DAIKIN

Your business our concern

VRV

VRV PRODUCT RANGE

COMMERCIAL CATALOGUE

Benefits for

building owners

With Daikin's proprietary inverter technology and variable refrigerant temperature, the VRVIII air conditioning system operates with outstanding efficiency. This contributes to high energy savings, which **greatly reduces your running costs** and facilitates better building management.

consultant and design offices

Daikin's VRV systems include indoor and outdoor units available in a wide range of models for various building sizes and installation conditions. Long refrigerant piping lengths and other features put few restrictions on design for **great flexibility** in meeting needs of the building. Also flexible where the system is installed as the unique continuous heating technology makes **VRV** perfectly suitable as monovalent heating system.

installers

Daikin offers a compact design for VRV outdoor units by further optimising equipment functions, exceeding the norm for air conditioning systems. Compact units **facilitate installation** in limited areas, such as rooftops, and take up less effective space. Easier installation work and VRV configurator software realises **fast completion and commissioning** with time to spare.

end users

To provide a **comfortable air environment,** Daikin offers air treatment systems beyond mere air conditioning. As well as bringing air to a comfortable temperature, the air quality can be improved with ventilation, humidification, and other processes. **Ease of use** is realised through advanced, centralised control systems.

The VRV series is a perfect blend of innovative technologies and intelligent needs-drive design providing an extensive range of products to deliver the ultimate in climate control in a commercial environment. Choosing VRV is making a choice for the original and all its benefits. Our air-cooled and water-cooled outdoor units are engineered for optimal performance whether in geo-thermal, standard, heat recovery or heat pump configurations and these combine seamlessly with an inspired range of indoor units. We provide a full range of cassettes, including our new Fully Flat Cassette, so as to ensure the right solution for any space. In addition, you can link the normal heating and cooling process with fresh air ventilation, hydroboxes and Biddle air curtains and control everything via our intelligent network solutions. Innovation in action!

Discover

Daikin VRV

About Daikin

Daikin is Europe's leading manufacturer of highly energy efficient heating, cooling, ventilation and refrigeration solutions for commercial, residential and industrial applications.

Daikin quality

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

SEASONAL EFFICIENCY
Smart use of energy

Total climate control:

setting the standard again

VRV has always set the standard: in the past, in the present, and will continue to do so in the future. Today, VRV IV is setting new standards for seasonal efficiency for building owners, indoor comfort for users, and installation simplicity for installers.

One partner

The Daikin VRV total solution provides a single point of contact for the design and maintenance of your integrated climate control system. Our modular units enable you to select the right mix of equipment and technology to ensure that you achieve the optimal balance of temperature, humidity and air freshness for the perfect comfort zone with maximum energy efficiency and cost effectiveness.

Beyond the ordinary

To achieve perfect indoor conditions means **customising your VRV to individual building & climate requirements** delivering the optimal comfort levels from the perspective of the occupants by ensuring the right temperature in the right places, with the right level of fresh air and humidity, and all with an acceptable level of sound. It also means delivering attention to detail in all aspects of the technical configuration.

Daikin's approach is a **total engineered** solution that focuses not only on the core components but also on the equipment that can be connected to our new generation of VRV systems. Our latest equipment is designed to optimise the performance of the total system by automating as much of the routine controls and checks as possible and by providing a global network of local engineers to help maintain top efficiency.

Energy efficiency, more then COP

Some of the areas on which we focus include indoor units that have an **automatic filter cleaning** function to maintain optimum airflow and reduce energy consumption, while our concealed ceiling units have inverter driven fans that automatically adjust the airflow. Similarly, our **automatic charging and containment check** ensures the right levels of refrigerant, again ensuring the highest possible efficiency. And our user friendly **VRV configurator** simplifies commissioning, configuration and customisation. And then there is the matter of control system. Here we have created a **user-friendly integrated control** that regulates just about everything and even takes the weather into account to ensure that the inside conditions are optimised no matter what the outside conditions.

Indeed, the Daikin total climate control solution is beyond the ordinary.

This sign highlights features where Daikin has invested into technologies to reduce the impact of air conditioning on the environment.
This sign can be found on pages: p 28, 29, 30, 32, 33, 36, 58, 68, 82, 85

What's new?

VRV IV =

sets the standard …

again

VRV +

3 revolutionary standards

- Variable refrigerant temperature
- Continuous heating via heat pump
- VRV configurator

What else is new?

ALL INDOOR UNITS
FULLY ECO DESIGN COMPLIANT p 92

From 01/2013 all indoor units will have to comply to the Ecodesign legislation on fans. As a market leader Daikin takes the step to be the first to comply with all indoors units to this legislation by adopting DC fans in all indoor units, improving their energy efficiency even further.

SEASONAL EFFICIENCY
Smart use of energy

NEXT GENERATION
ROUND FLOW CASSETTE FXFQ-A p 96

- Improved comfort
  - Presence sensor automatically directs air flow away from any person to avoid draught.
  - Floor sensor ensures even temperature distribution between ceiling and floor
- Even more energy efficient
  - Auto cleaning panel saves up 50% thanks to daily filter cleaning.
  - Presence sensors saves up to 27% by adjusting setpoint or swithing off the unit when nobody is in the room
- Flexible installation by individual flap control
  One or more flaps can be easily closed when refurbishing or rearranging your interior

FULLY FLAT CASSETTE - FXZQ-A p 98

- Unique design in the market: integrates fully flat into the ceiling and fits flush into architectural ceiling modules
- Remarkable blend of iconic design and engineering excellence with an elegant finish in matt crystal white or a combination of silver and matt crystal white
- Even more energy efficient with the presence sensor
- Offering improved comfort with the floor sensor
- Individual flap control: one or more flaps can be easily closed via the wired remote controller (BRC1E52) when refurbishing or rearranging your interior
- No optional adapter needed for DIII-connection of Sky Air model

2-WAY BLOW CASSETTE – FXCQ-A p 100

› Better efficiency with newly developed heat exchanger, DC fan and drain pump
› Modern style decoration panel in RAL9010
› Improved comfort with automatic air flow control

CEILING SUSPENDED CASSETTE – FXHQ-A p 108

› Better efficiency with DC fan and drain pump
› Modern style decoration panel in RAL9010

4-WAY BLOW CEILING SUSPENDED CASSETTE – FXUQ-A p 109

› Better efficiency with newly developed heat exchanger, DC fan and drain pump
› Modern style decoration panel in RAL9010
› Improved comfort with automatic air flow control
› Integration of expansion valve for faster installation

LOW TEMPERTURE HYDROBOX FOR VRV p 122

› Highly efficient space heating/cooling
› For underfloor, AHU, low temperature radiators …
› Leaving water temperature range: 5-45°C

INTELLIGENT TOUCH MANAGER p 148

Intuitive user interface

› Smart energy management
› Flexible in size (from 64 up to 2,560 groups)
› Flexible in integration (from simple A/C control to small BMS)
› Easy servicing and commissioning with remote refrigerant containment check

BIDDLE AIR CURTAIN FOR VRV p 126

› Connectable to VRV heat recovery and heat pump
› Payback period of less than 1.5 years
› Provides virtually free heating via recovered heat

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.

1987

1991

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

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

R-407C

In anticipation of phase out dates for all CFC based equipment, Daikin Europe steps up the production of VRV air conditioning units using **R-407C**. Daikin Europe celebrates its 25th anniversary with the award of an **ISO14001 environmental certificate** and the introduction of VRV Inverter series with R-407C, in cooling only or heat pump format. As many as 16 indoor units can be connected to 1 single outdoor unit.

1998

2003

Daikin introduces the VRVII, the **world's first R-410A** operated variable refrigerant flow system. Available in cooling only, heat pump and heat recovery versions, the system, which represents a considerable advance over earlier VRV systems, demonstrates Daikin's innovative application of new technology. No less than **40 indoor units** in heat recovery as well as heat pump format can be connected to a single refrigerant circuit.

R-410A

2004

The introduction of the **VRVII-S** series extends 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.

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

Daikin has extended the VRVIII range with the re-engineered water cooled VRV-WIII, which is available in 9 different outdoor combinations from 8 to 30HP.

A **geothermal** version is also available now.
This system uses geothermal heat as a **renewable energy** source and can operate down to -10°C in heating mode.

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**.

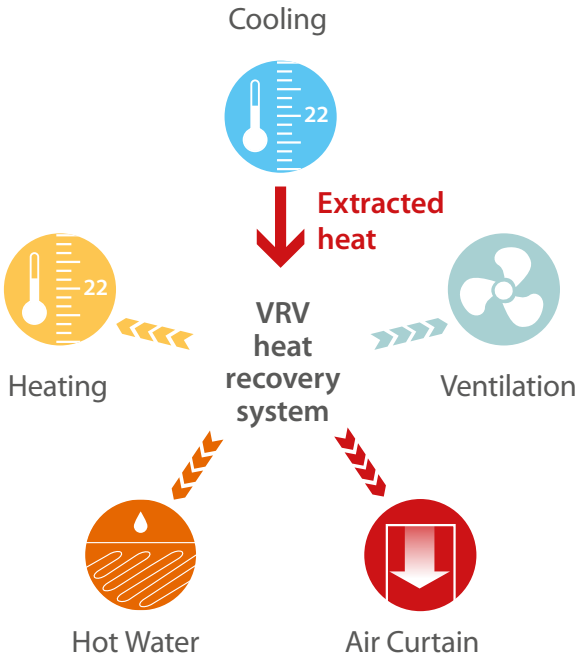
2005 **2006-2007** **2008** **2009** **2010** **2011**

Daikin has announced 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 as **automatic charging and testing**.
Up to **64 indoor untis** can be connected to one system.

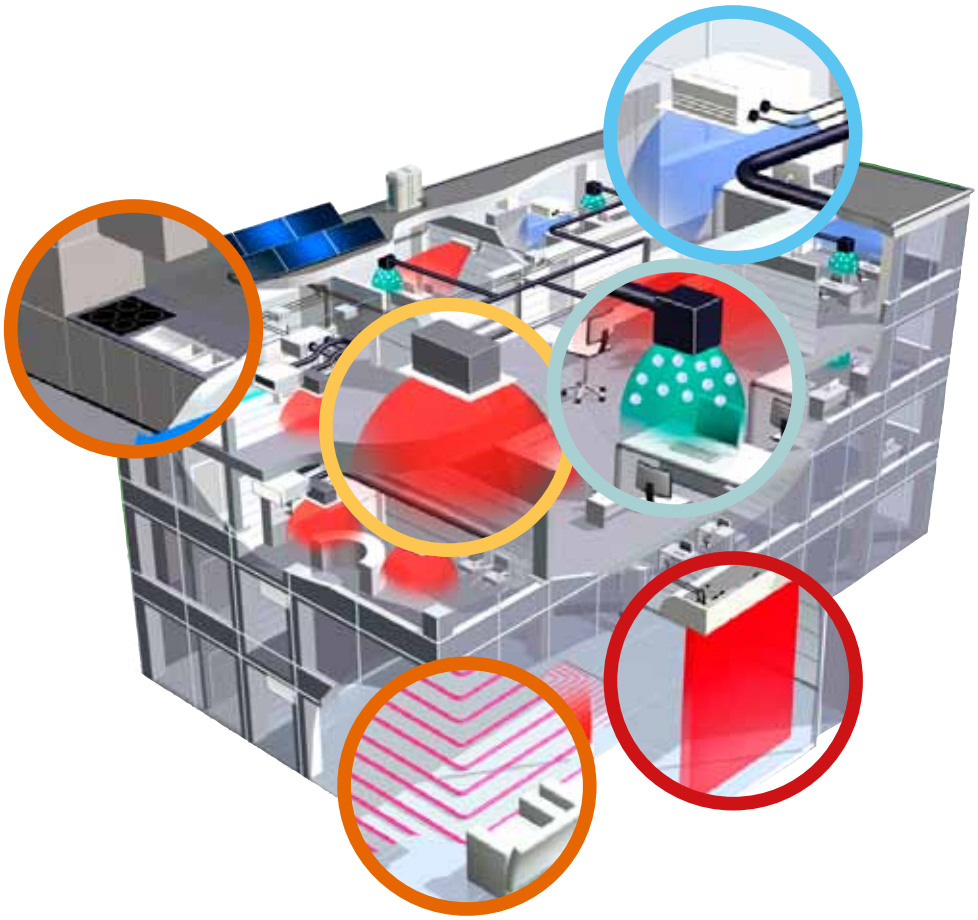
Daikin introduces a new heat pump range optimised for heating (VRVIII-C).
This new range has an **extended operation range down to -25°C** and has a greatly improved COP in low ambient temperatures, with the newly developed 2-stage compressor system.

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

Total solution concept



The Daikin VRV total solution provides a single point of contact for the design and maintenance of your integrated climate control system. Our modular units enable you to select the right mix of equipment and technology to ensure that you achieve the optimal balance of temperature, humidity and air freshness for the perfect comfort zone with maximum energy efficiency and cost effectiveness.



+ SAVE UP TO 28% IN RUNNING COSTS
COMPARED TO PREVIOUS SERIES

VRV OUTDOOR UNITS

Integrated heat pump solution

- Solution for every climate from -25°C to +52°C
- Flexible to fit any building
- Can be customized to your specific needs to achieve the highest seasonal efficiency
- The new standard in heating comfort

HEATING AND COOLING

Wide range of indoor units that fit rooms of any size and shape

- Perfect comfort
- Whisper-quiet operation
- Stylish design
- Concealed installation possible

+ SAVE UP TO 15% COMPARED
TO TRADITIONAL SYSTEMS

VENTILATION

Create a high-quality indoor environment

- Heat is reclaimed between out and indoor air
- Free cooling
- Optimum control of humidity
- Air filtration ensures a steady supply of clean air

+ SAVE UP TO 40% THANKS TO LOWER
COOLING AND HEATING REQUIREMENTS

AIR SEPARATION THROUGH AIR CURTAINS

A highly efficient solution to doorway climate separation

- Most efficient open-door solution
- Air curtain heating for free
- Year-round comfort, even on the most demanding days

+ SAVE UP TO 72% COMPARED
TO AN ELECTRIC AIR CURTAIN

HOT WATER

Use renewable energy to produce hot water

- Free heating of water possible
- Possibility to combine with solar panels
- Hot water for showers, sinks, tap water for cleaning, under floor heating or radiators
- Hot water up to 80°C

+ SAVE UP TO 17% COMPARED
TO A GAS BOILER

USER FRIENDLY CONTROL SYSTEMS

Full control for maximum efficiency

- From individual control to the management of multiple buildings
- User friendly touch screen control
- Remote control & monitoring via internet
- Zone control
- Energy management tools

Which VRV outdoor offers me the bes solution?

Air cooled outdoor systems

VRV HEAT PUMP

› For either heating or cooling operation from one system

VRV IV Heat Pump

› Customize your VRV for best seasonal efficiency & comfort with Variable Refrigerant Temperature
› Continuous comfort: Unique continuous heating technology makes VRV IV the best alternative to traditional heating systems
› VRV configurator software for the fastest and most accurate commissioning, configuration and customisation
› Wide range of indoor units: possibility to combine VRV with stylish indoor units (Daikin Emura, Nexura, …)

VRVIII-S

VRVIII-S Heat Pump

› Especially designed for small capacities
› Space saving design
› Either connect VRV or stylish indoor units: Daikin Emura, Nexura…

VRVIII-C

VRV Heat Pump optimised for heating

› First system in the industry developed for heating operation at low ambient conditions.
› Extended operation range for heating down to -25°C
› Stable heating capacity and high efficiencies at low ambient temperatures (COP > 3 at -10°C outdoor temperature)

VRV CLASSIC

VRV Classic

› For smaller projects with standard cooling & heating requirements
› Connectable to all VRV indoor units, controls and ventilation

VRV HEAT RECOVERY

› For simultaneous heating and cooling from one system
› Heat exhausted from indoor units in the cooling cycle is merely transferred to units in areas requiring heat, maximising energy efficiency, reducing electricity costs and leading to high partload efficiencies (up to 91).
› Operation range in cooling down to -20°C (technical cooling)

Small footprint combination

› Optimized footprint within heat recovery range

High COP combination

› Top energy efficiency in Daikin heat recovery range

VRV heat recovery, with connection to heating only hydrobox

› Fully integrated system
› Free hot water

REPLACEMENT VRV

› For cost-effective upgrade from R-22/R-407C to R-410A

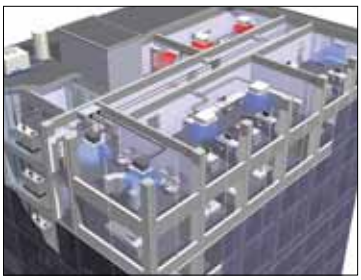
› Increased energy efficiency compared to R-22/R-407C systems
› Fast installation compared to total system replacement (re-use of existing piping and in some cases indoor units)
› Available in heat recovery and heat pump

system

Water cooled outdoor systems

› Allows heat recovery within the total building, thanks to the storage of energy in the water circuit.
› Compact design and stacked configuration possible.
› Suitable for multi-storey and large buildings because of the hardly unlimited possibilities of water piping.

VRV-W HEAT RECOVERY



STANDARD SERIES

› For simultaneous heating and cooling from one refrigerant system

GEOTHERMAL SERIES

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

Portfolio

Outdoor unit range

System	Type	Product name		Capacity (HP) 4	5	6	8	10	12	14	16	18	20	22
Cooling capacity (kW)[1]				12.6	14.0	15.5	22.4	28.0	33.5	40.0	45.0	49.0	55.9	61.5
Heating capacity (kW)[2]				14.2	16.0	18.0	25.0	31.5	37.5	45.0	50.0	56.5	62.5	69.0
AIR COOLED	HEAT PUMP	VRV IV RYYQ-T Heat pump with continuous heating	new											
		VRV IV RXYQ-T Heat pump without continuous heating	new											
		VRV III-S RXYSQ-P8V1 (Single phase) RXYSQ-P8Y1 (Three phase)												
		VRV III-C RTSYQ-PA Heat pump optimised for heating	new											
		VRV Classic RXYCQ-A	new											
	HEAT RECOVERY	VRV III REYQ-P8/P9 Small footprint combination												
		VRV III REYHQ-P High COP combination												
		VRV III REYAQ-P for connection with heating only hydrobox												
Cooling capacity (kW)[3]							22.4	26.7			44.8	49.1	53.4	
Heating capacity (kW)[4]							25.0	31.5			50.0	56.5	63.0	
WATER COOLED	STANDARD SERIES H/R - H/P	VRV-W III RWEYQ-P												
	GEO-THERMAL SERIES H/R - H/P	VRV-W III RWEYQ-PR												

System	Type	Product name		4	5	8	10	12	13	14	16	18	20	22
Capacity class					140		280		360		460	500	540	636
Cooling capacity (kW)[1] HR/HP					-/14.0	-/22.4	28.0/28.0	-/33.5	36.0/-	-/40.0		50.0/50.4	54.0/55.9	63.6/61.5
Heating capacity (kW)[2] HR/HP					-/16.0	-/25.0	32.0/31.5	-/37.5	40.0/-	-/45.0	52.0/50.0	56.0/56.5	60.0/62.5	67.2/69.0
AIR COOLED	REPLACEMENT VRV HEAT RECOVERY - HEAT PUMP	VRV III-Q RQYQ-P VRVIII-Q - H/P												
		VRV III-Q RQCEQ-P VRVIII-Q - H/R												

Single unit

Multi combination

[1] Nominal cooling capacities are based on : indoor temperature : 27°CDB, 19°CWB, inlet water temperature : 30°C, equivalent refrigerant piping : 7.5m, level difference : 0m.
[2] Nominal heating capacities are based on: indoor temperature: 20°CDB, outdoor temperature: 7°CDB, 6°CWB, equivalent refrigerant piping : 7.5m, level difference : 0m.
[3] Nominal cooling capacities are based on: indoor temperature : 27°CDB, 19°CWB, inlet water temperature : 30°C, equivalent refrigerant piping : 7.5m, level difference : 0m
[4] Nominal heating capacities are based on: indoor temperature : 20°CDB, inlet water temperature : 20°C, equivalent refrigerant piping : 7.5m, level difference : 0m

24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	Indoor units		Ventilation			Air curtain	Hydrobox connection		Control systems		
67.0	71.4	77.0	82.5	89.0	94.0	98.0	105.0	111.0	116.0	120.0	126.0	132.0	138.0	143.0	147.0											
75.0	81.5	88.0	94.0	102.0	107.0	113.0	119.0	126.0	132.0	138.0	145.0	151.0	158.0	163.0	170.0											
																+	•	+	+	•	+	+	x	+	+	+
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67.2	71.5	75.8	80.1																							
75.0	81.5	88.0	94.5																							
																+	x	+	+	+	+	x	x	+	+	+
																+	x	+	+	+	+	x	x	+	+	+

Capacity (HP)

24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	VRV type indoor units (such as FXSQ)	Residential type indoor units (such as Daikin Emura) [5]	Heat Reclaim ventilation (such as VAM)	Fresh air indoor units (such as FXMQ-MF)	AHU connection kit (such as EKEXV)	Biddle Air curtain for VRV (CYV)	Low temperature hydrobox for VRV	High temperature hydrobox for VRV	Individual control (such as BRC[6])	Centralised control (such as DCS3*/DST[6])	Network solutions (such as DCS6*/DAM/DMS[6])
712	744	816	848																							
71.2/67.0	74.4/73.0	81.6/78.5	84.4/85.0	-/90.0	-/96.0	-/101.0	-/107.0	-/112.0	-/118.0	-/124.0	-/130.0	-/135.0														
78.4/75.0	80.8/81.5	87.2/87.5	89.6/95.0	-/100.0	-/108.0	-/113.0	-/119.0	-/125.0	-/132.0	-/138.0	-/145.0	-/150.0														
																+	x	+	+	+	+	x	x	+	+	+
																+	x	+	+	+	+	x	x	+	+	+
																+	x	+	+	+	+	x	x	+	+	+
																+	x	+	+	+	+	x	x	+	+	+

[5] BP-box required

[6] Exact control possibilities depend on the selected system components

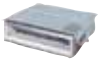
\+ All + components can be connected together to 1 system

• Can be connected, but not in combination with other components

x Can not be connected

Indoor unit range

VRV air conditioning brings summer freshness and winter warmth to offices, hotels, department stores and many other commercial premises. It enhances the indoor environment and creates a basis for increased business prosperity and whatever the air conditioning requirement, a Daikin indoor unit will provide the answer. VRV air conditioning can be supplied via **26 different indoor unit models in a total of 116 variations.**

	Type	Model	Product name		Capacity 15	20	25	32	40	50	63	71	80	100	125	140	200	250
new	CEILING MOUNTED CASSETTE	Round flow cassette autocleaning function[3] Presence & floor sensor[3]	FXFQ-A			■	■	■	■	■	■		■	■	■			
new		4-way blow ceiling mounted cassette Presence & floor sensor[3]	FXZQ-A		■	■	■	■	■	■								
new		2-way blow ceiling mounted cassette	FXCQ-A			■	■	■	■	■	■		■		■			
		Ceiling mounted corner cassette	FXKQ-MA				■	■	■		■							
	CONCEALED CEILING	Small concealed ceiling unit	FXDQ-M9			■	■											
new		Slim concealed ceiling unit	FXDQ-A		■	■	■	■	■	■	■							
		Concealed ceiling unit with inverter driven fan	FXSQ-P			■	■	■	■	■	■		■	■	■	■		
		Concealed ceiling unit with inverter driven fan	FXMQ-P7			■	■	■	■	■	■		■	■	■			
		Large concealed ceiling unit	FXMQ-MA[4]														■	■
	WALL MOUNTED	Wall mounted unit	FXAQ-P			■	■	■	■	■	■							
new	CEILING SUSPENDED	Ceiling suspended unit	FXHQ-A					■			■			■				
new		4-way blow ceiling suspended unit	FXUQ-MA									■		■	■			
	FLOOR STANDING	Floor standing unit	FXLQ-P			■	■	■	■	■	■							
		Concealed floor standing unit	FXNQ-P			■	■	■	■	■	■							
Cooling capacity (kW)[1]					1.7	2.2	2.8	3.6	4.5	5.6	7.1	8.0	9.0	11.2	14.0	16.0	22.4	28.0
Heating capacity (kW)[2]					1.9	2.5	3.2	4.0	5.0	6.3	8.0	9.0	10.0	12.5	16.0	18.0	25.0	31.5

[1] Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB, outdoor temperature: 35°CDB, equivalent refrigerant piping: 5m, level difference: 0m.

[2] Nominal heating capacities are based on: indoor temperature: 20°CDB, outdoor temperature: 7°CDB, 6°CWB, equivalent refrigerant piping: 5m, level difference: 0m

[3] Optional

[4] Not connectable to VRV III-S

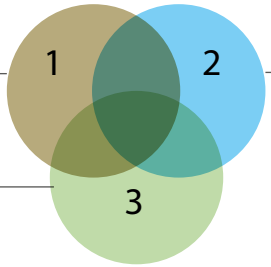
	Type	Model	Product name		Capacity 15	20	25	35	42	50	60	71	Connectable outdoor unit VRV IV RYYQ-T RXYQ-T	VRV II-S RXYSQ-P8V1 RXYSQ-P8Y1
	CEILING MOUNTED CASSETTE	Round flow cassette (incl. autoclean function[1])	FCQG-F					■		■	■			✓
new	CEILING MOUNTED CASSETTE	Fully flat cassette	FFQ-C				■	■		■	■			✓
	CONCEALED CEILING	Small concealed ceiling unit	FDBQ-B				■							✓
	CONCEALED CEILING	Slim concealed ceiling unit	FDXS-F				■	■		■	■			✓
	CONCEALED CEILING	Concealed ceiling unit with inverter driven fan	FBQ-C					■		■	■			✓
	WALL MOUNTED	Daikin Emura Wall mounted unit	FTXG-JA/JW				■	■		■			✓	✓
new	WALL MOUNTED	Wall mounted unit	CTXS-K FTXS-K		■	■	■	■	■	■			✓	✓
	WALL MOUNTED	Wall mounted unit	FTXS-G								■	■	✓	✓
new	CEILING SUSPENDED	Ceiling suspended unit	FHQ-C					■		■	■			✓
	FLOOR STANDING	Nexura floor standing unit	FVXG-K				■	■		■			✓	✓
	FLOOR STANDING	Floor standing unit	FVXS-F				■	■		■			✓	✓
	FLOOR STANDING	Flexi type unit	FLXS-B				■	■		■	■		✓	✓

[1] Decoration panel BYCQ140CG + BRC1E51A needed

Ventilation range

Ventilation: provision of fresh air

Pre conditioning: cooling or heating of incoming fresh air to maintain a consistent temperature for maximum comfort



Humidification: optimise the balance between indoor and outdoor humidity

Type	Product name	Components of indoor air quality		Air flow rate (m^3/h) 0 200 400 600 800 1,000 1,500 2,000 4,000 6,000 8,000
HEAT RECLAIM VENTILATION	VAM-FA/FB	1 Ventilation		
	VKM-G	1 Ventilation 3 Pre conditioning		
	VKM-GM	1 Ventilation 2 Humidification 3 Pre conditioning		
OUTDOOR AIR PROCESSING UNIT [1]	FXMQ-MF	1 Ventilation 3 Pre conditioning		
VRV AIR HANDLING APPLICATIONS [2]	EKEXV-kit	1 Ventilation 3 Pre conditioning		

[1] Not connectable to VRVIII-S (RXYSQ-P8V1, RXYSQ-P8Y1)

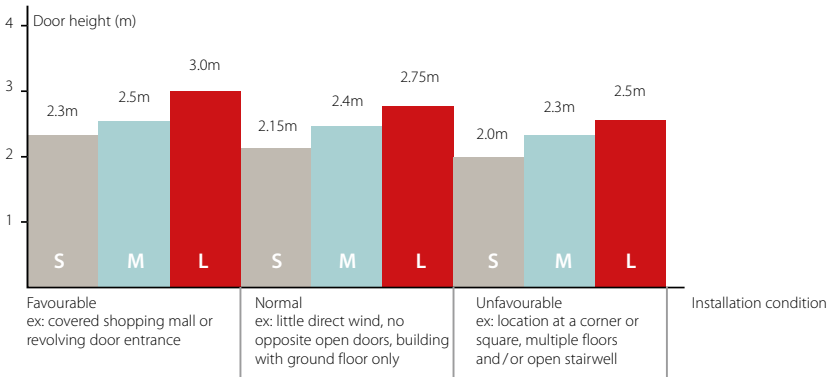
[2] Air flow rate is a calculated indication only, based on the following values: heating capacity EKEXV-kit * 200m^3/h

[3] For more information on Daikin air handling units refer to your local dealer

Biddle air curtain range

Type	Product Name
BIDDLE AIR CURTAIN FREE HANGING	CYV S/M/L-DK-F
BIDDLE AIR CURTAIN CASSETTE	CYV S/M/L-DK-C
BIDDLE AIR CURTAIN RECESSED	CYV S/M/L-DK-R

Biddle air curtain range for VRV



Hydrobox range

Capacity

Type	Product name	leaving water temperature range	80	125
LOW TEMPERATURE HYDROBOX [1]	HXY-A	5°C - 45°C		
HIGH TEMPERATURE HYDROBOX [2]	HXHD-A	25°C - 80°C		

[1] Only connectable to RYYQ-T
[2] Only connectable to REYAQ-P

Network solutions

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

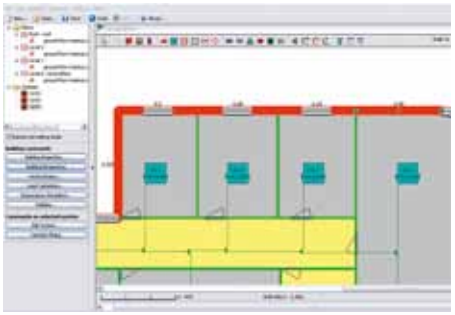
[1] Gateway for Lonworks networks [2] Gateway for BACnet networks

Powerful Selection Programmes

1. VRV Pro, design tool

FEATURES

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



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

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

2. Xpress, quick quotation tool

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

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

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

Air cooled

VRV outdoor systems

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

Available in heat recovery, heat pump, heating only, cold climate and mini versions, the VRV system is **Extremely Flexible** with an operational capacity range of 4 (12.6kW) to 54HP (168.0kW) (heat pump) and 8 (22.4kW) to 48HP (151.0kW) (heat recovery) in capacity increments of just 2HP. VRV system versatility is also underlined by its operating temperature ranges of -5°C to 46°C in cooling (VRVIII-S) and -25°C to 15°C in heating (VRVIII-C).

VRV IV

VRV heat recovery

VRV heat pumps

Replacement VRVIII heat recovery and heat pump

Benefits for building owners

SAVE ENERGY WITH PRECISE ZONE CONTROL THANKS TO INVERTER TECHNOLOGY

The linear VRV system makes use of a variable Proportional Integral (PI) control system which uses refrigerant pressure sensors to give added control over inverter and ON/OFF control compressors in order to abbreviate control steps into smaller units to provide precise control in both small and larger areas. This in turn enables individual control of up to 64 indoor units of different capacity and type at a connection ratio of 50~130 % in comparison with outdoor units capacity. VRV IV & VRV III-S outdoor units use inverter control compressors only. VRV systems have low running costs because it permits each zone to be controlled individually. That is, only those rooms that require air conditioning will be heated or cooled, while the system can be shut down completely in rooms where no air conditioning is required.

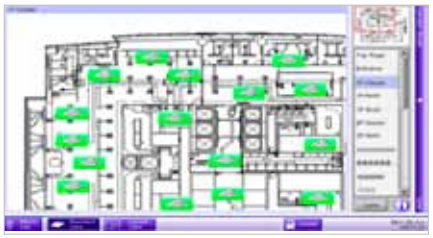
Variable refrigerant temperature

To reach an even higher seasonal efficiency VRV IV uses the revolutionary Variable Refrigerant Temperature control. All inverter compressors allow precise refrigerant temperature control automatically adapting your VRV to your individual building and climate requirements, reducing running costs with up to 28%!

SMART ENERGY MANAGEMENT – FULL CONTROL FOR MAXIMUM EFFICIENCY

From individual systems to the management of multiple buildings, Daikin has a control solution for every application. Via user-friendly touch screen controls you have access to all A/C functions making management of the system extremely easy.

Smart energy management tools reduce running costs by preventing any energy wastage. Using the schedule function and monitoring tools you can detect origins of energy waste and track consumption to ensure it is according to plan. Our intelligent tools maximize efficiency.

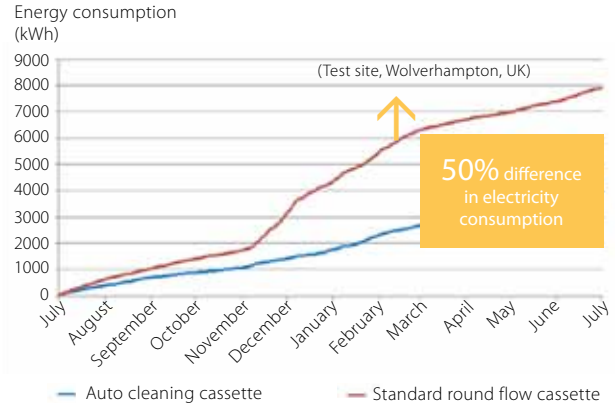


INTELLIGENT INDOOR UNITS MAXIMISING EFFICIENCY AND COMFORT

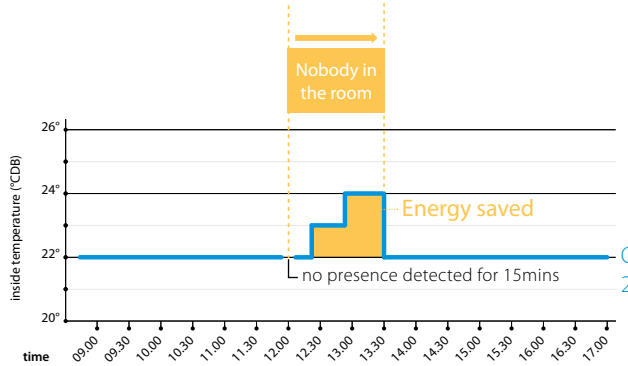
The round flow cassette, Daikin's technology flagship indoor unit, shows that intelligent indoor units lead to great savings in runnings and pays itself pack in no time!
The round flow includes an optional auto cleaning filter, which automatically cleans itself once a day, leading to yearly energy savings of up to 50%! Dust from the filter is collected in the unit for removal by simple vaccuum cleaning.
A presence sensor can save up to 27% by adjusting the set point or switching off the unit when nobody is in the room.

At the same time these sensors detect where persons are in the room directing air flow away from them. The round flow cassette offers major energy savings with added comfort as a bonus.

Cumulative energy comparison between standard and auto cleaning round flow cassette over 12 months



Auto-cleaning panel saves up to **50%**



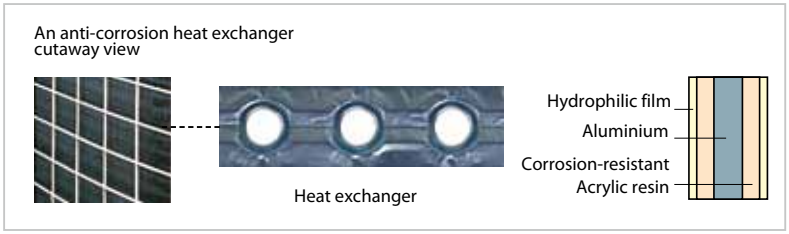
Presence sensor saves up to **27%**

AHEAD OF ENVIRONMENTAL LEGISLATION - ROHS COMPLIANCE

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

A LONG LASTING INVESTMENT - ANTI COROSION TREATMENT

Special anti corrosion treatment of the heat exchanger provides 5 to 6 times greater resistance against acid rain and salt corrosion. The provision of rust proof steel sheet on the underside of the unit gives additional protection.



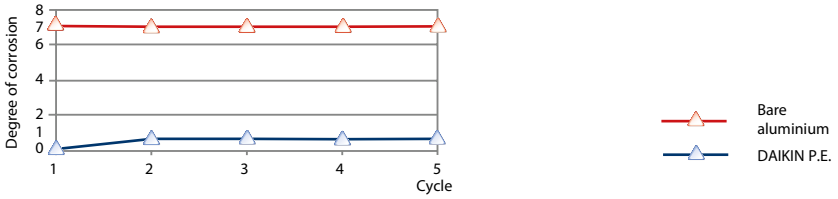
Improvement in corrosion resistance

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

Performed tests:

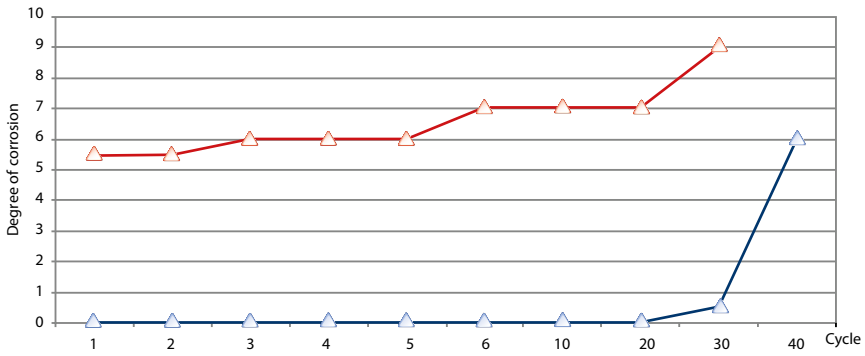
VDA Wechseltest
Contents of 1 cycle (7 days):

- 24 hours salt spray test SS DIN 50021
- 96 hours humidity cycle test KFW DIN 50017
- 48 hours room temperature & room humidity testing period: 5 cycles



Kesternich test (SO2)

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



DUTY CYCLING

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

LOW INSTALLATION COST - SEQUENTIAL START

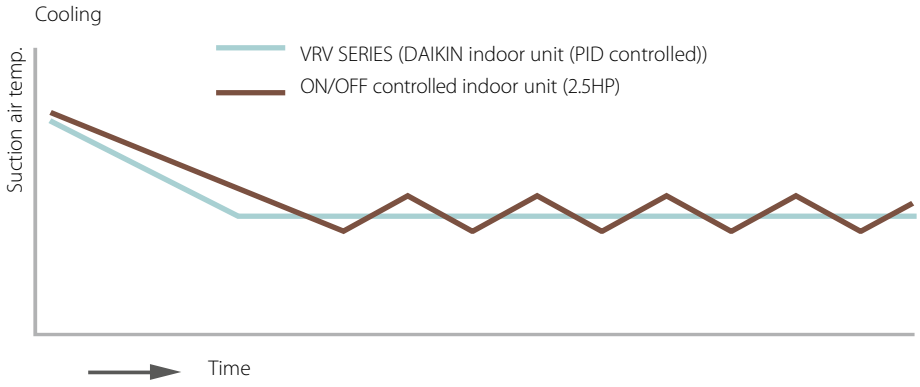
Up to 3 outdoor units can be connected to 1 power supply and can be turned on sequentially. This allows the number of breakers and their capacities to remain small and simplifies wiring (for models of 10HP or less).

Multiple outdoor units systems

Benefits for end users

SMART CONTROL BRINGS COMFORT

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 ± 0.5°C from set point.

HIGH SENSIBLE MODE – YOUR SYSTEM OPTIMISED FOR THE EUROPEAN CLIMATE

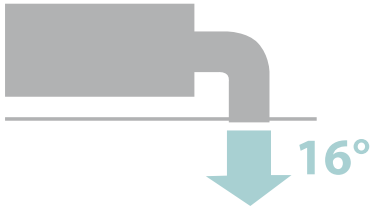
The high sensible mode option on the VRV outdoor units optimises the working of the units for the European climate. The system works with an increased sensible capacity in cooling mode resulting in improved comfort and a higher efficiency.

Higher comfort to the end user

Preventing cold draughts thanks to higher discharge air temperature on the indoor unit.

Higher energy efficiency

As no energy is wasted on unnecessary dehumidification, the system will work more efficiently in cooling mode.

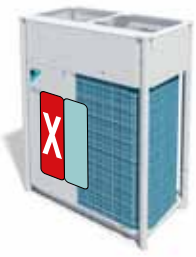


Constant and high air discharge temperature

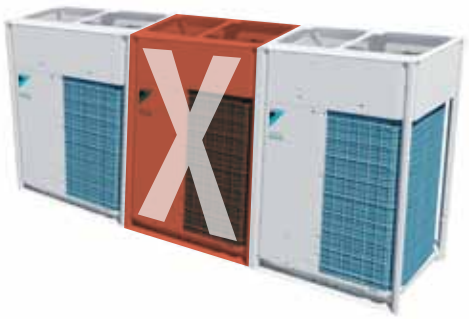
* Outblow air temperature can vary for protection purposes (e.g. oil recovery)

COMFORT GUARANTEED AT ALL TIME - BACK -UP FUNCTION

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



Single outdoor unit with multiple compressors



Multi outdoor unit system

LOW INDOOR UNIT OPERATION SOUND LEVEL

› Daikin indoor units have very low sound operation levels, down to 19dB(A).

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

DAIKIN emura

FTXS-K / CTXS-K

nexura

Benefits for design offices and consultants

A SOLUTION FOR EVERY CLIMATE - WIDE OPERATION RANGE

The VRV system can be installed practically anywhere.
Advanced PI(Proportional Integral) control of the outdoor unit enables VRV series to operate in cooling mode between -20°C and +46°C outdoor ambient and between -25°C and +15.5°C in heating mode.

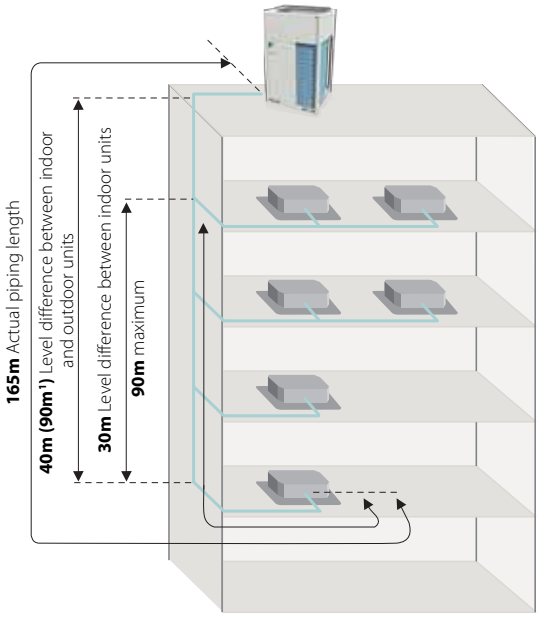
With the technical cooling function the operation range in cooling of the heat recovery system is extended from -5°C to -20°C[1] in cooling mode.

FLEXIBLE PIPING DESIGN

A standard VRV offers an extended piping length of 165m (190m equivalent piping length) with a total system piping length of 1,000m.
The height difference between the indoor and outdoor unit can be up to 90m without any additional kits.

Better use of space

The small refrigerant pipes take up less space in shafts and ceilings leaving maximum space for commercial use of the space.



[1] Contact your local dealer for more information and restrictions

MULTIPLE TENANTS, ONE OUTDOOR UNIT - MULTI TENANT FUNCTION

This function ensures that the entire VRV system does not shut down when the main power supply of an indoor is switched off. This means that the indoor unit's main fuse can be turned off when a part of the building is closed, is being serviced, …

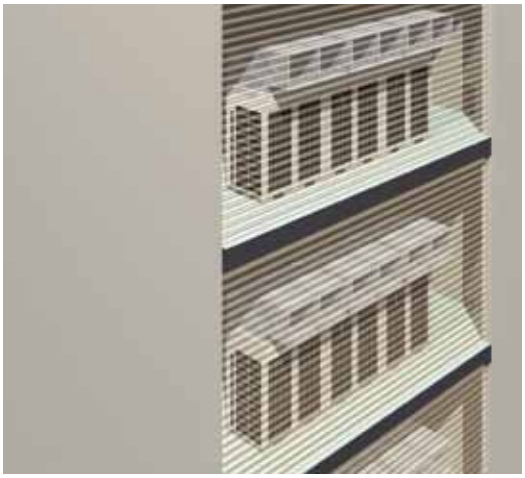
NO STRUCTURAL REINFORCEMENT NECESSARY

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

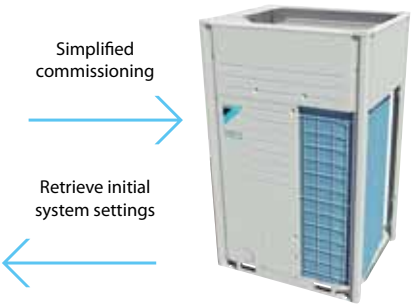
INDOOR INSTALLATION

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

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



Benefits for installers



SIMPLIFIED & TIME SAVING COMMISSIONING

Graphical interface to configure, commission and upload system settings.

No more need for push buttons to configure and commission the outdoor unit, but a user friendly software solution. The VRV configurator.

- Time saving, less time required on the roof configuring the outdoor unit.
- Flexible, concentrate on the job by making the settings in your own office and uploading them to the unit
- Secure optimal configuration by a visual user friendly interface to do the settings
- Save time by copy of settings from one system to another on big sites or manage different sites at exactly the same way offering simplified commissioning for key accounts.
- Initial settings on the outdoor unit can be easily retrieved

EASY REPLACEMENT - REFRIGERANT RECOVERY FUNCTION

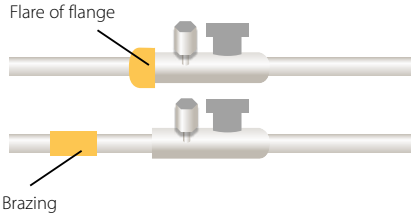
The refrigerant recovery function enables all expansion valves to be opened. In this way the refrigerant can be drained from the piping system.

SHORT INSTALLATION TIME

Thanks to small refrigerant pipes and REFNET piping options, the VRV piping system can be installed very easily and quickly. Installation of the VRV system can also be implemented floor by floor, so that sections of the building can be put into use very quickly, or enabling the air conditioning system to be commissioned and operated in stages, rather than on final completion of the project.

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.



AUTOMATIC TEST

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

AUTOMATIC CHARGE FUNCTION

Daikin's total engineered solution ensures that, right from installation, the system has the correct refrigerant charge no matter what the original plan called for. In this way, the optimal efficiency and capacity is maintained thus delivering the correct level of heating or cooling for optimal comfort.

