

#### FXMQ100-125P7



#### FXMQ200-250MA9



#### Piping size (field supply)

	Indoor unit	Gas side	Liquid side		
0	FXMQ200MA9	Ø 19.1 attached piping	Ø 9.5		
	FXMQ250MA9	Ø 22.2 attached piping	Ø 9.5		

No.	Name	Description
1	Liquid pipe connection	Flare connection
2	Gas pipe connection	Attendant piping connection
3	Ground terminal	M5 (Inside switch box)
4	Switch box	
5	Power supply wiring connection	
6	Transmission wiring connection	
7	Hook	M10
8	Discharge companion flange	
9	Suction flange	
10	Attached piping	Brazing
11	Name plate	
12	Drain piping connection	PS1B Internal thread Major dia. Ø33.349 Minor dia. Ø30.391
13	Water supply port	

#### NOTES

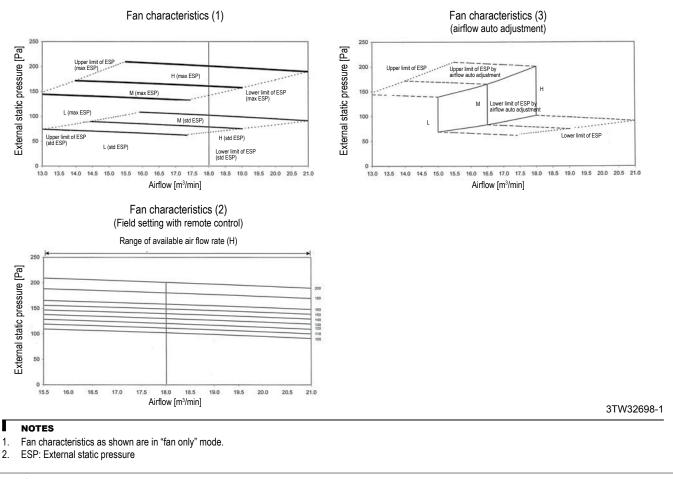
1. Location of unit's Name Plates: Switch box surface.

131

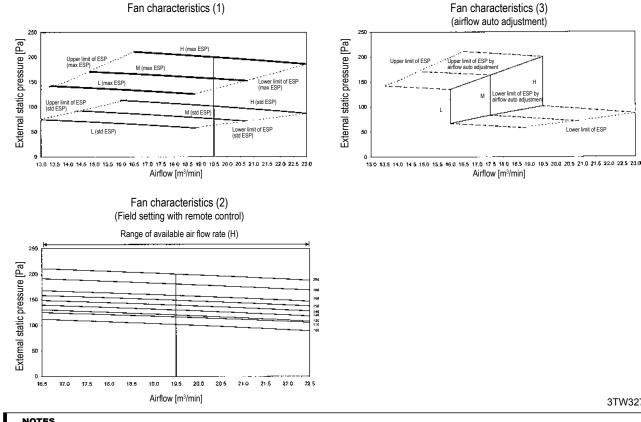
Indoor Units

<sup>2.</sup> Mount the air filter at the suction side. Select its colorimethod (gravity method) 50% or more.

#### FXMQ50P7



#### FXMQ63P7



#### 3TW32708-1

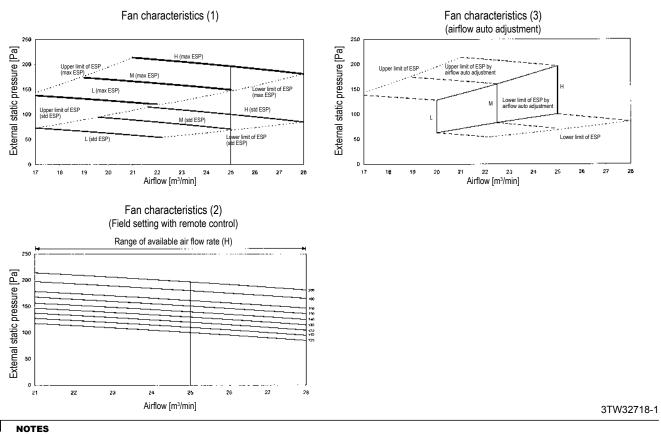
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Lower limit of ESP

#### NOTES

- Fan characteristics as shown are in "fan only" mode. 1.
- 2. ESP: External static pressure

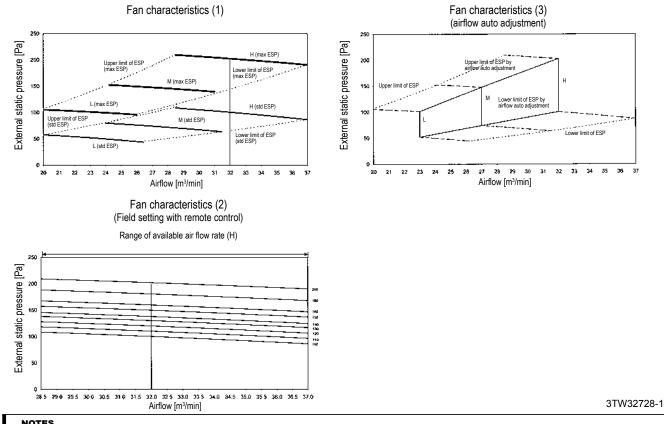
#### FXMQ80P7



Fan characteristics as shown are in "fan only" mode. 1.

2. ESP: External static pressure

#### **FXMQ100P7**

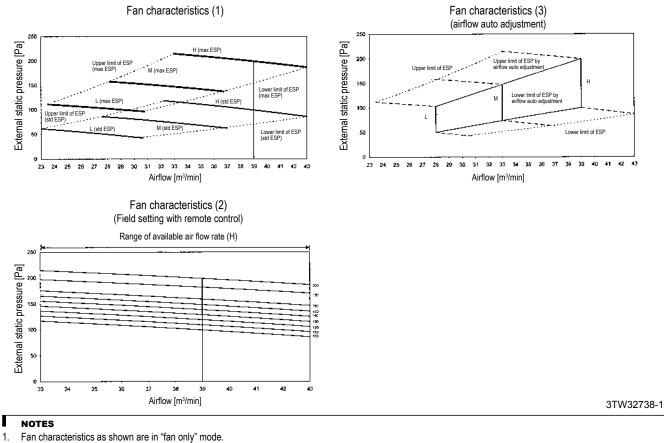


#### NOTES

2. ESP: External static pressure. Indoor Units

Fan characteristics as shown are in "fan only" mode. 1.

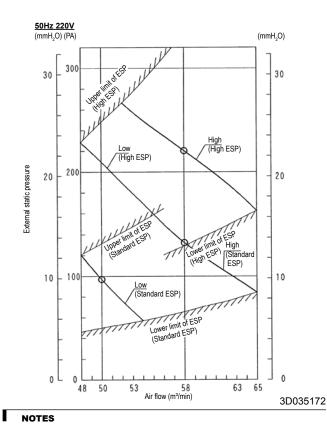
#### FXMQ125P7



1.

2. ESP: External static pressure

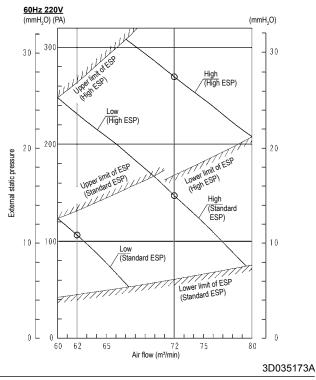
#### FXMQ200MA



1. The remote control can be used to switch between "high" and "low".

2. The air flow is set to "standard" before leaving the factory. It is possible to switch between "standard ESP" and "high ESP" by changing the switch in the indoor unit electrical box.

#### FXMQ250MA



Г NOTES

- The remote control can be used to switch between "high" and "low".
   The air flow is set to "standard" before leaving the factory. It is possible to switch between "standard ESP" and "high ESP" by changing the switch in the indoor unit electrical box.

## Concealed ceiling unit

### For the highest energy efficiency

- Automatic air flow adjustment function measures the air volume and static pressure and adjusts it towards the nominal air flow, whatever the length of duct, making installation easier and guaranteeing comfort. Moreover, the ESP can be changed via the wired remote control to optimize the supply air volume (for 50 and 63 class)
- Narrow ceilings voids are no longer a challenge, 50 & 60 class units can swiftly be integrated as they only are 245mm in height.
- > High external static pressure up to 270Pa facilitates using flexible ducts of varying lengths
- > Discretely concealed in the ceiling: only the suction and discharge grilles are visible



Indoor unit			FXTQ	50A	63A	80A	100A		
Cooling capacity	Nom.		kW	5.6	7.1	8.7	11.2		
Heating capacity	Nom.		kW	6.3	8.0	10.0	12.5		
Power input - 50Hz	Cooling	Nom.	kW	0.214	0.243	1.294	1.465		
	Heating	Nom.	kW	0.211	0.240	1.294	1.465		
Dimensions	Unit	Height	mm	245		4	70		
		Width	mm	1,400	1,550	1,3	80		
	Depth mm		mm	8	00	1,1	00		
Weight	Unit		kg	47	51	1:	37		
Casing	Material			Galvanised steel plate					
Fan-Air flow rate - 50Hz	Cooling	High/Low	m³/min	36/26	39/28	58/50	72/62		
Fan-External static pressure - 50Hz	High/Nom.		Pa	150/50	140/50	221/132	270/191		
Sound power level	Cooling	Nom.	dBA						
Sound pressure level	Cooling	High/Low	dBA	39/33	42/34	48	/45		
Refrigerant	Туре				R-4	10A			
Piping connections	Liquid	OD	mm		9.	52			
	Gas	OD	mm	1	5.9	19.1	22.2		
	Drain			V	P20	PS	1B		
Power supply	Phase/Frequen	cy/Voltage	Hz/V		1~/50/60/2	20-240/220			
Current - 50Hz	Maximum fuse	amps (MFA)	A	16 15			5		
Control systems	Infrared remote control			BRC4C65					
	Simplified wired rer	note control for hotel applic	ations	BRC2E52C (heat recovery) / BRC3E52C (heat pump)					
	Wired remote c	ontrol			BRC1D52 / B	BRC1E52A/B			

Only connectable to REYQ8-16T, RYYQ8-16T, RXYQ8-16T(9)

## Wall mounted unit

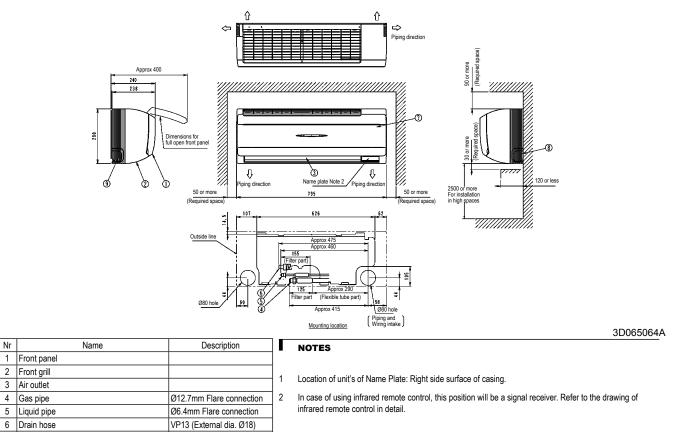
#### For rooms with no false ceilings nor free floor space

- Flat front panel blends easily within any interior décor and is more easy to clean
- > Can easily be installed in both new and refurbishment projects
- > 15 class unit especially developed for small or well-insulated rooms, such as hotel bedrooms, small offices, etc.
- Reduced energy consumption thanks to specially developed DC fan motor
- The air is comfortably spread up and downwards thanks to 5 different discharge angles that can be programmed via the remote control
- > Maintenance operations can be performed from the front of the unit



Indoor unit			FXAQ	15P	20P	25P	32P	40P	50P	63P
Cooling capacity	Nom.		kW	1.7	2.2	2.8	3.6	4.5	5.6	7.1
Heating capacity	Nom.		kW	1.9	2.5	3.2	4.0	5.0	6.3	8.0
Power input - 50Hz	Cooling	Nom.	kW	0.017	0.019	0.028	0.030	0.020	0.033	0.050
	Heating	Nom.	kW	0.025	0.029	0.034	0.035	0.020	0.039	0.060
Dimensions	Unit	Height	mm				290			
		Width	mm		7	95			1,050	
		Depth	mm	238						
Weight	Unit		kg	11 14						
Casing	Colour					V	Vhite (3.0Y8.5/0.5	5)		
Fan-Air flow rate - 50Hz	Cooling	High/Low	m³/min	7.0/4.5	7.5/4.5	8/5	8.5/5.5	12/9	15/12	19/14
Air filter	Туре		Washable resin net							
Sound power level	Cooling	Nom.	dBA				-			
Sound pressure level	Cooling	High/Low	dBA	34.0/29.0	35.0/29.0	36.0/29.0	37.5/29.0	39.0/34.0	42.0/36.0	47.0/39.0
Refrigerant	Type / GWP						R-410A / 2.087,5			
Piping connections	Liquid	OD	mm	n 6.35 9.						9.52
	Gas	OD	mm	m 12.7 15.9						15.9
	Drain			VP13 (I.D. 13/O.D. 18)						
Power supply	Phase/Frequenc	y/Voltage	Hz/V				1~/50/220-240			
Current - 50Hz	Maximum fuse a	mps (MFA)	A	16						
Control systems	Infrared remote control			BRC7EB518						
	Simplified wired remote control for hotel applications						-			
	Wired remote co	ontrol		BRC1E52A/B / BRC1D52						

#### FXAQ15-32P



#### FXAQ40-50P

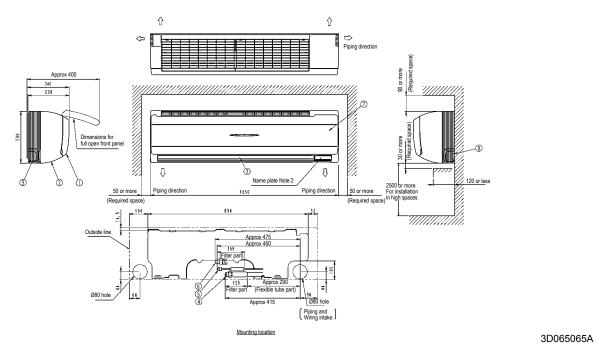
Grounding terminal

8 Right side pipe connection hole 9 Left side pipe connection hole

M4

Nr

7



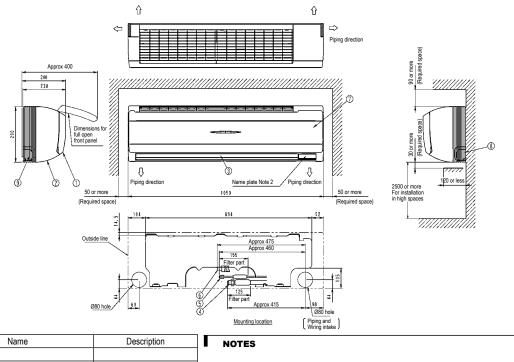
Nr	Name	Description	
1	Front panel		]
2	Front grill		]_
3	Air outlet		1'
4	Gas pipe	Ø12.7mm Flare connection	2
5	Liquid pipe	Ø6.4mm Flare connection	1
6	Drain hose	VP13 (External dia. Ø18)	]
7	Grounding terminal	M4	1
8	Right side pipe connection hole		]
9	Left side pipe connection hole		1

### NOTES

Location of unit's of Name Plate: Right side surface of casing.

In case of using infrared remote control, this position will be a signal receiver. Refer to the drawing of infrared remote control in detail.

#### FXAQ63P



Nr	Name	Description	
1	Front panel		
2	Front grill		] _
3	Air outlet		1'
4	Gas pipe	Ø15.9mm Flare connection	2
5	Liquid pipe	Ø9.5mm Flare connection	]
6	Drain hose	VP13 (External dia. Ø18)	]
7	Grounding terminal	M4	]
8	Right side pipe connection hole		
9	Left side pipe connection hole		1

Location of unit's of Name Plate: Right side surface of casing.

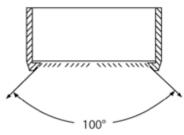
In case of using infrared remote control, this position will be a signal receiver. Refer to the drawing of infrared remote control in detail.

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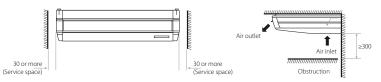
## Ceiling suspended unit

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

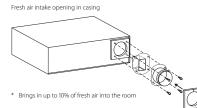
> Ideal for comfortable air flow in wide rooms thanks to Coanda effect: up to 100° discharge angle



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



 Fresh air intake integrated in the same systems thus reducing installation cost as no additional ventilation is required

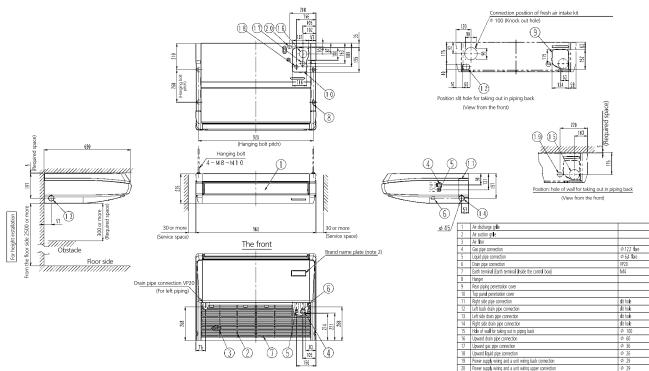


- Reduced energy consumption thanks to specially developed DC fan motor and drain pump
- > Stylish unit blends easily with any interior. The flaps close entirely when the unit is not operating

Indoor unit			FXHQ	32A	63A	100A		
Cooling capacity	Nom.		kW	3.6	7.1	11.2		
Heating capacity	Nom.		kW	4.0	8.0	12.5		
Power input - 50Hz	Cooling	ling Nom.		0.107	0.111	0.237		
	Heating	Nom.	kW	0.107	0.111	0.237		
Dimensions	Unit	Height	mm		235			
		Width	mm	960	1,270	1,590		
		Depth	mm	690				
Weight	Unit		kg	24	33	39		
Casing	Colour			Fresh White				
	Material			Resin				
Fan-Air flow rate -	Cooling	High/Nom./Low	m³/min	14.0/12.0/10.0	20.0/17.0/14.0	29.5/24.0/19.0		
50Hz	Heating	High/Nom./Low	m³/min	14.0/12.0/10.0	20.0/17.0/14.0	29.5/24.0/19.0		
Air filter	Туре			Resin net with mold resistance				
Sound power level	Cooling	Nom.	dBA		-			
Sound pressure level	Cooling	High/Nom./Low	dBA	36.0/34.0/31.0	37.0/35.0/34.0	44.0/37.0/34.0		
	Heating	High/Nom./Low	dBA	36.0/34.0/31.0	37.0/35.0/34.0	44.0/37.0/34.0		
Refrigerant	Type / GWP				R-410A / 2.087,5			
Piping connections	Liquid	OD	mm	6.35	9.52			
	Gas	OD	mm	12.7 15.9		9		
	Drain			VP20 (I.D. 20/O.D. 26)				
Power supply	Phase/Frequence	cy/Voltage	Hz/V	1~/50/220-240				
Current - 50Hz	Maximum fuse a	amps (MFA)	A	16				
Control systems	Infrared remote control			BRC7G53				
	Simplified wired re	emote control for hotel applic	ations		-			
	Wired remote co	ontrol		BRC1E52A/B / BRC1D52				

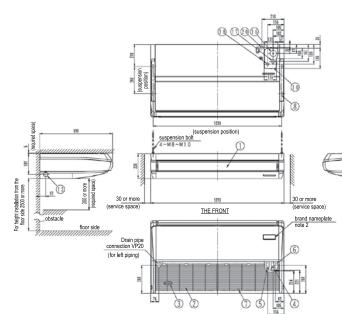


#### FXHQ32A

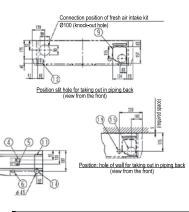


Note:
1. Location of unit's name plate: bottom of fan housing inside the suction grille.
2. In case of using infrared remote controller, this position will be a signal receiver. Refer to the drawing of infrared remote controller in detail.
3. Please do not place the thing been damp and troubled under an indoor unit. When the case where humidity is 80% or more, and the drain outlet are choked up and the air filter are dirty, dew may fall

#### FXHQ63A



Nr	Name	Description					
1	Air discharge grille						
2	Air suction grille						
3	Air filter						
4	Gas pipe connection	Ø15.9 flare					
5	Liquid pipe connection	Ø9.5 flare					
6	Drain pipe connection	VP20					
7	Earth terminal (inside electric components box)	M4					
8	Hanger bracket						
9	Backward piping and wiring connection opening lid						
10	Upward piping and wiring connection opening lid						



#### I NOTES

- 1 Location of unit's of name plate: bottom of fan housing inside the suction grille.
- 2 In case of using infrared remote control, this position will be a signal receiver. Refer to the drawing of infrared remote control in detail.
- Please do not place the thing been damp and troubled under an 3 indoor unit. When the case where humidity is 80% or more, the drain outlet are choked up and the air filter are dirty, dew may fall.

11	Right side pipe connection	slit hole
12	Left back drain pipe connection	slit hole
13	Left side drain pipe connection	slit hole
14	Right side drain pipe connection	slit hole
15	Hole of wall for taking out in piping back	Ø100
16	Upward drain pipe connection	Ø60
17	Upward gas pipe connection	Ø36
18	Upward liquid pipe connection	Ø26
19	Power source wiring and a unit wiring back connection	Ø29
20	Power source wiring and a unit wiring upper connection	Ø29

3D069632A

## 4-way blow ceiling suspended unit

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

- > Even rooms with ceilings up to 3.5m can be heated up or cooled down very easily without capacity loss
- > Can easily be installed in both new and refurbishment projects
- > Refurbishing the room ? With individual flap control, one or more flaps can be easily closed via the wired remote control

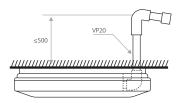




- Reduced energy consumption thanks to specially developed small tube heat exchanger, DC fan motor and drain pump
- > Stylish unit blends easily with any interior. The flaps close entirely when the unit is not operating
- > Optimum comfort guaranteed with automatic air flow adjustment to the required load
- > 5 different discharge angles between 0 and 60°can be programmed via the remote control

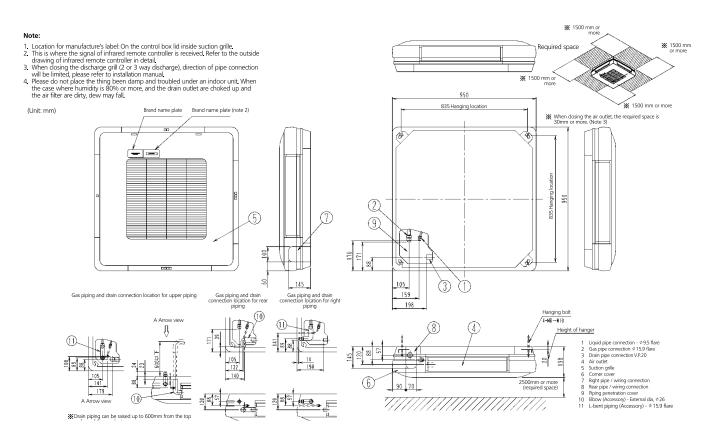
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 Standard drain pump with 500mm lift increases flexibility and installation speed



Indoor unit			FXUQ	71A	100A			
Cooling capacity	Nom.		kW	8.0	11.2			
Heating capacity	Nom.		kW	9.0	12.5			
Power input - 50Hz	Cooling Nom.		kW	0.090	0.200			
	Heating	Nom.	kW	0.073	0.179			
Dimensions	Unit Height mm			19	8			
		Width	mm	950				
		Depth	mm	950				
Weight	Unit		kg	26	27			
Casing	Colour			Fresh	White			
	Material			Resin				
Fan-Air flow rate -	Cooling	High/Nom./Low	m³/min	22.5/19.5/16.0	31.0/26.0/21.0			
50Hz	Heating	High/Nom./Low	m³/min	22.5/19.5/16.0	31.0/26.0/21.0			
Air filter	Туре			Resin net with mold resistance				
Sound power level	Cooling	Nom.	dBA	-				
Sound pressure level	Cooling	High/Nom./Low	dBA	40.0/38.0/36.0	47.0/44.0/40.0			
	Heating	High/Nom./Low	dBA	40.0/38.0/36.0	47.0/44.0/40.0			
Refrigerant	Type / GWP			R-410A / 2.087,5				
Piping connections	Liquid	OD	mm	9.52				
	Gas	OD	mm	15.9				
	Drain			I.D. 20/O.D. 26				
Power supply	Phase/Frequen	cy/Voltage	Hz/V	1~/50/60/220	-240/220-230			
Current - 50Hz	Maximum fuse amps (MFA) A			16				
Control systems	Infrared remote	control		BRC7C58				
	Simplified wired re	mote control for hotel applicatio	ns	-				
	Wired remote c	ontrol		BRC1E52A/E	/ BRC1D52			

#### FXUQ-A



## Concealed floor standing unit

#### Designed to be concealed in walls

- > High ESP allows flexible installation
- > Its low height enables the unit to fit perfectly beneath a window
- Blends unobtrusively with any interior décor: only the suction and discharge grilles are visible



> Requires very little installation space as the depth is only 200mm



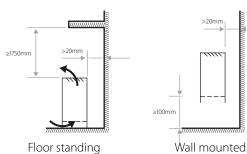
Indoor unit			FXNQ	20A	25A	32A	40A	50A	63A
Cooling capacity	Nom.		kW	2.2	2.8	3.6	4.5	5.6	7.1
Heating capacity	Nom.		kW	2.5 3.2 4.0		4.0	5.0	6.3	8.0
Power input - 50Hz	Cooling	ng Nom. kW			0.071		0.078	0.099	0.110
	Heating	Nom.	kW		0.068		0.075	0.096	0.107
Dimensions	Unit	Height	mm			720/	520 (1)		
		Width	mm		750		9	50	1,150
		Depth	mm	200					
Weight	Unit		kg		22		2	26	29
Casing	Color					Unpa	inted		
	Material			Galvanised steel plate					
Fan-Air flow rate - 50Hz	Cooling	High/Nom./Low	m³/min		8.0/7.2/6.4		10.5/9.5/8.5	12.5/11/10.0	16.5/14.5/13.0
Fan-External static pressure - 50Hz	High/Nom.		Pa	41	/10	42/10	52/15	59/15	55/15
Air filter				Resin net with mold resistance					
Sound power level	Cooling	Nom.	dBA		51		52	53	54
Sound pressure level	Cooling	High/Nom./Low	dBA		30/28.5/27		32/30/28	33/31/29	35/33/32
Refrigerant	Type / GWP					R-410A	/ 2.087,5		
Piping connections	Liquid	OD	mm	6.35					9.52
	Gas	OD	mm	12.7					15.9
	Drain			VP20 (I.D. 20/O.D. 26)					
Power supply	Phase/Frequence	y/Voltage	Hz/V	1~/50/60/220-240/220					
Current - 50Hz	Maximum fuse a	mps (MFA)	A	16					
Control systems	Infrared remote	control		BRC4C65					
	Simplified wired ren	note control for hotel application	ıs	BRC2E52C (heat recovery type) / BRC3E52C (heat pump type)					
	Wired remote co	ontrol				BRC1D52/I	BRC1E52A/B		

(1) Without stands

# Floor standing unit

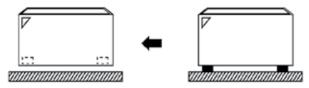
#### For perimeter zone air conditioning

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





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

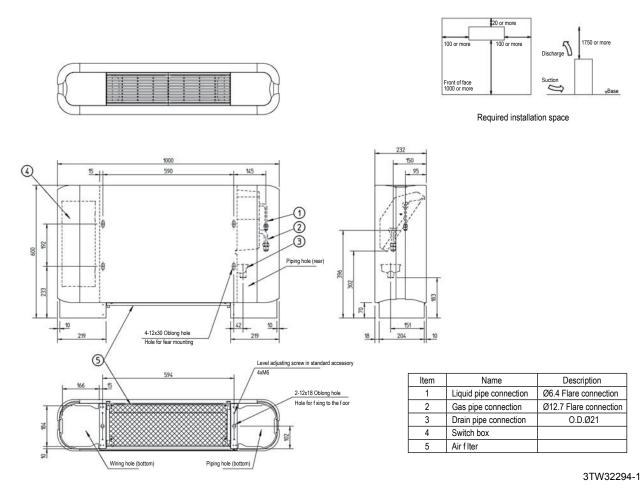


> Wired remote control can easily be integrated in the unit

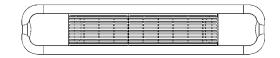


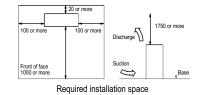
Indoor unit			FXLQ	20P	25P	32P	40P	50P	63P			
Cooling capacity	Nom.		kW	2.2	2.8	3.6	4.5	5.6	7.1			
Heating capacity	Nom.		kW	2.5	3.2	4.0	5.0	6.3	8.000			
Power input - 50Hz	Cooling	Nom.	kW	0.	049	0.0	)90	0.	110			
	Heating	Nom.	kW	0.049 0.090 0.110								
Dimensions	Unit	Height	mm	600								
		Width	mm	1,	000	1,1	40	1,	420			
		Depth	mm			23	32					
Weight	Unit		kg	:	27	3	2		38			
Casing	Colour				Fre	esh white (RAL9010)	/ Dark grey (RAL70	)11)				
an-Air flow rate - 50Hz	Cooling	High/Low	m³/min	7	7/6	8/6	11/8.5	14/11	16/12			
Air filter	Туре					Resi	n net					
Sound power level	Cooling	Nom.	dBA				_					
Sound pressure level	Cooling	High/Low	dBA		35/32		38/33	39/34	40/35			
Refrigerant	Type / GWP			R-410A / 2.087,5								
Piping connections	Liquid	OD	mm			6.35			9.52			
	Gas	OD	mm			12.7			15.9			
	Drain			O.D. 21 (Vinyl chloride)								
Power supply	Phase/Frequen	cy/Voltage	Hz/V	1~/50/60/220-240/220								
Current - 50Hz	Maximum fuse	amps (MFA)	A	15								
Control systems	Infrared remote	e control		BRC4C65								
	Simplified wired re	mote control for hotel appli	cations	BRC2E52C (heat recovery type) / BRC3E52C (heat pump type)								
	Wired remote c	ontrol				BRC1D52 / E	BRC1E52A/B					

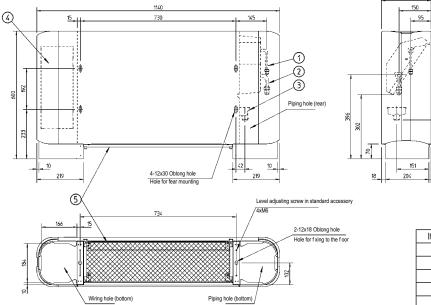
#### FXLQ20-25P



#### FXLQ32-40P FXLQ32-40P





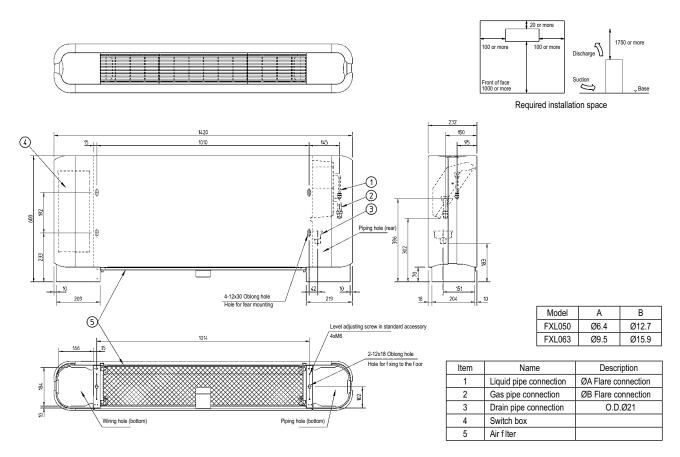


Item	Name	Description
1	Liquid pipe connection	Ø6.4 Flare connection
2	Gas pipe connection	Ø12.7 Flare connection
3	Drain pipe connection	0.D.Ø21
4	Switch box	
5	Air f Iter	

£

. 10

#### FXLQ50-63P



3TW32334-1



Connectable outdoor unit

73 73

# Stylish indoor units OVErview

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

portfolio	for combination restrictions									city clas	s (kW)	күүд-т	RXYQ-T(9)	RXYSQ-P8V	RXYSO-PRV
Туре	Model	Product name	2	15	20	25	35	42	50	60	71	RYY	RXY	RXY	XA
Ceiling	Round flow cassette (incl. auto-cleaning function')	FCQG-F					•		•	•				~	~
nounted cassette	Fully flat universal cassette award 2014	FFQ-C				•	•		•	•				~	~
	Small concealed ceiling unit	FDBQ-B				•								$\checkmark$	V
Concealed eiling	Slim concealed ceiling unit	FDXS-F(9)				•	•		•	•				$\checkmark$	V
	Concealed ceiling unit with inverter-driven fan	FBQ-D					•		•	•				$\checkmark$	v
	Daikin Emura Wall mounted unit	FTXG-LW/LS			•	•	•		•			~	~	$\checkmark$	v
Vall nounted	Wall mounted unit	CTXS-K FTXS-K		•	•	•	•	•	•			~	~	~	v
	Wall mounted unit	FTXS-G	· · · · · · ·							•	•	~	~	$\checkmark$	~
Ceiling Suspended	Ceiling suspended unit	FHQ-C					•		•	•				$\checkmark$	v
	Nexura floor standing unit	FVXG-K				•	•		•			~	~	~	v
loor tanding	Floor standing unit	FVXS-F				•	•		•			~	~	~	v
	Flexi type unit	FLXS-B(9)				•	•		•	•		~	~	$\checkmark$	~

<sup>1</sup> Decoration panel BYCQ140CG + BRC1E52A/B needed

 $^{\scriptscriptstyle 2}$  To connect stylish indoor units a BPMKS unit is needed

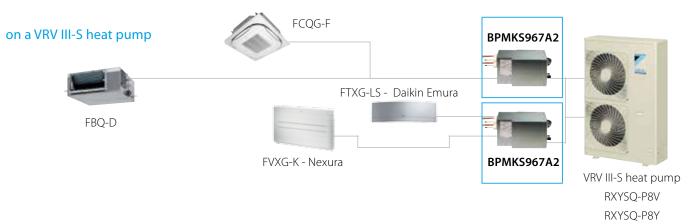
<sup>3</sup> For RXYSQ units a mix of RA indoor units and VRV indoor units is not allowed.

