DAIKIN

VRV IV

VRV IV

360° efficiency

VRV IV heat recovery, heat pump, replacement and water cooled

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

VRV IV =

2 revolutionary standards

› Variable refrigerant temperature
› VRV configurator

+ VRV IV technologies

+ Integrated climate control

+ VRV IV heat recovery technologies

3 intelligent efficiency improvements

Improved operational efficiency

› Improved efficiency during heat recovery mode with 15%
› Free heating or hot water by recovering heat from areas requiring cooling
› Optimal comfort for everybody by simultaneous cooling spaces while heating others

Improved design efficiency

› Integrated climate control covering all thermal loads in the building
› Free combination of outdoor units, single and multi BS boxes
› Unique range of single and multi BS boxes

Improved installation efficiency

› Fully redesigned multi BS boxes, smaller and up to 70% lighter
› No limit on number of unused ports
› Connect indoor units up to 28kW to a single and multi BS box

Variable refrigerant temperature

Customise your VRV for best seasonal efficiency and comfort

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

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

How does it work?

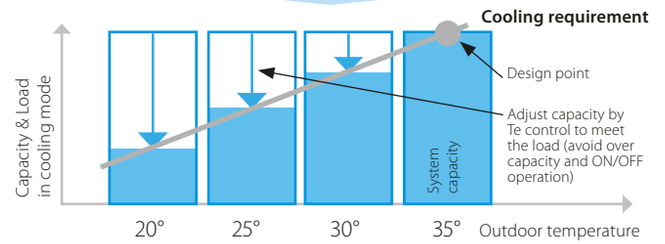
VRF standard
Capacity is controlled only with the variance of the inverter compressor

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

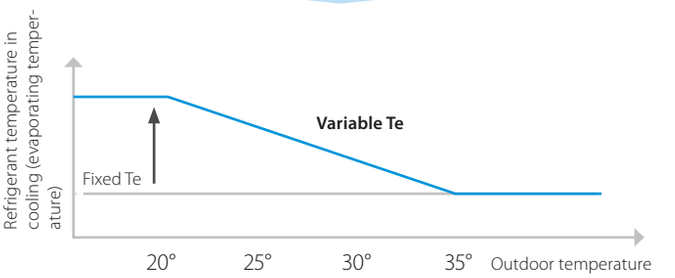
Calculate the benefit of variable refrigerant temperature for your project in our seasonal solutions calculator:

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

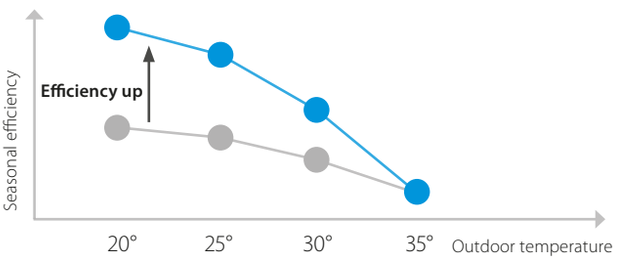
The colder it gets, the lower the load on the building and the lower the capacity need



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



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



Success story

Live test: up to 46% less energy consumed

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

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

How effective is the VRV IV heat pump technology?

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

Different modes to maximise efficiency and comfort

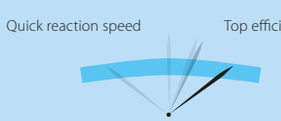
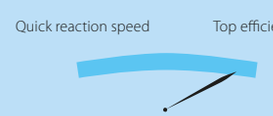
For maximum energy efficiency and customer satisfaction, the outdoor unit needs to adapt the evaporating/condensing temperature at the optimum point for the application.

Check on YouTube

https://www.youtube.com/DaikinEurope

How to set the different modes?

6 patents

Set up the main operation mode of the system	Define how the system reacts to changing loads	
Step 1	**Step 2**	
Automatic*  The perfect balance: Achieves top efficiency throughout the year, reacts quickly on the hottest days	Powerful	Where a quick increase of load is expected such as conference rooms. Quick reaction speed to changing load has priority, with temporarily colder outblow as a result.
	Quick	Same as above but slower response than the powerful mode.
	Mild *	This mode would be suitable for most office applications and it is the factory set mode. The perfect balance: Slower reaction speed with top efficiency
High sensible (User selection)  Year round top efficiency	Powerful	Gives customer choice for fixing coil temperature which avoids cold draughts. A quick reaction speed to changing load has priority, with temporarily colder outblow as a result.
	Quick	Same as above but slower response.
	Mild	The air off temperature remains fairly constant. Suitable for low ceiling rooms.
	Eco	Coil temperature would not change due to fluctuating load. Suitable for computer rooms. Suitable for low ceiling rooms.
Basic Current VRF standard	No submodes	This is how most other VRF systems work and can be used for all general type of applications. Suitable for computer rooms. Suitable for low ceiling rooms.

* Factory setting

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

Measured data

Fashion store Unterhaching (Germany)

› Floor space: 607m²
› Energy cost: 0,18 €/kWh
› System taken into account for consumption:
- VRV IV heat pump with continuous heating
- Round flow cassettes (without auto cleaning panel)
- VAM for ventilation (2x VAM2000)
- Biddle Air curtain.

Software for simplified commissioning, configuration and customisation

VRV
configurator software

- **Graphical interface**
- **Manage systems over multiple sites in exactly the same way**
- **Retrieve initial 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 to configure the outdoor unit
- Multiple systems at different sites can be managed in exactly the same way, providing simplified commissioning for key accounts
- Initial settings on the outdoor unit can be easily retrieved

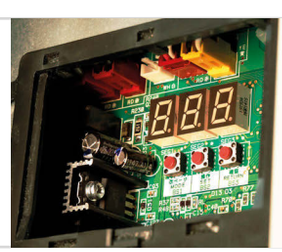
Simplified servicing

The user-friendly display for outdoor units simplifies basic servicing tasks.

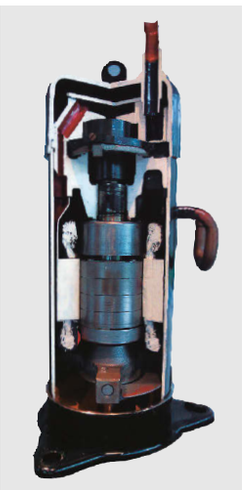
- Easy-to-read error report
- Easy-to-understand menu indicates quick and easy on-site settings
- Easy-to-follow parameters for checking basic functions: high pressure, low pressure, frequency and operation time, compressor history, temperature of discharge/suction pipe.

User-friendly interface instead of push buttons

3-digit 7-segment display



Unique VRV IV core technologies



Newly developed compressor

37 patents

Full inverter

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

Reluctance brushless DC motor

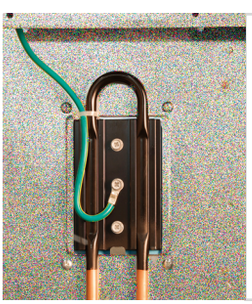
› increased efficiency compared to AC motors by simultaneously using normal and reluctance torque
› Powerful neodymium magnets efficiently generate high torque
› High-pressure oil reduces thrust losses

High efficiency J-type 6-pole motor

› 50% stronger magnetic field and higher rotation efficiency

Thixocasting process

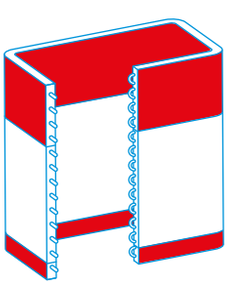
› Compression volume is increased by 50% thanks to a new high-durability material cast in a semi-molten state



Refrigerant-cooled PCB

6 patents

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



4-sided, 3-row heat exchanger

10 patents

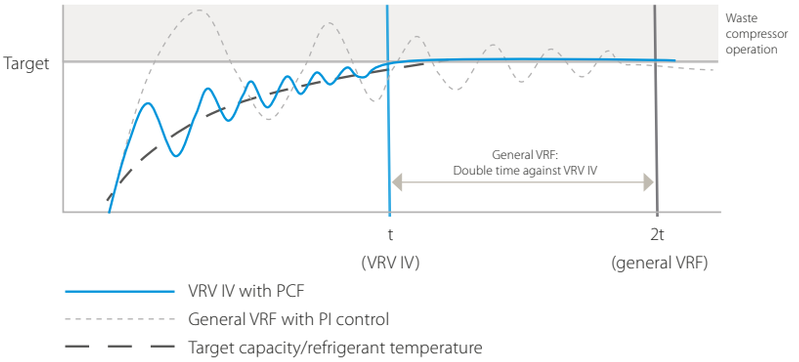
› Heat exchange surface up to 50% larger
› (up to 235m^2), leading to 30% more efficiency

UNIQUE

Predictive Control Function (PCF)

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

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



VRV IV: PCF
Compressor works with predictive data for the control

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

Half time against general VRF

General VRF: Pi control
Compressor works with feedback only for the control

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

DC fan motor

UNIQUE

Outer rotor DC motor for higher efficiency

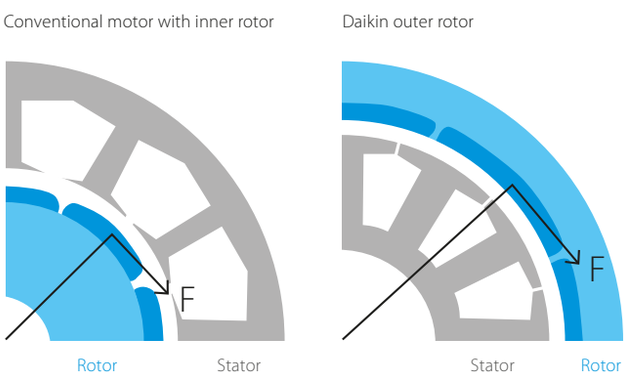
› Larger rotor diameter results in greater force for the same magnetic field, leading to better efficiency
› Better control, resulting in more fan steps to match the actual capacity