Conventional way:

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

VRV

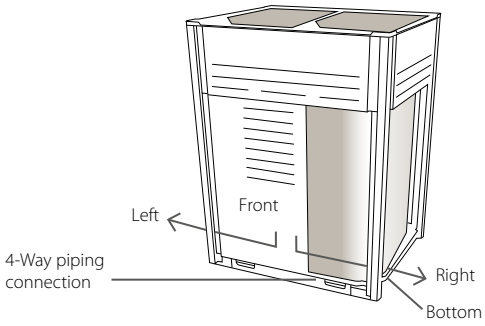
With VRV however, these 4 steps are omitted since the VRV unit can be charged automatically with the necessary amount of refrigerant via a push button on the PCB. Automatic charging will cease once the appropriate amount of refrigerant has been transferred.

If the temperature drops below 20°C* manual charging is necessary.
* 10°C for heat pump for cold regions
* Function not available on VRV heat pump with connection to stylish indoor units

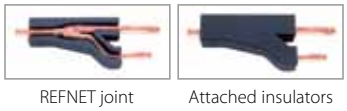
REFRIGERANT PIPING

4-way piping connection

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



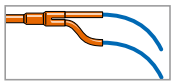
DAIKIN UNIFIED REFNET PIPING

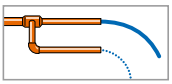

REFNET joint

Attached insulators for REFNET joint


REFNET header


Attached insulators for REFNET header


REFNET joint


T-joint

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

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

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

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

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

MODULAR DESIGN

Modular design enables units to be joined together in rows with an outstanding degree of uniformity.
The design of the outdoor units is sufficiently compact to allow them to be taken up to the top of a building in a commercial elevator, overcoming site transportation problem, particularly when outdoor units need to be installed on each floor.

EASY WIRING - "SUPER WIRING" SYSTEM

Simplified wiring

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

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

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

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

Cross wiring check

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

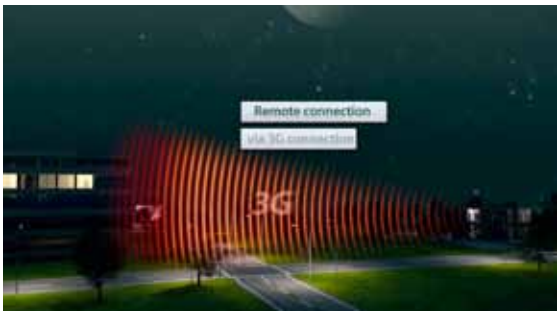
Auto Address Setting Function

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

EASY SERVICING AND COMPLIANCE TO F-GAS REGULATION

Perform the refrigerant containment check remotely via Intelligent Touch Manager, when it is most convenient for you, preventing an on-site visit. At the same time increase your customer satisfaction because there is no disruption to the air conditioning during business hours.

Remotely set the time and date for refrigerant containment check…



Connection between your office and the customer site via internet or 3G

Next to remote checking, the refrigerant containment check function can also be activated on-site via a push button on the PCB. When activating the refrigerant containment check, the unit switches into cooling mode and duplicates certain reference conditions based on memory data. The result indicates whether or not refrigerant leakage has occurred.

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

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

Not available on VRVIII-S or in combination when one or more RA indoor units, hydroboxes, … are connected

SIMPLIFIED SERVICING

Self Diagnostic Function

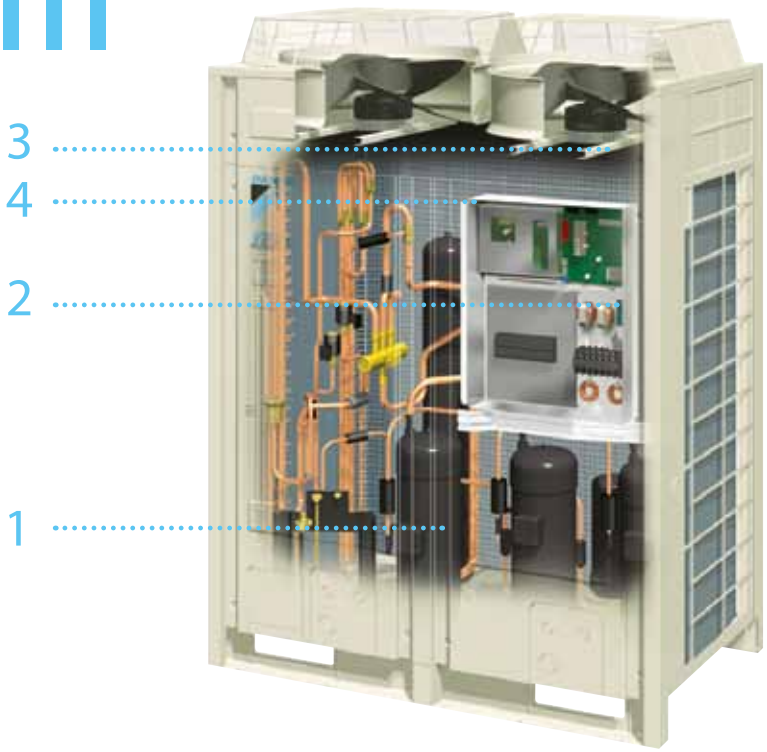
This function operated via push button on the PCB, speeds up troubleshooting and should be used for start-up and maintenance. Disconnected thermistors, faulty solenoid valves or motor operated valves, compressor malfunctions, communication errors, etc can be diagnosed quickly.

On VRV IV heat pumps a display on the outdoor unit simplifies servicing even more because:

- Error codes are easy to read out
- Basic service parameters are indicated to quickly check basic functions
- A clear menu makes on-site settings quick and easy

Advanced air cooled technologies

VRV III

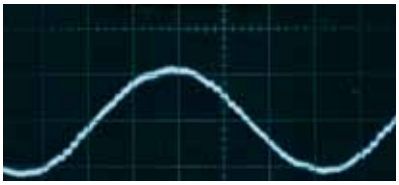


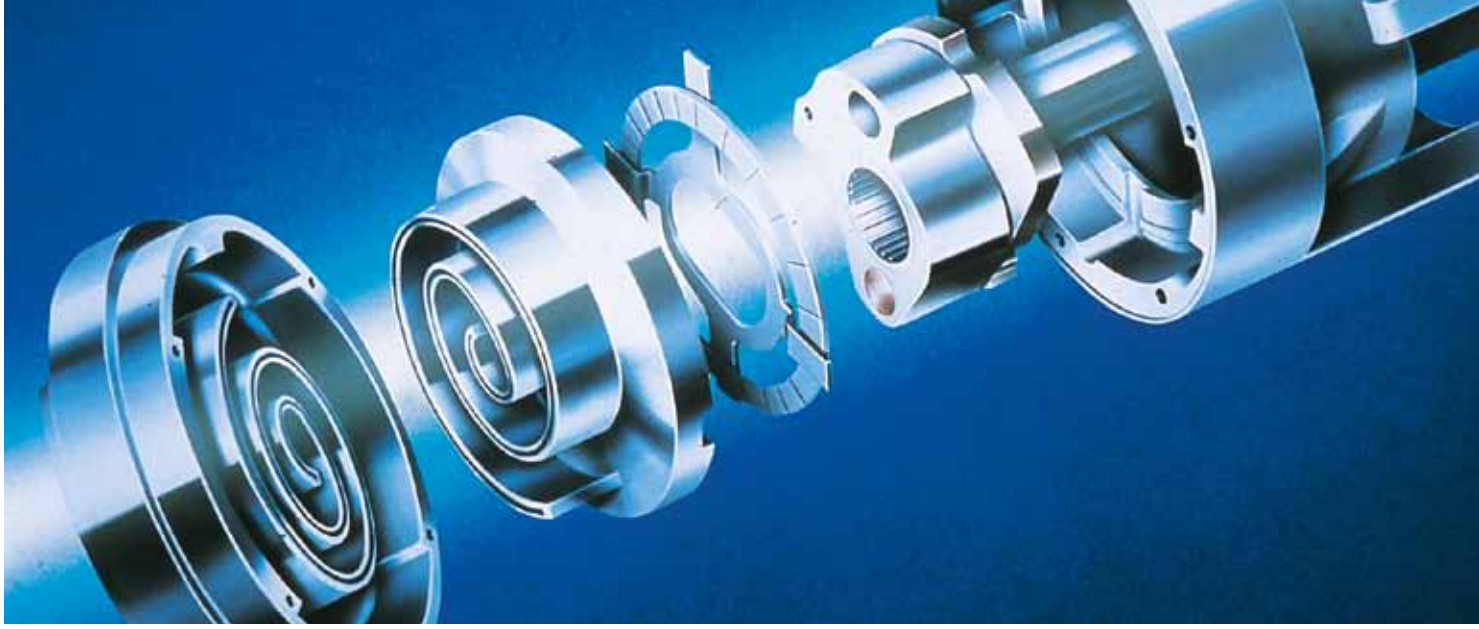
1 RELUCTANCE BRUSHLESS DC COMPRESSOR

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

2 SINE WAVE DC INVERTER

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



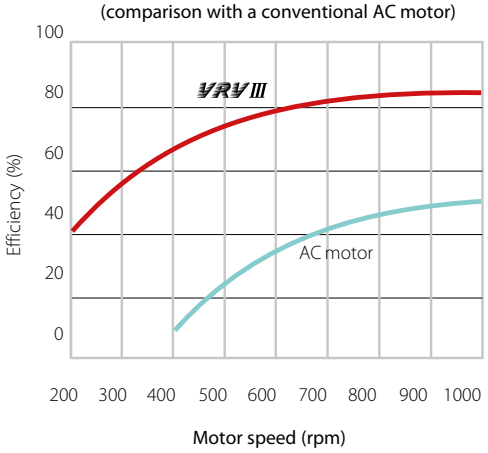


3 DC FAN MOTOR

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

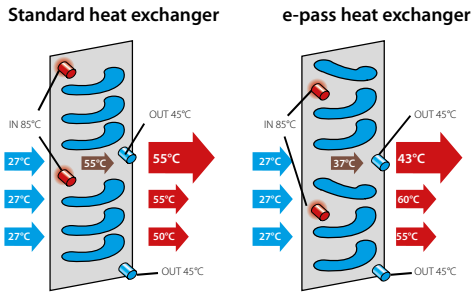
DC fan motor structure

DC motor efficiency
(comparison with a conventional AC motor)



4 E-PASS HEAT EXCHANGER

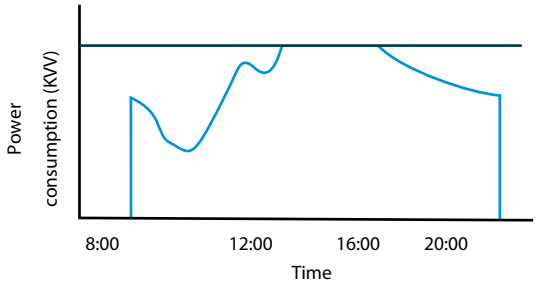
Optimization of the path layout of the heat exchanger prevents heat transferring from the overheated gas section towards the sub cooled liquid section - a more efficient use of the heat exchanger.



In cooling mode, the heat exchanger of the condensor is improved. This means an improvement of COP by 3%.

5 I-DEMAND FUNCTION

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



Advanced air cooled technologies

VRV IV

The VRV IV inherits all the renown technological features of the VRV III and adds a number of revolutionary technologies setting the new standard in the market once again.

All technologies on the new VRV IV are developed specifically for the European market in Europe.

6 VRV CONFIGURATOR

Simplied commissioning & configuration via PC connection

7-segment LED indicator

Quickly check basic functions and easy read out of errors

7 GAS COOLED PCB

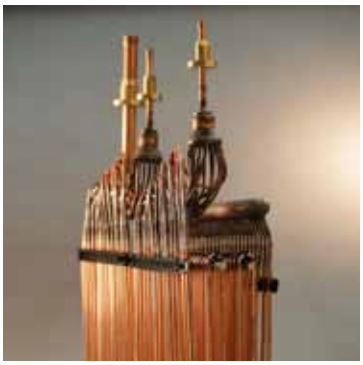
Top realibility

8 FULL INVERTER COMPRESSORS

Enabling variable refrigerant tempature technology

9 HEAT-ACCUMULATING ELEMENT

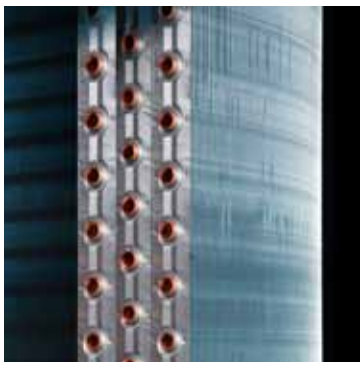
Unique heat accumulating provides energy to defrost the outdoor unit while continuing to provide indoor heating



10 4 SIDE & 3 ROW HEAT EXCHANGER

Increased heat exchange surface for better efficiency

* On 8,10,12 HP units the heat exchanger has 2 rows



Heat pump

VRV IV heat pump

VRV IV = VRV + 3 REVOLUTIONARY FEATURES

What is the new standard all about? VRV has always set the standard: in the past, in the present, and will continue to do so in the future. Today, VRV IV is setting new standards for seasonal efficiency for building owners, indoor comfort for users, and installation simplicity for installers.

Variable refrigerant temperature

Customize your VRV for best seasonal efficiency & comfort: Revolutionary variable refrigerant temperature control automatically adapts the system to individual building and climate requirements for greater efficiency and comfort.

Variable Refrigerant Temperature

Continuous heating via heat pump

The new standard in heating comfort: Unique continuous heating technology makes VRV IV the best alternative to traditional heating systems.

VRV configurator

Software for simplified commissioning, configuration and customisation

- Simplified commissioning: graphical interface to configure, commission and upload system settings.
- Simplified servicing: additional 7-segment indicator for easy and quick access to basic functions and error read out.

CUSTOMIZE YOUR VRV FOR BEST SEASONAL EFFICIENCY & COMFORT

- Annual cost savings up to 28%
- Optimise the match of building requirements with comfort and efficiency
- Automatic adjustment of refrigerant temperature guarantees customer satisfaction

Daikin leads the way to seasonal efficiency

Daikin again leads the industry by launching a new VRV range that is fully in line with the EU's 20/20/20 policy. VRV IV is up to 28% more efficient on a yearly basis while improving the comfort and flexibility features that make Daikin so unique.

European action plan

-20%
LESS CO_2 EMISSIONS vs. 1990

20%
MORE RENEWABLE ENERGY USE

20%
LESS PRIMARY ENERGY USE vs. BAU*

By the year **2020**

*Business As Usual

Daikin leads the market by publishing seasonal performance data

Until the new calculation method is known, Daikin already publishes ESEER values today.

ESEER

The ESEER values provide a clear view on the part-load cooling performance of a VRV system. Thus enabling estimation of the annual power consumption in cooling mode.
The ESEER values published for air-cooled VRV systems allow a comparison with other air-cooled systems only; when comparing with air-cooled chillers, auxiliary power consumption of circulation pumps still needs to be added to the chiller performance.

1 ESEER: formula:
$ESEER = 0{,}03 * EER_A + 0{,}33 * EER_B + 0{,}41 * EER_C + 0{,}23 * EER_D$

condition	load	ambient temperature
A	100%	35°CDB
B	75%	30°CDB
C	50%	25°CDB
D	25%	20°CDB

indoor temperature conditions: 19°CWB/27°CDB

For chillers the outdoor power input is taken into account (excluding pumps and indoor units), for VRV the outdoor power input is taken into account (excluding indoor units).

Customize your VRV for optimal seasonal efficiency

Revolutionary variable refrigerant temperature (VRT) control automatically adapts your VRV to your individual building and climate requirements for comfort and efficiency, thus drastically reducing operational running costs.

The system can be easily customised via the VRT technology preset modes. With the modes you choose to optimise the system towards your required balance between comfort and efficiency.

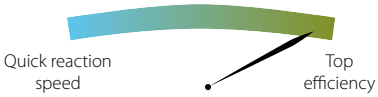
With this new technology Daikin has invented the VRV system once again. By looking at the core of the system it enables us to improve seasonal efficiency up to 28%!

Possible modes:

Automatic mode (Default setting on VRV IV)

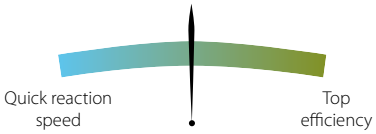
The perfect balance : Top efficiency throughout most of the year. Quick reaction speed on the hottest days

High sensible mode



Year round top efficiency

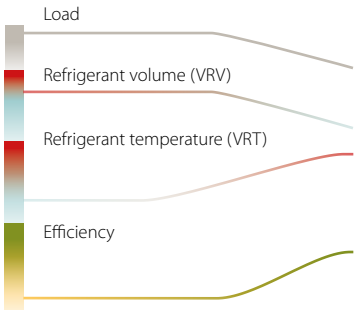
Basic mode (current VRF standard)



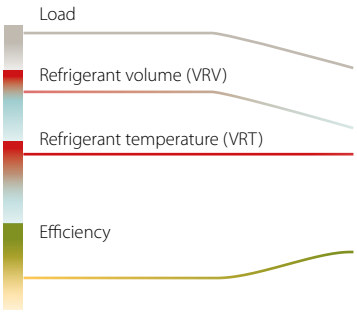
Quick reaction to peak load, to maintain set point

Effect of preset modes on efficiency and reaction speed:

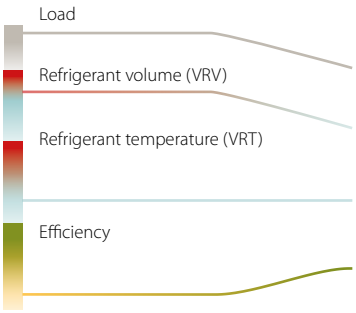
Automatic mode (Default setting on VRV IV)



High sensible mode



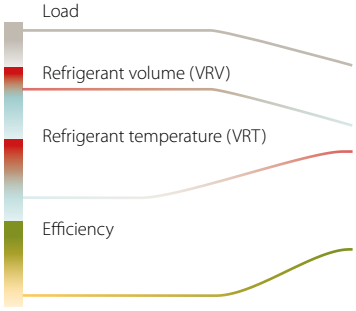
Basic mode (current VRF standard)



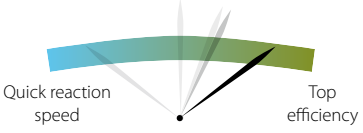
Unique VRT automatic mode leads to 28% increase in seasonal efficiency

In automatic mode the system will go for maximum efficiency throughout most of the year and for quick reaction speed on the hottest days, ensuring comfort at all times while still resulting in an increased seasonal efficiency up to 28%.

Automatic mode (Default setting on VRV IV)



Automatic mode (Default setting on VRV IV)



The perfect balance : Maximum efficiency throughout most of the year. Quick reaction speed on the hottest days

How is this 28% increase of seasonal efficiency achieved?

In automatic mode, the system constantly adjusts both refrigerant temperature and volume, according to the total required capacity and weather conditions.

For example, in mid season when there is little cooling needed and the room temperature is close to the setpoint, the system will adjust its refrigerant temperature to a higher temperature so less energy is needed, leading to major savings in seasonal efficiency.

Control exactly how your system reacts in automatic mode

The submodes available allow the installer to easily finetune the way the system reacts to changes in indoor or outdoor temperature.

Powerful

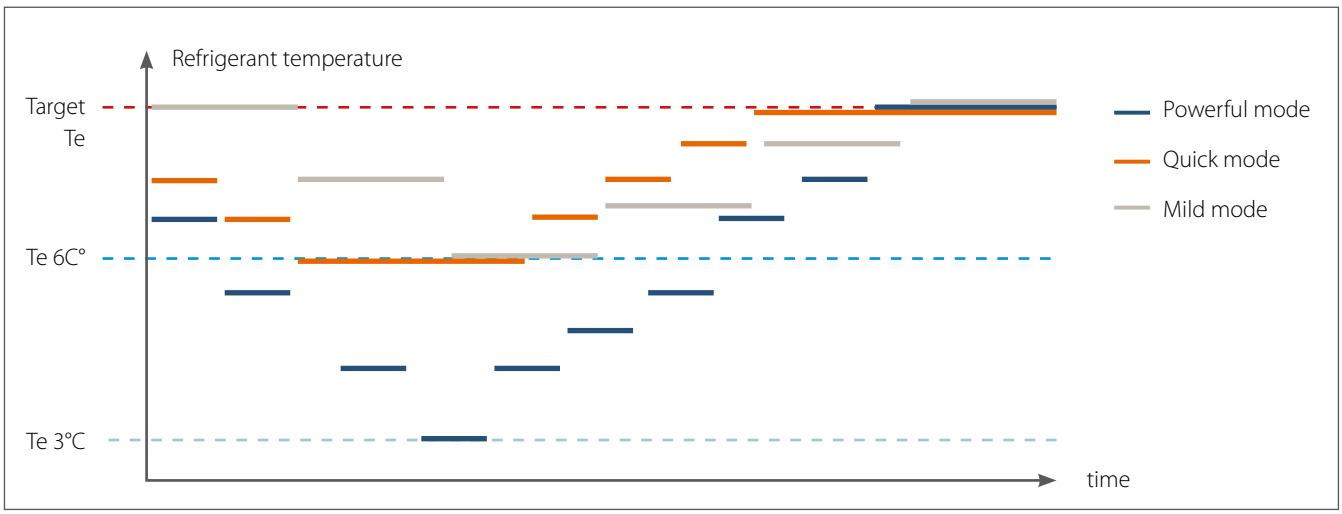
- Can boost capacity above 100% if needed.
  The refrigerant temperature can go lower in cooling (higher in heating) than the set minimum (maximum in heating).
- Gives priority to fast reaction speed
  The refrigerant temperature goes down (or up in heating) fast to keep the room setpoint stable

Quick

- Gives priority to fast reaction speed
  The refrigerant temperature goes down (or up in heating) fast to keep the room setpoint stable

Mild

- Gives priority to efficiency
  The refrigerant temperature goes down (or up in heating) gradually giving priority to the efficiency of the system instead of the reaction speed



THE NEW STANDARD IN HEATING COMFORT

- Unique continuous heating technology
- The best alternative to traditional heating systems

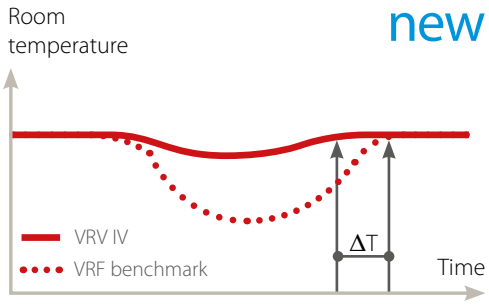
VRV IV for continuous comfort, also during defrost

Because the VRV IV continues to provide heating even when in defrost mode, it provides the answer to any perceived disadvantages of specifying a heat pump for monovalent heating.

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 most frequently between -7 and +7°C when there is most humidity in the air, which freezes to the coil, and this has a significant impact on the perceived indoor comfort levels.

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



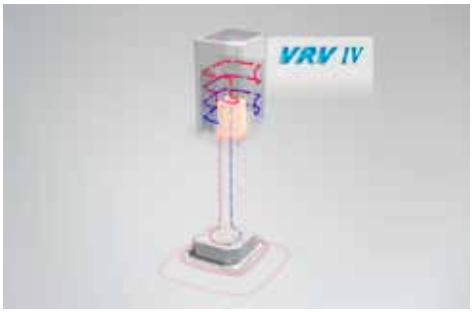
How does it work?

VRV IV features a unique heat-accumulating element, based upon phase change materials, which provides energy to defrost the outdoor unit while continuing to provide indoor heating to maintain a comfortable indoor climate. The energy needed for defrosting is stored in the element during normal heating operations.

The outdoor unit coil is defrosted …

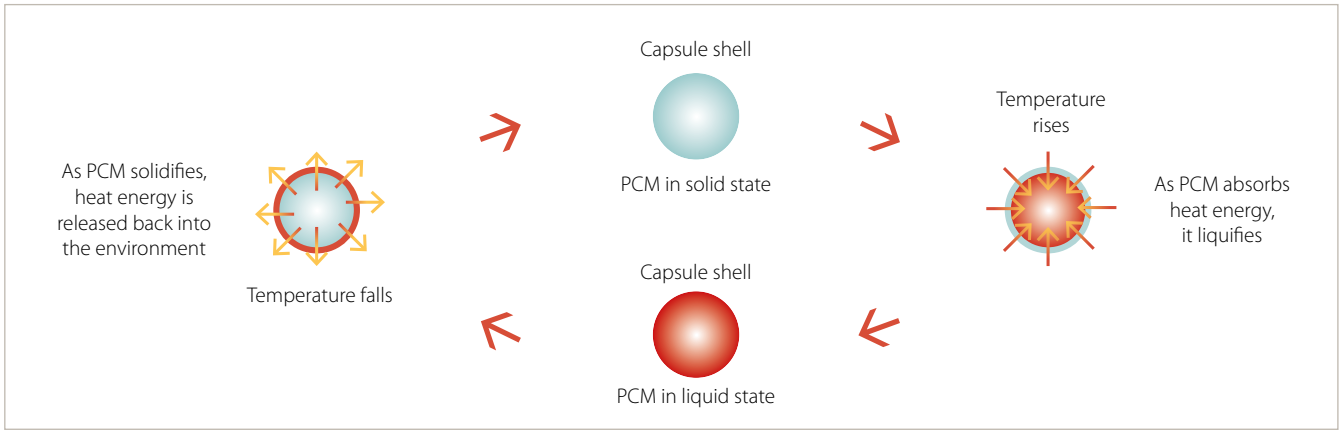
… with the energy stored in the heat accumulating element …

… while indoors a comfortable temperature is maintained.



How phase change material works?

A phase change material (PCM) will store or release energy when it changes phase from solid to liquid or liquid to solid.



Continuous heating function is only available on RYYQ-T units.

VRV CONFIGURATOR SOFTWARE

- Less time needed for commissioning
- Manage multiple systems in exactly the same way
- Retrieve initial system settings

Simplified commissioning

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

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

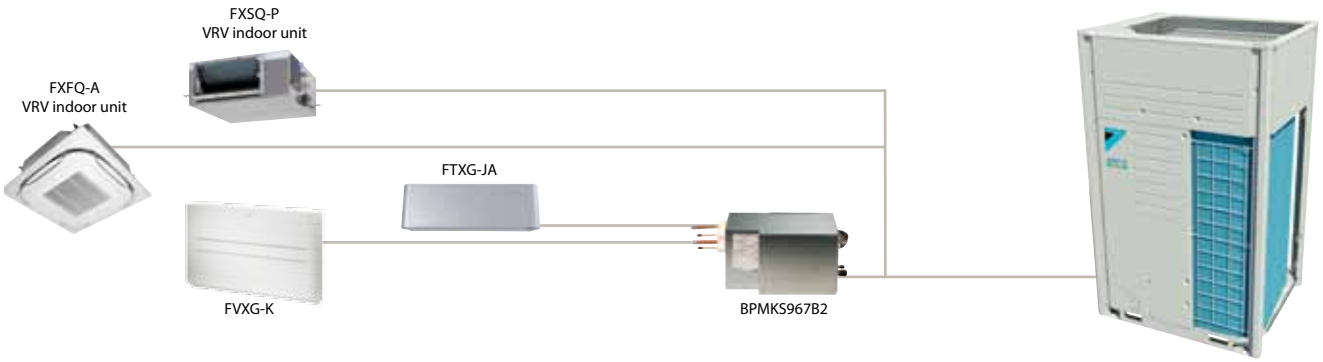
Simplified servicing

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.

The 7-segment indicator saves time through:

- easy-to-read error report
- indication of basic service parameters to quickly check basic functions
- clear menu indicating quick and easy on-site settings

WIDE RANGE OF INDOOR UNITS: POSSIBILITY TO COMBINE VRV 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			FTXG25JW FTXG25JA	FTXG35JW FTXG35JA		FTXG50JW FTXG50JA		
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	FLXS35B		FLXS50B	FLXS60B	

BPMKS box needed to connect RA indoors to VRV IV

FLEXIBLE PIPING DESIGN

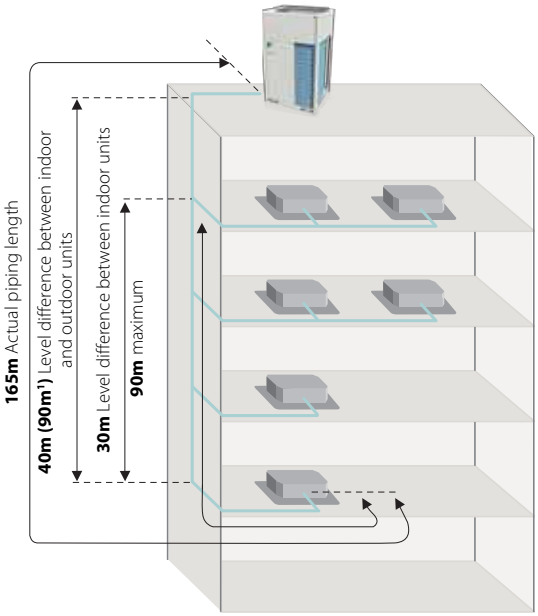
VRV IV offers an extended piping length of 165m (190m equivalent piping length) with a total system piping length of 1,000m. When hydroboxes, RA indoor units or air handling units are connected restrictions apply.

The height difference between indoor and outdoor units is 90m (note 1) both if the outdoor unit is located above or below the indoor units. **The level difference between the indoor units has been increased up to 30m.**

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

Better use of space

The small refrigerant pipes take up less space in shafts and ceilings leaving maximum space for commercial use of the space.



If not all conditions are met, the height difference can be lower.

SPECIFICATIONS

VRV IV with continuous heating: RYYQ-T
VRV IV without continuous heating: RXYQ-T

OUTDOOR SYSTEM					RYYQ8T	RXYQ8T	RYYQ10T	RXYQ10T	RYYQ12T	RXYQ12T	RYYQ14T	RXYQ14T	RYYQ16T	RXYQ16T	RYYQ18T	RXYQ18T	RYYQ20T	RXYQ20T
Capacity range				HP	8		10		12		14		16		18		20	
Cooling capacity	Nom.			kW	22.4		28.0		33.5		40.0		45.0		50.0		56.0	
Heating capacity	Nom.			kW	25.0		31.5		37.5		45.0		50.0		56.0		63.0	
Power input - 50Hz	Cooling	Nom.		kW	5.2		7.29		8.98		11.0		13.0		14.7		18.5	
	Heating	Nom.		kW	5.5		7.38		9.10		11.2		12.8		14.4		17.0	
EER					4.30		3.84		3.73		3.64		3.46		3.40		3.03	
ESEER					7.53 [1]		7.20 [1]		6.96 [1]		6.83 [1]		6.50 [1]		6.38 [1]		5.67 [1]	
COP					4.55		4.27		4.12		4.02		3.91		3.89		3.71	
Maximum number of connectable indoor units					64 [2]													
Indoor index connection	Min.				100		125		150		175		200		225		250	
	Nom.				200		250		300		350		400		450		500	
	Max.				260		325		390		455		520		585		650	
Dimensions	Unit	HxWxD		mm	1,685x930x765						1,685x1,240x765							
Weight	Unit			kg	261		268				364				398			
Sound power level	Cooling	Nom.		dBA	78		79		81				86				88	
Sound pressure level	Cooling	Nom.		dBA	58				61				64		65		66	
Operation range	Cooling	Min.~Max.		°CDB	-5~43													
	Heating	Min.~Max.		°CWB	-20~15.5													
Refrigerant	Type				R-410A													
Piping connections	Liquid	OD		mm	9.52				12.7						15.9			
	Gas	OD		mm	19.1		22.2		28.6									
	Piping length	OU - IU	Max.	m	165 [3]													
	Total piping length	System	Actual	m	1,000 [3]													
	Level difference	OU - IU		m	90 [3] Outdoor unit in highest position / 90 [3] Indoor unit in highest position													
Power supply	Phase/Frequency/Voltage			Hz/V	3N~/50/380-415													
Current - 50Hz	Maximum fuse amps (MFA)			A	20		25		32				40				50	

(1) The AUTOMATIC ESEER value corresponds with normal VRV IV Heat Pump operation, taking into account advanced energy saving operation functionality (variable refrigerant temperature control operation) (2) 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%) (3) Refer to technical specifications for more detail

OUTDOOR SYSTEM					RYYQ22T	RXYQ22T	RYYQ24T	RXYQ24T	RYYQ26T	RXYQ26T	RYYQ28T	RXYQ28T	RYYQ30T	RXYQ30T	RYYQ32T	RXYQ32T	RYYQ34T	RXYQ34T	RYYQ36T	RXYQ36T
System	Outdoor unit module 1				RYMQ10T	RXYQ10T	RYMQ8T	RXYQ8T	RYMQ12T	RXYQ12T	RYMQ12T	RXYQ12T	RYMQ12T	RXYQ12T	RYMQ16T	RXYQ16T	RYMQ16T	RXYQ16T	RYMQ16T	RXYQ16T
	Outdoor unit module 2				RYMQ12T	RXYQ12T	RYMQ16T	RXYQ16T	RYMQ14T	RXYQ14T	RYMQ16T	RXYQ16T	RYMQ18T	RXYQ18T	RYMQ16T	RXYQ16T	RYMQ18T	RXYQ18T	RYMQ20T	RXYQ20T
Capacity range				HP	22		24		26		28		30		32		34		36	
Cooling capacity	Nom.			kW	61.5		67.4		73.5		78.5		83.5		90.0		95.0		101.0	
Heating capacity	Nom.			kW	69.0		75.0		82.5		87.5		93.5		100.0		106.0		113.0	
Power input - 50Hz	Cooling	Nom.		kW	16.3		18.2		20.0		22.0		23.7		26.0		27.7		31.5	
	Heating	Nom.		kW	16.5		18.3		20.3		21.9		23.5		25.6		27.2		29.8	
EER					3.77		3.70		3.68		3.57		3.52		3.46		3.43		3.21	
ESEER					7.07 [1]		6.81 [1]		6.89 [1]		6.69 [1]		6.60 [1]		6.50 [1]		6.44 [1]		6.02 [1]	
COP					4.18		4.10		4.06		4.00		3.98		3.91		3.90		3.79	
Maximum number of connectable indoor units					64 [2]															
Piping connections	Liquid	OD		mm	15.9				19.1											
	Gas	OD		mm	28.6		34.9												41.3	
	Piping length	OU - IU	Max.	m	165 [3]															
	Total piping length	System	Actual	m	1,000 [3]															
	Level difference	OU - IU		m	90 [3] Outdoor unit in highest position / 90 [3] Indoor unit in highest position															
Current - 50Hz	Maximum fuse amps (MFA)			A	63								80							

(1) The AUTOMATIC ESEER value corresponds with normal VRV IV Heat Pump operation, taking into account advanced energy saving operation functionality (variable refrigerant temperature control operation) (2) 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%) (3) Refer to technical specifications for more detail

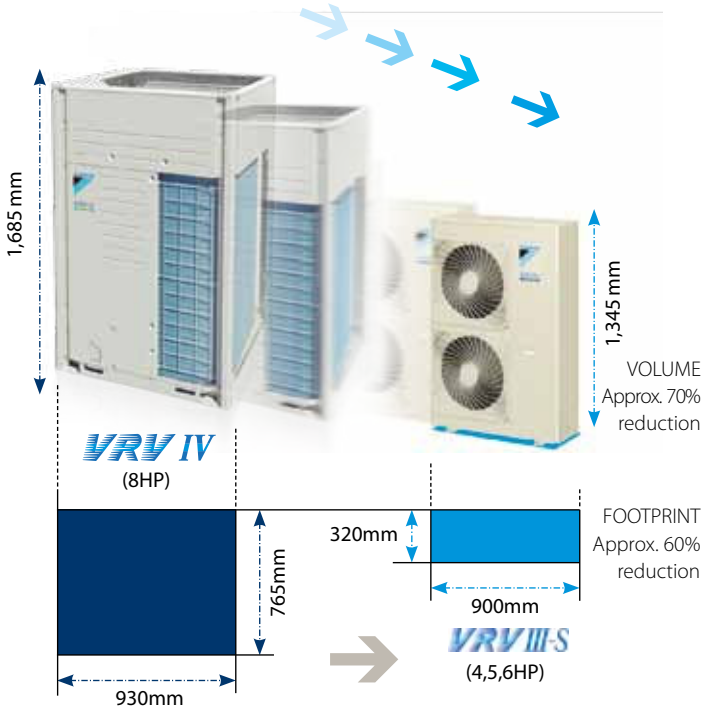
OUTDOOR SYSTEM					RYYQ38T	RXYQ38T	RYYQ40T	RXYQ40T	RYYQ42T	RXYQ42T	RYYQ44T	RXYQ44T	RYYQ46T	RXYQ46T	RYYQ48T	RXYQ48T	RYYQ50T	RXYQ50T	RYYQ52T	RXYQ52T	RYYQ54T	RXYQ54T
System	Outdoor unit module 1				RYMQ8T	RXYQ8T	RYMQ10T	RXYQ10T	RYMQ10T	RXYQ12T	RYMQ12T	RXYQ12T	RYMQ14T	RXYQ14T	RYMQ16T	RXYQ16T	RYMQ16T	RXYQ16T	RYMQ16T	RXYQ16T	RYMQ18T	RXYQ18T
	Outdoor unit module 2				RYMQ10T	RXYQ10T	RYMQ12T	RXYQ12T	RYMQ16T	RXYQ16T	RYMQ16T	RXYQ16T	RYMQ16T	RXYQ16T	RYMQ16T	RXYQ16T	RYMQ16T	RXYQ16T	RYMQ18T	RXYQ18T	RYMQ18T	RXYQ18T
	Outdoor unit module 3				RYMQ20T	RXYQ20T	RYMQ18T	RXYQ18T	RYMQ16T	RXYQ16T	RYMQ16T	RXYQ16T	RYMQ16T	RXYQ16T	RYMQ16T	RXYQ16T	RYMQ18T	RXYQ18T	RYMQ18T	RXYQ18T	RYMQ18T	RXYQ18T
Capacity range				HP	38		40		42		44		46		48		50		52		54	
Cooling capacity	Nom.			kW	106.0		112.0		118.0		124.0		130.0		135.0		140.0		145.0		150.0	
Heating capacity	Nom.			kW	120.0		125.0		132.0		138.0		145.0		150.0		156.0		162.0		168.0	
Power input - 50Hz	Cooling	Nom.		kW	31.0				33.3		35.0		37.0		39.0		40.7		42.4		44.1	
	Heating	Nom.		kW	29.9		30.9		33.0		34.7		36.8		38.4		40.0		41.6		43.2	
EER					3.42		3.61		3.54				3.51		3.46		3.44		3.42		3.40	
ESEER					6.36 [1]		6.74 [1]		6.65 [1]		6.62 [1]		6.60 [1]		6.50 [1]		6.46 [1]		6.42 [1]		6.38 [1]	
COP					4.01		4.05		4.00		3.98		3.94		3.91		3.90		3.89		3.89	
Maximum number of connectable indoor units					64 [2]																	
Piping connections	Liquid	OD		mm	19.1																	
	Gas	OD		mm	41.3																	
	Piping length	OU - IU	Max.	m	165 [3]																	
	Total piping length	System	Actual	m	1,000 [3]																	
	Level difference	OU - IU		m	90 [3] Outdoor unit in highest position / 90 [3] Indoor unit in highest position																	
Current - 50Hz	Maximum fuse amps (MFA)			A	100										125							

VRVIII-S heat pump Optimised design for small capacities

BENEFITS

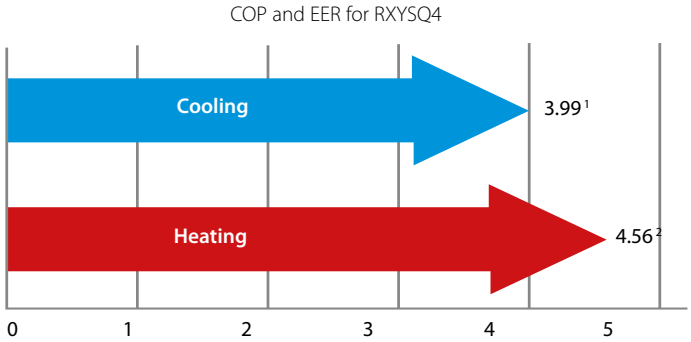
Space saving design

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



High COP values

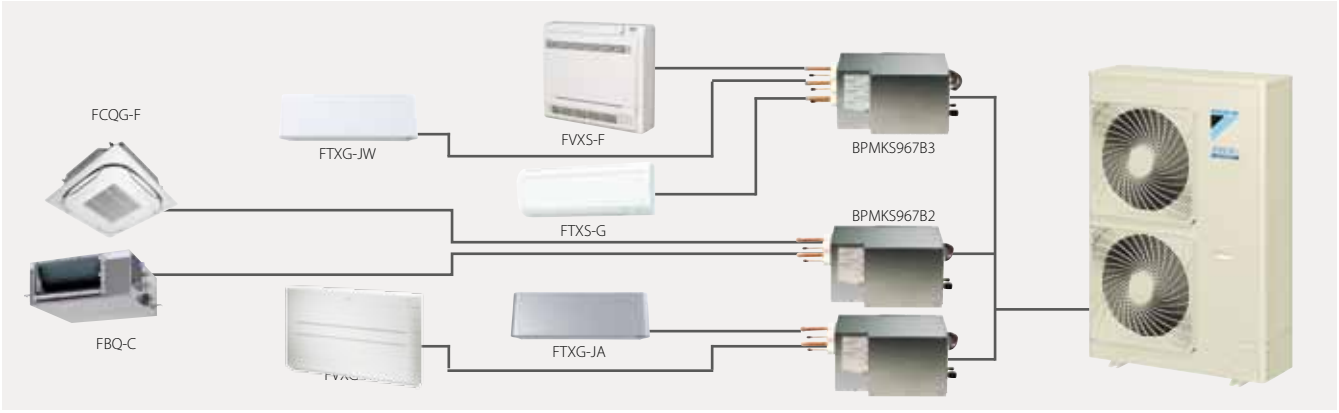
A major feature of VRVIII-S is its exceptional energy efficiency. The system achieves high COPs during both cooling and heating operation by the use of refined components and functions.

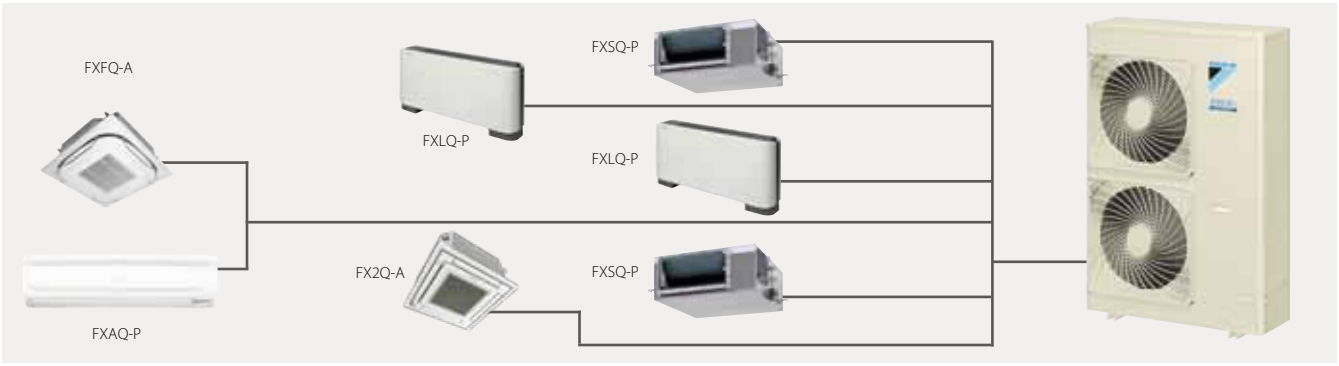


[1] Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB, outdoor temperature: 35°C, equivalent refrigerant piping: 5m, level difference: 0m.
[2] Nominal heating capacities are based on: indoor temperature: 20°CDB, outdoor temperature: 7°CDB, 6°CWB, equivalent refrigerant piping: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

Wide range of indoor units

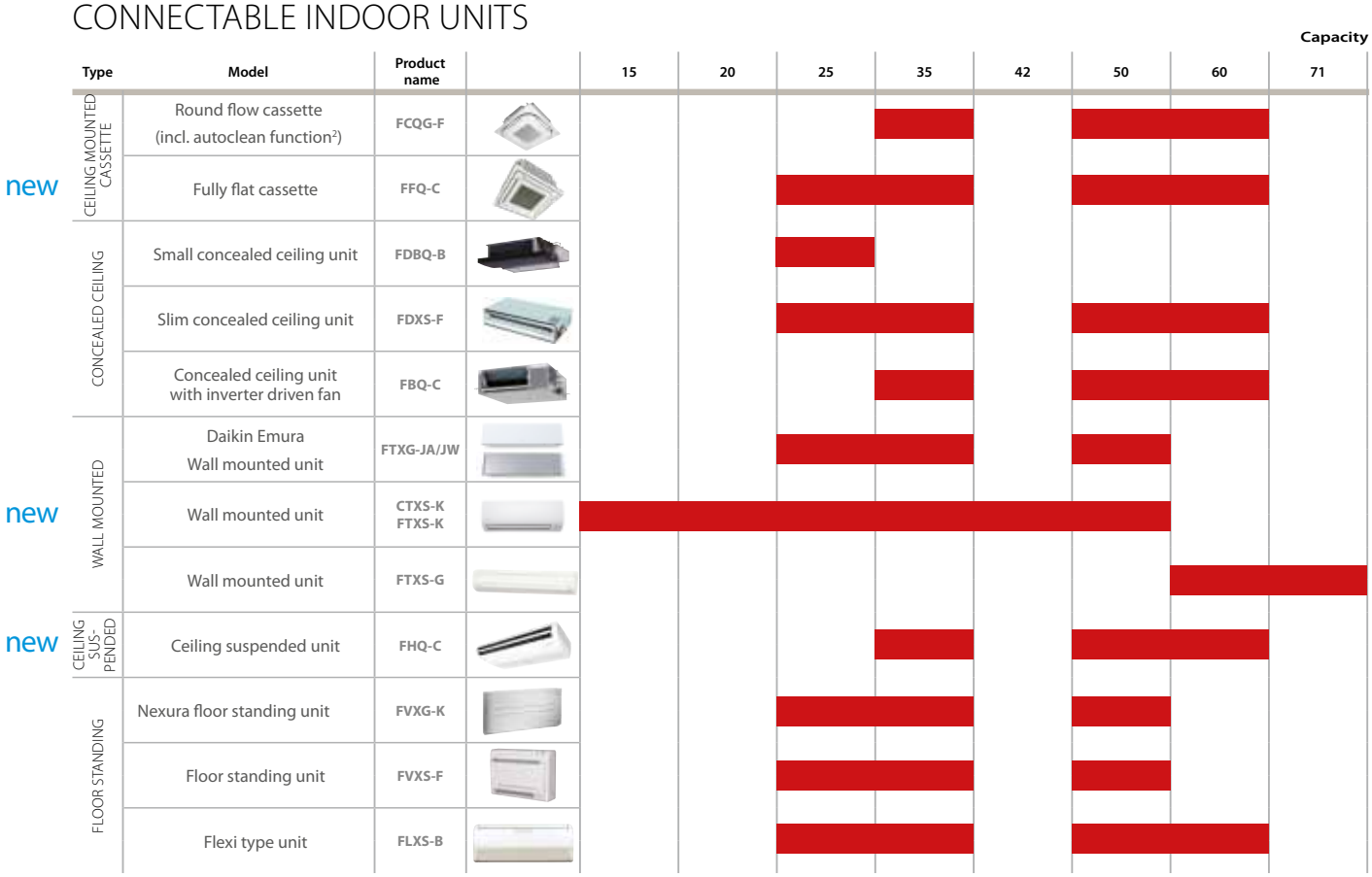
Either connect VRV indoor units or stylish indoor units as Daikin Emura, Nexura, …





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

CONNECTABLE INDOOR UNITS

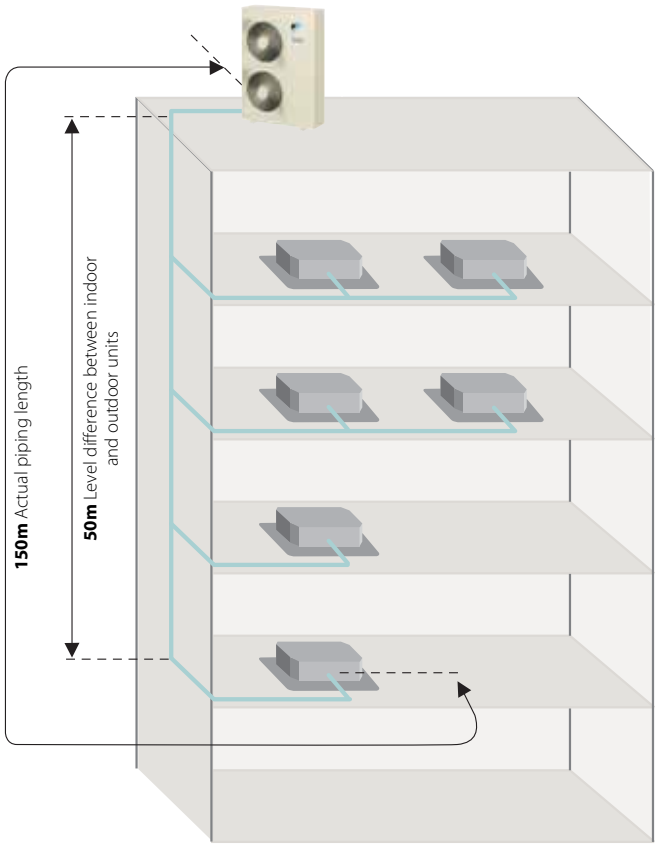


1 Decoration panel BYCQ140CG + BRC1E51A needed

FLEXIBLE PIPING DESIGN

When connected to VRV indoor units

The VRVIII-S provides the long piping length possibility of 150m[1] (175m equivalent piping length), with a total piping length of 300m. If the outdoor unit is installed above the indoor units, the height difference can be up to a maximum of 50m[2].
These generous allowances facilitate an extensive variety of system designs.



