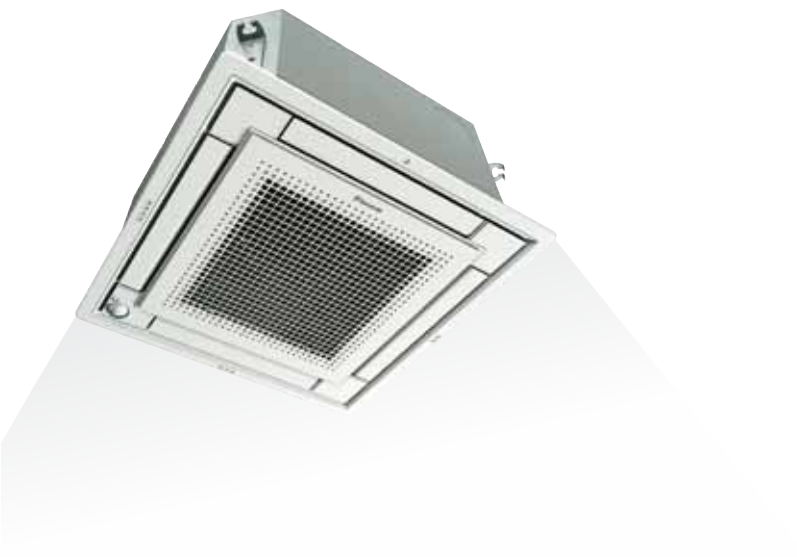
DAIKIN

Your business our concern

SEASONAL EFFICIENCY
Smart use of energy



SKY AIR PRODUCT RANGE
COMMERCIAL CATALOGUE

Sky Air

About Daikin

Daikin has a worldwide reputation based on nearly 90 years' experience in the successful manufacture of high quality air conditioning equipment for industrial, commercial and residential use and 55 years as a leader in heat pump technology.

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.

Heat pump technology

Air to air heat pumps obtain 80% of their output energy from renewable sources: the ambient air, which is both renewable and inexhaustible*. Of course, heat pumps also require electricity to run the system, but increasingly this electricity can also be generated from renewable energy sources (solar energy, wind energy, hydropower, biomass).

* EU objective COM (2008)/30

Content

Benefits for building owners

Daikin solutions provide market-leading systems that are ahead of the latest legislation for energy savings and carbon emissions. Delivering a consistent high performance throughout the product's lifespan, the Sky Air range contains operational features that deliver the very highest seasonal efficiencies on the market while the advanced controls and monitoring features allow the delivery of optimal comfort levels with the minimum of costs.

These features provide the following benefits for Building Owners:

- Your climate control system will meet legal requirements well beyond the current legislation
- You will obtain optimal seasonal performance thus saving energy and so reducing costs
- The climate control system will add value to the building thus protecting your investment
- You will save on installation and running costs, obtain rapid return on investment, and contribute to ecological protection objectives

Benefits for installers

Our systems have been designed to provide for an easy transition from existing units to the technologically advanced units that offer far higher energy efficiency solutions. With new compressors, heat exchangers and control systems available for installers to recommend and utilise in system upgrades to meet future regulations, the Sky Air series has been developed with the installer and his client in mind enabling him to provide much more than just an installation service. In reality, Sky Air offers the installer a competitive advantage by being able to recommend an extended 3-phase range, enhanced controllers and optical detection tools that all help deliver optimal performance, high seasonal efficiency, low ecological impact and significant cost savings.

These features provide the following benefits for Installers:

- Modular designs and factory fitted extras make installation easier to achieve

Benefits for consultant and design offices

Daikin has a long history of working closely with the consultants and design offices that recommend our equipment to deliver future-ready systems that meet the requirements of both the buildings and the legislation. Our systems are designed to meet the toughest of energy-efficiency, fiscal and compliance issues to allow flexibility for consultants and design offices in delivering absolute comfort in the most efficient manner, while our tools allow them to maximize building performance. The new Daikin Seasonal Smart system, with its adjustable condensing and evaporating temperatures, is a classic example of thinking ahead to ensure performance.

These features provide the following benefits for Consultants and Design Offices:

- You will have the confidence of knowing that you can recommend the right climate control systems to meet tomorrow's legislation
- You will have systems that are designed to blend into any décor and yet provide optimal performance with top seasonal efficiencies
- You will have access to innovative technology to maximize the climate control performance of the entire building
- Your credentials as an eco-conscious consultant and designer will be enhanced

Sky Air the solution for the light commercial sector

Sky Air is Daikin's industry-leading light commercial range, which has been redesigned for optimum seasonal energy efficiency ahead of the latest legislation. Providing the ideal solution for all kinds of small commercial spaces, the Sky Air series offers a complete comfort solution that puts you in total control of your heating and cooling, ventilation and air curtains.

Heating and cooling

Using highly **efficient heat pumps**, Sky Air solutions offer year round comfort:

- All systems now optimised for seasonal energy efficiency.
- A heat pump system can be combined with an outdoor unit powering several indoor units.
  - For a long or irregularly shaped room you can use up to four indoor units linked a single outdoor unit. All the indoor units are controlled at the same time.
  - Air conditioning is available in every room: a multi system allows up to nine different indoor units to operate from a single outdoor unit. All the indoor units can be individually controlled and do not need to be installed at the same time. Extra units can be added later.
- Select from a wide range of indoor units: wall and floor mounted, concealed or ceiling mounted.
- Very quiet and draught-free operation.
- Ideal for both new build and refurbishment projects.

Biddle air curtains for entrances

Biddle air curtains can be used with the Sky Air system to provide heating at building entrances.

Daikin Sky Air can be used with Biddle air curtains to provide heating at building entrances:

- Ideal for buildings with open-door policy such as retail stores.
- Year round climate control and comfort even on the most demanding days.

User-friendly controls

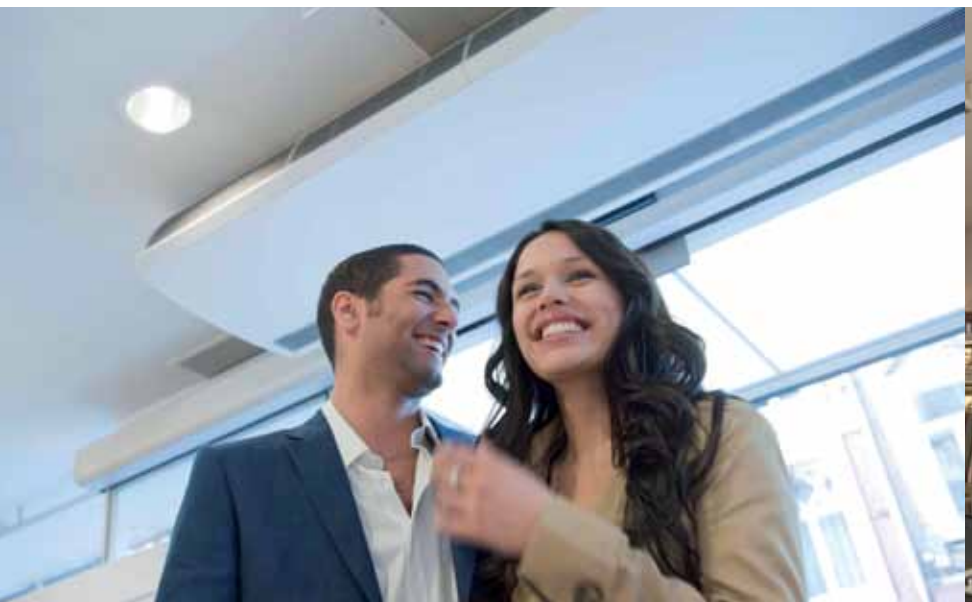
Our **user friendly controls** allows you to manage your Sky Air system for maximum efficiency:

- From individualised unit control to centralised management via touch-screen options and code based controllers, we put you in command at all times.
- The wired remote controller gives full access to the unit's functions and energy saving features, including indication of kWh usage and flexible scheduling for different seasons.
- The DIII-net connection is now standard on most units, allowing you to link into the wider building management system.
- Text based remote control and monitoring of the entire building is available via the internet.

Ventilation

Daikin's **ventilation** option provides a supply of fresh air to help create a healthy and high-quality indoor environment:

- Heat is reclaimed between outdoor and indoor air.
- The fresh air from the ventilation provides additional cooling virtually free.
- Optimum humidity control.



Sky Air the solution for the light commercial sector

Sky Air for retailers

- Creates an inviting atmosphere for your customers.
- Discreet with limited visual and operating impact.
- Reduces energy usage and costs.
- Worry-free installation.

Our **round flow cassettes** blend with your décor as they are **integrated in the ceiling** with only the standard panel visible. This standard panel is the secret to **increasing comfort levels** and providing the **perfect climate conditions** for your customers as the various flaps can be individually opened and closed to ensure that the heating and cooling are directed to where they are needed.
The standard panel is also the secret to reducing maintenance as it conceals the **auto cleaning function** that traps dust with a special filter that cleans itself once a day, while the collected dust can be easily removed with a vacuum cleaner. Up to 50% energy can be saved!
Managing this system couldn't be easier as our intelligent touch controller enables you to **monitor and control** the system directly or via the Internet. It can also be set to provide easy management of your electricity consumption and can even control the lighting, while enhanced scheduling will make your life easier.

Sky Air for offices and banks

The **fully flat cassette** is unique in the market thanks to its remarkable blend of iconic **design and engineering excellence**.
Blending seamlessly with the décor of a modern office and meeting the demanding criteria of architects, the fully flat cassette totally integrates within a standard European ceiling panel, enabling lights, speakers and sprinklers to be installed in the adjoining ceiling tiles.
These units are ideal for heating or cooling smaller areas such as meeting rooms, together with our round flow cassettes. Both can be combined with presence and floor sensors and even with our ventilation option, to optimise the energy efficiency and provide perfect comfort. The **presence sensor** adjusts the set point or switches the unit off when there is nobody in the room but when someone is there, the air-flow is directed away from that person to avoid draught. This combined process has been found to reduce energy usage. The **floor sensor** detects the average temperature near the floor and ensures an even temperature distribution between ceiling and floor. Cold feet become history!
Daikin's **ventilation** option provides a supply of fresh air to help create a healthy and high-quality indoor environment.
Using the KNX interface to connect your Sky Air system to the **building management** system allows central monitoring and control of several devices, including lights, shutters, and climate control systems as to maximize energy efficiency.

Sky Air for server rooms

- Continuous cooling operation.
  - Automatic rotation between active units.
  - Backup outdoor unit ensures continuous operation.
  - Possible to block certain settings.
- Quality products.

Servers, especially racks of servers, generate a great deal of heat and this needs to be removed through **continuous cooling and humidity control**. This presents special challenges that the Sky Air system easily meets with its special server room configuration. Each server room is fitted with two indoor units each connected to a single outdoor unit to ensure that if one outdoor unit fails, the other is there as an **automatic back up**. The indoor units are configured for constant cooling and duty rotation. This is achieved through **automatic switching between units** after certain period of use to ensure that at any time one unit is working while the other is available for maintenance.
Given the critical importance of continuous cooling for server rooms, the system is managed via an RTD-NET controller that can monitor and control up to 16 indoor units either directly or via the building management system and has a **'control of duty'** unit that locks the server room settings so that they cannot be changed by people in the server room.

Sky Air for restaurants

- Creates the perfect dining environment.
- Ensures an even temperature distribution to provide optimal comfort for your guests.
- Highly energy efficient.
- Uses intelligent control systems operated from one central location.

Nothing should distract diners from enjoying the **perfect ambience** and that ambience includes the **optimal temperature**. That's exactly what Daikin's concealed ceiling units deliver through whisper-quiet operation and improved comfort from the 3-step air flow control and these turn your restaurant into a comfortable, welcoming environment for your customers. And with the **centralised control** and easy scheduling for the entire restaurant system, **energy use** is minimised to control your running costs.

Products in the spotlight

Daikin offers now a **complete light commercial** range, optimised for seasonal efficiency!

			new	new					new
		FCQG / FCQHG	FFQ	FHQ	FBQ	FDQ	FAQ	FVQ	FUQ
									
RZQG-L Seasonal Smart		✓	✓	✓	✓	✓	✓	✓	✓
RZQSG-L Seasonal Classic		✓	✓	✓	✓	✓	✓	✓	

Seasonal outdoor units:

Seasonal Smart and Seasonal Classic products have been specially designed to offer a very high seasonal performance that already meets the 2014 ErP requirements.

Top efficiency:

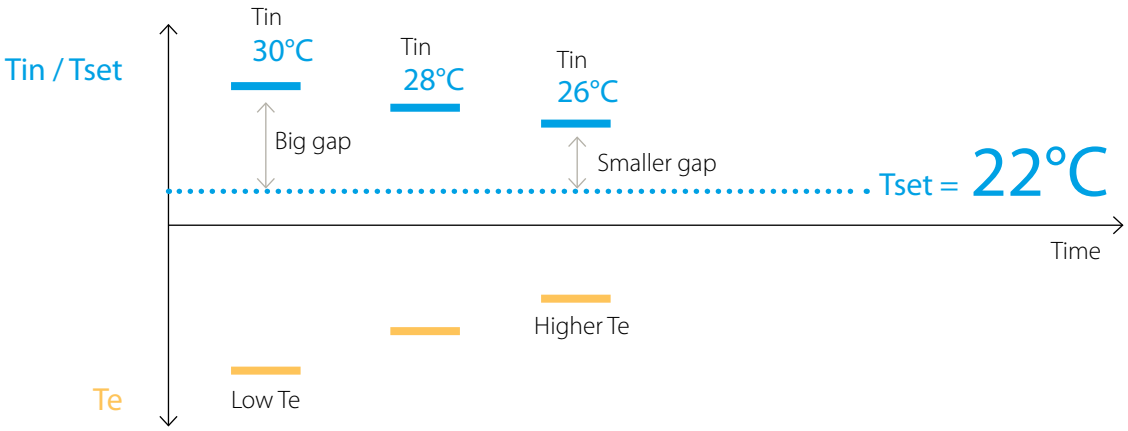
- New compressor that offers substantial efficiency improvements.
- New control logic
  - that optimises the efficiency at the most frequently encountered operating conditions.
  - that optimises the auxiliary modes (when the unit is not active).
- Newly designed heat exchangers optimise the refrigerant flow at the most frequent operating conditions (temperature and load) by reducing the piping diameter of the heat exchanger which leads to a a significant enhancement in energy efficiency.
- Additionally, these new seasonal outdoor models also offer an improved nominal performance.

Variable Refrigerant Temperature

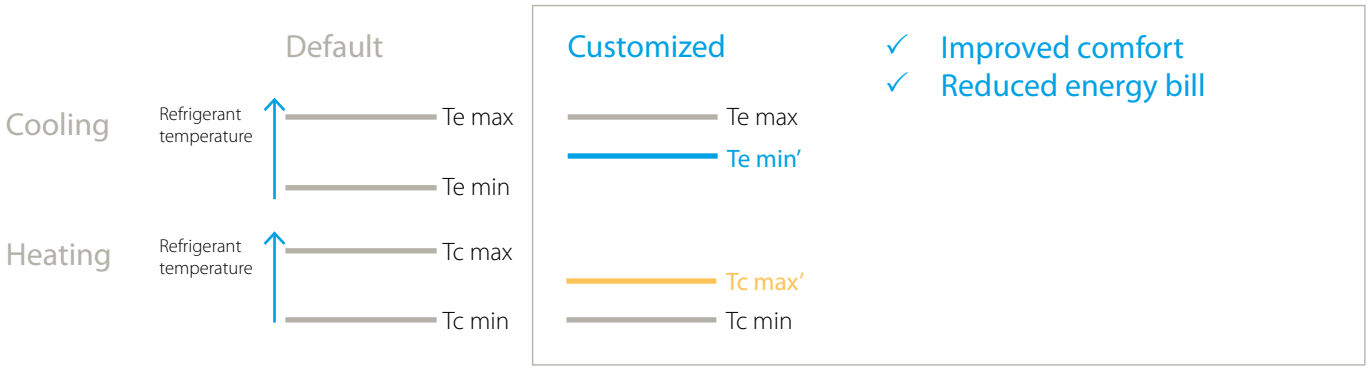
Variable Refrigerant Temperature

Did you know that all Daikin Sky Air systems operate with variable refrigerant temperature?

In cooling mode for example the system will automatically increase its evaporating temperature (Te) and consequently discharge temperature if the gap between the achieved indoor temperature (Tin) and the request indoor temperature (Tset) becomes smaller. This reduces the risk of cold draft and hence increases the customer comfort.



Seasonal Smart even adopts a special setting to further improve comfort & efficiency by offering the possibility to customize the boundaries of the evaporating (Te) or condensing (Tc) temperature limits. The perfect solution for those people looking for an even more comfortable indoor air climate & an even further reduction of their energy bill.



Seasonal Smart

Enhancement in efficiency and comfort thanks to selectable and variable refrigerant temperatures.

- Suits computer room applications (EDP).
- R-22/R-407C Replacement technology has been incorporated: replacement solutions deliver major energy savings, offering rapid payback and a cost-effective upgrade solution, phased for minimal downtime.
- Guarantees operation in heating mode down to -20°C.
- A 75m pipe run to achieve longer runs for installation.
- Compatibility with D-BACS – links your unit into the wider building management system.

Seasonal Classic

- R-22/R-407C Replacement technology has been incorporated: replacement solutions deliver major energy savings, offering rapid payback and a cost-effective upgrade solution, phased for minimal downtime.
- Guarantees operation in heating mode down to -15°C.
- A 50m pipe run to achieve longer runs for installation.

Air conditioning with smart use – User friendly remote controller BRC1E52A/B

A series of energy saving functions that can be individually selected

- Temperature range limit
- Improved setback function
- Presence & floor sensor connections (available on fully flat cassette & round flow cassette)
- Setting temperature auto reset
- Off timer
- kWh indication
- 3 weekly timers

→ Fully Flat Cassette: Design & Genius in one

Unique in the market, the fully flat cassette is a remarkable blend of iconic design and engineering excellence with an elegant white or a silver and 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 flap.

Fully integrated, fully discreet

The concept our designers had in mind was for an unobtrusive cassette that blends seamlessly with the décor of a modern office while meeting the demanding criteria of architects for total integration within a standard European ceiling panel, enabling lights, speakers and sprinklers to be installed in the adjoining ceiling tiles. The result is the fully flat cassette with its near flush fit, 4-way air distribution and special sensors to ensure the delivery of perfect comfort. Available in crystal white or crystal white and grey, the fully flat cassette is the perfect blend of design and function.

Differentiated by excellence

Sensor-driven comfort

To ensure perfect comfort the fully flat cassette is fitted with two optional sensors linked to an advanced controller.

The **'presence' sensor** detects when there are people in the room and it adjusts the temperature to the previously selected 'set point' thus establishing the perfect working conditions. When the sensor establishes that the room is empty, it can switch off the cassette so that the user is not wasting money on unnecessary heating or cooling. The sensor also adapts the direction of the airflow depending of where people are situated in the room, ensuring every individual's comfort at any time.

Because hot air rises, the natural temperature distribution in a room is for it to be warmer near the ceiling and cooler near the floor. The cassette's **'floor' sensor** detects the temperature difference and re-directs the airflow to ensure that the temperature distribution is even: cold feet are history!

Flexible solution

The need for flexible usage of space often means that temporary or permanent barriers are erected leaving the cassette close to a wall or in a corner with the resulting imbalances in airflow. Our advanced technology anticipates this and we have made it possible to use the controller to individually open or close any of the four flaps to restore optimal efficiency and to save on energy costs.

Silent comfort

The fully flat cassette is amongst the quietest units in the market and, in addition to the sensors, has various functions that are designed to enhance the user's comfort and pleasure.

Air quality

The quality of the air in the room is as important as the temperature and we have fitted advanced filters to remove dust particles to ensure the air is clean. In addition, a special programme allows the humidity levels to be reduced without variations in temperature.

Intuitive control

The fully flat cassette's advanced controller provides the user with absolute control over their work environment. From setting the desired temperature to directing the airflow, from delivering the right temperature whenever the room is in use to ensuring that cold feet are history, from reconfiguring airflow to monitoring performance, the advanced controller is simple and intuitive to use. The large display screen and on-screen instructions combined with clearly marked function buttons give users total control enabling them to quickly set their desired conditions and to focus on the job at hand.

Top efficiency year-round

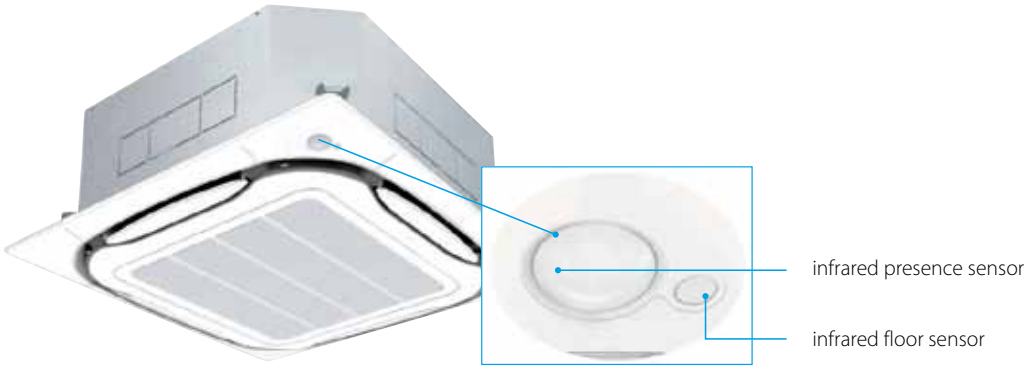
As with all Daikin products, this cassette delivers exceptional seasonal efficiency while the presence sensor has been shown to reduce energy consumption by around 27%*.