# VRV heatpump combined with stylish indoor units

# Combine VRV indoor units with stylish indoor units



# Connect <u>only</u> stylish indoor units to VRV III-S outdoor units



BPMKS967A

### **Branch provider**

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



BPMKS967B2

Branch provider			BPMKS967B2	BPMKS967B3
Connectable indo	or units		1~2	1~3
Max. indoor unit o	connectable capacity		14.2	20.8
Max. connectable	combination		71+71	60+71+71
Dimensions	Height x Width x Depth	mm	180x29	94x350
Weight		kg	7	8





# Daikin Emura Form. Function. Redesigned



### Why choose Daikin Emura?

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



winner







### **Benefits**

Silver





# Wall mounted unit

# Design at its best, delivering superior efficiency and comfort

- > Seasonal efficiency values up to A+++
- Remarkable blend of iconic design and engineering excellence with an elegant finish in silver and anthracite or in matt crystal white
- > Designed to perfectly balance technological leadership and the beauty of aerodynamics
- > Online controller (optional): control your indoor from any location with an app, via your local network or internet
- > Whisper quiet in operation: the operating of the unit can hardly be heard. The sound pressure level goes down to 19dBA!



FTXG-LS

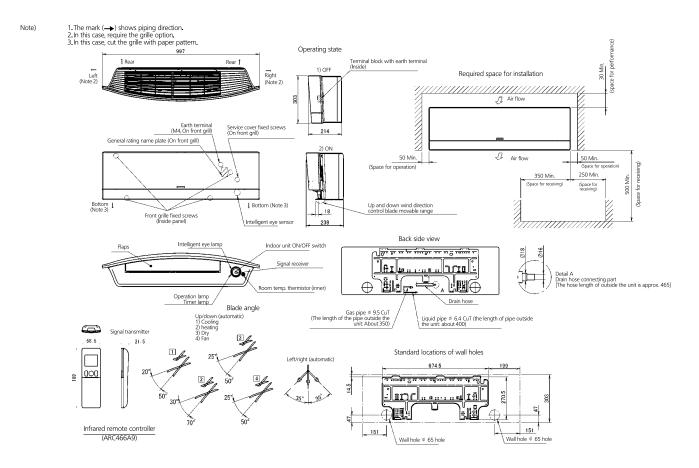
ARC466A1



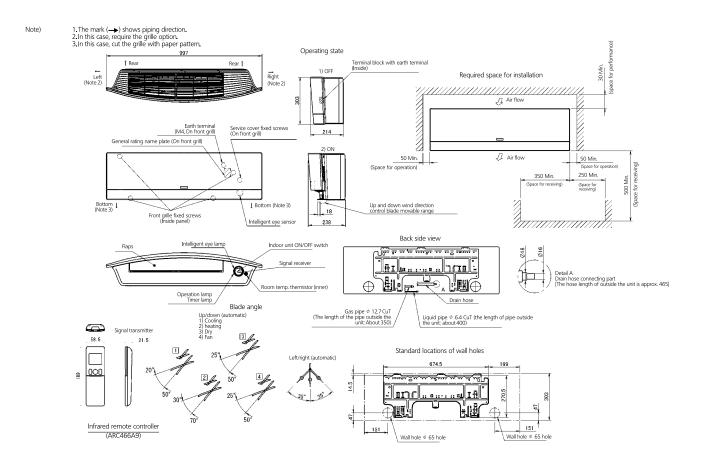


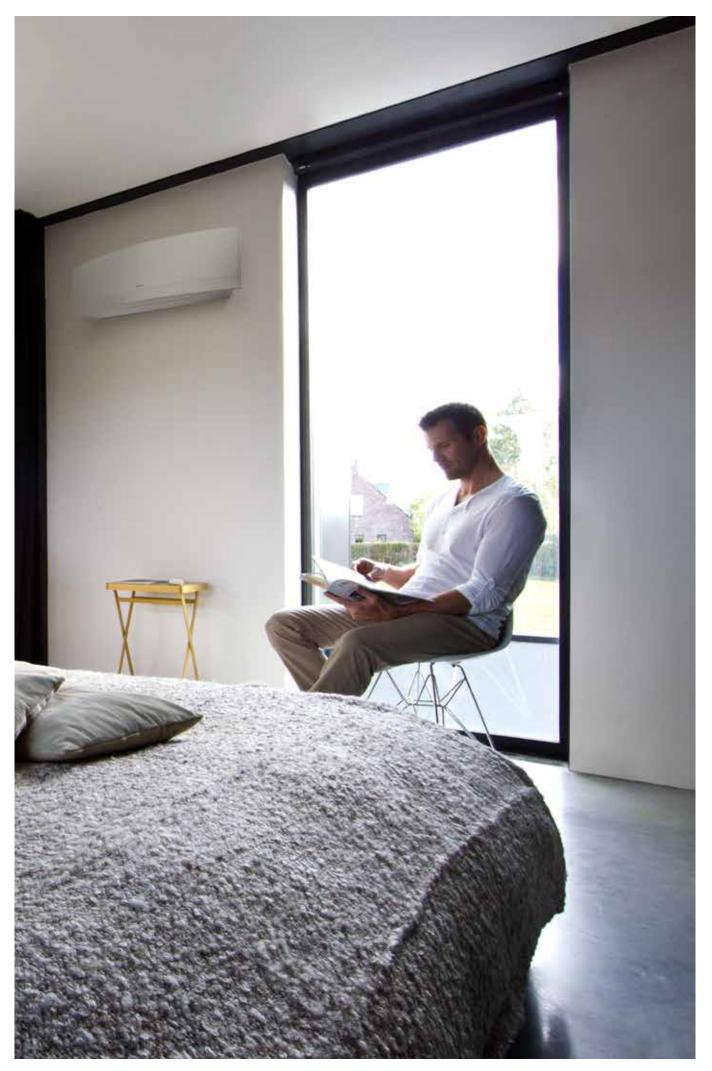
Indoor unit			FTXG	20LW/S	25LW/S	35LW/S	50LW/S				
Casing	Colour				White	/Silver					
Dimensions	Unit	HeightxWidthxDepth	mm	303x998x212							
Weight	Unit		kg		1	2					
Air filter	Туре				Removable / washa	able / mildew proof					
Fan - Air flow rate	Cooling	High/Nom./Low/Silent operation	m³/min	8.9/6.6	/4.4/2.6	10.9/7.8/4.8/2.9	10.9/8.9/6.8/3.6				
	Heating	High/Nom./Low/Silent operation	m³/min	10.2/8.4/6.3/3.8	11.0/8.6/6.3/3.8	12.4/9.6/6.9/4.1	12.6/10.5/8.1/5.0				
Sound power level	Cooling		dBA	5	4	59	60				
	Heating		dBA	5	6	59	60				
Sound pressure level	Cooling	High/Nom./Low/Silent operation	dBA	38/32	/25/19	45/34/26/20	46/40/35/32				
	Heating	High/Nom./Low/Silent operation	dBA	40/34/28/19	41/34/28/19	45/37/29/20	47/41/35/32				
Power supply	Phase / Frequ	iency / Voltage	Hz/V		1~/50/	220-240					
Control systems	Infrared remo	ote control			ARC4	66A1					

#### FTXG20-35LW/S



#### FTXG50LW/S





# Wall mounted unit

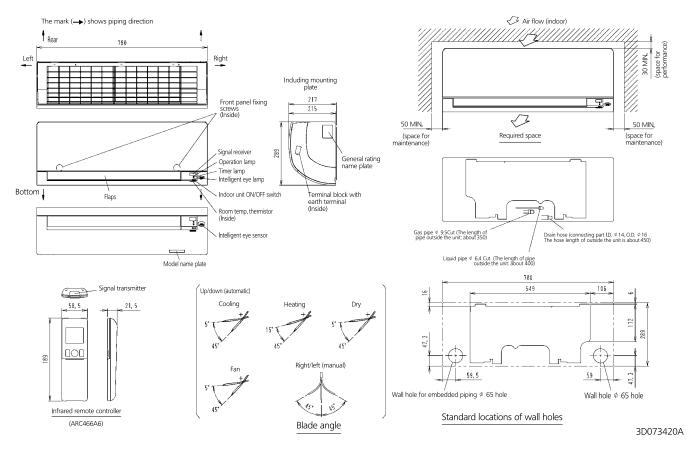
# Discreet, modern design for optimal efficiency and comfort thanks to 2 area intelligent eye

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

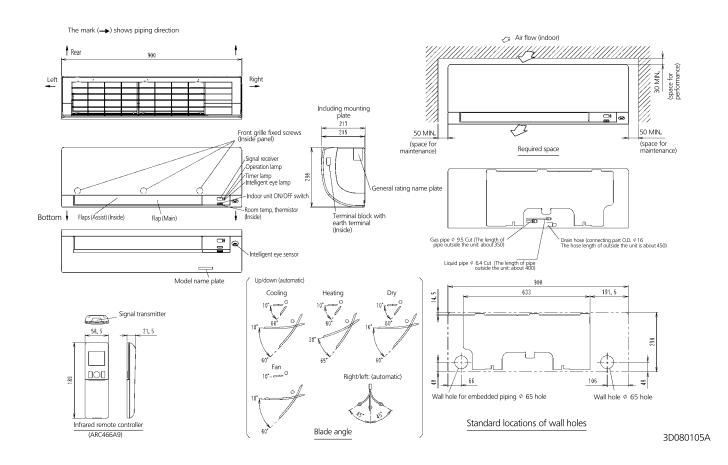


Indoor unit				CTXS15K	CTXS35K	FTXS 20K	FTXS 25K	FTXS 35K	FTXS 42K	FTXS 50K	FTXS 60G	FTXS 71G
Casing	Colour							White				
Dimensions	Unit	HeightxWidthxDepth	mm		289x7	30x215		289x900x215	298x90	00x215	290x1,0	)50x250
Weight	Unit		kg			3			11		1	2
Air filter	Туре						Removable	/ washable / n	nildew proof			
Fan - Air flow rate	Cooling	High/Nom./Low/Silent operation	m³/min	7.9/6.3/4.7/3.9	9.2/7.2/5.2/3.9	8.8/6.7/4.7/3.9	9.1/7.0/5.0/3.9	11.2/8.5/5.8/4.1	11.2/11.2/7.0/4.1	11.9/11.9/7.4/4.5	16.0/16.0/11.3/10.1	17.2/17.2/11.5/10.5
	Heating	High/Nom./Low/Silent operation	m³/min	9.0/7.5/6.0/4.3	10.1/8.1/6.3/4.3	9.5/7.8/6.0/4.3	10.0/8.0/6.0/4.3	12.1/9.3/6.5/4.2	12.4/10.0/7.8/5.2	13.3/10.8/8.4/5.5	17.2/14.9/12.6/11.3	19.5/16.7/14.2/12.6
Sound power level	Cooling		dBA	55	59	5	8	5	9	6	0	63
	Heating		dBA	56		58		5	9	60	59	62
Sound pressure level	Cooling	High/Nom./Low/Silent operation	dBA	37/31/25/21	42/35/28/21	40/32/24/19	41/33/25/19	45/37/29/19	45/39/33/21	46/40/34/23	45/41/36/33	46/42/37/34
	Heating	High/Nom./Low/Silent operation	dBA	38/33/28/21	41/36/30/21	40/34/27/19	41/34/27/19	45/39/29/19	45/39/33/22	47/40/34/24	44/40/35/32	46/42/37/34
Power supply	Phase / Frequ	ency / Voltage	Hz/V				1	~ / 50 / 220-24	10			
Control systems	Infrared remo	te control					ARC466A6				ARC4	152A3

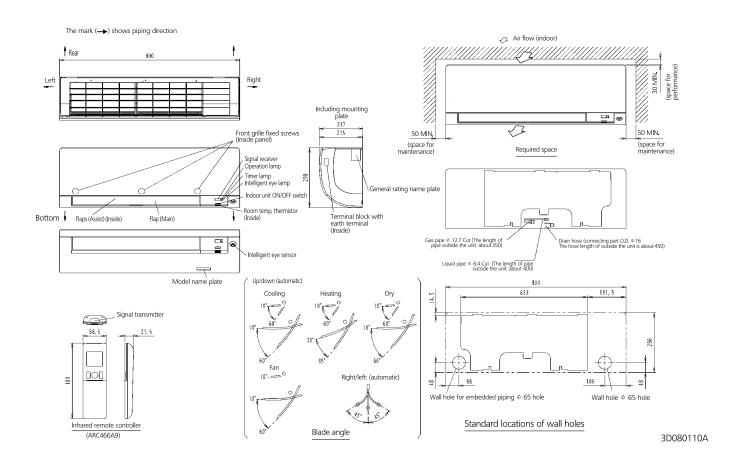
#### CTXS15K / FTXS20-25K



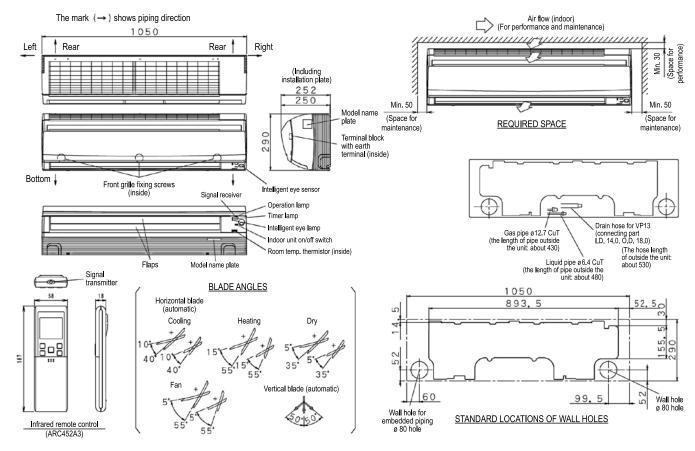
#### FTXS35-42K / CTXS35K



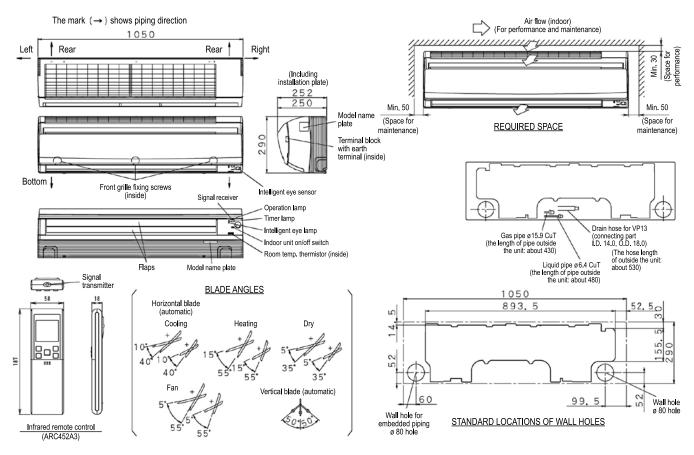
#### FTXS50K



#### FTXS60G



#### FTXS71G



3D065515

Indoor Units

### Nexura



# The best of two worlds united Pure comfort and design



### Why choose Nexura?

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

#### Comfort is key

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

#### Radiant heat panel

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

#### Online controller

Always in control, no matter where you are.

Control your indoor from any location with an app, via your local network or internet.



# Floor standing unit with radiant heat panel

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

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



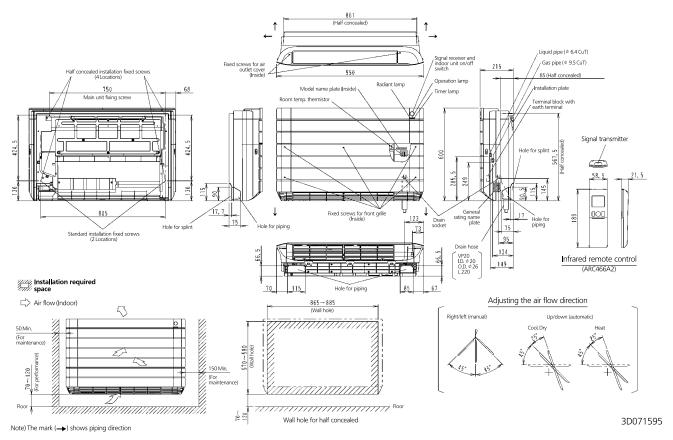


ARC466A2

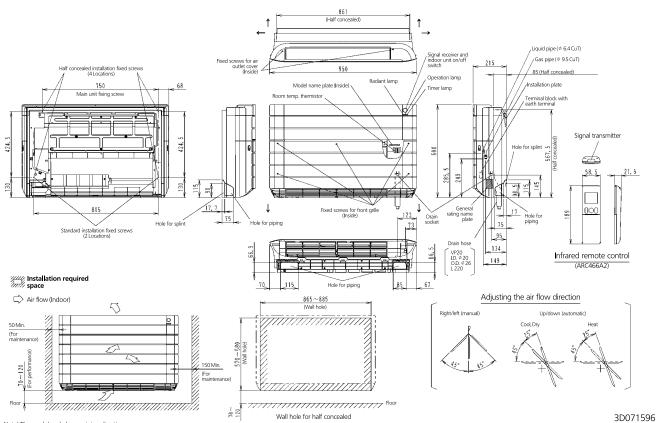
Indoor unit			FVXG	25K	35K	50K
Casing	Colour				Fresh white (6.5Y 9.5/0.5)	
Dimensions	Unit	HeightxWidthxDepth	mm		600x950x215	
Weight	Unit		kg		22	
Air filter	Туре				Removable / washable / mildew proof	
Fan - Air flow rate	Cooling	High/Nom./Low/Silent operation	m³/min	8.9/8.9/5.3/4.5	9.1/9.1/5.3/4.5	10.6/10.3/7.3/6.0
	Heating	High/Nom./Low/Silent operation	m³/min	9.9/7.8/5.7/4.7	10.2/8.0/5.8/5.0	12.2/10.0/7.8/6.8
Sound power level	Cooling		dBA	5	52	58
	Heating		dBA	5	3	60
Sound pressure level	Cooling	High/Nom./Low/Silent operation	dBA	38/32/26/23	39/33/27/24	44/40/36/32
	Heating	High/Nom/Low/Silent operation/Radiant heat	dBA	39/32/26/22/19	40/33/27/23/19	46/40/34/30/26
Power supply	Phase / Frequ	ency / Voltage	Hz/V		1~/50/220-240	
Control systems	Infrared remo	te control			ARC466A2	

(1) EER/COP according to Eurovent 2012, for use outside EU only (2) Nominal efficiency: cooling at 35°/27° nominal load, heating at 7°/20° nominal load

#### FVXG25-35K



#### FVXG50K



Note) The mark ( $\longrightarrow$ ) shows piping direction

# Floor standing unit

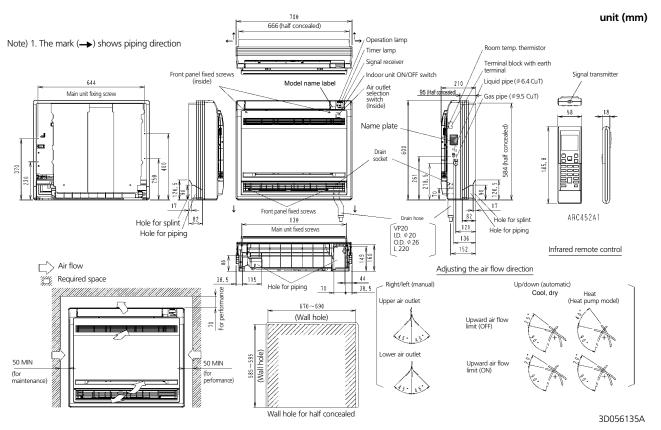
Floor standing unit for optimal heating comfort thanks to dual airflow

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

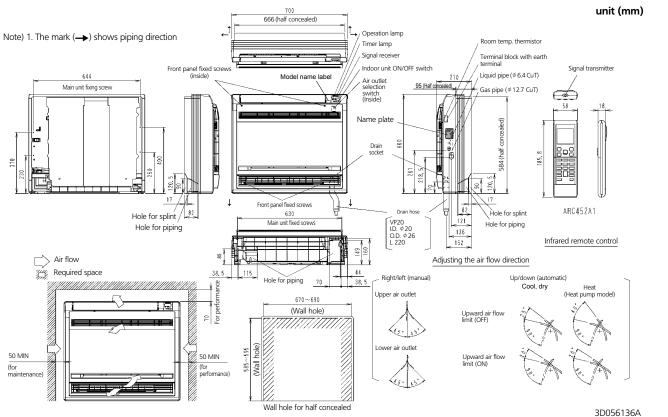


Indoor unit			FVXS	25F	35F	50F
Casing	Colour				White	
Dimensions	Unit	HeightxWidthxDepth	mm		600x700x210	
Weight	Unit		kg		14	
Air filter	Туре				Removable / washable / mildew proof	
Fan - Air flow rate	Cooling	High/Nom./Low/Silent operation	m³/min	8.2/8.2/4.8/4.1	8.5/8.5/4.9/4.5	10.7/10.7/7.8/6.6
	Heating	High/Nom./Low/Silent operation	m³/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		dBA	5	52	60
	Heating		dBA	5	52	60
Sound pressure level	Cooling	High/Nom./Low/Silent operation	dBA	38/32/26/23	39/33/27/24	44/40/36/32
	Heating	High/Nom./Low/Silent operation	dBA	38/32/26/23	39/33/27/24	45/40/36/32
Power supply	Phase / Frequ	ency / Voltage	Hz / V		1~/50/220-240	
Control systems	Infrared remo	te control			ARC452A1	

#### FVXS25-35F



#### FVXS50F



## Flexi type unit

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

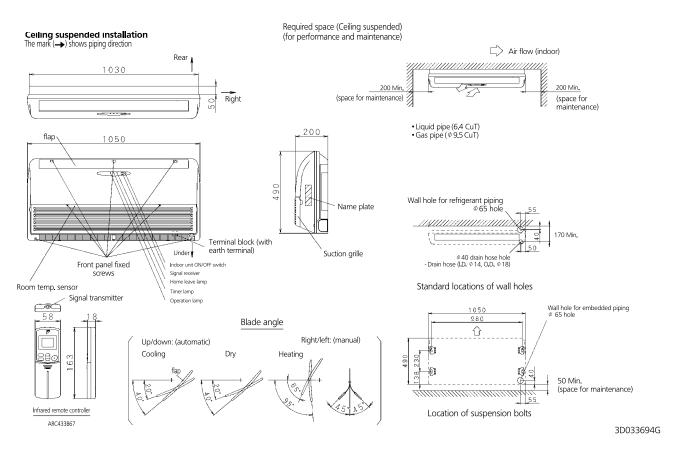
- > Can fit on either ceiling or lower wall; its low height enables the unit to fit beneath a window
- > Vertical auto swing moves the discharge flaps up and down for efficient air and temperature distribution throughout the room
- Home leave operation maintains the indoor temperature at your specified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



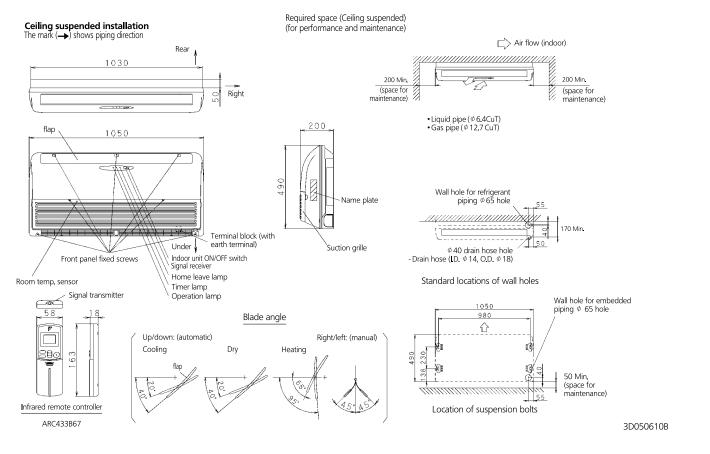
Indoor unit			FLXS	25B	35B9	50B	60B			
Casing	Colour				Almond white		Almond white			
Dimensions	Unit	HeightxWidthxDepth	mm		490x1,050x200					
Weight	Unit		kg	16	6	1	7			
Air filter	Туре				Removable / wash	able / mildew proof				
Fan - Air flow rate	Cooling	High/Nom./Low/Silent operation	m³/min	7.6/7.6/6.0/5.2	8.6/7.6/6.6/5.6	11.4/11.4/8.5/7.5	12.0/10.7/9.3/8.3			
	Heating	High/Nom./Low/Silent operation	m³/min	9.2/8.3/7.4/6.6	12.8/10.4/8.0/7.2	12.1/9.8/7.5/6.8	12.8/10.6/8.4/7.5			
Sound power level	Cooling		dBA	51	53	6	0			
	Heating		dBA	51	59	-	59			
Sound pressure level	Cooling	High/Nom./Low/Silent operation	dBA	37/34/31/28	38/35/32/29	47/43/39/36	48/45/41/39			
	Heating	High/Nom./Low/Silent operation	dBA	37/34/31/29	46/36/33/30	46/41/35/33	47/42/37/34			
Power supply	Phase / Frequ	ency / Voltage	Hz / V	1~/50/60/220-240/220-230	1~/50/220-240	1~/50/60/22	0-240/220-230			
Control systems	Infrared remo	te control			ARC4	33B67				

(1) EER/COP according to Eurovent 2012, for use outside EU only (2) Nominal efficiency: cooling at 35°/27° nominal load, heating at 7°/20° nominal load

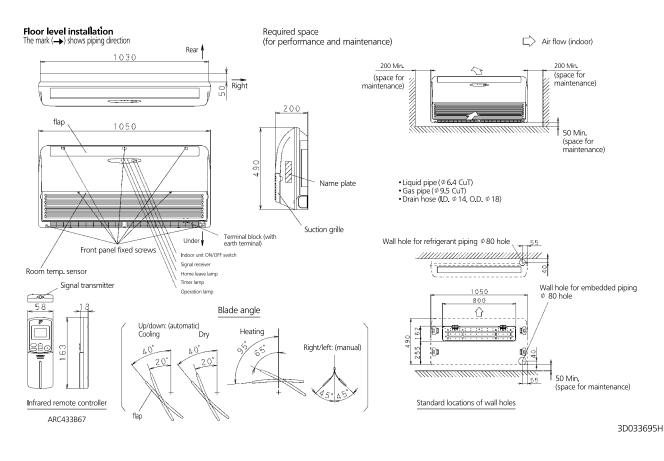
#### FLXS25-35B(9)



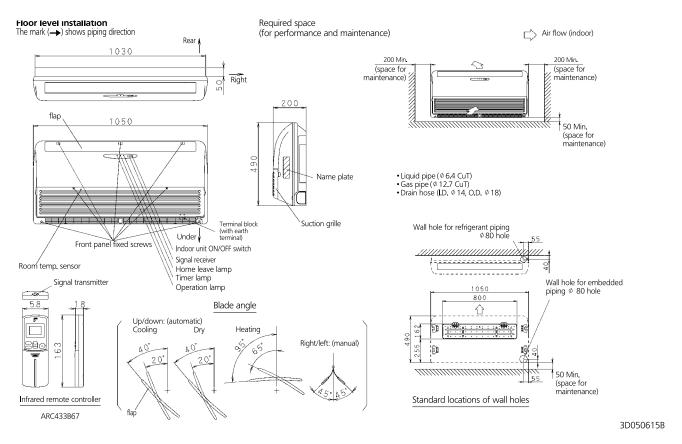
FLXS50-60B



#### FLXS25-35B(9)



#### FLXS50-60B



# Hot water

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

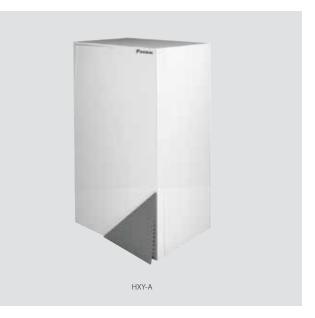
# Hot water

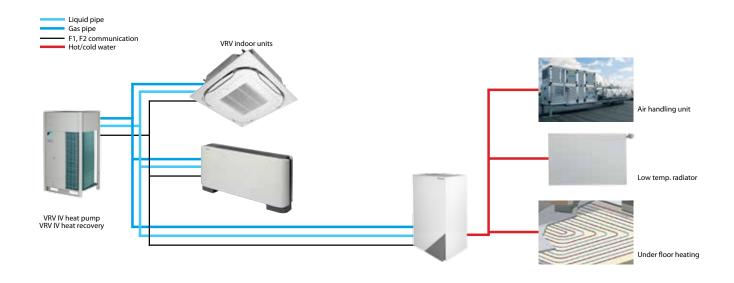
High temperature hydrobox HXHD-A	XY-A	
HXHD-A	gh temperature hydrobox	
	KHD-A	

# Low temperature hydrobox for VRV

#### For high efficiency space heating and cooling

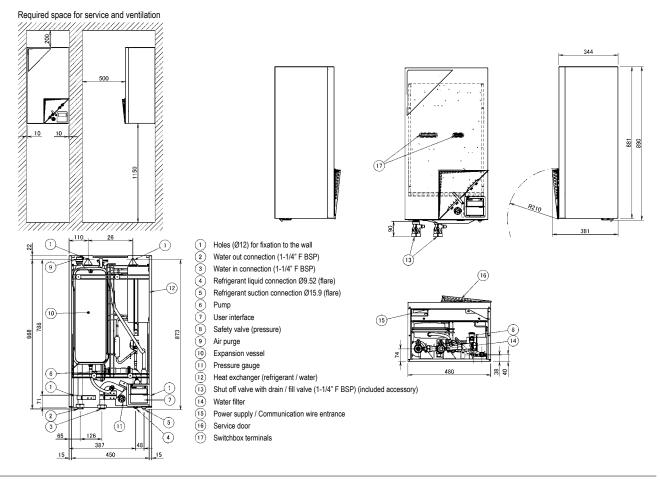
- > Air to water connection to VRV for applications such as underfloor, air handling units, low temperature radiators, ...
- $^{\scriptscriptstyle >}$  Leaving water temperature range from 5°C to 45°C without electric heater
- Super wide operating range for hot/cold water production from -20 to +43°C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



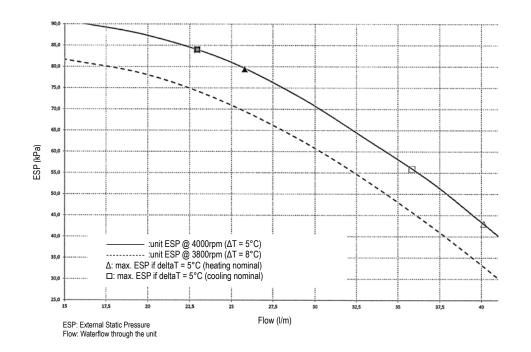


Indoor unit				HXY	080A	125A
Cooling capacity	Nom.			kW	8.0	12.5
Heating capacity	Nom.			kW	9.0	14.0
Dimensions	Unit	HeightxWidt	hxDepth	mm	890x48	30x344
Weight	Unit			kg	4	4
Casing	Colour				Wh	iite
	Material				Precoated	sheet metal
Sound pressure level	Nom.			dBA	-	-
Operation range	Heating	Ambient	Min.~Max.	°C	-20	~24
		Water side	Min.~Max.	°C	25-	~45
Refrigerant	Type / GWP				R-410A /	/ 2.087,5
Refrigerant circuit	Gas side diameter			mm	15	5.9
	Liquid side diamet	er		mm	9.	.5
Water circuit	Piping connection	s diameter		inch	G 1"1/4	(female)
Power supply	Phase/Frequency/	Voltage		Hz/V	1~/50/2	220-240
Current	Recommended fus	ses		A	6~	16

#### HXY-A







#### NOTES

1 Selecting a flow outside the curves can cause damage to or malfunctioning of the unit. See also minimum and maximum allowed flow in technical specifications.