Notes:
[1] 40 m when the outdoor unit is installed below indoor units.
[2] Maximum piping length between the indoor unit and the first branch is 40 m.

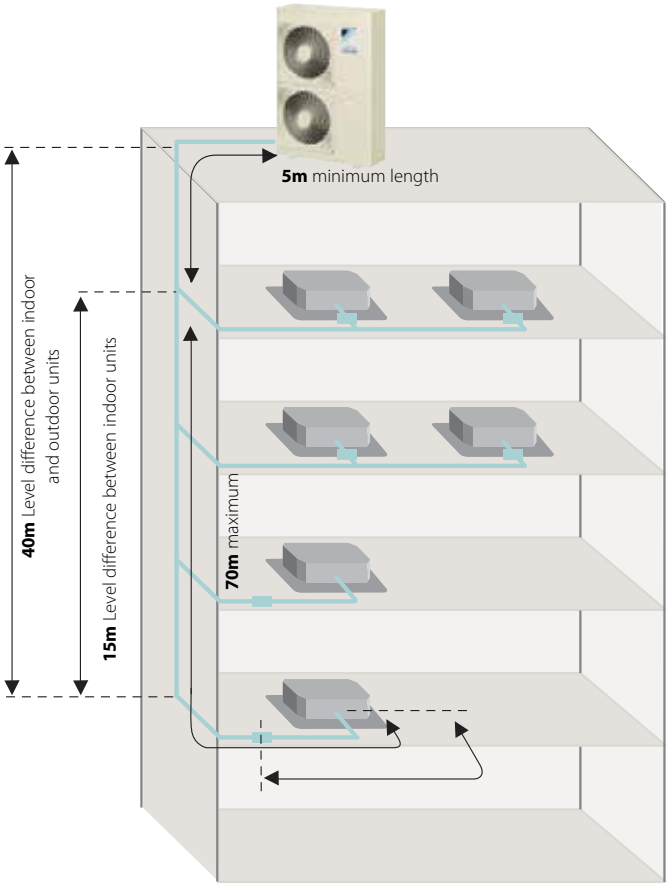
When connected to stylish indoor units

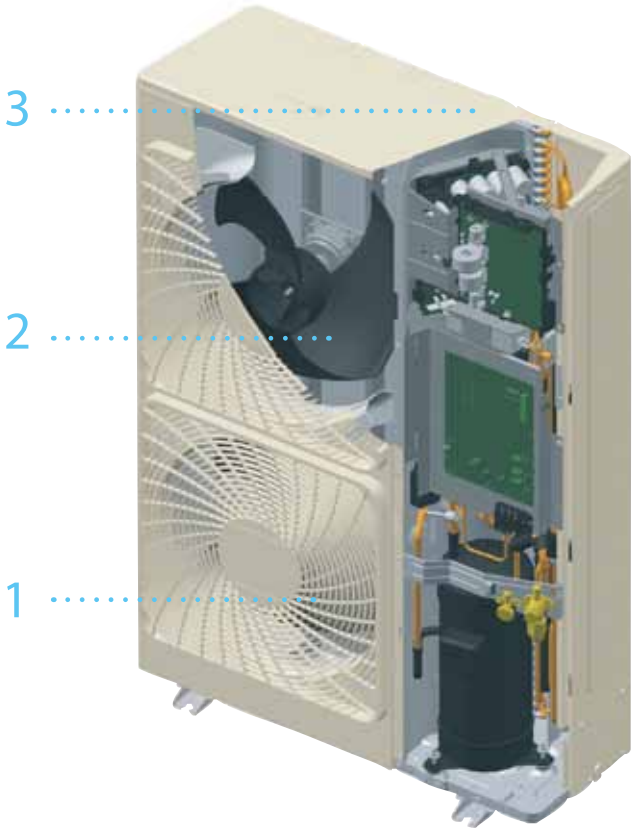
The VRV heat pump with connection to stylish indoor units offers a total system piping length of 250 m. (Total main piping length ≤ 100m (between outdoor and BP box) + Total branch piping length ≤ 80m (between BP box and indoor).

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

After the first branch, the longest piping length is 70m.

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





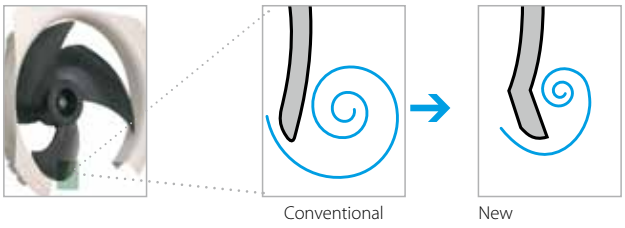
1 Super aero grille

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

2 Smooth air inlet bell mouth and aero spiral fan

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

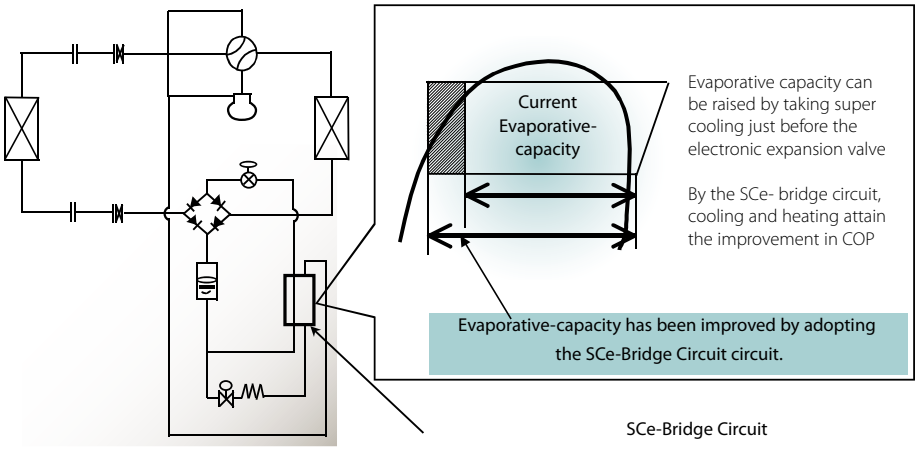
Aero spiral fan blade tips



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

3 e-Bridge circuit

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



SPECIFICATIONS

VRVIII-S Heat pump - single phase (P8V1), three phase (P8Y1)

OUTDOOR UNIT					RXYSQ4P8V1	RXYSQ5P8V1	RXYSQ6P8V1	RXYSQ4P8Y1	RXYSQ5P8Y1	RXYSQ6P8Y1
Capacity range				HP	4	5	6	4	5	6
Cooling capacity	Nom.			kW	12.6 [1]	14.0 [1]	15.5 [1]	12.6 [1]	14.0 [1]	15.5 [1]
Heating capacity	Nom.			kW	14.2 [2]	16.0 [2]	18.0 [2]	14.2 [2]	16.0 [2]	18.0 [2]
Power input - 50Hz	Cooling	Nom.		kW	3.24	3.51	4.53	3.33	3.61	4.66
	Heating	Nom.		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 units					8 [6] / 8 [7]	10 [6] / 9 [7]	12 [6] / 9 [7]	8 [6] / 8 [7]	10 [6] / 9 [7]	12 [6] / 9 [7]
Indoor index connection	Min.				50	62.5	70	50	62.5	70
	Nom.				100	125	140	100	125	140
	Max.				130	162.5	182	130	162.5	182
Dimensions	Unit	HeightxWidthxDepth		mm	1,345x900x320					
Weight	Unit			kg	120					
Fan	Type				Propeller fan					
	Air flow rate	Cooling	Nom.	m^3/min	106					
		Heating	Nom.	m^3/min	102	105		102	105	
Sound power level	Cooling	Nom.		dBA	66	67	69	66	67	69
Sound pressure level	Cooling	Nom.		dBA	50	51	53	50	51	53
	Heating	Nom.		dBA	52	53	55	52	53	55
Compressor	Type				Hermetically sealed scroll compressor					
Operation range	Cooling	Min.~Max.		°CDB	-5~46					
	Heating	Min.~Max.		°CWB	-20~15.5					
Refrigerant	Type				R-410A					
	Charge			kg	4.0					
	Control				Expansion valve					
	Circuits	Quantity			1					
Refrigerant oil	Type				Daphne FVC68D					
	Charged volume			l	1.5					
Piping connections	Liquid	Type			Flare connection					
		OD		mm	9.52					
	Gas	Type			Flare connection (VRV) / Braze connection (RA)		Braze connection	Flare connection (VRV) / Braze connection (RA)		Braze connection
		OD		mm	15.9 [6] / 19.1 [7]	15.9 [6] / 19.1 [7]	19.1	15.9 [6] / 19.1 [7]	15.9 [6] / 19.1 [7]	19.1
	Drain	OD		mm	26x3					
	Piping length	OU - BP	Total	m	55 [7]					
		BP - IU	Max./Total	m	15 [7]/60[7]	15 [7]/80 [7]	15 [7]/90 [7]	15 [7]/60 [7]	15 [7]/80 [7]	15 [7]/90 [7]
	Total piping length	System	Actual	m	300 [6] / 115 [7]	300 [6] / 135 [7]	300 [6] / 145 [7]	300 [6] / 115 [7]	300 [6] / 135 [7]	300 [6] / 145 [7]
Power supply	Phase/Frequency/Voltage			Hz/V	1N~/50/220-240			3N~/50/380-415		
Current - 50Hz	Maximum fuse amps (MFA)			A	32.0			16.0		

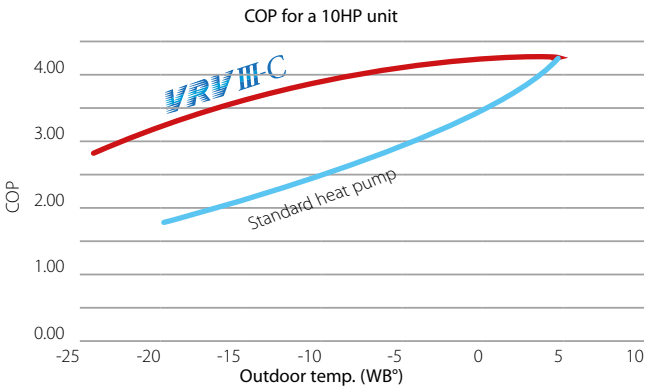
(1) Cooling: indoor temp. 27°CDB, 19.0°CWB; outdoor temp. 35°CDB; equivalent piping length: 5m; level difference: 0m (2) Heating: indoor temp. 20°CDB; outdoor temp. 7°CDB, 6°CWB; equivalent refrigerant piping: 5m; level difference: 0m (3) In case VRV® indoor units are connected (4) In case RA indoors are connected (5) MFA is used to select the circuit breaker and the ground fault circuit interrupter (earth leakage circuit breaker). (6) EN/IEC 61000-3-12: European/international technical standard setting the limits for harmonic currents produced by equipment connected to public low-voltage system with input current > 16A and ≤ 75A per phase

VRV heat pump optimised for heating (VRVIII-C)

BENEFITS

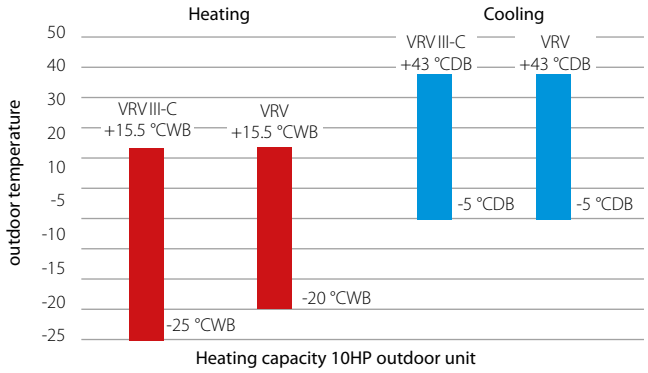
High COP at low ambients

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



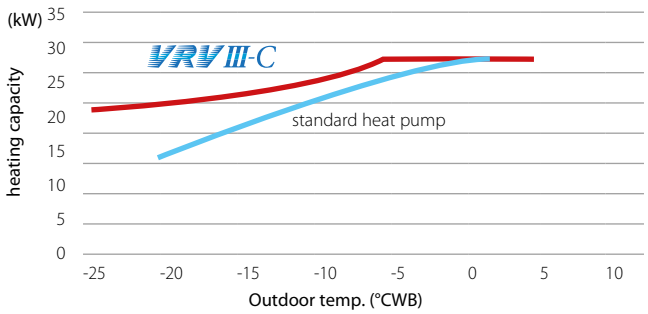
Wide heating operation range

VRVIII-C is the first system on the market with a standard operation range down to -25 °CWB outdoor ambient in heating and can also provide cooling down to - 5 °CDB outdoor ambient.



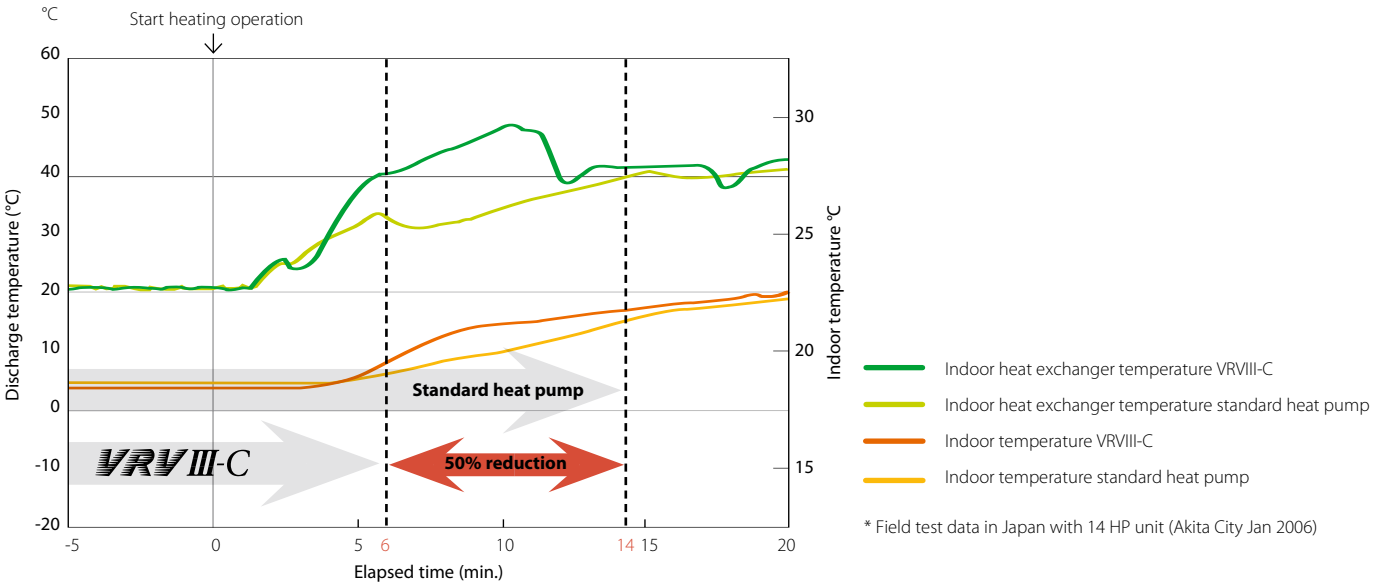
Stable heating capacity

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



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%.



* Field test data in Japan with 14 HP unit (Akita City Jan 2006)

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

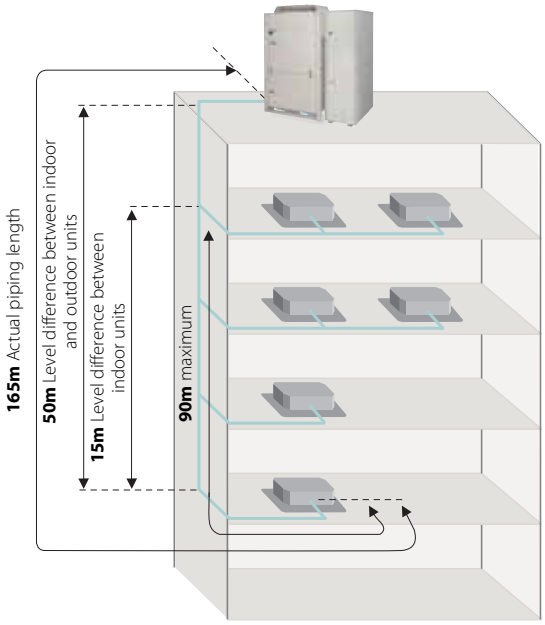
VRVIII-C offers an extended piping length of 165m (190m equivalent piping length) with a total system piping length of 500m.

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

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

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

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

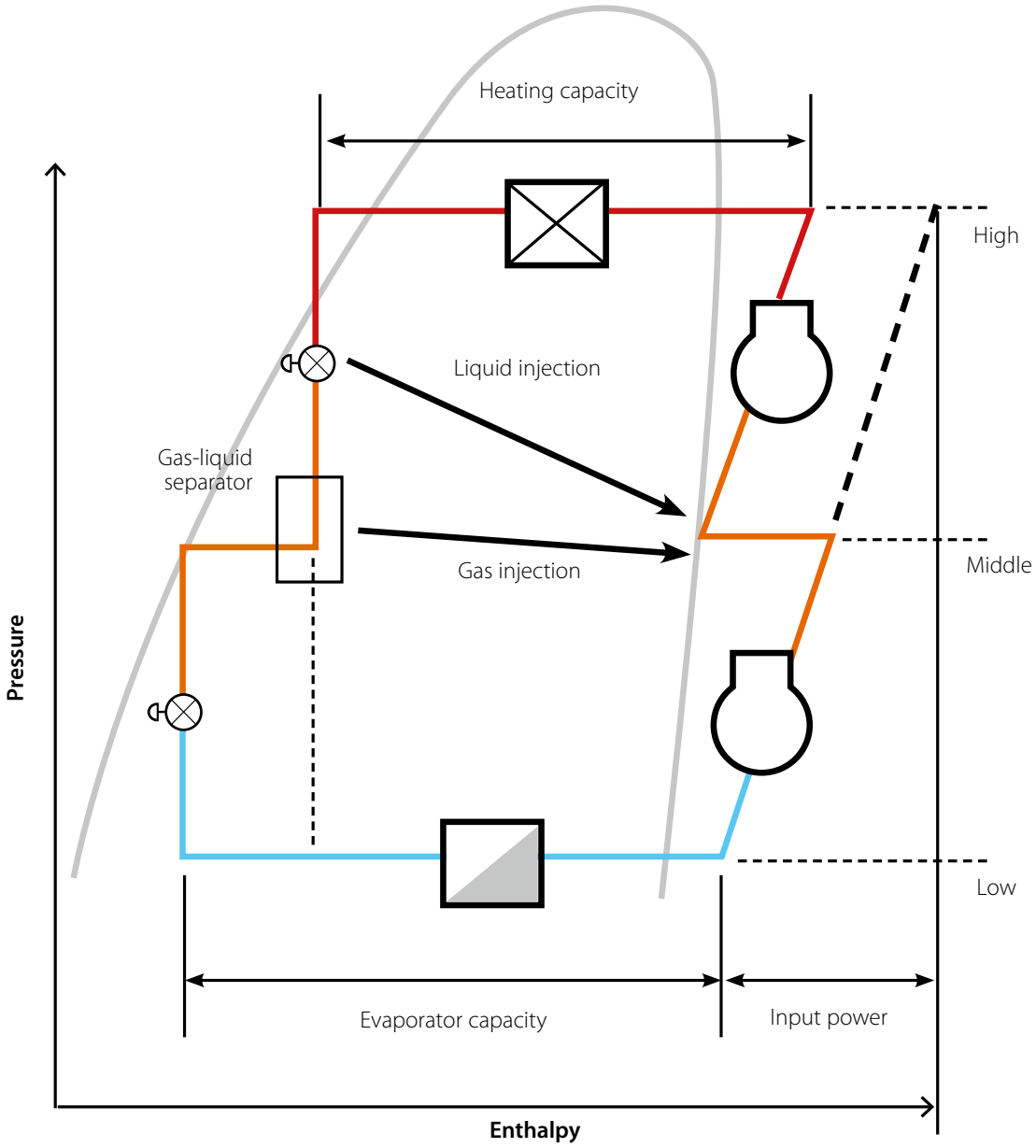


UNIQUE TECHNOLOGIES

Two stage compression

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

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



SPECIFICATIONS

VRV Heat pump optimised for heating

OUTDOOR SYSTEM					RTSYQ10PA	RTSYQ14PA	RTSYQ16PA	RTSYQ20PA
System	Outdoor unit module 1				RTSQ10PA	RTSQ14PA	RTSQ16PA	RTSQ8PA
	Outdoor unit module 2				-			RTSQ12PA
	Function unit				BTSQ20PY1			
Capacity range				HP	10	14	16	20
Cooling capacity	Nom.			kW	28.0 [1]	40.0 [1]	45.0 [1]	56.0 [1]
Heating capacity	Nom.			kW	31.5 [2] / 28.0 [3]	45.0 [2] / 40.0 [3]	50.0 [2] / 45.0 [3]	63.0 [2] / 55.9 [3]
Power input - 50Hz	Cooling	Nom.		kW	7.90 [1]	12.6 [1]	14.9 [1]	15.4 [1]
	Heating	Nom.		kW	7.78 [2] / 8.18 [3]	11.4 [2] / 12.8 [3]	13.0 [2] / 15.0 [3]	15.4 [2] / 18.7 [3]
EER					3.54 [1]	3.17 [1]	3.02 [1]	3.64 [1]
COP					4.05 [2] / 3.42 [3]	3.95 [2] / 3.13 [3]	3.85 [2] / 3.00 [3]	4.09 [2] / 2.99 [3]
Maximum number of connectable indoor units					21	30	34	43
Indoor index connection	Min./Nom./Max.				125/250/325	175/350/455	200/400/520	250/500/650
Sound power level	Cooling	Nom.		dBA	-			
Sound pressure level	Cooling	Max./Nom.		dBA	62/60	63/61	65/63	
Piping connections	Liquid	Type/OD		mm	Braze connection/9.52	Braze connection/12.7		Braze connection/15.9
	Gas	Type/OD		mm	Braze connection/22.2	Braze connection/28.6		
	Oil equalizing	OD		mm	-			19.1
	Piping length	OU - IU	Max.	m	165			
		After branch	Max.	m	90 (8)			
	Total piping length	System	Actual	m	500			
	Level difference	OU - IU	Outdoor unit in highest position/ Indoor unit in highest position	m	50/40			
		IU - IU	Max.	m	15			
Current - 50Hz	Maximum fuse amps (MFA)			A	25	35	40	50

(1) Cooling: Indoor temp. 27°CDB, 19°CWB; outdoor temp. 35°CDB; equivalent piping length: 7.5m; level difference: 0m; function unit length: 6m; combined indoor unit: FXFQ50P x 5 units (2) Heating: Indoor temp. 20°CDB; outdoor temp. 7°CDB,6°CWB; equivalent piping length: 7.5m; level difference: 0m; function unit length: 6m; combined indoor unit: FXFQ50P x 5 units (3) Heating: Indoor temp. 20°CDB; outdoor temp. -10°CWB; equivalent piping length: 7.5m; level difference 0m; function unit length: 6m; combined indoor unit: FXFQ50P x 5 units (4) MFA is used to select the circuit breaker and the ground fault circuit interrupter (earth leakage circuit breaker). (5) Refer to refrigerant pipe selection or installation manual

OUTDOOR UNIT MODULE				BTSQ20P	RTSQ8PA	RTSQ10PA	RTSQ12PA	RTSQ14PA	RTSQ16PA
Dimensions	Unit HeightxWidthxDepth		mm	1,570x460x765	1,680x930x765			1,680x1,240x765	
Weight	Unit		kg	110	205	257		338	344
Heat exchanger	Type			-	Cross fin coil				
Fan-Type				-	Propeller fan				
Fan-Air flow rate	Cooling	Nom.	m^3/min	-	185		200	233	239
Fan-External static pressure	Max.		Pa	-	78				
Compressor	Type			Hermetically sealed scroll compressor					
Compressor 2	Type			-	Hermetically sealed scroll compressor				
Compressor 3	Type			-				Hermetically sealed scroll compressor	
Operation range	Cooling	Min.	°CDB	-5					
		Max.	°CDB	43					
	Heating	Min.~Max.	°CWB	-25~15.5					
Refrigerant	Type			R-410A					
	Charge		kg	-	9.4	10.5	10.9	11.7	
	Control			-	Electronic expansion valve				
Power supply	Phase/Frequency/Voltage		Hz/V	3~/50/380-415					
Current - 50Hz	Maximum fuse amps (MFA)		A	20	25			35	40

VRV Classic heat pump - RXYCQ-A

VRV Classic

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

RXYCQ10-12A

OUTDOOR UNIT				*RXYCQ8A	*RXYCQ10A	*RXYCQ12A	*RXYCQ14A	*RXYCQ16A	*RXYCQ18A	*RXYCQ20A
Capacity range			HP	to be confirmed						
Cooling capacity	Nom.		kW	20.0	25.0	30.0	35.0	40.0	45.0	50.0
Heating capacity	Nom.		kW	22.4	28.0	33.6	37.5	44.8	50.4	56.0
Power input - 50Hz	Cooling	Nom.	kW	to be confirmed						
	Heating	Nom.	kW	to be confirmed						
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 connectable indoor units				to be confirmed						
Indoor index connection	Min.			100	125	150	175	200	225	250
	Nom.			200	250	300	350	400	450	500
	Max.			200	250	360	420	480	540	600
Dimensions	Unit	HxWxD	mm	1,680X635X765	1,680X930X765		1,680X1,240X765			
Weight	Unit		kg	to be confirmed						
Sound power level	Cooling	Nom.	dBA	to be confirmed						
Sound pressure level	Cooling	Nom.	dBA	58	59	61	61	64	65	66
Operation range	Cooling	Min.~Max	°CDB	-5~43						
	Heating	Min.~Max	°CWB	-20~15.5						
Refrigerant	Type			Refrigerant Type R-410A						
Piping connections	Liquid	OD	mm	9.52			12.7			15.9
	Gas	OD	mm	12.7	19.1	22.2	28.6			
	Piping length	max	m	135						
	Total piping length	system	m	300						
	Level difference	OU-IU	m	30 (Outdoor unit in highest position)						
Power supply	Phase/Frequency/Voltage		Hz/V	3~/50/380-415						

*Note: grey cells contain preliminary data

Heat recovery

CONTINUOUS HEATING DURING DEFROST

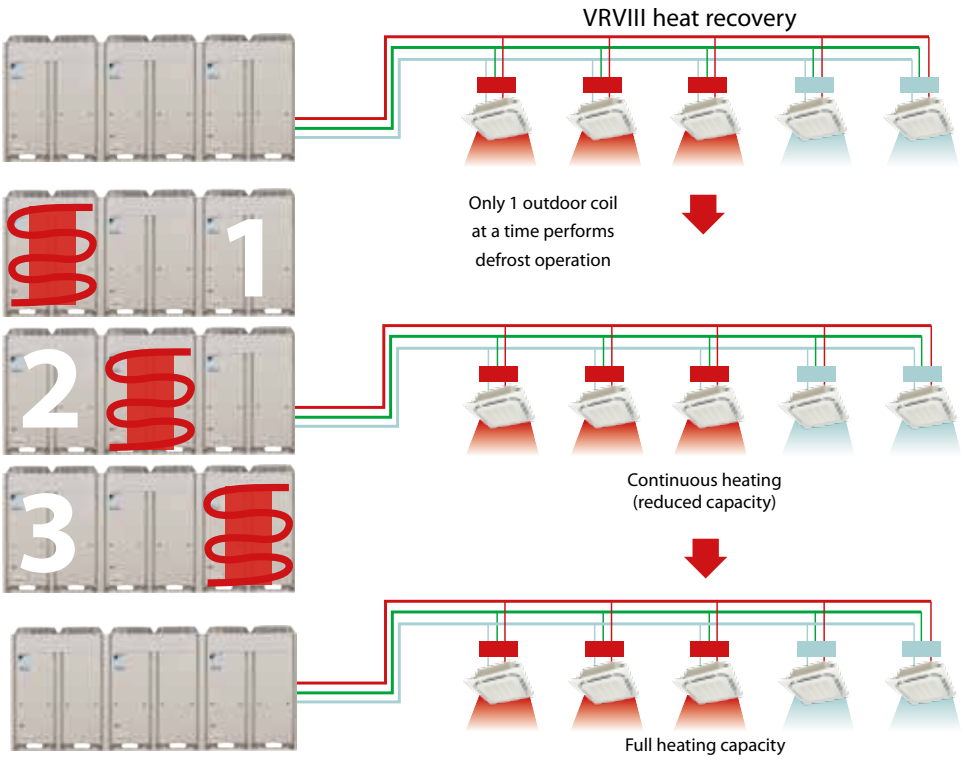
Ensuring the highest comfort level during defrost and oil return

Benefits of the system

› High comfort
  - No cold draft during defrost & oil return
  - No big temperature fluctuations in the room

› Higher integrated heating capacity (indoor units continue to deliver heating)
  - Continuous heating during defrost results in a higher integrated heating capacity and much higher comfort levels for the users.

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

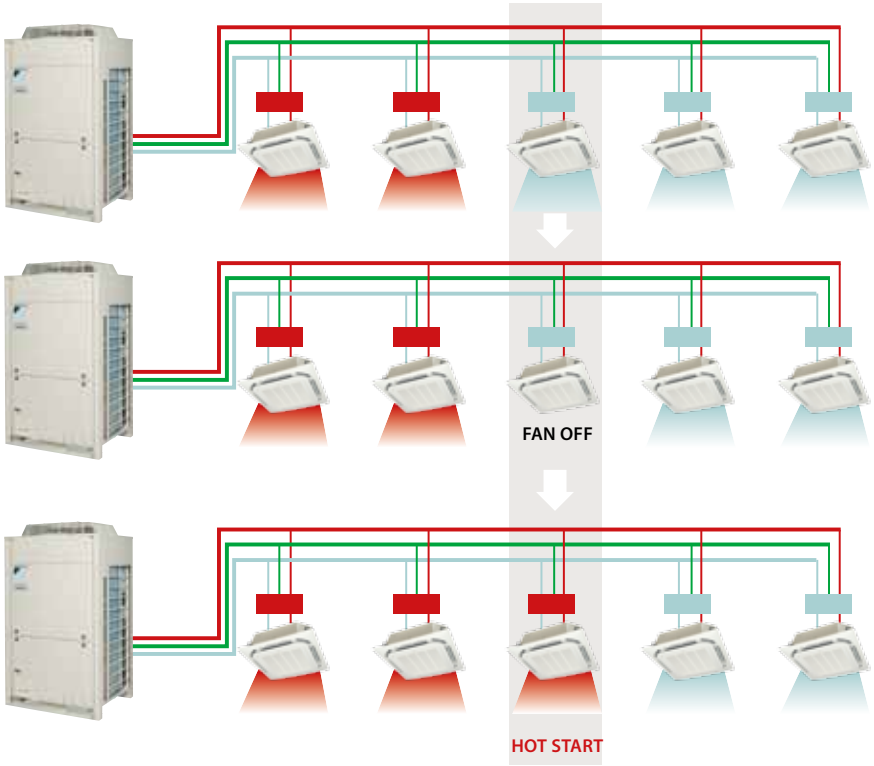


INDIVIDUAL COMFORT THANKS TO VRVIII BS BOX

Individual change over from cooling to heating or vice versa of the indoor units is possible. This means that all indoor units who do not change over continue to provide optimum comfort for users during this process. The BS box comes in individual and multi versions for maximum flexibility, faster installation and the best cost.

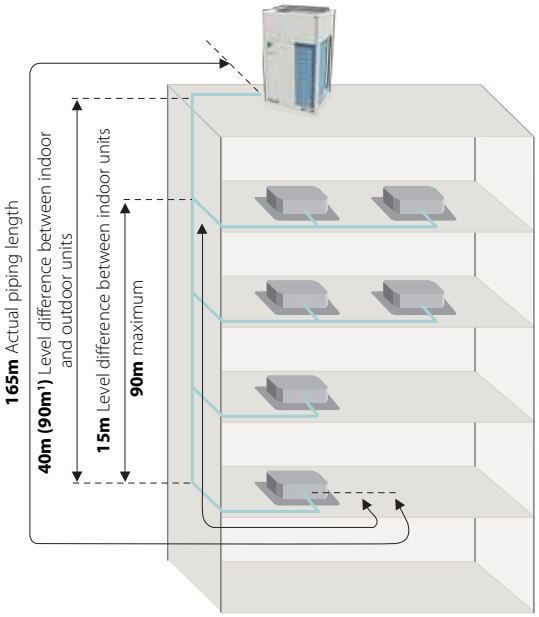
VRVIII heat recovery

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



FLEXIBLE PIPING DESIGN

VRV offers an extended piping length of 165m (190m equivalent piping length) with a total system piping length of 1,000m.
In case the outdoor unit is located above the indoor unit the height difference is 50m standard. It can be extended to 90m[1].
In case the outdoor unit is located below the indoor unit, the height difference is 40m standard. Height differences up to maximum 90m are possible[1].
After the first branch, the difference between the longest piping length and the shortest piping length can be maximum 40m, provided that the longest piping length amounts to maximum 90m.



[1] For more information, please contact your local Daikin dealer.
[1] Branch selectors (BS units) are not taken into account, as their installation does not influence the piping design.

VRVIII Heat recovery small footprint combination

SPECIFICATIONS

OUTDOOR UNIT					REYQ8P9	REYQ10P8	REYQ12P9	REYQ14P8	REYQ16P8
Capacity range				HP	8	10	12	14	16
Cooling capacity	Nom.			kW	22.4 [1]	28.0 [1]	33.5 [1]	40.0 [1]	45.0 [1]
Heating capacity	Nom.			kW	25.0 [2]	31.5 [2]	37.5 [2]	45.0 [2]	50.0 [2]
Power input - 50Hz	Cooling	Nom.		kW	5.20	7.09	8.72	11.4	14.1
	Heating	Nom.		kW	5.71	7.38	8.84	11.0	12.8
EER					4.31	3.95	3.84	3.51	3.19
COP					4.38	4.27	4.24	4.09	3.91
Maximum number of connectable indoor units					17	21	26	30	34
Indoor index connection	Min.				100	125	150	175	200
	Nom.				200	250	300	350	400
	Max.				260	325	390	455	520
Dimensions	Unit	HeightxWidthxDepth		mm	1,680x1,300x765				
Weight	Unit			kg	331			339	
Heat exchanger	Type				Cross fin coil				
Fan	Type				Propeller fan				
	Air flow rate	Cooling	Nom.	m^3/min	190		210	235	240
	External static pressure	Max.		Pa	-				
Sound power level	Cooling	Nom.		dBA	78		80	83	84
Sound pressure level	Cooling	Nom.		dBA	58		60	62	63
Compressor	Type				Hermetically sealed scroll compressor				
Compressor 2	Type				Hermetically sealed scroll compressor				
Operation range	Cooling	Min.~Max.		°CDB	-20 (15) / -5~43				
	Heating	Min.~Max.		°CWB	-20~15.5				
Refrigerant	Type				R-410A				
	Charge			kg	10.3	10.6	10.8	11.1	
	Control				Expansion valve (electronic type)				
Piping connections	Liquid	Type			Braze connection				
		OD		mm	9.52		12.7		
	Gas	Type			Braze connection				
		OD		mm	19.1	22.2	28.6		
	Discharge gas	Type			Braze connection				
		OD		mm	15.9	19.10		22.2	
	Piping length	OU - IU	Max.	m	165				
		After branch	Max.	m	90 (8)				
	Total piping length	System	Actual	m	1,000				
	Level difference	OU - IU	Outdoor unit in highest position/Indoor unit in highest position	m	50/40				
		IU - IU	Max.	m	15				
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/380-415				
Current - 50Hz	Maximum fuse amps (MFA)			A	20	25		40	

(1) Cooling: indoor temp. 27°CDB, 19°CWB; outdoor temp. 35°CDB; equivalent piping length: 7.5m; level difference: 0m (2) Heating: indoor temp. 20°CDB; outdoor temp. 7°CDB, 6°CWB; equivalent refrigerant piping: 7.5m; level difference: 0m (3) MFA is used to select the circuit breaker and the ground fault circuit interrupter (earth leakage circuit breaker). (4) In accordance with EN/IEC 61000-3-11, respectively EN/IEC 61000-3-12, it may be necessary to consult the distribution network operator to ensure that the equipment is connected only to a supply with Zsys ≤ Zmax, respectively Ssc ≥ minimum Ssc value. (5) EN/IEC 61000-3-11: European/international technical standard setting the limits for voltage changes, voltage fluctuations and flicker in public low-voltage supply systems for equipment with rated ≤ 75A (6) EN/IEC 61000-3-12: European/international technical standard setting the limits for harmonic currents produced by equipment connected to public low-voltage system with input current > 16A and ≤ 75A per phase (7) Technical cooling setting, refer to the installation manual for more information (8) Refer to refrigerant pipe selection or installation manual

OUTDOOR SYSTEM						REYQ18P9	REYQ20P9	REYQ22P8	REYQ24P8	REYQ26P8	REYQ28P8	REYQ30P8	REYQ32P8	REYQ34P9	REYQ36P9
System	Outdoor unit module 1					REMQ8P9		REMQ10P8	REMQ12P8	REMQ10P8	REMQ12P8	REMQ14P8	REMQ16P8	REMQ8P9	
	Outdoor unit module 2					REMQ10P8	REMQ12P8			REMQ16P8				REMQ10P8	REMQ12P8
	Outdoor unit module 3					-								REMQ16P8	
Capacity range					HP	18	20	22	24	26	28	30	32	34	36
Cooling capacity	Nom.				kW	50.4 [1]	55.9 [1]	61.5 [1]	67.0 [1]	73.0 [1]	78.5 [1]	85.0 [1]	90.0 [1]	95.4 [1]	101 [1]
Heating capacity	Nom.				kW	56.5 [2]	62.5 [2]	69.0 [2]	75.0 [2]	81.5 [2]	87.5 [2]	95.0 [2]	100 [2]	107 [2]	113 [2]
Power input - 50Hz	Cooling	Nom.			kW	12.7	14.9	17.0	19.2	21.8	23.8	26.6	28.4	26.9	29.1
	Heating	Nom.			kW	13.4	15.2	17.1	18.9	20.6	22.3	24.2	25.8	26.3	28.1
EER						3.97	3.75	3.62	3.49	3.35	3.29	3.19	3.16	3.55	3.47
COP						4.22	4.11	4.04	3.97	3.96	3.92		3.87	4.07	4.02
Maximum number of connectable indoor units						39	43	47	52	56	60	64			
Indoor index connection	Min./Nom./Max.					225/450/585	250/500/650	275/550/715	300/600/780	325/650/845	350/700/910	375/750/975	400/800/1,040	425/850/1,105	450/900/1,170
Sound power level	Cooling	Nom.			dBA	81	83							84	85
Sound pressure level	Cooling	Nom.			dBA	61	62	63						64	
Piping connections	Liquid	Type/OD			mm	Braze connection/15.9				Braze connection/19.1					
	Gas	Type/OD			mm	Braze connection/28.6			Braze connection/34.9						Braze connection/41.3
	Discharge gas	Type/OD			mm	Braze connection/22.2	Braze connection/28.6								
	Oil equalizing	OD			mm	19.1									
	Piping length	OU - IU	Max.		m	165									
		After branch	Max.		m	90 (18)									
	Total piping length	System	Actual		m	1,000									
	Level difference	OU - IU	Outdoor unit in highest position/ Indoor unit in highest position		m	50/40									
		IU - IU	Max.		m	15									
Current - 50Hz	Maximum fuse amps (MFA)				A	45	50			60		70		80	

OUTDOOR SYSTEM					REYQ34P9	REYQ36P9	REYQ38P8	REYQ40P8	REYQ42P8	REYQ44P8	REYQ46P8	REYQ48P8
System	Outdoor unit module 1				REMQ8P9		REMQ10P8	REMQ12P8	REMQ10P8	REMQ12P8	REMQ14P8	REMQ16P8
	Outdoor unit module 2				REMQ10P8	REMQ12P8			REMQ16P8			REMQ16P8
	Outdoor unit module 3				REMQ16P8							
Capacity range				HP	34	36	38	40	42	44	46	48
Cooling capacity	Nom.			kW	95.4 [1]	101 [1]	107 [1]	112 [1]	118 [1]	124 [1]	130 [1]	150 [2]
Heating capacity	Nom.			kW	107 [2]	113 [2]	119 [2]	125 [2]	132 [2]	138 [2]	145 [2]	42.6
Power input - 50Hz	Cooling	Nom.		kW	26.9	29.1	31.2	33.4	35.8	38.0	40.8	38.7
	Heating	Nom.		kW	26.3	28.1	30.0	31.8	33.5	35.2	37.1	3.16
EER					3.55	3.47	3.43	3.35	3.29	3.26	3.18	3.87
COP					4.07	4.02	3.96	3.93	3.94	3.92	3.90	64
Maximum number of connectable indoor units					64							
Indoor index connection	Min./Nom./Max.				425/850/1,105	450/900/1,170	475/950/1,235	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
Sound power level	Cooling	Nom.		dBA	84	85						
Sound pressure level	Cooling	Nom.		dBA	64	65						
Piping connections	Liquid	OD		mm	19.1							
	Gas	OD		mm	34.9	41.3						
	Discharge gas	OD		mm	28.6	34.9						
	Oil equalizing	OD		mm	19.1							
	Total piping length	System	Actual	m	40 (14)	1,000						
	Level difference	OU - IU	Outdoor unit in highest position/ Indoor unit in highest position	m	50/40							
		IU - IU	Max.	m	15							
Current - 50Hz	Maximum fuse amps (MFA)			A	80		90		100		110	

OUTDOOR UNIT MODULE				REMQ8P9	REMQ10P8	REMQ12P8	REMQ14P8	REMQ16P8
Dimensions	Unit	HeightxWidthxDepth	mm	1,680x930x765			1,680x1,240x765	
Weight	Unit		kg	204	254		334	
Heat exchanger	Type			Cross fin coil				
Fan-Type				Propeller fan				
Fan-Air flow rate	Cooling	Nom.	m^3/min	180	185	200	230	
Fan-External static pressure	Max.		Pa	78				
Compressor	Type			Hermetically sealed scroll compressor				
Compressor 2	Type				Hermetically sealed scroll compressor			
Compressor 3	Type						Hermetically sealed scroll compressor	
Operation range	Cooling	Standard Min.	°CDB	-5				
		Max.	°CDB	43				
	Heating	Min.~Max.	°CWB	-20~15.5				
Refrigerant	Type			R-410A				
	Charge		kg	8.2	9.0	9.1	11.7	
	Control			Expansion valve (electronic type)				
Power supply	Phase/Frequency/Voltage		Hz/V	3~/50/380-415				