By using the controller to monitor performance and energy consumption, users can reduce their environmental impact while maintaining perfect working conditions.

*estimated

→ Round Flow Cassette : setting the standard for efficiency and comfort

The round flow cassettes FCQG and FCQHG-F series are designed for use in all forms and sizes of commercial offices and retail environments and provide you with a more energy efficient model.

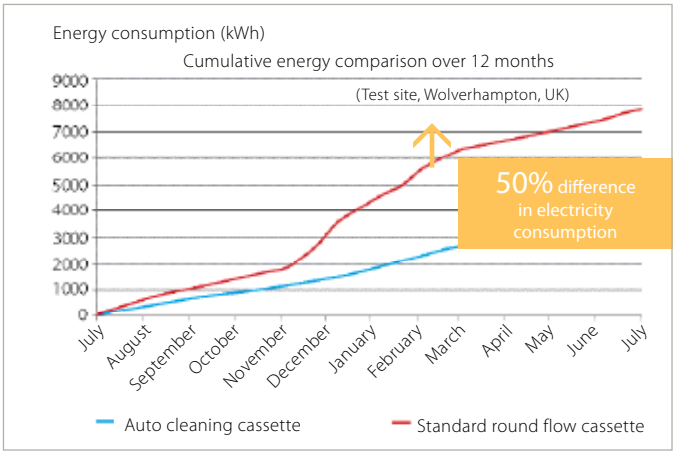


ROUND FLOW

Even more energy efficient ….

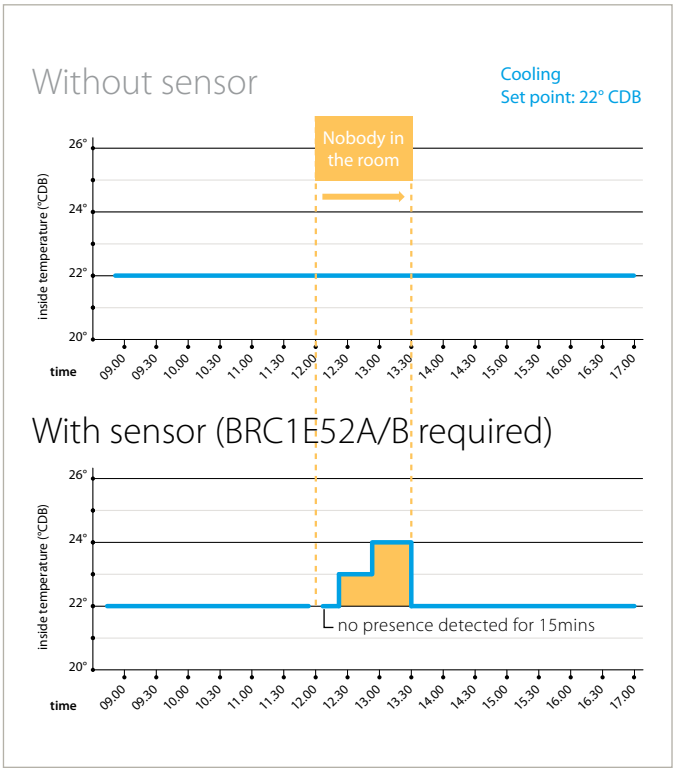
- Daikin was the first to launch an **auto cleaning Standard panel**. With this panel the costs can be further reduced as the filter cleans itself automatically once a day.
- Maintenance of the filter is facilitated and so less time is required.
- Running costs are reduced compared to standard solutions: **up to 50% energy can be saved** thanks to daily filter cleaning (Wolverhampton, UK).

Auto-cleaning panel
saves up to 50%



- The optional **presence sensor** adjusts the temperature or switches off the unit when there is nobody in the room. Up to 27% energy can be saved 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.
- Newly designed **heat exchanger** (diameter pipes are reduced to 5mm instead of 7mm), DC fan motor and DC drain pump enable even more energy to be saved.

Presence sensor
saves up to 27%*



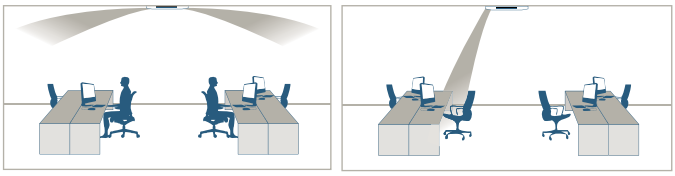
* estimated energy saving

… and improved comfort

- The unique **360° air flow** discharge pattern ensures a uniform temperature distribution across the room without dead corners.

The comfort can be further enhanced thanks to the optional sensors:

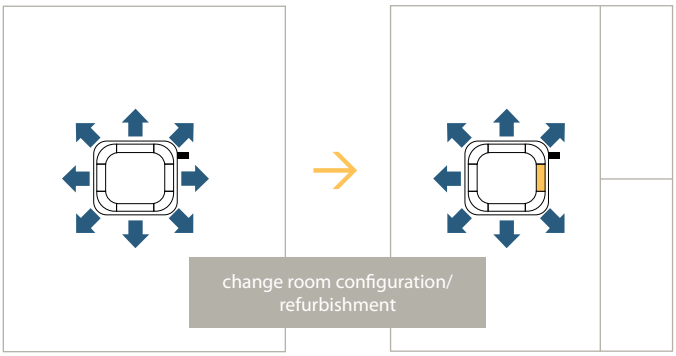
- The presence sensor allows air flow control. It directs the air away from any person detected in the room, when the air flow control is on.
- With the **floor sensor** having cold feet becomes history. This sensor detects the average floor temperature and ensures an even temperature distribution between ceiling and floor.



Flexible installation

The round flow cassette offers higher flexibility thanks to:

- The possibility of easily closing one flap via the wired remote controller (BRC1E52A/B - optional), to suit the room configuration. Optional closure kits are available as well.



Other features

- Standard DIII-net compatibility – link your cassette into the wider building management system.
- Fresh air intake possible (max. 20%).

Sky Air Product range

Daikin leads the way to seasonal efficiency
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Daikin leads the way: Seasonal series

Daikin again leads the industry with their full light commercial range optimised for seasonal efficiency, which already meets the very challenging 2014 ErP requirements.
Our Sky Air Seasonal series – **Seasonal Smart and Seasonal Classic** – offer at least 20% better performance than current existing inverter solutions and this is fully in line with 20/20/20 EU policy. This performance can be further enhanced with a smart use of unique Daikin options. The technology used gives very high levels of seasonal efficiency while maintaining or improving the comfort and flexibility features that make Daikin so unique.

Daikin has a solution for all your needs:

Seasonal Smart

- **Seasonal Smart** offers TOP seasonal efficiency. It meets the needs of projects requiring high flexibility such as longer piping lengths, a wider operating range or EDP applications. Efficiency and comfort can be further enhanced with selectable evaporating and condensing temperatures.

Seasonal Classic

- **Seasonal Classic** offers an effective solution for applications where less flexibility is required.

Seasonal efficiency …

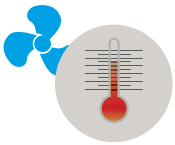
Smart use of energy

Challenging 20-20-20 environmental targets

The European Commission has set challenging targets for improving energy efficiency in the EU. These so-called 20-20-20 targets aim at a 20% reduction in CO_2 emissions, 20% share of renewable energy and a 20% reduction in the use of primary energy, all by the year 2020. To realise these objectives, Europe issued the Eco-Design Directive [2009/125/EC]. This sets minimum efficiency requirements for energy related products. After 2013, all air conditioners and air to air heat pumps under 12 kW come into scope of this Eco-Design Directive. From 2013, products unable to comply with the minimum efficiency requirement (such as non-inverter air conditioners) will lose their CE marking and thus may no longer be sold in Europe. In 2014 the energy-performance bar will again be raised significantly.

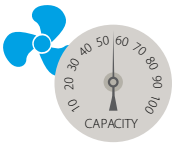
Major change: seasonal efficiency in line with real-life performance

Not only does the Eco-Design Directive systematically raise the minimum requirements with respect to environmental performance, the method used to measure this performance has also been changed to better reflect real-life conditions. Previous measurements reflected so-called nominal efficiency, a measurement of performance at one fixed outdoor temperature and with equipment running at full power. Since a cooling or heating season involves a range of outdoor temperatures (not just the one nominal temperature in the rating) and equipment is often only running at partial load, this old rating did not properly reflect actual performance.
The new method, seasonal efficiency, measures heating and cooling performance across a range of outdoor temperatures that give a better representation of actual efficiency over an entire heating or cooling season. Moreover, auxiliary modes such as stand-by mode are also taken into account in the new seasonal efficiency ratings. Thus seasonal efficiency gives a much better representation of the real performance of an air conditioner, in real-life conditions, across an entire season.



Temperature

NOMINAL	SEASONAL
1 Temperature condition: 35°C for cooling 7°C for heating Does not often occur in reality	**Several rating temperatures** for cooling and heating, reflecting actual performance over an entire season



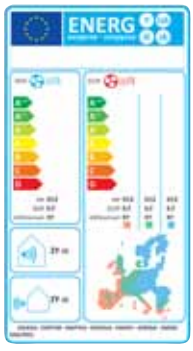
Capacity

NOMINAL	SEASONAL
Does not reflect partial capacity Benefits of inverter technology not visible	Integrates operation at **partial instead of full capacity** **Benefits of inverter technology** are shown

Auxiliary modes

NOMINAL	SEASONAL
Does not take auxiliary power modes into account	Includes consumption auxiliary modes: • Thermostat off • Standby mode • OFF mode • Crankcase heater

Nominal efficiency gives an indication on how efficient an air conditioner is when operating in a nominal condition.
Seasonal efficiency gives an indication on how efficient an air conditioner is when operating over an entire cooling or heating season.



Europe's new energy label: raising the bar on energy efficiency

To inform consumers concerning these new energy performance standards, Europe is also introducing a new energy label. The present European energy label, introduced in 1992, has had its effect. Consumers are able to compare and make purchasing decisions based on uniform labelling criteria. The new label that will come into force on 1 January 2013 will allow end-users to make even better informed choices, since seasonal efficiency reflects air conditioner efficiency over an entire season.
The new energy label includes multiple classifications from A+++ to D reflected in colour shadings ranging from dark green (most energy efficient) to red (least efficient). Information on the new label includes not only the new seasonal efficiency ratings for heating (SCOP) and cooling (SEER), but also annual energy consumption and sound levels.

SEASONAL EFFICIENCY
Smart use of energy

Daikin leading the way to seasonal efficiency

While the challenges of Eco-Design are immense, Daikin has resolutely chosen for early implementation of this new legislation. Already in 2010, Daikin launched a new light commercial range fully optimised for seasonal efficiency. The Seasonal Smart series in this range in fact already complies with the very challenging 2014 minimum requirements. Today Daikin is proud to indicate the seasonal performance of its entire residential and light commercial range up to 12 kW.

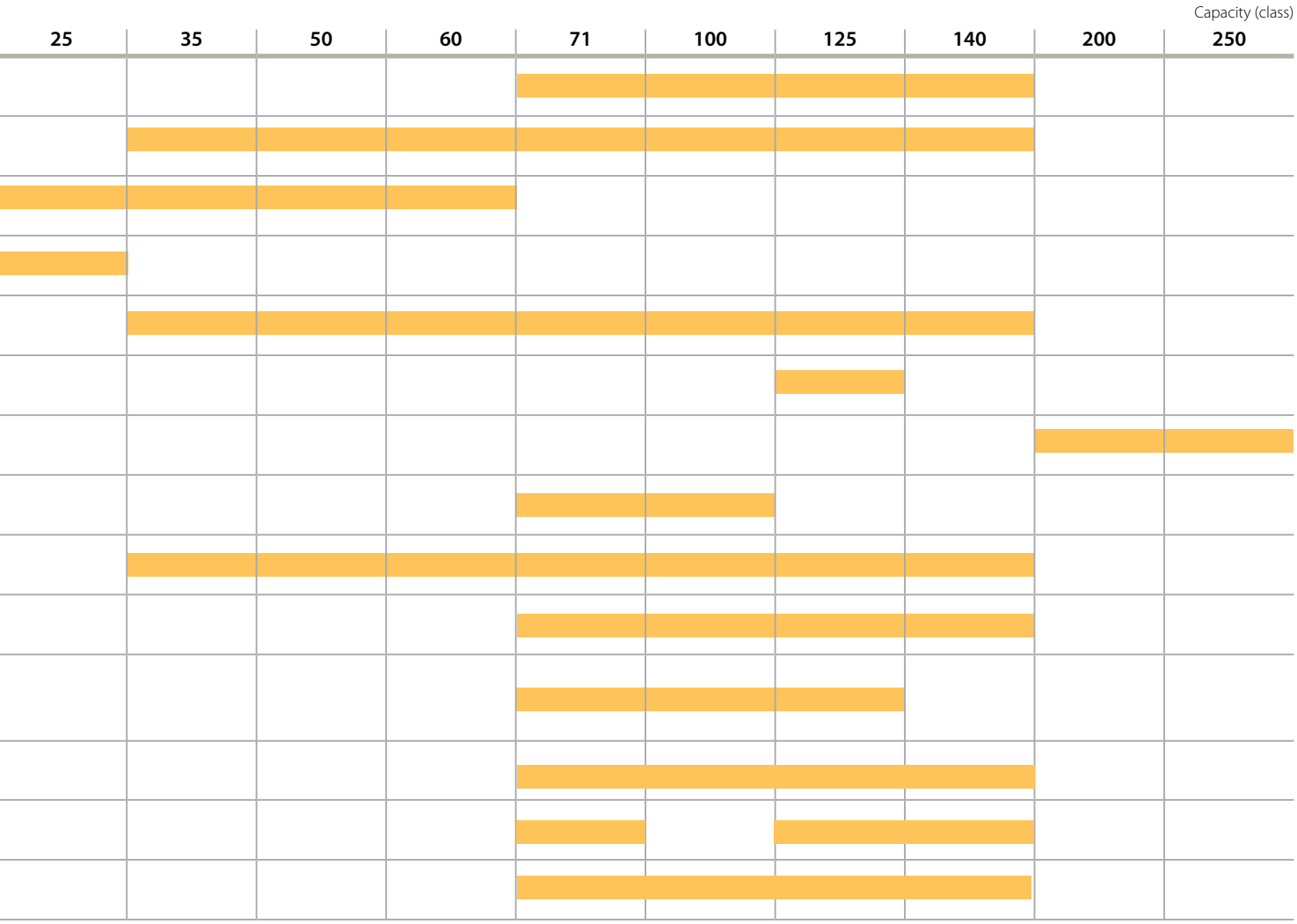
Indoor units Pair, twin, triple & double twin application

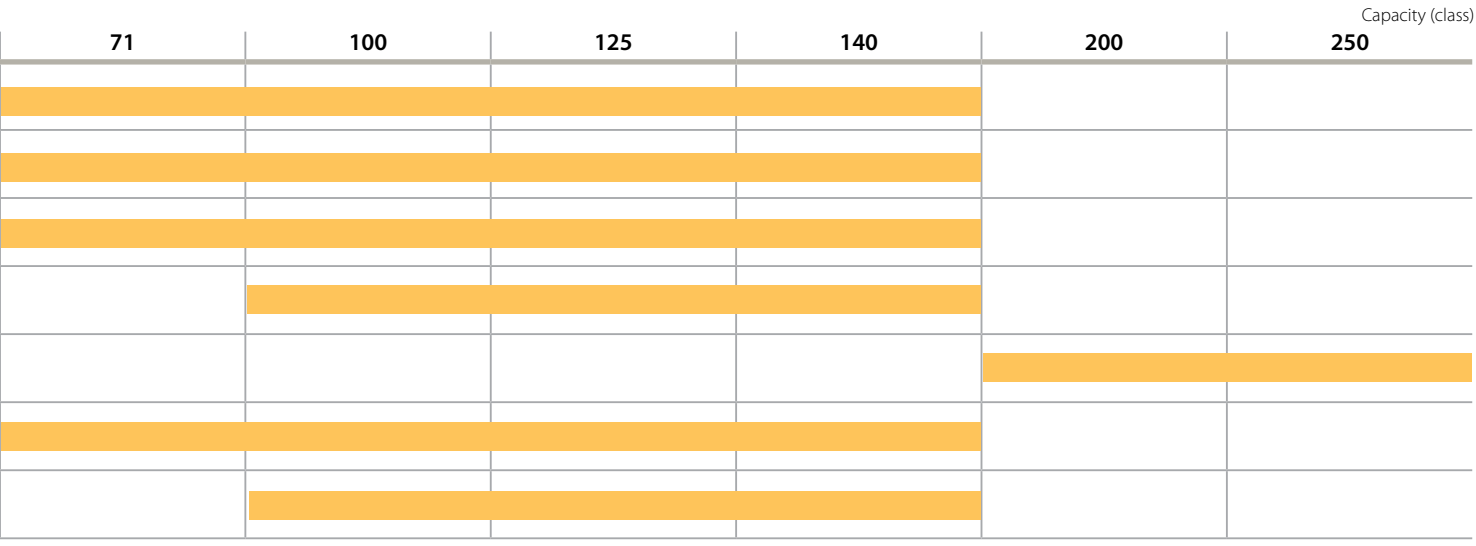
Type	Model	Product name	
Ceiling mounted cassette	High COP, round flow cassette Auto cleaning function [2], presence & floor sensor [2]	FCQHG-F	
	Round flow cassette Auto cleaning function [2], presence & floor sensor [2]	FCQG-F	
	Fully flat cassette presence & floor sensor [2]	FFQ-C	
Concealed ceiling	Concealed ceiling unit	FDBQ-B	
	Inverter driven concealed ceiling unit	FBQ-C8 [1]	
	Large concealed ceiling unit	FDQ-C	
	Large concealed ceiling unit	FDQ-B [1]	
Wall mounted	Wall mounted unit	FAQ-C	
Ceiling suspended	Ceiling suspended unit	FHQ-C	
	4-way blow ceilling suspended unit	FUQ-C	
Floor standing	Floor standing unit	FVQ-C	
Siesta	Siesta, 4-way blow ceiling mounted cassette	ACQ-B	
	Siesta, Concealed ceiling unit	ABQ-A/B	
	Siesta, Ceiling suspended cassette	AHQ-C	

1) Twin, triple, double twin application is only possible up to 125 class 2) Optional

Outdoor units Pair, twin, triple & double twin application

System	Type	Product name	
Air cooled	Heat pump	RZQG-L8/7V1 Seasonal Smart	
		RZQG-L(8)Y1 Seasonal Smart	
		RZQSG-L3/L8V1 Seasonal Classic	
		RZQG-L(8)Y1 Seasonal Classic	
		RZQ-C Super Inverter	
		AZQS-BV1 Siesta outdoor unit	
		AZQS-BY1 Siesta outdoor unit	


Capacity (class)
25
35
50
60
71
100
125
140
200
250


Capacity (class)
71
100
125
140
200
250

Product portfolio

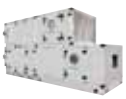
Biddle standard air curtain range

Type	Product name	
BIDDLE STANDARD AIR CURTAIN FREE HANGING	CYQ S/M/L-DK-F	
BIDDLE STANDARD AIR CURTAIN CASSETTE	CYQ S/M/L-DK-C	
BIDDLE STANDARD AIR CURTAIN RECESSED	CYQ S/M/L-DK-R	

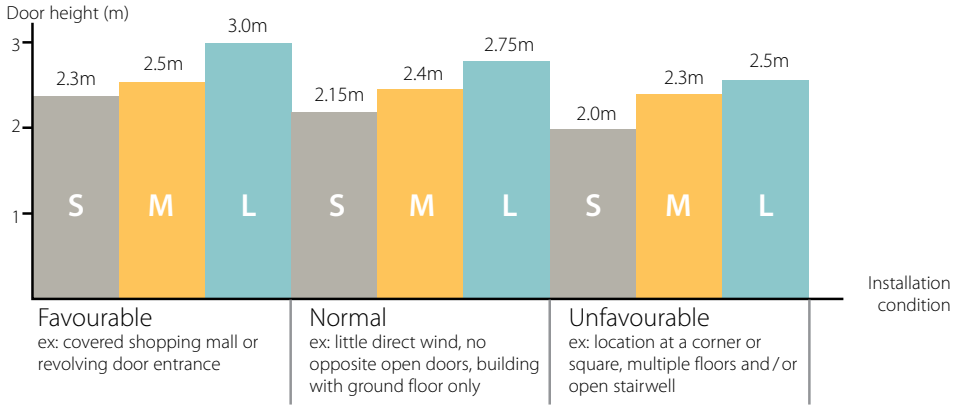
For connection with air handling units and biddle air curtain

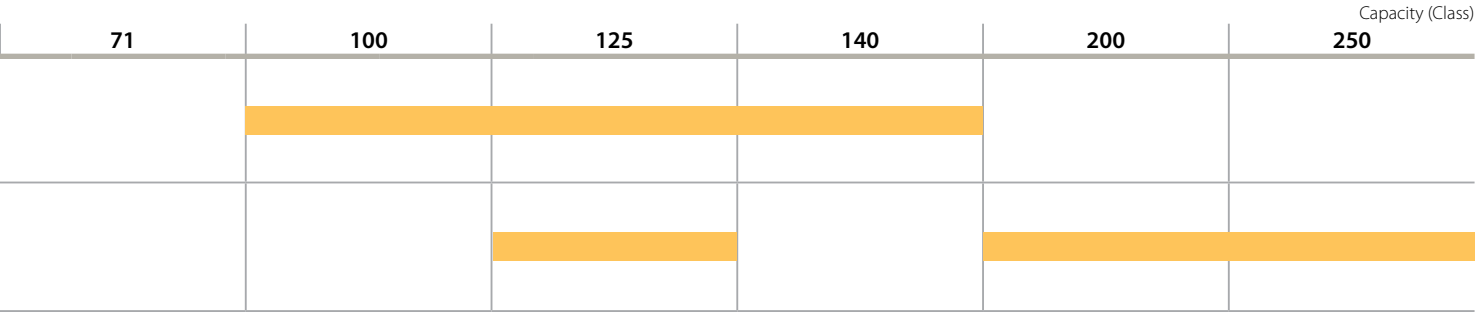
System	Type	Product name	
AIR COOLED	HEAT PUMP	ERQ-AV1 [1] Condensing Units	
		ERQ-AW1 [1] Condensing Units	

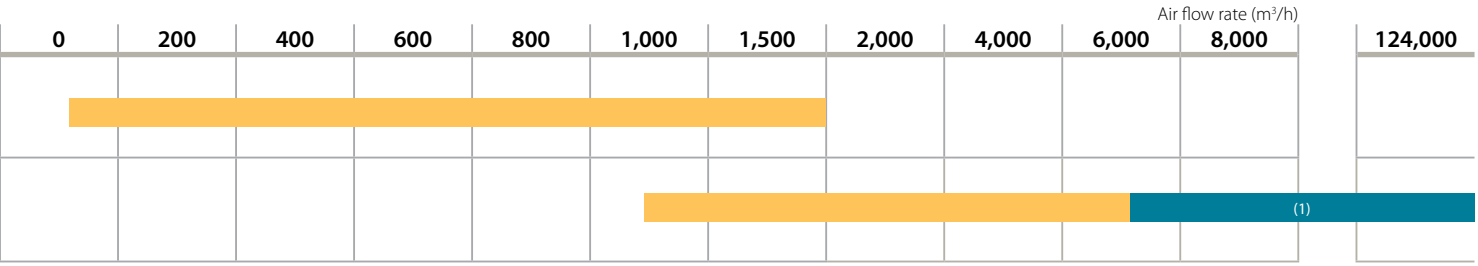
1) Only use the condensing units in combinations with an air handling unit.