2 Water quality must be according to EN directive EC 98/83 EC.

# High temperature hydrobox for VRV

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

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

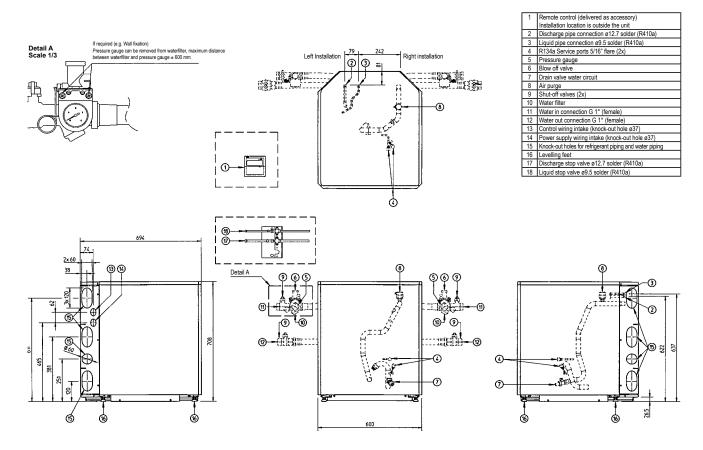




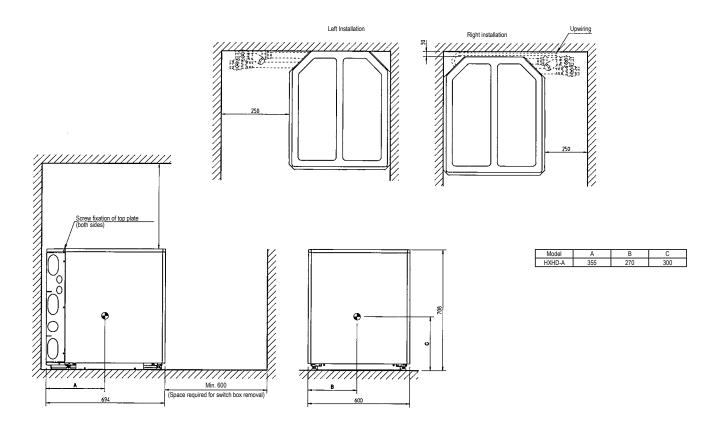
Indoor unit				HXHD	125A
Heating capacity	Nom.			kW	14.0
Dimensions	Unit	HeightxWic	lthxDepth	mm	705x600x695
Weight	Unit			kg	92
Casing	Colour				Metallic grey
	Material				Precoated sheet metal
Sound pressure level	Nom.			dBA	42 (1) / 43 (2)
	Night quiet mode	Level 1		dBA	38
Operation range	Heating	Ambient	Min.~Max.	°C	-20~20 / 24 (3)
		Water side	Min.~Max.	°C	25~80
	Domestic hot	Ambient	Min.~Max.	°CDB	-20~43
	water	Water side	Min.~Max.	°C	45~75
Refrigerant	Type / GWP				R-134a / 1,430
	Charge			kg	2
	Charge			TCO,Eq	2.9
Refrigerant circuit	Gas side diameter			mm	12.7
	Liquid side diamet	er		mm	9.52
Water circuit	Piping connection	s diameter		inch	G 1" (female)
	Heating water system	Water volume	Min.~Max.	1	20~200
Power supply	Phase/Frequency/	Voltage		Hz/V	1~/50/220-240
Current	Recommended fu	ses		А	20

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

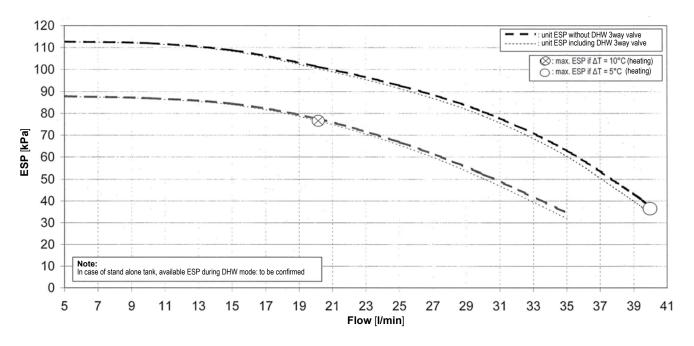




HXHD-A



#### HXHD-A



The ESP curves are the maximum ESP curve for different ΔT types (pump rpm = 4400 ΔT = 5°C; pump rpm = 4000 for ΔT = 10°C). The pump of the indoor module is inverter controlled and controls to have a fixed ΔT between return and leaving water temperature.
 In case of installing a demestic hot water tank there is an additional pressure drop over the three way valve (delivered as accessory with the tank).

ESP: external static pressure Flow: waterflow through the unit

Warning:
Selecting a flow outside the curve can cause damage to or malfunction of the unit. See also minimum and maximum allowed water flowrange in the technical specifications.

2. Water quality must be according to EN directive EC 98/83 EC.

# Domestic hot water tank

#### Stackable stainless steel domestic hot water tank

- The indoor unit and domestic hot water tank can be stacked to save space, or installed next to each other, if only limited height is available
- > Available in 200 and 260 liters
- > Heat loss is reduced to a minimum thanks to the high quality insulation
- > At necessary intervals, the indoor unit can heat up the water to 60°C to prevent the risk of bacteria growth
- > Efficient temperature heat-up: from 10°C to 50°C in only 60 minutes



Accessory			EKHT	5 200AC	260AC		
Casing	Colour			Metallic grey			
	Material			Galvanised ste	eel (precoated sheet metal)		
Dimensions	Unit	Height	Integrated on mi indoor unit	n 2,010	2,285		
		Width	mi	n	600		
		Depth	mi	n	695		
Weight	Unit	Empty	k	70	78		
Tank	Water volume			1 200	260		
	Material			Stainless steel (EN 1.4521)			
	Maximum water	temperature	c	75			
	Insulation	Heat loss	kWh/24	h 1.2	1.5		
Heat exchanger	Quantity				1		
	Tube material			Duplex steel (EN 1.4162)			
	Face area		n	2	1.56		
	Internal coil volu	me		1	7.5		

#### **EKHWP-B**

### Domestic hot water tank

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

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



Accessory			EKHWP	300B	500B		
Dimensions	Unit	Width	mm	595	790		
		Depth	mm	615	790		
Weight	Unit	Empty	kg	59	93		
Tank	Water volume		I	300	500		
	Maximum water temperature °C			85			
	Insulation	Heat loss	kWh/24h	1.3	1.4		
Heat exchanger	Domestic hot	Tube material		Stainle	ss steel		
	water	Face area	m²	5.8	6		
		Internal coil volume	I	27.9	29		
		Operating pressure	bar	6			
		Average specifc thermal output	W/K	2,790	2,900		
	Charging	Tube material		Stainless steel			
		Face area	m²	2.7	3.8		
		Internal coil volume	1	13.2	18.5		
		Operating pressure	bar	3			
		Average specifc thermal output	W/K	1,300	1,800		
	Auxiliary solar	Tube material		Stainless steel			
	heating	Face area	m²	-	0.5		
		Internal coil volume	1	-	2.3		
		Operating pressure	bar	3			
		Average specifc thermal output	W/K	-	280		

# **Pump station**

- $\,$  > Save energy and reduce  $\rm CO_2\, emissions$  with a solar system for domestic hot water production
- > Pump station connectable to unpressurised solar system
- > Pump station and control provide the transfer of solar heat to the domestic hot water tank



Accessory			EKSRPS	3		
Mounting				On side of tank		
Dimensions	Unit	HeightxWidthxDepth	mm	815x230x142		
Control	Туре			Digital temperature difference controller with plain text display		
	Power consumption	on	W	2		
Power supply	Voltage		V	230		
Sensor	Solar panel tempe	rature sensor		Pt1000		
	Storage tank sense	or		PTC		
	Return flow sensor			PTC		
	Feed temperature and flow sensor			Voltage signal (3.5V DC)		

EKS(H/V)-P

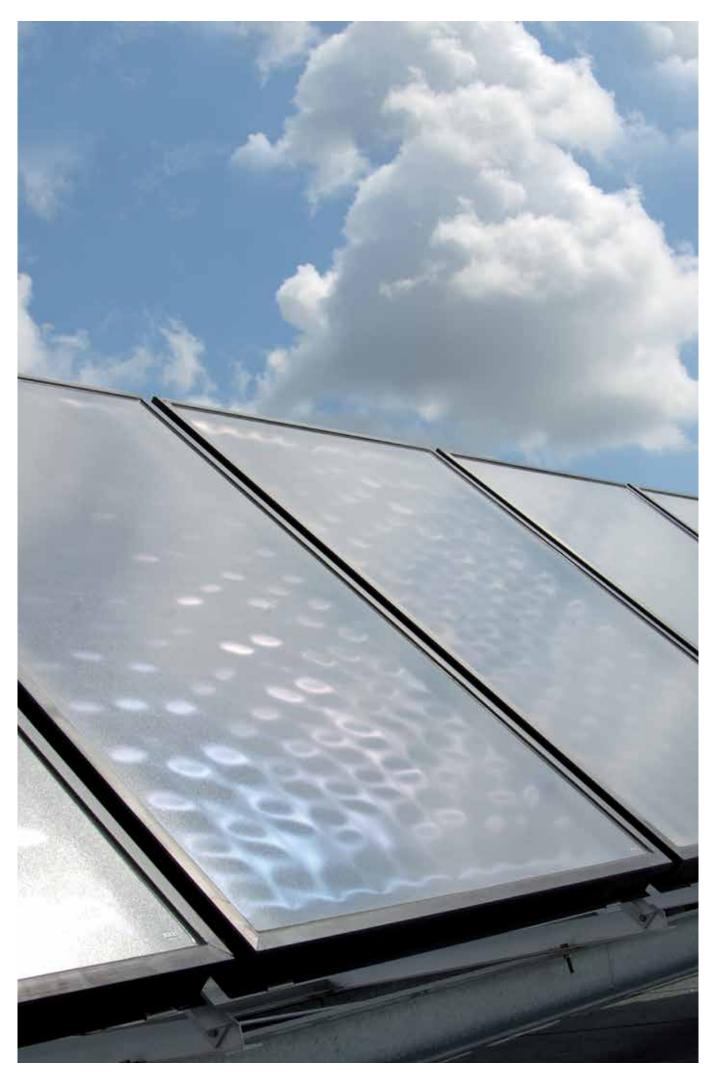
### Solar collector

#### Thermal solar collector for hot water production

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



Accessory				EKSV21P	EKSV26P	EKSH26P	
Dimensions	Unit	HeightxWidthxDepth	mm	2,000x1,006x85	2,000x1,300x85	1,300x2,000x85	
Weight	Unit		kg	35	4	2	
Volume			1	1.3	1.7	2.1	
Surface	Outer		m²	2.01	2.6		
	Aperture		m²	1.79	2.35		
	Absorber	Absorber		1.8	2.36		
Coating				Micro-the	erm (absorption max. 96%, Emission ca. 5	5% +/-2%)	
Absorber				Harp-shaped copper pipe	register with laser-welded highly selecti	ve coated aluminium plate	
Glazing				Sin	gle pane safety glass, transmission +/- 9	2%	
Allowed roof angle	Min.~Max.		٥		15~80		
Operating pressure	Max.		bar		6		
Stand still temperature	mperature Max. °C			200			



# Biddle air curtains

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

# Biddle air curtains connected to Daikin Heat Pumps

1.5 years!

## '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.

### Which air curtain offers me the best solution?

Biddle air curtains come in 2 versions, one to connect to VRV end one for connection to ERQ. Both of them ar available in varying door widths from 1 up to

2.5 meters. Below you can find an overview of the

different versions and available door heights.

High efficiency and low

An efficient outdoor/indoor climate separation limits

heat loss through the door opening and enhances

pumps can lead to savings up to 72% compared to

electric air curtains and a paypack period of less than

the efficiency of the air conditioning system.

Combining Biddle air curtains with Daikin heat

CO<sub>2</sub> emission

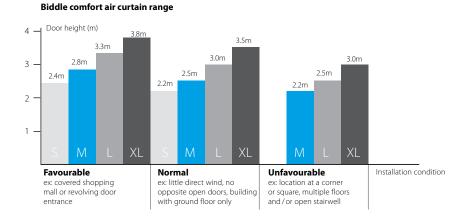
#### Biddle air curtain for connection to VRV (CYV) or to ERQ (CYQ)



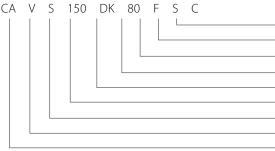
Free-Hanging (F)



Recessed (C)



#### Biddle comfort air curtian nomenclature

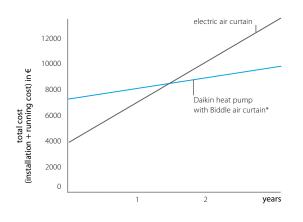


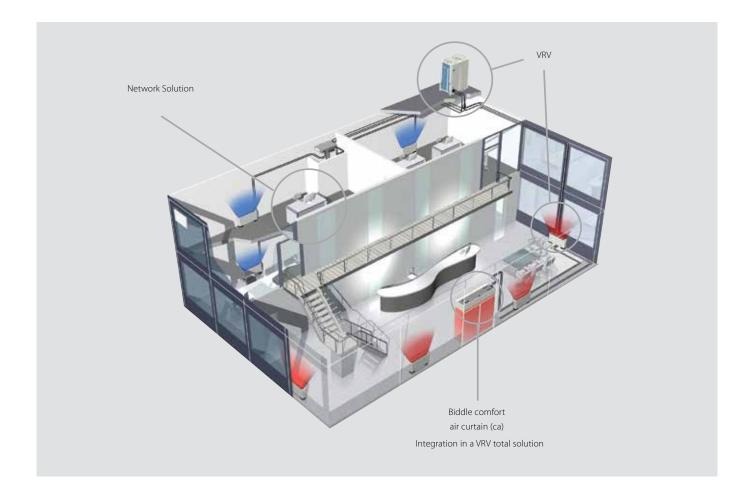
- Controller (standard)
- Color. B=White (RAL6010), S: Grey (RAL9006)
  - Installation type: F=Freehanging, C=Cassette, R=Recessed
  - Capacity class (kW)
- Daikin direct expansion
- Door width (cm)
- Range. S=small, M=Medium, L=Large, XL= Extra Large
- Connectable to VRV
  - Biddle comfort air curtain

# Biddle air curtain for VRV

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

#### Packtime of less than 1.5 years





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



CYVM150DK80FSC

CYVM150DK80CSN

CYVM150DK80RSN

				Small			Medium				
				CYVS100DK80 *BN/*SN	CYVS150DK80 *BN/*SN	CYVS200DK100 *BN/*SN	CYVS250DK140 *BN/*SN	CYVM100DK80 *BN/*SN	CYVM150DK80 *BN/*SN	CYVM200DK100 *BN/*SN	CYVM250DK140 *BN/*SN
Heating capacity	Speed 3		kW	7.40	9.0	11.6	16.2	9.2	11.0	13.4	19.9
Power input	Fan only	Nom.	kW	0.23	0.35	0.46	0.58	0.37	0.56	0.75	0.94
	Heating	Nom.	kW	0.23	0.35	0.46	0.58	0.37	0.56	0.75	0.94
Delta T	Speed 3		К	19	1	5	16	17	14	13	15
Casing	Colour						BN: RAL9010	/ SN: RAL9006			
Dimensions	Unit	Height F/C/R	mm				270/2	70/270			
		Width F/C/R	mm	1,000/1,000/1,048	1,500/1,500/1,548	2,000/2,000/2,048	2,500/2,500/2,548	1,000/1,000/1,048	1,500/1,500/1,548	2,000/2,000/2,048	2,500/2,500/2,548
		Depth F/C/R	mm				590/8	21/561			
Required ceiling void	< k		mm	420							
Door height	Max.		m	2.3 (1) / 2.15 (2) / 2.0 (3)	2.3 (1) / 2.15 (2) / 2.0 (3)	2.3 (1) / 2.15 (2) / 2.0 (3)	2.3 (1) / 2.15 (2) / 2.0 (3)	2.5 (1) / 2.4 (2) / 2.3 (3)	2.5 (1) / 2.4 (2) / 2.3 (3)	2.5 (1) / 2.4 (2) / 2.3 (3)	2.5 (1) / 2.4 (2) / 2.3 (3)
Door width	Max.		m	1.0	1.5	2.0	2.5	1.0	1.5	2.0	2.5
Weight	Unit		kg	56	66	83	107	57	73	94	108
Fan-Air flow rate	Heating	Speed 3	m³/h	1,164	1,746	2,328	2,910	1,605	2,408	3,210	4,013
Sound pressure level	Heating	Speed 3	dBA	47	49	50	51	50	51	53	54
Refrigerant	Type / GWP						R-410A	/ 2.087,5			
Piping connections	Liquid/OD/Gas	/OD	mm		9.52/16.0		9.52/19.0		9.52/16.0		9.52/19.0
Required accessories	s (should be order	ed separately)				Daikin wired	remote contro	I (BRC1E52A/B	or BRC1D52)		
Power supply	Voltage		V				2	30			

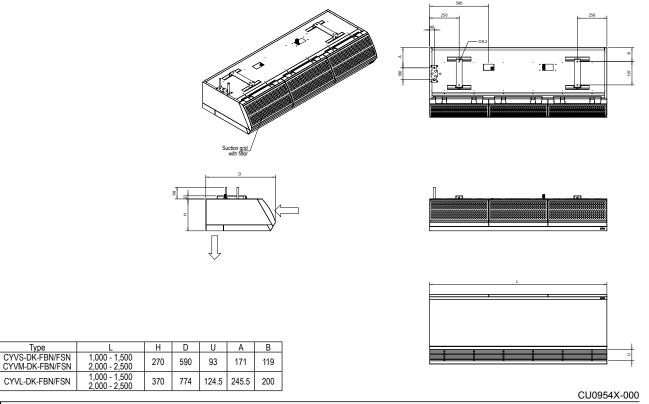
				Large					
				CYVL100DK125*BN/*SN	CYVL150DK200*BN/*SN	CYVL200DK250*BN/*SN	CYVL250DK250*BN/*SN		
Heating capacity	Speed 3		kW	15.6	23.3	29.4	31.1		
Power input	Fan only	Nom.	kW	0.75	1.13	1.50	1.88		
	Heating	Nom.	kW	0.75	1.13	1.50	1.88		
Delta T	Speed 3		К	1	5	14	12		
Casing	Colour				BN: RAL9010	/ SN: RAL9006			
Dimensions	Unit Height F/C/R		mm		370/370/370				
		Width F/C/R	mm	1,000/1,000/1,048	1,500/1,500/1,548	2,000/2,000/2,048	2,500/2,500/2,548		
	Depth F/C/R mr		mm	774/1,105/745					
Required ceiling void	>		mm	520					
Door height	Max.		m	3.0 (1) / 2.75 (2) / 2.5 (3)	3.0 (1) / 2.75 (2) / 2.5 (3)	3.0 (1) / 2.75 (2) / 2.5 (3)	3.0 (1) / 2.75 (2) / 2.5 (3)		
Door width	Max.		m	1.0	1.5	2.0	2.5		
Weight	Unit		kg	76	100	126	157		
Fan-Air flow rate	Heating	Speed 3	m³/h	3,100	4,650	6,200	7,750		
Sound pressure level	Heating	Speed 3	dBA	53	54	56	57		
Refrigerant	Type / GWP			R-410A / 2,087.5					
Piping connections	ng connections Liquid/OD/Gas/OD mm			9.52/16.0 9.52/19.0 9.52/22.0					
Required accessories (should be ordered separately)				Daikin wired remote control (BRC1E52A/B or BRC1D52)					
Power supply	Voltage		V	230					

9.0

Biddle Air Curtains

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

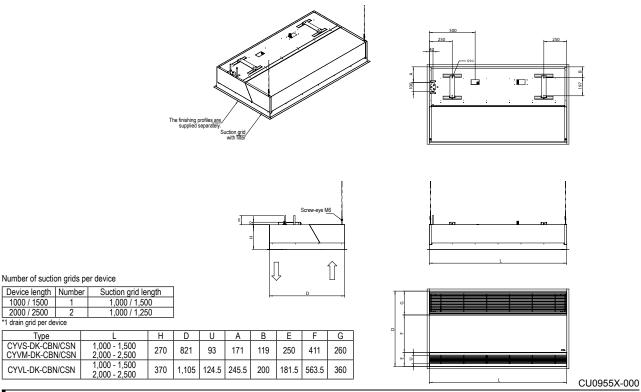
#### CYVS\_DK\_FBN/FSN / CYVM\_DK\_FBN/FSN / CYVL\_DK\_FBN/FSN



#### REMARKS

1 The 2,500mm large devices have 3 suspension brackets, where the third bracket is mounted at half the length of the device.

#### CYVS\_DK\_CBN/CSN / CYVM\_DK\_CBN/CSN / CYVL\_DK\_CBN/CSN

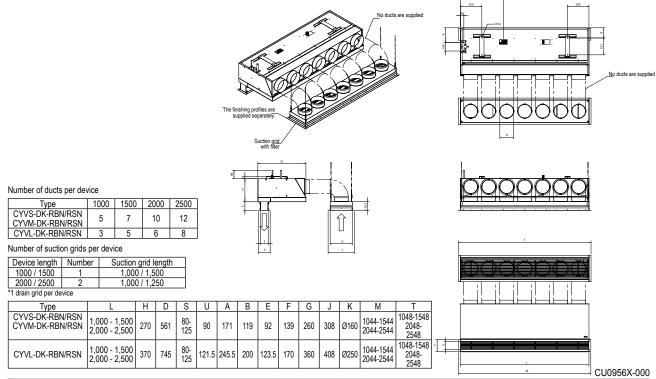


#### REMARKS

1 The 2,500mm large devices have 3 suspension brackets, where the third bracket is mounted at half the length of the device.

2 The mounting holes for finishing profiles in a lowered ceiling (L+8) x (D+8) mm

#### CYVS\_DK\_RBN/RSN / CYVM\_DK\_RBN/RSN / CYVL\_DK\_RBN/RSN



#### REMARKS

1 The 2,500mm large devices have 3 suspension brackets, where the third bracket is mounted at half the length of the device.

2 Holes (for finishing profiles) - drain (L+8) x (E+8) mm - suction (L+8) x (G+8) mm.

## Ventilation & air handling

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

# Ventilation & air handling

#### Ventilation

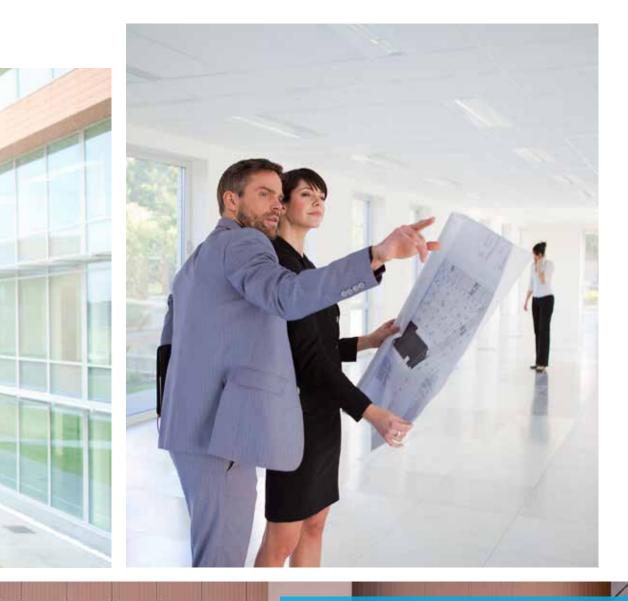
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#### Ventilation



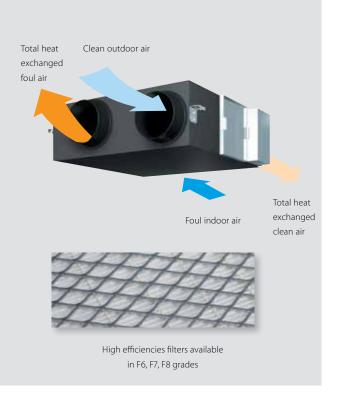
### DAIKIN AIR HANDLING UNIT AND ERQ/VRV PLUG & PLAY CONNECTION



## Heat reclaim ventilation

#### Ventilation with heat recovery as standard

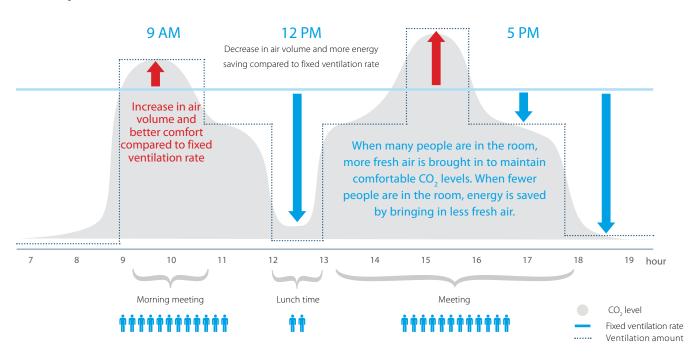
- Energy saving ventilation using indoor heating, cooling and moisture recovery
- Ideal solution for shops, restaurants or offices requiring maximum floor space for furniture, decorations and fittings
- Free cooling possible when outdoor temperature is below indoor temperature (eg. during nighttime)
- Reduced energy consumption thanks to specially developed DC fan motor
- Prevent energy losses from over-ventilation while maintaining indoor air quality with optional CO2 sensor
- > Can be used as stand alone unit or integrated in the VRV system
- > Wide range of units: air flow rate from 150 up to 2,000 m<sup>3</sup>/h
- > High efficiency filters available in F6 ,F7, F8 grades
- Shorter installation time thanks to easy adjustment of nominal air flow rate, so less need for dampers compared with traditional installation.
- Specially developed heat exchange element with High Efficiency Paper (HEP)
- > No drain piping needed
- > Can operate in over- and under pressure
- > Total solution for fresh air with Daikin supply of both VAM and electrical heaters



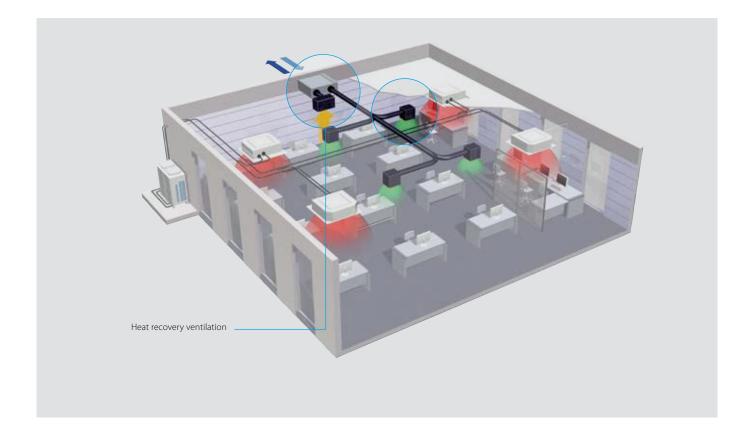
#### Prevent energy losses from over ventilation with CO<sub>2</sub> sensor

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

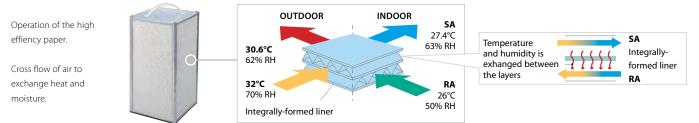
#### Example of CO<sub>2</sub> sensor operation in a meeting room:



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



#### High Efficiency Paper



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

Ventilation				VAM	150FA	250FA	350FB	500FB	650FB	800FB	1000FB	1500FB	2000FB
Power input - 50Hz	Heat exchange mode	Nom.	Ultra high	kW	0.116	0.141	0.132	0.178	0.196	0.373	0.375	0.828	0.852
	Bypass mode	Nom.	Ultra high	kW	0.116	0.141	0.132	0.178	0.196	0.373	0.375	0.828	0.852
Temperature exchange efficiency - 50Hz	Ultra high/High/Lo	w		%	74/74/79	72/72/77	75/75/80	74/	74/77	74/74/76	75/75/76.5	75/7	75/78
Enthalpy exchange	Cooling	Ultra hig	h/High/Low	%	58/58/64	58/58/62	61/61/67	58/	58/63	60/60/62	61/61/63	61/61/64	61/61/66
efficiency - 50Hz	Heating	Ultra hig	h/High/Low	%	64/64/69	64/64/68	65/65/70	62/62/67	63/63/66	65/65/67	66/6	6/68	66/66/70
Operation mode							Heat ex	xchange mod	de / Bypass m	ode / Fresh-u	p mode		
Heat exchange system	n						Air to air cro	oss flow total	heat (sensible	e + latent hea	it) exchange		
Heat exchange eleme	nt						S	pecially proc	essed non-fla	mmable pap	er		
Dimensions	Unit	HeightxV	VidthxDepth	mm	285x7	76x525	301x82	28x816	364x1,0	004x868	364x1,004x1,156	726x1,512x868	726x1,512x1,156
Weight	Unit			kg	2	4	3	3	52	55	64	131	152
Casing	Material							Gal	vanised steel	plate			
Fan-Air flow rate -	Heat exchange mode	Ultra hig	h	m³/h	150	250	350	500	650	800	1,000	1,500	2,000
50Hz	Bypass mode	Ultra hig	h	m³/h	150	250	350	500	650	800	1,000	1,500	2,000
Fan-External static	Ultra high			Pa	69	64	9	8	93	137	157	1	37
pressure - 50Hz	High			Pa	3	9				-			
	Low			Pa	2	0				-			
Air filter	Туре							Multidir	ectional fibro	us fleeces			
Sound pressure level	Heat exchange mode	Ultra hig	h	dBA	27 / 28.5	28 / 29	32	33	34.5	3	36	39.5	40
- 50Hz	Bypass mode	Ultra hig	h	dBA	27 / 28.5	28 / 29	32	33.5	34.5	3	36	40.5	40
Operation range	Min.			°CDB					-15				
	Max.			°CDB					50				
	Relative humidity			%					80% or less				
Refrigerant	Type / GWP								- / -				
Connection duct dian	neter			mm	100	1.	50	2	00	2	50	3	50
Power supply	Phase/Frequency/	/oltage		Hz/V				1~/	50/60/220-240	0/220			
Current	Maximum fuse am	ps (MFA)		А	1	5				16			