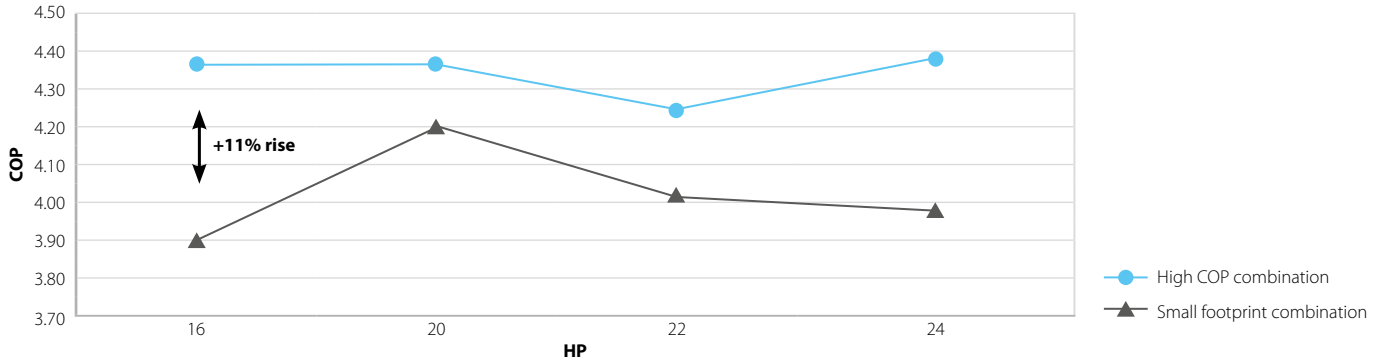
(1) Cooling: indoor temp. 27°CDB, 19°CWB; outdoor temp. 35°CDB; equivalent piping length: 7.5m; level difference: 0m (2) Heating: indoor temp. 20°CDB; outdoor temp. 7°CDB, 6°CWB; equivalent refrigerant piping: 7.5m; level difference: 0m (3) Technical cooling setting, contact your local dealer for more information

Heat recovery, high COP combination

BENEFITS

Top energy efficiency

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



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

+11%

SPECIFICATIONS

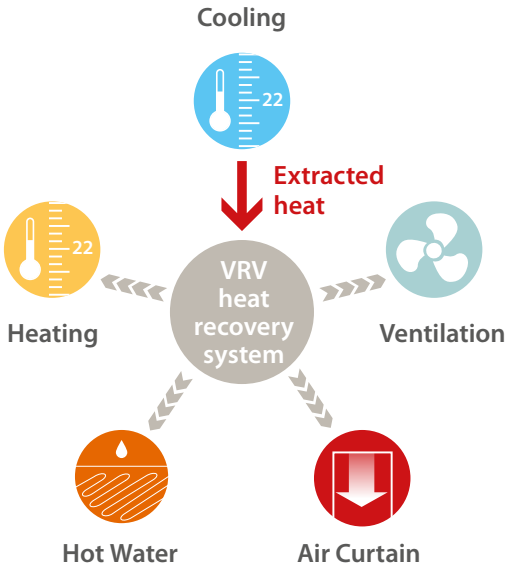
VRV Heat recovery - High COP combination

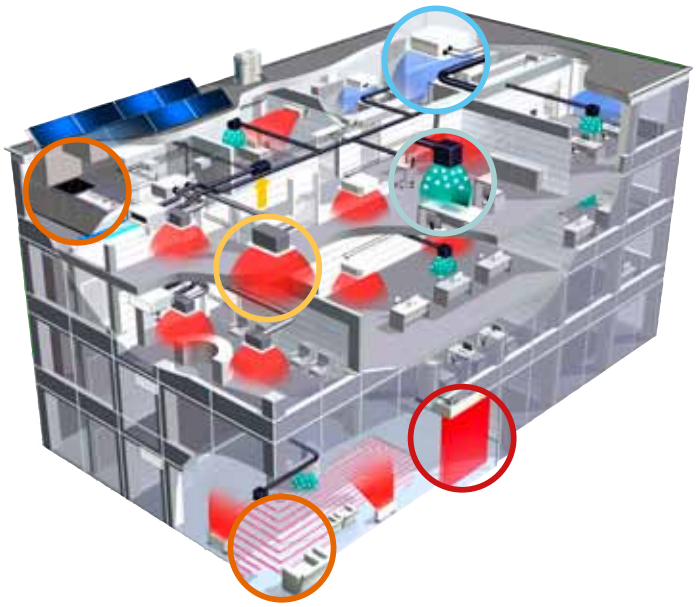
OUTDOOR SYSTEM					REYHQ16P	REYHQ20P	REYHQ22P	REYHQ24P
System	Outdoor unit module 1				REMQ8P9		REMQ10P8	REMHQ12P8
	Outdoor unit module 2				REMQ8P9	REMHQ12P8		
Capacity range				HP	16	20	22	24
Cooling capacity	Nom.			kW	45.0 [1]	56.0 [1]	61.5 [1]	67.0 [1]
Heating capacity	Nom.			kW	50.0 [2]	62.5 [2]	69.0 [2]	75.0 [2]
Power input - 50Hz	Cooling	Nom.		kW	10.5	13.9	16.0	17.2
	Heating	Nom.		kW	11.5	14.3	16.3	17.2
EER					4.29	4.04	3.84	3.89
COP					4.36		4.24	4.37
Maximum number of connectable indoor units					34	43	47	52
Indoor index connection	Min./Nom./Max.				200/400/520	225/450/585	250/500/650	275/550/715
Sound power level	Cooling	Nom.		dBA	82	85		87
Sound pressure level	Cooling	Nom.		dBA	62	64		66
Refrigerant	Circuits	Quantity			1			
Piping connections	Liquid	Type/OD		mm	Braze connection/12.7	Braze connection/15.9		
	Gas	Type/OD		mm	Braze connection/28.6			Braze connection/34.9
	Piping length	OU - IU	Max.	m	165			
		After branch	Max.	m	90 (18)			
	Total piping length	System	Actual	m	1,000			
	Level difference	OU - IU	Outdoor unit in highest position/ Indoor unit in highest position	m	50/40			
		IU - IU	Max.	m	15			
Current - 50Hz	Maximum fuse amps (MFA)			A	50	63		80

OUTDOOR UNIT MODULE				REMQ8P9	REMQ10P8	REMHQ12P8
Dimensions	Unit	HeightxWidthxDepth	mm	1,680x930x765		1,680x1,300x765
Weight	Unit		kg	204	254	331
Heat exchanger	Type			Cross fin coil		-
Fan-Type				Propeller fan		
Fan-Air flow rate	Cooling	Nom.	m^3/min	180	185	230
	Heating	Nom.	m^3/min	-		230
Fan-External static pressure	Max.		Pa	-		78
Sound power level	Cooling	Nom.	dBA	78		-
Compressor	Type			Hermetically sealed scroll compressor		
Compressor 2	Type			-	Hermetically sealed scroll compressor	
Operation range	Cooling	Min.	°CDB	-5		
		Max.	°CDB	43		
	Heating	Min.~Max.	°CWB	-20~15		
Refrigerant	Type			R-410A		
	Charge		kg	8.2	9.0	11.7
	Control			Expansion valve (electronic type)		
Refrigerant oil	Type			-		Synthetic (ether) oil
	Charged volume		l	-		2.5
Power supply	Phase/Frequency/Voltage		Hz/V	3~/50/380-415		
Current - 50Hz	Maximum fuse amps (MFA)		A	25		40

1) Cooling: indoor temp. 27°CDB, 19°CWB; outdoor temp. 35°CDB; equivalent piping length: 7.5m; level difference: 0m (2) Heating: indoor temp. 20°CDB; outdoor temp. 7°CDB, 6°CWB; equivalent refrigerant piping: 7.5m; level difference: 0m

VRV heat recovery, for connection to heating only hydrobox



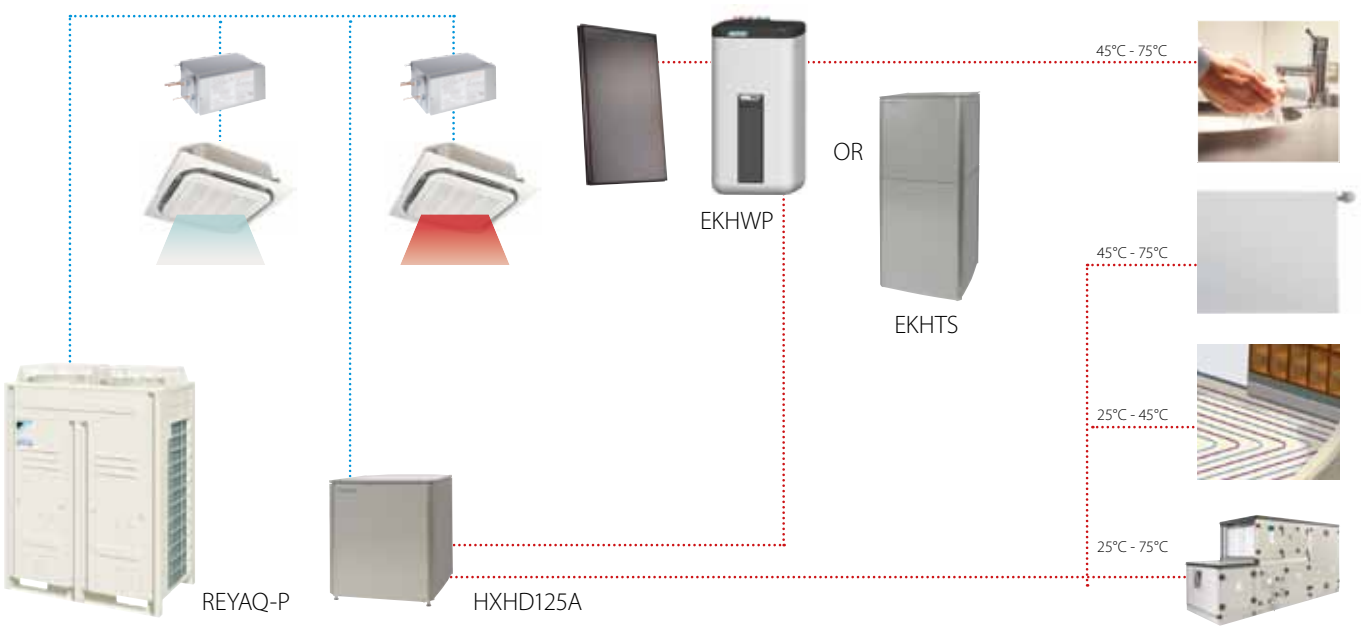


Daikin has been the market leader in variable refrigerant flow systems for the last twenty-five years and benefits from a large experience in energy efficient hot water systems based on heat pump technology.

The Daikin VRV total solution provides a single point of contact for the design and maintenance of your integrated climate control system. Our heat recovery approach is a year-round solution: even when the outside temperature is 0ºC or below, our total solution will still be cooling interior spaces in which people or equipment are generating heat. This heat will be recovered to produce hot water or to heat spaces that are below optimal temperature. Our wide product portfolio enables you to select the right mix of equipment and technology to ensure that you achieve the optimal balance of temperature, humidity and air freshness for the perfect comfort zone with maximum energy efficiency and cost effectiveness.

A HIGHLY EFFICIENT AND FLEXIBLE SOLUTION

All components integrated



SPECIFICATIONS

OUTDOOR UNIT					REYAQ10P	REYAQ12P	REYAQ14P	REYAQ16P
Capacity range				HP	10	12	14	16
Cooling capacity	Nom.			kW	28 [1]	33.5 [1]	40 [1]	45 [1]
Heating capacity	Nom.			kW	31.5 [2]	37.5 [2]	45 [2]	50 [2]
Power input - 50Hz	Cooling	Nom.		kW	7.09 [1]	8.72 [1]	11.4 [1]	14.1 [1]
	Heating	Nom.		kW	7.38 [2]	8.84 [2]	11.0 [2]	12.8 [2]
EER					3.95	3.84	3.51	3.19
COP					4.27	4.24	4.09	3.91
Maximum number of connectable indoor units					21	26	30	34
Indoor index connection	Min.				125	150	175	200
	Nom.				250	300	350	400
	Max.				325	390	455	520
Dimensions	Unit	HeightxWidthxDepth		mm	1,680x1,300x765			
Weight	Unit			kg	331		339	
Heat exchanger	Type				Cross fin coil			
Fan	Type				Propeller fan			
	Air flow rate	Cooling	Nom.	m^3/min	-			
	External static pressure	Max.		Pa	78			
Sound power level	Cooling	Nom.		dBA	78	80	83	84
Sound pressure level	Cooling	Nom.		dBA	58	60	62	63
Compressor	Type				Hermetically sealed scroll compressor			
Compressor 2	Type				Hermetically sealed scroll compressor			
Operation range	Cooling	Min.~Max.		°CDB	-5~43			
	Heating	Min.~Max.		°CWB	-20~15.5			
	Hot water production	Space heating	Min.~Max.	°CDB	-20~20 / 24 [3]	-20~20 / 24 [3]	-20~20 / 24 [3]	-20~20 / 24 [3]
		Domestic hot water	Min.~Max.	°CDB	-20~43			
Refrigerant	Type				R-410A			
	Charge			kg	10.6	10.8	11.1	
	Control				Expansion valve (electronic type)			
Refrigerant oil	Type				Daphne FVC68D			
Piping connections	Liquid	Type			Braze connection			
		OD		mm	9.52	12.7		
	Gas	Type			Braze connection			
		OD		mm	22.2	28.6		
	Discharge gas	Type			Braze connection			
		OD		mm	19.1		22.2	
	Piping length	OU - IU	Max.	m	100			
		After branch	Max.	m	40			
	Total piping length	System	Actual	m	300			
	Level difference	OU - IU	Outdoor unit in highest position/ Indoor unit in highest position	m	40/40			
		IU - IU	Max.	m	15			
	Additional refrigerant charge			kg/m	See installation manual			
	High pressure side	Design pressure		bar	40			
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/380-415			
Current - 50Hz	Maximum fuse amps (MFA)			A	25		40	

(1) Cooling: indoor temp. 27°CDB, 19°CWB; outdoor temp. 35°CDB; 100% connection ratio (DX indoor units); For combination with HXHD125, cf. capacity table (2) Heating: indoor temp. 20°CDB; outdoor temp. 7°CDB, 6°CWB; 100% connection ratio (DX indoor units); For combination with HXHD125, cf. capacity table (3) In case of connection with a 20~50 type indoor unit, match to the size of the field pipe using the attached pipe. Connection between the attached pipe and the field pipe must be brazed.

Individual Branch Selector for VRV Heat Recovery

BSVQ-P8

BSVQ100P8

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

						BSVQ100P8	BSVQ160P8	BSVQ250P8
Power input	Cooling	Nom.			kW	0.005		
	Heating	Nom.			kW	0.005		
Maximum number of connectable indoor units						6	8	
Maximum capacity index of connectable indoor units						15 < x ≤ 100	100<x≤160	160<x≤250
Casing	Material					Galvanised steel plate		Galvanised steel
Dimensions	Unit	HeightxWidthxDepth			mm	207x388x326		
Weight	Unit				kg	12		15
Piping connections	Outdoor 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
		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	Brazing connection/9.5	
		Gas	Type/OD		mm	Brazing connection/15.9		Brazing connection/22.2
Sound absorbing thermal insulation						Foamed polyurethane, frame resisting needle felt		
Power supply	Phase/Frequency/Voltage				Hz/V	1~/50/220-240		
Total circuit	Maximum fuse amps (MFA)				A	15		

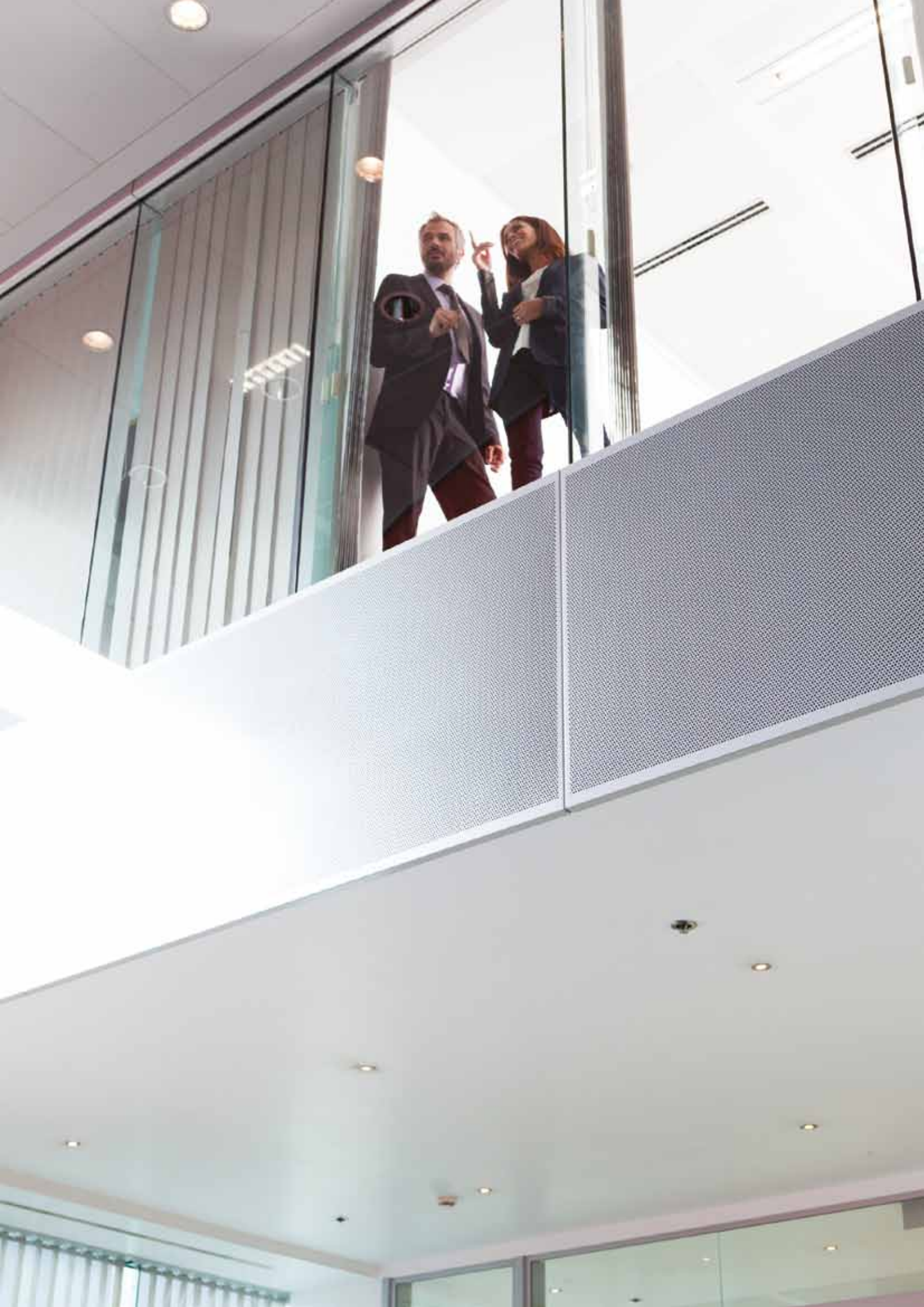
Multi Branch Selector for VRV Heat Recovery

BSV4/6Q-PV

BSV4Q100PV

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

						BSV4Q100PV	BSV6Q100PV
Power input	Cooling	Nom.			kW	0.020	0.030
	Heating	Nom.			kW	0.020	0.030
Maximum number of connectable indoor units						24	36
Maximum number of connectable indoor units per branch						6	
Number of branches						4	6
Maximum capacity index of connectable indoor units						400	600
Maximum capacity index of connectable indoor units per branch						100	
Casing	Material					Galvanised steel plate	
Dimensions	Unit	HeightxWidthxDepth			mm	209x1,053x635	209x1,577x635
Weight	Unit				kg	60	89
Piping connections	Outdoor unit	Liquid	Type/OD		mm	Brazing connection/12.7	Brazing connection/15.9
		Gas	Type/OD		mm	Brazing connection/28.6	
		Discharge gas	Type/OD		mm	Brazing connection/19.1	Brazing connection/28.6
	Indoor unit	Liquid	Type/OD		mm	Brazing connection/9.5	
		Gas	Type/OD		mm	Brazing connection/15.9	
Sound absorbing thermal insulation						Foamed polyurethane, frame resisting needle felt	
Power supply	Phase/Frequency/Voltage				Hz/V	1~/50/220-240	
Total circuit	Maximum fuse amps (MFA)				A	15	



VRVIII-Q
Replacement VRV
The Daikin solution to R-22 phase out

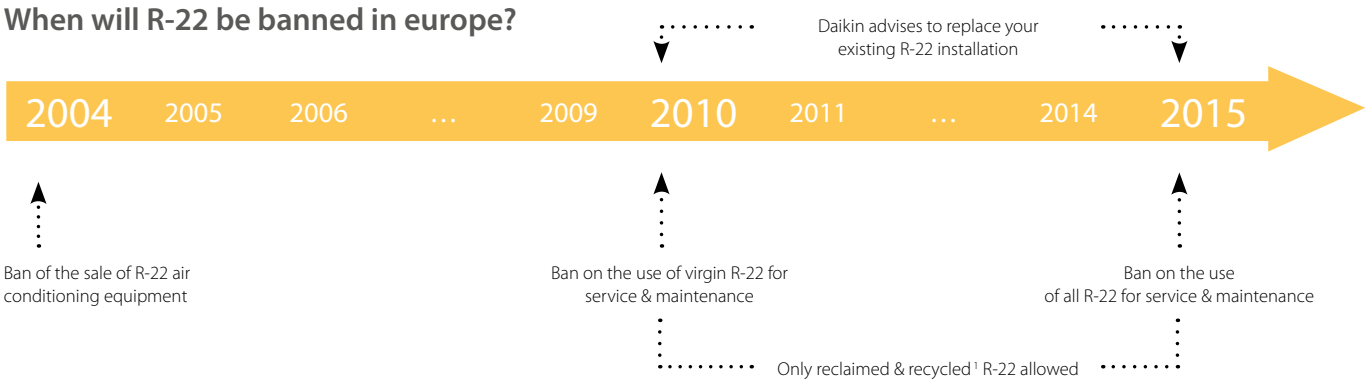
Due to significant developments in heat pump technology, older systems of air conditioning run less efficiently than those available today. Furthermore the use of virgin R-22 is banned in Europe. To upgrade R-22 systems as cost effective as possible, Daikin replacement VRV units can be installed using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

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

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

Due to ozone layer depletion, harmful ultraviolet rays reach the surface of the earth giving rise to a number of health and environmental issues. The international community therefore, signed the Montreal Protocol to phase out ozone depletion materials by 2030. The European Union however, decided to ban R-22 already in 2015.
Daikin advises to replace your existing installation already today.

When will R-22 be banned in europe?



[1] Recycled: re-use of R-22 following a basic cleaning process. Recycled R-22 must be re-used by the same company that carried out the recovery (can be done by installer)
Reclaimed: reprocessed R-22 in order to meet the equivalent performance of virgin R-22 (by specialized company)

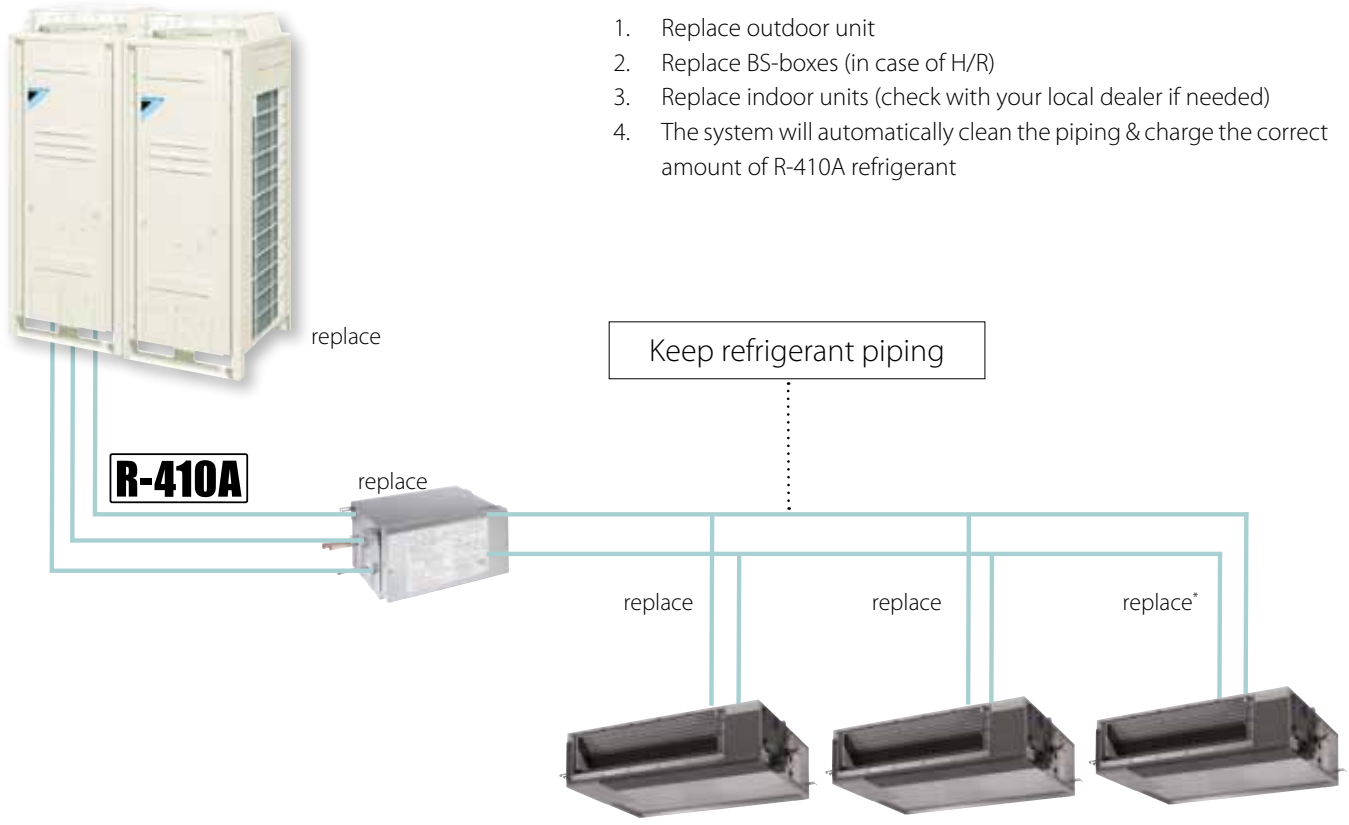
WHAT IS THE IMPACT ON AN R-22 INSTALLATION?

The R-22 phase-out regulation will impact on all currently operating R-22 systems, although reliable R-22 equipment does not need to be replaced immediately because maintenance can be carried out with recycled or reclaimed R-22 until January 1st, 2015. However, currently not enough R-22 is reclaimed or recycled to cover the demand, supply shortages and price increases are expected. If there is no reclaimed or recycled R-22 available, certain repairs (for example: compressor change) are no longer possible and considerable air conditioning system downtime can occur. It is therefore worthwhile to consider a replacement system before 2015, especially for air conditioning systems with a large impact on the daily running of the business.

WHAT SHOULD BE REPLACED?

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

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



1 Check with your local dealer if indoor units need to be replaced.

FEATURES

Fast installation

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

Limited and planned-downtime

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

No limitations on system history

As a result of the combined automatic charging and refrigerant pipe cleaning function, it is possible to ensure a clean piping network, even when a compressor breakdown has previously occurred. In this way all correct installed R-22 and R-407C VRV systems can be replaced.

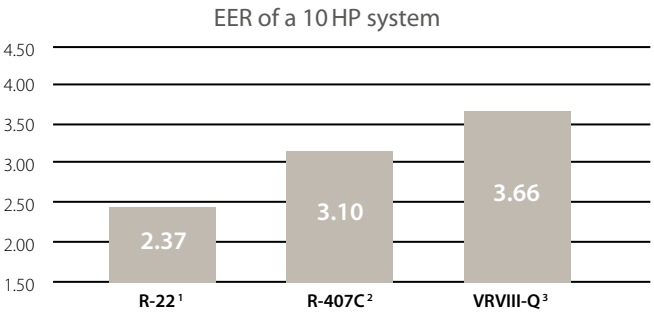
Limited and phased investment cost

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

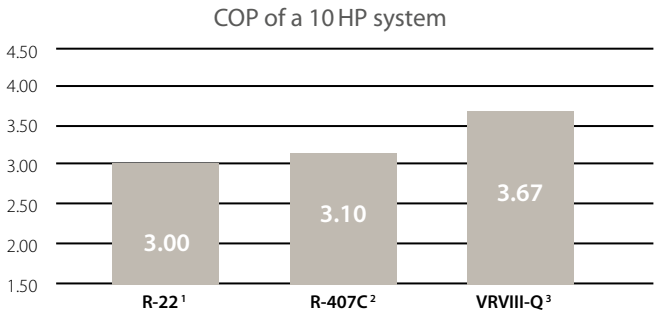
High efficiency

Upgrading an old R-22 system to a Replacement VRVsystem will result in increased system efficiency. Efficiency gains of more than 40% in cooling can be realized, by virtue of technological developments in current heat pump technology and the more efficient R-410A refrigerant. Increased energy efficiency equals lower energy consumption, subsequent lower energy costs and lower CO_2 emissions.

[1] R-22: RSXY10KA7 [2] R-407C: RSXYP10L7 [3] R-410A: RQYQ280P



40% MORE EFFICIENT



25% MORE EFFICIENT

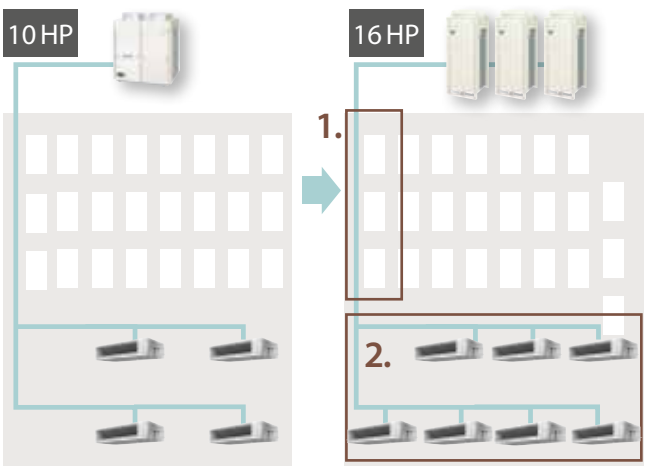
Environmental awareness

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

Possibility to increase capacity

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

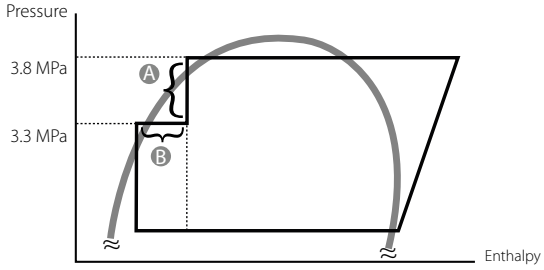
1. Keep main piping
2. Install indoor units with a higher total capacity



TECHNOLOGIES

Reduced pressure

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



Ⓐ Decompression to 3.3MPa(s) → R-22 existing piping can be used
Ⓑ Extra sub cool circuit → high COP

Refrigerant pipe cleaning

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

SPECIFICATIONS

VRV-Q - Replacement VRV - Heat pump

					RQYQ-P																					
OUTDOOR UNIT					**140**	**8**	**10**	**12**	**14**	**16**	**18**	**20**	**22**	**24**	**26**	**28**	**30**	**32**	**34**	**36**	**38**	**40**	**42**	**44**	**46**	**48**
System	Outdoor unit module 1				**140**	**8**	**10**	**12**	**14**	**16**	**8**		**10**	**12**	**10**	**12**	**14**	**16**	**10**			**12**	**10**	**12**	**14**	**16**
	Outdoor unit module 2				-						**10**		**12**		**16**				**10**		**12**		**16**			
Capacity range				HP	5	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48
Cooling capacity	Nom.			kW	14.0 [1]	22.4 [1]	28.0 [1]	33.5 [1]	40.0 [1]	45.0 [1]	50.4 [1]	55.9 [1]	61.5 [1]	67.0 [1]	73.0 [1]	78.5 [1]	85.0 [1]	90.0 [1]	96.0 [1]	101 [1]	107 [1]	112 [1]	118 [1]	124 [1]	130 [1]	135 [1]
Heating capacity	Nom.			kW	16.0 [2]	25.0 [2]	31.5 [2]	37.5 [2]	45.0 [2]	50.0 [2]	56.5 [2]	62.5 [2]	69.0 [2]	75.0 [2]	81.5 [2]	87.5 [2]	95.0 [2]	100 [2]	108 [2]	113 [2]	119 [2]	125 [2]	132 [2]	138 [2]	145 [2]	150 [2]
Power input - 50Hz	Cooling	Nom.		kW	3.36	5.24	7.64	10.10	11.6	13.6	12.9	15.4	17.8	20.2	21.3	23.7	25.2	27.2	26.9	28.9	31.4	33.8	34.9	35.3	38.8	40.8
	Heating	Nom.		kW	3.91	6.42	8.59	10.20	12.2	13.6	15.1	16.7	18.8	20.4	22.2	23.8	25.8	27.2	29.4	30.8	32.4	34.0	35.8	36.0	39.4	40.8
EER					4.17	4.27	3.66	3.32	3.45	3.31	3.91	3.63	3.46	3.32	3.43	3.31	3.37	3.31	3.57	3.49	3.41	3.31	3.38	3.51	3.35	3.31
COP					4.09	3.89	3.67	3.68	3.69	3.68	3.74		3.67	3.68	3.67		3.68		3.67			3.68	3.69	3.83	3.68	
Maximum number of connectable indoor units					10	17	21	26	30	34	39	43	47	52	56	60	64									
Indoor index connection	Min.				62.5	100	125	150	175	200	225	250	275	300	325	350	375	400	425	450	475	500	525	550	575	600
	Nom.				125	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1,000	1,050	1,100	1,150	1,200
	Max.				162.5	260	325	390	455	520	585	650	715	780	845	910	975	1,040	1,105	1,170	1,235	1,300	1,365	1,430	1,495	1,560
Dimensions	Unit	HeightxWidthxDepth		mm	1,680x635 x765	1,680x930x765			1,680x1,240x765		-															
Weight	Unit			kg	175	230	284		381		-															
Heat exchanger	Type				Cross fin coil						-															
Fan	Type				Propeller fan						-															
	Air flow rate	Cooling	Nom.	m^3/min	95	180	185	200	233		-															
	External static pressure	Max.		Pa	78						-															
Sound power level	Cooling	Nom.		dBA	-						-															
Sound pressure level	Cooling	Nom.		dBA	54.0	57.0	58.0	60.0			61	62	63						64		65					
Compressor	Type				Hermetically sealed scroll compressor						-															
Operation range	Cooling	Min.~Max.		°CDB	-5~43						-															
	Heating	Min.~Max.		°CWB	-20~15.5						-															
Refrigerant	Type				R-410A						-															
	Charge			kg	11.1	10.8	11.7				-															
	Control				Electronic expansion valve						-															
Piping connections	Liquid	Type			Braze connection																					
		OD		mm	9.52			12.7			15.9				19.1											
	Gas	Type			Braze connection																					
		OD		mm	15.9	19.1	22.2	28.6			28.6				34.9				41.3							
	Piping length	OU - IU	Max.	m	150																					
		After branch	Max.	m	40																					
	Total piping length	System	Actual	m	300																					
	Level difference	OU - IU	Outdoor unit in highest position/ Indoor unit in highest position	m	50/40																					
		IU - IU	Max.	m	15																					
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/380-415						-								-							
Current - 50Hz	Maximum fuse amps (MFA)			A	15	25		35			45	50			60		70		90			100		110		

(1) Cooling: indoor temp. 27°CDB, 19°CWB; outdoor temp. 35°CDB; equivalent piping length: 7.5m; level difference: 0m (2) Heating: indoor temp. 20°CDB; outdoor temp. 7°CDB, 6°CWB; equivalent refrigerant piping: 7.5m; level difference: 0m (3) Select wire size based on the larger value of MCA or TOCA

VRV-Q - Replacement VRV - Heat recovery

OUTDOOR SYSTEM					RQCEQ280P	RQCEQ360P	RQCEQ460P	RQCEQ500P	RQCEQ540P	RQCEQ636P	RQCEQ712P	RQCEQ744P	RQCEQ816P	RQCEQ848P
System	Outdoor unit module 1				RQEQ140P	RQEQ180P	RQEQ140P		RQEQ180P	RQEQ212P	RQEQ140P		RQEQ180P	RQEQ212P
	Outdoor unit module 2				RQEQ140P	RQEQ180P	RQEQ140P	RQEQ180P		RQEQ212P	RQEQ180P		RQEQ212P	
	Outdoor unit module 3				-		RQEQ180P			RQEQ212P	RQEQ180P	RQEQ212P		
	Outdoor unit module 4				-						RQEQ212P			
Capacity range				HP	10	13	16	18	20	22	24	26	28	30
Cooling capacity	Nom.			kW	28.0 [1]	36.0 [1]	45.0 [1]	50.0 [1]	54.0 [1]	63.6 [1]	71.2 [1]	74.4 [1]	81.6 [1]	84.8 [1]
Heating capacity	Nom.			kW	32.0 [2]	40.0 [2]	52.0 [2]	56.0 [2]	60.0 [2]	67.2 [2]	78.4 [2]	80.8 [2]	87.2 [2]	89.6 [2]
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 of connectable indoor units					21	28	34	39	43	47	52	56	60	64
Indoor index connection	Min./Nom./Max.				140/280/364	180/360/468	230/500/598	250/500/650	270/540/702	318/636/827	356/712/926	372/744/967.0	408/816/1,061	424/848/1,102
Sound power level	Cooling	Nom.		dBA	-									
Sound pressure level	Cooling	Nom.		dBA	57	61		62	63	64	63	64	65	66
Refrigerant	Circuits	Quantity			1									
Piping connections	Liquid	Type/OD		mm	Braze connection/9.52	Braze connection/12.7		Braze connection/15.9			Braze connection/19.1			
	Gas	Type/OD		mm	Braze connection/22.2	Braze connection/25.4		Braze connection/28.6			Braze connection/34.9			
	Discharge gas	Type/OD		mm	Braze connection/19.1		Braze connection/22.2			Braze connection/25.4			Braze connection/28.6	
	Piping length	OU - IU	Max.	m	120									
	Total piping length	System	Actual	m	300									
	Level difference	OU - IU	Outdoor unit in highest position	m	50									
Current - 50Hz	Maximum fuse amps (MFA)			A	30	40	50	60		70	80		90	

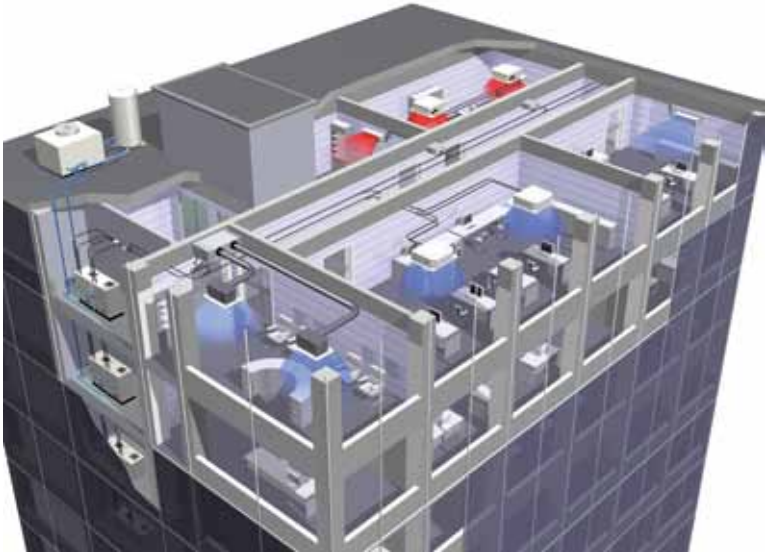
OUTDOOR UNIT MODULE				RQEQ140P	RQEQ180P	RQEQ212P
Dimensions	Unit	HeightxWidthxDepth	mm	1,680x635x765		
Weight	Unit		kg	175		179
Heat exchanger	Type			Cross fin coil		
Fan-Type				Propeller fan		
Fan-Air flow rate	Cooling	Nom.	m^3/min	95	110	
Fan-External static pressure	Max.		Pa	-		
Sound pressure level	Cooling	Nom.	dBA	54	58	60
Compressor	Type			Hermetically sealed scroll compressor		
Operation range	Cooling	Min.	°CDB	-5		
		Max.	°CDB	43		
	Heating	Min.~Max.	°CWB	-20~15		
Refrigerant	Type			R-410A		
	Charge		kg	10.3	10.6	11.2
	Control			Electronic expansion valve		
Power supply	Phase/Frequency/Voltage		Hz/V	3~/50/380-415		

(1) Cooling: indoor temp. 27°CDB, 19°CWB; outdoor temp. 35°CDB; equivalent piping length: 7.5m; level difference: 0m (2) Heating: indoor temp. 20°CDB; outdoor temp. 7°CDB, 6°CWB; equivalent refrigerant piping: 7.5m; level difference: 0m (3) MFA is used to select the circuit breaker and the ground fault circuit interrupter (earth leakage circuit breaker).

Water cooled
VRV outdoor systems

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

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



Standard series

Geothermal series

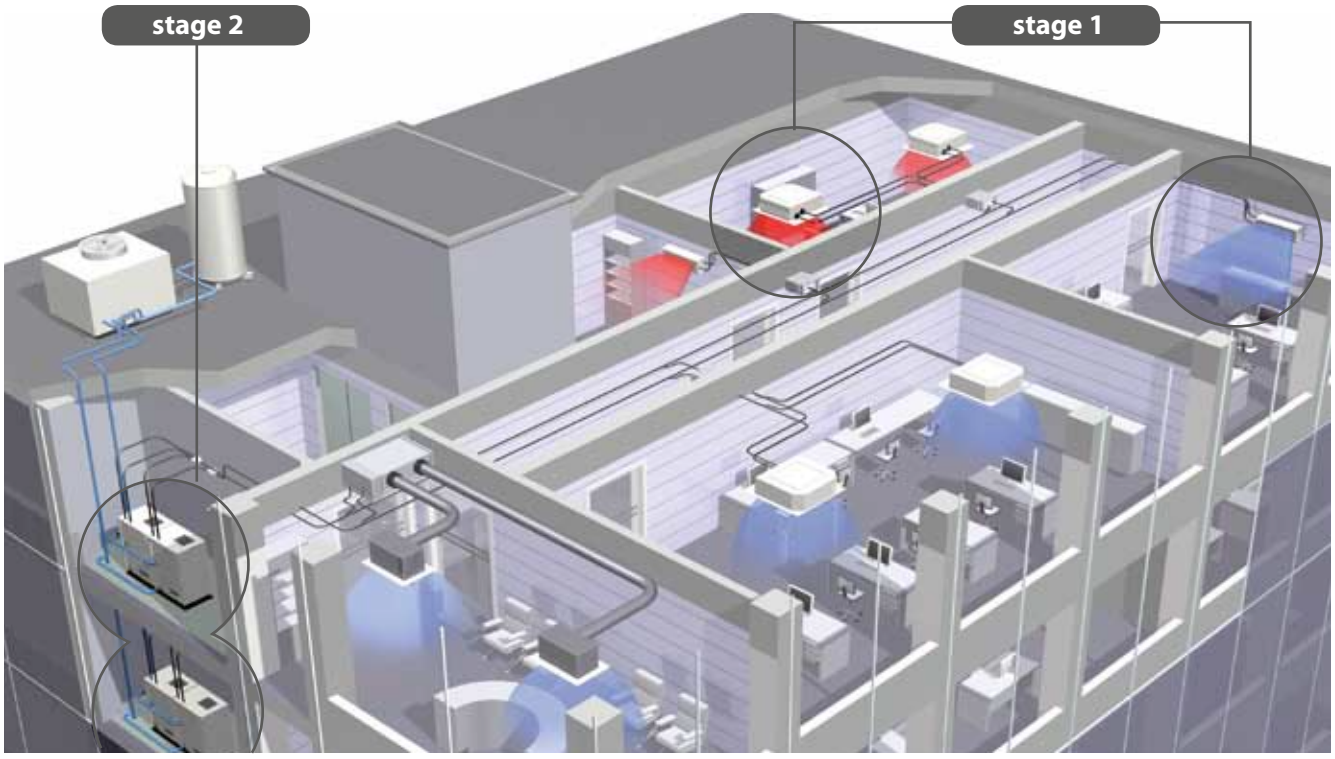
Benefits

HIGH ENERGY EFFICIENCIES RESULTS FROM 2-STAGE HEAT RECOVERY

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

Heat recovery also available on heat pump units

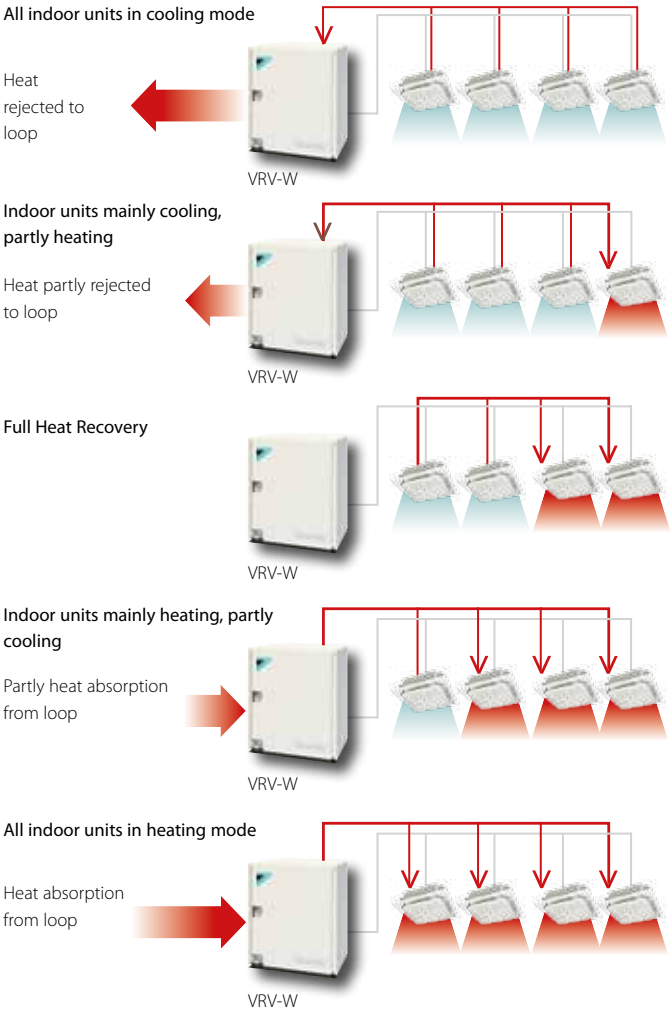
Second stage heat recovery is achieved within the water loop between the water cooled outdoor units. Two-stage heat recovery substantially improves energy efficiency and represents an ideal solution to the requirements of modern office buildings, in which some areas may require cooling even in winter,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



Stage 1: For heat recovery
Simultaneous heating and cooling within the refrigerant system.