Sine wave DC inverter

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

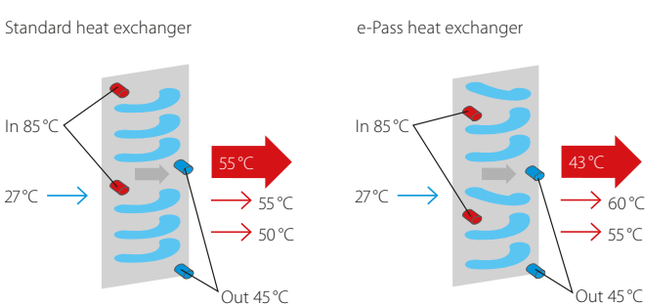
DC fan motor

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



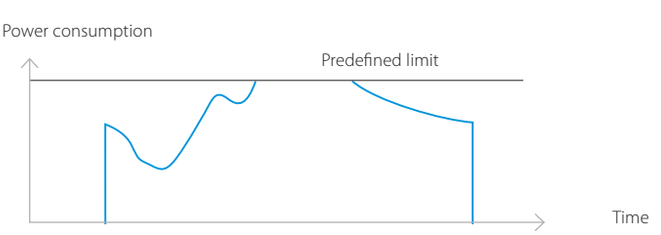
E-Pass heat exchanger

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

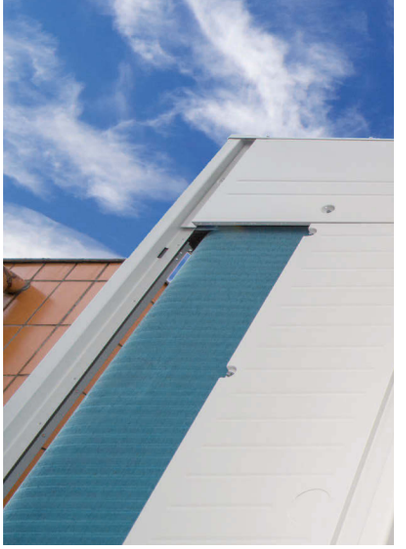


I-demand function

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



The total solution

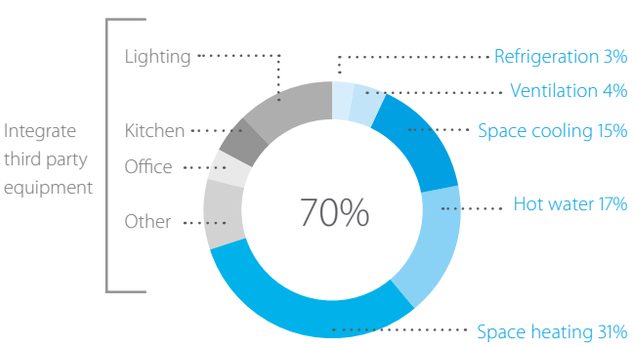


Typically, many buildings today rely on several separate systems for heating, cooling, air curtain heating and hot water. As a result energy is wasted. To provide a much more efficient alternative, VRV technology has been developed into a total solution managing up to 70% of a buildings energy consumption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

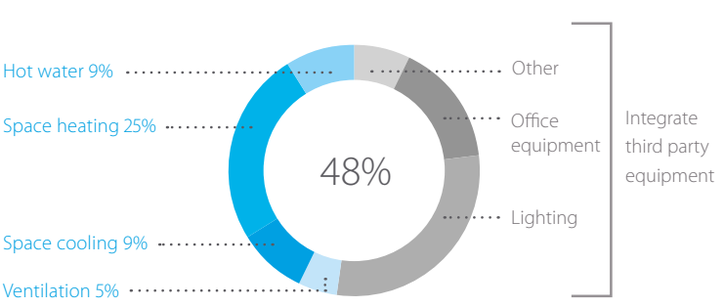
- **Heating and cooling**
  for year round comfort
- **Hot water**
  for efficient production of hot water
- **Underfloor heating /cooling**
  for efficient space heating/cooling
- **Ventilation**
  for high quality environments
- **Air curtains**
  for optimum air separation
- **Controls**
  for maximum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

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

Average hotel energy consumption



Average office energy consumption



One system,

multiple applications for hotels, offices, retail, home …

Heating and cooling

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

Intelligent control systems

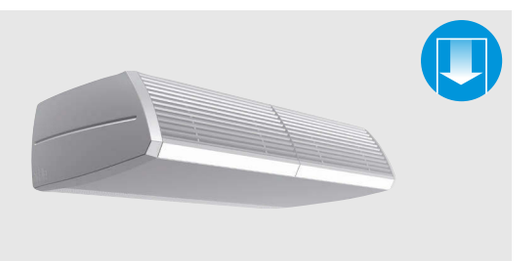
› Mini BMS which connects Daikin and third-party equipment
› Integrate intelligent control solutions with energy management tools to reduce running costs

Low-temperature hydrobox

› Highly efficient space heating through:
- Underfloor heating
- Low temperature radiators
- Heat pump convector

› Hot water from 25 °C to 45 °C

Biddle air curtain (Available upon request)



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

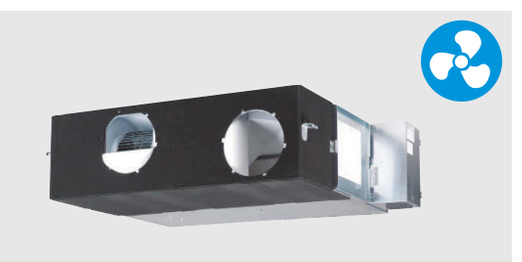
High temperature hydrobox*

*only for connection to VRV heat recovery

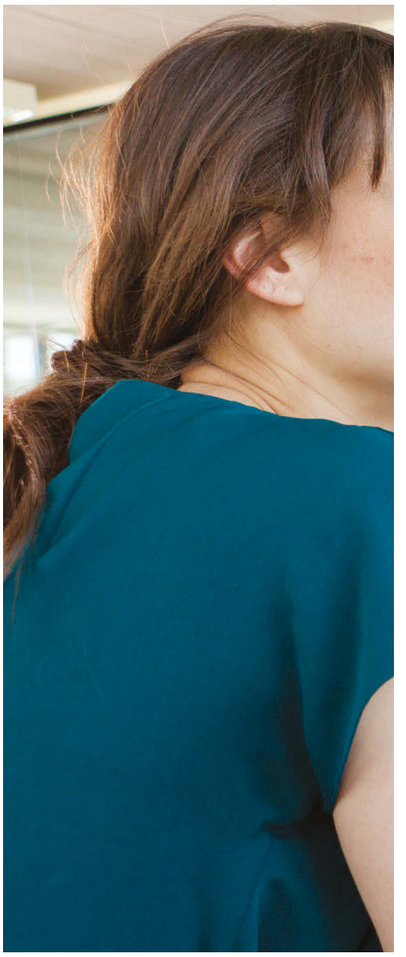
› efficient hot water production for:
- Showers
- Sinks
- Tapwater for cleaning

› Hot water from 25 °C to 80 °C

Ventilation



› Wide range in ventilation
› Provides a fresh, healthy and comfortable environment

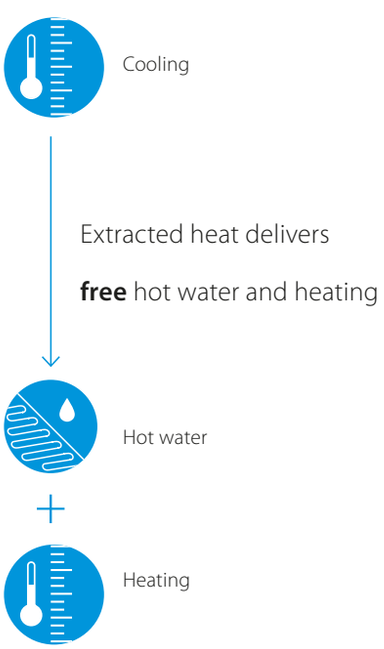


VRV IV heat recovery

Best efficiency and comfort solution

"Free" heat and hot water production

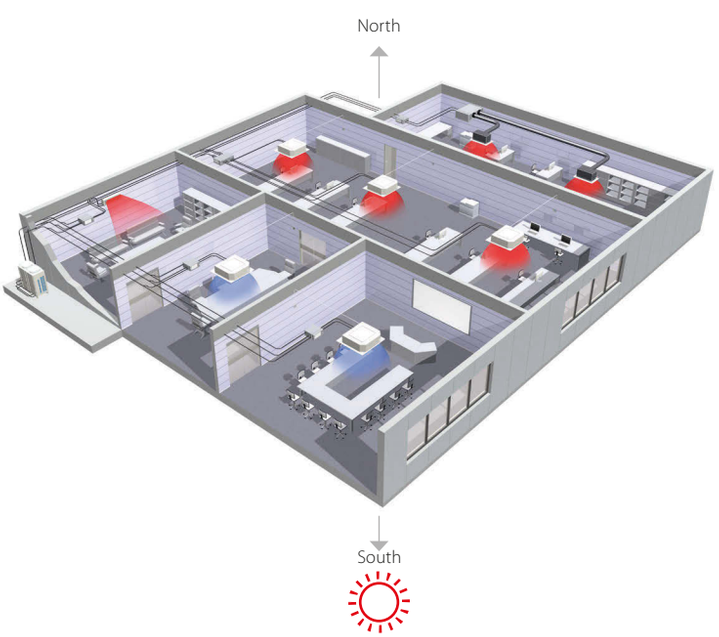
Until now, most commercial buildings have relied on separate systems for cooling, heating, hot water and so on, which results in a lot of wasted energy.
An integrated heat recovery system reuses heat from offices, server rooms, to warm other areas or create hot water.