Type	Product name	
HEAT RECLAIM VENTILATION	VAM-FA/FB	
AIR HANDLING UNITS	DX fresh air package	

(1) Daikin AHU connected to Daikin chiller solution


Door height (m)
3
2
1
2.3m
2.5m
3.0m
2.15m
2.4m
2.75m
2.0m
2.3m
2.5m
S
M
L
S
M
L
S
M
L
Installation condition
Favourable
ex: covered shopping mall or revolving door entrance
Normal
ex: little direct wind, no opposite open doors, building with ground floor only
Unfavourable
ex: location at a corner or square, multiple floors and / or open stairwell


Capacity (Class)
71
100
125
140
200
250


Air flow rate (m³/h)
0
200
400
600
800
1,000
1,500
2,000
4,000
6,000
8,000
124,000
(1)

Benefits overview Sky Air

		Ceiling mounted cassette				
		FCQHG-F	FCQG-F	FFQ-C	ACQ-B	FDBQ-B
						
We care icons	Seasonal efficiency - Smart use of energy	✓	✓	✓	✓	✓
	Inverter technology	✓	✓	✓	✓	✓
	Home leave operation	✓	✓	✓		✓
	Fan only	✓	✓	✓	✓	✓
	Auto cleaning panel	✓	✓			
Comfort	Draught prevention	✓	✓	✓	✓	
	Whisper quiet	✓	✓	✓		✓
	Auto cooling-heating changeover	✓	✓	✓	✓	✓
Air treatment	Air filter	✓	✓	✓	✓	✓
Humidity control	Dry programme	✓	✓	✓		✓
Air flow	Ceiling soiling prevention	✓	✓	✓	✓	
	Vertical auto swing	✓	✓	✓		
	Fan speed steps	3	3	2	3	2
Remote control & timer	Weekly timer	✓	✓	✓	✓	✓
	Infrared remote control	✓	✓	✓	✓	
	Wired remote control	✓	✓	✓	✓	✓
	Centralised control	✓	✓	✓		
Other funtions	Auto-restart	✓	✓	✓		✓
	Self-diagnosis	✓	✓	✓		✓
	Drain pump kit	✓	✓	✓		
	Twin/triple/double twin application	✓	✓	✓		
	Multi model application		✓	✓		✓
	VRV for residential application		✓	✓		✓

For explanation on the benefits, see the end of this catalogue.

Concealed ceiling unit				Ceiling suspended unit		4-Way blow ceiling suspended unit	Wall mounted unit	Floor standing unit
FBQ-C8	FDQ-C	FDQ-B	ABQ-A/B	FHQ-C	AHQ-C	FUQ-C	FAQ-C	FVQ-C
								
✓	✓		✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓		✓		✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓	✓
						✓		
✓			✓					
✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓		✓	✓	✓
✓	✓	✓		✓		✓	✓	✓
				✓		✓	✓	✓
3	3	2	3	3		3	3	3
✓	✓	✓	✓	✓	✓	✓	✓	✓
✓				✓	✓	✓	✓	
✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓		✓		✓	✓	✓
✓	✓	✓		✓		✓	✓	✓
✓	✓	✓		✓		✓	✓	✓
✓	✓			✓		✓	✓	
✓	✓	✓		✓		✓	✓	
✓				✓				
✓				✓				

FCQG35-60F

RXS35K

BRC1E52A/B BRC7F532F

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 temperature or switches off the unit when there is nobody in the room - ensures the air flow is directed away from any person detected in the room, when the air flow control is activated
- 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 flap can be easily closed via the wired remote controller (BRC1E52) in case you would refurbish or rearrange your interior
- Fresh air intake: up to 20 %
- No optional adapter needed for DIII-connection, link your unit into the wider building management system.

Heating & Cooling

INDOOR UNIT				FCQG35F	FCQG50F	FCQG60F
Cooling capacity	Min./Nom./Max.		kW	-/3.4/-	-/5.0/-	-/5.7/-
Heating capacity	Min./Nom./Max.		kW	-/4.2/-	-/6.0/-	-/7.00/-
Seasonal efficiency (according to EN14825)	Cooling	Energy label		A	A+	A+
		Pdesign	kW	3.50	5.00	5.70
		SEER		5.34	5.89	5.74
		Annual energy consumption	kWh	230	297	347
	Heating (Average climate)	Energy label		A++	A+	A
		Pdesign	kW	3.32	4.36	4.71
		SCOP		4.74	4.24	3.87
		Annual energy consumption	kWh	981	1,442	1,702
Nominal efficiency (cooling at 35°/27° nominal load, heating at 7°/20° nominal load)	EER			3.58	3.55	3.48
	COP			5.34	3.70	3.52
	Annual energy consumption		kWh	475	705	820
	Energy label	Cooling/Heating		A/B	A/A	A/B
Casing	Colour			-		
Dimensions	Unit	HeightxWidthxDepth	mm	204x840x840		
Weight	Unit		kg	18	19	
Decoration panel	Model			BYCQ140D7W1/BYCQ140D7W1W/BYCQ140D7GW1		
	Colour			Pure White (RAL 9010)		
	Dimensions	HeightxWidthxDepth	mm	60x950x950/60x950x950/145x950x950		
	Weight		kg	5.4/5.4/10.3		
Fan - Air flow rate	Cooling	High/Nom./Low	m^3/min	12.5/10.6/8.7	12.6/10.7/8.7	13.6/11.2/8.7
	Heating	High/Nom.	m^3/min	12.5/10.6	12.6/10.7	13.6/11.2
Sound power level	Cooling	High	dBA	49		51
	Heating	High	dBA	49		51
Sound pressure level	Cooling	High/Nom./Low	dBA	31/29/27		33/31/28
	Heating	High/Nom./Low	dBA	31/29/27		33/31/28
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		

OUTDOOR UNIT				RXS35K	RXS50K	RXS60F
Dimensions	Unit	HeightxWidthxDepth	mm	550x765x285	735x825x300	735x825x300
Weight	Unit		kg	34	47	47
Fan - Air flow rate	Cooling	High/Low	m^3/min	36.0/30.1	50.9/48.9	50.9/42.4
	Heating	High/Low	m^3/min	28.3/25.6	45.0/43.1	46.3/42.4
Sound power level	Cooling	Nom./High	dBA	-/63	-/63	63/-
Sound pressure level	Cooling	High/Low	dBA	48/44	48/44	49/46
	Heating	High/Low	dBA	48/45	48/45	49/46
Operation range	Cooling	Ambient Min.~Max.	°CDB	-10~46	-10~46	-10~46
	Heating	Ambient Min.~Max.	°CWB	-15~18	-15~18	-15~18
Refrigerant	Type/GWP			R-410A/1,975	R-410A/1,975	R-410A/1,975
Piping connections	Piping length	OU - IU Max.	m	20	30	30
	Level difference	IU - OU Max.	m	15	20	20
Power supply	Phase / Frequency / Voltage		Hz / V	1~ / 50 / 220-240	1~ / 50 / 220-240	1~ / 50 / 220-240
Current - 50Hz	Maximum fuse amps (MFA)		A	10	20	20

(1) EER/COP according to Eurovent 2012 (2) The BYCQ140D7W1W has white insulations. Be informed that formation of dirt on white insulation is visibly stronger and that it is consequently not advised to install the BYCQ140D7W1W decoration panel in environments exposed to concentrations of dirt. (3) BYCQ140D7W1 = pure white panel with grey louvers , BYCQ140D7W1W = pure white standard panel with white louvers, BYCQ140D7GW1 = Pure white auto cleaning panel

FCQG100-140F

RZQG100-140L8/7V1/L(8)Y1

BRC1E52A/B BRC7AF532F

ROUND FLOW

- The round flow cassette provides a more comfortable environment and offers greater savings in energy consumption to shop, office and restaurant owners
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- Individual flap control: one flap can be easily closed via the wired remote controller (BRC1E52) in case you would refurbish or rearrange your interior
- Fresh air intake: up to 20 %
- No optional adapter needed for DIII-connection, link your unit into the wider building management system.

Heating & Cooling

Seasonal Smart

INDOOR UNIT					FCQG71F	FCQG100F	FCQG125F	FCQG140F	FCQG71F	FCQG100F	FCQG125F	FCQG140F
Cooling capacity	Min./Nom./Max.			kW	-/6.8/-	-/9.5/-	-/12.0/-	-/13.4/-	-/6.8/-	-/9.5/-	-/12.0/-	-/13.4/-
Heating capacity	Min./Nom./Max.			kW	-/7.5/-	-/10.8/-	-/13.5/-	-/15.5/-	-/7.5/-	-/10.8/-	-/13.5/-	-/15.5/-
Seasonal efficiency (according to EN14825)	Cooling	Energy label			A++		A+	-	A++		A+	-
		Pdesign		kW	6.80	9.50	12.00	-	6.80	9.50	12.00	-
		SEER			6.80		6.00	-	6.80		6.00	-
		Annual energy consumption		kWh	350	488	700	-	350	488	700	-
	Heating (Average climate)	Energy label			A+	A++	A+	-	A+	A++	A+	-
		Pdesign		kW	6.33	11.30	12.66	-	6.33	11.30	12.66	-
		SCOP			4.20	4.61	4.10	-	4.20	4.61	4.10	-
		Annual energy consumption		kWh	2,110	3,431	4,322	-	2,110	3,431	4,322	-
Nominal efficiency (cooling at 35°/27° nominal load, heating at 7°/20° nominal load)	EER				3.39	3.87	3.73	3.21	3.39	3.87	3.73	3.21
	COP				3.97	4.15	3.63	3.61	3.97	4.15	3.63	3.61
	Annual energy consumption			kWh	1,005	1,225	1,610	2,085	1,005	1,225	1,610	2,085
	Energy label	Cooling/Heating			A/A			-/-	A/A			-/-
Casing	Colour				-							
Dimensions	Unit	HeightxWidthxDepth		mm	204x840x840	246x840x840			204x840x840	246x840x840		
Weight	Unit			kg	21	24			21	24		
Decoration panel	Model				BYCQ140D7W1 / BYCQ140D7W1W / BYCQ140D7GW1							
	Colour				Pure White (RAL 9010) / Pure White (RAL 9010) / Pure White (RAL 9010)							
	Dimensions	HeightxWidthxDepth		mm	60x950x950 / 950x60x950 / 145x950x950							
	Weight			kg	5.4 / 5.4 / 10.3							
Fan - Air flow rate	Cooling	High/Nom./Low		m^3/min	15.0/12.1/9.1	22.8/17.6/12.4	26.0/19.2/12.4		15.0/12.1/9.1	22.8/17.6/12.4	26.0/19.2/12.4	
	Heating	High/Nom./Low		m^3/min	15.0/12.1/9.1	22.8/17.6/12.4	26.0/19.2/12.4		15.0/12.1/9.1	22.8/17.6/12.4	26.0/19.2/12.4	
Sound power level	Cooling	High		dBA	51	54	58		51	54	58	
	Heating	High		dBA	51	54	58		51	54	58	
Sound pressure level	Cooling	High/Nom./Low		dBA	33/31/28	37/33/29	41/35/29		33/31/28	37/33/29	41/35/29	
	Heating	High/Nom./Low		dBA	33/31/28	37/33/29	41/35/29		33/31/28	37/33/29	41/35/29	
Piping connections	Liquid	OD		mm	9.52							
	Gas	OD		mm	15.9							
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50 / 220-240							

OUTDOOR UNIT					RZQG71L8V1	RZQG100L8V1	RZQG125L8V1	RZQG140L7V1	RZQG71L8Y1	RZQG100L8Y1	RZQG125L8Y1	RZQG140LY1
Dimensions	Unit	HeightxWidthxDepth		mm	990x940x320	1,430x940x320			990x940x320	1,430x940x320		
Weight	Unit			kg	78	102			80	101		
Fan - Air flow rate	Cooling	Nom.		m^3/min	59	70		84	59	70		84
	Heating	Nom.		m^3/min	49	62			49	62		
Sound power level	Cooling	Nom.		dBA	64	66	67	69	64	66	67	69
Sound pressure level	Cooling	Nom.		dBA	48	50	51	52	48	50	51	52
	Heating	Nom.		dBA	50	52	53		50	52	53	
	Night quiet mode	Level 1		dBA	43	45			43	45		
Operation range	Cooling	Ambient	Min.~Max.	°CDB	-15~50							
	Heating	Ambient	Min.~Max.	°CWB	-20~15.5							
Refrigerant	Type/GWP				R-410A/1,975							
Piping connections	Piping length	OU - IU	Max.	m	50	75			50	75		
		System	Equivalent	m	70	90			70	90		
	Level difference	IU - OU	Max.	m	30.0							
		IU - IU	Max.	m	0.5							
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50 / 220-240				3N~ / 50 / 380-415			
Current - 50Hz	Maximum fuse amps (MFA)			A	20	32			16	20		

(1) EER/COP according to Eurovent 2012 (2) The BYCQ140D7W1W has white insulations. Be informed that formation of dirt on white insulation is visibly stronger and that it is consequently not advised to install the BYCQ140D7W1W decoration panel in environments exposed to concentrations of dirt. (3) BYCQ140D7W1: pure white standard panel with grey louvers; BYCQ140D7W1W: pure white standard panel with white louvers; BYCQ140D7GW1: pure white auto cleaning panel.

FCQG-F / RZQSG-L(3/8)V1/L(8)Y1

Heating & Cooling

Seasonal Classic

INDOOR UNIT					FCQG71F	FCQG100F	FCQG125F	FCQG140F	FCQG100F	FCQG125F	FCQG140F
Cooling capacity	Min./Nom./Max.			kW	-/6.8/-	-/9.5/-	-/12.0/-	-/13.4/-	-/9.5/-	-/12.0/-	-/13.4/-
Heating capacity	Min./Nom./Max.			kW	-/7.5/-	-/10.8/-	-/13.5/-	-/15.5/-	-/10.8/-	-/13.5/-	-/15.5/-
Seasonal efficiency (according to EN14825)	Cooling	Energy label			A++		A	-	A++	A	
		Pdesign		kW	6.80	9.50	12.00	-	9.50	12.00	-
		SEER			6.10	6.50	5.30	-	6.50	5.30	-
		Annual energy consumption		kWh	390	511	792	-	511	792	-
	Heating (Average climate)	Energy label			A+			-	A+		-
		Pdesign		kW	6.33	7.60	8.03	-	7.60	8.03	-
		SCOP			4.10		4.01	-	4.10	4.01	-
		Annual energy consumption		kWh	2,162	2,595	2,803	-	2,595	2,803	-
Nominal efficiency (cooling at 35°/27° nominal load, heating at 7°/20° nominal load)	EER				3.21	3.30	3.21	3.01	3.30	3.21	3.01
	COP				3.61	3.54	3.41		3.54	3.41	
	Annual energy consumption			kWh	971	1,440	1,870	2,225	1,440	1,870	2,225
	Energy label	Cooling/Heating			A/A	A/B		-/-	A/B		-/-
Casing	Colour				-						
Dimensions	Unit	HeightxWidthxDepth		mm	204x840x840	246x840x840					
Weight	Unit			kg	21	24					
Decoration panel	Model				BYCQ140D7W1 / BYCQ140D7W1W / BYCQ140D7GW1						
	Colour				Pure White (RAL 9010) / Pure White (RAL 9010) / Pure White (RAL 9010)						
	Dimensions	HeightxWidthxDepth		mm	60x950x950 / 950x60x950 / 145x950x950						
	Weight			kg	5.4 / 5.4 / 10.3						
Fan - Air flow rate	Cooling	High/Nom./Low		m^3/min	15.0/12.1/9.1	22.8/17.6/12.4	26.0/19.2/12.4		22.8/17.6/12.4	26.0/19.2/12.4	
	Heating	High/Nom./Low		m^3/min	15.0/12.1/9.1	22.8/17.6/12.4	26.0/19.2/12.4		22.8/17.6/12.4	26.0/19.2/12.4	
Sound power level	Cooling	High		dBA	51	54	58		54	58	
	Heating	High		dBA	51	54	58		54	58	
Sound pressure level	Cooling	High/Nom./Low		dBA	33/31/28	37/33/29	41/35/29		37/33/29	41/35/29	
	Heating	High/Nom./Low		dBA	33/31/28	37/33/29	41/35/29		37/33/29	41/35/29	
Piping connections	Liquid	OD		mm	9.52						
	Gas	OD		mm	15.9						
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50 / 220-240						

OUTDOOR UNIT					RZQSG71L3V1	RZQSG100L8V1	RZQSG125L8V1	RZQSG140LV1	RZQSG100L8Y1	RZQSG125L8Y1	RZQSG140LY1
Dimensions	Unit	HeightxWidthxDepth		mm	770x900x320	990x940x320		1,430x940x320	990x940x320		1,430x940x320
Weight	Unit			kg	67	81		102	82		101
Fan - Air flow rate	Cooling	Nom.		m^3/min	52	76	77	83	76	77	83
	Heating	Nom.		m^3/min	48	83		62	83		62
Sound power level	Cooling	Nom.		dBA	65	69	70	69		70	69
Sound pressure level	Cooling	Nom./Silent operation		dBA	49/47	53/49	54/49	53/49	53/-	54/-	53/-
	Heating	Nom.		dBA	51	57	58	54	57	58	54
	Night quiet mode	Level 1		dBA	-				49		
Operation range	Cooling	Ambient	Min.~Max.	°CDB	-5.0~46	-5~46					
	Heating	Ambient	Min.~Max.	°CWB	-15~15.5						
Refrigerant	Type/GWP				R-410A/1,975						
Piping connections	Piping length	OU - IU	Max.	m	30	50					
		System	Equivalent	m	40	70					
	Level difference	IU - OU	Max.	m	15	30.0					
		IU - IU	Max.	m	0.5						
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50 / 220-240				3N~ / 50 / 380-415		
Current - 50Hz	Maximum fuse amps (MFA)			A	20	32			20		

(1) EER/COP according to Eurovent 2012 (2) The BYCQ140D7W1W has white insulations. Be informed that formation of dirt on white insulation is visibly stronger and that it is consequently not advised to install the BYCQ140D7W1W decoration panel in environments exposed to concentrations of dirt. (3) BYCQ140D7W1: pure white standard panel with grey louvers; BYCQ140D7W1W: pure white standard panel with white louvers; BYCQ140D7GW1: pure white auto cleaning panel.