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

Heat recovery between indoor units

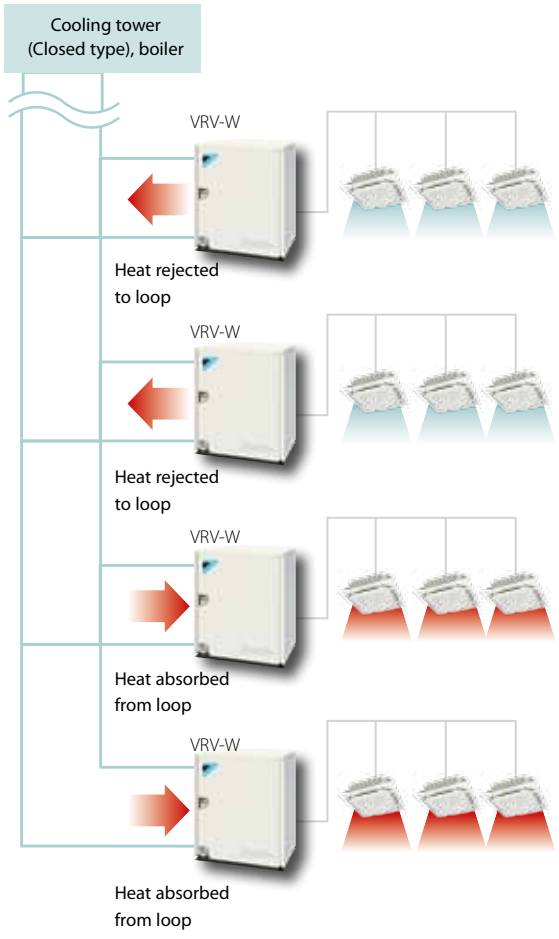


Stage 2: For heat recovery and heat pump!
Heat recovery between the water cooled outdoor units

For heat recovery and heat pump units!

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

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



* Above system configurations are for illustration purposes only.

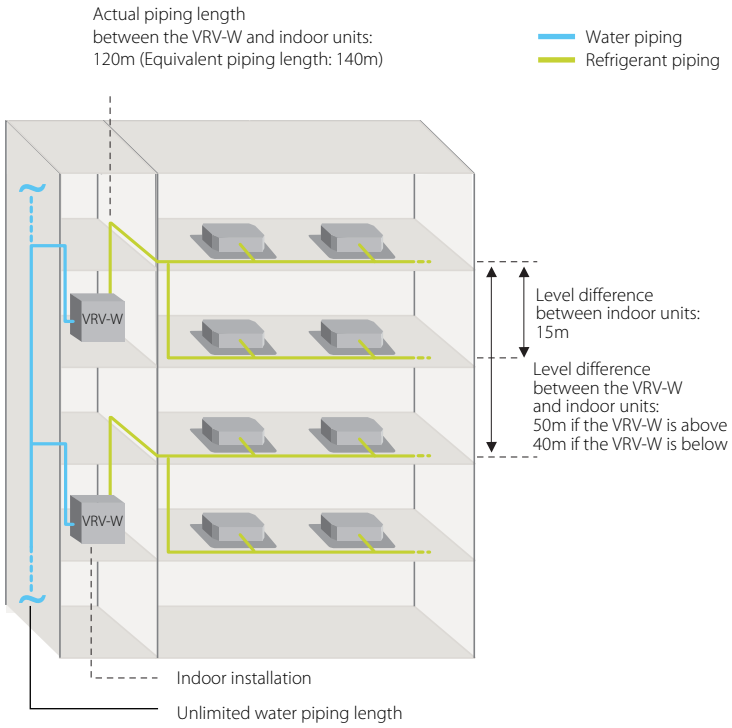
FLEXIBLE PIPING DESIGN

Flexible water piping

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

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

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



Long refrigerant piping length

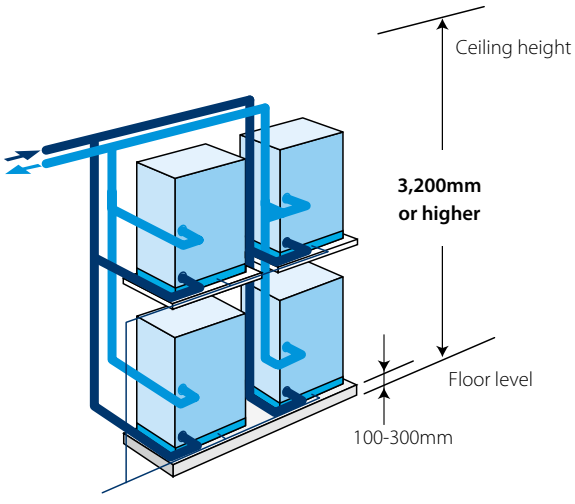
Considerable flexibility is available within the refrigerant circuit since up to 120m actual piping length and 50m* (if the VRV-W outdoor unit is above the indoor units) in height can exist between the VRV-W outdoor units and indoor units. Water piping does not intrude on the occupied spaces, so there are no leakage problems.

* 40m if the VRV-W outdoor unit is below the indoor units.

SPACE SAVING - STACKED CONFIGURATION

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

* for 8HP unit



Stacked configuration is possible.

YOUR SYSTEM OPTIMISED FOR THE EUROPEAN CLIMATE - HIGH SENSIBLE MODE

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

Higher energy efficiency

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

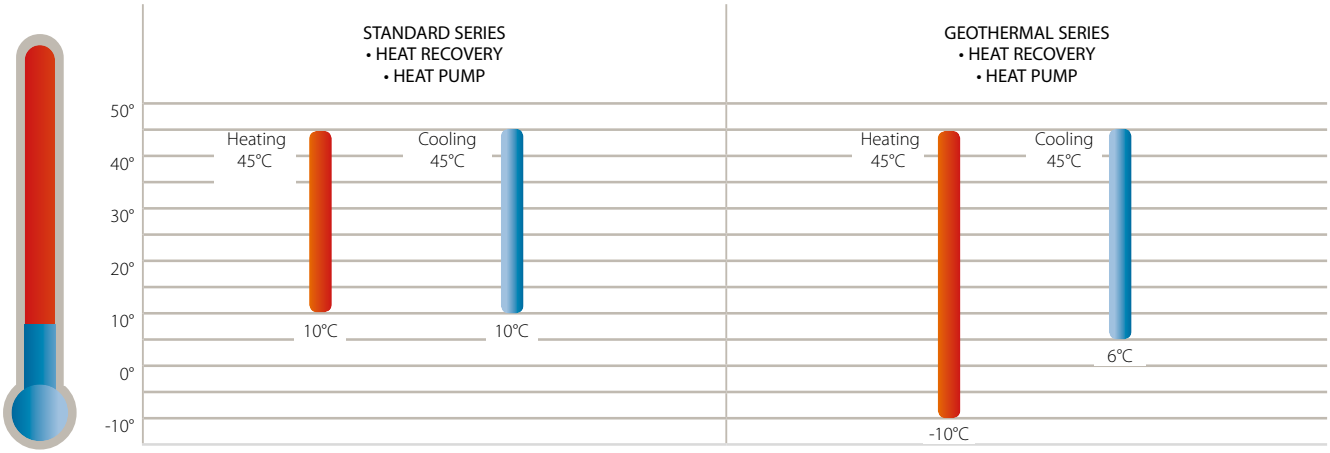
Higher comfort for the end-user

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

WIDE OPERATION RANGE

Standard water cooled outdoor units have a wide operation range of between 10°C & 45°C inlet water temperature, both in heating and cooling.
For the geothermal series the operation range is extended even more, down to -10°C* in heating and 6°C in cooling mode.

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



LOW INDOOR UNIT OPERATION SOUND LEVEL

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

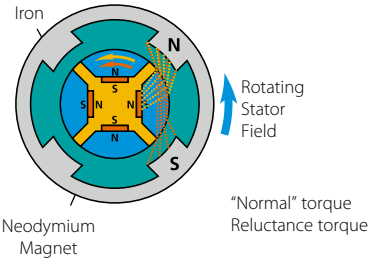
DB(A)	PERCEIVED LOUDNESS	SOUND
0	Treshold of hearing	-
20	Extremely soft	Rustling leaves
40	Very soft	Quiet room
60	Moderately loud	Normal conversation
80	Very loud	City traffic noise
100	Extremely loud	Symphonic orchestra
120	Threshold of feeling	Jet taking off

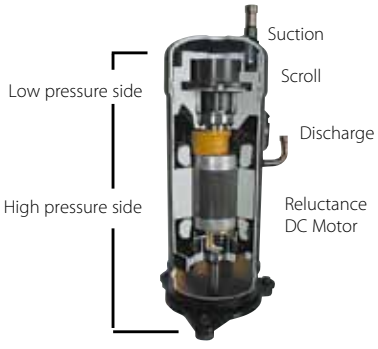
Daikin indoor units

Advanced water cooled VRV technologies

1 RELUCTANCE BRUSHLESS DC COMPRESSOR

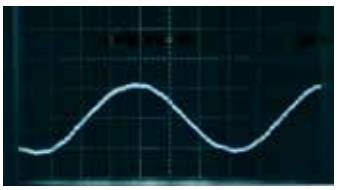
- The reluctance brushless DC motor provides significant increases in efficiency compared to conventional AC inverter motors, simultaneously using 2 different forms of torque (normal and reluctance torque) to produce extra power from small electric currents.
- **The motor comprises powerful neodymium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





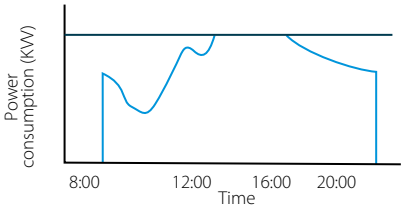
2 SINE WAVE DC INVERTER

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



3 I-DEMAND FUNCTION

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



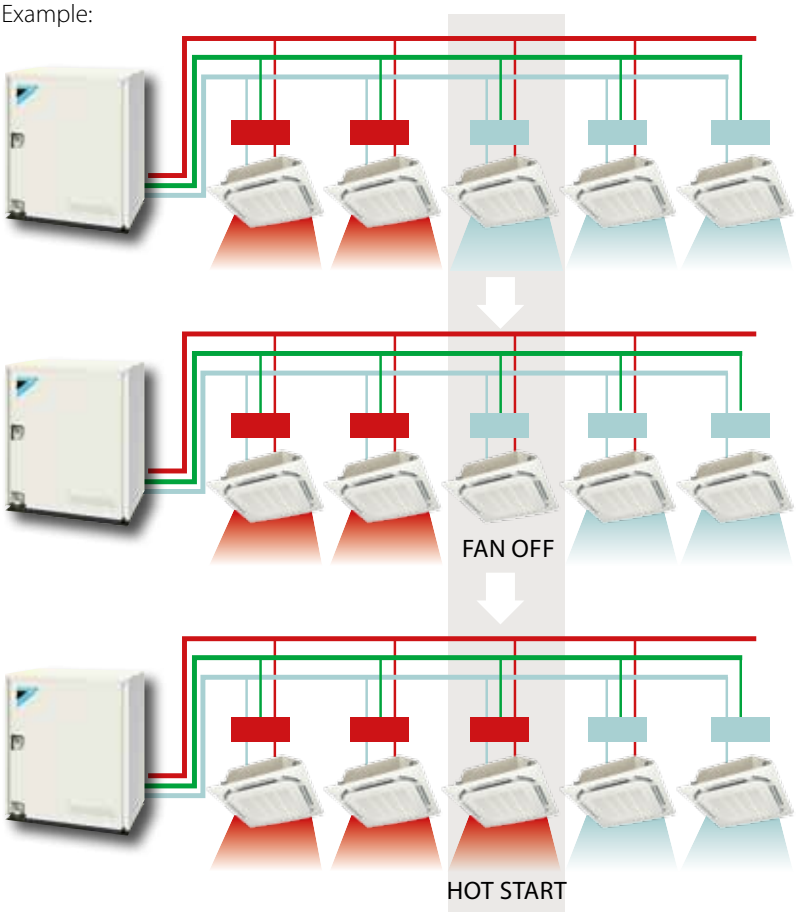
INDIVIDUAL COMFORT THANKS TO VRVIII BS BOX

Individual change over from cooling to heating or vice versa of the indoor units is possible. This means that all indoor units who do not change over continue to provide optimum comfort for the users during this process. The BS box comes in individual and multi versions for maximum flexibility, faster installation and best cost.

VRV-WIII

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

Example:



Standard series

SPECIFICATIONS

VRV-W Standard series - Heat recovery - Heat Pump

OUTDOOR UNIT					RWEYQ8P	RWEYQ10P	RWEYQ16P	RWEYQ18P	RWEYQ20P	RWEYQ24P	RWEYQ26P	RWEYQ28P	RWEYQ30P
System	Outdoor unit module 1				RWEYQ8P	RWEYQ10P	RWEYQ8P	RWEYQ10P		RWEYQ8P	RWEYQ10P		
	Outdoor unit module 2				-	-	RWEYQ8P		RWEYQ10P	RWEYQ8P		RWEYQ10P	
	Outdoor unit module 3				-	-	-			RWEYQ8P			RWEYQ10P
Capacity range				HP	8	10	16	18	20	24	26	28	30
Cooling capacity	Nom.			kW	22.4 [1]	26.7 [1]	44.8 [1]	49.1 [1]	53.4 [1]	67.2 [1]	71.5 [1]	75.8 [1]	80.1 [1]
Heating capacity	Nom.			kW	25.0 [2]	31.5 [2]	50.0 [2]	56.5 [2]	63.0 [2]	75.0 [2]	81.5 [2]	88.0 [2]	94.5 [2]
Power input - 50Hz	Cooling	Nom.		kW	4.55	6.03	9.10	10.6	12.1	13.7	15.1	16.6	18.1
	Heating	Nom.		kW	4.24	6.05	8.48	10.3	12.1	12.7	14.5	16.3	18.2
EER					4.89	4.14	4.92	4.63	4.41	4.91	4.74	4.57	4.43
COP					5.81	5.08	5.87	5.48	5.21	5.91	5.62	5.40	5.19
Maximum number of connectable indoor units					17	21	34	36					
Indoor index connection	Min.				100	125	200	225	250	300	325	350	375
	Nom.				200	250	400	450	500	600	650	700	750
	Max.				260	325	520	585	650	780	845	910	975
Dimensions	Unit	HeightxWidthxDepth		mm	1,000x780x550		-						
Weight	Unit			kg	149	150	-						
Heat exchanger	Type				Stainless steel plate		-						
Sound pressure level	Cooling	Nom.		dBA	50	51	53	54		55			56
Compressor	Type				Hermetically sealed scroll compressor		-						
Operation range	Inlet water temperature	Cooling	Min.~Max.	°CDB	10~45		-						
		Heating	Min.~Max.	°CWB	10~45		-						
Refrigerant	Type				R-410A		-						
	Charge			kg	3.5	4.2	-						
	Control				Electronic expansion valve		-						
Refrigerant oil	Type				Synthetic (ether) oil		-						
Piping connections	Liquid	Type			Flare connection								
		OD		mm	9.52		12.7	15.9		19.1			
	Gas	Type			Braze connection								
		OD		mm	19.1 [3]	22.2 [3]	28.6 [3]			34.9 [3]			
	Discharge gas	Type			Braze connection								
		OD		mm	15.9 [4] / 19.1 [5]	19.1 [4] / 22.2 [5]	22.2 [4] / 28.6 [5]			28.6 [4] / 34.9 [5]			
	Piping length	OU - IU	Max.	m	120								
		After branch	Max.	m	90 [15]								
	Total piping length	System	Actual	m	300								
	Level difference	OU - IU	Outdoor unit in highest position/Indoor unit in highest position	m	50/40								
		IU - IU	Max.	m	15								
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/380-415		-						
Current - 50Hz	Maximum fuse amps (MFA)			A	25		35			45			

(1) Cooling: indoor temp. 27°CDB, 19°CWB; Inlet water temperature: 30°C; equivalent refrigerant piping: 7.5m; level difference: 0m. (2) Heating: indoor temp. 20°CDB; inlet water temperature: 20°C; equivalent piping length: 7.5m; level difference: 0m (3) In case of heat pump system, gas pipe is not used (4) In case of heat recovery system (5) In case of heat pump system (6) This unit should not be installed outdoors, but indoors e.g. in a machine room. (7) Hold ambient temperature at 0-40°C and humidity at 80%RH or less. Heat rejection from the casing: 0.64kW/8HP (8) Select wire size based on the larger value of MCA or TOCA (9) Hold ambient temperature at 0-40°C and humidity at 80%RH or less. Heat rejection from the casing: 0.71kW/10HP

› For more information on BS boxes, please refer to page 44

Geothermal series

BENEFITS

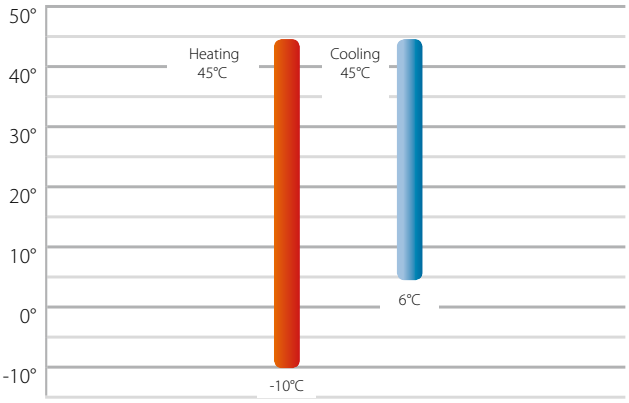
Using ground water as a renewable energy source

Superior efficiency, even in the most extreme outdoor temperatures

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.

Extended operation range

The water cooled geothermal series have an inlet water temperature down to -10°C* in heating, extending the water cooled application range.



* Ethylene glycol should be added to the water when the water inlet tempetarure is below 10 °C

SPECIFICATIONS

OUTDOOR UNIT					RWEYQ8PR	RWEYQ10PR
Capacity range				HP	8	10
Cooling capacity	Nom.			kW	22.4 [1]	26.1 [1]
Heating capacity	Nom.			kW	25.0 [2]	31.5 [2]
Power input - 50Hz	Cooling	Nom.		kW	4.58	6.30
	Heating	Nom.		kW	4.30	6.20
EER					4.89	4.14
COP					5.81	5.08
Maximum number of connectable indoor units					17	21
Indoor index connection	Min.				100	125
	Nom.				200	250
	Max.				200	250
Dimensions	Unit	HeightxWidthxDepth		mm	1,000x780x550	
Weight	Unit			kg	149	150
Heat exchanger	Type				Stainless steel plate	
Sound pressure level	Cooling	Nom.		dBA	50	51
Compressor	Type				Hermetically sealed scroll compressor	
Operation range	Inlet water temperature	Cooling	Min.~Max.	°CDB	6~45	
		Heating	Min.~Max.	°CWB	-10~45	
Refrigerant	Type				R-410A	
	Charge			kg	3.5	4.2
	Control				Electronic expansion valve	
Refrigerant oil	Type				Synthetic (ether) oil	
Piping connections	Liquid	Type			Flare connection	
		OD		mm	9.52	
	Gas	Type			Braze connection	
		OD		mm	19.1 [3]	22.2 [3]
	Discharge gas	Type			Braze connection	
		OD		mm	15.9 [4] / 19.1 [5]	19.1 [4] / 22.2 [5]
	Piping length	OU - IU	Max.	m	120	
		After branch	Max.	m	90 (15)	
	Total piping length	System	Actual	m	300	
	Level difference	OU - IU		m	Outdoor unit in highest position/Indoor unit in highest position	50/40
		IU - IU	Max.	m	15	
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/380-415	
Current - 50Hz	Maximum fuse amps (MFA)			A	25	

(1) Cooling: indoor temp. 27°CDB, 19°CWB; Inlet water temperature: 30°C; equivalent refrigerant piping: 7.5m; level difference: 0m. (2) Heating: indoor temp. 20°CDB; inlet water temperature: 20°C; equivalent piping length: 7.5m; level difference: 0m (3) In case of heat pump system, gas pipe is not used (4) In case of heat recovery system (5) In case of heat pump system (6) This unit should not be installed outdoors, but indoors e.g. in a machine room. (7) Hold ambient temperature at 0-40°C and humidity at 80%RH or less. Heat rejection from the casing: 0.64kW/8HP (8) Select wire size based on the larger value of MCA or TOCA

Indoor units

As many as 64 separate indoor units can be operated from the single refrigerant circuit of a 54 HP VRV heat pump system. In fact, the Daikin VRV indoor unit range, one of the widest on the market, currently comprises **no less than 26 different stylish and elegant models in 116 different variants** — all designed to maximise comfort, minimise operating noise and simplify installation and servicing.

VRV indoor units are modern, technologically advanced and come in ceiling mounted cassette, concealed ceiling, ceiling suspended, wall mounted and floor standing models. The Roundflow cassette now includes an optional auto cleaning filter, which automatically cleans itself daily, leading to yearly energy savings of up to 50%. Dust from the filter is collected in the unit for removal by simple vacuum cleaning.

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

SEASONAL EFFICIENCY
Smart use of energy

From 01/2013 all indoor units will have to comply to the Ecodesign legislation on fans. As a market leader Daikin takes the step to be the first to comply with all indoors units to this legislation by adopting DC fans in all indoor units, improving their energy efficiency even further.

Ceiling mounted cassettes

Ceiling suspended units

Concealed ceiling units

Floor standing units

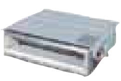
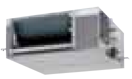
Wall mounted units

Stylish indoor units

Hydroboxes for VRV

Benefits overview - VRV indoor units

		Ceiling mounted cassette				
		FXFQ-A	FXZQ-A	FXCQ-A	FXKQ-MA	FXDQ-M9
						
We care icons	Inverter technology	✓	✓	✓	✓	✓
	Home leave operation	✓	✓	✓	✓	✓
	Fan only	✓	✓	✓	✓	✓
	Self-cleaning cassette	✓				
Comfort	Draught prevention	✓	✓		✓	
	Auto cooling-heating changeover	✓	✓	✓	✓	✓
	Whisper quiet	✓	✓	✓		
Air flow	Ceiling soiling prevention	✓	✓	✓	✓	
	Vertical auto swing	✓	✓	✓	✓	
	Fan speed steps	3	3	3	2	2
Humidity control	Dry programme	✓	✓	✓	✓	✓
Air treatment	Air filter	✓	✓	✓	✓	✓
Remote control & timer	Weekly timer	✓	✓	✓	✓	✓
	Infrared remote control	✓	✓	✓	✓	✓
	Wired remote control	✓	✓	✓	✓	✓
	Centralised control	✓	✓	✓	✓	✓
Other funtions	Auto-restart	✓	✓	✓	✓	✓
	Self-diagnosis	✓	✓	✓	✓	✓
	Multi tenant	✓	✓			✓
	Drain pump kit	Standard	Standard	Standard	Standard	

Concealed ceiling unit				Wall mount-ed unit	Ceiling suspended unit		Floor standing unit	
FXDQ-A	FXSQ-P	FXMQ-P7	FXMQ-MA	FXAQ-P	FXHQ-A	FXUQ-MA	FXNQ-P	FXLQ-P
								
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						✓		
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				✓		✓		
3	3	3	2	2	3	3	3	3
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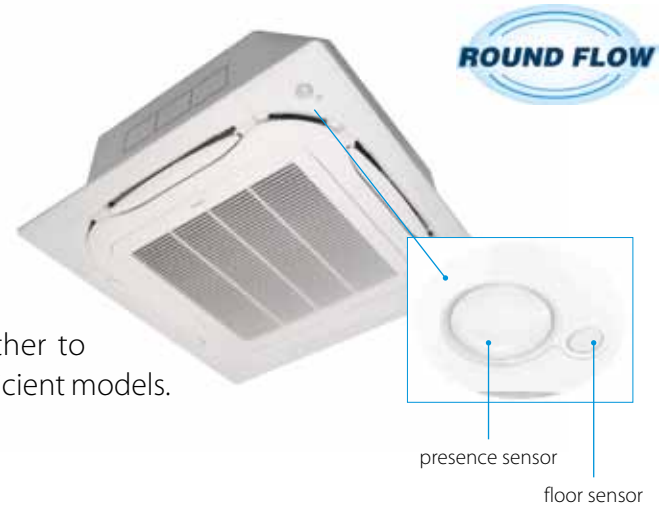
✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓		✓			✓	✓
Standard	Standard	Standard	Optional	Optional	Optional	Standard		

Round flow cassette: setting the standard for efficiency and comfort

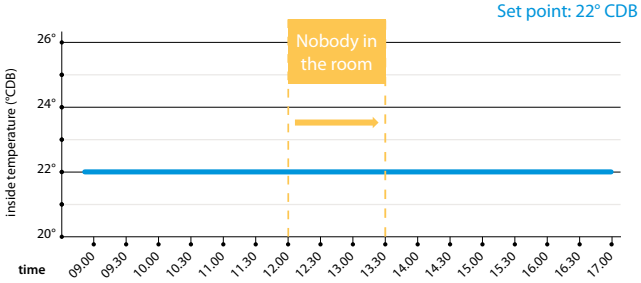
The round flow cassette is designed for use in all forms and sizes of commercial offices & retail environments. Today, Daikin has improved its technology even further to enhance your comfort and provide you better energy efficient models.



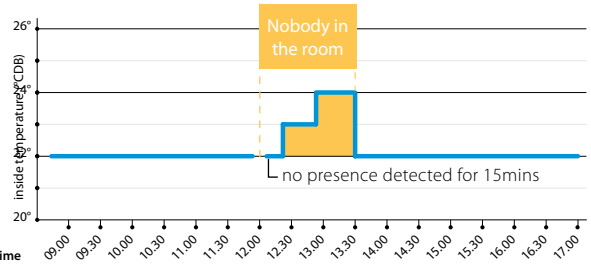
Even more energy efficient…

› With the optional infrared **presence sensor** the set point can be adjusted or the round flow cassette switched off when there is nobody in the room. Up to **27% energy can be saved** (estimated) with this new function. If no presence is detected in the room for 15mins, the set temperature is changed until a minimum temperature (for heating) or maximum temperature (for cooling) is reached. When selecting the setback function, the unit will maintain the temperature within a preset minimum and maximum temperature, when there is no presence detected in the room for 1 hour.

Without sensor

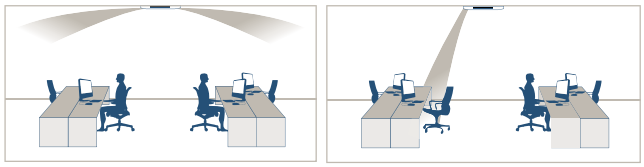


With sensor (BRC1E52A/B required)



… and improved comfort

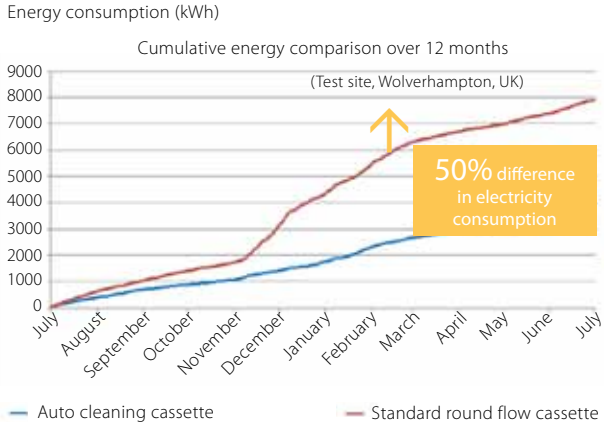
› With the optional **infrared floor sensor** having cold feet will become history. This sensor detects the average floor temperature and ensures even temperature distribution between ceiling and floor.



› The presence sensor directs air flow away from any person detected in the room, when the air flow control is on.

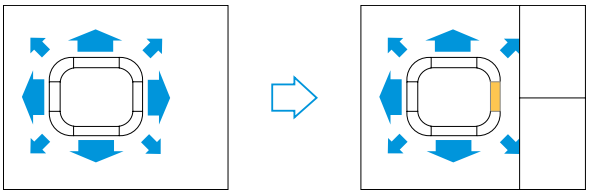
› The unique 360° airflow discharge pattern ensures a uniform temperature distribution across the room without dead corners.

› Daikin was the first to launch an **auto-cleaning decoration panel**. With this panel the costs can be further reducedas the filter cleans itself automatically once a day. Up to **50% energy can be saved** thanks to daily filter cleaning.



Flexible installation

› When refurbishing or rearranging the interior of your office, shop or other area, you no longer need to change the location of your indoor unit. With the round flow cassette one or more flaps can be easily closed via the wired remote controller (BRC1E52A/B – optional). Optional closure kits are available as well.

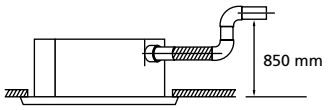


FXFQ20-63A

BRC1E52A/B BRC7A532F

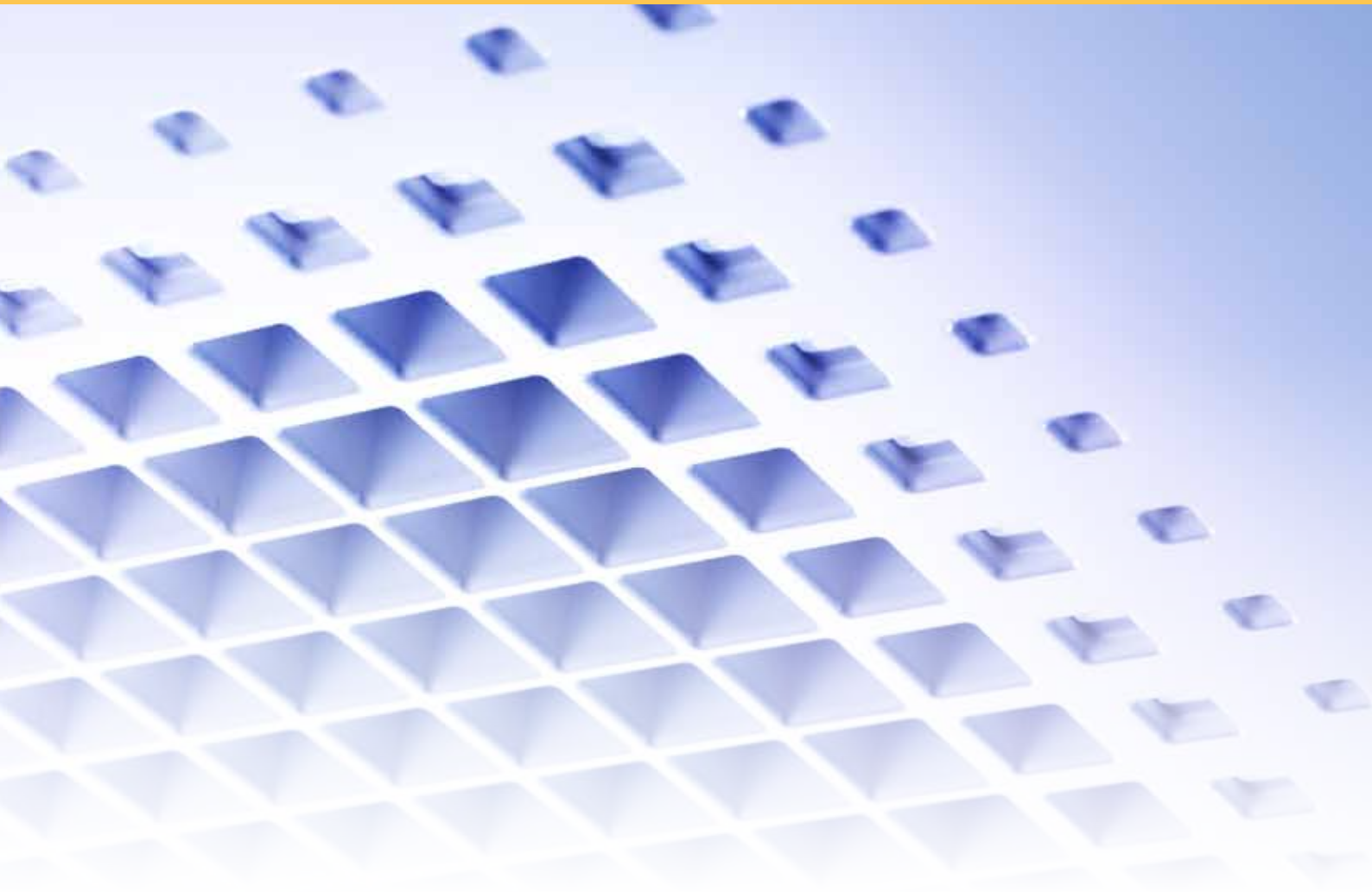
ROUND FLOW

- The round flow cassette provides a more comfortable environment and offers greater savings in energy consumption to shop, office and restaurant owners
- 360° air discharge ensures uniform air flow and temperature distribution
- Modern style decoration panel is available in 3 different variations: pure white (RAL9010) auto cleaning panel, pure white (RAL9010) standard panel with grey louvers and pure white (RAL9010) standard panel with white louvers
- Daikin introduces first auto cleaning cassette to European market.
- Higher efficiency and comfort thanks to daily auto cleaning of the filter.
- Lower maintenance costs thanks to auto cleaning function.
- Easy dust removal with vacuum cleaner without opening the unit.
- The presence sensor (optional) adjusts the set point with standard 1°C if no one is detected in the room, it is possible to adjust the set point with 2, 3 or 4°C (optional). It also automatically directs air flow away from any person to avoid draught.
- The floor sensor (optional) detects the average floor temperature and ensures even temperature distribution between ceiling and floor. Cold feet will become history.
- Individual flap control: one or more flaps can be easily closed via the wired remote controller (BRC1E52) in case you would refurbish or rearrange your interior
- Low energy consumption thanks to specially developed small tube heat exchanger, DC fan motor and drain pump
- Fresh air intake: up to 20 %
- Low installation height: 214mm for class 20-63
- Standard drain pump with 850mm lift



INDOOR UNIT				FXFQ20A	FXFQ25A	FXFQ32A	FXFQ40A	FXFQ50A	FXFQ63A	FXFQ80A	FXFQ100A	FXFQ125A
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	HeightxWidthxDepth	mm	204x840x840						246x840x840		288x840x840
Weight	Unit		kg	19			20	21		24		26
Decoration panel	Model			BYCQ140D7W1								
	Colour			Pure White (RAL 9010)								
	Dimensions	HeightxWidthxDepth	mm	60x950x950								
	Weight		kg	5.4								
Decoration panel 2	Model			BYCQ140D7W1W								
	Colour			Pure White (RAL 9010)								
	Dimensions	HeightxWidthxDepth	mm	60x950x950								
	Weight		kg	5.4								
Decoration panel 3	Model			BYCQ140D7GW1								
	Colour			Pure White (RAL 9010)								
	Dimensions	HeightxWidthxDepth	mm	145x950x950								
	Weight		kg	10.3								
Fan-Air flow rate - 50Hz	Cooling	High/Nom./Low	m^3/min	12.5/10.6/8.8			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
	Heating	High/Nom./Low	m^3/min	12.5/10.6/8.8			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
Sound power level	Cooling	High/Nom.	dBA	49/-			51/-		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			33/31/29		35/33/30	38/34/30	43/37/30	45/41/36
Refrigerant	Type			R-410A								
Piping connections	Liquid/OD/Gas/OD/Drain		mm	6.35/12.7/VP25 (O.D. 32 / I.D. 25)					9.52/15.9/VP25 (O.D. 32 / I.D. 25)			
Power supply	Phase/Frequency/Voltage		Hz/V	1~/50/60/220-240/220								
Current - 50Hz	Maximum fuse amps (MFA)		A	16								

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.



Designed to be different

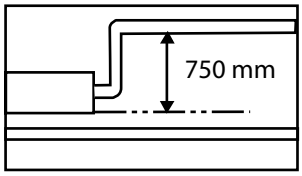
Unique in the market, the fully flat cassette is a remarkable blend of iconic design and engineering excellence with an elegant matt crystal white or a silver and matt crystal white finish. Fitting flush within the ceiling modules and fully flat with the ceiling itself, the cassette is both stylish and unobtrusive. Superb efficiency and comfort is delivered through the combined use of floor and presence sensors and, when necessary, the individual flap control via the wired remote controller makes it simple to close one or more flaps.

FXZQ-A (matt crystal white panel)

FXZQ-A (silver and matt crystal white panel)

BRC1E52A/B BRC7F530W/S

- Unique design in the market: integrates fully flat into the ceiling and fits flush into architectural ceiling modules
- Remarkable blend of iconic design and engineering excellence with an elegant finish in matt crystal white or a combination of silver and matt crystal white
- 15 class unit especially developed for small or well-insulated rooms, such as hotel bedrooms, small offices, etc.
- The presence sensor (optional) adjusts the set point with standard 1°C if no one is detected in the room, it is possible to adjust the set point with 2, 3 or 4°C (optional). It also automatically directs air flow away from any person to avoid draught.
- The floor sensor (optional) detects the average floor temperature and ensures even temperature distribution between ceiling and floor. Cold feet will become history.
- Individual flap control: one or more flaps can be easily closed via the wired remote controller (BRC1E52) in case you would refurbish or rearrange your interior
- Low energy consumption thanks to specially developed small tube heat exchanger, DC fan motor and drain pump
- Fresh air intake for healthy living
- Standard drain pump with 750mm lift



INDOOR UNIT				*FXZQ15A	*FXZQ20A	*FXZQ25A	*FXZQ32A	*FXZQ40A	*FXZQ50A
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	to be confirmed					
	Heating	Nom.	kW	to be confirmed					
Dimensions	Unit	HeightxWidthxDepth	mm	265x575x637					
Weight	Unit		kg	18		19			
Decoration panel	Model			BYFQ60CW					
	Colour			Fresh white (N9.5)					
	Dimensions	HeightxWidthxDepth	mm	3x620x620					
Decoration panel 2	Model			BYFQ60CS					
	Colour			Fresh white (N9.5) + Silver (B471)					
	Dimensions	HeightxWidthxDepth	mm	63x620x620					
Decoration panel 3	Model			BYFQ60B2					
	Colour			Pure White (RAL 9010)					
	Dimensions	HeightxWidthxDepth	mm	55x700x700					
Fan-Air flow rate - 50Hz	Cooling	High/Nom./Low	m^3/min	8.5/7.5/6.5	9/8/6.5	10/6/6.5	10/8.5/7	12/10/8	15/12.5/10
Sound power level	Cooling	Nom.	dBA	48	49	50	51	55	61
Sound pressure level	Cooling	High/Nom./Low	dBA	31/28/25	32/29/25	32/29/25	34/30/26	38/33/28	44/39/33
Refrigerant	Type			R-410A					
Piping connections	Liquid/OD/Gas/OD/Drain		mm	6.35/12.7/	6.35/12.7/	6.35/12.7/	6.35/12.7/	6.35/12.7/	6.35/12.7/
Power supply	Phase/Frequency/Voltage		Hz/V	1~ / 50/60 / 220-240/220					
Current - 50Hz	Maximum fuse amps (MFA)		A	to be confirmed					

BYFQ60CW = panel in matt crystal white, BYFQ60CS = Panel in a combination of silver and matt crystal white, BYFQ60B2 = standard panel

*Note: grey cells contain preliminary data

FXCQ20-40A

BRC1E52A/B BRC7CA52

- Low energy consumption thanks to specially developed small tube heat exchanger, DC fan motor and drain pump
- Stylish unit blends easily with any interior, as the flaps close entirely when not in operation
- Improved comfort thanks thanks to automatic air flow adjustment to required load
- Individual flap control: one or more flaps can be easily closed via the wired remote controller (BRC1E52) in case you would refurbish or rearrange your interior
- Easy to install: depth of all units is 600mm
- Maintenance operations can be performed by removing the front panel
- Standard drain pump with 500mm lift

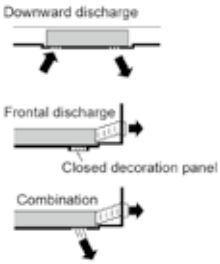
INDOOR UNIT				*FXCQ20A	*FXCQ25A	*FXCQ32A	*FXCQ40A	*FXCQ50A	*FXCQ63A	*FXCQ80A	*FXCQ125A
Cooling capacity	Nom.		kW	2.2	2.8	3.6	4.5	5.6	7.1	9.0	14.0
Heating capacity	Nom.		kW	2.5	3.2	4.0	5.0	6.3	8.0	10.0	16.0
Power input - 50Hz	Cooling	Nom.	kW	0.031	0.039	0.039	0.041	0.059	0.063	0.090	0.149
	Heating	Nom.	kW	0.028	0.035	0.035	0.037	0.056	0.060	0.086	0.146
Dimensions	Unit	HeightxWidthxDepth	mm	305x775x620				305x990x620		305x1,445x620	
Required ceiling void >			mm	355							
Weight	Unit		kg	19				22	25	33	38
Decoration panel	Model			BYBCQ40HW1				BYBCQ63HW1		BYBCQ125HW1	
	Colour			Fresh white (6.5Y 9.5/0.5)							
	Dimensions	HeightxWidthxDepth	mm	55x1,070x700				55x1,285x700		55x1,740x700	
	Weight		kg	10				11		13	
Fan-Air flow rate - 50Hz	Cooling	High/Nom./Low	m^3/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
	Heating	High/Nom./Low	m^3/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
Sound power level	Cooling	Nom.	dBA	to be confirmed							
Sound pressure level	Cooling	High/Nom./Low	dBA	32/30/28	34/31/29	34/32/30	36/33/31	37/35/31	39/37/32	42/38/33	46/42/38
	Heating	High/Nom./Low	dBA	32/30/28	34/31/29	34/32/30	36/33/31	37/35/31	39/37/32	42/38/33	46/42/38
Refrigerant	Type			R-410A							
Piping connections	Liquid/OD/Gas/OD/Drain		mm	6.35/12.70/VP25 (O.D. 32 / I.D. 25)					9.52/15.90/VP25 (O.D. 32 / I.D. 25)		
Power supply	Phase/Frequency/Voltage		Hz/V	1~/50/220-240							
Current - 50Hz	Maximum fuse amps (MFA)		A	to be confirmed							

*Note: grey cells contain preliminary data

FXKQ-MA

BRC1E52A/B BRC4C61

- 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



- Standard drain pump with 500mm lift

INDOOR UNIT				FXKQ25MA	FXKQ32MA	FXKQ40MA	FXKQ63MA
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	0.046		0.056	0.085
Dimensions	Unit	HeightxWidthxDepth	mm	215x1,110x710			215x1,310x710
Weight	Unit		kg	31			34
Decoration panel	Model			BYK45FJW1			BYK71FJW1
	Colour			White			
	Dimensions	HeightxWidthxDepth	mm	70x1,240x800			70x1,440x800
	Weight		kg	8.5			9.5
Fan-Air flow rate - 50Hz	Cooling	High/Low	m^3/min	11/9		13/10	18/15
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			R-410A			
Piping connections	Liquid/OD/Gas/OD/Drain		mm	6.35/12.7/VP25 (O.D. 32 / I.D. 25)			9.52/15.9/VP25 (O.D. 32 / I.D. 25)
Power supply	Phase/Frequency/Voltage		Hz/V	1~/50/60/220-240/220			
Current - 50Hz	Maximum fuse amps (MFA)		A	15			

FXDQ-M9

BRC1E52A/B BRC4C62

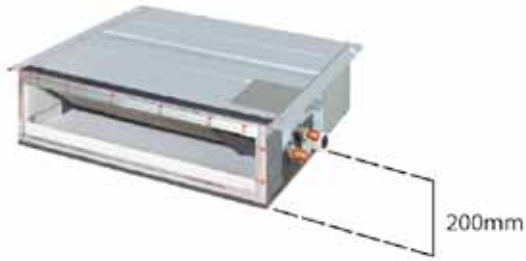
- Designed for hotel bedrooms
- Compact dimensions (230mm high & 652mm deep), can easily be mounted in a ceiling void
- Blends unobtrusively with any interior décor: only the suction and discharge grilles are visible
- The air suction direction can be altered from rear to bottom suction
- For easy mounting, the drain pan can be located to the left or right of the unit

INDOOR UNIT				FXDQ20M9	FXDQ25M9
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	
Casing Colour				Unpainted	
Dimensions	Unit	HeightxWidthxDepth	mm	230x502x652	
Required ceiling void >			mm	250	
Weight	Unit		kg	17	
Fan-Air flow rate - 50Hz	Cooling	High/Low	m^3/min	6.7/5.2	7.4/5.8
	Heating	High/Low	m^3/min	6.7/5.2	7.4/5.8
Sound power level	Cooling	Nom.	dBA	50	
Sound pressure level	Cooling	High/Low	dBA	37/32	
	Heating	High/Low	dBA	37/32	
Refrigerant	Type			R-410A	
Piping connections	Liquid/OD/Gas/OD/Drain		mm	6.35/12.7/I.D. 21.6, O.D. 27.2	
Power supply	Phase/Frequency/Voltage		Hz/V	1~/50/230	
Current - 50Hz	Maximum fuse amps (MFA)		A	16	

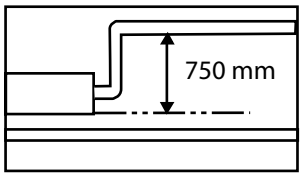
FXDQ15-32A

BRC1E52A/B BRC4C65

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



- Blends unobtrusively with any interior décor: 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.
- Low energy consumption thanks to DC fan motor
- Medium external static pressure facilitates unit use with flexible ducts of varying lengths
- Standard drain pump with 750mm lift



Indoor unit				*FXDQ15A	*FXDQ20A	*FXDQ25A	*FXDQ32A	*FXDQ40A	*FXDQ50A	*FXDQ63A
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	to be confirmed						
	Heating	Nom.	kW	to be confirmed						
Dimensions	Unit	HeightxWidthxDepth	mm	200x700x620				200x900x620		
Weight	Unit		kg	31				35	36	40
Fan-Air flow rate - 50Hz	Cooling	High/Low	m^3/min	to be confirmed						
Sound power level	Cooling	Nom.	dBA	50	51			52	53	54
Sound pressure level	Cooling	High/Low	dBA	to be confirmed						
	Heating	High/Nom./Low	dBA	32/31/29	33/31/29			34/32/30	35/33/31	36/34/32
Refrigerant	Type			R-410A						
Piping connections	Liquid/OD/Gas/OD/Drain		mm	6.35/12.7/						9.52/15.90/
Power supply	Phase/Frequency/Voltage		Hz/V	1~/50/220-240						
Current - 50Hz	Maximum fuse amps (MFA)		A	to be confirmed						