Maximum comfort

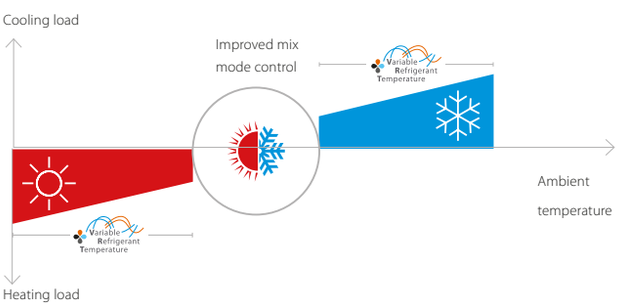
A VRV heat-recovery system allows simultaneous cooling and heating.

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



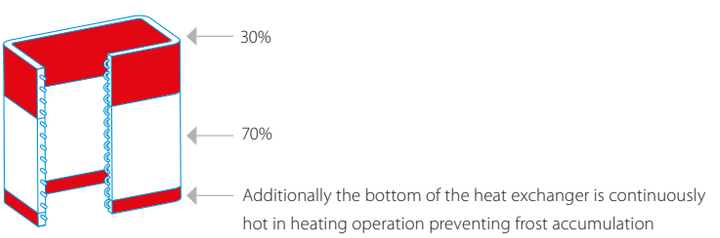
Improved efficiency

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



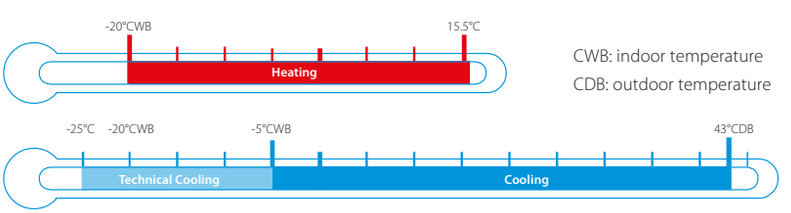
Optimised Partition of Heat Exchanger for highest seasonal efficiency in heat recovery mode

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



Wide heating operation range

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



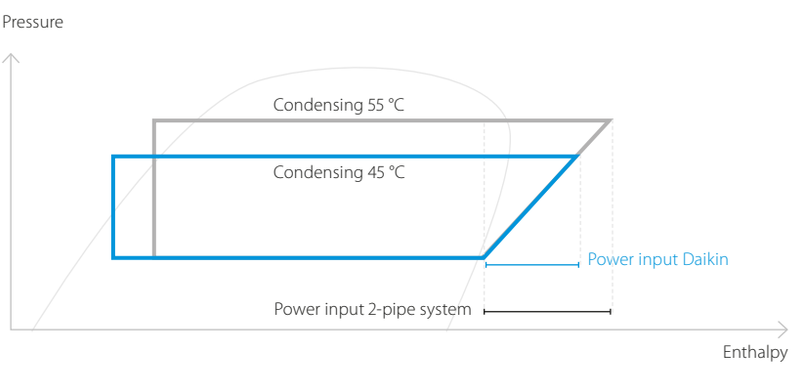
Advantages

of 3-pipe technology

More “free” heat

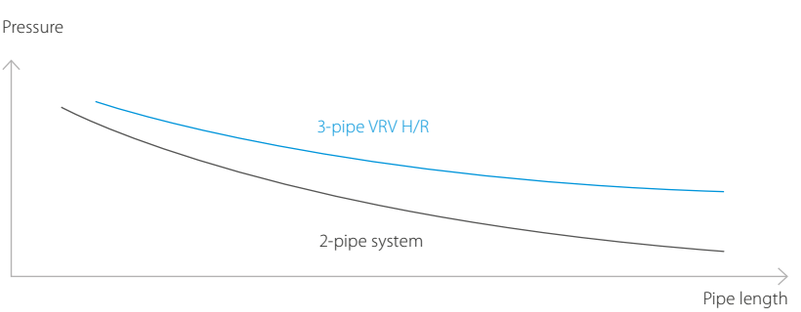
Daikin 3-pipe technology needs less energy to recover heat, meaning significantly higher efficiency during heat recovery mode. Our system can recover heat at a low condensing temperature because it has dedicated gas, liquid and discharge pipes.

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



Lower pressure drop means more efficiency

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



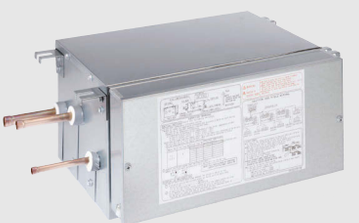
Freely combine outdoor units

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

Fully redesigned
BS boxes

Maximum design flexibility and installation speed

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



BS1Q 10, 16, 25 A

Single port

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

Multi port: 4 – 6 – 8 – 10 – 12 – 16

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

BS 4 Q14 A

BS 6, 8 Q14 A

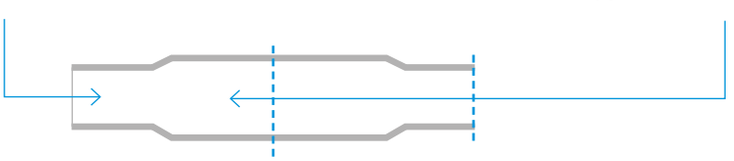
BS 10, 12 Q14 A

BS 16 Q14 A

Faster installation thanks to open connection

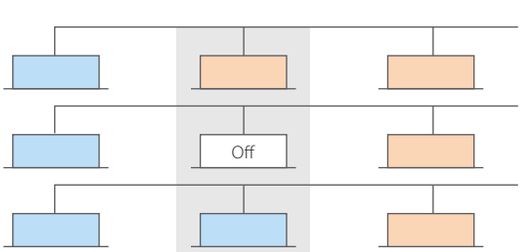
› No need to cut the pipe before brazing – for indoor units smaller or equal to 5.6 kW (50 class)

› Cut and braze the pipe – for indoor units bigger or equal to 7.1 kW (63 class)



Maximum comfort at all times

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



What does a VRV IV installation mean to you?

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

Consultants

Daikin's VRV IV technology maximises flexibility and leads the way in customisation to match individual building requirements in comfort and energy, with reduces running costs.

- Ecological design meets and exceeds legal requirements
- Ideal for reaching top BREEAM/EPDB/LEED levels
- No more cold draughts with higher evaporation temperatures up to 11 °C or 16 °C , thanks to variable refrigerant temperature
- Maximum flexibility to meet customer requirements
- Advanced software tools assist with system design

Building owners

VRV IV is the ultimate in customised comfort and intelligent control tailored to your individual needs and to maximise energy efficiency. Annual cost savings up to 28% (compared to VRV III).

- Annual cost savings up to 28% (compared to VRV III)
- No more cold draughts with variable refrigerant temperature
- Single point of contact for the design and maintenance of your climate system
- Integrated system, combining air conditioning, hot water, ventilation, etc. allows maximum heat recovery and energy efficiency
- Multiple systems can be managed in exactly the same way for the key accounts
- Dedicated after-sales service to ensure fast on-site support

Installers

Daikin VRV IV sets the standard with state-of-the-art technology and time-saving commissioning and servicing.

- Simplified and time-saving commissioning with VRV configurator
- Remote refrigerant containment check
- Unique range of single and multi BS boxes reduce installation time
- Wide range of outdoor units (up to 54HP both for heat pump and heat recovery)
- One supplier = one point of contact
- Maximum flexibility to meet customer requirements
- Customised training to maximise expertise

VRV IV outdoor unit
products overview

REYQ-T

VRV IV

VRV IV heat recovery

› Fully integrated solution with heat recovery for maximum efficiency with COPs of up to 8!
› Covers all thermal needs of a building via single point of contact: accurate temperature control, ventilation, hot water, air handling units* and Biddle air curtains**
› 'Free' heating and hot water through heat recovery
› Perfect personal comfort for guests/tenants via simultaneous cooling and heating
› Incorporates VRV IV standards and technologies such as variable refrigerant temperature
› Unique range of single- and multi BS boxes

RYYQ-T

RXYQ-T(9)

VRV IV

VRV IV heat pump

› Covers all thermal needs of a building via a single point of contact: accurate temperature control, ventilation, hot water, air handling units* and Biddle air curtains**
› Can be connected to stylish indoor units (Daikin Emura, FTXS)
› Incorporates VRV IV standards and technologies such as variable refrigerant temperature

RXYQQ-T

VRV IV Q-series

Replacement VRV IV

› Cost-effective and fast replacement through re-use of existing piping
› Up to 40% more efficient than R-22 systems
› No interuption of daily business while replacing your system
› Replace Daikin and other manufacturers' systems safely
› Incorporates VRV IV standards and technologies such as variable refrigerant temperature

RWEYQ-T

VRV IV W-series

Water cooled VRV IV

› Reduces CO_2 emissions by using geothermal energy as an energy source
› Geothermal mode eliminates need for an external heating or cooling source
› Covers all thermal needs of a building via a single point of contact: accurate temperature control, ventilation, hot water, air handling units* and Biddle air curtains**
› Compact and lightweight design can be stacked for maximum space saving
› Incorporates VRV IV standards and technologies such as variable refrigerant temperature
› Variable water flow control option increases flexibility and control