#### Electrical heater for VAM

### VH

- Total solution for fresh air with Daikin supply of both VAM and electrical heaters
- Increased comfort in low outdoor temperature thanks to the heated outdoor air
- Integrated electrical heater concept (no additional accessories required)
- > Standard dual flow and temperature sensor
- > Flexible setting with adjustable setpoint
- > Increased safety with 2 cut-outs: manual & automatic
- > BMS integration thanks to:
- Volt free relay for error indication
- 0-10VDC input for setpoint control

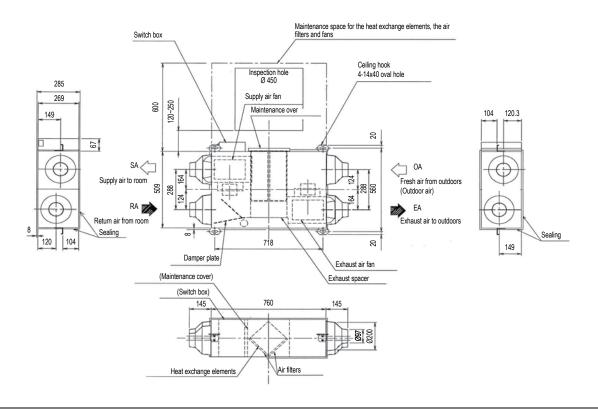


ELECTRICAL HEATER FOR VAM VH	(VH)
Supply voltage	220/250V ac 50/60 Hz. +/-10%
Output current (maximum)	19A at 40°C (ambient)
Temperature sensor	5k ohms at 25°C (table 502 1T)
Temperature control range	0 to 40°C / (0-10V 0-100%)
Control fuse	20 x 5mm 250mA
LED indicators	Power ON - Yellow
	Heater ON -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

	VH	1B	2B	3B	4B	4/AB	5B
Capacity	kW	1	1	1	1.5	2.5	2.5
Duct diameter	mm	100	150	200	250	250	300
Connectable VAM		VAM150FA	VAM250FA	VAM500FB	VAM800FB	VAM800FB	VAM1500FB
		-	VAM350FB	VAM650FB	VAM1000FB	VAM1000FB	VAM2000FB

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

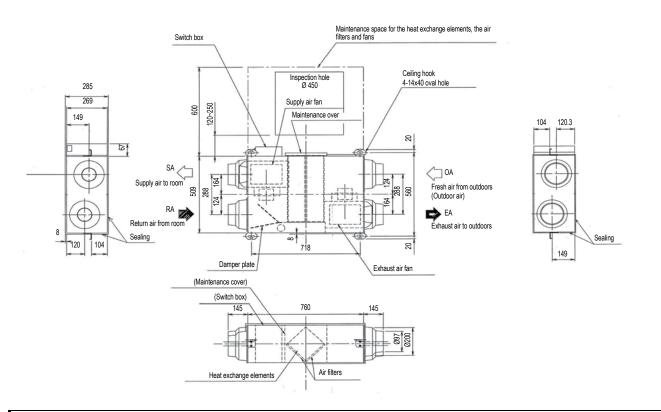
#### VAM150FA



#### NOTE

1 Be sure to provide the inspection hole (450x450 mm) to inspect the air filters, the exchange elements and fans.

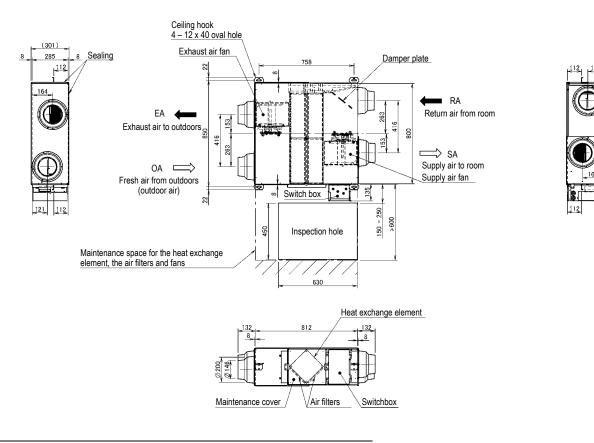
#### VAM250FA



#### NOTE

1 Be sure to provide the inspection hole (450x450 mm) to inspect the air filters, the exchange elements and fans.

#### VAM350FB

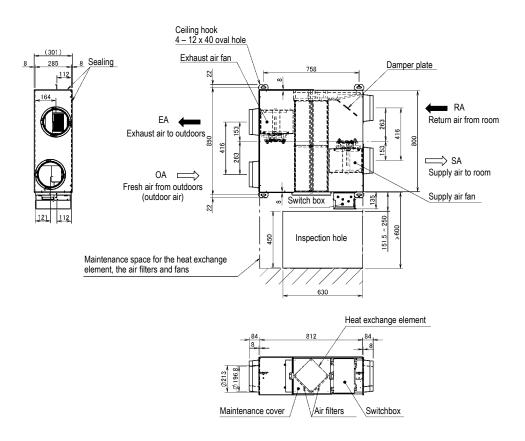


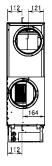
#### NOTES

1. Be sure to provide the inspection hole to inspect the air filters, the exchange elements and fans.

3D081162

#### VAM500FB

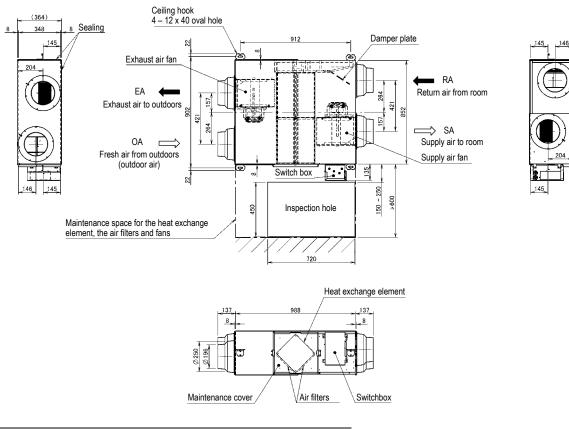




#### NOTES

1. Be sure to provide the inspection hole to inspect he air filters, the exchange elements and fans.

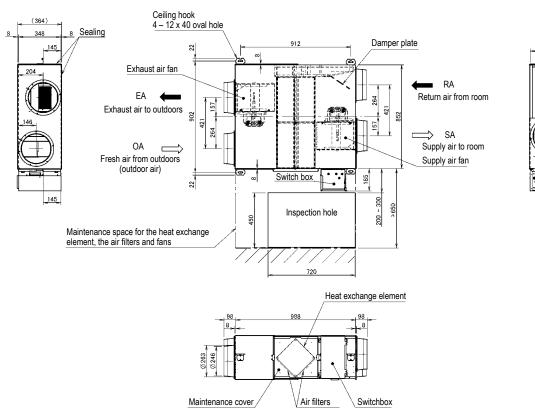
#### VAM650FB

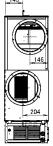


#### NOTES

1. Be sure to provide the inspection hole to inspect the air filters, the exchange elements and fans.

#### VAM800FB



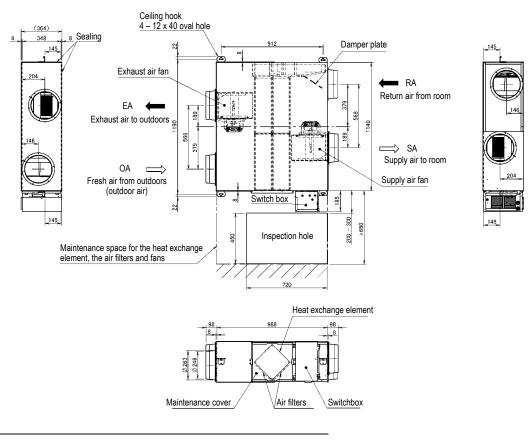


3D081164

NOTES

1. Be sure to provide the inspection hole to inspect the air filters, the exchange elements and fans.

#### VAM1000FB

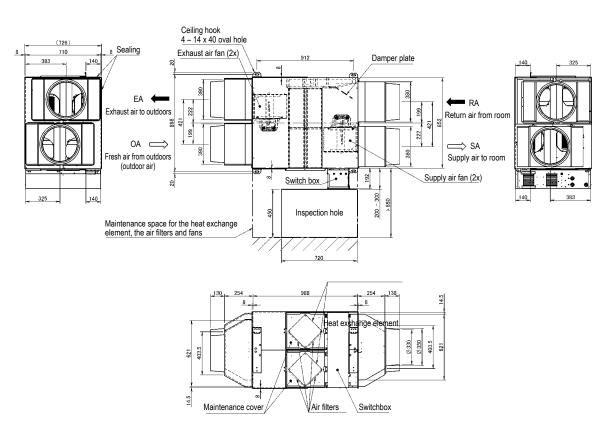


#### NOTES

1. Be sure to provide the inspection hole to inspect the air filters, the exchange elements and fans.

3D081166

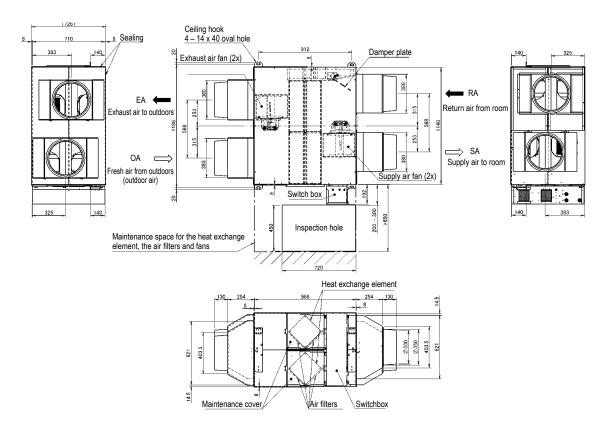
#### VAM1500FB



#### NOTES

1. Be sure to provide the inspection hole to inspect the air filters, the exchange elements and fans.

#### VAM2000FB

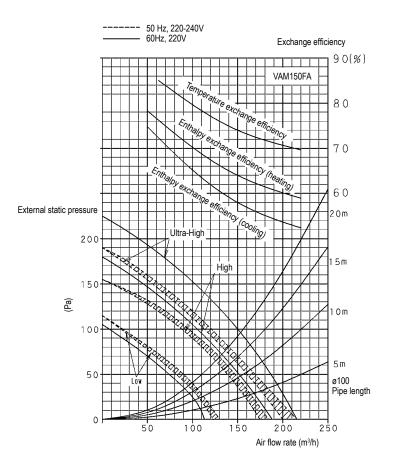


#### NOTES

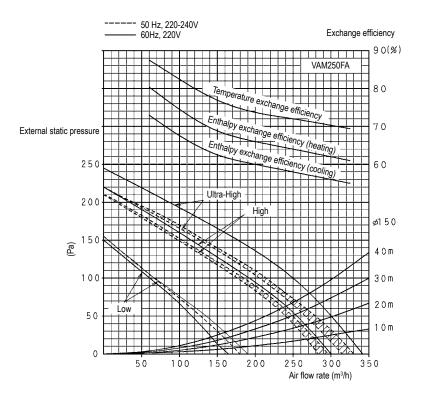
1. Be sure to provide the inspection hole to inspect the air filters, the exchange elements and fans.

3D081168

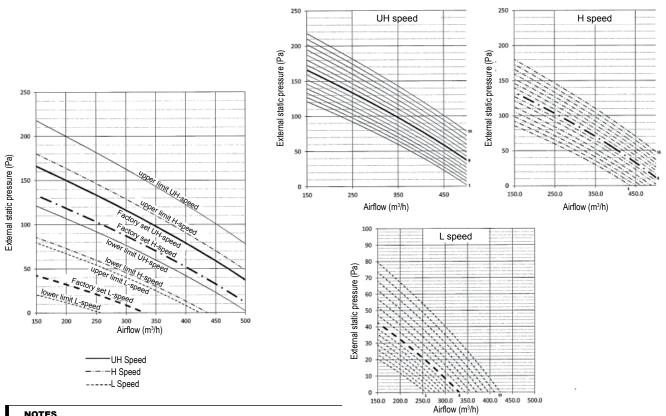
#### VAM150FA



#### VAM250FA

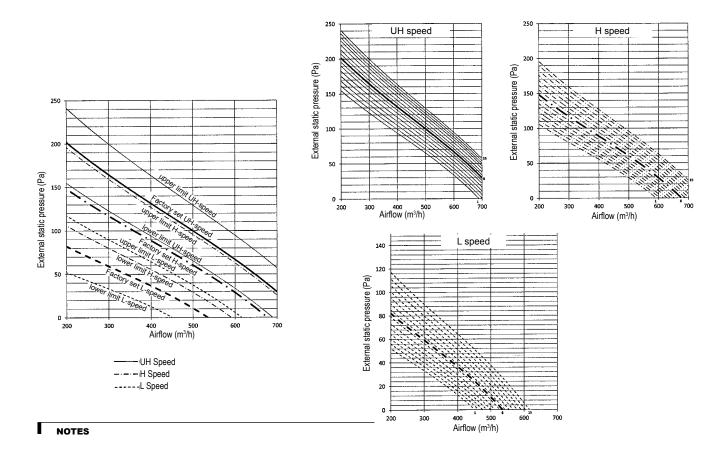


VAM350FA

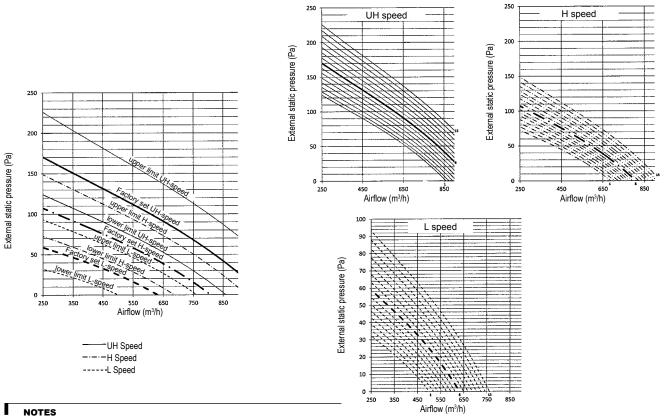




#### VAM500FA

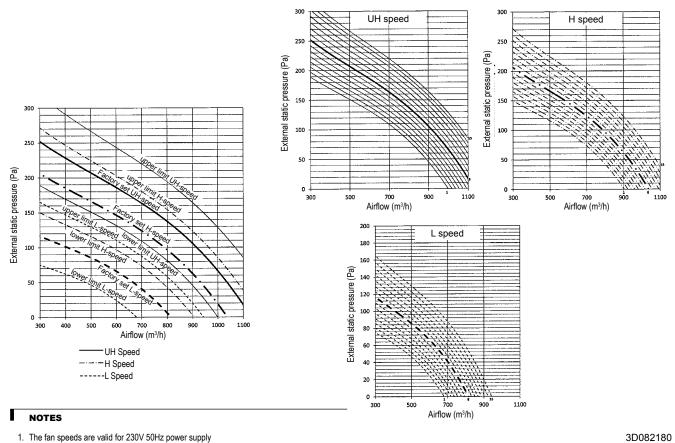


VAM650FA



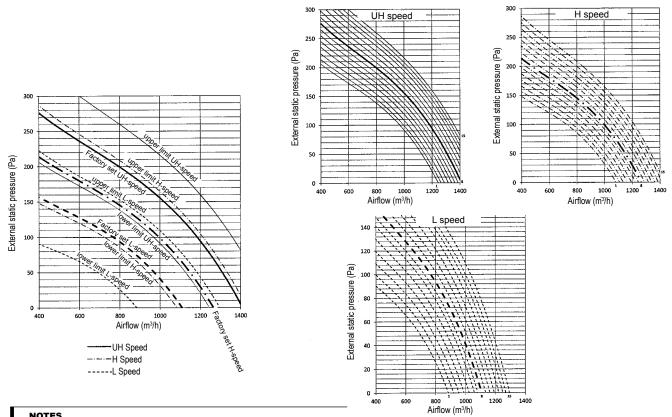
NOTES

#### VAM800FB



1. The fan speeds are valid for 230V 50Hz power supply

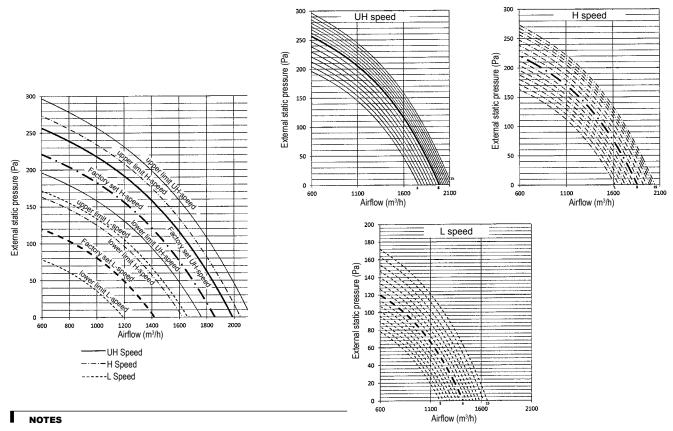
#### VAM1000FB



#### NOTES

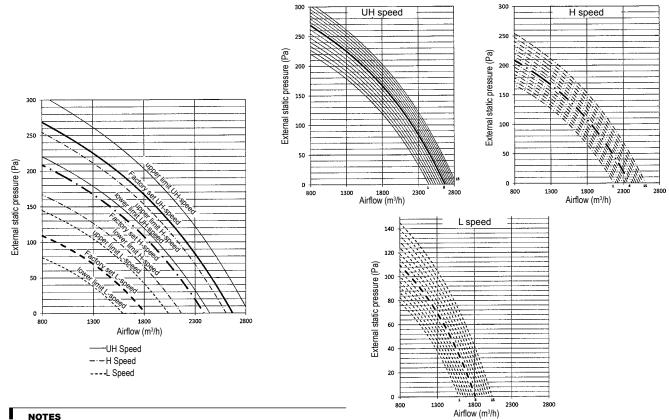
1. The fan speeds are valid for 230V 50Hz power supply

#### VAM1500FB



1. The fan speeds are valid for 230V 50Hz power supply





NOTES

1. The fan speeds are valid for 230V 50Hz power supply

3D082182

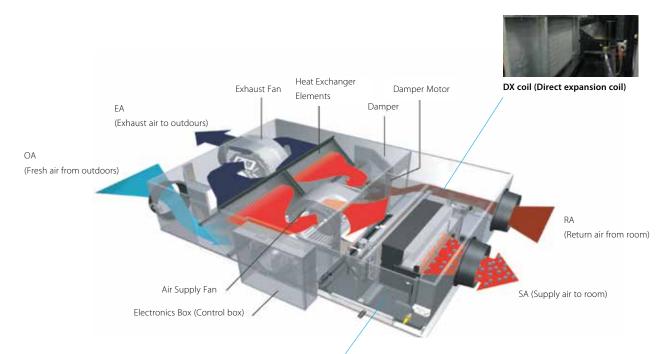
## Heat reclaim ventilation and air processing

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

- Energy saving ventilation using indoor heating, cooling and moisture recovery
- Creates a high quality indoor environment by pre conditioning incoming fresh air
- > Humidification of the incoming air results in comfortable indoor humidity level, even during heating
- Ideal solution for shops, restaurants or offices requiring maximum floor space for furniture, decorations and fittings
- Free cooling possible when outdoor temperature is below indoor temperature (eg. during nighttime)
- > Low energy consumption thanks to DC fan motor
- Prevent energy losses from over-ventilation while maintaining indoor air quality with optional CO2 sensor
- Shorter installation time thanks to easy adjustment of nominal air flow rate, so less need for dampers compared with traditional installation.

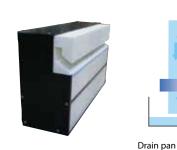
Operation example: humidification & air processing (heating mode)<sup>1</sup>

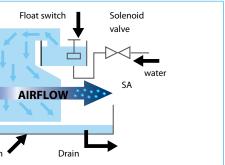
- Specially developed heat exchange element with High Efficiency Paper (HEP)
- > Can operate in over- and under pressure



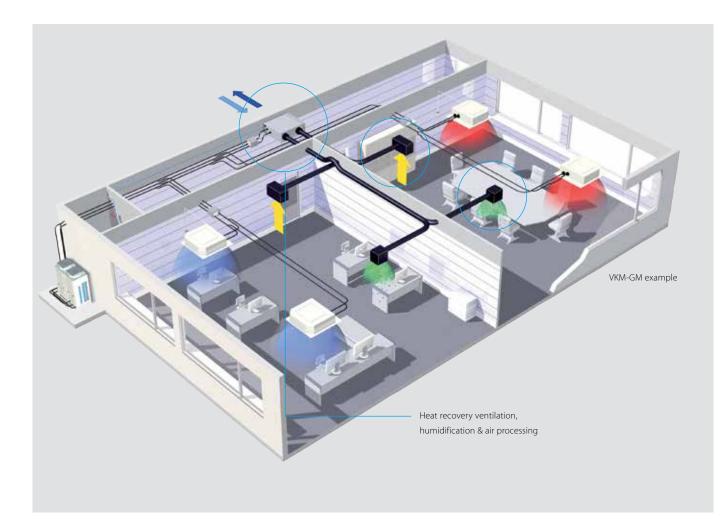
#### Humidifier element:

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.



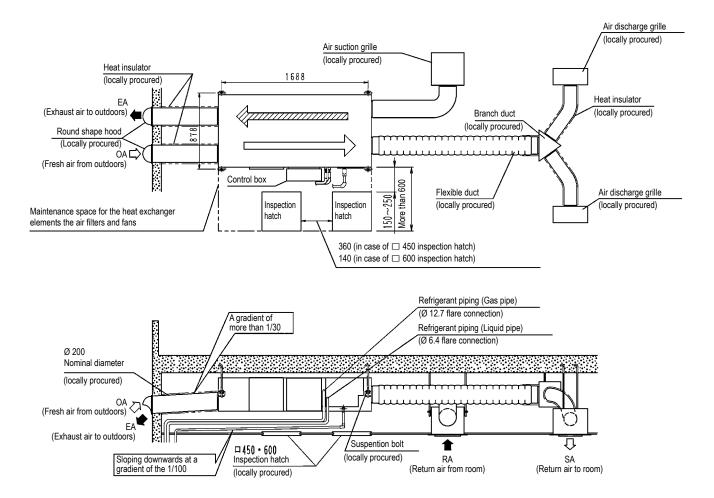


<sup>1</sup> VKM-GM example



					He	eat reclaim ventilat and air processing			at reclaim ventilat cessing and humid	
Ventilation				УКМ	50GB	80GB	100GB	50GBM	80GBM	100GBM
Power input - 50Hz	Heat exchange mode	Nom.	Ultra high	kW	0.270	0.330	0.410	0.270	0.330	0.410
·	Bypass mode	Nom.	Ultra high	kW	0.270	0.330	0.410	0.270	0.330	0.410
Fresh air conditioning	Cooling		3	kW	4.71 / 1.91 / 3.5	7.46 / 2.96 / 5.6	9.12/3.52/7.0	4.71 / 1.91 / 3.5	7.46 / 2.96 / 5.6	9.12/3.52/7.0
load	Heating			kW	5.58 / 2.38 / 3.5	8.79 / 3.79 / 5.6	10.69/4.39/7.0	5.58 / 2.38 / 3.5	8.79/3.79/5.6	10.69 / 4.39 / 7.
Temperature exchange efficiency - 50Hz	Ultra high/High/L	.ow		%	76/76/77.5	78/78/79	74/74/76.5	76/76/77.5	78/78/79	74/74/76.5
Enthalpy exchange	Cooling	Ultra high/	High/Low	%	64/64/67	66/66/68	62/62/66	64/64/67	66/66/68	62/62/66
efficiency - 50Hz	Heating	Ultra high/	High/Low	%	67/67/69	71/71/73	65/65/69	67/67/69	71/71/73	65/65/69
Operation mode						Heat e	xchange mode / Byp	ass mode / Fresh-u	p mode	
Heat exchange system	n					Air to air cr	oss flow total heat (s	ensible + latent hea	it) exchange	
Heat exchange eleme	nt					9	Specially processed r	non-flammable pap	er	
Humidifier	System					-		Na	atural evaporating ty	/pe
Dimensions	Unit	HeightxWi	dthxDepth	mm	387x1,764x832	387x1,7	64x1,214	387x1,764x832	387x1,7	64x1,214
Weight	Unit			kg	94	110	112	100	119	123
Casing	Material						Galvanised	steel plate		
Fan-Air flow rate -	Heat exchange mode	Ultra high		m³/h	500	750	950	500	750	950
50Hz	Bypass mode	Ultra high		m³/h	500	750	950	500	750	950
Fan-External static	Ultra high			Pa	2	10	150	200	205	110
pressure - 50Hz	High			Pa	170	160	100	150	155	70
	Low			Pa	140	110	70	120	105	60
Air filter	Туре						Multidirectiona	l fibrous fleeces		
Sound pressure level	Heat exchange mode	Ultra high		dBA	39	41.5	41	38	4	10
- 50Hz	Bypass mode	Ultra high		dBA	40	41.5	41	39	4	11
Operation range	Around unit			°CDB			0°C~40°CDB, 8	80% RH or less		
	Supply air			°CDB			-15°C~40°CDB,	80% RH or less		
	Return air			°CDB			0°C~40°CDB, 8	80% RH or less		
	On coil	Cooling	Max.	°CDB			-1	5		
	temperature	Heating	Min.	°CDB			4	3		
Refrigerant	Type / GWP						R-410A	/ 2.087,5		
Connection duct diam	neter			mm	200	2	50	200	2	50
Piping connections	Liquid	OD		mm			6.	35		
	Gas	OD		mm			12	2.7		
	Water supply			mm		-			6.4	
	Drain						PT3/4 exte	rnal thread		
Power supply	Phase/Frequency	/Voltage		Hz/V			1~/50/2	220-240		
Current	Maximum fuse ar	nps (MFA)		A			1	5		

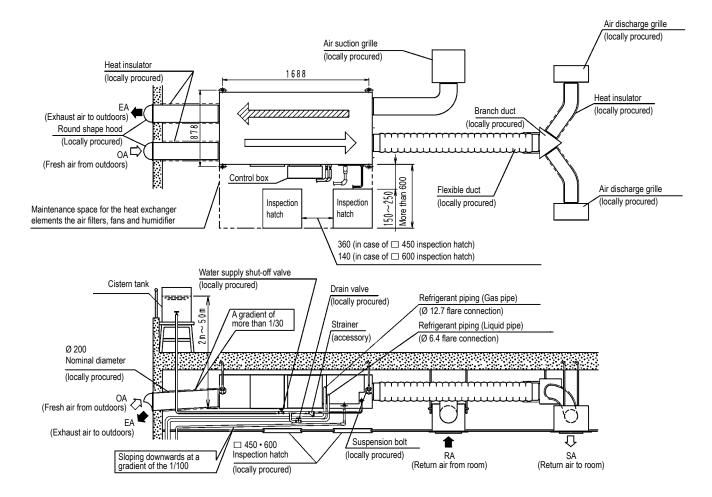
#### VKM50GB



#### NOTES

- 1. Leave space for servicing the unit and include inspection hatch. (Always open a hole on the side of the control box so that the air filters, heat exchange elements, and fans can easily be inspected and serviced.)
- 2. Install the two outdoor ducts with down slope (slope of 1/30 or more) to prevent entry of rain water, also, provide insulation for three ducts (outdoor ducts and indoor supply air duct) to prevent dew condensation. (Material: glass wool of 25mm thick)
- 3. Do not turn the unit upside down.
- 4. Make sure to install drain piping, and insulate drain piping to prevent dew condensation.
- 5. Keep the drain pipe short and sloping downwards at a gradient of at least 1/100 to prevent air from forming.
- 6. Do not use a bent cap or a round hood as the outdoor hood if they might get rained on directly (we recommend using a deep hood) (optional accessory).
- In areas where freezing may occur, always take steps to prevent the pipes from freezing.
   Do not place something which shouldn't get wet at the below of this unit. The dew would fall at following case, where humidity is 80% more, or the exit of drain socket is choked up, or the air filter is very dirty.

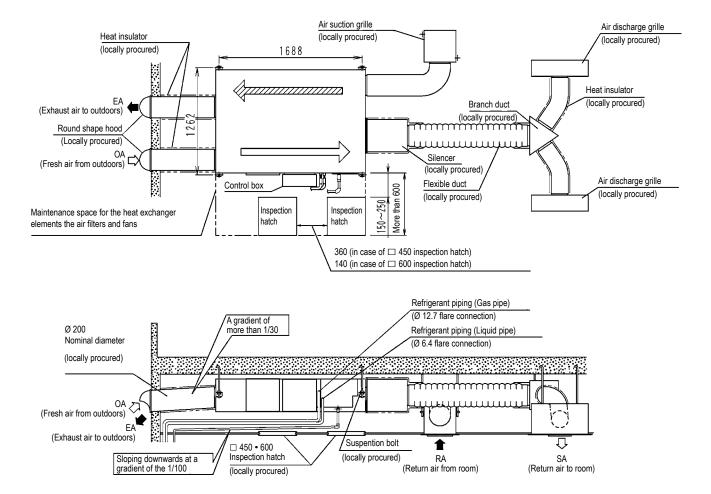
#### VKM50GBM



#### NOTES

- 1. Leave space for servicing the unit and include inspection hatch. (Always open a hole on the side of the control box so that the air filters, heat exchange elements, fans, and humidifier elements can easily be inspected and serviced.)
- Install the two outdoor ducts with down slope (slope of 1/30 or more) to prevent entry of rain water. Also, provide insulation for three ducts (outdoor ducts and indoor supply air duct) to
  prevent dew condensation. (Material: glass wool of 25mm thick)
- 3. Do not turn the unit upside down.
- 4. Use city water or clean water.
- Include water supply piping with straner, a water supply shut-off valve, and a drain valve (both locally procured) somewhere along the water supply piping that can be reached from the inspection.
- 5. It is impossible to connect the water supply piping directly to public piping. Use a cistern tank (of the approved type), if you need to get your water supply from public piping.
- 6. Make sure the supply water 0.02MPa to 0.49MPa (0.2 kg/cm<sup>2</sup> to 5 kg/cm<sup>2</sup>).
- 7. Make sure the supply water is between 5 °C and 40 °C in temperature.
- 8. Insulate the water supply piping to prevent condensation from forming.
- 9. Make sure to install drain piping, and insulate drain piping to prevent dew condensation.
- 10.Keep the drain pipe short and sloping downwards at a gradient of at least 1/100 to prevent air from forming.
- 11. Install in a location where the air around the unit or taken into the humidifier will not drop below 0 °C.
- 12. Do not use a bent cap or a round hood as the outdoor hood if they might get rained on directly (we recommend using a deep hood) (optional accessory).
- 13. In areas where freezing may occur, always take steps to prevent the pipes from freezing.
- 14. Do not place something which shouldn't get wet at the below of this unit. The dew would fall at following case, where humidity is 80% more, or the exit of drain socket is choked up, or the air filter is very dirty.
- 15. Feed clean water. If the supply water is hard water, use a water softener because of short life.
- Life of humidifying element is about 3 years (4,000 hours), under the supply water conditions of hardness: 150 mg/L. (Life of humidifying element is about 1 years (1500 hours), under the supply water conditions of hardness: 400 mg/L.)