FCQHG-F / RZQG-L8/7V1/L(8)Y1

High COP, round flow cassette

FCQHG71-140F

RZQG100-140L8/7V1/L(8)Y1

BRC1E52A/B BRC7F532F

ROUND FLOW

- High COP cassette ensures top energy performance
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- 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 flap can be easily closed via the wired remote controller (BRC1E52) in case you would refurbish or rearrange your interior
- Fresh air intake: up to 20 %
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Heating & Cooling

Seasonal Smart

INDOOR UNIT					FCQHG71F	FCQHG100F	FCQHG125F	FCQHG140F	FCQHG71F	FCQHG100F	FCQHG125F	FCQHG140F
Cooling capacity	Min./Nom./Max.			kW	-/6.8/-	-/9.5/-	-/12.0/-	-/13.4/-	-/6.8/-	-/9.5/-	-/12.0/-	-/13.4/-
Heating capacity	Min./Nom./Max.			kW	-/7.5/-	-/10.8/-	-/13.5/-	-/15.5/-	-/7.5/-	-/10.8/-	-/13.5/-	-/15.5/-
Seasonal efficiency (according to EN14825)	Cooling	Energy label			A++				A++			
		Pdesign		kW	6.80	9.50	12.00	-	6.80	9.50	12.00	-
		SEER			7.00		6.61	-	7.00		6.61	-
		Annual energy consumption		kWh	340	475	635	-	340	475	635	-
	Heating (Average climate)	Energy label			A+	A++			A+	A++		
		Pdesign		kW	7.60	11.30	12.66	-	7.60	11.30	12.66	-
		SCOP			4.54	4.80	4.63	-	4.54	4.80	4.63	-
		Annual energy consumption		kWh	2,343	3,295	3,829	-	2,343	3,295	3,829	-
Nominal efficiency (cooling at 35°/27° nominal load, heating at 7°/20° nominal load)	EER				4.09	4.42	4.00	3.35	4.09	4.42	4.00	3.35
	COP				4.80	4.99	4.40	4.12	4.80	4.99	4.40	4.12
	Annual energy consumption			kWh	830	1,075	1,500	2,000	830	1,075	1,500	2,000
	Energy label	Cooling/Heating			A/A			-/-	A/A			-/-
Casing	Colour				-							
Dimensions	Unit	HeightxWidthxDepth		mm	288x840x840							
Weight	Unit			kg	25	26			25	26		
Decoration panel	Model				BYCQ140D7W1 / BYCQ140D7W1W / BYCQ140D7GW1							
	Colour				Pure White (RAL 9010) / Pure White (RAL 9010) /							
	Dimensions	HeightxWidthxDepth		mm	60x950x950 / 950x60x950 / 145x950x950							
	Weight			kg	5.4 / 5.4 / 10.3							
Fan - Air flow rate	Cooling	High/Nom./Low		m^3/min	21.2/16.7/12.2	32.3/25.7/19.0	33.5/26.7/19.9	33.5/27.3/21.1	21.2/16.7/12.2	32.3/25.7/19.0	33.5/26.7/19.9	33.5/27.3/21.1
	Heating	High/Nom./Low		m^3/min	21.2/16.7/12.2	32.3/25.7/19.0	33.5/26.7/19.9	33.5/27.3/21.1	21.2/16.7/12.2	32.3/25.7/19.0	33.5/26.7/19.9	33.5/27.3/21.1
Sound power level	Cooling	High		dBA	53	61			53	61		
	Heating	High		dBA	53	61			53	61		
Sound pressure level	Cooling	High/Nom./Low		dBA	36/33/29	44/39/33	45/40/35	45/41/37	36/33/29	44/39/33	45/40/35	45/41/37
	Heating	High/Nom./Low		dBA	36/33/29	44/39/33	45/40/35	45/41/37	36/33/29	44/39/33	45/40/35	45/41/37
Piping connections	Liquid	OD		mm	9.52							
	Gas	OD		mm	15.9							
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50 / 220-240							

OUTDOOR UNIT					RZQG71L8V1	RZQG100L8V1	RZQG125L8V1	RZQG140L7V1	RZQG71L8Y1	RZQG100L8Y1	RZQG125L8Y1	RZQG140LY1
Dimensions	Unit	HeightxWidthxDepth		mm	990x940x320	1,430x940x320			990x940x320	1,430x940x320		
Weight	Unit			kg	78	102			80	101		
Fan - Air flow rate	Cooling	Nom.		m^3/min	59	70		84	59	70		84
	Heating	Nom.		m^3/min	49	62			49	62		
Sound power level	Cooling	Nom.		dBA	64	66	67	69	64	66	67	69
Sound pressure level	Cooling	Nom.		dBA	48	50	51	52	48	50	51	52
	Heating	Nom.		dBA	50	52	53		50	52	53	
	Night quiet mode	Level 1		dBA	43	45			43	45		
Operation range	Cooling	Ambient	Min.~Max.	°CDB	-15~50							
	Heating	Ambient	Min.~Max.	°CWB	-20~15.5							
Refrigerant	Type/GWP				R-410A/1,975							
Piping connections	Piping length	OU - IU	Max.	m	50	75			50	75		
		System	Equivalent	m	70	90			70	90		
	Level difference	IU - OU	Max.	m	30.0							
		IU - IU	Max.	m	0.5							
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50 / 220-240				3N~ / 50 / 380-415			
Current - 50Hz	Maximum fuse amps (MFA)			A	20	32			16	20		

(1) EER/COP according to Eurovent 2012 (2) The BYCQ140D7W1W has white insulations. Be informed that formation of dirt on white insulation is visibly stronger and that it is consequently not advised to install the BYCQ140D7W1W decoration panel in environments exposed to concentrations of dirt. (3) BYCQ140D7W1: pure white standard panel with grey louvers; BYCQ140D7W1W: pure white standard panel with white louvers; BYCQ140D7GW1: pure white auto cleaning panel.ww

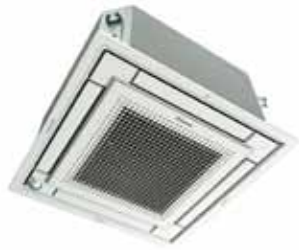
Heating & Cooling

Seasonal Classic

INDOOR UNIT					FCQHG71F	FCQHG100F	FCQHG125F	FCQHG140F	FCQHG100F	FCQHG125F	FCQHG140F
Cooling capacity	Min./Nom./Max.			kW	-/6.8/-	-/9.5/-	-/12.0/-	-/13.4/-	-/9.5/-	-/12.0/-	-/13.4/-
Heating capacity	Min./Nom./Max.			kW	-/7.5/-	-/10.8/-	-/13.5/-	-/15.5/-	-/10.8/-	-/13.5/-	-/15.5/-
Seasonal efficiency (according to EN14825)	Cooling	Energy label			A++		A	-	A++	A	-
		Pdesign		kW	6.80	9.50	12.00	-	9.50	12.00	-
		SEER			6.50	6.70	5.40	-	6.70	5.40	-
		Annual energy consumption		kWh	366	496	777	-	496	777	-
	Heating (Average climate)	Energy label			A+			-	A+		-
		Pdesign		kW	7.60	8.03		-	8.03		-
		SCOP			4.15	4.30	4.10	-	4.30	4.10	-
		Annual energy consumption		kWh	2,563	2,614	2,741	-	2,614	2,741	-
Nominal efficiency (cooling at 35°/27° nominal load, heating at 7°/20° nominal load)	EER				3.50	3.70	3.23	3.21	3.70	3.23	3.21
	COP				4.10	4.30	3.75	3.61	4.30	3.75	3.61
	Annual energy consumption			kWh	1,059	1,285	1,855	2,085	1,285	1,855	2,085
	Energy label	Cooling/Heating			A/A			-/-	A/A		-/-
Casing	Colour				-						
Dimensions	Unit	HeightxWidthxDepth		mm	288x840x840						
Weight	Unit			kg	25	26					
Decoration panel 1	Model				BYCQ140D7W1 / BYCQ140D7W1W / BYCQ140D7GW1						
Decoration panel 2	Colour				Pure White (RAL 9010) / Pure White (RAL 9010) / Pure White (RAL 9010)						
Decoration panel 3	Dimensions	HeightxWidthxDepth		mm	60x950x950 / 950x60x950 / 145x950x950						
	Weight			kg	5.4 / 5.4 / 10.3						
Fan - Air flow rate	Cooling	High/Nom./Low		m^3/min	21.2/16.7/12.2	32.3/25.7/19.0	33.5/26.7/19.9	33.5/27.3/21.1	32.3/25.7/19.0	33.5/26.7/19.9	33.5/27.3/21.1
	Heating	High/Nom./Low		m^3/min	21.2/16.7/12.2	32.3/25.7/19.0	33.5/26.7/19.9	33.5/27.3/21.1	32.3/25.7/19.0	33.5/26.7/19.9	33.5/27.3/21.1
Sound power level	Cooling	High		dBA	53	61					
	Heating	High		dBA	53	61					
Sound pressure level	Cooling	High/Nom./Low		dBA	36/33/29	44/39/33	45/40/35	45/41/37	44/39/33	45/40/35	45/41/37
	Heating	High/Nom./Low		dBA	36/33/29	44/39/33	45/40/35	45/41/37	44/39/33	45/40/35	45/41/37
Piping connections	Liquid	OD		mm	9.52						
	Gas	OD		mm	15.9						
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50 / 220-240						

OUTDOOR UNIT					RZQSG71L3V1	RZQSG100L8V1	RZQSG125L8V1	RZQSG140LV1	RZQSG100L8Y1	RZQSG125L8Y1	RZQSG140LY1
Dimensions	Unit	HeightxWidthxDepth		mm	770x900x320	990x940x320		1,430x940x320	990x940x320		1,430x940x320
Weight	Unit			kg	67	81		102	82		101
Fan - Air flow rate	Cooling	Nom.		m^3/min	52	76	77	83	76	77	83
	Heating	Nom.		m^3/min	48	83		62	83		62
Sound power level	Cooling	Nom.		dBA	65	69	70	69		70	69
Sound pressure level	Cooling	Nom./Silent operation		dBA	49/47	53/49	54/49	53/49	53/-	54/-	53/-
	Heating	Nom.		dBA	51	57	58	54	57	58	54
	Night quiet mode	Level 1		dBA	-				49		
Operation range	Cooling	Ambient	Min.~Max.	°CDB	-5.0~46	-5~46					
	Heating	Ambient	Min.~Max.	°CWB	-15~15.5						
Refrigerant	Type/GWP				R-410A/1,975						
Piping connections	Piping length	OU - IU	Max.	m	30	50					
		System	Equivalent	m	40	70					
	Level difference	IU - OU	Max.	m	15	30.0					
		IU - IU	Max.	m	0.5						
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50 / 220-240				3N~ / 50 / 380-415		
Current - 50Hz	Maximum fuse amps (MFA)			A	20	32			20		

(1) EER/COP according to Eurovent 2012 (2) The BYCQ140D7W1W has white insulations. Be informed that formation of dirt on white insulation is visibly stronger and that it is consequently not advised to install the BYCQ140D7W1W decoration panel in environments exposed to concentrations of dirt. (3) BYCQ140D7W1: pure white standard panel with grey louvers; BYCQ140D7W1W: pure white standard panel with white louvers; BYCQ140D7GW1: pure white auto cleaning panel.



FFQ-C (white panel)

FFQ-C (silver and white panel)

RXS25-35K

BRC1E52A/B BRC7F530W

SEASONAL EFFICIENCY

- 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 white or a combination of silver and white
- 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 flap 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
- No optional adapter needed for DIII-connection, link your unit into the wider building management system.

Heating & Cooling

INDOOR UNIT					FFQ25C	FFQ35C	FFQ50C	FFQ60C
Cooling capacity	Min./Nom./Max.			kW	-/2.50/-	-/3.40/-	-/5.00/-	-/5.70/-
Heating capacity	Min./Nom./Max.			kW	-/3.20/-	-/4.20/-	-/5.80/-	-/7.00/-
Seasonal efficiency (according to EN14825)	Cooling	Energy label			A	A+		
		Pdesign		kW	2.50	3.40	5.00	5.70
		SEER			5.25	5.60	5.70	5.60
		Annual energy consumption		kWh	167	212	307	356
	Heating (Average climate)	Energy label			A+			
		Pdesign		kW	2.31	3.45	3.84	3.96
		SCOP			4.12	4.09	4.10	4.17
		Annual energy consumption		kWh	784	1,182	1,311	1,329
Nominal efficiency (cooling at 35°/27° nominal load, heating at 7°/20° nominal load)	EER				4.46	3.70	3.21	3.02
	COP				3.81	3.41	3.49	3.41
	Annual energy consumption			kWh	280	460	780	945
	Energy label	Cooling/Heating			A/A			
Casing	Colour				-			
Dimensions	Unit	HeightxWidthxDepth		mm	260x575x575			
Weight	Unit			kg	16		17.5	
Decoration panel	Model				BYFQ60CW / BYFQ60CS / BYFQ60B2			
	Colour				White (N9.5) / White (N9.5) + Silver / White (RAL9010)			
	Dimensions	HeightxWidthxDepth		mm	46x620x620			
	Weight			kg	2.8			
Fan - Air flow rate	Cooling	High/Nom./Low		m^3/min	9/8/6.5	10/8.5/6.5	12/10/7.5	14.5/12.5/9.5
	Heating	High/Nom./Low		m^3/min	9/8/6.5/-	10/8.5/6.5/-	12/10/7.5/-	14.5/12.5/9.5/-
Sound power level	Cooling	High		dBA	48	51	56	60
Sound pressure level	Cooling	High/Nom./Low		dBA	31/28.5/25	34/30.5/25	39/34/27	43/40/32
	Heating	High/Nom./Low		dBA	31/28.5/25	34/30.5/25	39/34/27	43/40/32
Piping connections	Liquid	OD		mm	6.35			
	Gas	OD		mm	9.52		12.7	
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50 / 220-240			

OUTDOOR UNIT					RXS25K	RXS35K	RXS50K	RXS60F
Dimensions	Unit	HeightxWidthxDepth		mm	550x765x285		735x825x300	
Weight	Unit			kg	34		47	48
Fan - Air flow rate	Cooling	High/Nom./Low/Super low		m^3/min	33.5/33.5/30.1/-	36.0/36.0/-/30.1	50.9/50.9/-/48.9	50.9/50.9/42.4/-
	Heating	High/Low/Super low		m^3/min	28.3/25.6/-	28.3/-/25.6	45.0/-/43.1	46.3/42.4/-
Sound power level	Cooling	Nom./High		dBA	62/-	-/63		63/-
Sound pressure level	Cooling	High/Low/Silent operation		dBA	46/-/43	48/-/44		49/46/-
	Heating	High/Low/Silent operation		dBA	47/-/44	48/-/45		49/46/-
Operation range	Cooling	Ambient	Min.~Max.	°CDB	-10~46			
	Heating	Ambient	Min.~Max.	°CWB	-15~18			-15~20
Refrigerant	Type/GWP				R-410A/1,975			
Piping connections	Piping length	OU - IU	Max.	m	20		30	
	Level difference	IU - OU	Max.	m	15		20	
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50 / 220-240			
Current - 50Hz	Maximum fuse amps (MFA)			A	-	10	20	

(1) EER/COP according to Eurovent 2012 (2) Dimensions do not include control box

FBQ-C8 / RZQG-L8/7V1/L(8)Y1 Concealed ceiling unit with inverter driven fan

FBQ100-140C8

RZQG100-140L8/7V1/L(8)Y1

BRC1E52A/B BRC4C65

SEASONAL EFFICIENCY
Smart use of energy

- Blends unobtrusively with any interior décor: only the suction and discharge grilles are visible
- Easy installation thanks to automatic air flow adjustment towards nominal air flow rate
- Reduction in power consumption thanks to DC inverter fans
- Possibility to change ESP via wired remote control allows optimisation of the supply air volume
- Up to 120Pa external static pressure facilitates using flexible ducts of variying lengths: ideal for shops and medium size offices
- Whisper quiet operation: down to 29dBA sound pressure level
- No optional adapter needed for DIII-connection, link your unit into the wider building management system.
- The air suction direction can be altered from rear to bottom suction
- Standard built-in drain pump increases reliability of the drain system

Heating & Cooling

Seasonal Smart

INDOOR UNIT					FBQ71C8	FBQ100C8	FBQ125C8	FBQ140C8	FBQ71C8	FBQ100C8	FBQ125C8	FBQ140C8
Cooling capacity	Min./Nom./Max.			kW	-/6.8/-	-/9.5/-	-/12.0/-	-/13.4/-	-/6.8/-	-/9.5/-	-/12.0/-	-/13.4/-
Heating capacity	Min./Nom./Max.			kW	-/7.5/-	-/10.8/-	-/13.5/-	-/15.5/-	-/7.5/-	-/10.8/-	-/13.5/-	-/15.5/-
Seasonal efficiency (according to EN14825)	Cooling	Energy label			A++	A+		-	A++	A+		-
		Pdesign		kW	6.80	9.50	12.00	-	6.80	9.50	12.00	-
		SEER			6.11	5.80	5.81	-	6.11	5.80	5.81	-
		Annual energy consumption		kWh	389	573	722	-	389	573	722	-
	Heating (Average climate)	Energy label			A+	A++	A+	-	A+	A++	A+	-
		Pdesign		kW	6.00	11.30	12.71	-	6.00	11.30	12.71	-
		SCOP			4.01	4.61	4.21	-	4.01	4.61	4.21	-
		Annual energy consumption		kWh	2,094	3,431	4,226	-	2,094	3,431	4,226	-
Nominal efficiency (cooling at 35°/27° nominal load, heating at 7°/20° nominal load)	EER				3.50	3.89	3.81	3.33	3.50	3.89	3.81	3.33
	COP				3.65	4.21	3.83	3.61	3.65	4.21	3.83	3.61
	Annual energy consumption			kWh	970	1,220	1,575	2,010	970	1,220	1,575	2,010
	Energy label	Cooling/Heating			A/A			-/-	A/A			-/-
Casing	Colour				Not painted (galvanised)							
Dimensions	Unit	HeightxWidthxDepth		mm	300x1,000x700	300x1,400x700			300x1,000x700	300x1,400x700		
Required ceiling void >				mm	350							
Weight	Unit			kg	34	45			34	45		
Decoration panel	Model				BYBS71DJW1	BYBS125DJW1			BYBS71DJW1	BYBS125DJW1		
	Colour				White (10Y9/0.5)							
	Dimensions	HeightxWidthxDepth		mm	55x1,100x500	55x1,500x500			55x1,100x500	55x1,500x500		
	Weight			kg	4.5	6			4.5	6		
Fan - Air flow rate	Cooling	High/Low		m^3/min	18/15	32/23	39/28		18/15	32/23	39/28	
	Heating	High/Low		m^3/min	18/15	32/23	39/28	41/29	18/15	32/23	39/28	41/29
Fan - External static pressure	High/Nom.			Pa	100/30	120/40	120/50		100/30	120/40	120/50	
Sound power level	Cooling	Nom.		dBA	57	61	66		57	61	66	
Sound pressure level	Cooling	High/Low		dBA	37/29	38/32	40/33		37/29	38/32	40/33	
	Heating	High/Low		dBA	37/29	38/32	40/33	41/34	37/29	38/32	40/33	41/34
Piping connections	Liquid	OD		mm	9.52							
	Gas	OD		mm	15.9							
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50/60 / 220-240/220							

OUTDOOR UNIT					RZQG71L8V1	RZQG100L8V1	RZQG125L8V1	RZQG140L7V1	RZQG71L8Y1	RZQG100L8Y1	RZQG125L8Y1	RZQG140LY1
Dimensions	Unit	HeightxWidthxDepth		mm	990x940x320	1,430x940x320			990x940x320	1,430x940x320		
Weight	Unit			kg	78	102			80	101		
Fan - Air flow rate	Cooling	Nom.		m^3/min	59	70		84	59	70		84
	Heating	Nom.		m^3/min	49	62			49	62		
Sound power level	Cooling	Nom.		dBA	64	66	67	69	64	66	67	69
Sound pressure level	Cooling	Nom.		dBA	48	50	51	52	48	50	51	52
	Heating	Nom.		dBA	50	52	53		50	52	53	
	Night quiet mode	Level 1		dBA	43	45			43	45		
Operation range	Cooling	Ambient	Min.~Max.	°CDB	-15~50							
	Heating	Ambient	Min.~Max.	°CWB	-20~15.5							
Refrigerant	Type/GWP				R-410A/1,975							
Piping connections	Piping length	OU - IU	Max.	m	50	75			50	75		
		System	Equivalent	m	70	90			70	90		
	Level difference	IU - OU	Max.	m	30.0							
		IU - IU	Max.	m	0.5							
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50 / 220-240				3N~ / 50 / 380-415			
Current - 50Hz	Maximum fuse amps (MFA)			A	20	32			16	20		

(1) EER/COP according to Eurovent 2012

FBQ-C8 / RZQSG-L(3/8)V1/L(8)Y1

Heating & Cooling

Seasonal Classic

INDOOR UNIT					FBQ71C8	FBQ100C8	FBQ125C8	FBQ140C8	FBQ100C8	FBQ125C8	FBQ140C8
Cooling capacity	Min./Nom./Max.			kW	-/6.8/-	-/9.5/-	-/12.0/-	-/13.4/-	-/9.5/-	-/12.0/-	-/13.4/-
Heating capacity	Min./Nom./Max.			kW	-/7.5/-	-/10.8/-	-/13.5/-	-/15.5/-	-/10.8/-	-/13.5/-	-/15.5/-
Seasonal efficiency (according to EN14825)	Cooling	Energy label			A+	A		-	A		-
		Pdesign		kW	6.80	9.50	12.00	-	9.50	12.00	-
		SEER			5.81	5.50	5.20	-	5.50	5.20	-
		Annual energy consumption		kWh	410	604	807	-	604	807	-
	Heating (Average climate)	Energy label			A	A+	A	-	A+	A	-
		Pdesign		kW	6.00	7.60		-	7.60		-
		SCOP			3.88	4.01	3.90	-	4.01	3.90	-
		Annual energy consumption		kWh	2,166	2,653	2,728	-	2,653	2,728	-
Nominal efficiency (cooling at 35°/27° nominal load, heating at 7°/20° nominal load)	EER				3.28	3.31	3.21	3.02	3.31	3.21	3.02
	COP				3.61	3.65	3.51	3.41	3.65	3.51	3.41
	Annual energy consumption			kWh	1,037	1,435	1,870	2,220	1,435	1,870	2,220
	Energy label	Cooling/Heating			A/A		A/B	-/-	A/A	A/B	-/-
Casing	Colour				Not painted (galvanised)						
Dimensions	Unit	HeightxWidthxDepth		mm	300x1,000x700	300x1,400x700					
Required ceiling void >				mm	350						
Weight	Unit			kg	34	45					
Decoration panel	Model				BYBS71DJW1	BYBS125DJW1					
	Colour				White (10Y9/0.5)						
	Dimensions	HeightxWidthxDepth		mm	55x1,100x500	55x1,500x500					
	Weight			kg	4.5	6					
Fan - Air flow rate	Cooling	High/Low		m^3/min	18/15	32/23	39/28		32/23	39/28	
	Heating	High/Low		m^3/min	18/15	32/23	39/28	41/29	32/23	39/28	41/29
Fan - External static pressure	High/Nom.			Pa	100/30	120/40	120/50		120/40	120/50	
Sound power level	Cooling	Nom.		dBA	57	61	66		61	66	
Sound pressure level	Cooling	High/Low		dBA	37/29	38/32	40/33		38/32	40/33	
	Heating	High/Low		dBA	37/29	38/32	40/33	41/34	38/32	40/33	41/34
Piping connections	Liquid	OD		mm	9.52						
	Gas	OD		mm	15.9						
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50/60 / 220-240/220						