*Note: grey cells contain preliminary data

FXSQ20-32P

FXMQ20-32P

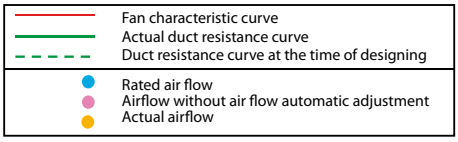
BRC1E52A/B BRC4C65

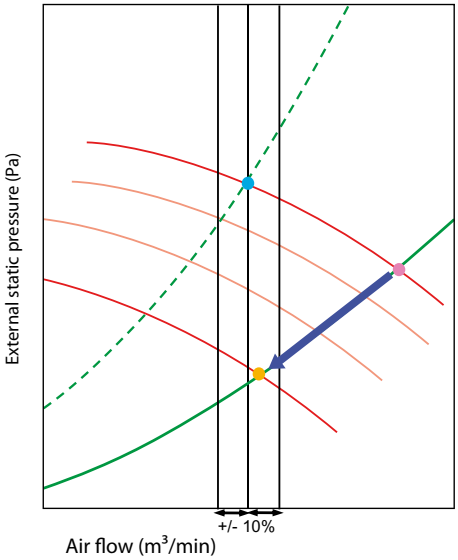
- Easy installation thanks to automatic air flow adjustment towards nominal air flow rate
- Blends unobtrusively with any interior décor: only the suction and discharge grilles are visible
- Low energy consumption thanks to DC fan motor
- Possibility to change ESP via wired remote control allows optimisation of the supply air volume
- Up to 140Pa external static pressure (ESP) facilitates using flexible ducts of variying lengths: ideal for shops and medium size offices (FXSQ)
- Up to 200Pa external static pressure allows extensive ductwork runs and flexible application: ideal for use in large areas (FXMQ)
- The air suction direction can be altered from rear to bottom suction
- Standard built-in drain pump increases reliability of the drain system

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

Reduced installation time

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





FXSQ-P-Medium static pressure

INDOOR UNIT				FXSQ20P	FXSQ25P	FXSQ32P	FXSQ40P	FXSQ50P	FXSQ63P	FXSQ80P	FXSQ100P	FXSQ125P	FXSQ140P
Cooling capacity	Nom.		kW	2.2	2.8	3.6	4.5	5.6	7.1	9.0	11.2	14.0	16.0
Heating capacity	Nom.		kW	2.5	3.2	4.0	5.0	6.3	8.0	10.0	12.5	16.0	18.0
Power input - 50Hz	Cooling	Nom.	kW	0.041		0.044	0.097		0.074	0.118	0.117	0.185	0.261
	Heating	Nom.	kW	0.029		0.032	0.085		0.062	0.106	0.105	0.173	0.249
Casing Colour				Unpainted									
Dimensions	Unit	HeightxWidthxDepth	mm	300x550x700			300x700x700		300x1,000x700		300x1,400x700		
Required ceiling void >			mm	350									
Weight	Unit		kg	23			26		35		46		47
Decoration panel	Model			BYBS32DJW1			BYBS45DJW1		BYBS71DJW1		BYBS125DJW1		
	Colour			White (10Y9/0.5)									
	Dimensions	HeightxWidthxDepth	mm	55x650x500			55x800x500		55x1,100x500		55x1,500x500		
	Weight		kg	3.0			3.5		4.5		6.5		
Fan-Air flow rate - 50Hz	Cooling	High/Low	m^3/min	9/6.5		9.5/7	16/11		19.5/16	25/20	32/23	39/28	46/32
	Heating	High/Low	m^3/min	9/6.5		9.5/7	16/11		19.5/16	25/20	32/23	39/28	46/32
Fan-External static pressure - 50Hz	High/Nom.		Pa	70/30			100/30			100/40	120/40	120/50	140/50
Sound power level	Cooling	Nom.	dBA	55		56	63		59	63	61	66	67
Sound pressure level	Cooling	High/Low	dBA	32/26		33/27	37/29		37/30	38/32		40/33	42/34
	Heating	High/Low	dBA	32/26		33/27	37/29		37/30	38/32		40/33	42/34
Refrigerant	Type			R-410A									
Piping connections	Liquid/OD/Gas/OD/Drain		mm	6.35/12.7/VP25 (O.D. 32 / I.D. 25)					9.52/15.9/VP25 (O.D. 32 / I.D. 25)				
Power supply	Phase/Frequency/Voltage		Hz/V	1~/50/60/220-240/220									
Current - 50Hz	Maximum fuse amps (MFA)		A	16									

FXMQ-P7-High static pressure

INDOOR UNIT				FXMQ20P7	FXMQ25P7	FXMQ32P7	FXMQ40P7	FXMQ50P7	FXMQ63P7	FXMQ80P7	FXMQ100P7	FXMQ125P7
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	0.049		0.053	0.151	0.110	0.120	0.171	0.176	0.241
	Heating	Nom.	kW	0.037		0.041	0.139	0.098	0.108	0.159	0.164	0.229
Casing Colour				Unpainted								
Dimensions	Unit	HeightxWidthxDepth	mm	300x550x700			300x700x700	300x1,000x700			300x1,400x700	
Required ceiling void >			mm	350								
Weight	Unit		kg	23			26	35			46	
Decoration panel	Model			BYBS32DJW1			BYBS45DJW1	BYBS71DJW1			BYBS125DJW1	
	Colour			White (10Y9/0.5)								
	Dimensions	HeightxWidthxDepth	mm	55x650x500			55x800x500	55x1,100x500			55x1,500x500	
	Weight		kg	3.0			3.5	4.5			6.5	
Fan-Air flow rate - 50Hz	Cooling	High/Low	m^3/min	9/6.5		9.5/7	16/11	18/15	19.5/16	25/20	32/23	39/28
	Heating	High/Low	m^3/min	9.0/6.5		9.5/7	16/11	18/15	19.5/16	25/20	32/23	39/28
Fan-External static pressure - 50Hz	High/Nom.		Pa	100/50			160/100	200/100				
Sound power level	Cooling	High/Nom.	dBA	56/-		57/-	65/-	61/-	64/-	67/-	65/-	70/-
Sound pressure level	Cooling	High/Nom./Low	dBA	33/31/29		34/32/30	39/37/35	41/39/37	42/40/38	43/41/39		44/42/40
	Heating	High/Nom./Low	dBA	33/31/29		34/32/30	39/37/35	41/39/37	42/40/38	43/41/39		44/42/40
Refrigerant	Type			R-410A								
Piping connections	Liquid/OD/Gas/OD/Drain		mm	6.35/12.7/VP25 (I.D. 25/O.D. 32)					9.52/15.9/VP25 (I.D. 25/O.D. 32)			
Power supply	Phase/Frequency/Voltage		Hz/V	1~/50/60/220-240/220								
Current - 50Hz	Maximum fuse amps (MFA)		A	16								

FXMQ-MA

BRC1E52A/B BRC4C65

- Up to 270Pa external static pressure allows extensive ductwork runs and flexible application: ideal for use in large areas
- Blends unobtrusively with any interior décor: only the suction and discharge grilles are visible
- Up to 31.5kW in heating mode

INDOOR UNIT				FXMQ200MA	FXMQ250MA
Cooling capacity	Nom.		kW	22.4	28.0
Heating capacity	Nom.		kW	25.0	31.5
Power input - 50Hz	Cooling	Nom.	kW	1.294	1.465
	Heating	Nom.	kW	1.294	1.465
Dimensions	Unit	HeightxWidthxDepth	mm	470x1,380x1,100	
Weight	Unit		kg	137	
Fan-Air flow rate - 50Hz	Cooling	High/Low	m^3/min	58/50	72/62
Fan-External static pressure - 50Hz	High/Nom.		Pa	221/132	270/191
Sound power level	Cooling	Nom.	dBA	-	
Sound pressure level	Cooling	High/Low	dBA	48/45	
Refrigerant	Type			R-410A	
Piping connections	Liquid/OD/Gas/OD/Drain		mm	9.52/19.1/PS1B	9.52/22.2/PS1B
Power supply	Phase/Frequency/Voltage		Hz/V	1~/50/60/220-240/220	
Current - 50Hz	Maximum fuse amps (MFA)		A	15	

FXAQ15-32P

BRC1E52A/B BRC7E63

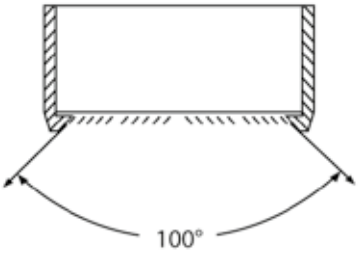
- Ideal solution for shops, restaurants or offices without false ceilings
- Low energy consumption thanks to DC fan motor
- Can be installed in both new and existing buildings
- Flat, stylish front panel blends easily within any interior décor and is more easy to clean
- 15 class unit especially developed for small or well-insulated rooms, such as hotel bedrooms, small offices, etc.
- 5 different discharge angles can be programmed via the remote control
- Maintenance operations can be performed from the front of the unit

INDOOR UNIT				FXAQ15P	FXAQ20P	FXAQ25P	FXAQ32P	FXAQ40P	FXAQ50P	FXAQ63P
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
Casing Colour				White (3.0Y8.5/0.5)						
Dimensions	Unit	HeightxWidthxDepth	mm	290x795x238				290x1,050x238		
Weight	Unit		kg	11				14		
Fan-Air flow rate - 50Hz	Cooling	High/Low	m^3/min	7.0/4.5	7.5/4.5	8/5	8.5/5.5	12/9	15/12	19/14
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			R-410A						
Piping connections	Liquid/OD/Gas/OD/Drain		mm	6.35/12.7/VP13 (I.D. 13/O.D. 18)						9.52/15.9/VP13 (I.D. 13/O.D. 18)
Power supply	Phase/Frequency/Voltage		Hz/V	1~/50/220-240						
Current - 50Hz	Maximum fuse amps (MFA)		A	16						

FXHQ100A

BRC1E52A/B BRC7GA53

- Ideal solution for commercial spaces with no or low false ceilings
- The unit can easily be mounted in corners and narrow spaces, as it only needs 30mm lateral service space
- Low energy consumption thanks to DC fan motor and drain pump
- Stylish unit blends easily with any interior, as the flaps close entirely when not in operation
- Can be installed in both new and existing buildings
- Wider air discharge thanks to Coanda effect: up to 100°



- Air flow distribution for ceiling heights up to 3.8m without capacity loss

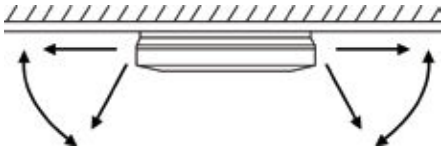
INDOOR UNIT				*FXHQ32A	*FXHQ63A	*FXHQ100A
Cooling capacity	Nom.		kW	3.6	7.1	11.2
Heating capacity	Nom.		kW	4.0	8.0	12.5
Power input - 50Hz	Cooling	Nom.	kW	0.107	0.111	0.237
	Heating	Nom.	kW	0.107	0.111	0.237
Casing Colour				Fresh white (6.5Y 9.5/0.5)		
Dimensions	Unit	HeightxWidthxDepth	mm	235x960x690	235x1,270x690	235x1,590x690
Weight	Unit		kg	24	33	39
Fan-Air flow rate - 50Hz	Cooling	High/Nom./Low	m^3/min	14/12/10	20/17/14	29.5/24/19
	Heating	High/Nom./Low	m^3/min	14/12/10	20/17/14	29.5/24/19
Sound power level	Cooling	Nom.	dBA	to be confirmed		
Sound pressure level	Cooling	High/Nom./Low	dBA	36/34/31	37/35/34	44/37/34
	Heating	High/Nom./Low	dBA	36/34/31	37/35/34	44/37/34
Refrigerant	Type			R-410A		
Piping connections	Liquid/OD/Gas/OD/Drain		mm	6.35/12.70/VP20 (I.D. 20/O.D. 26)	9.52/15.90/VP20 (I.D. 20/O.D. 26)	
Power supply	Phase/Frequency/Voltage		Hz/V	1~/50/220-240		
Current - 50Hz	Maximum fuse amps (MFA)		A	to be confirmed		

*Note: grey cells contain preliminary data

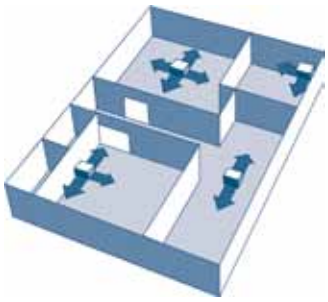
FXUQ-A

BRC1E52A/B BRC7CB528

- Ideal solution for commercial spaces with no or low false ceilings.
- **Separate BEVQ box is no longer needed: the expansion valve is integrated in the indoor unit**
- Low energy consumption thanks to specially developed small tube heat exchanger, DC fan motor and drain pump
- Stylish unit blends easily with any interior, as the flaps close entirely when not in operation
- Improved comfort thanks thanks to automatic air flow adjustment to required load
- Individual flap control: one or more flaps can be easily closed via the wired remote controller (BRC1E52) in case you would refurbish or rearrange your interior
- Can be installed in both new and existing buildings
- Same outlook for all models (unified dimensions)
- Air can be discharged in 5 different angles between 0 and 60°



- Possibility to shut 1 or 2 flaps for easy installation in corners



- Air flow distribution for ceiling heights up to 3.5m without capacity loss
- Standard drain pump with 500mm lift

INDOOR UNIT				*FXUQ71A	*FXUQ100A
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	0.072	0.179
Casing Colour				Fresh white (6.5Y 9.5/0.5)	
Dimensions	Unit	HeightxWidthxDepth	mm	198x950x950	
Weight	Unit		kg	26	27
Fan-Air flow rate - 50Hz	Cooling	High/Nom./Low	m^3/min	22.5/19.5/16	31/26/21
	Heating	High/Nom./Low	m^3/min	22.5/19.5/16	31/26/21
Sound power level	Cooling	Nom.	dBA	to be confirmed	
Sound pressure level	Cooling	High/Nom./Low	dBA	40/38/36	47/44/40
	Heating	High/Nom./Low	dBA	40/38/36	47/44/40
Refrigerant	Type			R-410A	
Piping connections	Liquid/OD/Gas/OD/Drain		mm	9.52/15.90/VP20 (I.D. 20/O.D. 26)	
Power supply	Phase/Frequency/Voltage		Hz/V	1~/50/60/220-240/220	
Current - 50Hz	Maximum fuse amps (MFA)		A	to be confirmed	

*Note: grey cells contain preliminary data

FXLQ20-25P

BRC1E52A/B

BRC7C62

- Stylish modern casing finished in pure white (RAL9010) and iron grey (RAL7011)
- 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
- Requires very little installation space
- Wall mounted installation facilitates cleaning beneath the unit where dust tends to accumulate

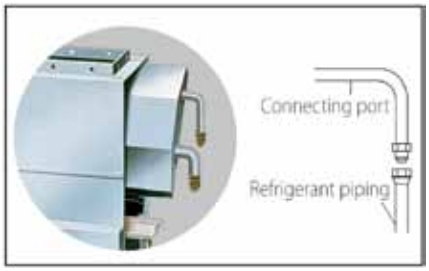
- Wired remote control can easily be integrated in the unit

INDOOR UNIT				FXLQ20P	FXLQ25P	FXLQ32P	FXLQ40P	FXLQ50P	FXLQ63P
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		0.090		0.110	
	Heating	Nom.	kW	0.049		0.090		0.110	
Casing Colour				Fresh white (RAL9010) / Dark grey (RAL7011)					
Dimensions	Unit	HeightxWidthxDepth	mm	600x1,000x232		600x1,140x232		600x1,420x232	
Weight	Unit		kg	27		32		38	
Fan-Air flow rate - 50Hz	Cooling	High/Low	m^3/min	7/6		8/6	11/8.5	14/11	16/12
Sound power level	Cooling	Nom.	dBA	-					
Sound pressure level	Cooling	High/Low	dBA	35/32			38/33	39/34	40/35
Refrigerant	Type			R-410A					
Piping connections	Liquid/OD/Gas/OD/Drain		mm	6.35/12.7/					9.52/15.9/
Power supply	Phase/Frequency/Voltage		Hz/V	1~/50/60/220-240/220					
Current - 50Hz	Maximum fuse amps (MFA)		A	15					

FXNQ20-32P

BRC1E52A/B BRC4C65

- 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
- The connecting port faces downward, eliminating the need to attach auxiliary piping



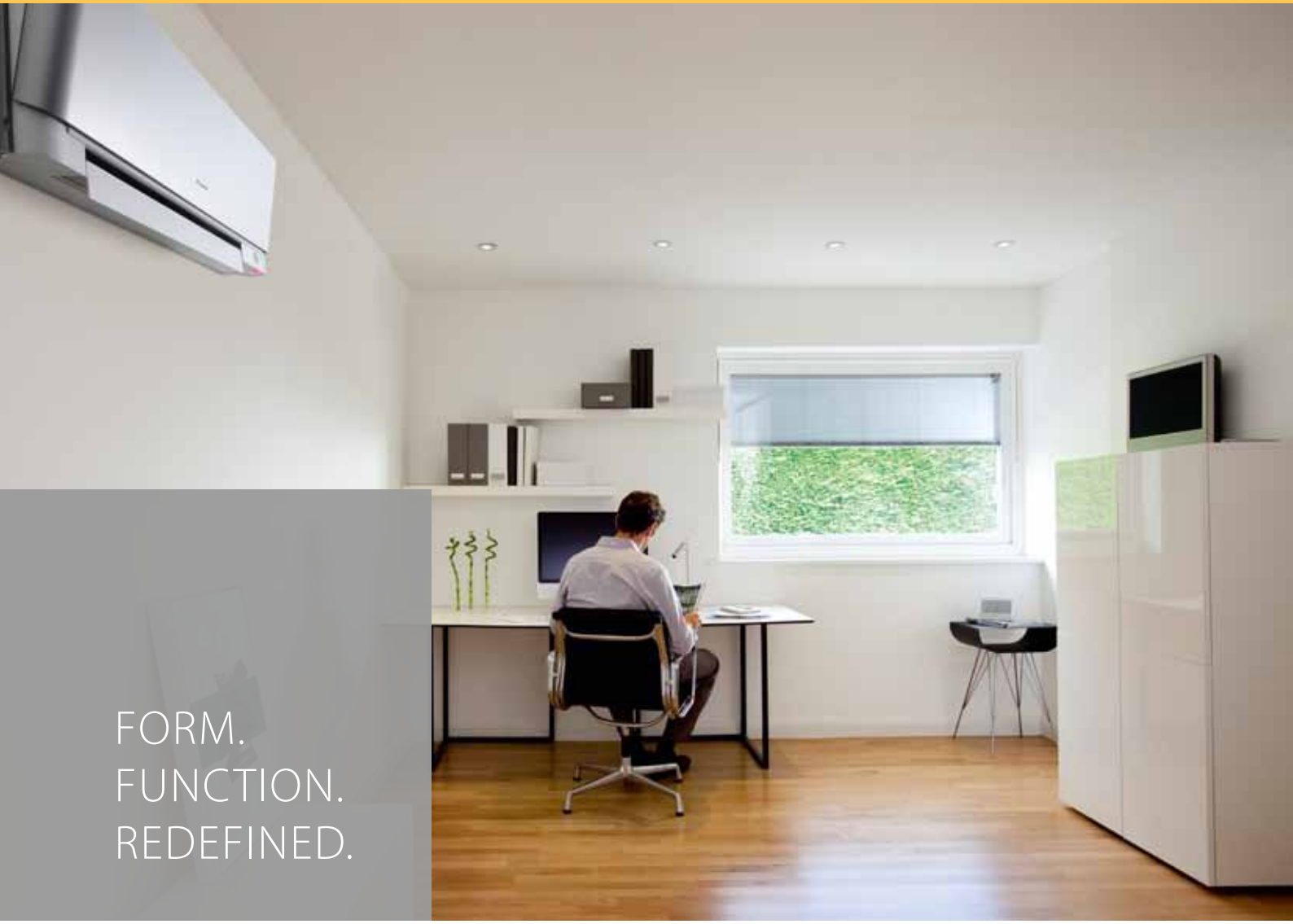
INDOOR UNIT				FXNQ20P	FXNQ25P	FXNQ32P	FXNQ40P	FXNQ50P	FXNQ63P
Cooling capacity	Nom.		kW	2.2	2.8	3.6	4.5	5.6	7.1
Heating capacity	Nom.		kW	2.5	3.2	4.0	5.0	6.3	8.0
Power input - 50Hz	Cooling	Nom.	kW	0.049		0.090		0.110	
	Heating	Nom.	kW	0.049		0.090		0.110	
Dimensions	Unit	HeightxWidthxDepth	mm	610x930x220		610x1,070x220		610x1,350x220	
Weight	Unit		kg	19		23		27	
Fan-Air flow rate - 50Hz	Cooling	High/Low	m^3/min	7/6		8/6	11/8.5	14/11	16/12
Sound power level	Cooling	Nom.	dBA	-					
Sound pressure level	Cooling	High/Low	dBA	35/32			38/33	39/34	40/35
Refrigerant	Type			R-410A					
Piping connections	Liquid/OD/Gas/OD/Drain		mm	6.35/12.7/					9.52/15.9/
Power supply	Phase/Frequency/Voltage		Hz/V	1~/50/60/220-240/220					
Current - 50Hz	Maximum fuse amps (MFA)		A	15					

Stylish indoor unit range for connection to VRV IV and VRV III-S

	Type	Model	Product name		Capacity 15	20	25	35	42	50	60	71	VRV IV / VRV II-S Connectable outdoor unit: RYYQ-T RXYQ-T	RXYSQ-P8V1 RXYSQ-P8Y1
new	WALL MOUNTED	Daikin Emura Wall mounted unit	FTXG-JA/JW				■	■		■			✓	✓
new	WALL MOUNTED	Wall mounted unit	CTXS-K FTXS-K		■	■	■	■	■	■			✓	✓
	WALL MOUNTED	Wall mounted unit	FLXS-B								■	■	✓	✓
	FLOOR STANDING	Nexura floor standing unit	FVXG-K				■	■		■			✓	✓
	FLOOR STANDING	Floor standing unit	FVXS-F				■	■		■			✓	✓
	FLOOR STANDING	Flexi type unit	FLXS-B				■	■		■	■		✓	✓
	CEILING MOUNTED CASSETTE	Round flow cassette (incl. autoclean function[1])	FCQG-F					■		■	■			✓
new	CEILING MOUNTED CASSETTE	Fully flat cassette	FFQ-C				■	■		■	■			✓
	CONCEALED CEILING	Small concealed ceiling unit	FDBQ-B				■							✓
	CONCEALED CEILING	Slim concealed ceiling unit	FDXS-F				■	■		■	■			✓
	CONCEALED CEILING	Concealed ceiling unit with inverter driven fan	FBQ-C					■		■	■			✓
new	CEILING SUSPENDED	Ceiling suspended unit	FHQ-C					■		■	■			✓

[1] Decoration panel BYCQ140CG + BRC1E51A needed

Daikin Emura



FORM.
FUNCTION.
REDEFINED.

The Daikin Emura wall mounted air conditioning unit is a remarkable blend of iconic design and engineering excellence. Its ultra-thin profile and elegant finish in matt crystal white or brushed aluminium mean it will complement any interior. And those good looks certainly don't compromise its performance. Engineered in Europe for European climates, you can rely on the Daikin Emura to deliver pleasant temperatures, whatever the season.

It is designed to be mounted high on the wall, for optimum air distribution and whisper-quiet operation. And it is as easy to operate as it is to install and maintain. Just as importantly, its energy efficient rating will make it as attractive to the cost-conscious as the style-conscious. The Daikin Emura represents a perfect marriage of style and substance, of form and function, of intelligent heating and efficient cooling.

product design award 2010

GOOD DESIGN

reddot design award honourable mention 2010

Designpreis Deutschland 2011 NOMINEE

FTXG-JW
FTXG-JA

ARC466A1

DAIKIN
emura

- Daikin Emura's most obvious asset is its looks. The sober but stylish appearance adds an additional dimension to Daikin's well-known brand values of superior comfort and quality
- Remarkable blend of iconic design and engineering excellence with an elegant finish in matt crystal white or brushed aluminium
- Good design award: unique evaluation criterion for industrial design in Japan
- Online controller (optional): control your indoor unit from any location via smartphone, laptop, pc, tablet or touch screen

Heating & Cooling

INDOOR UNIT				FTXG25JW	FTXG35JW	FTXG50JW	FTXG25JA	FTXG35JA	FTXG50JA
Casing	Colour			Matt crystal white			Brushed aluminium		
Dimensions	Unit	HeightxWidthxDepth	mm	295x915x155					
Weight	Unit		kg	11					
Fan - Air flow rate	Cooling		m^3/min	8.8/6.8/4.7/3.8	10.1/7.3/4.6/3.9	10.3/8.5/6.7/5.7	8.8/6.8/4.7/3.8	10.1/7.3/4.6/3.9	10.3/8.5/6.7/5.7
	Heating	High/Nom.	m^3/min	9.6/7.9	10.8/8.6	11.4/9.8	9.6/7.9	10.8/8.6	11.4/9.8
Sound power level	Cooling	High	dBA	54	58	60	54	58	60
	Heating	High	dBA	55	58	60	55	58	60
Sound pressure level	Cooling		dBA	38/32/25/22	42/34/26/23	44/40/35/32	38/32/25/22	42/34/26/23	44/40/35/32
	Heating		dBA	39/34/28/25	42/36/29/26	44/40/35/32	39/34/28/25	42/36/29/26	44/40/35/32
Piping connections	Liquid	OD	mm	6.35					
	Gas	OD	mm	9.52		12.7	9.52		12.7
	Drain	OD	mm	16 or 18		18.0	16 or 18		18.0
Power supply	Phase / Frequency / Voltage		Hz / V	1~ / 50 / 220-240					

Optimal design and comfort

Integrated design

- 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.
- New remote controller design, in the same high quality matt white finish to create a perfect match with the indoor unit.

Top performance

The FTXS-K series delivers top performance and are equipped with a weekly timer and intelligent eye to generate further energy savings. The weekly timer allows you to programme your unit so that it best suits your needs, whereas the intelligent eye detects the presence of people in the room and activates the economy mode when no one is there.

The right indoor for the right room

We have a full range of wall units to provide optimal design and comfort in any room.

Our small wall mounted units (CTXS15,35K and FTXS20,25K) are optimised for small offices or hotel bedrooms.

- Recognising the trend for less spacious rooms or offices and better insulation, we extended our range with the 15 class to deliver exactly the right comfort in smaller rooms.
- In general, silence is even more important in bedrooms than in other areas: our small wall mounted series go almost unnoticed with operating sound levels as low as 19dBA

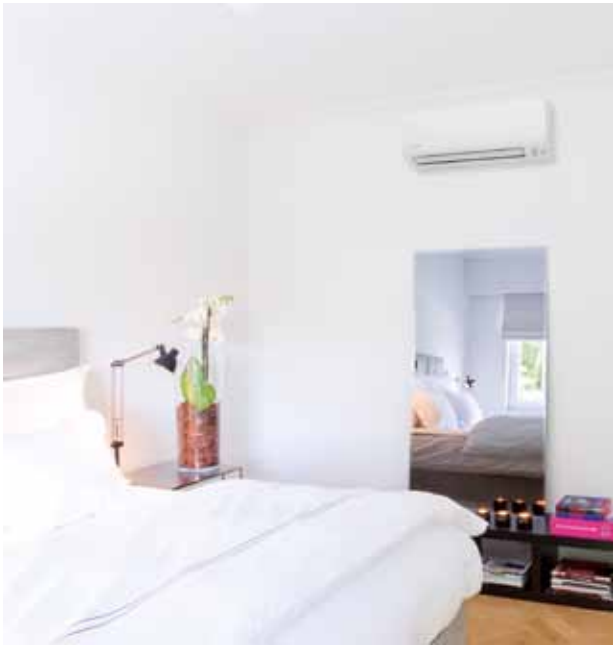
Our larger wall mounted units (FTXS35, 42, 50K) deliver perfect comfort to your larger area's.

- The new discharge air pattern - using the `Coanda effect' - provides a greater airflow length ensuring perfect comfort in every corner of the room.
- The two-area intelligent eye detects where people are located in the room and can project the airflow away from the occupants to avoid direct draught.
- To optimize comfort even further the new wall mounted series are whisper quiet.

FTXS20-25K//CTXS15-35K

ARC466A1

- 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 small or well insulated rooms (20,25 class) and larger or irregular shaped 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 unit from any location via smartphone, laptop, pc, tablet or touch screen (FTXS35,42,50,60,71)
- Improved air discharge pattern, using the Coanda effect



Heating & Cooling

INDOOR UNIT				CTXS15K	CTXS35K	FTXS20K	FTXS25K	*FTXS35K	*FTXS42K	*FTXS50K	FTXS60G	FTXS71G
Casing	Colour			White		White	White	White	White	White	White	White
Dimensions	Unit	HeightxWidthxDepth	mm	289x780x215		289x780x215	289x780x215	298x900x215	298x900x215	298x900x215	290x1,050x250	290x1,050x250
Weight	Unit		kg	8		8	8	16	16	16	12	12
Fan - Air flow rate	Cooling	High/Nom./Low/Silent operation	m^3/min	7,9/6,3/4,7/3,9	9,0/7,5/6,0/4,3	8.8/6.7/4.7/3.9	9.1/7.0/5.0/3.9	12.0/-/-/-	12.0/-/-/-	12.3/-/-/-	16.0/13.5/11.3/10.1	17.2/14.5/11.5/10.5
	Heating	High/Nom.	m^3/min	9,2/7,2/5,2/3,9	10,1/8,1/6,3/4,3	9.5/7.8	10.0/8.0	12.9/-	12.9/-	13.3/-	17.2/14.9	19.5/16.7
Sound power level	Cooling	High/Nom.	dBA	53	58	-/56	-/57	59/-	59/-	60/-	61/-	62/-
	Heating	High/Nom.	dBA	54	57	-/56	-/57	59/-	59/-	60/-	60/-	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
Piping connections	Liquid	OD	mm	6,35		6.35	6.35	6.35	6.35	6.35	6.35	6.35
	Gas	OD	mm	9,52		9.5	9.5	9.5	9.5	12.7	12.7	15.9
	Drain	OD	mm	18,0		18.0	18.0	-	-	-	18.0	18.0
Power supply	Phase / Frequency / Voltage		Hz / V	1~ / 50 / 220-240		1~ / 50 / 220-240	1~ / 50 / 220-240	1~ / 50 / 220-240	1~ / 50 / 220-240	1~ / 50 / 220-240	1~ / 50 / 220-240	1~ / 50 / 220-240

(1) EER/COP according to Eurovent 2012

*Note: grey cells contain preliminary data

The best of two worlds united

Pure comfort and design

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 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 space into a haven.

FVXG-K/RXLG-K

Floor standing unit with radiant heat panel
Designed for colder climates

FVXG-K

ARC466A2

nexura

- 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 unit from any location via smartphone, laptop, pc, tablet or touch screen
- Can be installed against a wall or recessed

Heating & Cooling

INDOOR UNIT				FVXG25K	FVXG35K	FVXG50K
Casing	Colour			Fresh white (6.5Y 9.5/0.5)		
Dimensions	Unit	HeightxWidthxDepth	mm	600x950x215		
Weight	Unit		kg	22		
Fan - Air flow rate	Cooling	High/Nom./Low/Silent operation	m^3/min	8.9/7.0/5.3/4.5	9.1/7.2/5.3/4.5	10.6/8.9/7.3/6.0
	Heating	High/Nom.	m^3/min	9.9/7.8	10.2/8.0	12.2/10.0
Sound power level	Cooling	Nom.	dBA	52	52	58
	Heating	Nom.	dBA	55	56	58
Sound pressure level	Cooling	High/Nom./Low/Silent operation	dBA	38/32/26/23	39/33/27/24	44/40/36/32
	Heating	H/N/L/Silent operation/Radiant heat	dBA	39/32/26/22/19	40/33/27/23/19	46/40/34/30/26
Piping connections	Liquid	OD	mm	6.35		
	Gas	OD	mm	9.5		12.7
Power supply	Phase / Frequency / Voltage		Hz / V	1~ / 50 / 220-240		

(1) EER/COP according to Eurovent 2012

*Note: grey cells contain preliminary data

FVXS-F

ARC452A1

- Its low height enables the unit to fit perfectly beneath a window
- Can be installed against a wall or recessed
- Whisper quiet operation: down to 23dBA sound pressure level
- 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 unit from any location via smartphone, laptop, pc, tablet or touch screen

Heating & Cooling

INDOOR UNIT				FVXS25F	FVXS35F	FVXS50F
Casing	Colour			White		
Dimensions	Unit	HeightxWidthxDepth	mm	600x700x210		
Weight	Unit		kg	14		
Fan - Air flow rate	Cooling	High/Nom./Low/Silent operation	m^3/min	8.2/6.5/4.8/4.1	8.5/6.7/4.9/4.5	10.7/9.2/7.8/6.6
	Heating	High/Nom./Low/Silent operation	m^3/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	High/Nom.	dBA	-/54	55/-	56/-
	Heating	High/Nom.	dBA	-/54	55/-	57/-
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
Piping connections	Liquid	OD	mm	6.35		
	Gas	OD	mm	9.5		12.7
	Drain	OD	mm	20		
Power supply	Phase / Frequency / Voltage		Hz / V	1~ / 50 / 220-240		

(1) EER/COP according to Eurovent 2012

*Note: grey cells contain preliminary data

FLXS-B

ARC433A6

- 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
- Whisper quiet operation: down to 28dBA sound pressure level
- Online controller (optional): control your indoor unit from any location via smartphone, laptop, pc, tablet or touch screen

Heating & Cooling

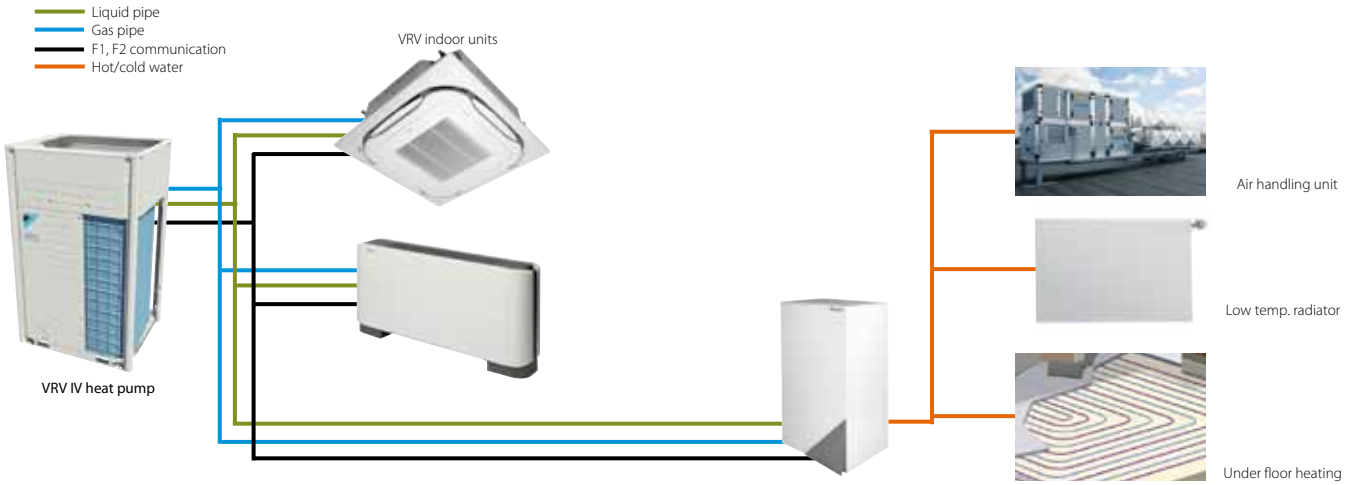
INDOOR UNIT				FLXS25B	FLXS35B	FLXS50B	FLXS60B
Casing	Colour			Almond white			
Dimensions	Unit	HeightxWidthxDepth	mm	490x1,050x200			
Weight	Unit		kg	16		17	
Fan - Air flow rate	Cooling	High/Nom./Low/Silent operation	m^3/min	7.6/6.8/6.0/5.2	8.6/7.6/6.6/5.6	11.4/10.0/8.5/7.5	12.0/10.7/9.3/8.3
	Heating	High/Nom./Low/Silent operation	m^3/min	9.2/8.3/7.4/6.6	9.8/8.9/8.0/7.2	12.1/9.8/7.5/6.8	12.8/10.6/8.4/7.5
Sound power level	Cooling	High	dBA	53	54	63	64
	Heating	High	dBA	53	55	62	63
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	39/36/33/30	46/41/35/33	47/42/37/34
Piping connections	Liquid	OD	mm	6.35			
	Gas	OD	mm	9.5		12.7	
	Drain	OD	mm	18			
Power supply	Phase / Frequency / Voltage		Hz / V	1~ / 50/60 / 220-240/220-230			

(1) EER/COP according to Eurovent 2012

*Note: grey cells contain preliminary data

HXY-A

- Highly efficient space heating/cooling
- Air to water connection to VRV for applications such as
- underfloor, AHU, low temperture radiators, …
- Leaving water temperature range from 5°C to 45°C without electric heater
- 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
- Saves space with contemporary wall hung design
- Requires no gas connection or oil tank
- Connectable to VRV IV heat pump



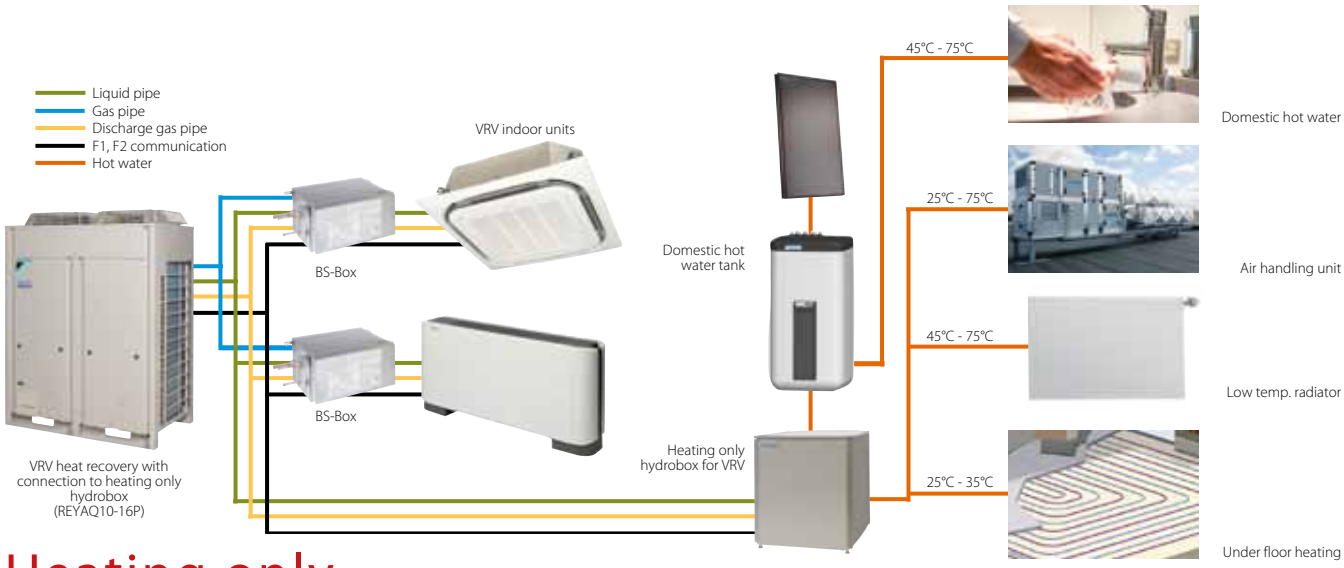
INDOOR UNIT					HXY080A	HXY125A
Cooling capacity	Nom.			kW	8	12.5
Heating capacity	Nom.			kW	9	14
Casing	Colour				White	
	Material				Precoated sheet metal	
Dimensions	Unit	HeightxWidthxDepth		mm	890x480x344	
Weight	Unit			kg	44	
Sound pressure level	Nom.			dBA	-	
Operation range	Heating	Ambient	Min.~Max.	°C	-20~24	
		Water side	Min.~Max.	°C	25~45	
	Cooling	Ambient	Min.~Max.	°C	~-	
		Water side	Min.~Max.	°C	-~-	
Refrigerant	Type				-	
Refrigerant circuit	Gas side diameter			mm	15.9	
	Liquid side diameter			mm	9.5	
Water circuit	Piping connections diameter			inch	G 1"1/4 (female)	
Power supply	Phase/Frequency/Voltage			Hz/V	1~/50/220-240	
Recommended fuses				A		


HXHD-A


EKHTS-AC


EKHWP-B

- Air to water connection to VRV for applications such as bathrooms, sinks, underfloor heating, radiators and air handling units
- 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
- Leaving water temperature range from 25 to 80°C without electric heater
- Super wide operating range for hot water production from -20 to +43°C ambient outdoor temperature
- No need to design the water side: all water-side components are integrated, moreover no mixing valve is required thanks to direct leaving water temperature control
- 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 needed
- Connectable to VRVIII heat recovery (REYAQ)



Heating only

INDOOR UNIT					HXHD125A
Heating capacity	Nom.			kW	14.0
Casing	Colour				Metallic grey
	Material				Precoated sheet metal
Dimensions	Unit	HeightxWidthxDepth		mm	705x600x695
Weight	Unit			kg	92
Sound pressure level	Nom.			dBA	42 (1) / 43 (2)
	Night quiet mode	Level 1		dBA	38 (1)
Operation range	Heating	Ambient	Min.~Max.	°C	-20~20 / 24 (3)
		Water side	Min.~Max.	°C	25~80
	Domestic hot water	Ambient	Min.~Max.	°CDB	-20~43
		Water side	Min.~Max.	°C	45~75
Refrigerant	Type				R-134a
Refrigerant circuit	Gas side diameter			mm	12.7
	Liquid side diameter			mm	9.52
Water circuit	Piping connections diameter			inch	G 1" (female)
	Heating water system	Water volume	Min.~Max.	l	20~200
Power supply	Phase/Frequency/Voltage			Hz/V	1~/50/220-240
Current	Recommended fuses			A	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

DOMESTIC HOT WATER TANK: OVERVIEW

Functions	1/ EKHTS-A	2/ EKHWP-B
Preferred application	Domestic hot water only	Domestic hot water – possibility for solar connection
Operation	The water stored in the tank is used for domestic hot water	Domestic hot water is not stored in the tank but flows through the tank's coil

1/ EKHTS – DOMESTIC HOT WATER ONLY

- Available in 200 and 260 litres
- Efficient temperature heat-up: from 10°C to 50°C in only 60 minutes
- Stainless steel domestic hot water tank

INDOOR UNIT				EKHTS200AC	EKHTS260AC
Casing	Colour			Metallic grey	
	Material			Galvanised steel (precoated sheet metal)	
Dimensions	Unit	Height(Integrated on indoor unit)xWidthxDepth	mm	2,010x600x695	2,285x600x695
Weight	Unit	Empty	kg	70	78
Tank	Water volume		l	200	260
	Material			Stainless steel (EN 1.4521)	
	Maximum water temperature		°C	75	
Heat exchanger	Quantity			1	
	Tube material			Duplex steel (EN 1.4162)	
	Face area		m^2	1.56	
	Internal coil volume		l	7.5	

2/ EKHWP-B – DOMESTIC HOT WATER WITH POSSIBILITY FOR SOLAR CONNECTION

Solar connection

› Environmentally friendly and energy efficient
› Solar panels can produce up to 70% of the energy needed for hot water production – a major cost saving
› Specialised coatings make our solar panels highly energy efficient – all shortwave solar energy is transferred into heat
› The solar panels are charged with water only when needed for heating – avoiding the need for 'anti-freeze' protection

SOLAR COLLECTOR				EKSH26P	EKSV26P
Dimensions	Unit	HeightxWidthxDepth	mm	1,300x2,000x85	2,000x1,300x85
Weight	Unit		kg	43	
Volume			l	2.1	1.7
Surface	Outer		m^2	2.601	
	Aperture		m^2	2.364	
	Absorber		m^2	2.354	
Coating				Micro-therm (absorption max.96%, Emission ca. 5% +/-2%)	
Absorber				Harp-shaped copper pipe register with laser-welded highly selective coated aluminium plate	
Glazing				Single pane safety glass, transmission +/- 92%	
Allowed roof angle	Min.~Max.		°	15~80	
Operating pressure	Max.		bar	6	
Stand still temperature	Max.		°C	200	
Thermal performance	Zero loss collector efficiency η0		%	78.7	
	Heat loss coefficient a1		$W/m^2.K$	4.270	
	Temperature dependence of the heat loss coefficient a2		$W/m^2.K^2$	0.0070	
	Thermal capacity		kJ/K	6.5	
	Incident angle modifier	AM at 50°		0.94	
Installed position				Vertical	Horizontal

Domestic hot water tank

› Available in 300 and 500 litres
› (Pre-)heat the water for your heating system with solar energy

DOMESTIC HOT WATER TANK				EKHWP300B	EKHWP500A
Casing	Colour			Dust grey (RAL7037)	
	Material			Impact resistant polypropylene	
Dimensions	Unit	HeightxWidthxDepth	mm	-x595x615	-x790x790
Weight	Unit	Empty	kg	59	92
Tank	Water volume		l	300	500
	Maximum water temperature		°C	85	
Heat exchanger	Domestic hot water	Tube material		Stainless steel (DIN 1.4404)	
		Face area	m^2	5.7	5.9
		Internal coil volume	l	27.8	28.4
		Operating pressure	bar	6	
		Average specifc thermal output	W/K	2,795	2,860
	Charging	Tube material		Stainless steel (DIN 1.4404)	
		Face area	m^2	2.5	3.7
		Internal coil volume	l	12.3	17.4
		Average specifc thermal output	W/K	1,235	1,809
	Auxiliary solar heating	Tube material		Stainless steel (DIN 1.4404)	
		Face area	m^2	-	1.0
		Internal coil volume	l	-	5
		Average specifc thermal output	W/K	-	313

*Note: grey cells contain preliminary data

Pump station

› The pump station ensures that the correct water pressure and flow rates are maintained for optimum efficiency

PUMP STATION				EKSRPS3
Mounting				On side of tank
Dimensions	Unit	HeightxWidthxDepth	mm	815x230x142
Thermal performance	Zero loss collector efficiency η0		%	-
Control	Type			Digital temperature difference controller with plain text display
	Power consumption		W	2
Sensor	Solar panel temperature sensor			Pt1000
	Storage tank sensor			PTC
	Return flow sensor			PTC
	Feed temperature and flow sensor			Voltage signal (3.5V DC)
Power supply	Voltage		V	230

Benefits of Biddle connected to Daikin Heat Pumps

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

'Open Door' Trading

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

High efficiency and low CO_2 emission

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

Short pay back period

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

Comfort through patented technology

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

Easy installation

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

* Compared to an electric curtain

Air Curtains

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.