#### VKM80GB



#### NOTES

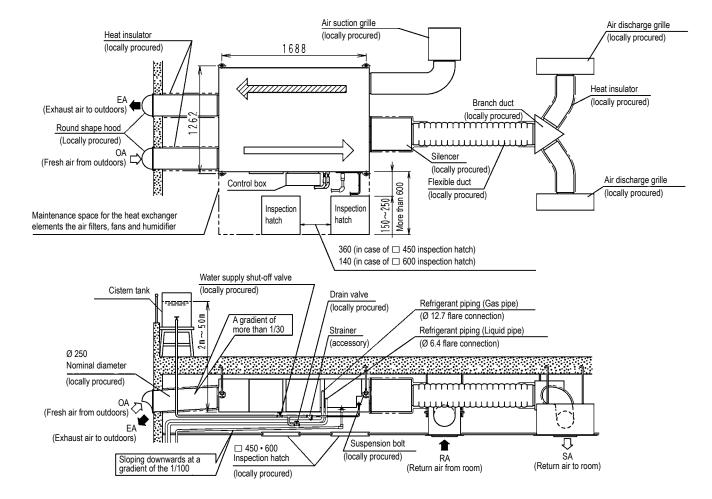
Γ

1. Leave space for servicing the unit and include inspection hatch. (Always open a hole on the side of the control box so that the air filters, heat exchange elements, and fans can easily be inspected and serviced.)

Install the two outdoor ducts with down slope (slope of 1/30 or more) to prevent entry of rain water, also, provide insulation for three ducts (outdoor ducts and indoor supply air duct) to
prevent dew condensation. (Material: glass wool of 25mm thick)

- 3. Do not turn the unit upside down.
- 4. Make sure to install drain piping, and insulate drain piping to prevent dew condensation.
- 5. Keep the drain pipe short and sloping downwards at a gradient of at least 1/100 to prevent air from forming.
- 6. Do not use a bent cap or a round hood as the outdoor hood if they might get rained on directly (we recommend using a deep hood) (optional accessory).
- 7. In areas where freezing may occur, always take steps to prevent the pipes from freezing.
- 8. Do not place something which shouldn't get wet at the below of this unit. The dew would fall at following case, where humidity is 80% more, or the exit of drain socket is choked up, or the air filter is very dirty.

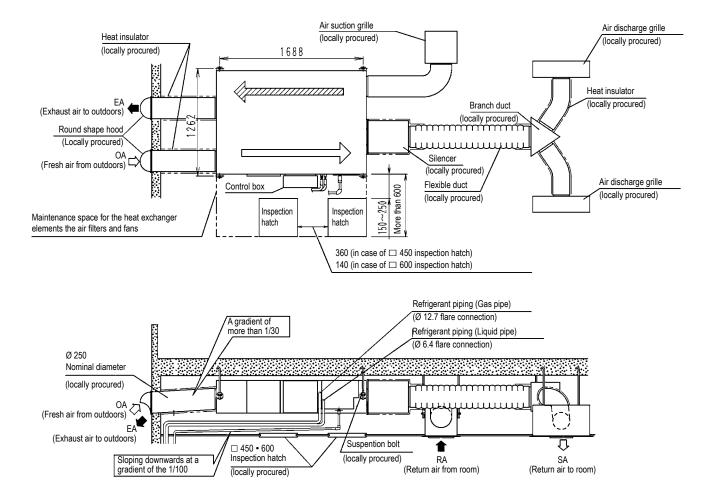
#### VKM80GBM



#### NOTES

- 1. Leave space for servicing the unit and include inspection hatch. (Always open a hole on the side of the control box so that the air filters, heat exchange elements, fans, and humidifier elements can easily be inspected and serviced.)
- 2. Install the two outdoor ducts with down slope (slope of 1/30 or more) to prevent entry of rain water. Also, provide insulation for three ducts (outdoor ducts and indoor supply air duct) to prevent dew condensation. (Material: glass wool of 25mm thick)
- 3. Do not turn the unit upside down.
- Use city water or clean water. 4.
- Include water supply piping with straner, a water supply shut-off valve, and a drain valve (both locally procured) somewhere along the water supply piping that can be reached from the inspection.
- It is impossible to connect the water supply piping directly to public piping. Use a cistern tank (of the approved type), if you need to get your water supply from public piping. 5.
- 6. Make sure the supply water 0.02MPa to 0.49MPa (0.2 kg/cm<sup>2</sup> to 5 kg/cm<sup>2</sup>).
- Make sure the supply water is between 5 °C and 40 °C in temperature. 7.
- 8. Insulate the water supply piping to prevent condensation from forming.
- 9. Make sure to install drain piping, and insulate drain piping to prevent dew condensation.
- 10. Keep the drain pipe short and sloping downwards at a gradient of at least 1/100 to prevent air from forming.
- 11. Install in a location where the air around the unit or taken into the humidifier will not drop below 0 °C.
- 12. Do not use a bent cap or a round hood as the outdoor hood if they might get rained on directly (we recommend using a deep hood) (optional accessory).
- 13. In areas where freezing may occur, always take steps to prevent the pipes from freezing.
- 14. Do not place something which shouldn't get wet at the below of this unit. The dew would fall at following case, where humidity is 80% more, or the exit of drain socket is choked up, or the air filter is very dirty.
- 15. Feed clean water. If the supply water is hard water, use a water softener because of short life.
- Life of humidifying element is about 3 years (4,000 hours), under the supply water conditions of hardness: 150 mg/L. (Life of humidifying element is about 1 years (1500 hours), under the supply water conditions of hardness: 400 mg/L.)

#### VKM100GB



#### NOTES

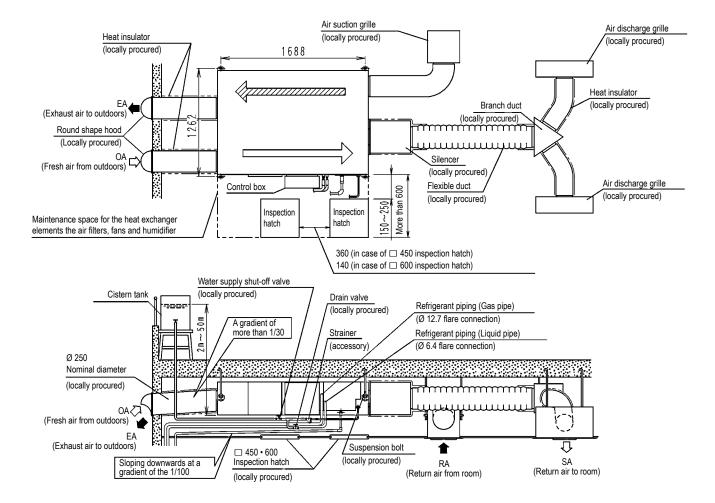
Γ

1. Leave space for servicing the unit and include inspection hatch. (Always open a hole on the side of the control box so that the air filters, heat exchange elements, and fans can easily be inspected and serviced.)

Install the two outdoor ducts with down slope (slope of 1/30 or more) to prevent entry of rain water, also, provide insulation for three ducts (outdoor ducts and indoor supply air duct) to
prevent dew condensation. (Material: glass wool of 25mm thick)

- 3. Do not turn the unit upside down.
- 4. Make sure to install drain piping, and insulate drain piping to prevent dew condensation.
- 5. Keep the drain pipe short and sloping downwards at a gradient of at least 1/100 to prevent air from forming.
- 6. Do not use a bent cap or a round hood as the outdoor hood if they might get rained on directly (we recommend using a deep hood) (optional accessory).
- 7. In areas where freezing may occur, always take steps to prevent the pipes from freezing.
- 8. Do not place something which shouldn't get wet at the below of this unit. The dew would fall at following case, where humidity is 80% more, or the exit of drain socket is choked up, or the air filter is very dirty.

#### VKM100GBM

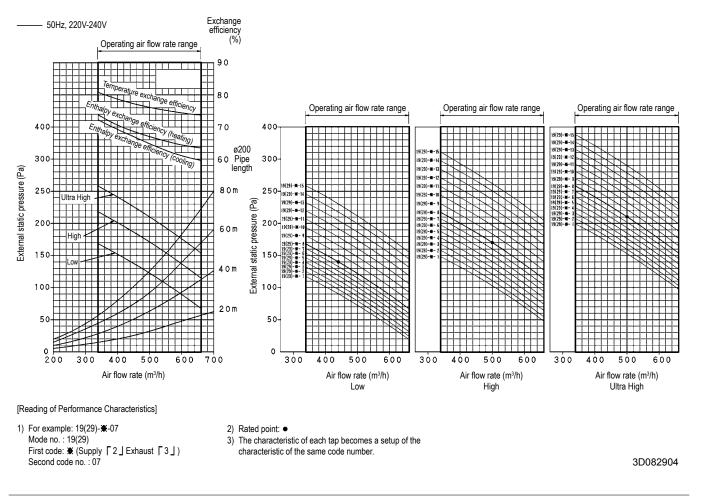


#### NOTES

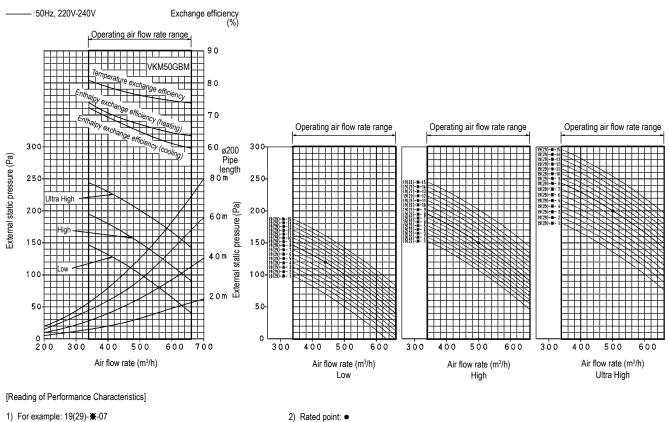
- 1. Leave space for servicing the unit and include inspection hatch. (Always open a hole on the side of the control box so that the air filters, heat exchange elements, fans, and humidifier elements can easily be inspected and serviced.)
- 2. Install the two outdoor ducts with down slope (slope of 1/30 or more) to prevent entry of rain water. Also, provide insulation for three ducts (outdoor ducts and indoor supply air duct) to prevent dew condensation. (Material: glass wool of 25mm thick)
- 3. Do not turn the unit upside down.
- Use city water or clean water. 4.
- Include water supply piping with straner, a water supply shut-off valve, and a drain valve (both locally procured) somewhere along the water supply piping that can be reached from the inspection.
- It is impossible to connect the water supply piping directly to public piping. Use a cistern tank (of the approved type), if you need to get your water supply from public piping. 5.
- 6. Make sure the supply water 0.02MPa to 0.49MPa (0.2 kg/cm<sup>2</sup> to 5 kg/cm<sup>2</sup>).
- Make sure the supply water is between 5 °C and 40 °C in temperature. 7.
- 8. Insulate the water supply piping to prevent condensation from forming.
- 9. Make sure to install drain piping, and insulate drain piping to prevent dew condensation.
- 10. Keep the drain pipe short and sloping downwards at a gradient of at least 1/100 to prevent air from forming.
- 11. Install in a location where the air around the unit or taken into the humidifier will not drop below 0 °C.
- 12. Do not use a bent cap or a round hood as the outdoor hood if they might get rained on directly (we recommend using a deep hood) (optional accessory).
- 13. In areas where freezing may occur, always take steps to prevent the pipes from freezing.
- 14. Do not place something which shouldn't get wet at the below of this unit. The dew would fall at following case, where humidity is 80% more, or the exit of drain socket is choked up, or the air filter is very dirty.
- 15. Feed clean water. If the supply water is hard water, use a water softener because of short life.
- Life of humidifying element is about 3 years (4,000 hours), under the supply water conditions of hardness: 150 mg/L. (Life of humidifying element is about 1 years (1500 hours), under the supply water conditions of hardness: 400 mg/L.)

#### Detailed technical drawings

#### VKM50GB



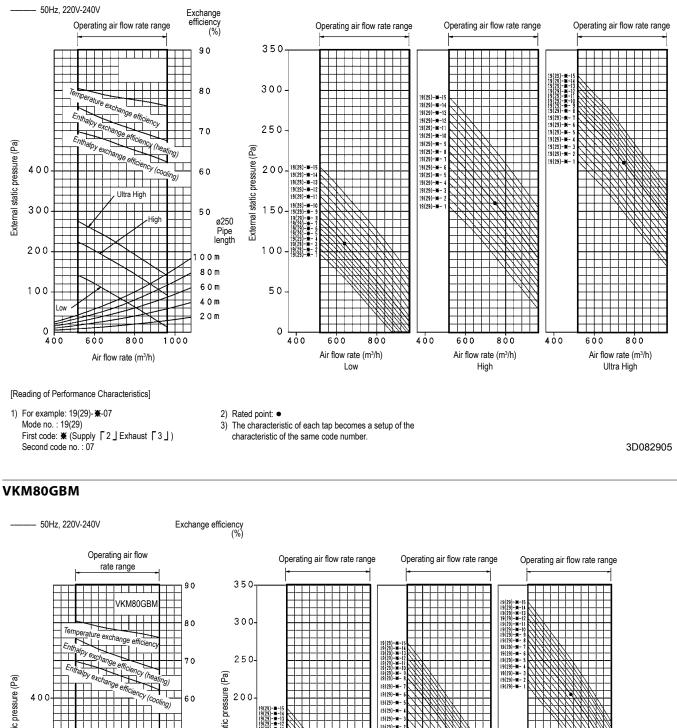
#### VKM50GBM



1) For example: 19(29)-**¥**-07 Mode no. : 19(29) First code: **\*** (Supply [2] Exhaust [3]) Second code no. : 07

3) The characteristic of each tap becomes a setup of the characteristic of the

#### VKM80GB



External static pressure (Pa) External static pressure (Pa) 19(29)-¥ 19(29)-¥ 19(29)-¥ 19(29)-¥ 300 150 50 Ultra High ø250 Pipe length 200 100 19(29) 19(29) 19(29) 0 0 m ligl 80 m 60 m 100 50 4 0 m 2 O m 0 0 400 400 400 400 600 800 1000 600 800 600 800 600 800 Air flow rate (m<sup>3</sup>/h) Air flow rate (m<sup>3</sup>/h) Air flow rate (m<sup>3</sup>/h) Air flow rate (m3/h) Ultra High Low High [Reading of Performance Characteristics] 2) Rated point: •

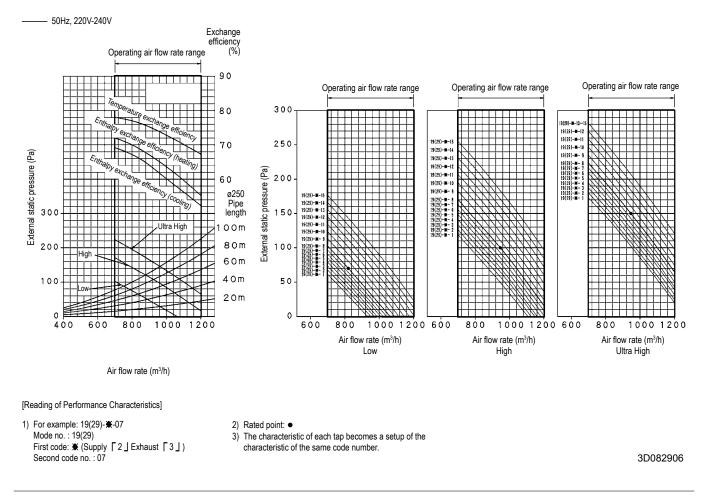
1) For example: 19(29)- **\***-07 Mode no. : 19(29) First code: **\*** (Supply [2 ] Exhaust [3 ]) Second code no.: 07

3) The characteristic of each tap becomes a setup of the characteristic of the

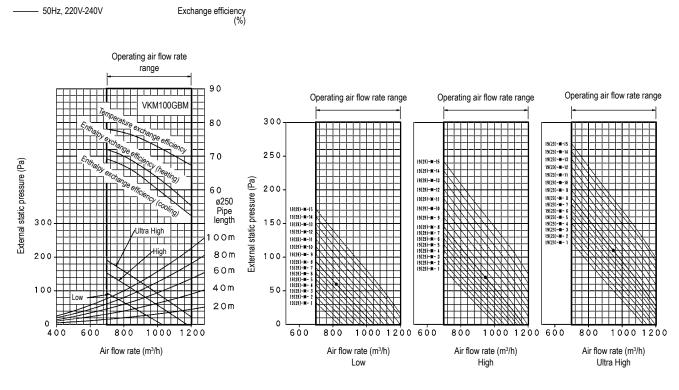
same code number.

3D082902

#### VKM100GB



#### VKM100GBM



[Reading of Performance Characteristics]

1) For example: 19(29)-₩-07 Mode no. : 19(29) First code: ₩ (Supply [2] Exhaust [3]) Second code no. : 07

2) Rated point: •

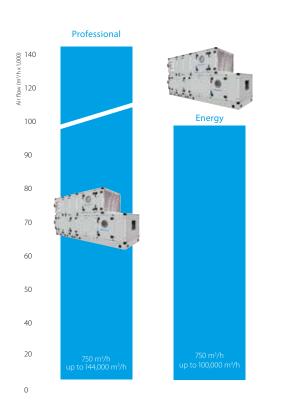
 The characteristic of each tap becomes a setup of the characteristic of the same code number.

## Air handling applications

#### Wide range of air flows

For applications that require big volumes of treated fresh air (large atriums, banquet halls, etc) air handling units represent the ideal solution.

Daikin's wide range of air handling units treat air volumes from 500 m<sup>3</sup>/h up to 140,000 m<sup>3</sup>/h. The air handling unit can be designed to deliver whatever air flow you require, via the specific dimensions of flow section available at the installation.



#### Dainkin fresh air package - plug & play

The D-AHU Professional and Energy series provide a complete solution including unit control (EKEXV, EKEQ, DDC controller) factory mounted and configured, plug & play with our ERQ and VRV condensing units.

The easiest solution as you save time and only have one point of contact!

#### Return on investment

The air handling unit (AHU) is critical to an effective climate control system and the savings generated by our advanced designs and operating efficiencies guarantee a rapid return on the investment made. Our AHU Energy series has been designed to deliver exceptional performance thus driving down the energy consumed and so lowering energy bills. Taken over the expected 15-year life-span of the equipment, this will result in a substantial saving, especially in a time of ever increasing energy prices.

#### Professional

- > Pre-configured sizes
- Tailored to the individual customer
- > Modular construction

#### Energy

- High-end solution for optimised energy consumption
- > High efficiency components
- Strong Return on Investment

#### **NEW** Compact

- > Pre-configured sizes
- > Plug & Play concept
- > EC Fan Technology
- > High Efficiency Heat Wheel
- Compact Design

#### **Pre-defined sizes**

Compact

27 fixed sizes are available, optimized to reach the optimum combination between value for money and manufacturing standardisation. Daikin's section by section design means that units can be sized by 1cm increments and assembled on site, without welding, to suit the space constraints of the installation.

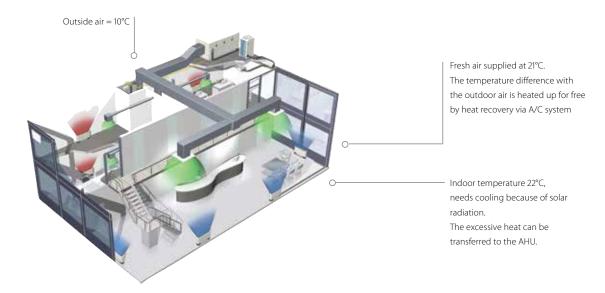
#### High efficiency components

All Daikin air handling units have been designed for optimum energy efficiency. Polyurethane or Mineral wool panels guarantee excellent thermal insulation performance. And the widest range of filters are provided to meet even the most strict demands.

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

#### **High Efficiency**

Daikin heat pumps are renowned for their high energy efficiency. Integrating the AHU with a heat recovery system is even more effective since an office system can frequently be in cooling mode while the outdoor air is too cold to be brought inside in an unconditioned state. In this case heat from the offices is merely transferred to heat up the cold incoming fresh air.



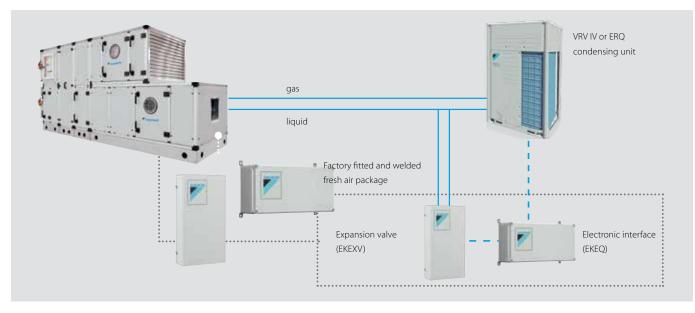
## Fast response to changing loads resulting in high comfort levels

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

#### Easy Design and Installation

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

#### Daikin Fresh air package



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

**Control w:** Off the shelf control of air temperature (discharge temperature, suction temperature, room temperature) via any DDC controller using a proportional 0~10V algorithm for capacity control

Control x: Precize control of air temperature (discharge

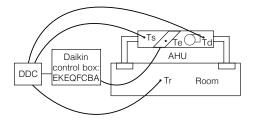
temperature, suction temperature, room temperature) requiring a preprogrammed DDC controller (for special applications) using a proportional 0~10V algorithm for capacity control

**Control y:** Control of refrigerant (Te/Tc) temperature via Daikin control (no DDC controller needed) with 3rd party thermostat (Daikin control for field settings and error indication) **Control z:** Control of air temperature (suction temperature, room temperature) via Daikin control (no DDC controller needed)

#### Possibility W (Td/Tr control):

#### Air temperature control via DDC controller

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



#### Possibility Y (Te/Tc control):

#### By fixed evaporating /condensing temperature

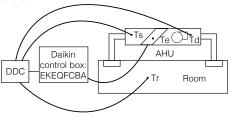
A fixed target evaporating temperature of between 3°C and 12°C can be set by the customer. In this case, room temperature is only indirectly controlled. The cooling load is determined from the actual evaporating temperature (i.e. load to the heat exchanger). A Daikin infrared remote control (BRC1D52 or BRC1E52A/B - optional) can be connected for error indication.

Td



#### Precise air temperature control via DDC controller

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



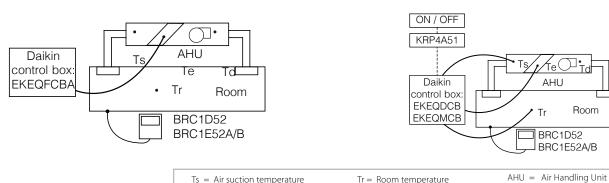
#### Possibility Z (Ts/Tr control):

## Control your AHU just like a VRV indoor unit with 100% fresh air (BRC1D52 or BRC1E52A/B - optional)

Set point can be fixed via standard Daikin infrared remote control. Remote ON/OFF can be achieved

by an optional adapter KRP4A51.

No external DDC controller should be connected. The cooling load is determined from the air suction temperature and set point on the Daikin controller.



a Air suction temperature	Ir = Room temperature	And = All handling onlic
d = Air discharge temperature	Te = Evaporating temperature	DDC = Digital Display Controller

	Option kit	Features
0 11 111		DDC controller is required
Possibility w		temperature control using air suction or air discharge temperature
Dossibility	EKEQFCBA	DDC and Microtech controller is required
Possibility x		Precise Temperature control using air suction or air discharge temperature
Possibility y		Using fixed evaporating temperature, no set point can be set using remote control
Possibility z	EKEQDCB	Using Daikin infrared remote control BRC1D52 or BRC1E52A/B
Possibility Z	EKFQMCBA*	Temperature control using air suction temperature

Ventilation & Air Handling

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

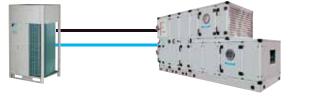
## An advanced solution for both pair and multi application

- > Inverter controlled units
- > Heat recovery, heat pump
- > R-410A
- > Control of room temperature via Daikin control
- > Large range of expansion valve kits available
- > BRC1E52A/B is used to set the set point temperature (connected to the EKEQMCBA).
- Connectable to all VRV heat recovery and heat pump systems

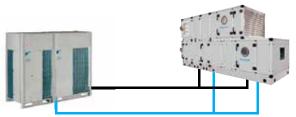


## W, X, Y control for VRV IV heat pump

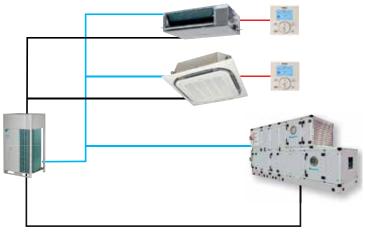
R\*YQ8-20T



R\*YQ12-54T



## Z control for all VRV outdoor units





Refrigerant piping other communication

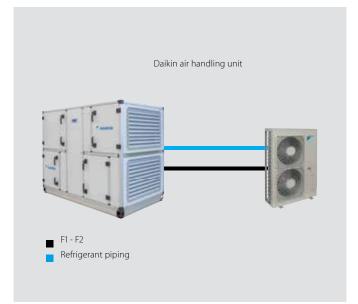
1 . DAIKIN · ROBERT 1

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

## An basic fresh air solution for both pair application

- > Inverter controlled units
- > Heat pump
- > R-410A
- > Wide range of expansion valve kits available

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



Ventilation			ERQ	100AV1	125AV1	140AV1
Capacity range			HP	4	5	6
Cooling capacity	/Nom.		kW	11.2	14.0	15.5
Heating capacity	yNom.		kW	12.5	16.0	18.0
Power input	Cooling	Nom.	kW	2.81	3.51	4.53
	Heating	Nom.	kW	2.74	3.86	4.57
EER				3.9	99	3.42
COP				4.56	4.15	3.94
Dimensions	Unit		mm		1,345x900x320	
Weight	Unit		kg		120	
Fan-Air flow rate	Cooling	Nom.	m³/min		106	
	Heating	Nom.	m³/min	102		105
Sound power level	l Cooling	Nom.	dBA	66	67	69
Sound pressure	Cooling	Nom.	dBA	50	51	53
level	Heating	Nom.	dBA	52	53	55
Operation range	Cooling	Min./Max.	°CDB		-5/46	
	Heating	Min./Max.	°CWB		-20/15.5	
	On coil	Heating Min.	°CDB		10 (1)	
	temperature	Cooling Max.	°CDB		35	
Refrigerant	Type / GWP	2			R-410A / 2.087,5	
5	Charge		kg/TCO <sub>3</sub> Eq		4.0/8.4	
Piping	Liquid	OD	mm		9.52	
connections	Gas	OD	mm	15		19.1
	Drain	OD	mm		26x3	
Power supply	Phase/Frequer	ncv/Voltage	Hz/V		1N~/50/220-240	
Current	Maximum fuse		A		32.0	
					5210	
Ventilation			ERQ	125AW1	200AW1	250AW1
Capacity range			HP	5	8	10
Cooling capacity	/ Nom.		kW	14.0	22.4	28.0
Heating capacity	y Nom.		kW	16.0	25.0	31.5
Power input	Cooling	Nom.	kW	3.52	5.22	7.42
	Heating	Nom.	kW	4.00	5.56	7.70
EER				3.98	4.29	3.77
СОР				4.00	4.50	4.09
Dimensions	Unit		mm	1,680x635x765		(930x765
Weight	Unit		kg	159	187	240
Fan-Air flow rate		Nom.	m³/min	95	171	185
	Heating	Nom.	m³/min	95	171	185
Sound power leve			dBA	72		78
	ol Nom		dBA	54	57	58
Sound pressure lev		A41 . /A4	°CDB	-5/43		
	e Cooling	Min./Max.				
	e Cooling Heating	Min./Max.	°CWB		-20/15	
	e Cooling Heating On coil	Min./Max. Heating Min.	°CWB °CDB		10	
Operation range	e Cooling Heating On coil temperature	Min./Max.	°CWB		10 35	
Sound pressure lev Operation range Refrigerant	e Cooling Heating On coil temperature Type / GWP	Min./Max. Heating Min.	°CWB °CDB °CDB		10 35 R-410A / 2.087,5	
Operation range Refrigerant	e Cooling Heating On coil temperature Type / GWP Charge	Min./Max. Heating Min. Cooling Max.	°CWB °CDB °CDB kg/TCO <sub>2</sub> Eq	6.2/12.9	10 35 R-410A / 2.087,5 7.7/16.1	8.4/17.5
Operation range Refrigerant Piping	e Cooling Heating On coil temperature Type / GWP Charge Liquid	Min./Max. Heating Min. Cooling Max. OD	°CWB °CDB °CDB kg/TCO <sub>2</sub> Eq mm		10 35 R-410A / 2.087,5 7.7/16.1 9.52	
Operation range Refrigerant Piping connections	E Cooling Heating On coil temperature Type / GWP Charge Liquid Gas	Min./Max. Heating Min. Cooling Max. OD OD	°CWB °CDB °CDB kg/TCO,Eq mm mm	6.2/12.9 15.9	10 35 R-410A / 2.087,5 7.7/16.1 9.52 19.1	8.4/17.5
Operation range Refrigerant Piping	E Cooling Heating On coil temperature Type / GWP Charge Liquid Gas Phase/Freque	Min./Max. Heating Min. Cooling Max. OD OD	°CWB °CDB °CDB kg/TCO <sub>2</sub> Eq mm		10 35 R-410A / 2.087,5 7.7/16.1 9.52	

(1) If on coil temperature is lower, use pre-treatment of the air (heat wheel, ...) to raise on coil temperature

## Integration of ERQ and VRV in third party air handling units

#### a wide range of expension valve kits and control boxes

#### **Combination table**

				Control box						Expansio	n valve kit				
			EKEQDCBV3	EKEQFCBAV3	EKEQMCBAV3	EKEXV50	EKEXV63	EKEXV80	EKEXV100	EKEXV125	EKEXV140	EKEXV200	EKEXV250	EKEXV400	EKEXV500
			Z control	W,X,Y control	Z control										
		ERQ100	Р	Р		-	Р	Р	Р	Р	-	-	-	-	-
	1-phase	ERQ125	P	Р		-	Р	Р	Р	Р	Р	-	-	-	-
Custom A		ERQ140	P	Р		-	-	Р	Р	Р	Р	-	-	-	-
System A		ERQ125	Р	Р		-	Р	Р	Р	Р	Р	-	-	-	-
	3-phase	ERQ200	Р	Р		-	-	-	Р	Р	Р	Р	Р	-	-
		ERQ250	Р	Р		-	-	-	-	Р	Р	Р	Р	-	-
System B	VR\	/ 111			n1	n1	n1	n1	n1	n1	n1	n1	n1	n1	n1
System B	VR	/ IV		1->3	n2	n2	n2	n2	n2	n2	n2	n2	n2	n2	n2

P (pair application): combination depends on the capacity of the air handling unit
 n1 (multi application: combination of air handling units and VRV DX indoor units): to determine the quantity, refer to the engineering data book
 n2 (multi application: multiple air handling units, or the combination of air handling units and VRV DX indoor units): to determine the quantity, refer to the engineering data book

Control box EKEQFA can be connected to some types of VRV IV outdoor units (with a maximum of 3 boxes per unit). Do not combine EKEQFA control boxes with VRV DX indoor units, RA indoor units or hydroboxes

#### Capacity table

#### Cooling

	Allowed heat exch	anger capacity (kW)		
EKEXV Class	Minimum	Maximum		
50	5,0	6,2		
63	6,3	7,8		
80	7,9	9,9		
100	10,0	12,3		
125	12,4	15,4		
140	15,5	17,6		
200	17,7	24,6		
250	24,7	30,8		
400	35,4	49,5		
500	49,6	61,6		

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

#### Heating

	Allowed heat excha	anger capacity (kW)		
EKEXV Class	Minimum	Maximum		
50	5,6	7,0		
63	7,1	8,8		
80	8,9	11,1		
100	11,2	13,8		
125	13,9	17,3		
140	17,4	19,8		
200	19,9	27,7		
250	27,8	34,7		
400	39,8	55,0		
500	55,1	69,3		

Saturated condensing temperature: 46°C

Air temperature: 20°C DB

#### EKEXV - Expansion valve kit for air handling applications

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

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

#### EKEQ - Control box for air handling applications

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

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



WIRED REMOTE CONTROL BRC1E52A





# Control Systems

#### **Control Systems**

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#### **Options & Accessories**