* By Others

** Available Upon Request

Products overview VRV

Model			Product name		4	5	6	8	10	12	13	14	16	18	20	22	24	26	28	30	32
Air cooled - heat recovery	VRV IV heat recovery	Best efficiency & comfort solution › Fully integrated solution with heat recovery for maximum efficiency › Covers all thermal needs of a building via a single point of contact: accurate temperature control, ventilation, hot water, air handling units** and Biddle air curtains*** › "Free" heating and hot water through heat recovery › The perfect personal comfort for guests/tenants via simultaneous cooling and heating › Incorporates VRV IV standards & technologies such as Variable Refrigerant temperature › Allows technical cooling › Widest range of BS boxes on the market	REYQ-T VRV IV					●	●	●		●	●	●	●						
								○			○		○	○	○	○	○	○	○	○	○
Air cooled - heat pump	VRV IV heat pump without continuous heating	Daikin's solution for comfort & low energy consumption › Covers all thermal needs of a building via a single point of contact: accurate temperature control, ventilation, hot water, air handling units** and Biddle air curtains*** › Connectable to stylish indoor units (Daikin Emura, FTXS) › Incorporates VRV IV standards & technologies such as Variable Refrigerant temperature	RXYQ-T(9) VRV IV					●	●	●		●	●	●	●						
								○			○		○	○	○	○	○	○	○	○	○
	VRVIII-S	Space saving solution without compromising on efficiency › For residential and light commercial applications › Space saving design › Either connect VRV of stylish indoor units (Daikin Emura, FTXS)	RXYSQ-P8V1/P8Y1 VRV III-S		●	●	●														
	VRV Classic	Classic VRV configuration › For standard cooling & heating requirements › Connectable to VRV indoor units, controls and ventilation	RXYCQ-A VRV Classic					○	○	○		○	○	○	○						
Replacement	heat recovery	Quick & quality replacement for R-22 and R-407C systems › Cost-effective and fast replacement through re-use of exisiting piping › Up to 40% more efficient than R-22 systems › No interuption of daily business while replacing your system › Replace Daikin and other manufacturers systems safely	RQCEQ-P* VRV III-Q						○		○		○	○	○	○	○	○	○	○	
	heat pump	Quick & quality replacement for R-22 and R-407C systems › Cost-effective and fast replacement through re-use of exisiting piping › Up to 80% more efficient than R-22 systems › No interuption of daily business while replacing your system › Replace Daikin and other manufacturers systems safely › Incorporates VRV IV standards & technologies such as Variable Refrigerant temperature	RXYQQ-T* VRV IV Q-series			●		●	●	●		●	●	●	●						
									○				○	○	○	○	○	○	○	○	○
Water cooled	Water cooled VRV IV	Ideal for high rise buildings, using water as heat source › Reduced CO2 emissions thanks to the use of geothermal energy as a renewable energy source › No need for an external heating or cooling source when used in geothermal mode › Covers all thermal needs of a building via a single point of contact: accurate temperature control, ventilation, hot water, air handling units** and Biddle air curtains*** › Compact & lightweight design can be stacked for maximum space saving › Incorporates VRV IV standards & technologies such as Variable Refrigerant temperature › Variable Water Flow control option increases flexibility and control	RWEYQ-T* VRV IV W-series					●	●												
													○	○	○		○	○	○	○	

* Not Eurovent certified
** By Others
*** Available Upon Request

● Single unit
○ Multi combination

Capacity (HP)													Description / Combination	**VRV** indoor units	Indoor units	**LT Hydrobox** HXY-A	**HT Hydrobox** HXHD-A	HRV units VAM-, VKM-	**AHU connection** EKEXV- + EKEQMCB	**AHU connection** EKEXV- + EKEQFCB	**Air curtains** CYV-DK-	Remarks
30	32	34	36	38	40	42	44	46	48	50	52	54										
													VRV IV Heat Recovery REYQ-T	○	×	○	○	○	○	×	○	ī Standard total system connection ratio limit: 50 ~ 130%
													with only VRV indoor units	✓								
													with LT/HT Hydroboxes	✓		✓	✓	✓				ī Max 32 indoor units, even on 16HP and larger systems ī Total system connection ratio up to 200% possible
													HRV units VAM-, VKM-	✓		✓	✓	✓	✓		✓	
●	●	●	●	●	●	●	●	●	●	●	●	●	AHU connection EKEXV + EKEQMCB	✓				✓	✓		✓	ī Dedicated systems (with only ventilation units) not allowed – a mix with standard VRV indoor units is allways neccessary
													Biddle air curtain CYV-DK-	✓				✓	✓		✓	
													VRV IV Heat Pump RXYQ-T(9)	○	○	○	×	○	○	○	○	ī Standard total system connection ratio limit: 50 ~ 130%
													with only VRV indoor units	✓								ī 200% total system connection ratio possible under special circumstances
													with residential indoor units	✓	✓			✓				ī Only single-module systems (RXYQ 8~20 T) ī Max 32 indoor units, even on 16HP, 18HP and 20HP systems
●	●	●	●	●	●	●	●	●	●	●	●	●	with LT Hydroboxes	✓		✓		✓				ī Max 32 indoor units, even on 16HP and larger systems ī Contact Daikin in case of multi-module systems (>20HP)
													HRV units VAM-, VKM-	✓	✓	✓		✓	✓		✓	
													AHU connection EKEXV + EKEQMCB	✓				✓	✓		✓	
													AHU connection EKEXV + EKEQFCB							✓		
													Biddle air curtain CYV-DK- ***	✓				✓	✓		✓	
													VRV III-S Mini VRV RXYSQ-P8	○	○	×	×	○	○	×	○	ī Standard total system connection ratio limit: 50 ~ 130%
													with VRV indoor units	✓				✓	✓		✓	
													with Split indoor units		✓							ī Total system connection ratio in terms of VRV indexes: 56 ~ 145%
													VRV Classic RXYCQ-A	✓	×	×	×	✓	×	×	×	ī Standard total system connection ratio limit: 50 ~ 120% ī In case of using at least one FXFQ20~25 indoor units on 8HP or 10HP models, the maximum connection ratio is 100%.
●													**VRV III-Q Replacement H/R** RQCEQ-P	✓	×	×	×	✓	×	×	×	ī Standard total system connection ratio limit: 50 ~ 130%
●	●	●	●	●	●	●							**VRV IV-Q Replacement H/P** RXYQQ-T	✓	×	×	×	✓	✓	×	✓	ī Standard total system connection ratio limit: 50 ~ 130%
●													**VRV IV-W Water-cooled VRV** RWEYQ-T	✓	×	×	×	✓	✓	×	✓	ī Standard total system connection ratio limit: 50 ~ 130%

○ ... connection of indoor unit possible, but not neccessarily simultaneously with other allowed indoor units

✓ ... connection of indoor unit possible even simultaneously with other checked units in the same row

× ... connection of indoor not possible on this outdoor unit system

Products overview VRV

Capacity class (kW)

Type	Model		Product name		15	20	25	32	40	50	63	71	80	100	125	140	200	250
Ceiling mounted cassette	UNIQUE Round flow cassette	360° air discharge for optimum efficiency and comfort › Auto cleaning function ensures high efficiency (5) › Intelligent sensors save energy and maximize comfort (5) › Flexibility to suit every room layout › Lowest installation height in the market!	ROUND FLOW	FXFQ-A		●	●	●	●	●	●		●	●	●			
	UNIQUE Fully flat cassette	Unique design that integrates fully flat into the ceiling › Perfect integration in standard architectural ceiling tiles › Blend of iconic design and engineering excellence › Intelligent sensors save energy and maximize comfort (5) › Small capacity unit developed for small or well-insulated rooms › Flexibility to suit every room layout	universal design award 2014	FXZQ-A	●	●	●	●	●	●								
	2-way blow ceiling mounted cassette	Thin, lightweight design installs easily in narrow ceiling spaces › Depth of all units is 620mm, ideal for narrow ceiling spaces › Flexibility to suit every room layout › Reduced energy consumption thanks to DC fan motor › The flaps close entirely when the unit is not operating › Optimum comfort with automatic air flow adjustment to the required load		FXCQ-A		●	●	●	●	●	●		●		●			
	Ceiling mounted corner cassette	1-way blow unit for corner installation › Compact dimensions enable installation in narrow ceiling voids › Flexible installation thanks to different air discharge options		FXKQ-MA			●	●	●		●							
	Slim concealed ceiling unit	Slim design for flexible installation › Compact dimensions enable installation in narrow ceiling voids › Medium external static pressure up to 44Pa › Only grilles are visible › Small capacity unit developted for small of well-insulated rooms › Reduced energy consumption thanks to DC fan motor		FXDQ-A	●	●	●	●	●	●	●							
	Concealed ceiling unit with medium ESP NEW	Slimmest yet most powerfull medium static pressure unit on the market! › Slimmest unit in class, only 245mm › Low operating sound level › Medium external static pressure up to 150Pa facilitates using flexible ducts of varying lengths › Automatic air flow adjustment function measures the air volume and static pressure and adjusts it towards the nominal air flow, guaranteeing comfort		FXSQ-A	●	●	●	●	●	●	●		●	●	●	●		
	Concealed ceiling unit with high ESP	ESP up to 200, ideal for large sized spaces › Optimum comfort guaranteed no matter the length of ductwork or type of grilles, thanks to automatic air flow adjustment › Reduced energy consumption thanks to DC fan motor › Flexible installation as the air suction direction can be altered from rear to bottom suction		FXMQ-P7						●	●		●	●	●			
	Concealed ceiling unit with high ESP	ESP up to 270, ideal for extra large sized spaces › Only grilles are visible › Large capacity unit: up to 31.5 kW heating capacity		FXMQ-MA9													●	●
	Concealed ceiling unit with high efficiency	For the highest energy efficiency › Automatic air flow adjustment function guarantees comfort › Easy installation in narrow ceilings (245mm height) › High external static pressure up to 270Pa facilitates using flexible ducts of varying lengths › Only the suction and discharge grilles are visible		FXTQ-A						●	●		●	●				
Wall mounted	Wall mounted unit	For rooms with no false ceilings nor free floor space › Flat, stylish front panel is more easy to clean › Small capacity unit developted for small of well-insulated rooms › Reduced energy consumption thanks to DC fan motor › The air is comfortably spread up- and downwards thanks to 5 different discharge angles		FXAQ-P	●	●	●	●	●	●	●							
Ceiling suspended	Ceiling suspended unit	For wide rooms with no false ceilings nor free floor space › Ideal for comfortable air flow in wide rooms thanks to Coanda effect › Rooms with ceilings up to 3.8m can be heated or cooled very easily! › Can easily be installed in both new and refurbishment projects › Can even be mounted in corners or narrow spaces without any problem › Reduced energy consumption thanks to DC fan motor		FXHQ-A				●			●			●				
	4-way blow ceiling suspended UNIQUE	Unique Daikin unit for high rooms with no false ceilings nor free floor space › Rooms with ceilings up to 3.5m can be heated up or cooled down very easily! › Can easily be installed in both new and refurbishment projects › Flexibility to suit every room layout › Reduced energy consumption thanks to DC fan motor		FXUQ-A								●		●				
Floor standing	Floor standing unit	For perimeter zone air conditioning › Can be installed in front of glass walls or free standing as both the front and the back are finished › Ideal for installation beneath a window › Requires very little installation space › Wall mounted installation facilitates cleaning beneath the unit		FXLQ-P		●	●	●	●	●	●							
	Concealed floor standing unit NEW	Ideal for installation in offices, hotels and residential applications › Discretely concealed in the wall, leaving only the suction and discharge grilles visible › Can even be installed underneath a window › Requires very little installation space as the depth is only 200mm › High ESP allows flexible installation		FXNQ-A		●	●	●	●	●	●							
Cooling capacity (kW)[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