OUTDOOR UNIT					RZQSG71L3V1	RZQSG100L8V1	RZQSG125L8V1	RZQSG140LV1	RZQSG100L8Y1	RZQSG125L8Y1	RZQSG140LY1
Dimensions	Unit	HeightxWidthxDepth		mm	770x900x320	990x940x320		1,430x940x320	990x940x320		1,430x940x320
Weight	Unit			kg	67	81		102	82		101
Fan - Air flow rate	Cooling	Nom.		m^3/min	52	76	77	83	76	77	83
	Heating	Nom.		m^3/min	48	83		62	83		62
Sound power level	Cooling	Nom.		dBA	65	69	70	69		70	69
Sound pressure level	Cooling	Nom./Silent operation		dBA	49/47	53/49	54/49	53/49	53/-	54/-	53/-
	Heating	Nom.		dBA	51	57	58	54	57	58	54
	Night quiet mode	Level 1		dBA	-				49		
Operation range	Cooling	Ambient	Min.~Max.	°CDB	-5.0~46	-5~46					
	Heating	Ambient	Min.~Max.	°CWB	-15~15.5						
Refrigerant	Type/GWP				R-410A/1,975						
Piping connections	Piping length	OU - IU	Max.	m	30	50					
		System	Equivalent	m	40	70					
	Level difference	IU - OU	Max.	m	15	30.0					
		IU - IU	Max.	m	0.5						
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50 / 220-240				3N~ / 50 / 380-415		
Current - 50Hz	Maximum fuse amps (MFA)			A	20	32			20		

(1) EER/COP according to Eurovent 2012

FBQ-C8 / RXS-K/F

Concealed ceiling unit with inverter driven fan

FBQ35-50C8

RXS35K

BRC1E52A/B BRC4C65

SEASONAL EFFICIENCY
Smart use of energy

- Blends unobtrusively with any interior décor: only the suction and discharge grilles are visible
- Easy installation thanks to automatic air flow adjustment towards nominal air flow rate
- Reduction in power consumption thanks to DC inverter fans
- Possibility to change ESP via wired remote control allows optimisation of the supply air volume
- Up to 120Pa external static pressure facilitates using flexible ducts of varying lengths: ideal for shops and medium size offices
- Whisper quiet operation: down to 29dBA sound pressure level
- No optional adapter needed for DIII-connection, link your unit into the wider building management system.
- The air suction direction can be altered from rear to bottom suction
- Standard built-in drain pump increases reliability of the drain system

Heating & Cooling

INDOOR UNIT					FBQ35C8	FBQ50C8	FBQ60C8
Cooling capacity	Min./Nom./Max.			kW	-/3.40/-	-/5.00/-	-/5.70/-
Heating capacity	Min./Nom./Max.			kW	-/4.00/-	-/5.50/-	-/7.00/-
Seasonal efficiency (according to EN14825)	Cooling	Energy label			C	B	A
		Pdesign		kW	3.50	4.90	6.00
		SEER			4.33	4.96	5.17
		Annual energy consumption		kWh	283	346	406
	Heating (Average climate)	Energy label			A	A	A
		Pdesign		kW	2.90	4.50	4.80
		SCOP			3.56	3.53	3.43
		Annual energy consumption		kWh	1,141	1,782	1,960
Nominal efficiency (cooling at 35°/27° nominal load, heating at 7°/20° nominal load)	EER				3.21	3.03	3.26
	COP				3.51	3.42	3.71
	Annual energy consumption			kWh	530	825	875
	Energy label	Cooling/Heating			A/B	B/B	A/B
Casing	Colour				Not painted (galvanised)		
Dimensions	Unit	HeightxWidthxDepth		mm	300x700x700		300x1,000x700
Required ceiling void >				mm	350		
Weight	Unit			kg	25		34
Decoration panel	Model				BYBS45DJW1		BYBS71DJW1
	Colour				White (10Y9/0.5)		
	Dimensions	HeightxWidthxDepth		mm	55x800x500		55x1,100x500
	Weight			kg	3		4.5
Fan - Air flow rate	Cooling	High/Low		m^3/min	16/11		18/15
	Heating	High/Nom.		m^3/min	16/-		18/-
Fan - External static pressure	High/Nom.			Pa	100/30		
Sound power level	Cooling	Nom.		dBA	63		57
Sound pressure level	Cooling	High/Low		dBA	37/29		
	Heating	High/Low		dBA	37/29		
Piping connections	Liquid	OD		mm	6.35		
	Gas	OD		mm	9.5	12.7	
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50/60 / 220-240/220		

OUTDOOR UNIT					RXS35K	RXS50K	RXS60F
Dimensions	Unit	HeightxWidthxDepth		mm	550x765x285	735x825x300	735x825x300
Weight	Unit			kg	34	47	47
Fan - Air flow rate	Cooling	High/Low		m^3/min	36.0/30.1	50.9/48.9	50.9/42.4
	Heating	High/Low		m^3/min	28.3/25.6	45.0/43.1	46.3/42.4
Sound power level	Cooling	Nom./High		dBA	-/63	-/63	63/-
Sound pressure level	Cooling	High/Low		dBA	48/44	48/44	49/46
	Heating	High/Low		dBA	48/45	48/45	49/46
Operation range	Cooling	Ambient	Min.~Max.	°CDB	-10~46	-10~46	-10~46
	Heating	Ambient	Min.~Max.	°CWB	-15~18	-15~18	-15~18
Refrigerant	Type/GWP				R-410A/1,975	R-410A/1,975	R-410A/1,975
Piping connections	Piping length	OU - IU	Max.	m	20	30	30
	Level difference	IU - OU	Max.	m	15	20	20
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50 / 220-240	1~ / 50 / 220-240	1~ / 50 / 220-240
Current - 50Hz	Maximum fuse amps (MFA)			A	10	20	20

(1) EER/COP according to Eurovent 2012

FDBQ25B

BRC1E52A/B

- Designed for hotel bedrooms
- Blends unobtrusively with any interior décor: only the suction and discharge grilles are visible
- Compact dimensions (230mm high & 652mm deep), can easily be mounted in a ceiling void
- Whisper quiet operation: down to 28dBA sound pressure level
- The air suction direction can be altered from rear to bottom suction

Heating & Cooling

INDOOR UNIT				FDBQ25B
Cooling capacity	Nom.		kW	-
Casing	Colour			-
Dimensions	Unit	HeightxWidthxDepth	mm	230x652x502
Weight	Unit		kg	17.0
Fan - Air flow rate	Cooling	High/Low	m^3/min	6.50/5.20
	Heating	High/Low/Silent operation	m^3/min	6.95/5.20/-
Sound power level	Cooling	High/Low	dBA	55.0/49.0
	Heating	High/Low	dBA	55.0/49.0
Sound pressure level	Cooling	High/Low	dBA	35.0/28.0
	Heating	High/Low	dBA	35.0/29.0
Piping connections	Liquid	OD	mm	6.35
	Gas	OD	mm	9.52
	Drain			27.2
Power supply	Phase / Frequency / Voltage		Hz / V	1~ / 50 / 230

OUTDOOR UNIT					
Dimensions	Unit	HeightxWidthxDepth		mm	only available in multi model application
Weight	Unit			kg	
Fan - Air flow rate	Cooling	High/Nom./Low		m^3/min	
	Heating	High/Nom./Low		m^3/min	
Sound power level	Cooling	Nom.		dBA	
Sound pressure level	Cooling	Nom.		dBA	
	Heating	Nom.		dBA	
Operation range	Cooling	Ambient	Min.~Max.	°CDB	
	Heating	Ambient	Min.~Max.	°CWB	
Refrigerant	Type/GWP				
Power supply	Phase / Frequency / Voltage			Hz / V	
Current - 50Hz	Maximum fuse amps (MFA)			A	

FDQ125C

RZQG125L8V1/Y1

BRC1E52A/B

SEASONAL EFFICIENCY
Smart use of energy

- Blends unobtrusively with any interior décor: only the suction and discharge grilles are visible
- Easy installation thanks to automatic air flow adjustment towards nominal air flow rate
- Reduction in power consumption thanks to DC inverter fans
- Improved comfort thanks to 3-step air flow control
- Up to 200Pa external static pressure allows extensive ductwork runs and flexible application: ideal for use in large areas
- Less duct calculations are needed; moreover, the air flow can be adjusted during installation via the wired remote control (optional) instead of via channel adjustments
- No optional adapter needed for DIII-connection, link your unit into the wider building management system.
- The air suction direction can be altered from rear to bottom suction
- Standard drain pump with 625mm lift

Heating & Cooling

Seasonal Smart

INDOOR UNIT					FDQ125C	FDQ125C	FDQ125C	FDQ125C
Cooling capacity	Min./Nom./Max.			kW	-/12.0/-			
Heating capacity	Min./Nom./Max.			kW	-/13.5/-			
Seasonal efficiency (according to EN14825)	Cooling	Energy label			A+		A	
		Pdesign		kW	12.00			
		SEER			5.81		5.20	
		Annual energy consumption		kWh	722		807	
	Heating (Average climate)	Energy label			A+		A	
		Pdesign		kW	12.71		7.60	
		SCOP			4.21		3.90	
		Annual energy consumption		kWh	4,226		2,728	
Nominal efficiency (cooling at 35°/27° nominal load, heating at 7°/20° nominal load)	EER				3.75		3.21	
	COP				3.83		3.51	
	Annual energy consumption			kWh	1,600	1,870		1,600
	Energy label	Cooling/Heating			A/A		A/B	
Casing	Colour				Not painted (galvanised)			
Dimensions	Unit	HeightxWidthxDepth		mm	300x1,400x700			
Required ceiling void >				mm	350			
Weight	Unit			kg	45			
Decoration panel	Model				BYBS125DJW1			
	Colour				White (10Y9/0.5)			
	Dimensions	HeightxWidthxDepth		mm	55x1,500x500			
	Weight			kg	6.5			
Fan - Air flow rate	Cooling	High/Low		m^3/min	39/28			
	Heating	High/Low		m^3/min	39/28			
Fan - External static pressure	High/Nom.			Pa	200/50			
Sound power level	Cooling	Nom.		dBA	66			
Sound pressure level	Cooling	High/Low		dBA	40/33			
	Heating	High/Low		dBA	40/33			
Piping connections	Liquid	OD		mm	9.52			
	Gas	OD		mm	15.9			
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50/60 / 220-240/220			

OUTDOOR UNIT					RZQG125L8V1	RZQG125L8Y1	RZQSG125L8V1	RZQSG125L8Y1
Dimensions	Unit	HeightxWidthxDepth		mm	1,430x940x320		990x940x320	
Weight	Unit			kg	102	101	81	82
Fan - Air flow rate	Cooling	Nom.		m^3/min	70		77	
	Heating	Nom.		m^3/min	62		83	
Sound power level	Cooling	Nom.		dBA	67		70	
Sound pressure level	Cooling	Nom.		dBA	51		54/49	54/-
	Heating	Nom.		dBA	53		58	
	Night quiet mode	Level 1		dBA	45		-	49
Operation range	Cooling	Ambient	Min.~Max.	°CDB	-15~50		-5~46	
	Heating	Ambient	Min.~Max.	°CWB	-20~15.5		-15~15.5	
Refrigerant	Type/GWP				R-410A/1,975			
Piping connections	Piping length	OU - IU	Max.	m	75		50	
		System	Equivalent	m	90		70	
	Level difference	IU - OU	Max.	m	30.0			
		IU - IU	Max.	m	0.5			
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50 / 220-240	3N~ / 50 / 380-415	1~ / 50 / 220-240	3N~ / 50 / 380-415
Current - 50Hz	Maximum fuse amps (MFA)			A	32	20	32	20

(1) EER/COP according to Eurovent 2012

FDQ200-250B

RZQ200-250C

BRC1E52A/B

- Blends unobtrusively with any interior décor: only the suction and discharge grilles are visible
- Up to 250Pa external static pressure allows extensive ductwork runs and flexible application: ideal for use in large areas
- Up to 26.4kW in heating mode
- Standard built-in drain pump increases reliability of the drain system

Heating & Cooling

Super Inverter

INDOOR UNIT				FDQ200B	FDQ250B
Cooling capacity	Min./Nom./Max.		kW	-/20.0/-	-/24.1/-
Heating capacity	Min./Nom./Max.		kW	-/23.0/-	-/26.4/-
Nominal efficiency (cooling at 35°/27° nominal load, heating at 7°/20° nominal load)	EER			3.21	2.81
	COP			3.41	3.21
	Annual energy consumption		kWh	3,115	4,290
	Energy label	Cooling/Heating		-/-	
Casing	Colour			Unpainted	
Dimensions	Unit	HeightxWidthxDepth	mm	450x1,400x900	
Required ceiling void >			mm	450	
Weight	Unit		kg	89.0	94.0
Fan - Air flow rate	Cooling	Nom.	m^3/min	69.0	89.0
Fan - External static pressure	High/Nom./Low		Pa	250/250/250	
Sound power level	Cooling	Nom.	dBA	81.0	82.0
Sound pressure level	Cooling	High	dBA	45.0	47.0
	Heating	Low	dBA	45.0	47.0
Piping connections	Liquid	OD	mm	9.52	12.7
	Gas	OD	mm	22.2	
Power supply	Phase / Frequency / Voltage		Hz / V	1~ / 50 / 230	

OUTDOOR UNIT					RZQ200C	RZQ250C
Dimensions	Unit	HeightxWidthxDepth		mm	1,680x930x765	
Weight	Unit			kg	183	184
Fan - Air flow rate	Cooling	Nom.		m^3/min	171	
	Heating	Nom.		m^3/min	171	
Fan - External static pressure	Max.			Pa	78	
Sound power level	Nom.			dBA	78	
Sound pressure level	Nom.			dBA	57	
Operation range	Cooling	Ambient	Min.~Max.	°CDB	-5.0~46.0	
	Heating	Ambient	Min.~Max.	°CWB	-15.0~15.0	
Refrigerant	Type/GWP				R-410A/-	
Power supply	Phase / Frequency / Voltage			Hz / V	3N~ / 50 / 380-415	
Current - 50Hz	Maximum fuse amps (MFA)			A	20	

(1) EER/COP according to Eurovent 2012

FAQ100C

RZQG100L8V1/Y1

BRC1E52A/B BRC7AF532F

SEASONAL EFFICIENCY
Smart use of energy

- Ideal solution for shops, restaurants or offices without false ceilings
- 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
- 5 different discharge angles can be programmed via the remote control
- Maintenance operations can be performed from the front of the unit
- No optional adapter needed for DIII-connection, link your unit into the wider building management system.

Heating & Cooling

Seasonal Smart

INDOOR UNIT					FAQ71C	FAQ100C	FAQ71C	FAQ100C
Cooling capacity	Min./Nom./Max.			kW	-/6.8/-	-/9.5/-	-/6.8/-	-/9.5/-
Heating capacity	Min./Nom./Max.			kW	-/7.5/-	-/10.8/-	-/7.5/-	-/10.8/-
Seasonal efficiency (according to EN14825)	Cooling	Energy label			A++			
		Pdesign		kW	6.80	9.50	6.80	9.50
		SEER			6.51	6.11	6.51	6.11
		Annual energy consumption		kWh	365	544	365	544
	Heating (Average climate)	Energy label			A+			
		Pdesign		kW	6.33	10.20	6.33	10.20
		SCOP			4.02	4.01	4.02	4.01
		Annual energy consumption		kWh	2,204	3,561	2,204	3,561
Nominal efficiency (cooling at 35°/27° nominal load, heating at 7°/20° nominal load)	EER				3.40	3.62	3.40	3.62
	COP				3.70	3.61	3.70	3.61
	Annual energy consumption			kWh	1,000	1,315	1,000	1,315
	Energy label	Cooling/Heating			A/A			
Casing	Colour				Fresh White			
Dimensions	Unit	HeightxWidthxDepth		mm	290x1,050x238	340x1,200x240	290x1,050x238	340x1,200x240
Weight	Unit			kg	13	17	13	17
Fan - Air flow rate	Cooling	High/Nom./Low		m^3/min	18/16/14	26/23/19	18/16/14	26/23/19
	Heating	High/Nom./Low		m^3/min	18/16/14	26/23/19	18/16/14	26/23/19
Sound power level	Cooling	High/Nom./Low		dBA	61/58/56	65/62/58	61/58/56	65/62/58
	Heating	High/Nom./Low		dBA	61/58/56	65/62/58	61/58/56	65/62/58
Sound pressure level	Cooling	High/Nom./Low		dBA	45/42/40	49/45/41	45/42/40	49/45/41
	Heating	High/Nom./Low		dBA	45/42/40	49/45/41	45/42/40	49/45/41
Piping connections	Liquid	OD		mm	9.52			
	Gas	OD		mm	15.9			
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50/60 / 220-240/220			

OUTDOOR UNIT					RZQG71L8V1	RZQG100L8V1	RZQG71L8Y1	RZQG100L8Y1
Dimensions	Unit	HeightxWidthxDepth		mm	990x940x320	1,430x940x320	990x940x320	1,430x940x320
Weight	Unit			kg	78	102	80	101
Fan - Air flow rate	Cooling	Nom.		m^3/min	59	70	59	70
	Heating	Nom.		m^3/min	49	62	49	62
Sound power level	Cooling	Nom.		dBA	64	66	64	66
Sound pressure level	Cooling	Nom.		dBA	48	50	48	50
	Heating	Nom.		dBA	50	52	50	52
	Night quiet mode	Level 1		dBA	43	45	43	45
Operation range	Cooling	Ambient	Min.~Max.	°CDB	-15~50			
	Heating	Ambient	Min.~Max.	°CWB	-20~15.5			
Refrigerant	Type/GWP				R-410A/1,975			
Piping connections	Piping length	OU - IU	Max.	m	50	75	50	75
		System	Equivalent	m	70	90	70	90
	Level difference	IU - OU	Max.	m	30.0			
		IU - IU	Max.	m	0.5			
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50 / 220-240		3N~ / 50 / 380-415	
Current - 50Hz	Maximum fuse amps (MFA)			A	20	32	16	20

(1) EER/COP according to Eurovent 2012

FAQ-C / RZQSG-L(3/8)V1/L(8)Y1

Heating & Cooling

Seasonal Classic

INDOOR UNIT					FAQ71C	FAQ100C	FAQ100C
Cooling capacity	Min./Nom./Max.			kW	-/6.8/-	-/9.5/-	
Heating capacity	Min./Nom./Max.			kW	-/7.5/-	-/10.8/-	
Seasonal efficiency (according to EN14825)	Cooling	Energy label			A+		
		Pdesign		kW	6.80	9.50	
		SEER			6.05	5.61	
		Annual energy consumption		kWh	393	592	
	Heating (Average climate)	Energy label			A	A+	
		Pdesign		kW	6.00	6.81	
		SCOP			3.90	4.01	
		Annual energy consumption		kWh	2,155	2,377	
Nominal efficiency (cooling at 35°/27° nominal load, heating at 7°/20° nominal load)	EER				3.21	3.01	
	COP				3.61	3.41	
	Annual energy consumption			kWh	1,059	1,580	
	Energy label	Cooling/Heating			A/A	B/B	
Casing	Colour				Fresh White		
Dimensions	Unit	HeightxWidthxDepth		mm	290x1,050x238	340x1,200x240	
Weight	Unit			kg	13	17	
Fan - Air flow rate	Cooling	High/Nom./Low		m^3/min	18/16/14	26/23/19	
	Heating	High/Nom./Low		m^3/min	18/16/14	26/23/19	
Sound power level	Cooling	High/Nom./Low		dBA	61/58/56	65/62/58	
	Heating	High/Nom./Low		dBA	61/58/56	65/62/58	
Sound pressure level	Cooling	High/Nom./Low		dBA	45/42/40	49/45/41	
	Heating	High/Nom./Low		dBA	45/42/40	49/45/41	
Piping connections	Liquid	OD		mm	9.52		
	Gas	OD		mm	15.9		
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50/60 / 220-240/220		

OUTDOOR UNIT					RZQSG71L3V1	RZQSG100L8V1	RZQSG100L8Y1
Dimensions	Unit	HeightxWidthxDepth		mm	770x900x320	990x940x320	
Weight	Unit			kg	67	81	82
Fan - Air flow rate	Cooling	Nom.		m^3/min	52	76	
	Heating	Nom.		m^3/min	48	83	
Sound power level	Cooling	Nom.		dBA	65	69	
Sound pressure level	Cooling	Nom./Silent operation		dBA	49/47	53/49	53/-
	Heating	Nom.		dBA	51	57	
	Night quiet mode	Level 1		dBA	-		49
Operation range	Cooling	Ambient	Min.~Max.	°CDB	-5.0~46	-5~46	
	Heating	Ambient	Min.~Max.	°CWB	-15~15.5		
Refrigerant	Type/GWP				R-410A/1,975		
Piping connections	Piping length	OU - IU	Max.	m	30	50	
		System	Equivalent	m	40	70	
	Level difference	IU - OU	Max.	m	15	30.0	
		IU - IU	Max.	m	0.5		
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50 / 220-240		3N~ / 50 / 380-415
Current - 50Hz	Maximum fuse amps (MFA)			A	20	32	20

(1) EER/COP according to Eurovent 2012

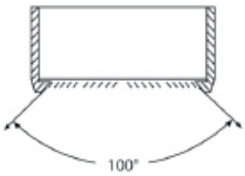
FHQ100-140C

RZQG100-140L8/7V1/L(8)Y1

BRC1E51A/B BRC7GA53

SEASONAL EFFICIENCY
Smart use of energy

- Ideal solution for commercial spaces with no or narrow 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
- No optional adapter needed for DIII-connection, link your unit into the wider building management system.