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## **Requirement tables per application**

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

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

Shop	Unit control		h	ntegrating contro	Advanced control		
	BRC1E52A/B	RTD-20	RTD-Net	KLIC-DI	EKMBDXA	DCS601C51	DCM601A51
	1 remote controller for 1 indoor unit (group)	1 gateway for 1 indoor unit (group)	1 gateway for 1 indoor unit	1 gateway for 1 indoor unit	1 gateway for max. 64 indoor unit(s) (groups) & 10 outdoors	1 iTC for 64 indoor unit(s) (groups)	1 iTM for 64 indoor unit(s) (groups) (1)
Automatic control of A/C	•	•	•	•	•	•	•
Limited control possibilities for shop staff	•	•	•	•	•	•	•
Create zones within the shop		•				•	•
Interlock with eg. Alarm, PIR sensor		•					•
Integrate Daikin units into existing BMS via Modbus			•		•		
Integrate Daikin units into existing BMS via KNX				•			
Integrate Daikin units into existing BMS via HTTP						•	
Monitor energy consumption							•
Advanced energy management							•
Allows free cooling						•	•
Integrate Daikin products cross pillars into Daikin BMS							•
Integrate third party products into Daikin BMS							•
Web control standard available for control via local PC							•

(1): 7 iTM plus adapters (DCM601A52) can be added to have 512 indoor groups and 80 outdoor (systems)

Hotel	Unit c	ontrol	Integrati	ng control	Advance	d control
	BRC2/3E52C	RTD-HO	RTD-Net	KLIC-DI	DCS601C51	DCM601A51
	1 remote controller for 1 indoor unit (group)	1 gateway for 1 indoor unit (group)	1 gateway for 1 indoor unit (group)	1 gateway for 1 indoor unit	1 iTC for 64 indoor unit(s) (groups)	1 iTM for 64 indoor unit(s) (groups) (1)
Hotel guest can control & monitor basic functionalities from his room	•	•	•	•	•	•
Limited control possibilities for hotel guests	•	•	•	•	•	•
Interlock with window contact	•	•				•
Interlock with key-card	•	•				•
Integrate Daikin units into existing BMS via Modbus			•			
Integrate Daikin units into existing BMS via KNX				•		
Integrate Daikin units into existing BMS via HTTP					•	
Monitor energy consumption						•
Advanced energy management						•
Integrate Daikin products cross pillars into Daikin BMS						•
Integrate third party products into Daikin BMS						•
Web control standard available for control via local PC						•

(1): 7 iTM plus adapters (DCM601A52) can be added to have 512 indoor groups and 80 outdoor (systems)

Office 🔶	Unit control	control Integrating control			Advanced control			
	BRC1E52A/B	EKMBDXA	DMS504B51	DMS502A51 / DAM412B51	DCS302C51 / DST301B51	DCS601C51	DCM601A51	
	1 remote controller for 1 indoor unit (group)	1 gateway for max. 64 indoor unit(s) (groups) & 10 outdoors	1 gateway for 64 indoor unit(s) (groups)	1 gateway for 128 indoor unit(s) (groups), 20 outdoors (2)	1 R/C for max. 64 groups, 128 indoor units, 10 outdoors	1 iTC for 64 indoor unit(s) (groups)	1 iTM for 64 indoor unit(s) (groups) (1)	
Automatic control of A/C	•	•	•	•	• (3)	•	•	
Centralised control for management		•	•	•	•	•	•	
Local control for office workers	•	•	•	•	•	•	•	
Limited control possibilities for office workers	•					•	•	
Integrate Daikin units into existing BMS via Modbus		•						
Integrate Daikin units into existing BMS via KNX								
Integrate Daikin units into existing BMS via HTTP						•		
Integrate Daikin units into existing BMS via LonTalk			•					
Integrate Daikin units into existing BMS via BACnet				•				
Energy consumption read out	•							
Monitor energy consumption							•	
Advanced energy management							•	
Integrate Daikin products cross pillars into Daikin BMS							•	
Integrate third party products into Daikin BMS							•	
Web control standard available for control via local PC							•	

Unit

DTA113B51

Integrating

RTD-10

Advanced

DCM601A51

(1): 7 iTM plus adapters (DCM601A52) can be added to have 512 indoor groups and 80 outdoor (systems) (2): extension needed to go to 256 indoor unit(s) (groups), 40 outdoors (3): ON/OFF only

#### **Technical cooling**



	1 PCB for 4 indoor unit(s) (groups)	1 gateway for up to 8 indoor units (group)	1 iTM for 64 indoor unit(s) (groups) (1)
Automatic control of A/C	•	•	•
Back-up operation	•	•	•
Duty rotation	•	•	•
Limited control possibilities in the technical cooling room		•	•
If room temperature above max., then show alarm & start standby unit.		•	•
If an error occurs, an alarm will be shown.		•	•

Ω

(1): 7 iTM plus adapters (DCM601A52) can be added to have 512 indoor groups and 80 outdoor (systems)

#### BRC944B2\*/BRC1D52

## Wired remote control

**Í** 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 OFF1
- · limits: unit is switched ON and min./max. control (cf. limit operation for more details)
- Í 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
- Í User friendly HRV function, thanks to the introduction of a button for ventilation mode and fan speed
- Í Constantly monitoring of the system for malfunctions in a total of 80 components
- Í Immediate display of fault location and condition
- Í Reduction of maintenance time and costs



- **Í** Operating mode<sup>1</sup>
- ${\rm I}\,$  Heat Recovery Ventilation (HRV) in operation
- Í Cool / heat changeover control
- Í Centralised control indication
- Í Group control indication
- Í Set temperature<sup>1</sup>
- **Í** Air flow direction<sup>1</sup>

- Í Clean air filter **Í** Defrost / hot start
  - **Í** Malfunction

**Í** Fan speed<sup>1</sup>

**Í** Programmed time

 ${\rm I}$  Inspection test / operation

111111

<sup>1</sup> Only functions marked with '1' are available on BRC944B2

BRC1D52

#### ARC4\*/BRC4\*/BRC7\* Infrared remote control

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

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

1. Not applicable for FXDQ, FXSQ, FXNQ, FBDQ, FDXS, FBQ 2. For FX\*\* units only

3. For all features of the remote control, refer to the operation manual



ARC466A1



#### BRC2E52A / BRC3E52A

## Simplified wired remote control developed for hotel applications

- Í Symbol driven interface for intuitive control
- Í Functions restricted to basic customer needs
- Í Contemporary design
- Í Energy saving thanks key card,
- window contact integration and set point limitation
- Í Flexible setback function ensures room temperature remains within comfortable limits to ensure guest comfort

Í Flat backpanel for easy installation

Í Easy commissioning: intuitive interface for advanced menu settings 1 2 versions available:

- Heat pump type: temperature,
- fan speed, ON/OFF Heat recovery type: temperature,
- mode, fan speed, ON/OFF
- Í Replaces existing BRC2C51 & BRC3A61



BRC 944B2

23 c



# User friendly remote control with contemporary design

#### BRC1E52A/B



Graphical display of indicative electricity consumption (Function available in combination with FCQG and FCGHQ)

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

- > Temperature range limit
- Setback function
- Presence & floor sensor connection (available on new round flow cassette)
- > kWh indication
- > Set temperature auto reset
- > Off timer

## Temperature range limit avoids excessive heating or cooling

Save energy by constraining the lower temperature limit in cooling and upper temperature limit in heating mode.

note : Also available in auto cooling/heating change over mode.

## kWh indication keeps track of your consumption

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

#### Other functions

- > Up to 3 independent schedules can be set, so the user can easily change the schedule himself throughout the year (e.g. Summer, winter, mid-season)
- Possibility to individually restrict menu functions Easy to use: all main functions directly accessible
- > Easy setup: clear graphical user interface for advanced menu settings
- Real time clock with auto update to daylight saving time
- > Built-in backup power: when a power failure occurs all settings remain stored up to 48 hours
- Supports multiple languages
   English, German, Dutch, Spanish, Italian, Portuguese,
   French, Greek, Russian, Turkish, Polish (BRC1E52A)
   English, German, Czech, Croatian, Hungarian,
   Romanian, Slovenian, Bulgarian, Slovak, Serbian,
   Albanian (BRC1E52B)

Centralised control of the Sky Air and VRV system can be achieved via 3 user friendly compact.

These controls may be used independently or in combination with 1 group = several (up to 16) indoor units in combination and 1 zone = several groups in combination.

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

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

#### DCS302C51

## **Centralised remote control**



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

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

#### DCS301B51

## **Unified ON/OFF control**



## DST301B51 Schedule timer



## 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)

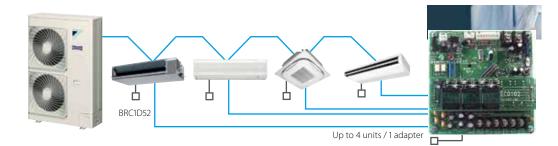
#### Enabling 64 groups to be programmed.

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

#### DTA113B51

#### Basic solution for control of Sky Air and VRV

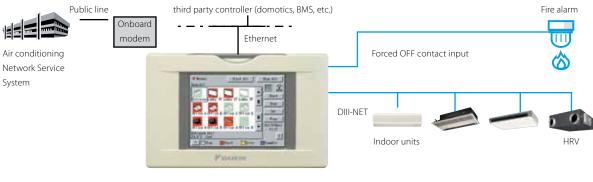
- > Rotation function
- > Backup operation function.





#### DCS601C51

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



#### DCS601C51

#### Languages

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

#### System layout

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

#### Management

> Enhanced history function

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

#### Monitoring

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

#### **Cost performance**

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

#### **Open interface**

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

#### **Connectable to**

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



#### DCM601A51

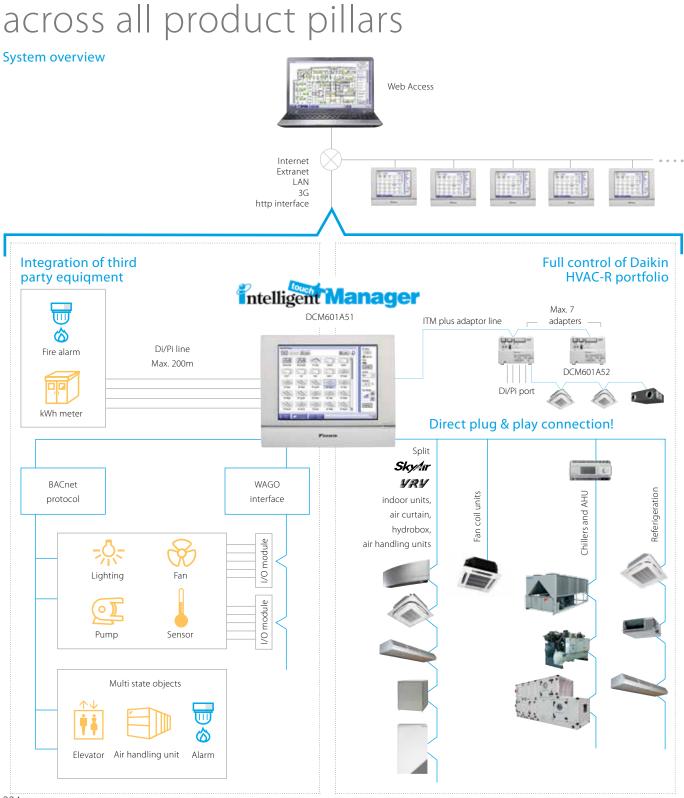
# Mini BMS

with full integration





- Price competitive mini BMS
- Cross-pillar integration of Daikin products
- Integration of third party equipment





#### User friendliness

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

#### Smart energy management

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

#### Flexibility

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

#### Easy servicing and commissioning

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





Fan coils



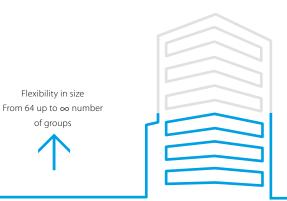
V⊋V

Flexibility in size

of groups

Chillers and AHU

Refrigeration



#### **Functions overview**



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

#### System layout

- > Up to 2,560 unit groups can be controlled (ITM plus Integrator + 7 iPU (incl. iTM adaptor)
- > Ethernet TCPIP

#### Management

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

#### Control

- Individual control (2,560 groups)
- Schedule setting (Weekly NEW) schedule, yearly calender,
- seasonal schedule)
- > Interlock control Setpoint limitation
- > Temperature limit

#### WAGO Interface

- Modular integration of 3rd
- party equipment - WAGO coupler (interface
- between WAGO and Modbus)
- Di module
- Do module
- Ai module
- Thermistor module

#### **Connectable to**

- DX Split, Sky Air, VRV
- Chillers (via POL638.70 controller) - Daikin AHU

Control System:

- Daikin Altherma Flex type
- LT and HT hydroboxes - Air curtains
- WAGO I/O, AO and PI
- NEW BACnet protocol

- Fan coils

225

## Modbus Interface

Integration of RA, Sky Air, VRV, in BMS or home automation systems



 Modbus interface for monitoring and controlling residential indoor units

#### **RTD-NET**

 Modbus interface for monitoring and controlling Sky Air, VRV, VAM and VKM

#### RTD-10

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

#### RTD-20

- Advanced control of Sky Air, VRV, VAM/VKM and air curtains
- > Cloned or independent zone control
- > Increased comfort with integration of CO2 sensor for fresh air volume control
- Save on running costs via
- pre/post and trade mode
- setpoint limitation
- overall shut down
- PIR sensor for adaptive deadband

#### **RTD-HO**

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



#### **Overview functions**









		3	3		-
Main functions	RTD-RA	RTD-NET	RTD-10	RTD-20	RTD-HO
Dimensions H x W x D mm	80 x 80 x 37,5		100 x	100 x 22	
Key card + window contact					✓
Set back function	✓				✓
Prohibit or restrict remote control functions (setpoint limitation,)	✓	✓	✓	✓**	✓
Modbus (RS485)	✓	✓	✓	✓	✓
Group control	✓(1)	✓	✓	✓	✓
0 - 10 V control			✓	✓	
Resistance control			√	✓	
IT application	$\checkmark$		√		
Heating interlock			√	✓	
Output signal (on/defrost, error)			✓	✓****	✓
Retail application				✓	
Partitioned room control				✓	
Air curtain		<b>√</b> ***	✓***	✓	

(1): By combining	RTD-RA	devic
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Control functions	RTD-RA	RTD-NET	RTD-10	RTD-20	RTD-HO
Dn/Off	M,C	М	M,V,R	M	M*
et point	M	М	M,V,R	M	M*
Node	M	М	M,V,R	M	M*
an	M	M	M,V,R	M	M*
ouver	M	M	M,V,R	M	M*
IRV Damper control		M	M,V,R	M	
rohibit/Restrict functions	M	M	M,V,R	M	M*
orced thermo off	M				
Monitoring functions	RTD-RA	RTD-NET	RTD-10	RTD-20	RTD-HO
)n/Off	M	М	M	M	M
et point	M	М	M	M	M
/lode	M	M	M	M	M
an	M	M	M	M	M
ouver	M	M	M	M	M
Ctemperature		М	M	M	M
RC mode		М	M	M	M
br units		М	M	M	M
ault	M	М	M	M	M
ault code	M	М	M	M	M
Return air temperature (Average /Min/Max)	M	М	M	M	M
ilter alarm		М	M	M	M
ermo on	M	М	M	M	M
Defrost		М	M	M	M
oil In/Out temperature	M	M	М	M	M

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

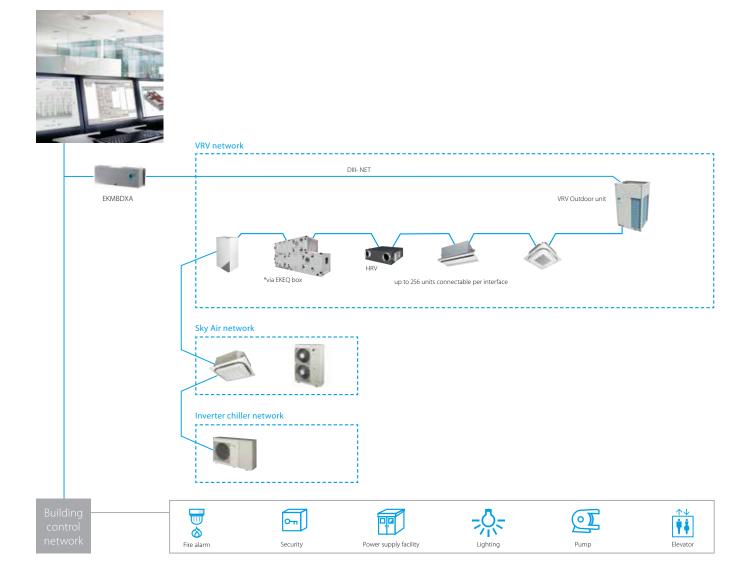
## **DIII-net Modbus interface**

#### EKMBDXA

## Integrated control system for seamless connection between Sky Air and VRV and BMS systems

- › Communication via Modbus RS485 protocol
- > Detailed monitoring and control of the VRV total solution
- > Easy and fast installation via DIII-net protocol
- > As the Daikin DIII-net protocol is being used, only one modbus interface is needed per Daikin unit





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

## **KNX** interface

KLIC-DD KLIC-DI

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

## Connect split indoor units to KNX interface for Home Automation system



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



#### KNX interface line-up

The integration of Daikin indoor units through the KNX interface allows monitoring and control of several devices, such as lights and shutters, from one central controller. One particularly important feature is the ability to programme a 'scenario' - such as "Home leave" - in which the end-user selects

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

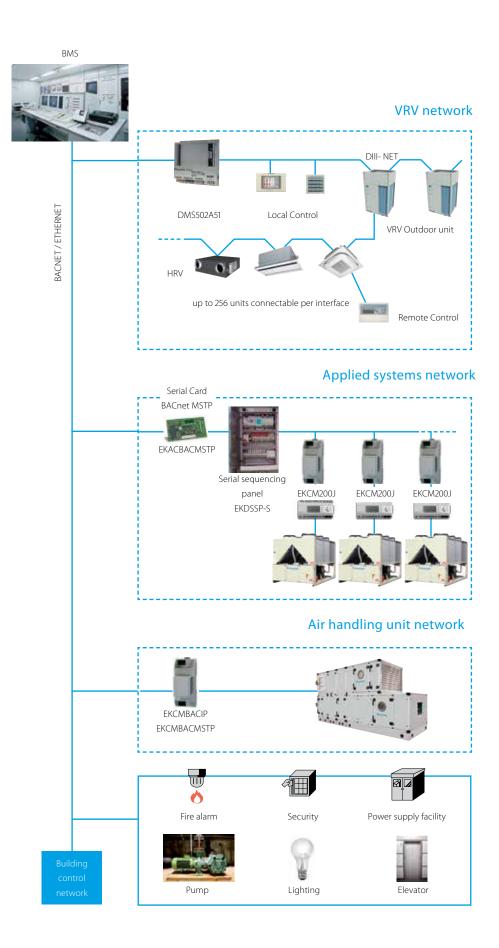
#### KNX interface for

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

## **BACnet Interface**

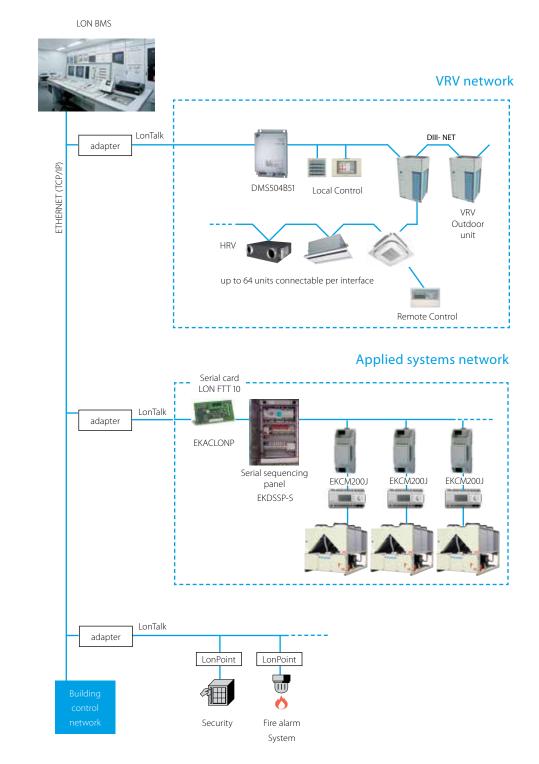
Integrated control system for seamless connection between VRV, applied systems, air handling units and BMS systems

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



## LonWorks Interface

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



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

Control Systems

## **Daikin Configurator Software**

#### **EKPCCAB3**

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

#### Simplified commissioning

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

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

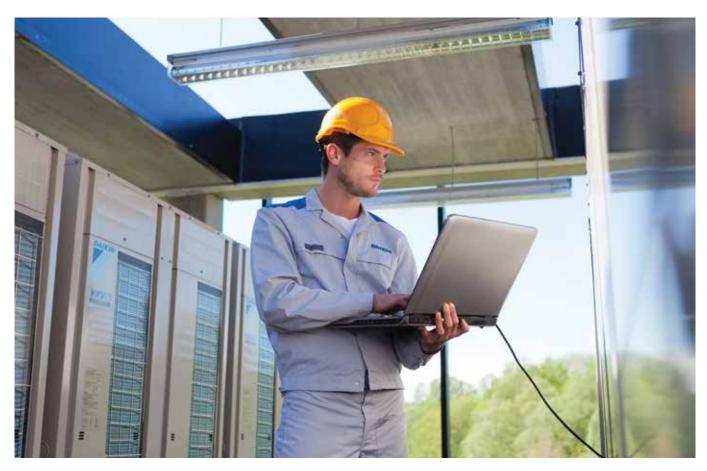


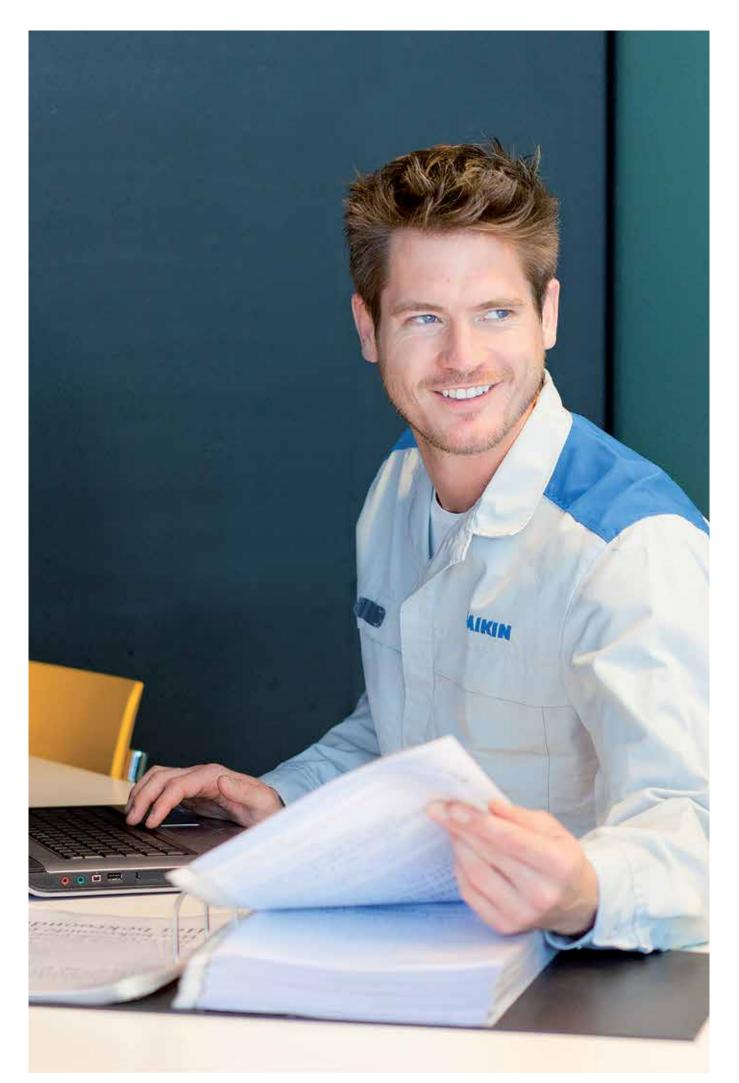


Retrieve initial system settings



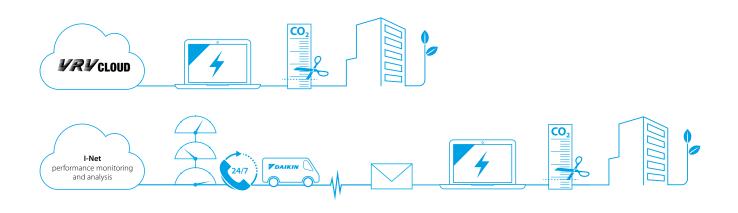






# What is I-Net?

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



## What does I-Net offer you

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

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

## I-Net Services

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

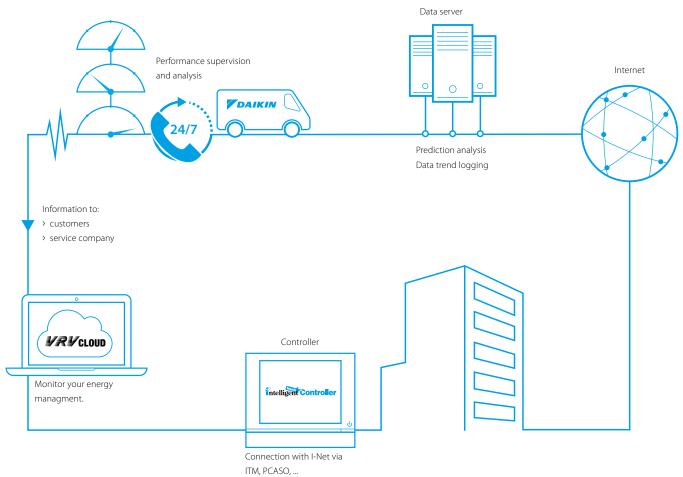
#### **VRV** Cloud

The VRV Cloud puts you in the driving seat of your energy management. The easy-to-use energy data trending and analytic tools puts you in control and shows you CO2 footprint reduction opportunities and energy savings of up to 15%.

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

#### I-Net performance monitoring and analysis

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





## Daikin VRV Cloud

## Helps you manage your energy through Daikin technology.

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

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

#### Long lifetime systems

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

## Analysis

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

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

## Performance monitoring

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

#### Fast response, better prepared

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

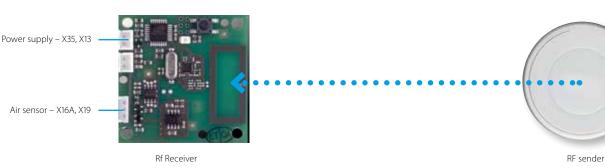
## Wireless room temperature sensor

#### **K.RSS**

#### Flexible and easy installation

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

#### Connection diagram Daikin indoor unit PCB (FXSQ-P example)



#### Specifications

			Wireless room tempera	ture sensor kit (K.RSS)				
			Wireless room temperature receiver	Wireless room temperature sensor				
Dimensions		mm	50 x 50	ø 75				
Weight		g	40	60				
Power supply			16VDC, max. 20 mA	N/A				
Battery life			N/A	+/- 3 years				
Battery type			N/A	3 Volt Lithium battery				
Maximum range		m	10	)				
Operation range		°C	0~	50				
Communication	Туре		RF					
Communication	Frequency	MHz	868.3					

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

Wired room temperature sensor

KRCS01-1B KRCS01-4B



 Accurate temperature measurement, thanks to flexible placement of the sensor

#### **Specifications**

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



## **ADAPTER PCBs**

#### Simple solutions for unique requirements

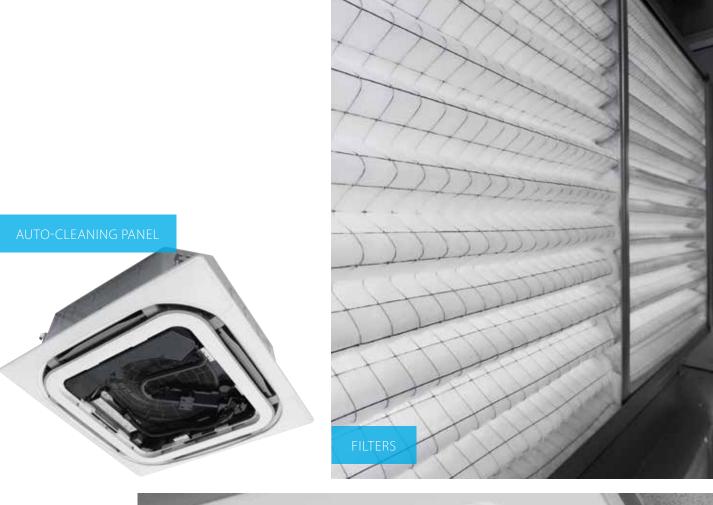
Daikin's adapter PCBs provide simple solutions for unique requirements. They are a low cost option to satisfy simple control requirements and can be used on single or multiple units.