(5) Optioal Necessary

Stylish indoor units overview

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

				Capacity class (kW)					Connectable outdoor unit		
Type	**Model**	**Product name**		**25**	**35**	**50**	**60**	**71**	**RXYQ-T(9)**	**RXYSQ-P8Y1[3]**	**RXYSQ-P8Y1[3]**
Ceiling mounted cassette	Round flow cassette (incl. auto-cleaning function[1])	FCQG-F			●	●	●			✓	✓
	Fully flat cassette	FFQ-C		●	●	●	●			✓	✓
Concealed ceiling	Concealed ceiling unit with inverter-driven fan	FBQ-D			●	●	●			✓	✓
Wall mounted	Daikin Emura Wall mounted unit	FTXG-LW/LS		●	●	●			✓	✓	✓
	Wall mounted unit	CTXS-K FTXS-K		●	●	●			✓	✓	✓
	Wall mounted unit	FTXS-G					●	●	✓	✓	✓
Ceiling suspended	Ceiling suspended unit	FHQ-C			●	●	●			✓	✓
	Floor standing unit	FVXS-F		●	●	●			✓	✓	✓
	Flexi type unit	FLXS-B(9)		●	●	●	●		✓	✓	✓

[1] Decoration panel BYCQ140CG + BRC1E52A/B needed

[2] To connect stylish indoor units a BPMKS unit is needed

[3] For RXYSQ units a mix of RA indoor units and VRV indoor units is not allowed.

Ventilation range

Five components of indoor air quality

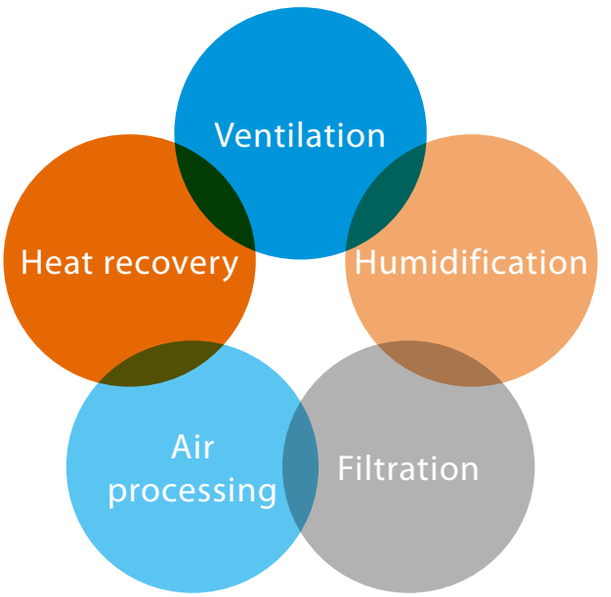
› **Ventilation:** ensures the provision of fresh air

› **Heat recovery:** recovers heat and moisture from the outgoing air to maximise comfort and efficiency

› **Air processing:** heats or cools incoming fresh air maximising comfort and minimizing the load on the air conditioning installation

› **Humidification:** optimises the balance between indoor and outdoor humidity

› **Filtration:** removes dust, pollution and odours from the air



Air flow rate (m^3/h)*

Type	Product name	Model	0 200 400 600 800 1,000 2,000 4,000 6,000 8,000 140,000	Components of indoor air quality
Heat reclaim ventilation	VAM-FA/FB 	Ventilation with heat recovery as standard › Energy saving ventilation › Maximise floor space for furniture, decoration and fittings › Free cooling › Reduced energy consumption thanks to DC inverter fan motor › Optional CO_2 sensor saves energy while improving indoor air quality		› Ventilation › Heat recovery
	VKM-GB 	Pre heating or cooling of fresh air for lower load on the air conditioning system › Energy saving ventilation › Creates a high quality indoor environment › Maximise floor space for furniture, decoration and fittings › Free cooling › Reduced energy consumption thanks to DC inverter fan motor		› Ventilation › Heat recovery › Air processing
	VKM-GBM 	Pre heating, cooling and humidification for optimum comfort › Energy saving ventilation › Creates a high quality indoor environment › Balance your indoor humidity level › Maximise floor space for furniture, decoration and fittings › Free cooling		› Ventilation › Heat recovery › Air processing › Humidification

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

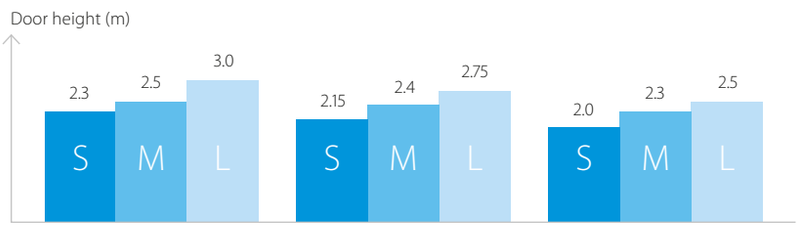
Additional options

Biddle air curtain range (Available Upon Request)

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

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

Air curtain size selector



Favourable
Covered shopping mall or revolving door entrance

Normal
No opposite open doors, little direct wind, building with ground floor only

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

Hydrobox range

Capacity class (kW)

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

Network solutions

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

VRV IV heat recovery

Outdoor system					REYQ	8T	10T	12T	14T	16T	18T	20T
Capacity range					HP	8	10	12	14	16	18	20
Cooling capacity	Nom.				kW	22.4 (1) (2)	28.0 (1) (2)	33.5 (1) (2)	40.0 (1) (2)	45.0 (1) (2)	50.4	56.0
Heating capacity	Nom.				kW	22.4 (3) (4)	28.0 (3) (4)	33.5 (3) (4)	40.0 (3) (4)	45.0 (3) (4)	50.4	56.0
	Max.				kW	25.0	31.5	37.5	45.0	50.0	56.5	63.0
Power input - 50Hz	Cooling	Nom.			kW	5.31 (1) / 4.56 (2)	7.15 (1) / 6.19 (2)	9.23 (1) / 8.31 (2)	10.7 (1) / 9.61 (2)	12.8 (1) / 11.9 (2)	15.2	18.6
	Heating	Nom.			kW	4.75 (3) / 4.47 (4)	6.29 (3) / 5.47 (4)	8.05 (3) / 6.83 (4)	9.60 (3) / 9.37 (4)	11.2 (3) / 9.88 (4)	12.3	14.9
		Max.			kW	5.51	7.38	9.43	11.3	12.9	14.3	17.5
EER						4.22 (1) / 4.92 (2)	3.92 (1) / 4.52 (2)	3.63 (1) / 4.03 (2)	3.74 (1) / 4.16 (2)	3.52 (1) / 3.79 (2)	3.32	3.01
COP - Max.						4.54	4.27	3.98		3.88	3.95	3.60
COP - Nom.						4.72 (3) / 5.01 (4)	4.45 (3) / 5.12 (4)	4.16 (3) / 4.90 (4)	4.17 (3) / 4.27 (4)	4.02 (3) / 4.56 (4)	4.10	3.76
ESEER						7.41	7.37	6.84	7.05	6.63	6.26	5.68
Maximum number of connectable indoor units						64 (5)						
Indoor index connection	Min./Nom./Max.					100/200/260	125/250/325	150/300/390	175/350/455	200/400/520	225/450/585	250/500/650
Dimensions	Unit	HeightxWidthxDepth			mm	1,685x930x765			1,685x1,240x765			
Weight	Unit				kg	210	218		304	305	337	
Fan	Air flow rate	Cooling	Nom.		m^3/min	162	175	185	223	260	251	261
Sound power level	Cooling	Nom.			dBA	78	79	81		86		88
Sound pressure level	Cooling	Nom.			dBA	58		61		64	65	66
		Night	Level 1		dBA	56	58	58	58	58	60	60
		Quiet	Level 2		dBA	55	54	54	52	52	52	52
		Mode	Level 3		dBA	53	52	52	47	47	48	48
Operation range	Cooling	Min.~Max.			°CDB	-5.0~43.0						
	Heating	Min.~Max.			°CWB	-20~15.5						
Refrigerant	Type / GWP					R-410A / 2,087.5						
	Charge				kg/TCO_2	9.7/20.2	9.8/20.5	9.9/20.7	11.8/24.6			
Piping connections	Liquid	OD			mm	9.52			12.7		15.9	
	Gas	OD			mm	19.1	22.2		28.6			
	Discharge gas	OD			mm	15.9	19.1		22.2			28.6
	Total piping length	System	Actual		m	1,000						
Power supply	Phase/Frequency/Voltage				Hz/V	3N~/50/380-415						
Current - 50Hz	Maximum fuse amps (MFA)				A	20	25		32	40		50