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

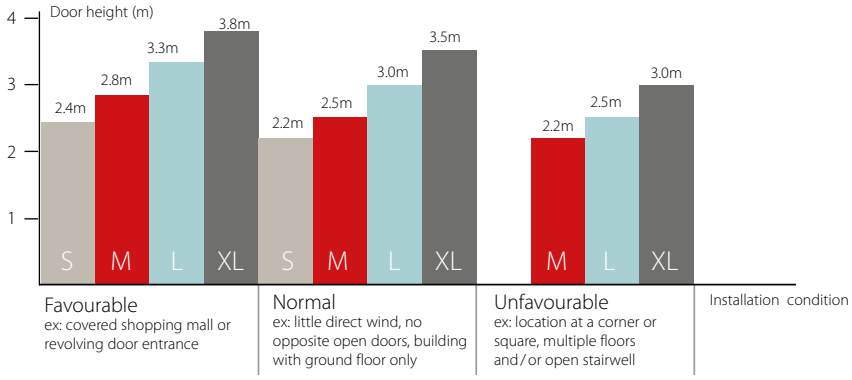
Free-Hanging (F)

Cassette (C)

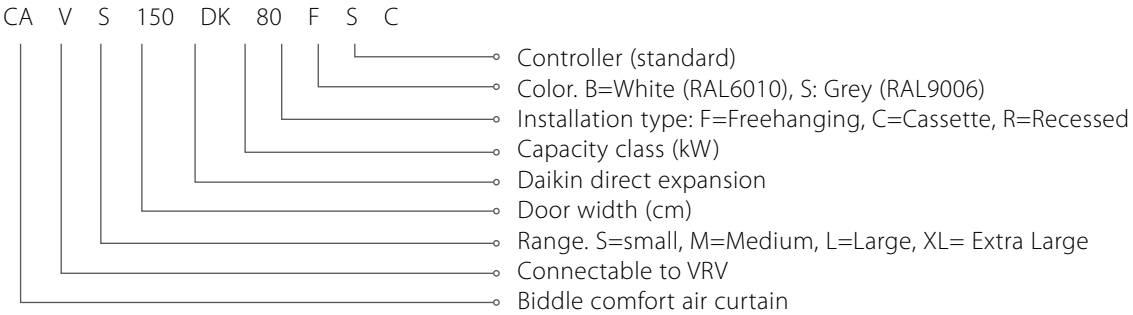
Recessed (C)

- 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

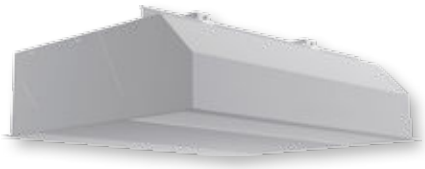
BIDDLE COMFORT AIR CURTAIN RANGE



BIDDLE COMFORT AIR CURTIAN NOMENCLATURE



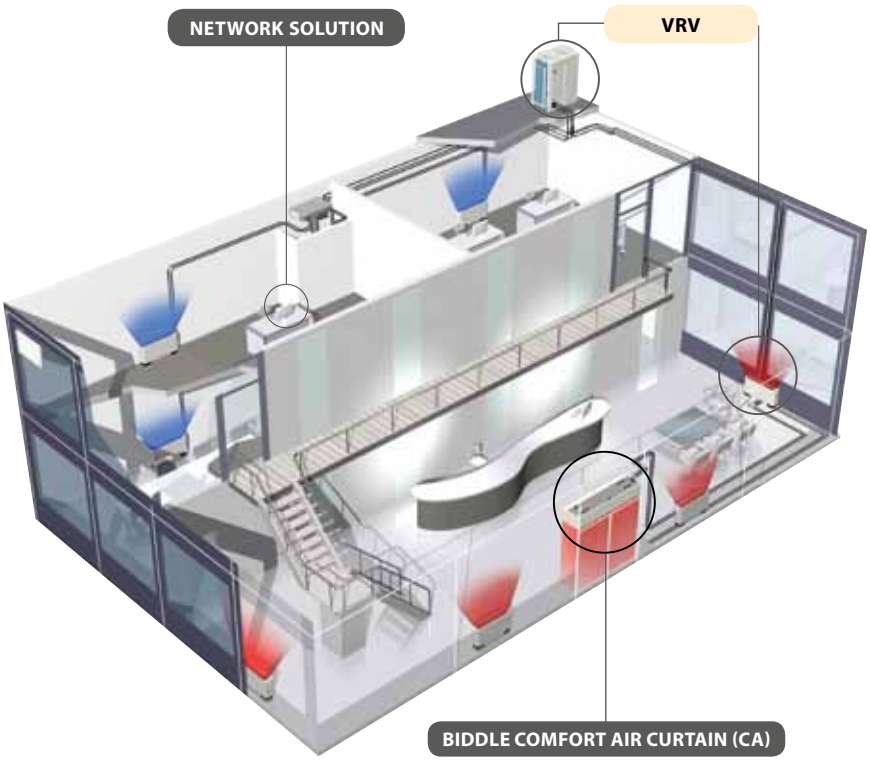
CYVM150DK80FSC



CYVM150DK80CSN

CYVM150DK80RSN

- 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
- A payback period of less then 1.5 years compared
- to installing an electric air curtain
- Provides virtually free air curtain heating via recovered heat from indoor units in cooling mode (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
- 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



				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		K	19	15		16	17	14	13	15
Casing	Colour			BN: RAL9010 / SN: RAL9006							
Dimensions	Unit	Height F/C/R	mm	270/270/270							
		Width F/C/R	mm	1,000/1,000/1,048	1,500/1,500/1,548	2,000/2,000/2,048	2,500/2,500/2,548	1,000/1,000/1,048	1,500/1,500/1,548	2,000/2,000/2,048	2,500/2,500/2,548
		Depth F/C/R	mm	590/821/561							
Required ceiling void >			mm	420							
Door height	Max.		m	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	m^3/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			R-410A							
Piping connections	Liquid/OD/Gas/OD		mm	9.52/16.0			9.52/19.0	9.52/16.0			9.52/19.0
Required accessories (should be ordered separately)				Daikin wired remote control (BRC1E52A/B or BRC1D52)							
Power supply	Voltage		V	230							

				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		K	15		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	mm	774/1,105/745			
Required ceiling void >			mm	520			
Door height	Max.		m	3.0 [1] / 2.75 [2] / 2.5 [3]	3.0 [1] / 2.75 [2] / 2.5 [3]	3.0 [1] / 2.75 [2] / 2.5 [3]	3.0 [1] / 2.75 [2] / 2.5 [3]
Door width	Max.		m	1.0	1.5	2.0	2.5
Weight	Unit		kg	76	100	126	157
Fan-Air flow rate	Heating	Speed 3	m^3/h	3,100	4,650	6,200	7,750
Sound pressure level	Heating	Speed 3	dBA	53	54	56	57
Refrigerant	Type			R-410A			
Piping connections	Liquid/OD/Gas/OD		mm	9.52/16.0	9.52/19.0	9.52/22.0	
Required accessories (should be ordered separately)				Daikin wired remote control (BRC1E52A/B or BRC1D52)			
Power supply	Voltage		V	230			

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

Integrated

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

Heat Reclaim Ventilation

Proper ventilation is a key component of climate control in buildings, offices and shops. In its basic function, it ensures a flow of incoming fresh air and outgoing stale air. Our HRV (heat reclaim ventilation) solution can do much more. It can recover heat and **optimise the balance between indoor and outdoor temperature and humidity**, thus reducing the load on the system and increasing efficiency.

Outdoor air processing in a single unit

Our FXMQ-MF air processing solution uses heat pump technology to **combine fresh air treatment and air conditioning in a single system**, thereby eliminating the usual design problems associated with balancing air supply and discharge. Total system cost is reduced and design flexibility enhanced because the airconditioning fan coil units and an outdoor air treatment unit can be connected to the same refrigerant line.

VRV air handling applications

For medium and large commercial spaces, we offer a range of R-410A inverter condensing units that connect to air handling units. This approach combines the flexibility of our VRV units with Air Handling Applications, resulting in a simple, reliable design for **optimum control of indoor air quality and maximum efficiency.**

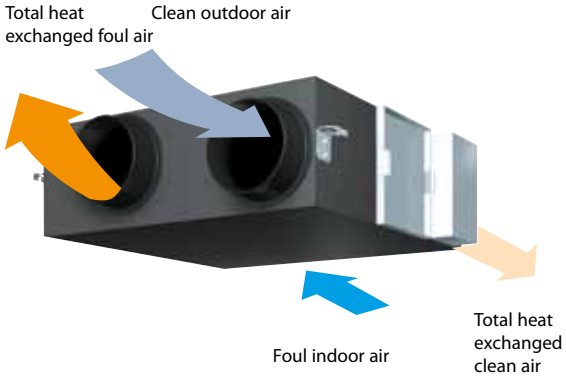
For more information consult the Daikin ventilation catalogue or contact your local dealer.

ventilation

Heat reclaim ventilation

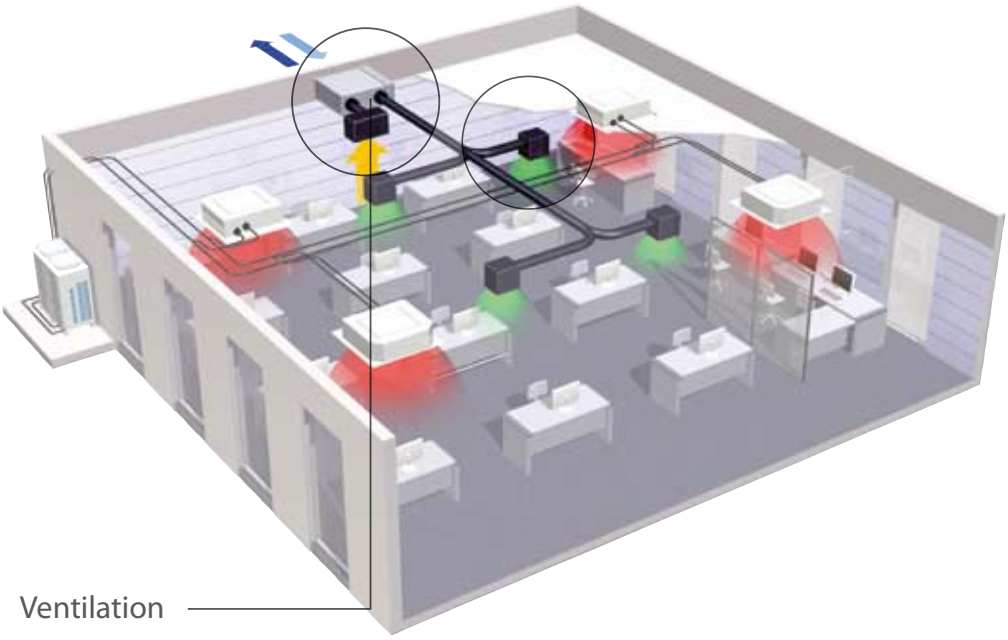
VRV air handling applications

Outdoor air processing unit

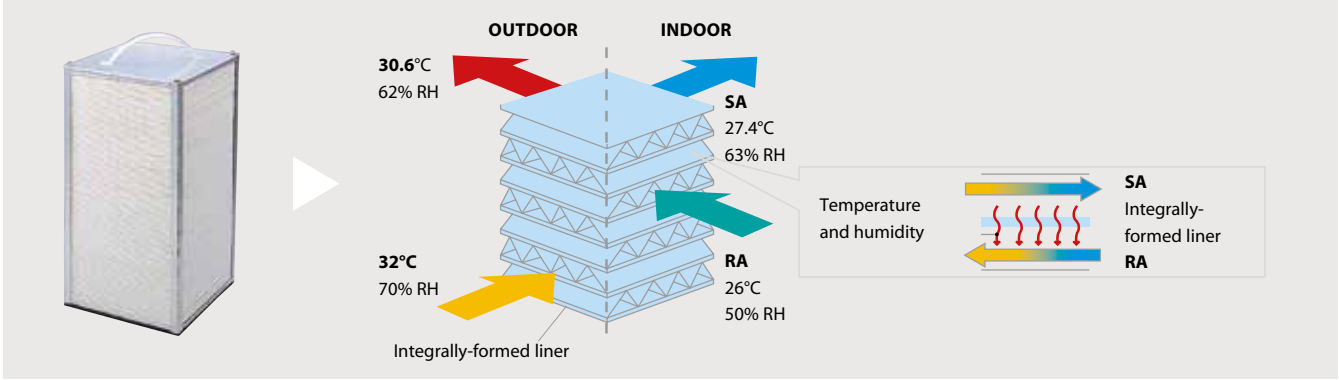


The Daikin heat reclaim ventilation system modulates the temperature and humidity of incoming fresh air to match indoor conditions. A balance is thus achieved between indoor and outdoor ambients, enabling the cooling or heating load placed on the air conditioning system to be reduced significantly. HRV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

- Energy saving ventilation by recovery of indoor unit heat/cold
- Ideal solution for shops, restaurants or offices requiring maximum floor space for furniture, decorations and fittings
- Free cooling when outdoor temperature is below indoor temperature (eg. during night time)
- Low energy consumption thanks to DC inverter fans
- Prevent energy losses from over-ventilation while maintaining indoor air quality with CO sensor (optional)
- 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^3/h
- High efficiency filters available in F6 ,F7, F8 grades
- Specially developed heat exchange element with High Efficiency Paper (HEP)
- No drain piping needed
- Can operate in over- and under pressure



High Efficiency Paper



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

VENTILATION					VAM150FA	VAM250FA	*VAM350FB	*VAM500FB	*VAM650FB	*VAM800FB	*VAM1000FB	*VAM1500FB	*VAM2000FB
Power input - 50Hz	Heat exchange mode	Nom.	Ultra high	kW	0.116	0.141	-						
	Bypass mode	Nom.	Ultra high	kW	0.116	0.141	-						
Temperature exchange efficiency - 50Hz	Ultra high			%	74	72	75	74	74	74	75	75	75
Enthalpy exchange efficiency - 50Hz	Cooling	Ultra high		%	58		61	58	58	60	61	61	61
	Heating	Ultra high		%	64		65	62	63	65	66	66	66
Operation mode					Heat exchange mode / Bypass mode / Fresh-up mode		Heat exchange mode / Bypass mode / Fresh-up mode						
Heat exchange system					Air to air cross flow total heat (sensible + latent heat) exchange		Air to air cross flow total heat (sensible + latent heat) exchange						
Heat exchange element					Specially processed non-flammable paper		Specially processed non-flammable paper						
Dimensions	Unit	HeightxWidthxDepth		mm	285x776x525		301x828x816		364x1,004x868		364x1,004x1,156	726x1,514x868	
Weight	Unit			kg	24		33	33	48	48	61	132	158
Fan-Air flow rate - 50Hz	Heat exchange mode	Ultra high		m^3/h	150	250	350	500	650	800	1,000	1,500	2,000
	Bypass mode	Ultra high		m^3/h	150	250	350	500	650	800	1,000	1,500	2,000
Fan-External static pressure - 50Hz	Ultra high			Pa	69	64	98	98	93	137	157	137	137
Sound pressure level - 50Hz	Heat exchange mode	Ultra high		dBA	27 / 28.5	28 / 29	32 / 34	33 / 34.5	34.5 / 35.5	36 / 37	36 / 37	39.5 / 41.5	40 / 42.5
	Bypass mode	Ultra high		dBA	27 / 28.5	28 / 29	32 / 34	33.5 / 34.5	34.5 / 35.5	36 / 37	36 / 37	40.5 / 41.5	40 / 42.5
Operation range	Min.			°CDB	-15		-15						
	Max.			°CDB	50		50						
	Relative humidity			%	80% or less		80% or less						
Connection duct diameter				mm	100		150	200		250		350	
Power supply	Phase/Frequency/Voltage			Hz/V	1~/50/60/220-240/220		1~/50/60/220-240/220						
Current	Maximum fuse amps (MFA)			A	15		15						

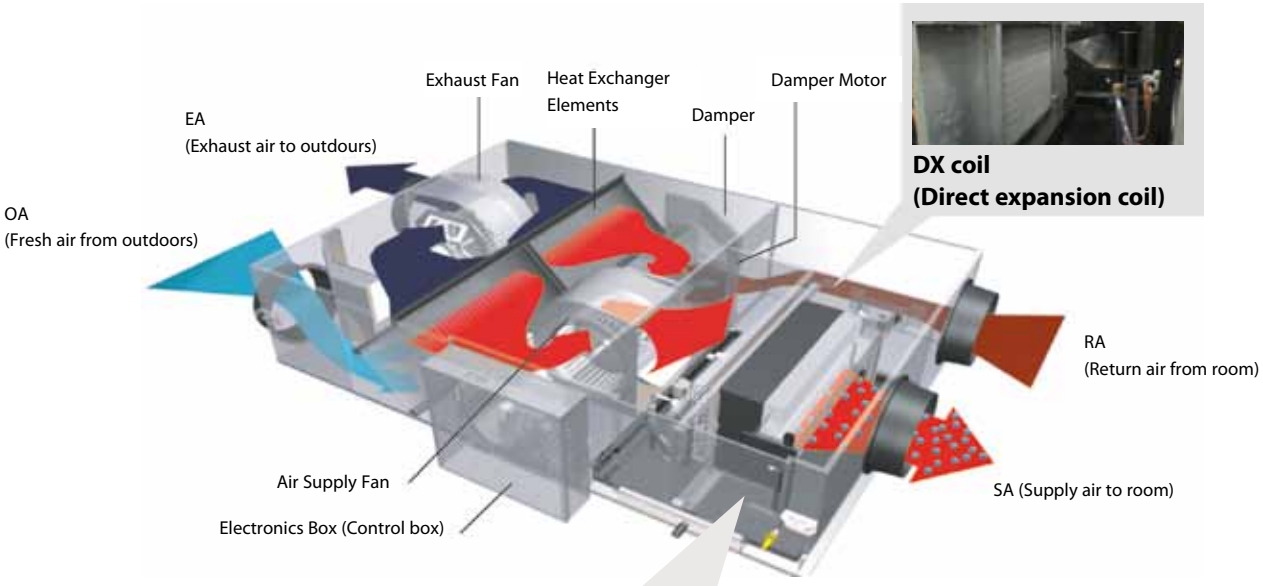
*Note: grey cells contain preliminary data

VKM-GM / VKM-G

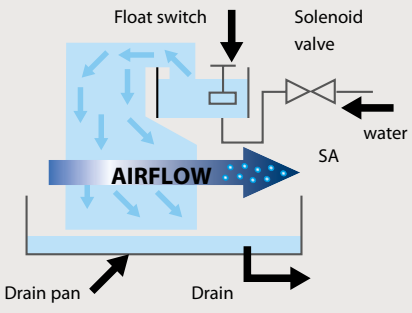
Heat Reclaim Ventilation, humidification and air processing

- Creates a high quality indoor environment by pre conditioning incoming fresh air
- Humidification of the incoming air maintains a comfortable indoor humidity level, even during heating
- Energy saving ventilation by recovery of indoor unit heat/cold
- Ideal solution for shops, restaurants or offices requiring maximum floor space for furniture, decorations and fittings
- Free cooling when outdoor temperature is below indoor temperature (eg. during night time)
- 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^3/h
- Specially developed heat exchange element with High Efficiency Paper (HEP)
- No drain piping needed
- Can operate in over- and under pressure

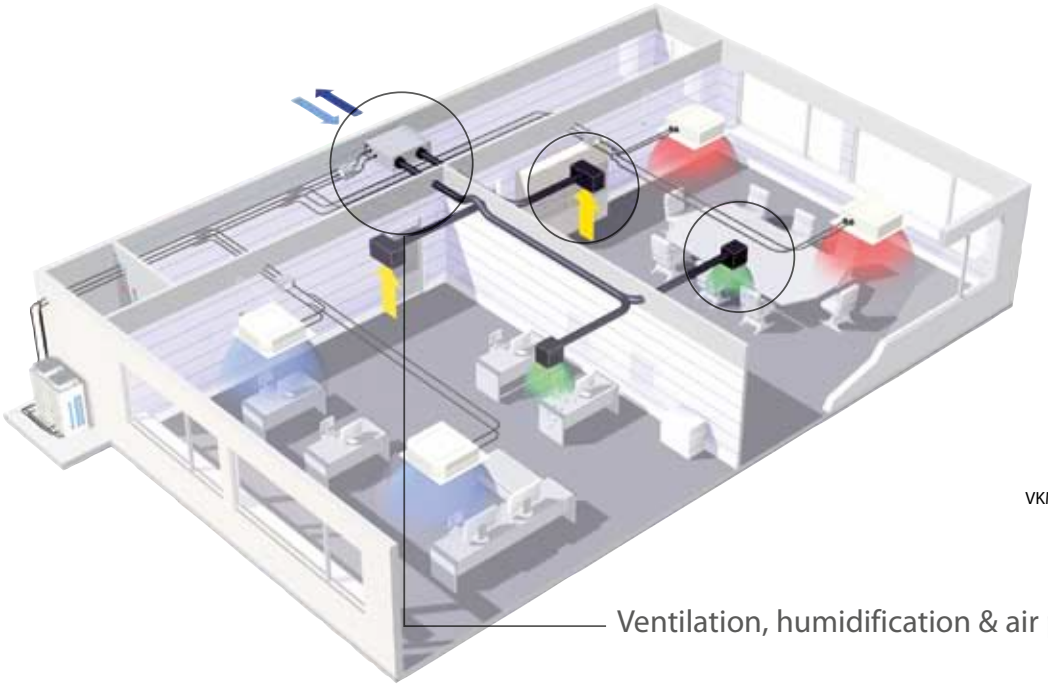
Operation example: humidification & air processing (heating mode)[1]



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.



[1] VKM-GM example



VKM-GM example

Ventilation, humidification & air processing

Ventilation & DX coil					VKM50G	VKM80G	VKM100G
Power input - 50Hz	Heat exchange mode	Nom.	Ultra high	kW	0.560	0.620	0.670
	Bypass mode	Nom.	Ultra high	kW	0.560	0.620	0.670
Fresh air conditioning load	Cooling			kW	4.71	7.46	9.12
	Heating			kW	5.58	8.79	10.69
Temperature exchange efficiency - 50Hz	Ultra high			%	76	78	74
Enthalpy exchange efficiency - 50Hz	Cooling	Ultra high		%	64	66	62
	Heating	Ultra high		%	67	71	65
Operation mode					Heat exchange mode / Bypass mode / Fresh-up mode		
Heat exchange system					Air to air cross flow total heat (sensible + latent heat) exchange		
Heat exchange element					Specially processed non-flammable paper		
Dimensions	Unit	HeightxWidthxDepth		mm	387x1,764x832	387x1,764x1,214	
Weight	Unit			kg	96	109	114
Fan-Air flow rate - 50Hz	Heat exchange mode	Ultra high		m^3/h	500	750	950
	Bypass mode	Ultra high		m^3/h	500	750	950
Fan-External static pressure - 50Hz	Ultra high			Pa			
Sound pressure level - 50Hz	Heat exchange mode	Ultra high		dBA	38 / 38.5 / 39	40 / 41 / 41.5	40 / 40.5 / 41
	Bypass mode	Ultra high		dBA	38 / 38.5 / 39	40 / 41 / 41.5	40 / 40.5 / 41
Operation range	Around unit			°CDB	0°C~40°CDB, 80% RH or less		
	Supply air			°CDB	-15°C~40°CDB, 80% RH or less		
	Return air			°CDB	0°C~40°CDB, 80% RH or less		
Connection duct diameter				mm	200	250	
Piping connections	Liquid	OD		mm	6.35		
	Gas	OD		mm	12.7		
	Drain				PT3/4 external thread		
Power supply	Phase/Frequency/Voltage			Hz/V	1~/50/220-240		
Current	Maximum fuse amps (MFA)			A	15		

Ventilation, DX coil & humidification					VKM50GM	VKM80GM	VKM100GM
Power input - 50Hz	Heat exchange mode	Nom.	Ultra high	kW	0.560	0.620	0.670
	Bypass mode	Nom.	Ultra high	kW	0.560	0.620	0.670
Fresh air conditioning load	Cooling			kW	4.71	7.46	9.12
	Heating			kW	5.58	8.79	10.69
Temperature exchange efficiency - 50Hz	Ultra high			%	76	78	74
Enthalpy exchange efficiency - 50Hz	Cooling	Ultra high		%	64	66	62
	Heating	Ultra high		%	67	71	65
Operation mode					Heat exchange mode / Bypass mode / Fresh-up mode		
Heat exchange system					Air to air cross flow total heat (sensible + latent heat) exchange		
Heat exchange element					Specially processed non-flammable paper		
Humidifier	System				Natural evaporating type		
Dimensions	Unit	HeightxWidthxDepth		mm	387x1,764x832	387x1,764x1,214	
Weight	Unit			kg	102	120	125
Fan-Air flow rate - 50Hz	Heat exchange mode	Ultra high		m^3/h	500	750	950
	Bypass mode	Ultra high		m^3/h	500	750	950
Fan-External static pressure - 50Hz	Ultra high			Pa	160	140	110
Sound pressure level - 50Hz	Heat exchange mode	Ultra high		dBA	37 / 37.5 / 38	38.5 / 39 / 40	39 / 39.5 / 40
	Bypass mode	Ultra high		dBA	37 / 37.5 / 38	38.5 / 39 / 40	39 / 39.5 / 40
Operation range	Around unit			°CDB	0°C~40°CDB, 80% RH or less		
	Supply air			°CDB	-15°C~40°CDB, 80% RH or less		
	Return air			°CDB	0°C~40°CDB, 80% RH or less		
Connection duct diameter				mm	200	250	
Piping connections	Liquid	OD		mm	6.35		
	Gas	OD		mm	12.7		
	Water supply			mm	6.4		
	Drain				PT3/4 external thread		
Power supply	Phase/Frequency/Voltage			Hz/V	1~/50/220-240		
Current	Maximum fuse amps (MFA)			A	15		

FXMQ-MF

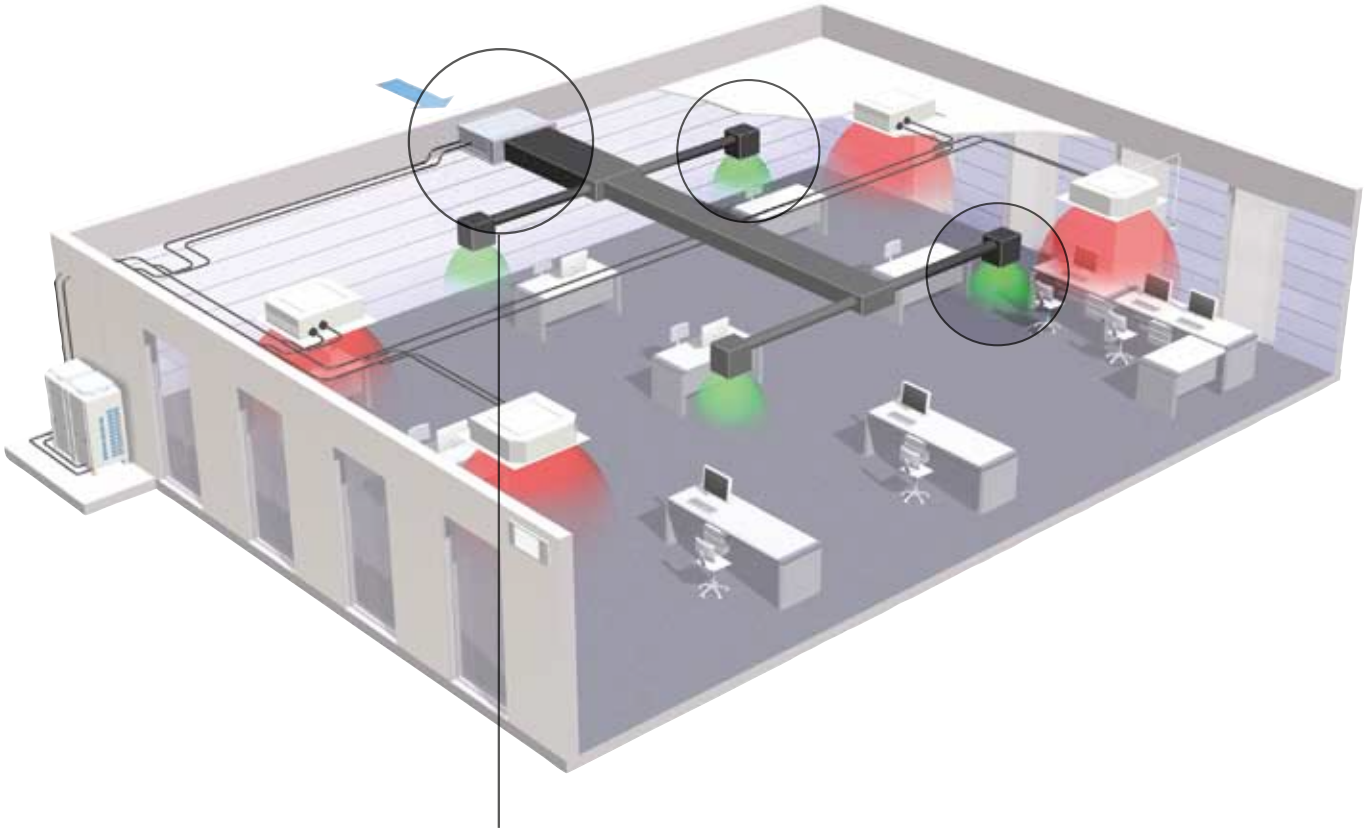
Outdoor Air Processing Unit, ventilation and air processing

Combined fresh air treatment and air conditioning via a single system

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

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

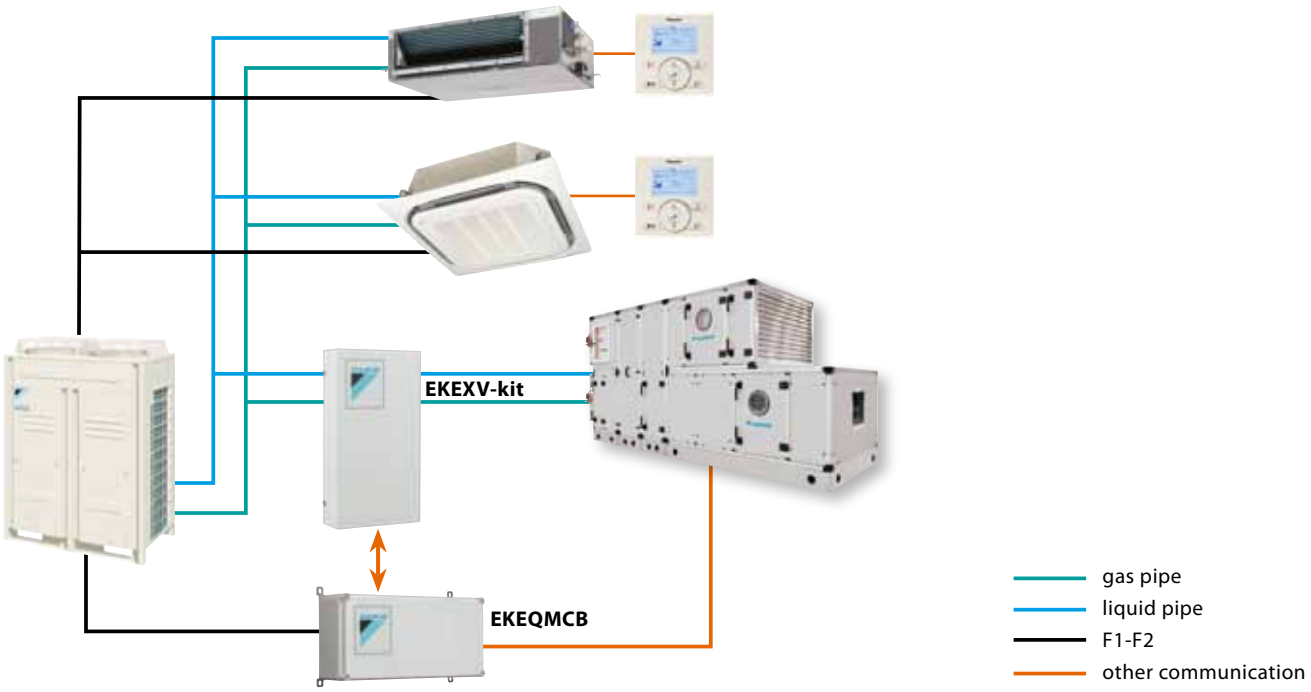
[1] Not connectable to VRVIII-S (RXYSQ-P8V1, RXYSQ-PBY1)



Ventilation & air processing

Ventilation & air processing				FXMQ125MF	FXMQ200MF	FXMQ250MF
Cooling capacity	Nom.		kW	14.0	22.4	28.0
Heating capacity	Nom.		kW	8.9	13.9	17.4
Power Input (50Hz)	Cooling	Nominal	kW	0.359	0.548	0.638
	Heating	Nominal	kW	0.359	0.548	0.638
Dimensions	Unit	HeightxWidthxDepth	mm	470x744x1,100	470x1,380x1,100	
Weight	Unit		kg	86	123	
Air Flow Rate	Cooling		m^3/min	18	28	35
	Heating		m^3/min	-		
External Static Pressure	Standard		Pa	185	225	205
Refrigerant	Type			R-410A		
Sound Power	Cooling	Nominal	dBA	-		
Sound Pressure	Cooling	Nominal (220V)	dBA	42	47	
Operation range	On coil temperature	Cooling max.	°CDB	43		
		Heating min.	°CDB	-5		
Piping connections	Liquid	OD	mm	9.52		
	Gas	OD	mm	15.9	19.1	22.2
	Drain			PS1B		
Power supply	Phase / Frequency / Voltage		Hz / V	1~ / 50 / 220-240		

VRV air handling applications



A R-410A inverter condensing units range for multi application with air handling units.

- Inverter controlled units
- Large capacity range (from 5 to 54HP)
- 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 EKEQMCB).
- Connectable to all VRV heat recovery and heat pump systems*

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

EKEXV

Expansion valve kit for air handling applications

EKEXV

- The system provides optimized air conditions such as fresh air and humidity control etc. and can be used in small warehouses, showrooms and offices.
- Wide range of units offers maximum application potential and flexible control options
- Control box and expansion valve kit are required for each combination plus an air handling unit
- Both option kits are designed for indoor and outdoor installation and can be wall mounted

Ventilation					EKEXV50	EKEXV63	EKEXV80	EKEXV100	EKEXV125	EKEXV140	EKEXV200	EKEXV250
Dimensions	Unit	HeightxWidthxDepth		mm	401x215x78							
Weight	Unit			kg	2.9							
Sound pressure level	Nom.			dBA	45							
Operation range	On coil temperature	Heating	Min.	°CDB	10 (1)							
		Cooling	Max.	°CDB	35 (2)							
Refrigerant	Type				R-410A							
Piping connections	Liquid	OD		mm	6.35	9.52						
	Gas	OD		mm	6.35	9.52						

(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

- Wide range of units offers maximum application potential and flexible control options
- The system provides optimized air conditions such as fresh air and humidity control etc. and can be used in small warehouses, showrooms and offices.
- Control box and expansion valve kit are required for each combination plus an air handling unit
- Both option kits are designed for indoor and outdoor installation and can be wall mounted.
- Wide offer in control possibilities: control x: room, suction or discharge temperature can be controlled via DDC control (field supplied); control y: control by fixed evaporating temperature; control z: room or suction temperature control via Daikin remote control; remote ON/OFF can be achieved by an optional adapter KRP4A51

Ventilation				**EKEQFCB**	**EKEQDCB**	**EKEQMCB**
Application				Pair		Multi
Outdoor unit				ERQ		VRV
Dimensions	Unit	HeightxWidthxDepth	mm	132x400x200		
Weight	Unit		kg	3.9	3.6	
Power supply	Phase/Frequency/Voltage		Hz/V	1~/50/230		

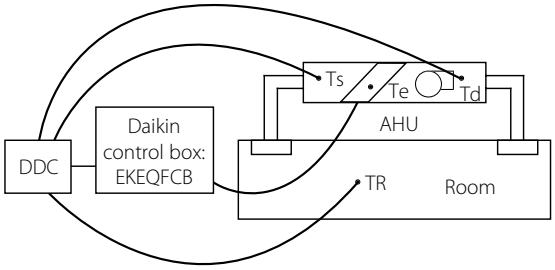
Control possibilities for air handling applications

In order to maximise installation flexibility, 3 types of control systems are offered:

POSSIBILITY X (TD/TR CONTROL):

Air temperature control via an external DDC controller (field supplied)

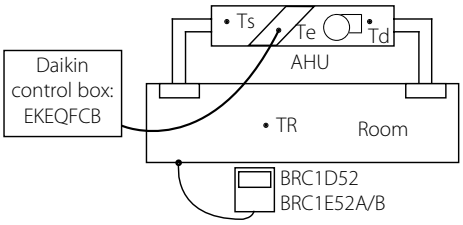
Room temperature is controlled as a function of the air handling unit suction or discharge air (customer selection). The DDC controller is translating the temperature difference between set point and air suction temperature (or air discharge temperature or room temperature) into a reference voltage (0-10V)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

By fixed evaporating temperature

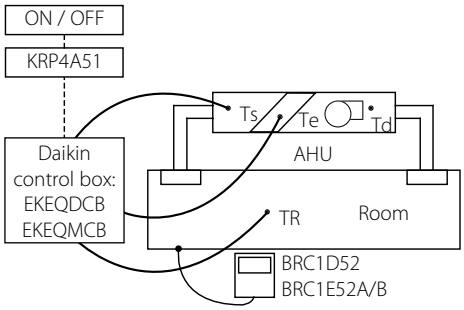
A fixed target evaporating temperature of between 3°C and 8°C can be set by the customer. In this case, room temperature is only indirectly controlled. The cooling load is determined from the actual evaporating temperature (i.e. load to the heat exchanger). A Daikin wired remote controller (BRC1D52 or BRC1E52A/B - optional) can be connected for error indication.



POSSIBILITY Z (TD/TR CONTROL):

Using Daikin wired remote controller (BRC1D52 or BRC1E51A/B - optional)

Set point can be fixed via standard Daikin wired remote controller. 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.



Ts = Air suction temperature
Td = Air discharge temperature
Tr = Room temperature
Te = Evaporating temperature
AHU = Air Handling Unit
DDC = Digital Display Controller

	OPTION KIT	FEATURES
Possibility x	EKEQFCB	Field supplied DDC controller is required Temperature control using air suction or air discharge temperature
Possibility y		Using fixed evaporating temperature, no set point can be set using remote controller
Possibility z	EKEQDCB EKFQMCB*	Using Daikin wired remote controller BRC1D52 or BRC1E52A/B Temperature control using air suction temperature

* EKEQMCB (for 'multi' application)

User friendly control systems

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

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

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

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

[1] For more information information refer to the control systems brochure

Save energy

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
- Supports multiple languages (English, German, Dutch, Spanish, Italian, Portuguese, French, Greek, Russian, Turkish, Polish (NEW))
- Built-in backup power: when a power failure occurs all settings remain stored up to 48 hours

Graphical display of indicative electricity consumption


BRC1D52


ARC466A1


BRC4*/BRC7*


BRC2C51


BRC3A61

BRC1D52
Wired remote control

- Schedule timer:
  Five day actions can be set as follows:
  - set point: unit is switched ON and normal operation is maintained
  - OFF: unit is switched OFF[1]
  - limits: unit is switched ON and min./max. control (cf. limit operation for more details)
- Home leave (frost protection): during absence, the indoor temperature can be maintained at a certain level. This function can also switch the unit ON/OFF
- User friendly HRV function, thanks to the introduction of a button for ventilation mode and fan speed
- Constantly monitoring of the system for malfunctions in a total of 80 components
- Immediate display of fault location and condition
- Reduction of maintenance time and costs

Display

- Operating mode[1]
- Heat Recovery Ventilation (HRV) in operation
- Cool / heat changeover control
- Centralised control indication
- Group control indication
- Set temperature[1]
- Air flow direction[1]
- Programmed time
- Inspection test / operation
- Fan speed[1]
- Clean air filter
- Defrost / hot start
- Malfunction

[1] Only functions marked with '1' are available on BRC944B2

BRC1E52A/B
Wired remote control

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

BRC3A61
Simplified built-in remote control for hotel applications

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

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

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

BRC2C51
Simplified remote control

Simple, compact and easy to operate unit, suitable for use in hotel bedrooms
Operation buttons: ON/OFF, operating mode selection, fan speed control, temperature setting

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

Centralised control systems

DCS302C51

DCS301B51

DST301B51

Centralised control of the VRV system can be achieved via 3 user friendly compact controls: centralised remote control, unified on/off control and schedule timer. These controls may be used independently or in combination where 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)
- air flow direction and air flow rate of HRV can be controlled
- expanded timer function

DCS301B51
Unified ON/OFF control

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

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

DST301B51
Schedule timer

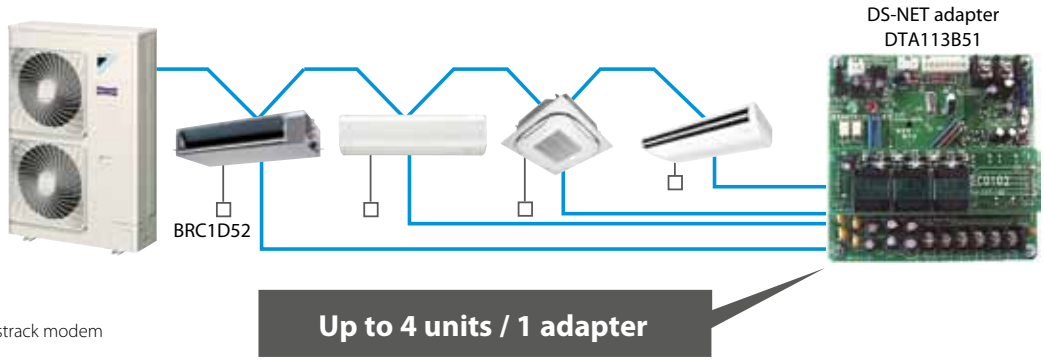
Enabling 64 groups to be programmed.

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

DS-net

Basic solution for control of Sky Air and VRV

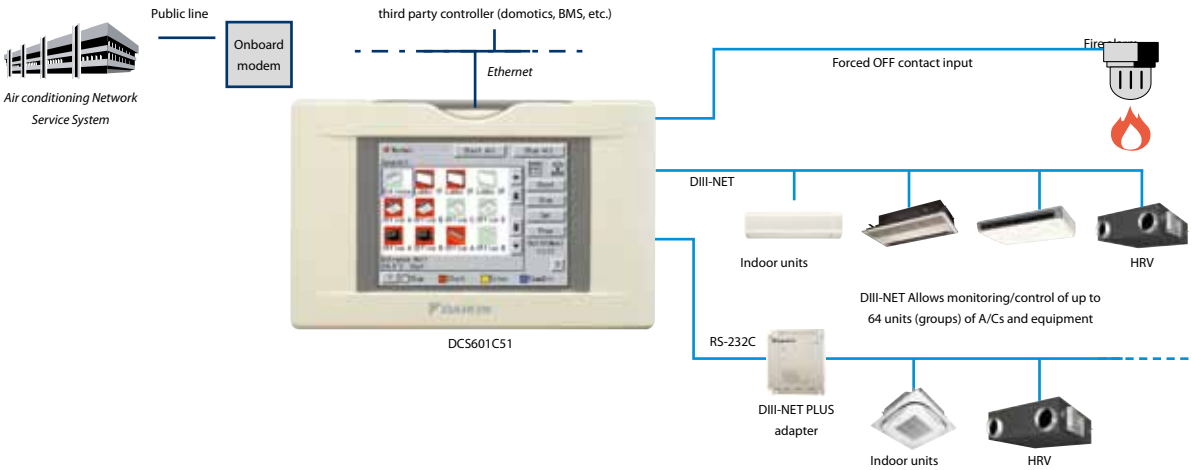
- Rotation function
- Backup operation function.