Heating & Cooling

Seasonal Smart

INDOOR UNIT				FHQ71C	FHQ100C	FHQ125C	FHQ140C	FHQ71C	FHQ100C	FHQ125C	FHQ140C
Cooling capacity	Min./Nom./Max.		kW	-/6.8/-	-/9.5/-	-/12.0/-	-/13.4/-	-/6.8/-	-/9.5/-	-/12.0/-	-/13.4/-
Heating capacity	Min./Nom./Max.		kW	-/7.5/-	-/10.8/-	-/13.5/-	-/15.5/-	-/7.5/-	-/10.8/-	-/13.5/-	-/15.5/-
Seasonal efficiency (according to EN14825)	Cooling	Energy label		A++		A+	-	A++		A+	-
		Pdesign	kW	6.80	9.50	12.00	-	6.80	9.50	12.00	-
		SEER		6.95	6.11	6.01	-	6.95	6.11	6.01	-
		Annual energy consumption	kWh	342	544	698	-	342	544	698	-
	Heating (Average climate)	Energy label		A+	A++	A+	-	A+	A++	A+	-
		Pdesign	kW	7.60	11.30	14.13	-	7.60	11.30	14.13	-
		SCOP		4.32	4.61	4.23	-	4.32	4.61	4.23	-
		Annual energy consumption	kWh	2,462	3,431	4,676	-	2,462	3,431	4,676	-
Nominal efficiency (cooling at 35°/27° nominal load, heating at 7°/20° nominal load)	EER			3.82	4.13	3.52	3.31	3.82	4.13	3.52	3.31
	COP			4.13	4.42	3.89	3.63	4.13	4.42	3.89	3.63
	Annual energy consumption		kWh	890	1,245	1,790	2,025	890	1,245	1,790	2,025
	Energy label	Cooling/Heating		A/A			-/-	A/A			-/-
Casing	Colour			Fresh White							
Dimensions	Unit	HeightxWidthxDepth	mm	235x1,270x690	235x1,590x690			235x1,270x690	235x1,590x690		
Weight	Unit		kg	32	38			32	38		
Fan - Air flow rate	Cooling	High/Nom./Low	m^3/min	20.5/17/14	28/24/20	31/27/23	34/29/24	20.5/17/14	28/24/20	31/27/23	34/29/24
	Heating	High/Nom./Low	m^3/min	20.5/17/14	28/24/20	31/27/23	34/29/24	20.5/17/14	28/24/20	31/27/23	34/29/24
Sound power level	Cooling	High/Nom./Low	dBA	55/53/51	60/56/52	62/59/55	64/60/56	55/53/51	60/56/52	62/59/55	64/60/56
	Heating	High/Nom./Low	dBA	55/53/51	60/56/52	62/59/55	64/60/56	55/53/51	60/56/52	62/59/55	64/60/56
Sound pressure level	Cooling	High/Nom./Low	dBA	38/36/34	42/38/34	44/41/37	46/42/38	38/36/34	42/38/34	44/41/37	46/42/38
	Heating	High/Nom./Low	dBA	38/36/34	42/38/34	44/41/37	46/42/38	38/36/34	42/38/34	44/41/37	46/42/38
Piping connections	Liquid	OD	mm	9.52							
	Gas	OD	mm	15.9							
Power supply	Phase / Frequency / Voltage		Hz / V	1~ / 50/60 / 220-240/220							

OUTDOOR UNIT					RZQG71L8V1	RZQG100L8V1	RZQG125L8V1	RZQG140L7V1	RZQG71L8Y1	RZQG100L8Y1	RZQG125L8Y1	RZQG140LY1
Dimensions	Unit	HeightxWidthxDepth		mm	990x940x320	1,430x940x320			990x940x320	1,430x940x320		
Weight	Unit			kg	78	102			80	101		
Fan - Air flow rate	Cooling	Nom.		m^3/min	59	70		84	59	70		84
	Heating	Nom.		m^3/min	49	62			49	62		
Sound power level	Cooling	Nom.		dBA	64	66	67	69	64	66	67	69
Sound pressure level	Cooling	Nom.		dBA	48	50	51	52	48	50	51	52
	Heating	Nom.		dBA	50	52	53		50	52	53	
	Night quiet mode	Level 1		dBA	43	45			43	45		
Operation range	Cooling	Ambient	Min.~Max.	°CDB	-15~50							
	Heating	Ambient	Min.~Max.	°CWB	-20~15.5							
Refrigerant	Type/GWP				R-410A/1,975							
Piping connections	Piping length	OU - IU	Max.	m	50	75			50	75		
		System	Equivalent	m	70	90			70	90		
	Level difference	IU - OU	Max.	m	30.0							
		IU - IU	Max.	m	0.5							
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50 / 220-240				3N~ / 50 / 380-415			
Current - 50Hz	Maximum fuse amps (MFA)			A	20	32			16	20		

(1) EER/COP according to Eurovent 2012

FHQ-C / RZQSG-L(3/8)V1/L(8)Y1

Heating & Cooling

Seasonal Classic

INDOOR UNIT					FHQ71C	FHQ100C	FHQ125C	FHQ140C	FHQ100C	FHQ125C	FHQ140C
Cooling capacity	Min./Nom./Max.			kW	-/6.8/-	-/9.5/-	-/12.0/-	-/13.4/-	-/9.5/-	-/12.0/-	-/13.4/-
Heating capacity	Min./Nom./Max.			kW	-/7.5/-	-/10.8/-	-/13.5/-	-/15.5/-	-/10.8/-	-/13.5/-	-/15.5/-
Seasonal efficiency (according to EN14825)	Cooling	Energy label			A+			-	A+		-
		Pdesign		kW	6.80	9.50	12.00	-	9.50	12.00	-
		SEER			5.61			-	5.61		-
		Annual energy consumption		kWh	424	592	748	-	592	748	-
	Heating (Average climate)	Energy label			A		A+	-	A	A+	-
		Pdesign		kW	7.60			-	7.60		-
		SCOP			3.90	3.91	4.01	-	3.91	4.01	-
		Annual energy consumption		kWh	2,727	2,721	2,653	-	2,721	2,653	-
Nominal efficiency (cooling at 35°/27° nominal load, heating at 7°/20° nominal load)	EER				3.46	3.21	2.89	3.01	3.21	2.89	3.01
	COP				4.00	3.61	3.62	3.41	3.61	3.62	3.41
	Annual energy consumption			kWh	983	1,480	2,075	2,225	1,480	2,075	2,225
	Energy label	Cooling/Heating			A/A		C/A	-/-	A/A	C/A	-/-
Casing	Colour				Fresh White						
Dimensions	Unit	HeightxWidthxDepth		mm	235x1,270x690	235x1,590x690					
Weight	Unit			kg	32	38					
Fan - Air flow rate	Cooling	High/Nom./Low		m^3/min	20.5/17/14	28/24/20	31/27/23	34/29/24	28/24/20	31/27/23	34/29/24
	Heating	High/Nom./Low		m^3/min	20.5/17/14	28/24/20	31/27/23	34/29/24	28/24/20	31/27/23	34/29/24
Sound power level	Cooling	High/Nom./Low		dBA	55/53/51	60/56/52	62/59/55	64/60/56	60/56/52	62/59/55	64/60/56
	Heating	High/Nom./Low		dBA	55/53/51	60/56/52	62/59/55	64/60/56	60/56/52	62/59/55	64/60/56
Sound pressure level	Cooling	High/Nom./Low		dBA	38/36/34	42/38/34	44/41/37	46/42/38	42/38/34	44/41/37	46/42/38
	Heating	High/Nom./Low		dBA	38/36/34	42/38/34	44/41/37	46/42/38	42/38/34	44/41/37	46/42/38
Piping connections	Liquid	OD		mm	9.52						
	Gas	OD		mm	15.9						
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50/60 / 220-240/220						

OUTDOOR UNIT					RZQSG71L3V1	RZQSG100L8V1	RZQSG125L8V1	RZQSG140LV1	RZQSG100L8Y1	RZQSG125L8Y1	RZQSG140LY1
Dimensions	Unit	HeightxWidthxDepth		mm	770x900x320	990x940x320		1,430x940x320	990x940x320		1,430x940x320
Weight	Unit			kg	67	81		102	82		101
Fan - Air flow rate	Cooling	Nom.		m^3/min	52	76	77	83	76	77	83
	Heating	Nom.		m^3/min	48	83		62	83		62
Sound power level	Cooling	Nom.		dBA	65	69	70	69		70	69
Sound pressure level	Cooling	Nom./Silent operation		dBA	49/47	53/49	54/49	53/49	53/-	54/-	53/-
	Heating	Nom.		dBA	51	57	58	54	57	58	54
	Night quiet mode	Level 1		dBA	-				49		
Operation range	Cooling	Ambient	Min.~Max.	°CDB	-5.0~46	-5~46					
	Heating	Ambient	Min.~Max.	°CWB	-15~15.5						
Refrigerant	Type/GWP				R-410A/1,975						
Piping connections	Piping length	OU - IU	Max.	m	30	50					
		System	Equivalent	m	40	70					
	Level difference	IU - OU	Max.	m	15	30.0					
		IU - IU	Max.	m	0.5						
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50 / 220-240				3N~ / 50 / 380-415		
Current - 50Hz	Maximum fuse amps (MFA)			A	20	32			20		

(1) EER/COP according to Eurovent 2012

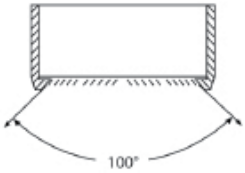
FHQ35-50C

RXS35K

BRC1E52A/B BRC7GA53

SEASONAL EFFICIENCY
Smart use of energy

- Ideal solution for commercial spaces with no or narrow false ceiling
- 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
- No optional adapter needed for DIII-connection, link your unit into the wider building management system.

Heating & Cooling

INDOOR UNIT					FHQ35C	FHQ50C	FHQ60C
Cooling capacity	Min./Nom./Max.			kW	-/3.40/-	-/5.00/-	-/5.70/-
Heating capacity	Min./Nom./Max.			kW	-/4.00/-	-/6.00/-	-/7.20/-
Seasonal efficiency (according to EN14825)	Cooling	Energy label			B	A	
		Pdesign		kW	3.40	5.00	7.20
		SEER			4.89	5.48	5.54
		Annual energy consumption		kWh	243	320	360
	Heating (Average climate)	Energy label			A		
		Pdesign		kW	3.10	4.35	5.07
		SCOP			3.98	3.74	3.50
		Annual energy consumption		kWh	1,090.75	1,627.83	2,026.36
Nominal efficiency (cooling at 35°/27° nominal load, heating at 7°/20° nominal load)	EER				3.58	3.18	3.26
	COP				3.96	3.35	3.32
	Annual energy consumption			kWh	475	785	875
	Energy label	Cooling/Heating			A/A	B/C	A/C
Casing	Colour				Fresh White		
Dimensions	Unit	HeightxWidthxDepth		mm	235x960x690		235x1,270x690
Weight	Unit			kg	24	25	31
Fan - Air flow rate	Cooling	High/Nom./Low		m^3/min	14/11.5/10	15/12/10	19.5/15/11.5
	Heating	High/Nom.		m^3/min	14/11.5	15/12	19.5/15
Sound power level	Cooling	High/Nom./Low		dBA	53/51/48	54/52/49	54/52/50
	Heating	High/Nom./Low		dBA	53/51/48	54/52/49	54/52/50
Sound pressure level	Cooling	High/Nom./Low		dBA	36/34/31	37/35/32	37/35/33
	Heating	High/Nom./Low		dBA	36/34/31	37/35/32	37/35/33
Piping connections	Liquid	OD		mm	6.35		
	Gas	OD		mm	9.52	12.70	
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50/60 / 220-240/220		

OUTDOOR UNIT					RXS35K	RXS50K	RXS60F
Dimensions	Unit	HeightxWidthxDepth		mm	550x765x285	735x825x300	
Weight	Unit			kg	34	47	
Fan - Air flow rate	Cooling	High/Low		m^3/min	36.0/30.1	50.9/48.9	50.9/42.4
	Heating	High/Low		m^3/min	28.3/25.6	45.0/43.1	46.3/42.4
Sound power level	Cooling	Nom./High		dBA	-/63		
Sound pressure level	Cooling	High/Low		dBA	48/44		49/46
	Heating	High/Low		dBA	48/45		49/46
Operation range	Cooling	Ambient	Min.~Max.	°CDB	-10~46		
	Heating	Ambient	Min.~Max.	°CWB	-15~18		
Refrigerant	Type/GWP				R-410A/1,975		
Piping connections	Piping length	OU - IU	Max.	m	20	30	
	Level difference	IU - OU	Max.	m	15	20	
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50 / 220-240		
Current - 50Hz	Maximum fuse amps (MFA)			A	10	20	

(1) EER/COP according to Eurovent 2012

FUQ-C / RZQG-L8/7V1/L(8)Y1

4-way blow ceiling suspended unit

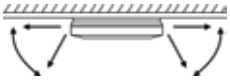
FUQ71-125C

RZQG100-125L8V1/Y1

BRC1E52A/B BRC7CB528

SEASONAL EFFICIENCY
Smart use of energy

- Ideal solution for commercial spaces with no or narrow false ceilings
- 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 to automatic air flow adjustment to required load
- Individual flap control: one flap 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)
- Auto swing function ensures efficient air and temperature distribution
- 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
- No optional adapter needed for DIII-connection, link your unit into the wider building management system.

Heating & Cooling

Seasonal Smart

INDOOR UNIT				FUQ71C	FUQ100C	FUQ125C	FUQ71C	FUQ100C	FUQ125C
Cooling capacity	Min./Nom./Max.		kW	-/6.8/-	-/9.5/-	-/12.0/-	-/6.8/-	-/9.5/-	-/12.0/-
Heating capacity	Min./Nom./Max.		kW	-/7.5/-	-/10.8/-	-/13.5/-	-/7.5/-	-/10.8/-	-/13.5/-
Seasonal efficiency (according to EN14825)	Cooling	Energy label		A++		A+	A++		A+
		Pdesign	kW	6.80	9.50	12.00	6.80	9.50	12.00
		SEER		6.50	6.11	5.61	6.50	6.11	5.61
		Annual energy consumption	kWh	366	544	748	366	544	748
	Heating (Average climate)	Energy label		A+					
		Pdesign	kW	7.60	11.30	14.13	7.60	11.30	14.13
		SCOP		4.20	4.50	4.44	4.20	4.50	4.44
		Annual energy consumption	kWh	2,533	3,515	4,456	2,533	3,515	4,456
Nominal efficiency (cooling at 35°/27° nominal load, heating at 7°/20° nominal load)	EER			4.07	4.08	3.40	4.07	4.08	3.40
	COP			4.47	4.04		4.47	4.04	
	Annual energy consumption		kWh	840	1,230	1,770	840	1,230	1,770
	Energy label	Cooling/Heating		A/A					
Casing	Colour			Fresh White					
Dimensions	Unit	HeightxWidthxDepth	mm	198x950x950					
Weight	Unit		kg	25	26		25	26	
Fan - Air flow rate	Cooling	High/Nom./Low	m^3/min	23/19.5/16	31/25.5/20	32.5/26.5/20.5	23/19.5/16	31/25.5/20	32.5/26.5/20.5
	Heating	High/Nom./Low	m^3/min	23/19.5/16	31/25.5/20	32.5/26.5/20.5	23/19.5/16	31/25.5/20	32.5/26.5/20.5
Sound power level	Cooling	High/Nom./Low	dBA	59/56/51	64/60/55	65/61/56	59/56/51	64/60/55	65/61/56
	Heating	High/Nom./Low	dBA	59/56/51	64/60/55	65/61/56	59/56/51	64/60/55	65/61/56
Sound pressure level	Cooling	High/Nom./Low	dBA	41/38/35	46/42/39	47/43/40	41/38/35	46/42/39	47/43/40
	Heating	High/Nom./Low	dBA	41/38/35	46/42/39	47/43/40	41/38/35	46/42/39	47/43/40
Piping connections	Liquid	OD	mm	9.52					
	Gas	OD	mm	15.9					
Power supply	Phase / Frequency / Voltage		Hz / V	1~ / 50/60 / 220-240/220					

OUTDOOR UNIT					RZQG71L8V1	RZQG100L8V1	RZQG125L8V1	RZQG71L8Y1	RZQG100L8Y1	RZQG125L8Y1
Dimensions	Unit	HeightxWidthxDepth		mm	990x940x320	1,430x940x320		990x940x320	1,430x940x320	
Weight	Unit			kg	78	102		80	101	
Fan - Air flow rate	Cooling	Nom.		m^3/min	59	70		59	70	
	Heating	Nom.		m^3/min	49	62		49	62	
Sound power level	Cooling	Nom.		dBA	64	66	67	64	66	67
Sound pressure level	Cooling	Nom.		dBA	48	50	51	48	50	51
	Heating	Nom.		dBA	50	52	53	50	52	53
	Night quiet mode	Level 1		dBA	43	45		43	45	
Operation range	Cooling	Ambient	Min.~Max.	°CDB	-15~50					
	Heating	Ambient	Min.~Max.	°CWB	-20~15.5					
Refrigerant	Type/GWP				R-410A/1,975					
Piping connections	Piping length	OU - IU	Max.	m	50	75		50	75	
		System	Equivalent	m	70	90		70	90	
	Level difference	IU - OU	Max.	m	30.0					
		IU - IU	Max.	m	0.5					
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50 / 220-240			3N~ / 50 / 380-415		
Current - 50Hz	Maximum fuse amps (MFA)			A	20	32		16	20	

(1) EER/COP according to Eurovent 2012

FVQ100-140C

RZQG100-140L8/7V1/L(8)Y1

BRC1E52A/B

SEASONAL EFFICIENCY
Smart use of energy

- Ideal solution for shops, restaurants or offices without false ceilings
- Can be installed in both new and existing buildings
- Very efficient for use in rooms with high ceilings
- Decrease of temperature variation by automatic fan speed selection or freely selectable 3-step fan speed.
- Improved efficiency by adoption of the DC fan motor.
- No optional adapter needed for DIII-connection, link your unit into the wider building management system.