Outdoor system					REYQ	10T	13T	16T	18T	20T	22T	24T	26T	28T	30T	32T
System	Outdoor unit module 1					REMQ5T			REYQ8T		REYQ10T	REYQ8T		REYQ12T		REYQ16T
	Outdoor unit module 2					REMQ5T	REYQ8T		REYQ10T	REYQ12T		REYQ16T	REYQ14T	REYQ16T	REYQ18T	REYQ16T
Capacity range					HP	10	13	16	18	20	22	24	26	28	30	32
Cooling capacity	Nom.				kW	28.0	36.4	44.8	50.4	55.9	61.5	67.4	73.5	78.5	83.9	90.0
Heating capacity	Nom.				kW	28.0	36.4	44.8	50.4	55.9	61.5	67.4	73.5	78.5	83.9	90.0
	Max.				kW	32.0	41.0	50.0	56.5	62.5	69.0	75.0	82.5	87.5	94.0	100.0
Power input - 50Hz	Cooling	Nom.			kW	6.34	8.48	10.62	12.46	14.54	16.38	18.11	19.93	22.03	24.43	25.6
	Heating	Nom.			kW	5.42	7.46	9.50	11.04	12.80	14.34	15.95	17.65	19.25	20.35	22.4
		Max.			kW	6.50	8.76	11.02	12.89	14.94	16.81	18.41	20.73	22.33	23.73	25.8
EER						4.42	4.29	4.22	4.04	3.84	3.75	3.72	3.69	3.56	3.43	3.52
COP - Max.						4.92	4.68	4.54	4.38	4.18	4.10	4.07	3.98	3.92	3.96	3.88
COP - Nom.						5.17	4.88	4.72	4.57	4.37	4.29	4.23	4.16	4.08	4.12	4.02
ESEER - Automatic						7.77	7.54	7.41	7.38	7.06	7.07	6.87	6.95	6.72	6.48	6.63
ESEER - Standard						6.55	6.36	6.25	5.98	5.68	5.54	5.46	5.41	5.23	5.03	5.14
Maximum number of connectable indoor units						64										
Indoor index connection	Min.					125	162.5	200	225	250	275	300	325	350	375	400
	Nom.					250	325.0	400	450	500	550	600	650	700	750	800
	Max.					325	422.5	520	585	650	715	780	845	910	975	1,040
Piping connections	Liquid	OD			mm	9.52	12.7			15.9				19.1		
	Gas	OD			mm	22.2			28.6				34.9			
	Discharge gas	OD			mm	19.1		22.2			28.6					
	Total piping length	System	Actual		m	500					1,000					
Current - 50Hz	Maximum fuse amps (MFA)				A	40					50	63				80
Continuous heating						v										

Outdoor system					REYQ	34T	36T	38T	40T	42T	44T	46T	48T	50T	52T	54T
System	Outdoor unit module 1					REYQ16T		REYQ8T	REYQ10T		REYQ12T	REYQ14T	REYQ16T			REYQ18T
	Outdoor unit module 2					REYQ18T	REYQ20T	REYQ12T			REYQ16T				REYQ18T	
	Outdoor unit module 3					-		REYQ18T			REYQ16T				REYQ18T	
Capacity range					HP	34	36	38	40	42	44	46	48	50	52	54
Cooling capacity	Nom.				kW	95.4	101.0	106.3	111.9	118.0	123.5	130.0	135.0	140.4	145.8	151.2
Heating capacity	Nom.				kW	95.4	101.0	106.3	111.9	118.0	123.5	130.0	135.0	140.4	145.8	151.2
	Max.				kW	106.5	113.0	119.0	125.5	131.5	137.5	145.0	150.0	156.5	163.0	169.5
Power input - 50Hz	Cooling	Nom.			kW	28.0	31.4	29.74	31.58	32.75	34.83	36.3	38.4	40.8	43.2	45.6
	Heating	Nom.			kW	23.5	26.1	25.10	26.64	28.69	30.45	32.00	33.6	34.7	35.8	36.9
		Max.			kW	27.2	30.4	29.24	31.11	33.18	35.23	37.1	38.7	40.1	41.5	42.9
EER						3.41	3.22	3.57	3.54	3.60	3.55	3.58	3.52	3.44	3.38	3.32
COP - Max.						3.92	3.72	4.07	4.03	3.96	3.90	3.91	3.88	3.90	3.93	3.95
COP - Nom.						4.06	3.87	4.24	4.20	4.11	4.06		4.02	4.05	4.07	4.10
ESEER - Automatic						6.43	6.06	6.66	6.68	6.79	6.68	6.75	6.63	6.49	6.37	6.26
ESEER - Standard						4.97	4.70	5.25	5.20	5.28	5.20	5.23	5.14	5.03	4.93	4.84
Maximum number of connectable indoor units						64										
Indoor index connection	Min.					425	450	475	500	525	550	575	600	625	650	675
	Nom.					850	900	950	1,000	1,050	1,100	1,150	1,200	1,250	1,300	1,350
	Max.					1,105	1,170	1,235	1,300	1,365	1,430	1,495	1,560	1,625	1,690	1,755
Piping connections	Liquid	OD			mm	19.1										
	Gas	OD			mm	34.9					41.3					
	Discharge gas	OD			mm	28.6					34.9					
	Total piping length	System	Actual		m	1,000										
Current - 50Hz	Maximum fuse amps (MFA)				A	80			100			125				
Continuous heating						v										

Outdoor unit module					REMQ	5T
Dimensions	Unit	HeightxWidthxDepth			mm	1,685x930x765
Weight	Unit				kg	210
Fan	Air flow rate	Cooling	Nom.		m^3/min	162
Sound power level	Cooling	Nom.			dBA	77
Sound pressure level	Cooling	Nom.			dBA	56
Operation range	Cooling	Min.~Max.			°CDB	-5.0~43.0
	Heating	Min.~Max.			°CWB	-20~15.5
Refrigerant	Type / GWP					R-410A / 2,087.5
	Charge				kg/TCO_2Eq	9.7/20.2
Power supply	Phase/Frequency/Voltage				Hz/V	3N~/50/380-415
Current - 50Hz	Maximum fuse amps (MFA)				A	20

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

RXYQ-T

Outdoor system				RXYQ	8T/8T9	10T	12T	14T	16T	18T	20T
Capacity range				HP	8	10	12	14	16	18	20
Cooling capacity	Nom.			kW	22.4 (1) / 22.4 (2)	28.0 (1) / 28.0 (2)	33.5 (1) / 33.5 (2)	40.0 (1) / 40.0 (2)	45.0 (1) / 45.0 (2)	50.4 (1)	56.0 (1)
Heating capacity	Nom.			kW	22.4 (3) / 22.40 (4)	28.0 (3) / 28.00 (4)	33.5 (3) / 33.50 (4)	40.0 (3) / 40.0 (4)	45.0 (3) / 45.0 (4)	50.4 (3)	56.0 (3)
	Max.			kW	25.0 (3)	31.5 (3)	37.5 (3)	45.0 (3)	50.0 (3)	56.5 (3)	63.0 (3)
Power input - 50Hz	Cooling	Nom.		kW	5.21 (1) / 4.47 (2)	7.29 (1) / 6.32 (2)	8.98 (1) / 8.09 (2)	11.0 (1) / 9.88 (2)	13.0 (1) / 12.10 (2)	15.0 (1)	18.5 (1)
	Heating	Nom.		kW	4.75 (3) / 4.47 (4)	6.29 (3) / 5.47 (4)	7.77 (3) / 6.59 (4)	9.52 (3) / 9.30 (4)	11.1 (3) / 9.8 (4)	12.6 (3)	14.5 (3)
		Max.		kW	5.51 (3)	7.38 (3)	9.10 (3)	11.2 (3)	12.8 (3)	14.6 (3)	17.0 (3)
EER					4.30 (1) / 5.01 (2)	3.84 (1) / 4.43 (2)	3.73 (1) / 4.14 (2)	3.64 (1) / 4.05 (2)	3.46 (1) / 3.73 (2)	3.36 (1)	3.03 (1)
ESEER - Automatic					7.53	7.20	6.96	6.83	6.50	6.38	5.67
ESEER - Standard					6.37	5.67	5.50	5.31	5.05	4.97	4.42
COP - Max.					4.54 (3)	4.27 (3)	4.12 (3)	4.02 (3)	3.91 (3)	3.87	3.71
COP - Nom.					4.72 (3) / 5.01 (4)	4.45 (3) / 5.12 (4)	4.31 (3) / 5.08 (4)	4.20 (3) / 4.30 (4)	4.05 (3) / 4.59 (4)	4.00	3.86
Maximum number of connectable indoor units					64 (5)						
Indoor index connection	Min./Nom./Max.				100/200/260	125/250/325	150/300/390	175/350/455	200/400/520	225/450/585	250/500/650
Dimensions	Unit	HeightxWidthxDepth		mm	1,685x930x765			1,685x1,240x765			
Weight	Unit			kg	243	252		356		391	
Fan	Air flow rate	Cooling	Nom.	m^3/min	162	175	185	223	260	251	261
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						
	Charge			kg	5.9	6	6.3	10.3	10.4	11.7	11.8
				tCO_2eq	12.3	12.5	13.2	21.5	21.7	24.4	24.6
	GWP				2,087.5						
Piping connections	Liquid	OD		mm	9.52		12.7			15.9	
	Gas	OD		mm	19.1	22.2	28.6				
	Total piping length	System	Actual	m	1,000						
Power supply	Phase/Frequency/Voltage			Hz/V	3N~/50/380-415						
Current - 50Hz	Maximum fuse amps (MFA)			A	20	25	32		40		50