Daikin recommends the use of a Wavecom Fastrack modem

intelligent touch Controller

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



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

System layout
- Up to 2 x 64 indoor units can be controlled
- Touch panel (full colour LCD via icon display)

Management
- Easy management of electricity consumption
- Enhanced history function

Control
- Individual control (set point, start/stop, fan speed) (max. 2 x 64 groups/indoor units)
- Set back shedule
- Enhanced scheduling function (8 schedules, 17 patterns)
- Flexible grouping in zones
- Yearly schedule
- Fire emergency stop control
- Interlocking control
- Increased HRV monitoring and control function
- Automatic cooling / heating change-over
- Heating optimization
- Temperature limit
- Password security: 3 levels (general, administration & service)
- Quick selection and full control
- Simple navigation

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

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

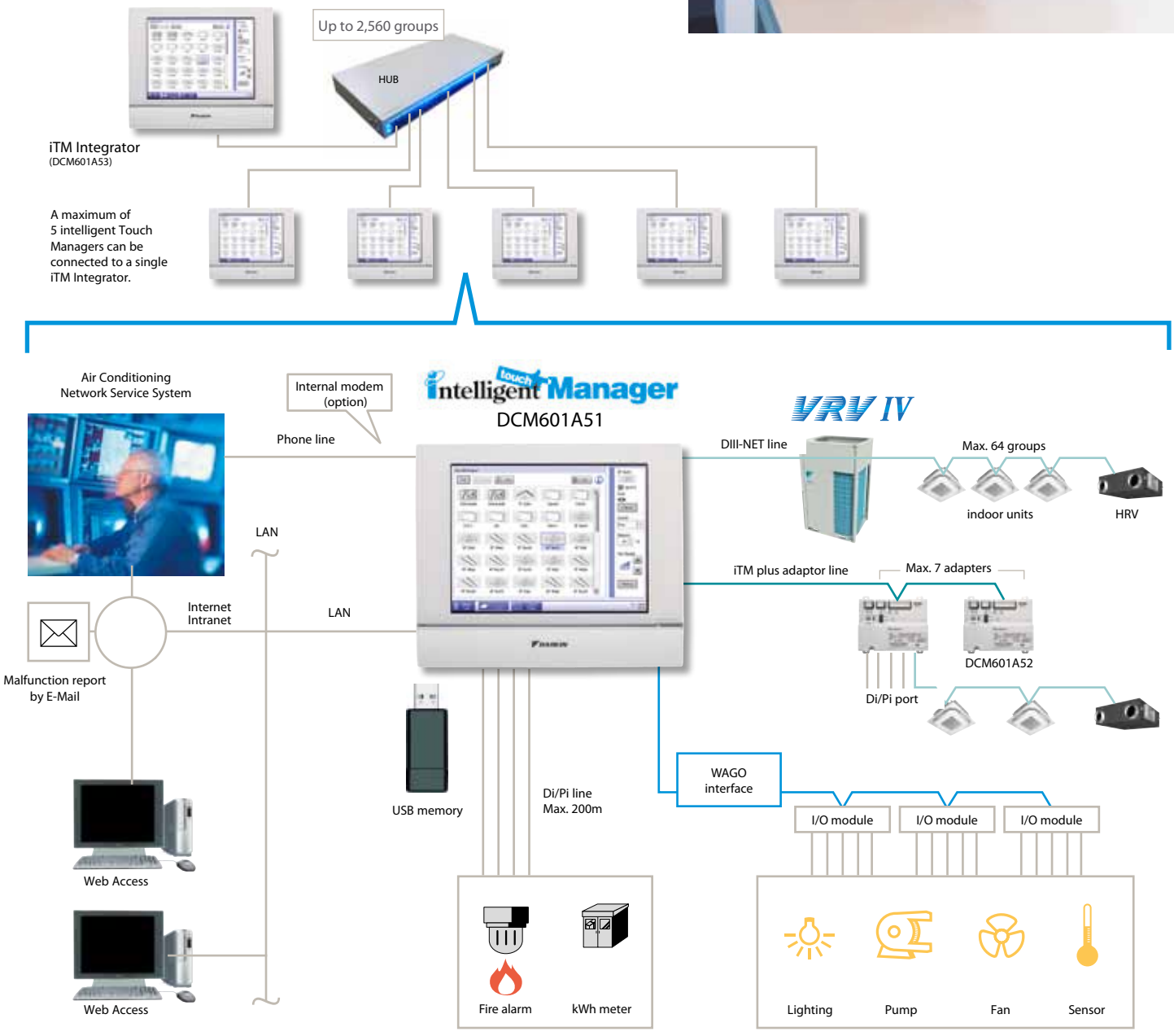
Open interface
- Communication to any third party controller (domotics, BMS, etc.) is possible via open interface (http option)

Connectable to
- VRV
- HRV
- Sky Air (via interface adapter)
- Split (via interface adapter)

touch intelligent Manager

Integration with intelligent control solutions

System overview



USER FRIENDLINESS

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

SMART ENERGY MANAGEMENT

Smart energy managemment tools enable monitoring if energy use is according to plan and help detect origins of energy waste, thus maimizing efficiency

FLEXIBILITY

- In size: modular design for use in small to large applications
- In integration: from simple A/C control to small BMS control of lighting, pumps, ... via WAGO I/O

EASY SERVICING AND COMMISSIONING

Perform the refrigerant containment check remotely and when it is most convenient for you and so prevent an on site visit. At the same time, increase your customer satisfaction because there is no disruption to the air conditioning during business hours.

FUNCTIONS OVERVIEW

DCM601A51

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

Languages

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

WAGO Interface

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

Control

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

Integration of RA, Sky Air, VRV, Daikin Altherma Flex and AHU in BMS or home automation systems

RTD-RA

› Modbus interface for monitoring and control of residential indoor units

RTD-NET

› Modbus interface for monitoring and control of Sky Air, VRV, VAM and VKM
› Duty/standby function for server rooms

RTD-10

Advanced integration into BMS of Sky Air, VRV, VAM and VKM through either:
› Modbus
› Voltage (0-10V)
› Resistance

RTD-20

› Advanced integration of Sky Air, VRV, VAM/VKM and air curtains
› Clone or independent zone control
› CO_2 sensor for VAM fresh air control
› Save on runningcosts via
  › pre/post and trade mode
  › set point limitation
  › overall shut down
  › PIR sensor for adaptive deadband

RTD-HO

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

RTD-W

› Modbus interface for monitoring and control of Daikin Altherma Flex Type, VRV HT hydrobox and chillers

OVERVIEW FUNCTIONS





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

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

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

Main functions			RTD-W
Dimensions	H x W x D	mm	100x100x22
On/off prohibi			✓
Modbus RS485			✓
Dry contact			✓
Output signal(space heating on,off)			✓
Space heating			✓
Domestic hot water			✓
3 Way valve			✓

Control functions	
On/Off Space heating/cooling	M,C
Set point leaving water temperature	M
Room temperature setpoint	M
Operation mode	M
Domestic Hot Water reheat	M,C
Domestic Hot Water storage	M,C
Quiet mode	M
Weather dependent setpoint enable	M

Monitoring functions	
On/Off Space heating/cooling	M,C
Set point leaving water temperature	M
Room temperature setpoint	M
Operation mode	M
Domestic Hot Water reheat	M,C
Domestic Hot Water storage	M,C
nbr units	M
Average leaving water temperature	M
Remocon room temperature	M
Fault	M
Fault code	M
Circulation pump operation	M
Compressor status	M
Desinfection operation	M
Setback operation	M
Defrost/ start up	M
Pump running hours accumualated	M

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

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

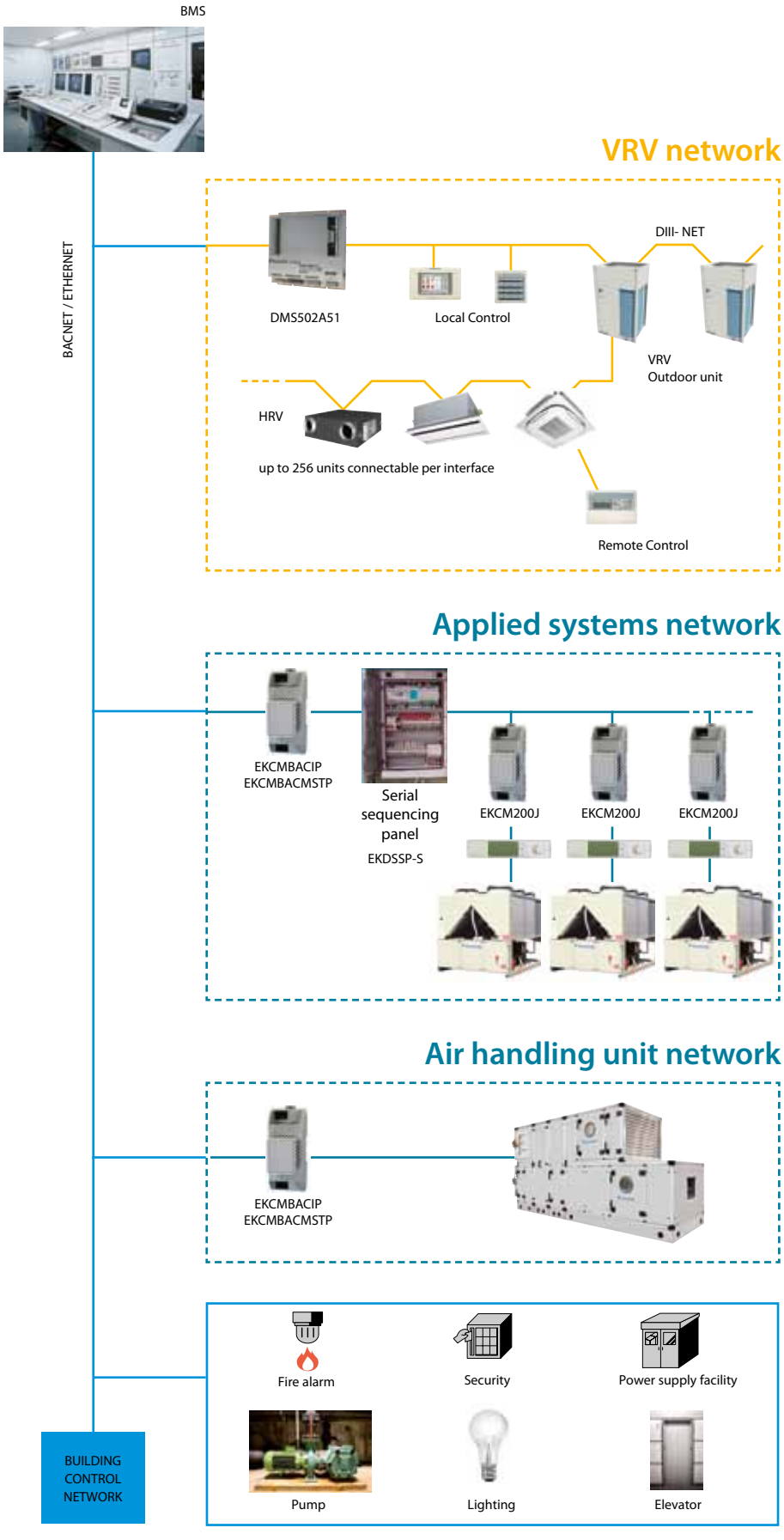
	 KLIC-DD Size 90x60x35mm	 KLIC-DI Size 45x45x15mm	
	Split	Sky Air	VRV
BASIC CONTROL			
ON/OFF	✓	✓	✓
Mode	Auto, heat, dry, fan, cool	Auto, heat, dry, fan, cool	Auto, heat, dry, fan, cool
Temperature	✓	✓	✓
Fan speed levels	3 or 5 + auto	2 or 3	2 or 3
Swing	Stop or movement	Stop or movement	Swing or fixed positions (5)

ADVANCED FUNCTIONALITIES			
Error management	Communication errors, Daikin unit errors		
Scenes	✓	✓	✓
Auto switch off	✓	✓	✓
Temperature limitation	✓	✓	✓
Initial configuration	✓	✓	✓
Master and slave configuration		✓	✓

BACnet Interface

Integrated control system for seamless connection between VRV, Applied Systems and BMS systems

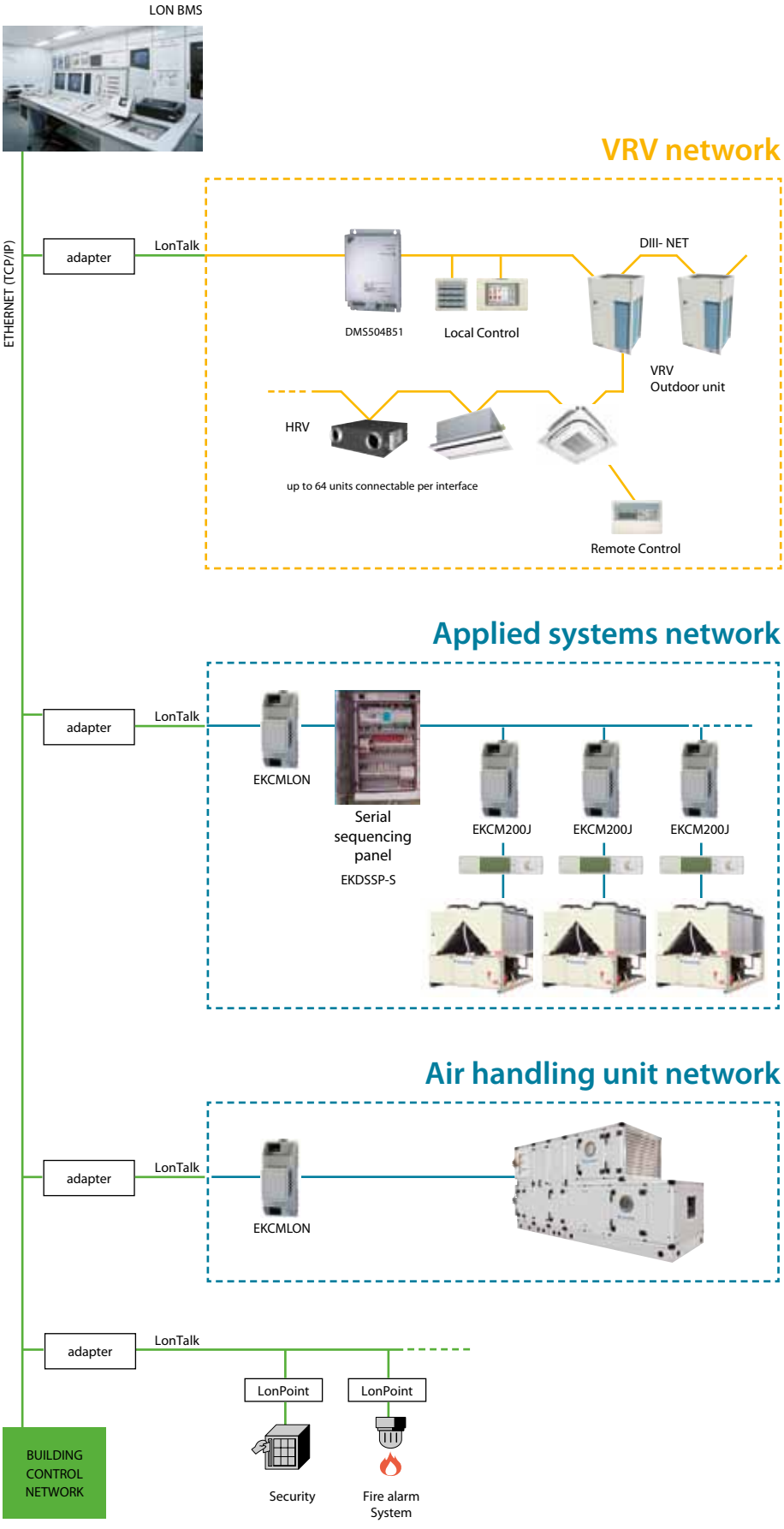
- Interface for BMS system
- Communication via BACnet protocol (connection via Ethernet)
- Unlimited sitesize
- Easy and fast installation
- PPD data is available on BMS system (only for VRV)



LonWorks Interface

Open network integration of VRV 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

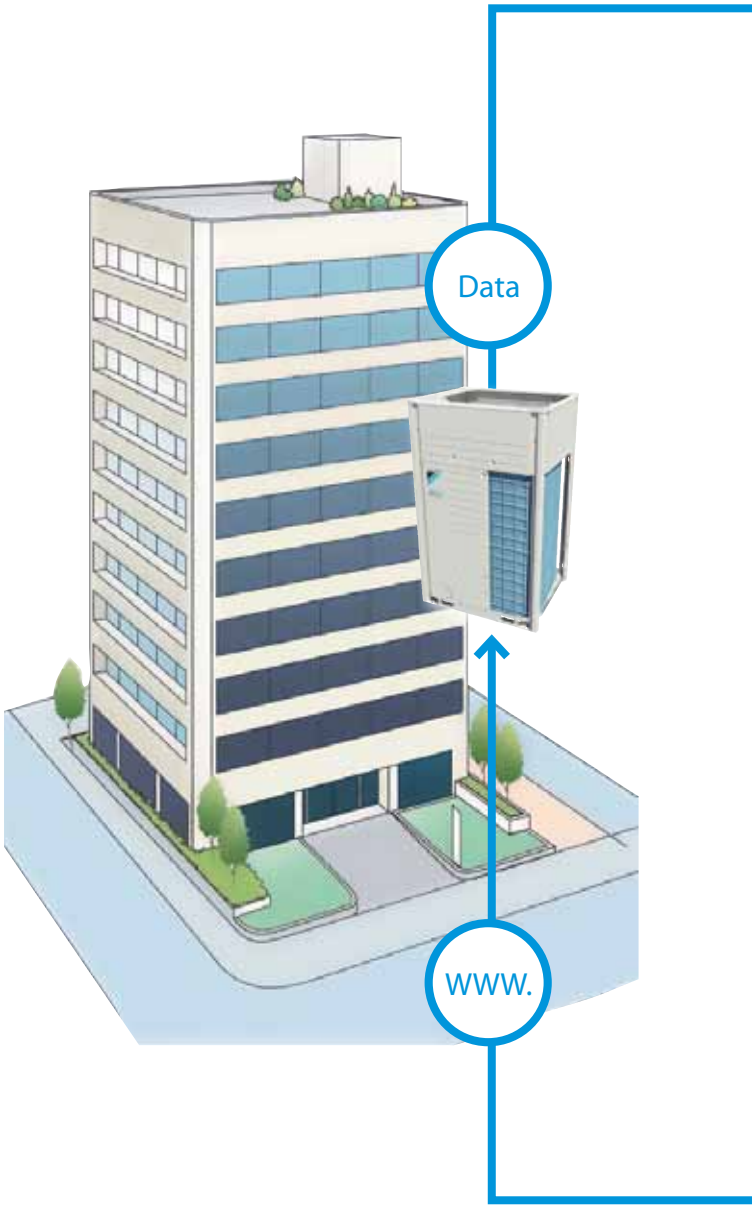


Air Conditioning Network Service System (ACNSS)

The challenge of your technical management is safeguarding in the long term optimal operation of your air conditioning system without incurring huge costs along the way. Daikin's Air Conditioning Network Service System improves the effectiveness of your management.

The network service system is a link via the internet, between the air conditioning system and Daikin's Remote Monitoring Centre. In so doing, expert service engineers monitor the operating status of the entire system nonstop all through the year. The 'ACNSS monitoring service' prevents troubles and prolongs the life of your equipment.

Thanks to the prediction of malfunctions and the technical advise following from data analysis, you not only maximise equipment availability, but also control cost without sacrificing comfort levels. Daikin's ACNSS is also supported by the optional 'ACNSS energy saving service' as energy use is one of the largest operating expenses of any business. This service enables you to optimise on power consumption without failing to keep the customer's amenity.



ACNSS MONITORINGSERVICE + ACNSS ENERGY SAVING SERVICE

Comfort maintained

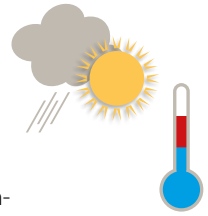
1 Data transmission

Air conditioners's running information and other necessary data are collected and compiled, and sent to the centre. Advance failure forecasts and monitoring data for accidental problems are transmitted.

OPTION:

energy-saving control determination

Operating information is analyzed, and the optimum energy-saving control settings are calculated according to weather data for the region.



Weather information

2 Daikin Remote Monitoring Centre

Daikin's control implemented

intelligent touch Controller

intelligent touch Manager

Information to customers, service company

3 Data analysis & system monitoring

Reporting data is reviewed and system is monitored 24/7 for any occurances.

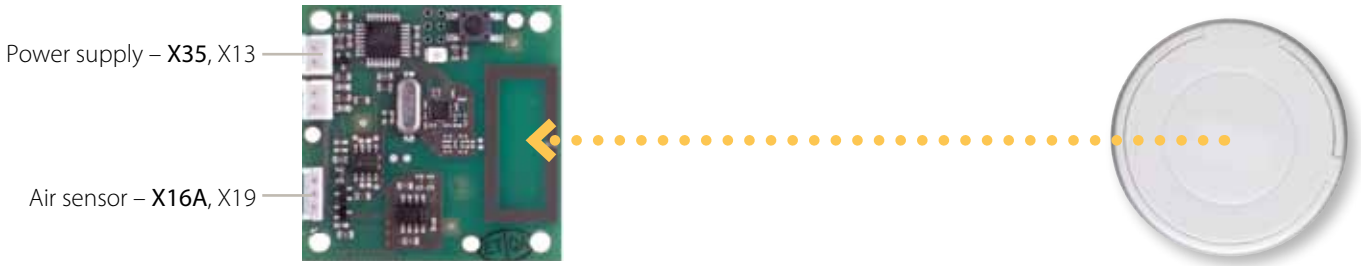
Energy-saving Report
Maintenance Report
Malfunction and prediction call

* A contract with Daikin is necessary for applying Energy-saving Air conditioning Network Service System. If you would like an estimation, please contact us.

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 TEMPERATURE SENSOR KIT (K.RSS)	
			WIRELESS ROOM TEMPERATURE RECEIVER	WIRELESS ROOM TEMPERATURE SENSOR
Dimensions		mm	50 x 50	ø 75
Weight		g	40	60
Power supply			16VDC, max. 20 mA	N/A
Battery life			N/A	+/- 3 years
Battery type			N/A	3 Volt Lithium battery
Maximum range		m	10	
Operation range		°C	0~50	
Communication	Type		RF	
	Frequency	MHz	868.3	

- Room temperature is sent to the indoor unit every 90 seconds or if the temperature difference is 0.2°C or larger.
- For latest information, please visit bit.ly/K.RSS

KRCS01-1B
KRCS01-4B

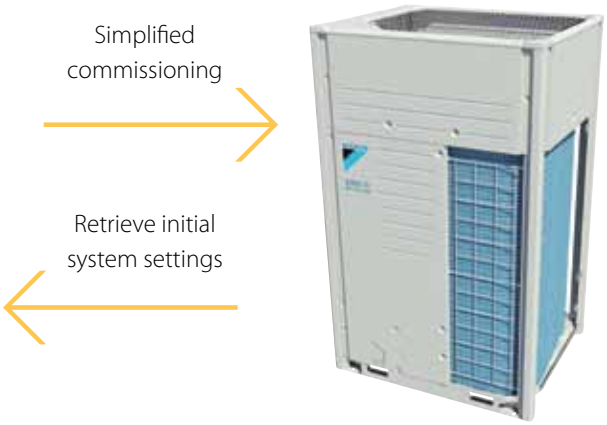
Wired room temperature sensor

- 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

VRV configurator software



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

Simplified servicing: additional 7-segment indicator for a quick and easy check of basic functions and error read-out.

Simplified commissioning

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

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

Daikin's adapter PCB's 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
	KRP2A*/ KRP4A* Wiring adapter for electrical appendices	› Remotely start and stop up to 16 indoor units (1 group) (KRP4A* via F1 F2) › Remotely start and stop up to 128 indoor units (64 groups) (KRP2A* via P1 P2) › Alarm indication/ fire shut down › Remote temperature setpoint adjustment
	DTA104A* Outdoor Unit External Control Adapter	› Individual or simultaneous control of VRV system operating mode › Demand control of individual or multiple systems › Low noise option for individual or multiple systems

CONCEPT AND BENEFITS

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

Options & accessories - VRV outdoor

	VRV IV with continuous heating				VRV IV without continuous heating		
	RYYQ8-20T	RYMQ8-20T	2-module systems	3-module systems	RXYQ8-20T	2-module systems	3-module systems
Multi-module connection kit (obligatory) Connects multiple modules into a single refrigerant system	-	-	BHFQ22P1007	BHFQ22P1517	-	BHFQ22P1007	BHFQ22P1517
Extended level difference kit Allows outdoor unit to be more than 50m above indoor units	-	-	-	-	-	-	-
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.	-	-	-	-	-	-	-
Bottom plate heater kit Optional electrical heater for the VRV casing's bottom plate to guarantee trouble-free operation even in extremely cold and humid climates	-	-	-	-	-	-	-
External control adaptor 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.	For installation into an indoor unit: exact adaptor 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	✓	1 kit per system	1 kit per system
KRC19-26 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.	✓	✓	✓	✓	✓	✓	✓
KJB111A - Installation box for remote cool/heat selector KRC19-26	✓	✓	✓	✓	✓	✓	✓
EKPCCAB1 - VRV configurator	✓	✓	✓	✓	✓	✓	✓
BPMKS967B2B - Branch provider (for connection of 2 RA indoor units)	✓	✓	-	-	✓	-	-
BPMKS967B3B - Branch provider (for connection of 3 RA indoor units)	-	-	-	-	✓	-	-
KKPJ5F180 - Central drain plug	-	-	-	-	-	-	-

	VRV III-Q Heat Pump Replacement VRV				
	RQYQ 140	RQYQ 8~12	RQYQ 14~16	2-module systems	3-module systems
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	-	-	-	-	-
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	KWC26B280	KWC26B450	1 kit per module	1 kit per module
Bottom plate heater kit Optional electrical heater for the VRV casing's bottom plate to guarantee trouble-free operation even in extremely cold and humid climates	-	-	-	-	-
External control adaptor 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 adaptor 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
KRC19-26 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
KJB111A - Installation box for remote cool/heat selector KRC19-26	✓	✓	✓	1 kit per system	1 kit per system
BWU26A15 - Water strainer kit for 1.40MPa design pressure	-	-	-	-	-
BWU26A20 - Water strainer kit for 1.96MPa design pressure	-	-	-	-	-

		Refnet Joints			
		Capacity index < 201	Capacity index 201~290	Capacity index 291~640	Capacity index > 640
Heat Recovery systems (3-pipe)	Metric-size connections	KHRQM23M20T	KHRQM23M29T	KHRQM23M64T	KHRQM23M75T
	Imperial-size connections	KHRQ23M20T	KHRQ23M29T9	KHRQ23M64T	KHRQ23M75T
	Sound reduction kit (sound insulation)	-	-	-	-
	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.	-	-	-	-
	Installation box for remote cool/heat selector KRC19-26	-	-	-	-
Heat Pump systems (2-pipe)	Metric-size connections	KHRQM22M20T	KHRQM22M29T	KHRQM22M64T	KHRQM22M75T
	Imperial-size connections	KHRQ22M20T	KHRQ22M29T9	KHRQ22M64T	KHRQ22M75T

VRV III-S Mini VRV	VRV III-C Cold Region VRV			VRV III Heat Recovery						Total Solution VRV
RXYSQ	RTSYQ 10	RTSYQ 14~16	RTSYQ 20	REYQ 8~16	REMQ 8~12	REMHQ 12	REMQ 14~16	2-module systems	3-module systems	REYAQ 10~16
-	-	-	BHFQ22P1007	-	-	-	-	BHFQ23P907	BHFQ23P1357	-
-	-	-	-	Special order unit						-
-	KWC26B280	KWC26B450	2x KWC26B280	KWC25C450	KWC26B280	KWC26B450	KWC26B450	1 kit per module	1 kit per module	KWC25C450
-	BEH22A10Y1L	BEH22A18Y1L	2x BEH22A10Y1L	-	-	-	-	-	-	-
For installation into an indoor unit: exact adaptor type depends on type of indoor unit. See Options & Accessories of indoor units										
-	✓	✓	✓	✓	✓	✓	✓	1 kit per system	1 kit per system	-
✓	-	-	-	-	-	-	-	-	-	-
✓	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-
✓	-	-	-	-	-	-	-	-	-	-
✓	-	-	-	-	-	-	-	-	-	-
✓	-	-	-	-	-	-	-	-	-	-

VRV III-Q Heat Recovery Replacement VRV				VRV-WIII Water-cooled VRV				
					Heat Pump application		Heat Recovery application	
RQEQ 140~212	2-module systems	3-module systems	4-module systems	RWEYQ 8~10	2-module systems	3-module systems	2-module systems	3-module systems
-	BHFP26P36C	BHFP26P63C	BHFP26P84C	-	BHFP22MA56	BHFP22MA84	BHFP26MA56	BHFP26MA84
-	-	-	-	-	-	-	-	-
KWC26B160	1 kit per module	1 kit per module	1 kit per module	-	-	-	-	-
-	-	-	-	-	-	-	-	-
DTA104A53/61/62 For installation into an indoor unit: exact adaptor type depends on type of indoor unit. See Options & Accessories of indoor units				DTA104A62 Installation in the RWEYQ outdoor unit possible. For installation in indoor units, use appropriate type (DTA104A53/61/62) for particular indoor unit. See Options & Accessories of indoor units				
✓	1 kit per system	1 kit per system	1 kit per system	-	-	-	-	-
-	-	-	-	✓	1 kit per system	1 kit per system	-	-
-	-	-	-	✓	1 kit per system	1 kit per system	-	-
-	-	-	-	✓	1 kit per module	1 kit per module	1 kit per module	1 kit per module
-	-	-	-	✓	1 kit per module	1 kit per module	1 kit per module	1 kit per module

Refnet Headers			Heat Recovery Branch Selector Boxes (BS-Boxes)				
Capacity index	Capacity index	Capacity index	1-port Capacity index	1-port	1-port	4-port	6-port
< 291	291~640	> 640	< 101	Capacity index	Capacity index	Capacity index	Capacity index
				101 ~ 160	161 ~ 250	< 100 per port	< 100 per port
KHRQM23M29H	KHRQM23M64H	KHRQM23M75H	-	-	-	-	-
KHRQ23M29H	KHRQ23M64H	KHRQ23M75H	BSVQ100P8B	BSVQ160P8B	BSVQ250P8B	BSV4Q100PV	BSV6Q100PV
-	-	-	EKBSVQLNP	EKBSVQLNP	EKBSVQLNP	-	-
-	-	-	KRC19-26	KRC19-26	KRC19-26	KRC19-26	KRC19-26
						1 kit per port necessary	1 kit per port necessary
-	-	-	KJB111A	KJB111A	KJB111A	KJB111A	KJB111A
KHRQM22M29H	KHRQM22M64H	KHRQM22M75H	-	-	-	-	-
KHRQ22M29H	KHRQ22M64H	KHRQ22M75H	-	-	-	-	-

		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
Adapters and control	**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	BRC7F532F	BRC7F530W *9*10 (white panel) BRC7F530S *9*10 (grey panel) BRC7E530W *9*10 (standard panel)	-	-	-
	BRC2C51 Simplified wired remote control	-	-	-	-	-
	BRC3A61 Remote control for hotel use	-	-	-	-	-
	DCS302C51 Central remote control	✓	✓	✓	✓	✓
	DCS301B51 Unified ON/OFF control	✓	✓	✓	✓	✓
	DST301B51 Schedule timer	✓	✓	✓	✓	✓
	DCS601C51 Intelligent Touch Manager	✓	✓	✓	✓	✓
	External wired temperature sensor	KRCS01-4B	KRCS01-1	KRCS01-4B	KRCS01-4B	KRCS01-4B
	External wireless temperature sensor	K.RSS	K.RSS	K.RSS	K.RSS	K.RSS
	Wiring adaptor for external monitoring/control via dry contacts and setpoint control via 0-140Ω	KRP4AA53 *2*7	KRP4A53 *2	KRP4A51	KRP4A51	KRP4A51
	Wiring adaptor for external central monitoring/control (controls 1 entire system)	-	-	KRP2A51	KRP2A51	KRP2A51
	Wiring adaptor with 4 output signals (Compressor / Error, Fan, Aux. heater, Humidifier output)	EKRP1C11 *2*7	EKRP1B2	EKRP1B2	EKRP1B2	EKRP1B2
	Wiring adaptor with 2 output signals (Compressor / Error, Fan output)	KRP1BA57 *2*7	KRP1B57 *2	-	-	-
	Adaptor for multi-tenant applications (24VAC PCB power supply interface)	DTA114A61	-	-	-	-
	External control adaptor for outdoor unit	-	-	DTA104A61	DTA104A61	DTA104A61
	Installation box / Mounting plate for adaptor PCBs (For units where there is no space in the switchbox)	KRP1H98 *7	KRP1B101	KRP1C96	KRP1C96	KRP1C96
	Connector for forced-off contact	standard	standard	standard	standard	standard
	Connection to centralized control	standard	-	-	-	-
	Electrical box with earth terminal (2 blocks)	KJB212AA	-	KJB212A	KJB212A	KJB212A
	Electrical box with earth terminal (3 blocks)	KJB311AA	-	KJB311A	KJB311A	KJB311A

Others	Decoration panel (obligatory for cassette units, optional for others, rear panel for FXLQ)	BYCQ140D7GW1 (self clean) *5/*6 BYCQ140D7W1W (white) *3 BYCQ140D7W1 (standard)	BYFQ60C2W1W (white panel) BYFQ60C2W1S (grey panel) BYFQ60B2W19 (standard panel)	BYBCQ40HW1	BYBCQ63HW1	BYBCQ125HW1
	Kit for mounting of decoration panel direct onto unit	-				
	Panel spacer for reducing required installation height	-	KDBQ44B60	-	-	-
	Sealing kit for 3-directional or 2-directional air discharge	KDBHQ55B140 *7	BDBHQ44 (white & grey panel) KDBHQ44BA60 (standard panel)	-	-	-
	Fresh air intake kit	KDDQ55B140-1 + KDDQ55B140-2 *7*8	KDDQ44XA60	KDDQ50A140	-	-
	Air discharge adaptor 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	-	BRYQ60A2W (white panel) BRYQ60A2S (grey panel)	-	-	-
	Noise filter (for electromagnetic use only)	-		KEK26-1 A	KEK26-1A	KEK26-1A

*2 Installation box is necessary for these adaptors

*3 The BYCQ140D7W1W has white insulation

Be informed that formation of dirt on white insulation is visibly stronger and that it is consequently not advised to install the BYCQ140D7W1W decoration panel in environments exposed to concentrations of dirt"

*4 Not recommended because of the limitation of the functions

*5 To be able to control the BYCQ140D7GW1 the controller BRC1E is needed

*6 The BYCQ140DGW1 is not compatible with Mini VRV, Multi and Split Non-Inverter Outdoor units

*7 Option not available in combination with BYCQ140D7GW1

*8 Both parts of the fresh air intake are needed for each unit

*9 Sensing function not available

*10 Independently controllable flaps function not available

		Concealed ceiling units (duct units)					
Corner (1-way blow)		Small	Slim	Standard			
FXKQ 25~40	FXKQ 63	FXDQ 20~25 M9	FXDQ 15~63 P7	FXSQ 20~32	FXSQ 40~50	FXSQ 63~80	FXSQ 100~140
✓	✓	✓	✓	✓	✓	✓	✓
✓*4	✓*4	✓*4	✓*4	✓*4	✓*4	✓*4	✓*4
BRC4C61	BRC4C61	BRC4C62	-	BRC4C65	BRC4C65	BRC4C65	BRC4C65
-	-	✓	✓	✓	✓	✓	✓
-	-	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓
KRCS01-1	KRCS01-1	KRCS01-1	KRCS01-1	KRCS01-4	KRCS01-4	KRCS01-4	KRCS01-4
K.RSS	K.RSS	K.RSS	K.RSS	K.RSS	K.RSS	K.RSS	K.RSS
KRP4A51	KRP4A51	KRP4A51	KRP4A54	KRP4A51	KRP4A51	KRP4A51	KRP4A51
KRP2A51	KRP2A51	KRP2A51	-	KRP2A61	KRP2A51	KRP2A51	KRP2A51
KRP1B61	KRP1B61	EKRP1B2	-	EKRP1B2	EKRP1B2	EKRP1B2	EKRP1B2
-	-	-	-	-	-	-	-
-	-	EKMTAC	DTA114A61	DTA114A61	DTA114A61	DTA114A61	DTA114A61
DTA104A61	DTA104A61	DTA104A61	DTA104A61	DTA104A61	DTA104A61	DTA104A61	DTA104A61
-	-	-	KRP1B101	KRP4A96	KRP4A96	KRP4A96	KRP4A96
Standard	Standard	Standard	-	Standard	Standard	Standard	Standard
Standard	Standard	Standard	-	Standard	Standard	Standard	Standard
-	-	-	KJB212AA	-	-	-	-
-	-	-	KJB311AA	-	-	-	-

BYK45F	BYK71F	-	-	BYBS32D	BYBS45D	BYBS71D	BYBS125D
-	-	-		EKBYBSD	EKBYBSD	EKBYBSD	EKBYBSD
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-		KDAJ25K36A	KDAJ25K56	KDAJ25K71	KDAJ25K140
-	-	-	-	-	-	-	-
Standard	Standard	KDAJ25K56	standard	Standard	Standard	Standard	Standard
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-

Options & accessories - VRV indoor

		Concealed ceiling units (duct units)				
		High ESP				Large
		FXMQ 20~32	FXMQ 40	FXMQ 50~80	FXMQ 100~125	FXMQ 200~250
Adapters and control	**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	BRC4C65	BRC4C65	BRC4C65	BRC4C65	BRC4C65
	BRC2C51 Simplified wired remote control	✓	✓	✓	✓	✓
	BRC3A61 Remote control for hotel use	✓	✓	✓	✓	✓
	DCS302C51 Central remote control	✓	✓	✓	✓	✓
	DCS301B51 Unified ON/OFF control	✓	✓	✓	✓	✓
	DCS601C51 Schedule timer	✓	✓	✓	✓	✓
	DCS301B51 Intelligent Touch Controller	✓	✓	✓	✓	✓
	External wired temperature sensor	KRCS01-4	KRCS01-4	KRCS01-4	KRCS01-4	KRCS01-1
	External wireless temperature sensor	K.RSS	K.RSS	K.RSS	K.RSS	K.RSS
	Wiring adaptor for external monitoring/control via dry contacts and setpoint control via 0-140Ω	KRP4A51	KRP4A51	KRP4A51	KRP4A51	KRP4A51
	Wiring adaptor for external central monitoring/control (controls 1 entire system)	KRP2A51	KRP2A51	KRP2A51	KRP2A51	KRP2A51
	Wiring adaptor with 4 output signals (Compressor / Error, Fan, Aux. heater, Humidifier output)	EKRP1B2	EKRP1B2	EKRP1B2	EKRP1B2	KRP1B61
	Wiring adaptor with 2 output signals (Compressor / Error, Fan output)	-	-	-	-	-
	Adaptor for multi-tenant applications (24VAC PCB power supply interface)	DTA114A61	DTA114A61	DTA114A61	DTA114A61	-
	External control adaptor for outdoor unit	DTA104A61	DTA104A61	DTA104A61	DTA104A61	DTA104A61
	Installation box / Mounting plate for adaptor PCBs (For units where there is no space in the switchbox)	KRP4A96	KRP4A96	KRP4A96	KRP4A96	-
	Connector for forced-off contact	Standard	Standard	Standard	Standard	Standard
	Connection to centralized control	Standard	Standard	Standard	Standard	Standard
	Electrical box with earth terminal (2 blocks)	-	-	-	-	-
	Electrical box with earth terminal (3 blocks)	-	-	-	-	-
Others	Decoration panel (obligatory for cassette units, optional for others, rear panel for FXLQ)	BYBS32D	BYBS45D	BYBS71D	BYBS125D	-
	Kit for mounting of decoration panel direct onto unit	EKBYBSD	EKBYBSD	EKBYBSD	EKBYBSD	-
	Panel spacer for reducing required installation height	-	-	-	-	-
	Sealing kit for 3-directional or 2-directional air discharge	-	-	-	-	-
	Decoration panel for air discharge	-	-	-	-	-
	Fresh air intake kit	-	-	-	-	-
	Air discharge adaptor for round duct	KDAJ25K36A	KDAJ25K56	KDAJ25K71	KDAJ25K140	-
	Replacement long life filter	-	-	-	-	-
	Drain pump kit	Standard	Standard	Standard	Standard	-
	Sensor kit	-	-	-	-	-
	Noise filter (for electromagnetic use only)	-	-	-	-	-
	L-type piping kit (for upward direction)	-	-	-	-	-

*2 Installation box is necessary for these adaptors

*3 The BYCQ140D7W1W has white insulation

Be informed that formation of dirt on white insulation is visibly stronger and that it is consequently not advised to install the BYCQ140D7W1W decoration panel in environments exposed to concentrations of dirt

*4 Not recommended because of the limitation of the functions

*5 To be able to control the BYCQ140D7GW1 the controller BRC1E is needed

*6 The BYCQ140DGW1 is not compatible with Mini VRV, Multi and Split Non-Inverter Outdoor units

*7 Option not available in combination with BYCQ140D7GW1

*8 Both parts of the fresh air intake are needed for each unit

*9 Sensing function not available

*10 Independently controllable flaps function not available

Ceiling suspended units				Wall mounted units	Floor standing 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
BRC7GA53	BRC7GA53	BRC7GA53	BRC7CB58	BRC7E618	BRC4C65	BRC4C65	BRC4C65	BRC4C65
-	-	-	-	-	✓	✓	✓	✓
-	-	-	-	-	-	-	-	-
✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓	✓
KRCS01-4B	KRCS01-4B	KRCS01-4B	KRCS01-4B	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
KRP1B5A54	KRP1B5A54	KRP1B5A54	-	-	-	-	-	-
-	-	-	-	DTA114A61	EKMTAC	EKMTAC	EKMTAC	EKMTAC
DTA104A62	DTA104A62	DTA104A62	-	DTA104A61	-	-	-	-
KRP1D93A	KRP1D93A	KRP1D93A	KRP1BA97	KRP4A93	-	-	-	-
EKRORO4	EKRORO4	EKRORO4	EKRORO5	Standard	Standard	Standard	Standard	Standard
-	-	-	-	Standard	Standard	Standard	Standard	Standard
KJB212AA	KJB212AA	KJB212AA	KJB212AA	-	-	-	-	-
KJB311AA	KJB311AA	KJB311AA	KJB311AA	-	-	-	-	-

-	-	-	-	-	-	EKRDP25	EKRDP40	EKRDP63
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
-	-	-	KDBHP49B140	-	-	-	-	-
			KDBTP49B140					
KDDQ50A140	KDDQ50A140	KDDQ50A140	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
KAFP501A56	KAFP501A80	KAFP501A160	KAFP551K160	-	-	-	-	-
-	-	-	-	K-KDU572EVE	-	-	-	-
-	-	-	-	-	-	-	-	-
KEK26-1A	KEK26-1A	KEK26-1A	-	-	-	-	-	-
KHFP5N63	KHFP5N160	KHFP5N160	-	-	-	-	-	-

Options & accessories - ventilation & hot water

		VAM150FA	VAM250FA	VAM350FA/FB	VAM500FA/FB	VAM650FA/FB	VAM800FA/FB	VAM1000FA/FB	VAM1500FA/FB
		YAFM323F15	YAFM323F25	YAFM323F35	KDDM24A50	KDDM24A100		KDDM24A100	2 x KDDM24A100
High efficiency filter	-65%								
	-90%								
Replacement long life filter		YAFF323F15	YAFF323F25	YAFF323F35	YAFF323F50	YAFF323F65		YAFF323F100	2 x YAFF323F65
Filter chamber 1									ask
Silencer									
	Nom. piping diameter								
Duct adapter					YAFF323F50	YAFF323F65			YDFA25AEI
	Nom. piping diameter								ø250mm
Drain pump kit									
Adapter for wiring									
Central drain pan									
Central drain plug									
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									
Installation box for remote cool/heat selector KRC19-26A6									
External control adaptor for outdoor unit									

Notes

(1) Filter chamber has a suction-type flange. (Main unit does not).

Some options may not be usable due to the equipment installations conditions. Please conrfirm prior to ordering.

Some options may not be used in combination.

Operating sound may increase somewhat depending on the options used.

INDIVIDUAL CONTROL SYSTEMS	VAM-FA/FB	VKM-GA(M)
Wired remote control	BRC1E52A/B / BRC1D52	BRC1E52A / BRC1D52
VAM wired remote control	BRC301B61	BRC301B61

CENTRALISED CONTROL SYSTEMS	VAM-FA/FB	VKM-GA(M)
Centralised remote control	DCS302C51	DCS302C51
Unified ON/OFF control	DCS301B51	DCS301B51
Schedule timer	DST301B51	DST301B51

OTHERS	VAM-FA/FB	VKM-GA(M)
Wiring adaptor for external central heating monitoring/control (controls 1 entire system)	KRP2A51	KRP2A51
Wiring adaptor for external monitoring/control via dry contacts and setpoint control via 0-140Ω		
Adaptor PCB for 3rd party humidifier control / for operation signal output	KRP50-2	KRP50-2
Control kit for auxiliary 3rd party heater	BRP4A50	BRP4A50
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…).

	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 installer needs to select 1 master & 1 slave	EKRUAHTB	
Back-up heater	EKBUHAA6(W1/V3)	
Wired room thermostat - Requires demand PCB EKRP1AHTA	EKRTWA	
Wireless room thermostat - Requires demand PCB EKRP1AHTA	EKRTR1	
Remote sensor for room thermostat - Requires demand PCB EKRP1AHTA	EKRTETS	
Domestic hot water tank - standard (stacked on top of hydrobox)		EKHTS200AC 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

VAM2000FA/FB	VKM50GA(M)	VKM80-100GA(M)	FXMQ125MF	FXMQ200-250MF	ERQ100-125AV1	ERQ140AV1	ERQ125AW1	ERQ200-250AW1	EKEQFCB	EKEQDCB	EKEQMCB
2 x KDDM24A100	KAF241G80M	KAF241G100M									
	KAF242G80M	KAF242G100M	KAFJ372L140								
			KAFJ373L140								
2 x YAFF323F100			KAFJ371L140	KAFJ371L280							
your Daikin representative			KDJ370SL140	KDJ370SL280							
		KDDM24B100									
		ø250mm									
YDFA25AEI											
ø250mm											
			KDU30LL250VE								
			KRP1B61								
							KWC26B160	KWC26B280			
					KKPJ5F180	KKPJ5F180					
					KRC19-26A6						
					KJB111A						
			DTA104A61						ask your Daikin representative	DTA104A61	DTA104A61

FXMQ-MF	EKEQFCB [2]	EKEQDCB [2]	EKEQMCB [2]
BRC1E52A/B / BRC1D52	BRC1E52A/B / BRC1D52	BRC1E52A/B / BRC1D52 [1]	BRC1E52A/B / BRC1D52 [1]

FXMQ-MF	EKEQFCB [2]	EKEQDCB [2]	EKEQMCB [2]
DCS302C51			
DCS301B51			
DST301B51			

FXMQ-MF	EKEQFCB [2]	EKEQDCB [2]	EKEQMCB [2]
KRP2A61			
KRP4A51		KRP4A51	
		KRCS01-1	

Options - control systems

		intelligent Manager	LonWorks Interface	BACnet Interface
		DCM601A51	**DMS504B51**	**DMS502A51**
iTM plus adaptor		DCM601A52		
iTM integrator		DCM601A53		
iTM ppd software		DCM002A51		
iTM energy navigator software		DCM008A51		
WAGO I/O	"Modbus communication unt: 750-315/000-002/K190-6442	✓		
	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 adaptor for connection to RA units			KRP928A2S	KRP928A2S
Interface adaptor for connection to R-407C/R-22 Sky Air units			DTA102A52	DTA102A52
Interface adaptor for connection to R-410A Sky Air units			DTA112B51	DTA112B51
DIII board				DAM411B51
Digital input/output				DAM412B51

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

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The present publication supersedes ECPEN12-200.
Printed on non-chlorinated paper. Prepared by La Movida, Belgium
Responsible Editor: Daikin Europe N.V., Zandvoordestraat 300, B-8400 Oostende