Heating & Cooling

Seasonal Smart

INDOOR UNIT					FVQ71C	FVQ100C	FVQ125C	FVQ140C	FVQ71C	FVQ100C	FVQ125C	FVQ140C
Cooling capacity	Min./Nom./Max.			kW	-/6,8/-	-/9,5/-	-/12,0/-	-/13,4/-	-/6,8/-	-/9,5/-	-/12,0/-	-/13,4/-
Heating capacity	Min./Nom./Max.			kW	-/7,5/-	-/10,8/-	-/13,5/-	-/15,5/-	-/7,5/-	-/10,8/-	-/13,5/-	-/15,5/-
Seasonal efficiency (according to EN14825)	Cooling	Energy label			A++	A+		-	A++	A+		-
		Pdesign		kW	6,80	9,50	12,00	-	6,80	9,50	12,00	-
		SEER			6,31	5,61		-	6,31	5,61		-
		Annual energy consumption		kWh	377	592	748	-	377	592	748	-
	Heating (Average climate)	Energy label			A+		A	-	A+		A	-
		Pdesign		kW	6,33	11,30		-	6,33	11,30		-
		SCOP			4,05	4,20	3,87	-	4,05	4,20	3,87	-
		Annual energy consumption		kWh	2.188	3.766	4.087	-	2.188	3.766	4.087	-
Nominal efficiency (cooling at 35°/27° nominal load, heating at 7°/20° nominal load)	EER				3,37	3,81	3,21		3,37	3,81	3,21	
	COP				3,64	4,14	3,70	3,61	3,64	4,14	3,70	3,61
	Annual energy consumption			kWh	1.010	1.245	1.870	2.085	1.010	1.245	1.870	2.085
	Energy label	Cooling/Heating			A/A			-/-	A/A			-/-
Casing	Colour				Fresh White							
Dimensions	Unit	HeightxWidthxDepth		mm	1.850x600x270	1.850x600x350			1.850x600x270	1.850x600x350		
Weight	Unit			kg	39	47			39	47		
Fan - Air flow rate	Cooling	High/Nom./Low		m^3/min	18/16/14	28/25/22	28/26/24	30/28/26	18/16/14	28/25/22	28/26/24	30/28/26
	Heating	High/Nom./Low		m^3/min	18/16/14	28/25/22	28/26/24	30/28/26	18/16/14	28/25/22	28/26/24	30/28/26
Sound power level	Cooling	High/Nom./Low		dBA	55/53/50	62/59/56	63/60/58	65/63/60	55/53/50	62/59/56	63/60/58	65/63/60
	Heating	High/Nom./Low		dBA	55/53/50	62/59/56	63/60/58	65/63/60	55/53/50	62/59/56	63/60/58	65/63/60
Sound pressure level	Cooling	High/Nom./Low		dBA	43/41/38	50/47/44	51/48/46	53/51/48	43/41/38	50/47/44	51/48/46	53/51/48
	Heating	High/Nom./Low		dBA	43/41/38	50/47/44	51/48/46	53/51/48	43/41/38	50/47/44	51/48/46	53/51/48
Piping connections	Liquid	OD		mm	9,52							
	Gas	OD		mm	15,9							
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50/60 / 220-240/220							

OUTDOOR UNIT					RZQG71L8V1	RZQG100L8V1	RZQG125L8V1	RZQG140L7V1	RZQG71L8Y1	RZQG100L8Y1	RZQG125L8Y1	RZQG140LY1
Dimensions	Unit	HeightxWidthxDepth		mm	990x940x320	1.430x940x320			990x940x320	1.430x940x320		
Weight	Unit			kg	78	102			80	101		
Fan - Air flow rate	Cooling	Nom.		m^3/min	59	70		84	59	70		84
	Heating	Nom.		m^3/min	49	62			49	62		
Sound power level	Cooling	Nom.		dBA	64	66	67	69	64	66	67	69
Sound pressure level	Cooling	Nom.		dBA	48	50	51	52	48	50	51	52
	Heating	Nom.		dBA	50	52	53		50	52	53	
	Night quiet mode	Level 1		dBA	43	45			43	45		
Operation range	Cooling	Ambient	Min.~Max.	°CDB	-15~50							
	Heating	Ambient	Min.~Max.	°CWB	-20~15,5							
Refrigerant	Type/GWP				R-410A/1,975							
Piping connections	Piping length	OU - IU	Max.	m	50	75			50	75		
		System	Equivalent	m	70	90			70	90		
	Level difference	IU - OU	Max.	m	30,0							
		IU - IU	Max.	m	0,5							
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50 / 220-240				3N~ / 50 / 380-415			
Current - 50Hz	Maximum fuse amps (MFA)			A	20	32			16	20		

(1) EER/COP according to Eurovent 2012

FVQ-C / RZQSG-L(3/8)V1/L(8)Y1

Heating & Cooling

Seasonal Classic

INDOOR UNIT					FVQ71C	FVQ100C	FVQ125C	FVQ140C	FVQ100C	FVQ125C	FVQ140C
Cooling capacity	Min./Nom./Max.			kW	-/6,8/-	-/9,5/-	-/12,0/-	-/13,4/-	-/9,5/-	-/12,0/-	-/13,4/-
Heating capacity	Min./Nom./Max.			kW	-/7,5/-	-/10,8/-	-/13,5/-	-/15,5/-	-/10,8/-	-/13,5/-	-/15,5/-
Seasonal efficiency (according to EN14825)	Cooling	Energy label			A			-	A		-
		Pdesign		kW	6,80	9,50	12,00	-	9,50	12,00	-
		SEER			5,50			-	5,50		-
		Annual energy consumption		kWh	433	604	763	-	604	763	-
	Heating (Average climate)	Energy label			A	A+	A	-	A+	A	-
		Pdesign		kW	6,33	7,60		-	7,60		-
		SCOP			3,86	4,01	3,85	-	4,01	3,85	-
		Annual energy consumption		kWh	2.296	2.653	2.763	-	2.653	2.763	-
Nominal efficiency (cooling at 35°/27° nominal load, heating at 7°/20° nominal load)	EER				3,21		2,81	3,01	3,21	2,81	3,01
	COP				3,61		3,41		3,61	3,41	
	Annual energy consumption			kWh	1.059	1.480	2.135	2.225	1.480	2.135	2.225
	Energy label	Cooling/Heating			A/A		C/B	-/-	A/A	C/B	-/-
Casing	Colour				Fresh White						
Dimensions	Unit	HeightxWidthxDepth		mm	1.850x600x270	1.850x600x350					
Weight	Unit			kg	39	47					
Fan - Air flow rate	Cooling	High/Nom./Low		m^3/min	18/16/14	28/25/22	28/26/24	30/28/26	28/25/22	28/26/24	30/28/26
	Heating	High/Nom./Low		m^3/min	18/16/14	28/25/22	28/26/24	30/28/26	28/25/22	28/26/24	30/28/26
Sound power level	Cooling	High/Nom./Low		dBA	55/53/50	62/59/56	63/60/58	65/63/60	62/59/56	63/60/58	65/63/60
	Heating	High/Nom./Low		dBA	55/53/50	62/59/56	63/60/58	65/63/60	62/59/56	63/60/58	65/63/60
Sound pressure level	Cooling	High/Nom./Low		dBA	43/41/38	50/47/44	51/48/46	53/51/48	50/47/44	51/48/46	53/51/48
	Heating	High/Nom./Low		dBA	43/41/38	50/47/44	51/48/46	53/51/48	50/47/44	51/48/46	53/51/48
Piping connections	Liquid	OD		mm	9,52						
	Gas	OD		mm	15,9						
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50/60 / 220-240/220						

OUTDOOR UNIT					RZQSG71L3V1	RZQSG100L8V1	RZQSG100L8V1	RZQSG140LV1	RZQSG100L8Y1	RZQSG125L8Y1	RZQSG140LY1
Dimensions	Unit	HeightxWidthxDepth		mm	770x900x320	990x940x320		1.430x940x320	990x940x320		1.430x940x320
Weight	Unit			kg	67	81		102	82		101
Fan - Air flow rate	Cooling	Nom.		m^3/min	52	76		83	76	77	83
	Heating	Nom.		m^3/min	48	83		62	83		62
Sound power level	Cooling	Nom.		dBA	65	69				70	69
Sound pressure level	Cooling	Nom./Silent operation		dBA	49/47	53/49			53/-	54/-	53/-
	Heating	Nom.		dBA	51	57		54	57	58	54
	Night quiet mode	Level 1		dBA	-				49		
Operation range	Cooling	Ambient	Min.~Max.	°CDB	-5,0~46	-5~46					
	Heating	Ambient	Min.~Max.	°CWB	-15~15,5						
Refrigerant	Type/GWP				R-410A/1,975						
Piping connections	Piping length	OU - IU	Max.	m	30	50					
		System	Equivalent	m	40	70					
	Level difference	IU - OU	Max.	m	15	30,0					
		IU - IU	Max.	m	0,5						
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50 / 220-240				3N~ / 50 / 380-415		
Current - 50Hz	Maximum fuse amps (MFA)			A	20	32			20		

(1) EER/COP according to Eurovent 2012

ACQ-B/AZQS-BV1/BY1

4-way blow ceiling mounted cassette

ACQ-B

AZQS-BV1/BY1

ARCWLA

SEASONAL EFFICIENCY

Siesta

- Ideal solution for shops, restaurants or offices requiring maximum floor space for furniture, decorations and fittings
- Blends unobtrusively with any interior décor: only the suction and discharge grilles are visible
- Air can be discharged in any of 4 directions
- Air filter removes airborne dust particles to ensure a steady supply of clean air
- Easy installation and maintenance

Heating & Cooling

INDOOR UNIT					ACQ71B	ACQ100B	ACQ125B	ACQ100B	ACQ125B
Cooling capacity	Min./Nom./Max.			kW	-/6.8/-	-/9.5/-	-/12.1/-	-/9.5/-	-/12.1/-
Heating capacity	Min./Nom./Max.			kW	-/7.5/-	-/10.8/-	-/13.5/-	-/10.8/-	-/13.5/-
Seasonal efficiency (according to EN14825)	Cooling	Energy label			B		-	B	-
		Pdesign		kW	6.80	9.50	-	9.50	-
		SEER			4.65		-	4.65	-
		Annual energy consumption		kWh	512	715	-	715	-
	Heating (Average climate)	Energy label			A		-	A	-
		Pdesign		kW	6.33	7.60	-	7.60	-
		SCOP			3.41	3.47	-	3.47	-
		Annual energy consumption		kWh	2,599	3,066	-	3,066	-
Nominal efficiency (cooling at 35°/27° nominal load, heating at 7°/20° nominal load)	EER				3.31	3.21	3.01	3.21	3.01
	COP				3.61		3.41	3.61	3.41
	Annual energy consumption			kWh	1,025	1,480	2,010	1,480	2,010
	Energy label	Cooling/Heating			A/A		B/B	A/A	B/B
Casing	Colour				-				
Dimensions	Unit	HeightxWidthxDepth		mm	265x820x820	300x820x820			
Weight	Unit			kg	31	39			
Decoration panel	Colour				White				
	Dimensions	HeightxWidthxDepth		mm	82x990x990				
	Weight			kg	4				
Fan - Air flow rate	Cooling	High/Nom./Low/Silent operation		m^3/min	24.4/20.5/17.6/15.0	29.2/24.4/21.0/17.6	34.0/29.2/26.3/22.1	29.2/24.4/21.0/17.6	34.0/29.2/26.3/22.1
	Heating	High/Nom./Low/Silent operation		m^3/min	24.4/20.5/17.6/15.0	29.2/24.4/21.0/17.6	34.0/29.2/26.3/22.1	29.2/24.4/21.0/17.6	34.0/29.2/26.3/22.1
Fan - External static pressure	High/Nom./Low			Pa	0/0/0				
Sound power level	Cooling	High/Nom./Low		dBA	54/50/48	56/54/53	60/56/54	56/54/53	60/56/54
	Heating	High/Nom./Low		dBA	54/50/48	56/54/53	60/56/54	56/54/53	60/56/54
Sound pressure level	Cooling	High/Nom./Low/Silent operation		dBA	41/38/35/32	44/41/38/36	47/44/43/41	44/41/38/36	47/44/43/41
	Heating	High/Nom./Low/Silent operation		dBA	41/38/35/32	44/41/38/36	47/44/43/41	44/41/38/36	47/44/43/41
Piping connections	Liquid	OD		mm	9.52				
	Gas	OD		mm	15.88				
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50 / 220-240				

OUTDOOR UNIT					AZQS71BV1	AZQS100BV1	AZQS125BV1	AZQS100BY1	AZQS125BYV1
Dimensions	Unit	HeightxWidthxDepth		mm	770x900x320	990x940x320			
Weight	Unit			kg	67	81		82	
Fan - Air flow rate	Cooling	Nom.		m^3/min	52.0	76	77	76	77
	Heating	Nom.		m^3/min	48.0	83			
Sound power level	Cooling	Nom.		dBA	64	70	71	70	71
Sound pressure level	Cooling	Nom./Silent operation		dBA	48/43	53/-	54/-	53/-	54/-
	Heating	Nom.		dBA	50	57	58	57	58
	Night quiet mode	Level 1		dBA	-	49			
Operation range	Cooling	Ambient	Min.~Max.	°CDB	-5.0~46.0				
	Heating	Ambient	Min.~Max.	°CWB	-15.0~15.5				
Refrigerant	Type/GWP				R-410A/1,975				
Piping connections	Piping length	OU - IU	Max.	m	30	50			
		System	Equivalent	m	40	70			
	Level difference	IU - OU	Max.	m	15.0	30.0			
		IU - IU	Max.	m	-	0.5			
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50 / 220-240			3N~ / 50 / 380-415	
Current - 50Hz	Maximum fuse amps (MFA)			A	20	-			

(1) EER/COP according to Eurovent 2012

ABQ71B

AZQS71BV1

ARCWA

SEASONAL EFFICIENCY

Siesta

- 3-D air flow combines vertical and horizontal auto swing to circulate a stream of warm or cool air right to the corners of even large spaces
- Ideal solution for shops, restaurants or offices requiring maximum floor space for furniture, decorations and fittings
- Blends unobtrusively with any interior décor: only the suction and discharge grilles are visible
- Compact dimensions, can easily be mounted in a narrow ceiling void
- Air filter removes airborne dust particles to ensure a steady supply of clean air
- Easy installation and maintenance

Heating & Cooling

INDOOR UNIT					ABQ71B	ABQ125A	ABQ140A	ABQ125A	ABQ140A
Cooling capacity	Min./Nom./Max.			kW	-/6.8/-	-/12.1/-	-/13.0/-	-/12.1/-	-/13.0/-
Heating capacity	Min./Nom./Max.			kW	-/7.5/-	-/13.5/-	-/15.5/-	-/13.5/-	-/15.5/-
Seasonal efficiency (according to EN14825)	Cooling	Energy label			B	-			
		Pdesign		kW	6.80	-			
		SEER			4.65	-			
		Annual energy consumption		kWh	512	-			
	Heating (Average climate)	Energy label			A	-			
		Pdesign		kW	6.33	-			
		SCOP			3.41	-			
		Annual energy consumption		kWh	2,599	-			
Nominal efficiency (cooling at 35°/27° nominal load, heating at 7°/20° nominal load)	EER				3.01	2.91	3.01	2.91	3.01
	COP				3.61	3.41			
	Annual energy consumption			kWh	1,130	2,079	2,159	2,079	2,159
	Energy label	Cooling/Heating			B/A	C/B	B/B	C/B	B/B
Casing	Colour				-	-			
Dimensions	Unit	HeightxWidthxDepth		mm	285x1,007x600	378x1,388x541	378x1,588x541	378x1,388x541	378x1,588x541
Weight	Unit			kg	35	50.0	56.0	50.0	56.0
Fan - Air flow rate	Cooling	High/Nom./Low		m^3/min	18.3/17.0/15.6	-			
	Heating	High/Nom./Low operation		m^3/min	18.3/17.0/15.6	1,430/-	1,720/-	1,430/-	1,720/-
Fan - External static pressure	Super high/High/Nom./Low			Pa	-/88/76/63	147/126/109/92	147/120/90/69	147/126/109/92	147/120/90/69
Sound power level	Cooling	Super high/High/Nom./Low		dBA	-/64/59/54	78/76/73/70	79/78/75/71	78/76/73/70	79/78/75/71
	Heating	High/Nom./Low		dBA	64/59/54	76/73/70	78/75/71	76/73/70	78/75/71
Sound pressure level	Cooling	Super high/High/Nom./Low		dBA	-	53/52/50/47	55/53/50/47	53/52/50/47	55/53/50/47
	Heating	High/Nom./Low		dBA	-	52/50/47	53/50/47	52/50/47	53/50/47
Piping connections	Liquid	OD		mm	9.52				
	Gas	OD		mm	15.88				
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50 / 220-240	1~ / 50 / 230			

OUTDOOR UNIT					AZQS71BV1	AZQS125BV1	AZQS140BV1	AZQS125BV1	AZQS140BY1
Dimensions	Unit	HeightxWidthxDepth		mm	770x900x320	990x940x320	1,430x940x320	990x940x320	1,430x940x320
Weight	Unit			kg	67	81	102	82	101
Fan - Air flow rate	Cooling	Nom.		m^3/min	52.0	77	83	77	83
	Heating	Nom.		m^3/min	48.0	83	62	83	62
Sound power level	Cooling	Nom.		dBA	64	71	70	71	70
Sound pressure level	Cooling	Nom./Silent operation		dBA	48/43	54	53	54	53
	Heating	Nom.		dBA	50	58	54	58	54
	Night quiet mode	Level 1		dBA	-	49			
Operation range	Cooling	Ambient	Min.~Max.	°CDB	-5.0~46.0				
	Heating	Ambient	Min.~Max.	°CWB	-15.0~15.5				
Refrigerant	Type/GWP				R-410A/1,975				
Piping connections	Piping length	OU - IU	Max.	m	30	50			
		System	Equivalent	m	40	70			
	Level difference	IU - OU	Max.	m	15.0	30.0			
		IU - IU	Max.	m	-	0.5			
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50 / 220-240			3N~ / 50 / 380-415	
Current - 50Hz	Maximum fuse amps (MFA)			A	20	-			

(1) EER/COP according to Eurovent 2012

AHQ125CV1

AZQS140BV1/BY1

ARCWLA

SEASONAL EFFICIENCY

Siesta

- Ideal solution for shops, restaurants or offices with no or narrow false ceilings
- Can be installed in both new and existing buildings
- Air filter removes airborne dust particles to ensure a steady supply of clean air
- Easy installation and maintenance

Heating & Cooling

INDOOR UNIT					AHQ71C	AHQ100C	AHQ125C	AHQ140C	AHQ100C	AHQ125C	AHQ140C
Cooling capacity	Min./Nom./Max.			kW	-/6.8/-	-/9.5/-	-/12.1/-	-/13.0/-	-/9.5/-	-/12.1/-	-/13.0/-
Heating capacity	Min./Nom./Max.			kW	-/7.5/-	-/10.8/-	-/13.5/-	-/15.5/-	-/10.8/-	-/13.5/-	-/15.5/-
Seasonal efficiency (according to EN14825)	Cooling	Energy label			B		-		B	-	
		Pdesign		kW	6.80	9.50	-		9.50	-	
		SEER			4.65	4.60	-		4.60	-	
		Annual energy consumption		kWh	511	723	-		723	-	
	Heating (Average climate)	Energy label			A		-		A	-	
		Pdesign		kW	6.33	7.60	-		7.60	-	
		SCOP			3.80		-		3.80	-	
		Annual energy consumption		kWh	2,332	2,800	-		2,800	-	
Nominal efficiency (cooling at 35°/27° nominal load, heating at 7°/20° nominal load)	EER				3.03	2.62	2.63	3.01	2.62	2.63	3.01
	COP				3.05	3.41	3.61	3.41		3.61	3.41
	Annual energy consumption			kWh	1,120	1,810	2,300	2,159	1,810	2,300	2,159
	Energy label	Cooling/Heating			B/D	D/B	D/A	B/B	D/B	D/A	B/B
Casing	Colour				White						
Dimensions	Unit	HeightxWidthxDepth		mm	260x1,320x634	260x1,538x634	260x1,786x634	285x1,902x680	260x1,538x634	260x1,786x634	285x1,902x680
Weight	Unit			kg	38	45	54	70	45	54	70
Fan - Air flow rate	Cooling	High/Nom./Low		m^3/min	23.8/21.3/18.9	31.1/27.8/24.8	34.4/30.6/27.2	43.9/39.1/28.3	31.1/27.8/24.8	34.4/30.6/27.2	43.9/39.1/28.3
	Heating	High/Nom./Low		m^3/min	23.8/21.3/18.9	31.1/27.8/24.8	34.4/30.6/27.2	43.9/39.1/28.3	31.1/27.8/24.8	34.4/30.6/27.2	43.9/39.1/28.3
Fan - External static pressure	High/Nom./Low			Pa	0/0/0						
Sound power level	Cooling	High		dBA	62	64	69	70	64	69	70
	Heating	High		dBA	62	64	69	70	64	69	70
Sound pressure level	Cooling	High/Nom./Low		dBA	49/48/46	52/47/46	52/50/49	56/53/46	52/47/46	52/50/49	56/53/46
	Heating	High/Nom./Low		dBA	49/48/46	52/47/46	52/50/49	56/53/46	52/47/46	52/50/49	56/53/46
Piping connections	Liquid	OD		mm	9.52						
	Gas	OD		mm	15.88						
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50 / 220-240						

OUTDOOR UNIT					AZQS71BV1	AZQS100BV1	AZQS125BV1	AZQS140BV1	AZQS100BY1	AZQS125BY1	AZQS140BY1
Dimensions	Unit	HeightxWidthxDepth		mm	770x900x320	990x940x320		1,430x940x320	990x940x320		1,430x940x320
Weight	Unit			kg	67	81		102	82		101
Fan - Air flow rate	Cooling	Nom.		m^3/min	52.0	76	77	83	76	77	83
	Heating	Nom.		m^3/min	48.0	83		62	83		62
Sound power level	Cooling	Nom.		dBA	64	70	71	70		71	70
Sound pressure level	Cooling	Nom./Silent operation		dBA	48/43	53/-	54/-	53/-		54/-	53/-
	Heating	Nom.		dBA	50	57	58	54	57	58	54
	Night quiet mode	Level 1		dBA	-	49					
Operation range	Cooling	Ambient	Min.~Max.	°CDB	-5.0~46.0						
	Heating	Ambient	Min.~Max.	°CWB	-15.0~15.5						
Refrigerant	Type/GWP				R-410A/1,975						
Piping connections	Piping length	OU - IU	Max.	m	30	50					
		System	Equivalent	m	40	70					
	Level difference	IU - OU	Max.	m	15.0	30.0					
		IU - IU	Max.	m	-	0.5					
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50 / 220-240				3N~ / 50 / 380-415		
Current - 50Hz	Maximum fuse amps (MFA)			A	20						

(1) EER/COP according to Eurovent 2012

- Re-use of existing R-22 or R-407C piping
- Down to -15°C in heating mode
- Standard night quiet mode
- Maximum piping length up to 100m
- Maximum installation height difference up to 30m

	FCQG-F					FFQ-C		FDXS-F		FBQ-C8					FHQ-C					FUQ-C			FAQ-C		FDQ-C
Capacity class	50	60	71	100	125	50	60	50	60	50	60	71	100	125	50	60	71	100	125	71	100	125	71	100	125
RZQ200C	4	3	3	2		4	3	4	3	4	3	3	2		4	3	3	2		3	2		3	2	
RZQ250C		4			2		4		4		4			4		2			2			2			2

CONNECTABLE OUTDOOR UNITS						
OUTDOOR UNIT					RZQ200C	RZQ250C
Dimensions	Unit	HeightxWidthxDepth		mm	1,680x930x765	
Weight	Unit			kg	183	184
Fan - Air flow rate	Cooling	Nom.		m^3/min	171	
	Heating	Nom.		m^3/min	171	
Fan - External static pressure	Max.			Pa	78	
Sound power level	Nom.			dBA	78	
Sound pressure level	Nom.			dBA	57	
Operation range	Cooling	Ambient	Min.~Max.	°CDB	-5.0~46.0	
	Heating	Ambient	Min.~Max.	°CWB	-15.0~15.0	
Refrigerant	Type/GWP				R-410A/1,975	
Piping connections	Piping length	OU - IU	Max.	m	100	
	Level difference	IU - OU	Max.	m	-	
Power supply	Phase / Frequency / Voltage			Hz / V	3N~ / 50 / 380-415	
Current - 50Hz	Maximum fuse amps (MFA)			A	20	