Outdoor system			RXYQ	22T	24T/24T9	26T	28T	30T	32T	34T	36T	38T/38T9
System	Outdoor unit module 1			10T	8T		12T			16T		8T
	Outdoor unit module 2			12T	16T	14T	16T	18T	16T	18T	20T	10T
	Outdoor unit module 3						-					20T
Capacity range			HP	22	24	26	28	30	32	34	36	38
Cooling capacity	Nom.		kW	61.5	67.4	73.5	78.5	83.9	90.0	95.4	101.0	106.3
Heating capacity	Nom.		kW	61.5	67.4	73.5	78.5	83.9	90.0	95.4	101.0	106.3
	Max.		kW	69.0	75.0	82.5	87.5	94.0	100.0	106.5	113.0	119.0
Power input - 50Hz	Cooling	Nom.	kW	16.27	18.2	20.0	22.0	24.0	26.0	28.0	31.5	29.2
	Heating	Nom.	kW	14.06	15.85	17.29	18.87	20.4	22.2	23.7	25.6	25.1
		Max.	kW	16.48	18.31	20.30	21.90	23.7	25.6	27.4	29.8	29.2
EER				3.77	3.70	3.68	3.57	3.5	3.46	3.4	3.21	3.6
ESEER - Automatic				7.07	6.81	6.89	6.69	6.60	6.50	6.44	6.02	6.36
ESEER - Standard				5.58	5.42	5.39	5.23	5.17	5.05	5.01	4.68	5.03
COP - Max.				4.19	4.10	4.06	4.00		3.91	3.9	3.79	4.1
COP - Nom.				4.37	4.25		4.16	4.1	4.05	4.0	3.95	4.2
Maximum number of connectable indoor units				64								
Indoor index connection	Min./Nom./Max.			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	475/950/1,235
Piping connections	Liquid	OD	mm	15.9		19.1						
	Gas	OD	mm	28.6	34.9						41.3	
	Total piping length	System	Actual	m	1,000							
Current - 50Hz	Maximum fuse amps (MFA)		A	63				80				100

Outdoor system			RXYQ	40T	42T	44T	46T	48T	50T	52T	54T
System	Outdoor unit module 1			10T		12T	14T		16T		18T
	Outdoor unit module 2			12T	16T					18T	
	Outdoor unit module 3			18T	16T				18T		
Capacity range			HP	40	42	44	46	48	50	52	54
Cooling capacity	Nom.		kW	111.9	118.0	123.5	130.0	135.0	140.0	145.8	151.2
Heating capacity	Nom.		kW	111.9	118.0	123.5	130.0	135.0	140.0	145.8	151.2
	Max.		kW	125.5	131.5	137.5	145.0	150.0	156.0	163.0	169.5
Power input - 50Hz	Cooling	Nom.	kW	31.3	33.3	35.0	37.0	39.0	40.7	43.0	45.0
	Heating	Nom.	kW	26.7	28.49	29.97	31.72	33.3	34.6	36.3	37.8
		Max.	kW	31.1	32.98	34.70	36.8	38.4	40.0	42.0	43.8
EER				3.6	3.54		3.51	3.46	3.44	3.4	3.40
ESEER - Automatic				6.74	6.65	6.62	6.60	6.50	6.46	6.42	6.38
ESEER - Standard				5.29	5.19	5.17	5.13	5.05	5.02	4.99	4.97
COP - Max.				4.0	3.99	3.96	3.94	3.91		3.90	
COP - Nom.				4.2	4.14	4.12	4.10	4.05		4.0	
Maximum number of connectable indoor units				64							
Indoor index connection	Min./Nom./Max.			500/1,000/1,300	525/1,050/1,365	550/1,100/1,430	575/1,150/1,495	600/1,200/1,560	625/1,250/1,625	650/1,300/1,690	675/1,350/1,755
Piping connections	Liquid	OD	mm	19.1							
	Gas	OD	mm	41.3							
	Total piping length	System	Actual	m	1,000						
Current - 50Hz	Maximum fuse amps (MFA)		A	100				125			

(1) Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB, outdoor temperature: 35°CDB, equivalent refrigerant piping: 5m, level difference: 0m. Data for standard efficiency series (2) Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB, outdoor temperature: 35°CDB, equivalent refrigerant piping: 5m, level difference: 0m. Data for high efficiency series, Eurovent certified (3) Nominal heating capacities are based on: indoor temperature: 20°CDB, outdoor temperature: 7°CDB, 6°CWB, equivalent refrigerant piping: 5m, level difference: 0m. Data for standard efficiency series (4) Nominal heating capacities are based on: indoor temperature: 20°CDB, outdoor temperature: 7°CDB, 6°CWB, equivalent refrigerant piping: 5m, level difference: 0m. Data for high efficiency series, Eurovent certified (5) Actual number of connectable indoor units depends on the indoor unit type (VRV indoor, Hydrobox, RA indoor, etc.) and the connection ratio restriction for the system (50% <= CR <= 130%) | The STANDARD ESEER value corresponds with normal VRV4 Heat Pump operation, not taking into account advanced energy saving operation functionality | The AUTOMATIC SEER value corresponds with normal VRV4 Heat Pump operation, taking into account advanced energy saving operation functionality (variable refrigerant temperature control operation)

Replacement VRV IV heat pump

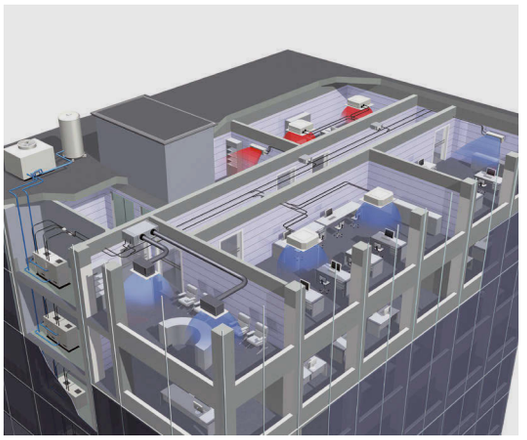
Outdoor unit					RXYQQ	8T	10T	12T	14T	16T	18T	20T
Capacity range					HP	8	10	12	14	16	18	20
Cooling capacity	Nom.				kW	22.4	28.0	33.5	40.0	45.0	50.0	56.0
Heating capacity	Nom./Max.				kW	22.4/25.0	28.0/31.5	33.5/37.5	40.0/45.0	45.0/50.0	50.0/56.0	56.0/63.0
Power input - 50Hz	Cooling	Nom.			kW	5.21	7.29	8.98	11.0	13.0	14.7	18.5
	Heating	Nom./Max.			kW	4.75/5.51	6.29/7.38	7.77/9.10	9.52/11.2	11.1/12.8	12.4/14.4	14.5/17.0
EER						4.30	3.84	3.73	3.64	3.46	3.40	3.03
ESEER						6.37(1)/7.53(2)	5.67(1)/7.20(2)	5.50(1)/6.96(2)	5.31(1)/6.83(2)	5.05(1)/6.50(2)	4.97(1)/6.38(2)	4.42(1)/5.67(2)
COP						4.72/4.54	4.45/4.27	4.31/4.12	4.20/4.02	4.05/3.91	4.03/3.89	3.86/3.71
Maximum number of connectable indoor units						64(3)						
Indoor index connection	Min./Nom./Max.					100/200/260	125/250/325	150/300/390	175/350/455	200/400/520	225/450/585	250/500/650
Dimensions	Unit	HeightxWidthxDepth			mm	1,685x930x765			1,685x1,240x765			
Weight	Unit				kg	261	268		364		398	
Fan	Air flow rate	Cooling	Nom.		m^3/min	162	175	185	223	260	251	261
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 / GWP					R-410A / 2,087.5						
	Charge				kg/ TCO_2Eq	5.9/ 12.3	6.0/ 12.5	6.3/ 13.2	10.3/ 21.5	10.4/ 21.7	11.7/ 24.4	11.8/ 24.6
Piping connections	Liquid	OD			mm	9.52		12.7			15.9	
	Gas	OD			mm	19.1	22.2	28.6				
	Total piping length	System	Actual		m	1,000						
Power supply	Phase/Frequency/Voltage				Hz/V	3N~/50/380-415						
Current - 50Hz	Maximum fuse amps (MFA)				A	20	25	32		40		50