(E)KRP1B* adapter for wiring	Facilitates integration of auxiliary heating apparatus, humidifiers, fans, damper Powered by and installed at the indoor unit							
<b>KRP2A*/KRP4A*</b> Wiring adapter for electrical appendices	<ul> <li>Remotely start and stop up to 16 indoor units (1 group) (KRP2A* via P1 P2)</li> <li>Remotely start and stop up to 128 indoor units (64 groups) (KRP4A* via F1 F2)</li> <li>Alarm indication/ fire shut down</li> <li>Remote temperature setpoint adjustment</li> </ul>							
<b>DTA104A*</b> Outdoor Unit External Control Adapter	<ul> <li>Individual or simultaneous control of VRV system operating mode</li> <li>Demand control of individual or multiple systems</li> <li>Low noise option for individual or multiple systems</li> </ul>							
<b>KRP928*</b> Interface adapter for DIII-net	Allows integration of split units to Daikin central controls							
KRP413* Wiring adapter normal open contact / normal open pulse contact	<ul> <li>Switch off auto restart after power failure</li> <li>Indication of operation mode / error</li> <li>Remotely start /stop</li> <li>Remotely change operation mode</li> <li>Remotely change fan speed</li> </ul>							
<b>KRP980*</b> Adapter for split units without an S21 port	<ul> <li>Connect a wired remote control</li> <li>Connect to Daikin central controls</li> <li>Allow external contact</li> </ul>							

#### Concept and benefits

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







# Options & accessories

VRV outdoor	240
VRV indoor	242
Stylish indoor	246
Ventilation & Hot Water	248
Control Systems	251

		VR	VIV with con	tinuous heat	ting		VRV IV without		
	RYYQ8-12T	RYYQ14-201	r RYMQ8-12T	RYMQ14-20T	2-module systems	3-module systems	RXYQ8 12T(9)	RXV014-20T	
Multi-module connection kit (obligatory) - Connects multiple modules into a single refrigerant system	-	-	-	-	BHFQ22P1007	BHFQ22P1517	-	-	
Extended level difference kit - Allows outdoor unit to be more than 50m above indoor units	-	-	-	-	-	-	-	-	
<b>Central drain pan kit</b> - Installs onto the underside of the outdoor unit and collects drain water from all bottom plate outlets into a single outlet. In cold areas should be heated by a field-supplied heater to prevent drain water from freezing in the drain pan.	-	-	-	-	-	-	-	-	
Heater tape kit - Optional electrical heater to guarantee trouble-free operation in extremely cold and humid climates (one per outdoor unit needed)	EKBPH012T + EKBPHPCBT	EKBPH020T + EKBPHPCBT	EKBPH012T + EKBPHPCBT	EKBPH020T + EKBPHPCBT	-	-	EKBPH012 + EKBPHPC		
External control adapter for outdoor unit - Allows to activate Low Noise Operation and three levels of Demand Limiting via external dry contacts. Connects to the FI/F2 communication line and requires power supply from an indoor unit*, BSVQ box, or VRV-WIII outdoor unit.			For installat			adapter type dep ssories of indooi		pe of indoor unit.	
BHGP26A1 - Digital pressure gauge kit – displays current condensing and evaporating pressures in the system as standard, or expansion valve positions and temperature sensor data in a special service mode. Connect to the outdoor unit PCB, for installation in the outdoor unit.	•	•	•	•	1 kit per system	1 kit per system	•	•	
KRC19-26A - Mechanical cool/heat selector – allows to switch an entire Heat Pump system, or one BS-box of a Heat Recovery system between cooling, heating and fan only. Connects to the A-B-C terminals of the outdoor unit / BS-box.	•	•	•	•	•	•	•	•	
BRP2A81 - Cool/heat selector PCB (required for VRV IV)	•	•	•	•	•	•	•	•	
KKSA26A560* - Cool/heat selector PCB mounting plate (only required when cool/heat selector PCB and Heater tape kit are combined)	•	•	•	•	•	•	•	•	
KJB111A - Installation box for remote cool/heat selector KRC19-26A	•	•	•	•	•	•	•	•	
EKPCCAB3 - VRV configurator	•	•	•	•	•	•	•	•	
BPMKS967A2/A3 - Branch provider (for connection of 2/3 RA indoor units)	•	•	-	-	-	-	•	•	
KKPJ5F180 - Central drain plug	-	-	-	-	-	-	-	-	
DTA104A61/62* - Demand PCB allowing external input to limit power consumption	•	•	•	•	•	•	•	•	
KKSB2B61* - Demand PCB mounted plate. Needed to mount Demand PCB for some outdoor units.	-	•	-	•	-	-	-	•	
DTA109A51 - DIII-net expander adapter	•	•	•	•	•	•	•	•	
			VRVIV	-Q Heat Pum	p Replacem	ent VRV			
	RQYQ	140	RXYQQ8-12T	RXYQC	Q14-20T	2-module systems		3-module systems	
Multi-module connection kit (obligatory) - Connects multiple modules into a single	-		-		-	BHFQ22P1007		BHFQ22P1517	

Multi-module connection kit (obligatory) - Connects multiple modules into a single									
refrigerant system	-	-	-	BHFQ22P1007	BHFQ22P1517				
Central drain pan kit - Installs onto the underside of the outdoor unit and collects drain water from all bottom plate outlets into a single outlet. In cold areas should be heated by a field-supplied heater to prevent drain water from freezing in the drain pan.	KWC26B160	-	-	-	-				
Heater tape kit - Optional electrical heater to guarantee trouble-free operation in extremely cold and humid climates (one per outdoor unit needed)	-	EKBPH012T + EKBPHPCBT	EKBPH020T + EKBPHPCBT	-	-				
External control adapter for outdoor unit - Allows to activate Low Noise Operation and three levels of Demand Limiting via external dry contacts. Connects to the F1/F2 communication line and requires power supply from an indoor unit*, BSVQ box, or VRV-WIII outdoor unit.	DTA104A53/61/62 For installation into an indoor unit: exact adapter type depends on type of indoor unit. See Options & Accessories of indoor units								
BHGP26A1 - Digital pressure gauge kit – displays current condensing and evaporating pressures in the system as standard, or expansion valve positions and temperature sensor data in a special service mode. Connect to the outdoor unit PCB, for installation in the outdoor unit.	•	•	•	1 kit per system	1 kit per system				
<b>KRC19-26A</b> - Mechanical cool/heat selector – allows to switch an entire Heat Pump system, or one BS-box of a Heat Recovery system between cooling, heating and fan only. Connects to the A-B-C terminals of the outdoor unit / BS-box.	•	•	•	1 kit per system	1 kit per system				
BRP2A81 - Cool/heat selector PCB (required for VRV IV)	-	•	•	•	•				
KKSA26A560* - Cool/heat selector PCB mounting plate (only required when cool/heat selector PCB and Heater tape kit are combined)	-	-	•	•	•				
KJB111A - Installation box for remote cool/heat selector KRC19-26A	•	•	•	1 kit per system	1 kit per system				
EKPCCAB3 - VRV configurator	-	•	•	•	•				
DTA104A61/62* - Demand PCB allowing external input to limit power consumption	-	•	•	•	•				
KKSB2B61* - Demand PCB mounted plate. Needed to mount Demand PCB for some outdoor units.	-	-	•	-	-				
DTA109A51 - DIII-net expander adapter	•	•	•	•	•				

			Dofnot	lainte			<b>Refnet Headers</b>	
				Joints				
		Capacity index						
		< 201	201~290	291~640	> 640	< 291	291~640	
(i)	Metric-size connections	KHRQM23M20T	KHRQM23M29T	KHRQM23M64T	KHRQM23M75T	KHRQM23M29H	KHRQM23M64H	
pipe)	Imperial-size connections	KHRQ23M20T	KHRQ23M29T9	KHRQ23M64T	KHRQ23M75T	KHRQ23M29H	KHRQ23M64H	
s (3-	Sound reduction kit (sound insulation)	-	-	-	-	-	-	
ery systems	Mechanical cool/heat selector – allows to switch an entire Heat Pump system, or one BS-box of a Heat Recovery system between cooling, heating and fan only. Connects to the A-B-C terminals of the outdoor unit / BS-box.	-	-	-	-	-	-	
cove	Installation box for remote cool/heat selector KRC19-26	-	-	-	-	-	-	
Rec	Closed pipe kit							
Heat	Joint kit							
	Quiet kit							
mp (pipe)	Metric-size connections	KHRQM22M20T	KHRQM22M29T	KHRQM22M64T	KHRQM22M75T	KHRQM22M29H	KHRQM22M64H	
Heat Pump systems (2-pipe)	Imperial-size connections	KHRQ22M20T	KHRQ22M29T9	KHRQ22M64T	KHRQ22M75T	KHRQ22M29H	KHRQ22M64H	

continuou	ıs heating	VRV III-S Mini VRV	VRV III-C Cold Region VRV				VRV Classic		VRV IV Heat Recovery					
2-module systems	3-module systems	RXYSQ	RTSYQ 10	RTSYQ 14~16	RTSYQ 20	RXYCQ8A	RXYCQ10-14A	RXYCQ16-20A	REYQ 8~12	REYQ 14~20	REMQ5	2-module systems	3-module systems	
BHFQ22P1007	BHFQ22P1517	-	-	-	BHFQ22P1007	-	-	-	-	-	-	BHFQ23P907	BHFQ23P1357	
-	-	-	-	-	-	-	-	-	Special order unit					
-	-	-	KWC26B280	KWC26B450	2x KWC26B280	KWC26B160	KWC26B280	KWC26B450	-	-	-	-	-	
-	-	-	BEH22A10Y1L	BEH22A18Y1L	2x BEH22A10Y1L	-	-	-	EKBPH012T + EKBHPCBT	EKBPH020T + EKBHPCBT	EKBPH012T + EKBHPCBT	-	-	

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

1 kit per system	1 kit per system	-	•	•	•	•	•	•	•	•	•	1 kit per system	1 kit per system
•	•	•	-	-	-	•	•	•	-	-	-	-	-
•	•	-	-	-	-	-	-	-	-	-	-	-	-
•	•	-	-	-	-	-	-	-	-	-	-	-	-
٠	•	•	-	-	-	•	•	•	-	-	-	-	-
•	•	-	-	-	-	-	-	-	•	•	•	•	•
-	-	•	-	-	-	-	-	-	-	-	-	-	-
-	-	•	-	-	-	-	-	-	-	-	-	-	-
•	•	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
•	•	•	•	•	•	•	•	•	•	•	•	•	•

								VRV-W IV Wate	r-cooled	VRV		
	VRV III-Q Heat	Recove	ery Repla	cement VR	v		-	ump applicatio		1	eat Recover	y application
RQEQ 140~212	2-module sy	stems	3-modul	e systems	4-module systems	RWEYQ8-10T						3-module systems
-	BHFP26P3			26P63C	BHFP26P84C	-	BHFQ22P1007	7 BHFQ22	P1517	BHF	Q23P907	BHFQ23P1357
KWC26B160	1 kit per mo	dule	1 kit per	module	1 kit per module	-	-	-			-	-
-	-			-	-	-	-	-			-	-
For installation i	nto an indoor unit:	DTA104A53/61/62 r unit: exact adapter type depends on type of indoor unit. tions & Accessories of indoor units for particular indoor unit. See Options & Accessories of indoor units						type (DTA104A53/61/62)				
•	1 kit per sys	tem	1 kit pei	rsystem	1 kit per system	-	-	-	-		-	-
-	-			-	-	•	1 kit per syster	n 1 kit per s	1 kit per system		-	-
-	-			-	-	•	1 kit per syster	n 1 kit per s	1 kit per system		-	-
-	-			-	-	-	-	-	-		-	-
-	-			-	-	•	1 kit per syster	n 1 kit per s	1 kit per system		-	-
-	-			-	-	•	•	•	•		•	•
-	-			-	-	-	-	-		-		-
-	-			-	-	-	-	-		-		-
•	•			•	٠	•	•	•		•		•
					Неа	t Recovery Branch S	elector Boxes (BS-I	Boxes)				
Capacity index	1-port	1-	port	4-por	t 4-port	6-port	6-port	8-port	10-p	ort	12-port	16-port
>640	-		-	-	-	-	-	-	-		-	-
KHRQM23M75H	-		-	-	-		-	-	-		-	-
KHRQ23M75H	BS1Q-A	BS\	/Q-P8B	BS4Q14	A BSV4Q100PV	BS6Q14A	BSV6Q100PV	BS8Q14A	BS100	Q14A	BS12Q14A	BS16Q14A
-	EKBSVQLNP	EKB	SVQLNP	-	-	-	-					
					KRC19-26		KRC19-26					
-	-	KR	C19-26	-	1 kit per port	-	1 kit per port					
					necessary		necessary					
-	-	K.	JB111A	-	KJB111A	-	KJB111A					
				KHFP26A1		KHFP26A100C		KHFP26A100C	KHFP26		KHFP26A100	
				KHRP26A1		KHRP26A1250C		KHRP26A1250C	KHRP26		KHRP26A125	
				KDDN26	A4	KDDN26A8		KDDN26A8	KDDN	26A12	KDDN26A1	2 KDDN26A16
KHRQM22M75H	-		-	-	-		-					
KHRQ22M75H	-		-	-	-		-					

	ľ	Ceiling mounted cassette units						
		Round flow (800x800)	4-way (600x600)		2-way blow			
		FXFQ 20~125A	FXZQ 15~50A	FXCQ 20~40A	FXCQ 50~63A	FXCQ 80 ~125A		
	BRC1E52A/B Premium wired remote control with full-text interface and back-light	•	•	•	•	•		
	BRC1D52 Standard wired remote control with weekly timer	•*4	•*4	•*4	•*4	•*4		
	Infrared remote control including receiver	BRC7FA532F	BRC7F530W *9*10 (white panel) BRC7F530S *9*10 (grey panel) BRC7EB530 *9*10 (standard panel)	BRC7C52	BRC7C52	BRC7C52		
	BRC2E52A Simplified wired remote control for heat recovery system	-	-	-	-	-		
	BRC3E52A Simplified wired remote control for heat pump system	-	-	-	-	-		
	DCS302C51 Central remote control	•	•	•	•	•		
	DCS301B51 Unified ON/OFF control	•	•	•	•	•		
lo	DST301B51 Schedule timer	•	•	•	•	•		
Adapters and control	DCM601A51 Intelligent Touch Manager	•	•	•	•	•		
rs ar	External wired temperature sensor	KRCS01-4	KRCS01-4	KRCS01-4	KRCS01-4	KRCS01-4		
pte	External wireless temperature sensor	K.RSS	K.RSS	K.RSS	K.RSS	K.RSS		
Ada	Adaptor for wiring (interlock for fresh air intake fan)	· - /	-	-	-	-		
	Wiring adapter for external monitoring/control via dry contacts and setpoint control via 0-140 $\Omega$	KRP4A53 *2*7	KRP4A53 *2	KRP4A51	KRP4A51	KRP4A51		
	Wiring adapter for external central monitoring/control (controls 1 entire system)	-	KRP2A52	KRP2A51	KRP2A51	KRP2A51		
	Wiring adapter with 4 output signals (Compressor / Error, Fan, Aux. heater, Humidifier output)	EKRP1C11 *2*7	EKRP1B2	EKRP1B2	EKRP1B2	EKRP1B2		
	Wiring adapter with 2 output signals (Compressor / Error, Fan output)	KRP1B57 *2*7	KRP1B57	-	-	-		
	Adapter for multi-tenant applications (24VAC PCB power supply interface)	DTA114A61	DTA114A61	-	-	-		
	External control adapter for outdoor unit	- '	-	DTA104A61	DTA104A61	DTA104A61		
	Installation box / Mounting plate for adapter PCBs (For units where there is no space in the switchbox)	KRP1H98 *7	KRP1A101	KRP1C96	KRP1C96	KRP1C96		
	Connector for forced-off contact	standard	-	standard	standard	standard		
	Connection to centralized control	standard	-	-	-	-		
	Electrical box with earth terminal (2 blocks)	KJB212A	-	KJB212A	KJB212A	KJB212A		
	Electrical box with earth terminal (3 blocks)	KJB311A	-	KJB311A	KJB311A	KJB311A		
	Electrical box with earth terminal	-	-	-	-	-		
1	Digital input adaptor	-	-	-	-	-		

	Decoration panel (obligatory for cassette units, optional for others, rear panel for FXLQ)	BYCQ140D7GW1 (self clean) *5/*6 BYCQ140D7W1W (white) *3 BYCQ140D7W1 (standard)	BYFQ60CW (white panel) BYFQ60CS (grey panel) BYFQ60B3 (standard panel)	BYBCQ40H	BYBCQ63H	BYBCQ125H
	Kit for mounting of decoration panel direct onto unit	-	-	-	-	-
	Panel spacer for reducing required installation height	-	KDBQ44B60 (standard panel)	-	-	-
ers	Sealing kit for 3-directional or 2-directional air discharge	KDBHQ55B140 *7		-	-	-
Others	Fresh air intake kit	KDDQ55B140-1 + KDDQ55B140-2 *7*8	KDDQ44XA60	-	-	-
	Air discharge adapter for round duct	-	-	-	-	-
	Filter chamber for bottom suction	-	-	KDDFP53B50	KDDFP53B80	KDDFP53B160
	Replacement long life filter	KAFP551K160	KAFQ441BA60	KAFP531B50	KAFP531B80	KAFP531B160
	Drain pump kit	standard	standard	standard	standard	standard
	Sensor kit	BRYQ140A	BRYQ60AW (white panel) BRYQ60AS (grey panel)	-	-	-
	Noise filter (for electromagnetic use only)	-	-	KEK26-1A	KEK26-1A	KEK26-1A

\*2 Installation box is necessary for these adapters
\*3 The BYCQ140D7WIW has white insulation Be informed that formation of dirt on white insulation is visibly stronger and that it is consequently not advised to install the BYCQ140D7WIW decoration panel in environments exposed to concentrations of dirt\*
\*4 Not recommended because of the limitation of the functions
\*5 To be able to control the BYCQ140D7GWI the controller BRCIE is needed
\*6 The BYCQ140DGWI is not compatible with Mini YRN, Multi and Split Non-Inverter Outdoor units
\*7 Option not available in combination with BYCQ140D7GWI
\*8 Both parts of the fresh air intake are needed for each unit
\*9 Sensing function not available
\*10 Independently controllable flaps function not available

		Concealed ceiling units (duct units)						
Corner (1-	way blow)	Small	Slim		Stan	dard		
FXKQ 25~40	FXKQ 63	FXDQ 20~25 M9	FXDQ 15~63A	FXSQ 15~32	FXSQ 15~32 FXSQ 40~50 FXSQ 6		FXSQ 100~125	FXSQ 140
•	•	•	•	•	•	•	•	•
•*4	•*4	•*4	•*4	•*4	•*4	•*4	•*4	•*4
BRC4C61	BRC4C61	BRC4C62	BRC4C65	BRC4C65	BRC4C65	BRC4C65	BRC4C65	BRC4C65
-	-	•	•	•	•	•	•	•
-	-	•	•	•	•	•	•	•
•	•	•	•	•	•	•	•	•
•	•	•	•	•	•	•	•	•
•	•	•	•	•	•	•	•	•
•	•	•	•	•	•	•	•	•
KRCS01-1	KRCS01-1	KRCS01-1	KRCS01-4B	KRCS01-4B	KRCS01-4B	KRCS01-4B	KRCS01-4B	KRCS01-4B
K.RSS	K.RSS	K.RSS	K.RSS	K.RSS	K.RSS	K.RSS	K.RSS	K.RSS
-	-	-	-	-	-	-	-	-
KRP4A51	KRP4A51	KRP4A51	KRP4A54	KRP4A52 *2	KRP4A52 *2	KRP4A52 *2	KRP4A52 *2	KRP4A52 *2
KRP2A51	KRP2A51	KRP2A51	KRP2A53	KRP2A51 *2	KRP2A51 *2	KRP2A51*2	KRP2A51*2	KRP2A51 *2
KRP1B61	KRP1B61	EKRP1B2	KRP1B56	EKRP1B2 *2	EKRP1B2 *2	EKRP1B2*2	EKRP1B2 *2	EKRP1B2 *2
-	-	-	-	-	-	-	-	-
-	-	EKMTAC	DTA114A61	DTA114A61	DTA114A61	DTA114A61	DTA114A61	DTA114A61
DTA104A61	DTA104A61	DTA104A61	DTA104A53	DTA104A61	DTA104A61	DTA104A61	DTA104A61	DTA104A61
			KDD1D101	KRP1BA101 /	KRP1BA101 /	KRP1BA101 /	KRP1BA101 /	KRP1BA101 /
-	-	-	KRP1B101	KRP1B100	KRP1B100	KRP1B100	KRP1B100	KRP1B100
Standard	Standard	Standard	-	Standard	Standard	Standard	Standard	Standard
Standard	Standard	Standard	-	Standard	Standard	Standard	Standard	Standard
-	-	-	KJB212A	KJB212A	KJB212A	KJB212A	KJB212A	KJB212A
-	-	-	KJB311A	KJB311A	KJB311A	KJB311A	KJB311A	KJB311A
-	-	-	-	KJB411A	KJB411A	KJB411A	KJB411A	KJB411A
-	-	-	-	BRP7A51	BRP7A51	BRP7A51	BRP7A51	BRP7A51

BYK45F	BYK71F	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	KDAP25A36A	KDAP25A56A	KDAP25A71A	KDAP25A140A	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
Standard	Standard	KDAJ25K56	standard	Standard	Standard	Standard	Standard	Standard
-	-	-	-	-	-	-	-	-
-	-	-	KEK26-1A	-	-	-	-	-



Under the second second with different interface and back-light         FAMQ 200-25         FAMQ 200-25         FAMQ 200-26         FAMQ 200-26 <th< th=""><th></th><th></th><th></th><th>Conce</th><th>aled ceiling units (duo</th><th>ct units)</th><th></th></th<>				Conce	aled ceiling units (duo	ct units)	
FUNC 00-80         FXMQ 200-820         FXMQ 200-250         FXTQ 50-63         FXTQ 80-100           Norman wind remote control with full-statisterics and back-light         -         -         -         -           Norman wind remote control with full-statisterics and back-light         -         -         -         -           Norman wind remote control with weakly time         -         -         -         -         -           Singlished wind remote control for heat recovery system         - </th <th></th> <th></th> <th></th> <th></th> <th>Large</th> <th></th> <th></th>					Large		
Forestanding         •         •         •         •         •         •           Perturbative direct control with full-test interface and back-light         •			FXMO 50~80	FXMO 100~125		FXTO50~63	FXTO80~100
Pressure wind mente control with fue to interface and backlight         • <td></td> <td>BRC1E52A/B</td> <td></td> <td></td> <td></td> <td></td> <td></td>		BRC1E52A/B					
Method         Period         Period<			•	•	•	•	•
Image: stand sector of including receive         BIRCACSS							
Performance			•*4	•*4	•*4	•*4	•*4
Implied violation of main recovery system         •         •         •         •         •           BK (ESA) Implied violation control for hest pump system         •		Infrared remote control including receiver	BRC4C65	BRC4C65	BRC4C65	BRC4C65	BRC4C65
Simplified wind remote control for hest recovery system         Image: Control Contro Control Control Control Control Control Control Control Control		BRC2E52A					
Implicative divergence control for hast pump system         •         ·         <		Simplified wired remote control for heat recovery system	•	•	•	•	•
Builded wired rendec control for heat pump system         Control         Control         Control         Control           PCS30C251 Created remote control         PCS30C252 Created remote remote control         PCS30C252 Created remote remo		BRC3E52A					
Performance control         ···         ···         ···         ···         ···           Performance control         ··· <t< td=""><td></td><td>Simplified wired remote control for heat pump system</td><td>•</td><td>•</td><td>•</td><td>•</td><td>•</td></t<>		Simplified wired remote control for heat pump system	•	•	•	•	•
Lendarie mode control         Image: Control of the control of t		DCS302C51					
Number of the second		Central remote control	•	•	•	•	•
Under don/OFF control         Image of the second seco		DCS301B51					
Note of the standard interfact on the standard interfactor of t		Unified ON/OFF control	•	•	•	•	•
Non-control with and product of the second		DCS601C51					
Note Intelligent Touch ControllerImage and the secondImage and th		Schedule timer	•	•	•	•	•
Nome         Number of the second							
Figure (article series system)         KMP2A51         Standard	trol	Intelligent Touch Controller	•	•	•	•	•
Figure (article series system)         KMP2A51         Standard	con		1	KRCS01-4	KRCS01-1	KRCS01-4B	
Figure (article series system)         KMP2A51         Standard	pue	External wireless temperature sensor	K.RSS	K.RSS	K.RSS	K.RSS	K.RSS
Figure (article series system)         KMP2A51         Standard	ers a	Wiring adapter for external monitoring/control via dry contacts and	KRP4A51	KRP4A51	KRP4A51	KRP4A52 *2	KRP4A51
Figure (article series system)         KMP2A51         Standard	apti	-					
Interface         Interface <thinterface< th=""> <thinterface< th=""> <thi< td=""><td>Ad</td><td></td><td>KRP2A51</td><td>KRP2A51</td><td>KRP2A51</td><td>KRP2A51*2</td><td>KRP2A51</td></thi<></thinterface<></thinterface<>	Ad		KRP2A51	KRP2A51	KRP2A51	KRP2A51*2	KRP2A51
Image: Compressor / Error, Fan, Aux, heater, Humidifier output)         EARPIB2         EARPIB2         KRPIB01         EXRPIB01         KRPIB01           Viring adapter with 2 output signals (Compressor / Error, Fan output)         -							
Wiring adapter with 2 output signals (Compressor / Error, Fan output)         Image: Compressor / Error, Fan output / Error, Fan outpu			EKRP1B2	EKRP1B2	KRP1B61	EKRP1B2 *2	KRP1B61
ICompressor / Error, Fan output         IC         IC         IC         IC         IC         IC         IC           Adapter for multi-tenant applications (AdVAC PC Boyowr supply interface)         DTA114A61         DTA104A61         <							
Adapter for multi-tenant applications (AVAC PCB power supply interface)         DTA1I4A61			-	-	-	-	-
Q4VAC PCB power supply interface)         DIAIIAA6I         DIAIIAA6I         OIAIIAA6I         O							
External control adapter for outdoor unitDTA104A61DTA104A61DTA104A61DTA104A61DTA104A61Installation box / Mounting plate for adapter PCBs (For units where there is no space in the switchbox)KRP4A96KRP4A96·KRPIBA101 / KRPIB100·Connection for forced-off contactStandardStandardStandardStandardStandardStandardConnection to centralized controlStandardStandardStandardStandardStandardStandardElectrical box with earth terminal (2 blocks)KJB212A-Electrical box with earth terminal (2 blocks)KJB21A-Digital input adaptorKJB31IA-Digital input adaptorKJB41A-Digital input adaptorVertation panelBYBS7IDBYBS12SD(bbligatory for cassette units, optional for others, rear panel for FXLQ)BYBS7IDEKBYBSDKit for mounting of decoration panel direct onto unitEKBYBSDPanel spacer for reducing required installation heightPanel spacer for reducing required installation heightPanel spacer for reducing required installation heightPanel spacer for reducing required installation heig			DTA114A61	DTA114A61	-	DTA114A61	-
Installation box / Mounting plate for adapter PCBs (For units where there is no space in the switchbox)         KRP4A96         KRP4A96         KRP1BA101 / KRP1B100            Connector for forced-off contact         Standard			DTAID 44 CI	DTAID (A.C.	DTAID 44 CI	DTAID (A.C.	DTAID (A) (1
Image: Formatic space in the switchbox)         RRPA96         Standard		· · · · · · · · · · · · · · · · · · ·	D1A104A61	D1A104A61	D1A104A61	DTA104A61	D1A104A61
Connector for forced-off contactStandardStandardStandardStandardStandardStandardConnection to centralized controlStandardStandardStandardStandardStandardStandardElectrical box with earth terminal (3 blocks)KJB212A-Electrical box with earth terminal (3 blocks)KJB21A-Digital input adaptorKJB41A-Digital input adaptorBKB7A51-Vector for cassette units, optional for others, rear panel for FXLQ)BYB51DBYB5125DVector for cassette units, optional for others, rear panel for FXLQ)EKBYB5DPanel spacer for reducing required installation heightStandardPanel spacer for reducing required installation height			KRP4A96	KRP4A96	-	KRP1BA101 / KRP1B100	-
Connection to centralized controlStandardStandardStandardStandardStandardStandardElectrical box with earth terminal (2 blocks)KJB212A-Electrical box with earth terminal (3 blocks)KJB311A-Electrical box with earth terminalKJB311A-Digital input adaptorKJB411A-Digital input adaptorBRP7A51-Digital input adaptorBRP7A51-Digital input adaptorVertical box with earth terminalDigital input adaptorVertical box with earth terminalDigital input adaptorVertical box with earth terminal <t< td=""><td></td><td>· · · · · · · · · · · · · · · · · · ·</td><td><u> </u></td><td>C 1 1</td><td><u> </u></td><td>C</td><td>C: 1 1</td></t<>		· · · · · · · · · · · · · · · · · · ·	<u> </u>	C 1 1	<u> </u>	C	C: 1 1
Image: Problem State         Image: Pr							
Flectrical box with earth terminal (3 blocks)         -         -         -         KB311A         -           Electrical box with earth terminal (3 blocks)         -         -         -         KJB311A         -           Digital input adaptor         -         -         -         KJB311A         -           Vectorial panel         -         -         -         BRP7A51         -           Vectorial panel         (obligatory for cassette units, optional for others, rear panel for FXLQ)         BYBS71D         BYBS71D         -			1		Standard		Standard
Electrical box with earth terminal         -         -         KJB411A         -           Digital input adaptor         -         -         -         BRP7A51         -           Very Terminal         -         -         -         BRP7A51         -           Very Terminal         -         -         -         BRP7A51         -           Very Terminal         Decoration panel (obligatory for cassette units, optional for others, rear panel for FXLQ)         BYB571D         BYB5125D         - </td <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td>-</td>					-		-
Digital input adaptor         -         -         BRP7A51         -           Decoration panel (obligatory for cassette units, optional for others, rear panel for FXLQ)         BYB571D         BYB5125D         -							
Percent of the second							
Image: Problem State Stat		Digital input adaptor	-	-	-	BRP/A51	-
Image: Problem State Stat							
Kit for mounting of decoration panel direct onto unit         EKBYBSD         EKBYBSD         -         -           Panel spacer for reducing required installation height         -			BYBS71D	BYBS125D	-	-	-
Panel spacer for reducing required installation height         -         -         -         -           Sealing kit for 3-directional or 2-directional air discharge         -			FUDVOCD	FINDUDED			
Sealing kit for 3-directional or 2-directional air discharge         -         -         -         -           Decorationpanel for air discharge         -			EKBIBSD		-		-
pecorationpanel for air discharge         -         -         -         -         -           Fresh air intake kit         -			-	-	-		-
Fresh air intake kit         -			-	-	-		-
Replacement long life filterReplacement long life filter <td>srs</td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td></td>	srs				-		
Replacement long life filterReplacement long life filter <td>⊃th</td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td></td>	⊃th				-		
Drain pump kitStandardStandardStandardStandardSensor kitNoise filter (for electromagnetic use only)KEK26-1KEK26-1	0						
Sensor kit         -         -         -         -         -         -         -         -         -         -         -         KEK26-1         KEK26-1 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
Noise filter (for electromagnetic use only)     -     -     KEK26-1     -     KEK26-1			Standard	Standard		Standard	
			-	-	-	-	-
L-type piping kit (for upward direction)			-	-	KEK26-1	-	KEK26-1
		L-type piping kit (for upward direction)	-	-	-	-	-

\*2 Installation box is necessary for these adapters

\*3 The BYCQ140D7W1W has white insulation

Be informed that formation of dirt on white insulation is visibly stronger and that it is consequently not advised to install the BYCQ140D7WIW decoration panel in environments exposed to concentrations of dirt

\*4Not recommended because of the limitation of the functions

\*5 To be able to control the BYCQ140D7GW1 the controller BRC1E is needed

\*6The BYCQ140DGW1 is not compatible with Mini VRV, Multi and Split Non-Inverter Outdoor units

\*7 Option not available in combination with BYCQ140D7GW1

\*8Both parts of the fresh air intake are needed for each unit

\*9Sensing function not available

\*10 Independently controllable flaps function not available



Ceiling suspended units				Wall mounted units		Floor stan	ding units	
1-way	blow		4-way blow		Concealed		Free-standing	
FXHQ 32A	FXHQ 63A	FXHQ 71~100A	FXUQ 71~100A	FXAQ 15~63	FXNQ 20~63	FXLQ 20~25	FXLQ 32~40	FXLQ 50~63
•	•	•	•	•	•	•	•	•
•*4	•*4	•*4	•*4	•*4	•*4	•*4	•*4	•*4
BRC7G53	BRC7G53	BRC7G53	BRC7C58	BRC7EB518	BRC4C65	BRC4C65	BRC4C65	BRC4C65
-	-	-	-	-	•	•	•	•
-	-	-	-	-	•	•	•	•
•	•	•	•	•	•	•	•	•
•	•	•	•	•	•	•	•	•
•	•	•	•	•	•	•	•	•
•	•	•	•	•	•	•	•	•
KRCS01-4	KRCS01-4	KRCS01-4	KRCS01-4	KRCS01-1	KRCS01-1	KRCS01-1	KRCS01-1	KRCS01-1
K.RSS	K.RSS	K.RSS	K.RSS	K.RSS	K.RSS	K.RSS	K.RSS	K.RSS
KRP4A52	KRP4A52	KRP4A52	KRP4A53 *2	KRP4A51	KRP4A51	KRP4A51	KRP4A51	KRP4A51
KRP2A62	KRP2A62	KRP2A62	-	KRP2A51	KRP2A51	KRP2A51	KRP2A51	KRP2A51
-	-	-	-	-	KRP1B61	KRP1B61	KRP1B61	KRP1B61
KRP1B54	KRP1B54	KRP1B54	-	-	-	-	-	-
-	-	-	-	DTA114A61	EKMTAC	EKMTAC	EKMTAC	EKMTAC
DTA104A62	DTA104A62	DTA104A62	-	DTA104A61	-	-	-	-
KRP1D93A	KRP1D93A	KRP1D93A	KRP1B97	KRP4A93	-	-	-	-
EKRORO4	EKRORO4	EKRORO4	EKRORO5	Standard	Standard	Standard	Standard	Standard
-	-	-	-	Standard	Standard	Standard	Standard	Standard
KJB212A	KJB212A	KJB212A	KJB212A	-	-	-	-	-
KJB311A	KJB311A	KJB311A	KJB311A	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	EKRDP25A	EKRDP40A	EKRDP63A
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	KDBHP49B140	-	-	-	-	-
-	-	-	KDBTP49B140	-	-	-	-	-
KDDQ50A140	KDDQ50A140	KDDQ50A140	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
KAFP501A56	KAFP501A80	KAFP501A160	KAFP551K160		-	-	-	-
KDU50P60	KDU50P140	KDU50P140	-	K-KDU572EVE	-	-	-	-
	1		-	-	-	-	-	-
KEK26-1	KEK26-1	KEK26-1	-	-	-	-	-	-
KHFP5M35	KHFP5N63	KHFP5N160	-	-	-	-	-	-

#### Options & accessories - stylish indoor

				INDOO	RUNITS			
	FTXG-LW/S	CTXS15-35K FTXS20-25K	FTXS35-50K	FTXS-G	FVXG-K	FVXS-F	FDXS-F(9)	FLXS-B(9)
Wired remote control	BRC944 (3)	BRC944 (3) (5)	BRC944 (3)	BRC944 (3)	BRC944 (3)	-	BRC1D52 BRC1E52A BRC1E52B (4)	-
Wireless remote control	-	-	-	-	-	-	BRC4C65	-
Simplified remote control	-	-	-	-	-	-	BRC2C51	-
Remote control for hotel use	-	-	-	-	-	-	BRC3A61	-
Cord for wired remote control - 3m	BRCW901A03	BRCW901A03	BRCW901A03	BRCW901A03	BRCW901A03	-	-	-
Cord for wired remote control - 8m	BRCW901A08	BRCW901A08	BRCW901A08	BRCW901A08	BRCW901A08	-	-	-
Wiring adapter normal open contact normal open pulse contact	ct / KRP413A1S (1)	KRP413A1S (1) (5)	KRP413A1S (1)	KRP413A1S (1)	KRP413A1S (1)	KRP413A1S (1)	-	KRP413A1S (1)
Centralised control board - up to 5 r	ooms KRC72 (2)	KRC72 (2)	KRC72 (2)	KRC72 (2)	KRC72 (2)	KRC72 (2)	-	KRC72 (2)
Anti-theft protection for remote cor	ntrol KKF910A4	KKF910A4	KKF910A4	KKF910A4	KKF910A4	-	-	KKF917AA4
Interface adapter for wired remote of	control -	KRP980A1	-	-	-	-	-	-
Wiring adapter for electrical append	dices -	-	-	-	-	-	KRP4A54	-
Remote sensor	-	-	-	-	-	-	KRCS01-4	-
Installation box for adapter PCB	-	-	-	-	-	-	KRP1BA101	-
Electric box with earth terminal 3 bl	ocks -	-	-	-	-	-	KJB311A	-
Electric box with earth terminal 2 bl	ocks -	-	-	-	-	-	KJB212A	
Interface adapter for DIII-net	KRP928A2S	KRP928A2S (5)	KRP928A2S (5)	KRP928A2S	KRP928A2S	KRP928A2S	-	KRP928A2S
Online controller	BRP069A41	BRP06942 (5)	BRP06942	BRP069A42	BRP069A42	BRP069A42	-	BRP069A42
Modbus gateway	RTD-RA	RTD-RA (5)	RTD-RA	RTD-RA	RTD-RA	RTD-RA	RTD-NET	-
KNX gateway	KLIC-DD	KLIC-DD (5)	KLIC-DD	KLIC-DD	KLIC-DD	KLIC-DD	KLIC-DI	KLIC-DD
•								
Titanium apatite photocatalytic air- purification filter without frame	-	-	-	-	-	-	-	-
Photocatalytic deodorising filter, wi frame	th -	-	-	-	-	-	-	KAZ917B41
Photocatalytic deodorising filter, witho	ut frame -	-	-	-	-	-	-	KAZ917B42
Air purification filter, with frame	-	-	-	-	-	-	-	KAF925B41
Installation leg	-	-	-	-	BKS028	-	-	-

(1) Wiring adapter supplied by Daikin. Time clock and other devices : to be purchased locally; (2) Wiring adapter is also required for each indoor unit; (3) Cord for wired remote control BRCW901A03 or BRCW901A08 required; (4) Standard there is no remote control delivered with this indoor unit. Wired or wireless control to be ordered separately; (5) Interface adapter KRP980A1 required.