Outdoor system				RXYQQ	22T	24T	26T	28T	30T	32T	34T	36T
System	Outdoor unit module 1				10	8	12			16		
	Outdoor unit module 2				12	16	14	16	18	16	18	20
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./Max.			kW	61.5/69.0	67.4/75.0	73.5/82.5	78.5/87.5	83.5/93.5	90.0/100.0	95.0/106.0	101.0/113.0
Power input - 50Hz	Cooling	Nom.		kW	16.27	18.2	20.0	22.0	23.7	26.0	27.7	31.5
	Heating	Nom./Max.		kW	14.06/16.48	15.85/18.31	17.29/20.30	18.87/21.90	20.17/23.50	22.2/25.6	23.5/27.2	25.6/29.8
EER					3.77	3.70	3.68	3.57	3.52	3.46	3.43	3.21
ESEER					5.58(1)/7.07(2)	5.42(1)/6.81(2)	5.39(1)/6.89(2)	5.23(1)/6.69(2)	5.17(1)/6.60(2)	5.05(1)/6.50(2)	5.01(1)/6.44(2)	4.68(1)/6.02(2)
COP					4.37 / 4.19	4.25 / 4.10	4.25 / 4.06	4.16 / 4.00	4.14 / 3.98	4.05 / 3.91	4.04 / 3.90	3.95 / 3.79
Maximum number of connectable indoor units					64(3)							
Indoor index connection	Min.				275	300	325	350	375	400	425	450
	Nom.				550	600	650	700	750	800	850	900
	Max.				715	780	845	910	975	1,040	1,105	1,170
Piping connections	Liquid	OD		mm	15.9		19.1					
	Gas	OD		mm	28.6	34.9						41.3
	Total piping length	System	Actual	m	1,000							
Current - 50Hz	Maximum fuse amps (MFA)			A	63				80			

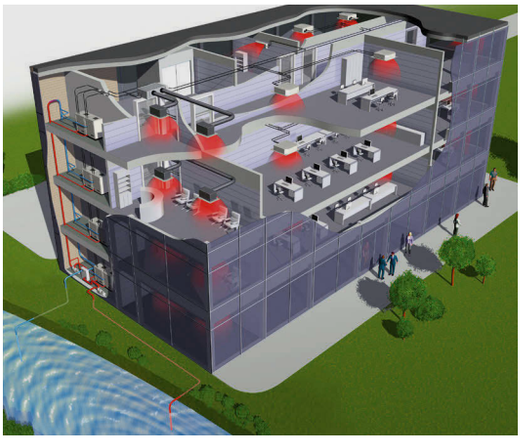
Outdoor system				RXYQQ	38T	40T	42T
System	Outdoor unit module 1				8	10	10
	Outdoor unit module 2				10	12	16
	Outdoor unit module 3				20	18	16
Capacity range				HP	38	40	42
Cooling capacity	Nom.			kW	106.0	111.5	118.0
Heating capacity	Nom./Max.			kW	106.4/119.5	111.5/125.0	118.0/131.5
Power input - 50Hz	Cooling	Nom.		kW	31.0		33.3
	Heating	Nom./Max.		kW	25.54/29.89	26.46/30.88	28.49/32.98
EER					3.42	3.61	3.54
ESEER					5.03(1)/6.36(2)	5.29(1)/6.74(2)	5.19(1)/6.65(2)
COP					4.17 / 4.00	4.21 / 4.05	4.14 / 3.99
Maximum number of connectable indoor units					64(3)		
Indoor index connection	Min.				475	500	525
	Nom.				950	1,000	1,050
	Max.				1,235	1,300	1,365
Piping connections	Liquid	OD		mm	19.1		
	Gas	OD		mm	41.3		
	Total piping length	System	Actual	m	1,000		
Current - 50Hz	Maximum fuse amps (MFA)			A	100		

(1) The STANDARD ESEER value corresponds with normal VRV IV heat pump operation, not taking into account advanced energy saving operation functionality
(2) The AUTOMATIC ESEER corresponds with normal VRV IV heat pump operation, taking into account the advanced energy saving functionality (variable refrigerant temperature)
(3) Actual number of 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%)
(4) Not Eurovent certified
Contains fluorinated greenhouse gases

VRV IV water cooled series



Standard operation



Geothermal operation

Outdoor unit					RWEYQ	8T	10T	16T	18T	20T	24T	26T	28T	30T
System	Outdoor unit module 1					RWEYQ8T	RWEYQ10T	RWEYQ8T		RWEYQ10T	RWEYQ8T			RWEYQ10T
	Outdoor unit module 2					-		RWEYQ8T	RWEYQ10T		RWEYQ8T		RWEYQ10T	
	Outdoor unit module 3					-					RWEYQ8T	RWEYQ10T		
Capacity range					HP	8	10	16	18	20	24	26	28	30
Cooling capacity	Nom.				kW	22.4	28.0	44.8	50.4	56.0	67.2	72.8	78.4	84.0
Heating capacity	Nom.				kW	25.0	31.5	50.0	56.5	63.0	75.0	81.5	88.0	94.5
Power input - 50Hz	Cooling	Nom.			kW	4.42	6.14	8.8	10.6	12.3	13.3	15.0	16.7	18.4
	Heating	Nom.			kW	4.21	6.00	8.4	10.2	12.0	12.6	14.4	16.2	18.0
EER						5.07	4.56	5.07	4.77	4.56	5.07	4.86	4.69	4.56
COP						5.94	5.25	5.94	5.53	5.25	5.94	5.65	5.43	5.25
Maximum number of connectable indoor units						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	137		-						
Fan	Air flow rate	Cooling	Nom.		m^3/min	-								
Sound power level	Cooling	Nom.			dBA	-								
Sound pressure level	Cooling	Nom.			dBA	50	51	53	54		55			56
Operation range	Inlet water temperature	Cooling	Min.~Max.		°CDB	10~45								
		Heating	Min.~Max.		°CWB	-10~45								
Refrigerant	Type / GWP					R-410A/2,087.5								
	Charge				kg/ TCO_2Eq	3.5/7.3	4.2/8.8	-						
Piping connections	Liquid	OD			mm	9.52		12.7	15.9		19.1			
	Gas	OD			mm	19.10 (1)	22.2 (1)	28.6 (1)			34.9 (1)			
	Discharge gas	OD			mm	15.9 (2) / 19.10 (3)	19.1 (2) / 22.10 (3)	22.2 (2) / 28.60 (3)			28.6 (2) / 34.90 (3)			
	Water	Inlet/Outlet				PT1 1/4B internal thread/PT1 1/4B internal thread								
	Total piping length	System	Actual		m	300								
Power supply	Phase/Frequency/Voltage				Hz/V	3N~/50/380-415								
Current - 50Hz	Maximum fuse amps (MFA)				A	20		32			50			

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

BS1Q-A Individual branch selector – VRV IV heat recovery

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

BS-Q14A Multi branch selector – VRV IV heat recovery

Indoor unit				BS	4Q14A	6Q14A	8Q14A	10Q14A	12Q14A	16Q14A
Power input	Cooling	Nom.		kW	0.043	0.064	0.086	0.107	0.129	0.172
	Heating	Nom.		kW	0.043	0.064	0.086	0.107	0.129	0.172
Maximum number of connectable indoor units					20	30	40	50	60	64
Maximum number of connectable indoor units per branch					5					
Number of branches					4	6	8	10	12	16
Maximum capacity index of connectable indoor units					400	600	750			
Maximum capacity index of connectable indoor units per branch					140					
Dimensions	Unit	HeightxWidthxDepth		mm	298x370x430	298x580x430		298x820x430		298x1,060x430
Weight	Unit			kg	17	24	26	35	38	50
Casing	Material				Galvanised steel plate					
Piping connections	Outdoor unit	Liquid	OD	mm	9.5	12.7	12.7 / 15.9	15.9	15.9 / 19.1	19.1
		Gas	OD	mm	22.2 / 19.1	28.6 / 22.2	28.6	28.6 / 34.9		34.9
		Discharge gas	OD	mm	19.1 / 15.9	19.1 / 22.2	19.1 / 22.2 / 28.6	28.6		
	Indoor unit	Liquid	OD	mm	9.5 / 6.4					
		Gas	OD	mm	15.9 / 12.7					
	Drain				VP20 (I.D. 20/O.D. 26)					
Sound absorbing thermal insulation					Urethane foam, polyethylene foam					
Power supply	Phase/Frequency/Voltage			Hz/V	1~/50/220-440					
Total circuit	Maximum fuse amps (MFA)			A	15					

BSVQ-P9B Individual branch selector – Water cooled VRV IV heat recovery

Indoor unit				BSVQ	100P9B	160P9B	250P9B
Power input	Cooling	Nom.		kW	0.005		
	Heating	Nom.		kW	0.005		
Maximum number of connectable indoor units					6	8	
Maximum capacity index of connectable indoor units					15 < x ≤ 100	100<x≤160	160<x≤250
Dimensions	Unit	HeightxWidthxDepth		mm	207x388x326		
Weight	Unit			kg	12		15
Casing	Material				Galvanised steel plate		
Piping connections	Outdoor unit	Liquid	Type/OD	mm	Brazing connection/9.5		
		Gas	Type/OD	mm	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		
		Gas	Type/OD	mm	Brazing connection/15.9	Brazing connection/15.9	Brazing connection/22.2
Sound absorbing thermal insulation					Foamed polyurethane Flame-resistant needle felt		
Power supply	Phase/Frequency/Voltage			Hz/V	1~/50/220-240		
Total circuit	Maximum fuse amps (MFA)			A	15		

BSV4Q-PV/BSV6Q-PV Multi branch selector – Water cooled VRV IV heat recovery

Indoor unit				BSV4Q-PV/BSV6Q-PV	4Q100PV	6Q100PV
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	
Dimensions	Unit	HeightxWidthxDepth		mm	209x1,053x635	209x1,577x635
Weight	Unit			kg	60	89
Casing	Material				Galvanised steel plate	
Piping connections	Outdoor unit	Liquid	Type/OD	mm	Brazing connection/12.7	Brazing connection/15.9
		Gas	Type/OD	mm	Brazing 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 Flame-resistant needle felt	
Power supply	Phase/Frequency/Voltage			Hz/V	1~/50/220-240	
Total circuit	Maximum fuse amps (MFA)			A	15	

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VRV IV Heat Recovery

360° efficiency

installation efficiency

design efficiency

operational efficiency

FAST design + QUICK installation + MORE free heat + MAX comfort

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