	INDOOR UNITS							
Description	FCQG-F	FFQ-C	FDBQ-B	FBQ-D	FHQ-C			
Wired remote control	BRC1D52 BRC1E52A (3) BRC1E52B (4)	BRC1D528 BRC1E52A (3) BRC1E52B(4)(9)	BRC1D52 BRC1E52A (3) BRC1E52B (4)	BRC1D52 BRC1E52A (3) BRC1E52B (4)	BRC1D52 BRC1E52A (3) BRC1E52B (4)			
Intelligent touch controller	DCS601C51	DCS601C51	-	DCS601C51 (2)	-			
Infrared remote control (heat pump)	BRC7FA532F (5)	BRC7EB530W BRC7F530W BRC7F530S (8-9)	-	BRC4C65	BRC7G53			
Simplified remote control (with operation mode selector button)	-	BRC2E52C (12)	-	BRC2E52C (12)	-			
Simplified remote control (without operation mode selector button)	-	BRC3E52C (12)	-	-	-			
Residential central remote control	-	-	-	-	-			
Remote control for hotel use	BRC3A61	-	-	BRC3E52C	-			
Centralised remote control	DCS302C51	DCS302B51	-	DCS302C51	DCS302C51			
Unified ON/OFF control	DCS301B51	DCS301B51	-	DCS301B51	DCS301B51			
Schedule timer	DST301B51	DST301B51	-	DST301B51	DST301B51			
Adapter for wiring (interlock for fresh air intake fan)	_	-	-	KRP1BA59	-			
Adapter for external ON/OFF and monitoring/for electrical appendices	KRP1B57 KRP4A53 (1)(5)	KRP1B57 KRP4A53(6)	-	KRP4A52 (1) KRP2A51 (1)	KRP1B54 KRP4A52(1)			
Interface adapter for Sky Air	_	-	-	DTA112B51	-			
Installation box for adapter PCB	KRP1H98 (5)	KRP1B101 KRP1BA101	-	KRP1B(A)101	KRP1D93A			
Remote sensor	KRCS01-4	KRCS01-4	-	KRCS01-4B	KRCS01-4B			
Remote ON/OFF, forced OFF	-	-	-	-	EKRORO4			
Electrical box with earth terminal (3 blocks)	KJB311A	-	-	-	KJB311A			
Electrical box with earth terminal (2 blocks)	KJB212A	-	-	-	KJB212A			
Electrical box with earth terminal	-	-	-	KJB411A	-			
Adapter for wiring (hour meter)	EKRP1C11 (1)(5)	EKRP1B2	EKRP1B2	-	-			
Digital input adaptor	-	BRP7A51 (1) (13)	-	BRP7A51	-			
Options PCB for external electrical heater, humidifier and/or hour meter	-	-	-	EKRP1B2A (7)	-			
Option PCB for group control (NIM03)	-	-	-	-	-			
Mounting plate for adapter PCB	-	-	-	-	-			

Notes: (1) Installation box for adapter PCB is necessary; (2) Interface adapter for Sky Air series (DTA112B51) is necessary; (3) Including following languages: English, German, French, Italian, Spanish, Dutch, Greek, Russian, Turkish, Portuguese, Polish; (4) Including following languages: English, German, Czech, Croatian, Hungarian, Romanian, Slovenian, Bulgarian, Slovak, Serbian, Albanian; (5) Option not available in combination with BYCQ140\*G; (6) Installation box for adapter PCB (KRP1B101) is necessary; (7) Electrical heater, humidifier and hour meter are field supply. These parts should not be installed inside the equipment; (8) Sensing function is not available; (9) Independently controllable flaps function is not available; (10) With the infrared remote control, the individual flap control and automatic air volume control cannot be controlled; (11) Including following languages: English, German, French, Dutch, Spanish, Italian, Portuguese; (13) Only possible in combination with simplified remote control equipment

Notes: (1) The BYCQ140DW has white insulations. Be informed that dirt is more visible on white insulation and that it is consequently not advised to install the BYCQ140DW decoration panel in environments

#### Options & accessories - Ventilation & hot water

	VAM150FA	VAM250FA	VAM350FB	VAM500FB	VAM650FB
EN779 Medium M6	-	-	EKAFV50F6	EKAFV50F6	EKAFV80F6
EN779 Fine F7	-	-	EKAFV50F7	EKAFV50F7	EKAFV80F7
EN779 Fine F8	-	-	EKAFV50F8	EKAFV50F8	EKAFV80F8
Model name	-	-	-	KDDM24B50	KDDM24B100
Nominal pipe Diameter (mm)	-	-	-	200	200
	-	-	BRYMA65	BRYMA65	BRYMA65
	VH1B	VH2B	VH2B	VH3B	VH3B
	EN779 Fine F7 EN779 Fine F8 Model name	EN779 Medium M6 - EN779 Fine F7 - EN779 Fine F8 - Model name - Nominal pipe Diameter (mm) - -	EN779 Medium M6     -       EN779 Fine F7     -       EN779 Fine F8     -       Model name     -       Nominal pipe Diameter (mm)     -       -     -	EN779 Medium M6         -         EKAFV50F6           EN779 Fine F7         -         EKAFV50F7           EN779 Fine F8         -         EKAFV50F8           Model name         -         EKAFV50F8           Nominal pipe Diameter (mm)         -         -           -         -         BRYMA65	EN779 Medium M6         -         EKAFV50F6         EKAFV50F6           EN779 Fine F7         -         -         EKAFV50F7         EKAFV50F7           EN779 Fine F8         -         -         EKAFV50F8         EKAFV50F8           Model name         -         -         KDDM24B50           Nominal pipe Diameter (mm)         -         -         200           -         BRYMA65         BRYMA65         BRYMA65

Individual control systems	VAM-FA/FB	VKM-GB(M)	
Wired remote control	BRC1E52A/B / BRC1D52	BRC1E52A/B / BRC1D52	
VAM wired remote control	BRC301B61	-	

Centralised control systems	VAM-FA/FB	VKM-GB(M)		
Centralised remote control	DCS302C51	DCS302C51		
Unified ON/OFF control	DCS301B51	DCS301B51		
Schedule timer	DST301B51	DST301B51		

Others	VAM150-250FA	VAM350-2000FB	VKM-GB(M)
Wiring adapter for electrical appendices (note 6)	KRP2A51	KRP2A51 (note 3)	BRP4A50A (note 4/5)
Adapter PCB for humidifier	KRP50-2	BRP4A50A (note 4/5)	BRP4A50A (note 4/5)
Adapter PCB for 3rd party heater	BRP4A50	BRP4A50A (note 4/5)	BRP4A50A (note 4/5)
Remote sensor	-	-	-

Notes

(1) Cool/heat selector required for operation

(2) Do not connect the system to DIII-net devices (Intelligent controller, Intelligent Manager, LonWorks interface, BACnet interface...).

(3) Installation box KRP1BA101 needed.

(4) Fixing plate EKMPVAM additionally needed for VAM1500-2000FB.

(5) 3rd party heater and 3rd party humidifier cannot be combined

(6) For external control and monitoring (ON/OFF control, operation signal, error indication)

	VH electrical heater for VAM
Supply voltage	220/250V ac 50/60 Hz. +/-10%
Output current (maximum)	19A at 40°C (ambient)
Temperature sensor	5k ohms at 25°C (table 502 1T)
Temperature control range	0 to 40°C / (0-10V 0-100%)
Run on timer	Adjustable from 1 to 2 minutes (factory set at 1.5 minutes)
Control fuse	20 X5 mm 250 m A
LED indicators	Power ON - Yellow
	Heater ON - Red (solid or flashing, indicating pulsed control)
	Airflow fault - Red
Mounting holes	98mm X 181mm centres 5 mm ø holes
Maximum ambient adjacent to terminal box	35°C (during operation)
Auto high temp. cutout	100°C Pre-set
Man. reset high temp. cutout	125°C Pre-set
Run relay	1A 120V AC or 1A 24V DC
BMS setpoint input	0-10VDC

Vh electrical heat	er for vam	vH1B	VH2B	VH3B	VH4B	VH4/AB	VH5B
Capacity	kW	1	1	1	1.5	2.5	2.5
Duct diameter	mm	100	150	200	250	250	350
Connectable VAM		VAM150FA	VAM250FA	VAM500FB	VAM800FB	VAM800FB	VAM1500FB
		-	VAM350FB	VAM650FB	VAM1000FB	VAM1000FB	VAM2000FB

#### Options & accessories - Ventilation & hot water

VAM1000FB	VAM1500FB	VAM2000FB	VKM50GB(M)	VKM80GB(M)	VKM100GB(M)
EKAFV100F6	EKAFV100F6 x2	EKAFV100F6 x2	-	-	-
EKAFV100F7	EKAFV100F7 x2	EKAFV100F7 x2	-	-	-
EKAFV100F8	EKAFV100F8 x2	EKAFV100F8 x2	-	-	-
KDDM24B100	KDDM24B100 x2	KDDM24B100 x2	-	KDDM24B100	KDDM24B100
250	250	250	-	250	250
BRYMA100	BRYMA200	BRYMA200	BRYMA65	BRYMA100	BRYMA200
VH4B / VH4/AB	VH5B	VH5B	-	-	-
	EKAFV100F6 EKAFV100F7 EKAFV100F8 KDDM24B100 250 BRYMA100	EKAFV100F6         EKAFV100F6 x2           EKAFV100F7         EKAFV100F7 x2           EKAFV100F8         EKAFV100F8 x2           KDDM24B100         KDDM24B100 x2           250         250           BRYMA100         BRYMA200	EKAFV100F6         EKAFV100F6 x2         EKAFV100F6 x2           EKAFV100F7         EKAFV100F7 x2         EKAFV100F7 x2           EKAFV100F8         EKAFV100F8 x2         EKAFV100F8 x2           KDDM24B100         KDDM24B100 x2         KDDM24B100 x2           250         250         250           BRYMA100         BRYMA200         BRYMA200	EKAFV100F6         EKAFV100F6 x2         EKAFV100F6 x2         -           EKAFV100F7         EKAFV100F7 x2         EKAFV100F7 x2         -           EKAFV100F8         EKAFV100F8 x2         EKAFV100F8 x2         -           KDDM24B100         KDDM24B100 x2         -         -           250         250         250         -           BRYMA100         BRYMA200         BRYMA200         BRYMA200	EKAFV100F6         EKAFV100F6 x2         EKAFV100F6 x2         EKAFV100F6 x2         -           EKAFV100F7         EKAFV100F7 x2         EKAFV100F7 x2         -         -           EKAFV100F8         EKAFV100F7 x2         EKAFV100F7 x2         -         -           EKAFV100F8         EKAFV100F8 x2         EKAFV100F8 x2         -         -           KDDM24B100         KDDM24B100 x2         KDDM24B100 x2         -         KDDM24B100           250         250         250         -         250           BRYMA100         BRYMA200         BRYMA200         BRYMA65         BRYMA100

EKEOFCB <sup>2</sup>	EKEODCB <sup>2</sup>	EKEOMCB <sup>2</sup>
	• • • •	
BRC1E52A/B / BRC1D52	BRC1E52A/B / BRC1D52 1	BRC1E52A/B / BRC1D52 1
-	-	-

EKEQDCB <sup>2</sup>	EKEQMCB <sup>2</sup>
-	-
-	-
-	-
_	EKEQDCB <sup>2</sup> - - - -

EKEQFCB <sup>2</sup>	EKEQDCB <sup>2</sup>	EKEQMCB <sup>2</sup>		
-	-	-		
-	-	-		
-	-	-		
	KRCS01-1			

	HXY080-125A	HXHD125A
Drain pan	EKHBDPCA2	-
Digital I/O PCB	EKRP1HBAA	-
Demand PCB - Required to connect room thermostat	EKRP1AHTA	-
Remote user interface (remocon) - Same controller as supplied with cascade unit		
can be mounted parallel or on other location. If 2 controllers are installed, the	EKRUAHTB	-
installer needs to select 1 master & 1 slave		
Back-up heater	EKBUHAA6(W1/V3)	-
Wired room thermostat - Requires demand PCB EKRP1AHTA	EKRTWA	-
Wireless room thermostat - Requires demand PCB EKRP1AHTA	EKRTR1	-
Remote sensor for room thermostat - Requires demand PCB EKRP1AHTA	EKRTETS	-
Domestic hot water tank - standward		EKHTS200AC
(stacked on top of hydrobox)	-	EKHTS260AC
Domestic hot water tank - with possibility for solar connection	-	EKHWP500B
Solar collector *1		EKSV26P (vertical)
	-	EKSH26P (horizontal)
Pump station	-	EKSRPS

\*1 pump station is necessary for this option

#### **D-AHU Professional**

<b>Construction type</b>		SP 65	SP 45	FP 50	FP 25
	Aluminium	standard	standard	standard	standard
Profile	Anodized aluminium	option	option	option	option
Profile	Aluminium with thermal break	option	option	option	option
	Anodized aluminium with thermal break	option	option	option	option
Corner	Glass fibre reinforced nylon	standard	standard	standard	standard
	Polyurethane foam density 45 kg/m <sup>3</sup> thermal conductivity 0.020 W/m*K fire reaction class 1	standard	standard	standard	standard
Panel insulation	Mineral wool density 90 kg/m³ thermal conductivity 0.037 W/m*K (referred to 20°C) fire reaction class 0	option	option	option	option
	Grey Plastisol covered galvanized steel	standard	standard	standard	standard
External sheet material	Pre-coated galvanized steel	option	option	option	option
	Galvanized steel	option	option	option	option
	Aluminium	option	option	option	option
	AISI 304 stainless steel	option	option	option	option
	Galvanized steel	standard	standard	standard	standard
	Pre-coated galvanized steel	option	option	option	option
Internal sheet mater	ial Grey Plastisol covered galvanized steel	option	option	option	option
	Aluminium	option	option	option	option
	AISI 304 stainless steel	option	option	option	option
Base frame	Aluminium	standard (from size 1 to size 17)			
Base frame	Galvanized steel	standard (from size 18 to size 27)			
Handle	Glass fibre reinforced nylon	standard	standard	standard	standard
	Compression type	standard	standard	standard	standard
Туре	Hinge function type (possibility to remove door)	option	option	option	option

#### D-AHU Easy

Construction type		DS 50	DS 25
Profile	Aluminium	Standard	Standard
Corner	Glass fibre reinforced nylon	Standard	Standard
Panel insulation	Polyurethane foam thermal conductivity 0.024 W/m*K	Standard (density 45 kg/m³)	standard (density 47 kg/m³)
External sheet material	Pre-coated galvanized steel (RAL 9002)	Standard	Standard
Internal sheet material	Galvanized steel	Standard	Standard
Base frame	Aluminium	Standard	Standard
Handle	Glass fibre reinforced nylon	Standard	Standard
Туре	Compression type	Standard	Standard

		DCM601A51	DMS504B51	DMS502A51
		Intelligent Manager	LonWorks Interface	BACnet Interface
iTM plus ad	dapter	DCM601A52		
iTM ppd so	oftware	DCM002A51		
iTM energy	y navigator software	DCM008A51		
iTM BACne	toption	DCM009A51		
WAGO I/O	Modbus communication unit	WGDCMCPLR		
	DC24V power supply unit:	787-712		
	DC24V power supply unit:	750-613		
	Connector:	750-960		
	Terminator module:	750-600		
	Di module:	750-400, 750-432		
	Do module:	750-513/000-001		
	Ai module:	750-454, 750-479		
	Thermistor module:	750-461/020-000		
Interface a	dapter for connection to RA units		KRP928A2S	KRP928A2S
Interface adapter for connection to R-407C/R-22 Sky Air units			DTA102A52	DTA102A52
Interface adapter for connection to R-410A Sky Air units			DTA112B51	DTA112B51
DIII board				DAM411B51
Digital inp	ut/output			DAM412B51

# Over 30 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.



In anticipation of phase out dates for all CFC based equipment, Daikin Europe launched a VRV interter series with R-407C. As many as 16 indoor units can be connected to 1 single outdoor unit. The introduction of the VRVII-S series extends the VRV operating scope into the light commercial sectors. Available in 4, 5 and 6HP capacities, the system is designed for installation in up to 9 rooms.



1987



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.

1994

1998

2003

Daikin introduces the VRVII,

2004

2005

Daikin Daikin extends the operational scope of its acclaimed VRVII inverter driven dx air conditioning system, with a new water cooled version, VRV-WII. Available in both heat pump and heat recovery versions.



Consistent high quality and efficiency lead to the widespread acceptance of the VRV concept and Daikin becomes the first Japanese air conditioning manufacturer to be awarded the ISO9001 certification.



the world's first R-410A operated variable refrigerant flow system. Available in cooling only, heat pump and heat recovery versions. No less than 40 indoor units in heat recovery as well as heat pump format can be connected to a single refrigerant circuit.

#### R-410A





Daikin introduces a new heat pump range optimised for heating (VRVIII-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.



2006-2007

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

charging and testing. Up to **64 indoor untis** can be connected to one system.



2008



Daikin extends the VRVIII range with the water cooled VRV-WIII. 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.

2009

2010

Daikin launches the **'total solution'** concept by integrating **hot water production** and **Biddle air curtains** in the VRV system. The range of indoor units is also expanded by offering the possibility to connect residential indoor units as **Daikin Emura or Nexura** to the VRV system. 2011 also confirms VRV as established solution in the market reaching **400,000 outdoor units** and **2.2 million indoor units sold**.



efficiency and continuous heating on heat pumps.

Daikin extends its VRV range

operating on the banned

upgrade is possible because

VRVIII-Q outdoor units can be

with the innovative replacement VRV – a highly cost effective

replacement for VRV systems still

R-22 refrigerant. This cost effective

installed using existing piping and

in some cases existing indoor units.





## Research & development

#### Creating value through innovative

#### technologies

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

#### Superior products from multi-part

#### development approach

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

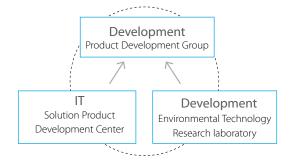
#### Intensive research on environmental impact

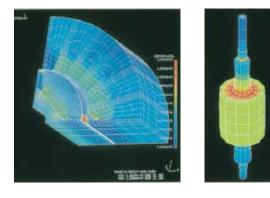
The diverse needs in different countries encountered during the accelerating globalisation of our air conditioning business have presented us with increased research challenges particularly in terms of environmental impact. To promote energy savings in and to lower the environmental impact of our air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

#### IT and air conditioners: the obvious solution

With advances in computerisation and networking, we have integrated IT into our air conditioners including communication technology and advanced software for total control.

Our new control systems enable users to develop comfortable environments with superior energy savings by networking air conditioners to enable them to exchange information with each other and with our service centres.









## Environment

#### Five-year results for the environmental

#### action plan 2010

Under the five-year FUSION 10 strategic management plan, which targeted fiscal year 2010, the Daikin Group strove to develop and promote the use of environmentally conscious products and services on a basic policy of actively contributing to solving global environmental problems and expanding business. Our environmental measures were conducted under our Environmental Action Plan 2010.

#### Reducing Environmental Impact from products

#### Five year result

Promote and expand the use of environmentally conscious products to meet the particular needs of each world region.

We have developed and provided air conditioner products and services that meet the environmental needs of each world region in terms of weather, culture, and economy.

#### Five years target

Promote the use of environmentally conscious products, particularly in rapidly growing developing countries

Daikin will continue to provide air conditioning products and services that meet the environmental needs of each world region. Particularly in developing countries, which are growing fast but where increasing environmental impact is a problem, Daikin will provide products and technologies that contribute to economic progress yet still protect the environment.

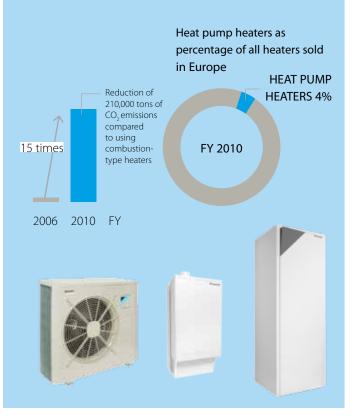
### Europe

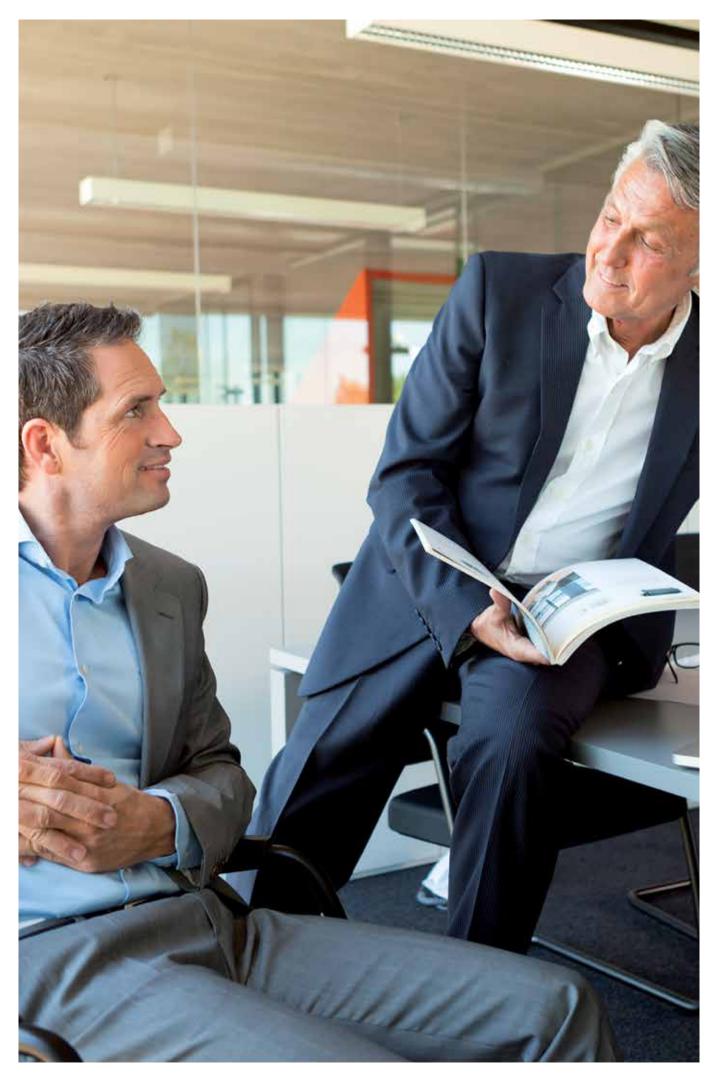
## Fifteen-fold increase in heat-pump hot water and space heating

We have successfully promoted the use of the Daikin Altherma hot water and space heating system in the process contributing to the reduction of 210,000 tons of CO, emissions.

## Proliferating results

Units of Daikin ALtherma sold in Europe





# Literature overview

Daikin has a wide portfolio of commercial catalogues in order to supply you with information or help you to sell our products to your customers.

Literature for professional network Literature for your customers 258 259

## Commercial market - literature overview

## for professional network

Solution guides:



**Hotel Solutions** Clear installer benefits why to choose Daikin for a hotel

15-217

Reference books:



Product Profiles:       Fundational mathematical profiles:       VRV IV range publicle VRV W standards which desume and spectro VRV W product range       Fund public public       Fund public public       Reference public       Refere							
Focus topics:       rew       Replacement tochology Ger installer benefits with to those Dalkin for Send haf 2015       Chen installer benefits with to those Dalkin for Decisional deliance         Product fivers:       rew       Rind Remote Control Detailed info on BRC IES 2AB remote ontrol       rew       Case of the control Detailed info on BRC IES 2AB remote ontrol       rew       Case of the control Detailed info on EXMBDXA modulus interface       Dill-net modulus getway Detailed info on EXMBDXA modulus interface         Value lectrical heater for VM       VAM electrical heater to solution       rew       Virieless temperature sensor       rew       Dill-net modulus getway Detailed info on REMBDXA modulus interface         Product fcatalogues:       rew       Sky Air Catalogue Detailed technical on Sky Air/Vertilation/ systems/AHU       rew       rew       Rew       Dill-net modulus and KUC-DD and KUC-DD and KUC-DD and KUC-DD and KUC-DD interfaces       rew       Dill-net modulus interface Detailed info on REMBDXA modulus interface         Value lectrical heater for VM       VAM electrical heater for VM       rew       Test       Test       Test       Test       Dill-net modulus interface         Itemation is benefits on Sky Air/Vertilation/ systems/AHU       Sky Air Catalogue is the VEV total solution       rew       VRY Catalogue Detailed technical is tow       VRY Catalogue Detailed technical is tow       Vertilation Catalogue Detailed technical is tow       Vertination is thenefits of the VEV total solution       Test<		PARKIN 2027 Vitro Ram Distance States	Detailed VRV IV standards and technologies benefits. Main features and specs of	POAKIN Rooftop Neter	Detailed rooftop benefits incl.		
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Catalogues:       Detailed technical information & benefits on Sky Air/Ventilation/ Biddle Air Curtain/Control systems/AHU       Detailed technical information & benefits of the VRV total solution       Detailed technical information & benefits of the VRV total solution       Detailed info on Ventilation products         Product       Yearkin       Sky Air product       Yearkin       VRV product portfolio       Yearkin       Controls systems		CALKIN Recreation of the formation Recreation of the formation of the formation Recreation of the formation of the formation Recreation of the formation	Detailed info on electrical heater for VAM	COAKIN Wireless room temperature censor temperature censor	sensor Detailed info on wireless sensor K.RSS		Detailed info on RTD controls and applications
Catalogues:       Detailed technical information & benefits on Sky Air/Ventilation/Biddle Air Curtain/Control systems/AHU       Detailed technical information & benefits of the VRV total solution       Detailed information & benefits of the VRV total solution       Detailed information products         Product       Yearrow       Sky Air product       Yearrow       VRV product portfolio       Yearrow       Controls systems							
Product Praikin Sky Air product Praikin VRV product portfolio Praikin Controls systems		COLINI Sty Ar Sty Ar	Detailed technical information & benefits on Sky Air/Ventilation/ Biddle Air Curtain/Control systems/AHU	CONKIN MAY	Detailed technical information & benefits of the VRV total solution		Detailed info on Ventilation products
portion     portion       Overview of Sky air product range     Image: Control of Sky air product range       15-121	Product portfolios:	PDAIKIN Sky Air	portfolio Overview of Sky air product range	CARKIN VRV VRV	Overview of VRV total solution product range	Controls	portfolio Overview of all Daikin control systems

## for your customers

First half 2015	Commercial Solutions Daikin offers solutions for commercial applications	P DAIKIN circen building solutions circent building colutions	Green Buiding Solutions Clear building owner/investor benefits why to choose Daikin for a green building, with emphasis on BREEAM
Reference catalogue Daikin commercial and industrial references 14-213		PORKIN The second secon	Hotel Solutions Clear building owner/investor benefits why to choose Daikin for a hotel 15-218
Intelligent Touch	telligent Touch Manager tailed benefits of elligent Touch Manager 302		
Cle be tec	placement technology ear building owner/investor nefits of replacement chnology		



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



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



Cassette mini catalogue Giving overview of our cassette



15-106

Concealed ceiling unit mini catalogue Catalogue giving overview of our concealed ceiling unit product solutions (md. FDXS-F(9), FBQ-D, FDQ-C, FDQ-B, FXDQ-M9, FXDQ-A, FXSQ-A, FXMQ-P7, FXMQ-MA)



15-101

Ceiling suspended, wall mounted, floor standing units mini catalogue Catalogue giving overview of our Ceiling suspended, wall mounted and floor standing product solutions. (ind. FXHQ-A, FHQ-C, FXAQ-A, FAQ-C, FXNQ-A, FNQ-A, FXLQ-P, FVQ-C)



## Technical documentation:

Download all technical documentation such as engineering databooks, selection software, installation and operation manuals and service manuals directly from our extranet: <u>extranet.daikineurope.com</u>

## VRV IV Heat Recovery

# 360° efficiency

installation efficiency

design efficiency operational efficiency





Our new VRV IV heat recovery systems sets pioneering standards in all-round climate comfort efficiency. Total design simplicity, rapid installation, full flexibility with absolute efficiency and comfort. Find out about all

revolutionary changes on www.daikineurope.com/vrviv

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Daikin Europe NV. participates in the Eurovent Certification programme for Liquid Chilling Packages (LCP). Air handling units (AHU), Fan coil units (FCU) and variable refrigerant flow systems (NRF) Check ongoing validity of certificate online: www.eurovent-certification.com or using: www.certifiash.com

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