- Seasonal efficiency, optimized for all seasons
- Seasonal smart series already comply with the EU's 2014 Eco-Design requirements
- Suits computer room applications (EDP)
- Re-use of existing R-22 or R-407C technology
- Down to -20°C in heating mode
- Standard night quiet mode
- Maximum piping length up to 75m
- Minimum piping length: no limitation
- Compatibility with D-BACS

		FCQHG-F	FCQG-F				FFQ-C			FDXS-F			FBQ-C8				FHQ-C				FAQ-C	FUQ-C
page		108	105				111			85			112				120				118	123
capacity class		71	35	50	60	71	35	50	60	35	50	60	35	50	60	71	35	50	60	71	71	71
RZQG71L8V1	RZQG71L8Y1		2				2			2			2				2					
RZQG100L8V1	RZQG100L8Y1		3	2			3	2		3	2		3	2			3	2				
RZQG125L8V1	RZQG125L8Y1		4	3	2		4	3	2	4	3	2	4	3	2		4	3	2			
RZQG140L7V1	RZQG140LY1	2	4	3		2	4	3		4	3		4	3		2	4	3		2	2	2

Seasonal Smart

OUTDOOR UNIT					RZQG71L8V1	RZQG100L8V1	RZQG125L8V1	RZQG140L7V1	RZQG71L8Y1	RZQG100L8Y1	RZQG125L8Y1	RZQG140LY1
Dimensions	Unit	HeightxWidthxDepth		mm	990x940x320	1,430x940x320			990x940x320	1,430x940x320		
Weight	Unit			kg	78	102			80	101		
Fan - Air flow rate	Cooling	Nom.		m^3/min	59	70		84	59	70		84
	Heating	Nom.		m^3/min	49	62			49	62		
Sound power level	Cooling	Nom.		dBA	64	66	67	69	64	66	67	69
Sound pressure level	Cooling	Nom.		dBA	48	50	51	52	48	50	51	52
	Heating	Nom.		dBA	50	52	53		50	52	53	
	Night quiet mode	Level 1		dBA	43	45			43	45		
Operation range	Cooling	Ambient	Min.~Max.	°CDB	-15~50							
	Heating	Ambient	Min.~Max.	°CWB	-20~15.5							
Refrigerant	Type/GWP				R-410A/1,975							
Piping connections	Piping length	OU - IU	Max.	m	50	75			50	75		
		System	Equivalent	m	70	90			70	90		
	Level difference	IU - OU	Max.	m	30.0							
		IU - IU	Max.	m	0.5							
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50 / 220-240				3N~ / 50 / 380-415			
Current - 50Hz	Maximum fuse amps (MFA)			A	20	32			16	20		

- Seasonal efficiency, optimized for all seasons
- Re-use of existing R-22 or R-407C technology
- Down to -15°C in heating mode
- Maximum piping length up to 50m
- Minimum piping length: no limitation
- Compatibility with D-BACS

		FCQHG-F	FCQG-F				FFQ-C			FDXS-F			FBQ-C8				FHQ-C				FAQ-C
Page		108	105				111			85			112				120				118
capacity class		71	35	50	60	71	35	50	60	35	50	60	35	50	60	71	35	50	60	71	71
RZQSG71L3V1			2				2			2			2				2				
RZQSG100L8V1	RZQSG100L8Y1		3	2			3	2		3	2		3	2			3	2			
RZQSG125L8V1	RZQSG125L8Y1		4	3	2		4	3	2	4	3	2	4	3	2		4	3	2		
RZQSG140LV1	RZQSG140LY1	2	4	3		2	4	3		4	3		4	3		2	4	3		2	2

Seasonal Classic

OUTDOOR UNIT					RZQG71L8V1	RZQG100L8V1	RZQG125L8V1	RZQG140L7V1	RZQG71L8Y1	RZQG100L8Y1	RZQG125L8Y1	RZQG140LY1
Dimensions	Unit	HeightxWidthxDepth		mm	990x940x320	1,430x940x320			990x940x320	1,430x940x320		
Weight	Unit			kg	78	102			80	101		
Fan - Air flow rate	Cooling	Nom.		m^3/min	59	70		84	59	70		84
	Heating	Nom.		m^3/min	49	62			49	62		
Sound power level	Cooling	Nom.		dBA	64	66	67	69	64	66	67	69
Sound pressure level	Cooling	Nom.		dBA	48	50	51	52	48	50	51	52
	Heating	Nom.		dBA	50	52	53		50	52	53	
	Night quiet mode	Level 1		dBA	43	45			43	45		
Operation range	Cooling	Ambient	Min.~Max.	°CDB	-15~50							
	Heating	Ambient	Min.~Max.	°CWB	-20~15.5							
Refrigerant	Type/GWP				R-410A/1,975							
Piping connections	Piping length	OU - IU	Max.	m	50	75			50	75		
		System	Equivalent	m	70	90			70	90		
	Level difference	IU - OU	Max.	m	30.0							
		IU - IU	Max.	m	0.5							
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50 / 220-240				3N~ / 50 / 380-415			
Current - 50Hz	Maximum fuse amps (MFA)			A	20	32			16	20		

- Wide range from 2 to 5 port units
- Possibility to connect up to 5 indoor units
- 3-port 40 multi outdoor unit gives an answer to lower capacity requirements of better insulated houses. The 15-class wall mounted allows efficient distribution of the lower capacity of the multi outdoor unit.
- All indoor units can be individually controlled and do not need to be installed in the same room or even at the same time
- Outdoor units are fitted with a Daikin swing compressor renowned for its low noise and high energy efficiency
- Possibility to combine different types of indoor units: wall mounted, floor standing, concealed ceiling, ceiling suspended units, round flow or 4-way blow cassettes

Heating & Cooling

CONNECTABLE INDOOR UNITS	Wall mounted														Floor standing						Flexi type				Round flow cassette			Fully flat cassette				Concealed ceiling								Ceiling suspended		
	FTXG-J			CTXS-K		FTXS-K						FTXS-G		FTX-JV	FVXG-K			FVXS-F			FLXS-B				FCQG-F			FFQ-C				FDXS-F				FDBQ-B/FBQ-C8				FHQ-C		
	25	35	50	15	35	20	25	35	42	50	60	71	20	25	35	25	35	50	25	35	50	25	35	50	60	35	50	60	25	35	50	60	25	35	50	60	25	35	50	60	35	50	60
2MXS40H	●	●		●	●	●	●	●					●	●	●	●	●	●	●	●		●	●										●	●									
2MXS50H	●	●	●	●	●	●	●	●	●	●			●	●	●	●	●	●	●	●	●	●	●	●					●	●	●		●	●	●								
3MXS40K	●	●		●	●	●	●	●								●	●		●	●		●							●	●			●	●			●	●			●		
3MXS52E	●	●	●	●	●	●	●	●	●	●						●	●	●	●	●	●	●	●	●		●	●		●	●	●		●	●	●			●	●		●	●	●
3MXS68G	●	●	●	●	●	●	●	●	●	●	●					●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
4MXS68F	●	●	●	●	●	●	●	●	●	●	●					●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
4MXS80E	●	●	●	●	●	●	●	●	●	●	●	●				●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
5MXS90E	●	●	●	●	●	●	●	●	●	●	●	●				●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

CONNECTABLE OUTDOOR UNITS										
OUTDOOR UNIT					2MXS40H	2MXS50H	3MXS40K	3MXS52E	3MXS68G	4MXS68F	4MXS80E	5MXS90E
Dimensions	Unit	HeightxWidthxDepth		mm	550x765x285		735x826x300	735x826x300			770x900x320	
Weight	Unit			kg	38	42	49	49	58		72	73
Fan - Air flow rate	Cooling	High/Nom./Low		m^3/min	36/33/30	37/34/34	45/-/41	45/-/45	52.7/49.4/43.5		54.5/-/46.0	57.1/54.5/46.0
	Heating	High/Nom./Low		m^3/min	32/32/32	34/34/34	45/-/41	45/-/41	46.4/44.5/16.3		46.0/-/14.7	52.5/-/14.7
Sound power level	Cooling	High/Nom.		dBA	-/62	-/63	59/-	-/59	-/61		-/62	-/66
Sound pressure level	Cooling	Nom.		dBA	47	48	46	46	48			52
	Heating	Nom.		dBA	48	50	47	47	49			52
Operation range	Cooling	Ambient	Min.~Max.	°CDB	10~46		-10~46	-10~46				
	Heating	Ambient	Min.~Max.	°CWB	-15~15.5		-15~15.5	-15~15.5				
Refrigerant	Type/GWP				R-410A/1,975		R-410A/1,975	R-410A/1,975				
Piping connections	Liquid	OD		mm	6.35x2		6.35x3	6.35x3	6.35x3	6.35x4	6.35x4	6.35x5
	Gas	OD		mm	9.52x1	12.7x1	9.52x3	9.52x2, 12.7x1	9.52x1, 12.7x2	9.52x2, 12.7x2	9.52x1, 12.7x1, 15.9x2	9.52x2, 12.7x1, 15.9x2
	Drain	OD		mm	18		18	18			25	
	Level difference	IU - OU	Max.	m	15		15	15				
		IU - IU	Max.	m	7.5		7.5	7.5				
	Heat insulation				Both liquid and gas pipes							
	Total piping length	System	Actual	m	30		30	50		60	70	75
Power supply	Phase / Frequency / Voltage			Hz / V	1~ / 50 / 230		1~ / 50 / 230	1~ / 50 / 230				

- Energy efficient heating system based on air source heat pump technology
- Low energy bills and low CO_2 emissions
- Possibility to connect up to 9 indoor units
- All indoor units can be individually controlled and do not need to be installed in the same room or even at the same time
- Possibility to combine different types of indoor units: wall mounted, floor standing, concealed ceiling, ceiling suspended units, round flow or 4-way blow cassettes
- Slim design for flexible installation
- 3 steps in night quiet mode: step 1: 47dBA, step 2: 44 dBA, step 3: 41 dBA
- Easy installation thanks to automatic refrigerant charging operation, automatic test operation
- Possibility to limit peak power consumption between 30 and 80%, for example during periods with high power demand

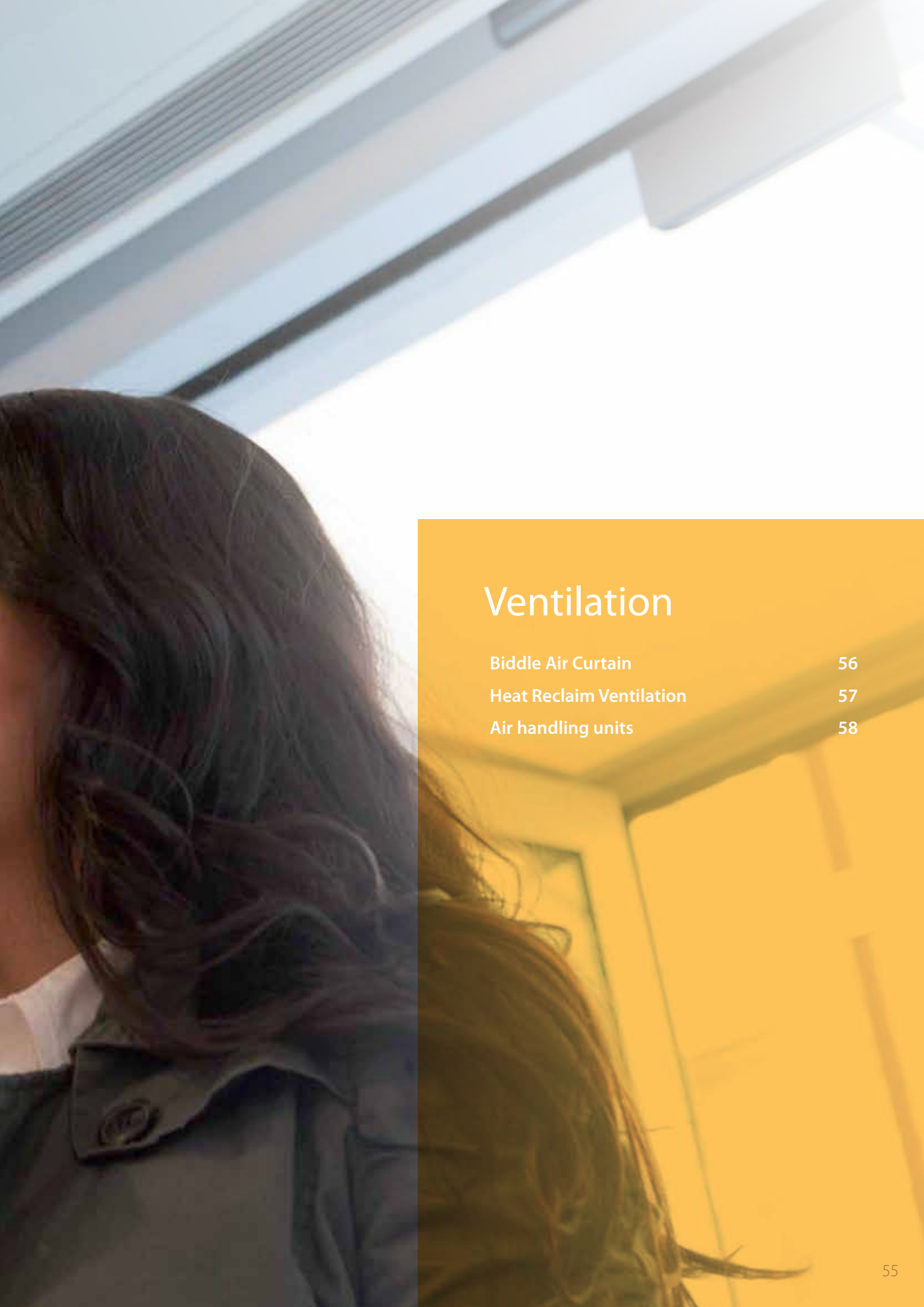
Heating & Cooling

CONNECTABLE INDOOR UNITS	Wall mounted											Floor standing						Flexi type				Round flow cassette			Fully flat cassette				Concealed ceiling								Ceiling suspended		
	FTXG-J			CTXS-K		FTXS-K					FTXS-G	FVXG-K			FVXS-F			FLXS-B				FCQG-F			FFQ-C				FDXS-F				FDBQ-B /FBQ-C8				FHQ-C		
	25	35	50	15	35	20	25	35	42	50	60	71	25	35	50	25	35	50	25	35	50	60	35	50	60	25	35	50	60	25	35	50	60	25	35	50	60	35	50	60
RXYSQ-P8V1	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

OUTDOOR UNIT					RXYSQ4P8V1	RXYSQ5P8V1	RXYSQ6P8V1
Capacity range				HP	4	5	6
Cooling capacity	Nom.			kW	12.6	14.0	15.5
Heating capacity	Nom.			kW	14.2	16.0	18.0
Power input - 50Hz	Cooling	Nom.		kW	3.24	3.51	4.53
	Heating	Nom.		kW	3.12	3.86	4.57
EER					3.89	3.99	3.42
COP					4.55	4.15	3.94
Maximum number of connectable indoor units					8	9	9
Indoor index connection	Min.				50	62.5	70
	Max.				130	162.5	182
Dimensions	Unit	HeightxWidthxDepth		mm	1,345x900x320		
Weight	Unit			kg	120		
Sound power level	Cooling	Nom.		dBA	66	67	69
Sound pressure level	Cooling	Nom.		dBA	50	51	53
	Heating	Nom.		dBA	52	53	55
Operation range	Cooling	Min.~Max.		°CDB	-5~46		
	Heating	Min.~Max.		°CWB	-20~15.5		
Refrigerant	Type				R-410A		
Piping connections	Liquid	OD		mm	9.52		
	Gas	OD		mm	19.1		
	Total piping length	System	Actual	m	115	135	145
	Level difference	OU - IU		m	40 (Outdoor unit in highest position) / 30 (Indoor unit in highest position)		
Power supply	Phase/Frequency/Voltage			Hz/V	1N~/50/220-240		
Current - 50Hz	Maximum fuse amps (MFA)			A	32.0		

(1) EER/COP according to Eurovent 2012

BRANCH PROVIDER			BPMKS967B2	BPMKS967B3
Connectable indoor units			1~2	1~3
Max. indoor unit connectable capacity			14.2	20.8
Max. connectable combination			71+71	60+71+71
Dimensions	Height x Width x Depth	mm	180x294x350	
Weight		kg	7	8

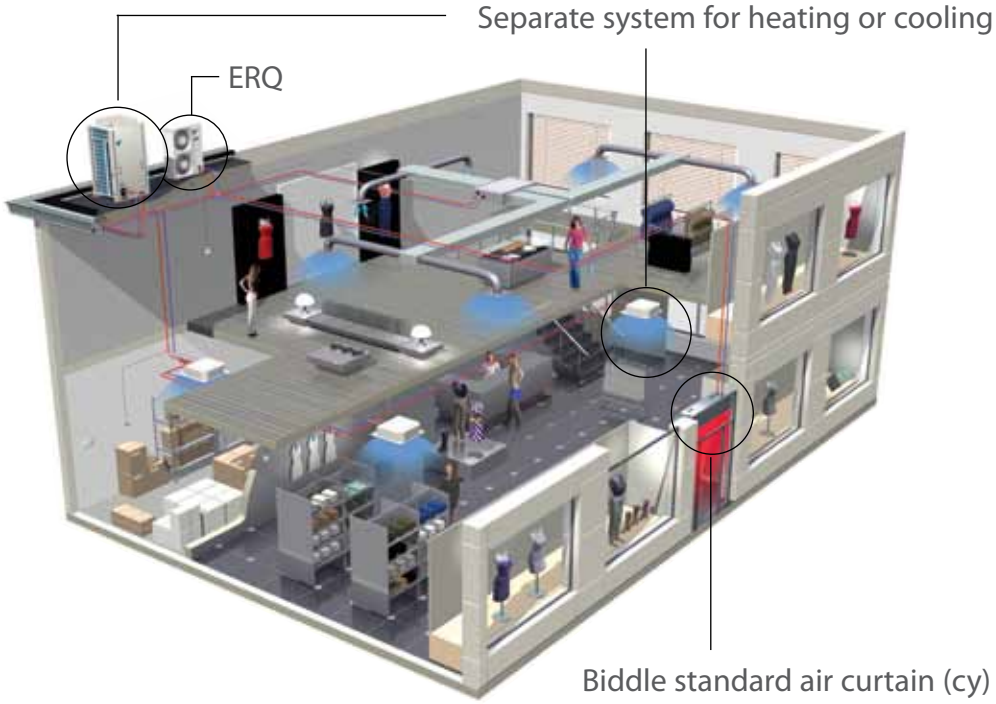


Ventilation

CYQS/M/L-DK-F/C/R

CYQM150DK80FSN

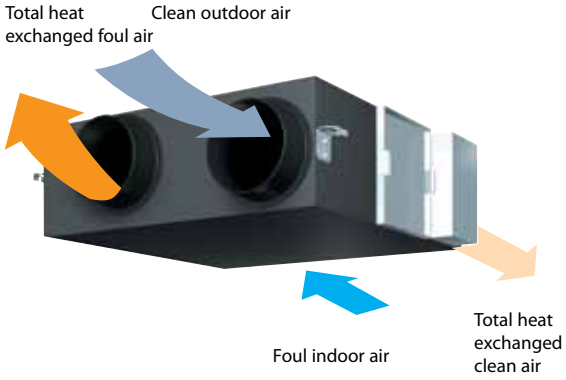
- Connectable to ERQ heat pump
- ERQ is among the first DX system suitable for connection to air curtains
- Free-hanging model (F): easy wall mounted installation
- A payback period of less then 1.5 years compared to installing an electric air curtain
- Easy and quick to install at reduced costs since 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



BIDDLE STANDARD AIR CURTAIN FOR CONNECTION TO ERQ				Small			Medium			
				CYQS150DK80F *BN / *SN	CYQS200DK100F *BN / *SN	CYQS250DK140F *BN / *SN	CYQM100DK80F *BN / *SN	CYQM150DK80F *BN / *SN	CYQM200DK100F *BN / *SN	CYQM250DK140F *BN / *SN
Power input	Fan only	Nom.	kW	0.35	0.46	0.58	0.37	0.56	0.75	0.94
	Heating	Nom.	kW	0.35	0.46	0.58	0.37	0.56	0.75	0.94
Delta T	Inlet= room temperature		K	15		16	17	14	13	15
Casing	Colour			BN: RAL9010 / SN: RAL9006			BN: RAL9010 / SN: RAL9006			
Dimensions	Height	Unit F/C/R	mm	270 / 270 / 270			270 / 270 / 270			
	Width	Unit F/C/R	mm	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	Unit F/C/R	mm	290 / 821 / 561			290 / 821 / 561			
Required ceiling void >			mm	420			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)	2.5 (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	1.5	2.0	2.5	1.0	1.5	2.0	2.5
Weight	Unit		kg	66	83	107	57	73	94	108
Fan-Air flow rate	Heating		m^3/h	1,746	2,328	2,910	1,605	2,408	3,210	4,013
Sound pressure level	Heating		dBA	49	50	51	50	51	53	54
Refrigerant	Type			R-410A			R-410A			
Piping connections	Liquid (OD) / Gas			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)			Daikin wired remote control (BRC1E52A/B or BRC1D52)			
Power supply	Voltage		V	230			230			

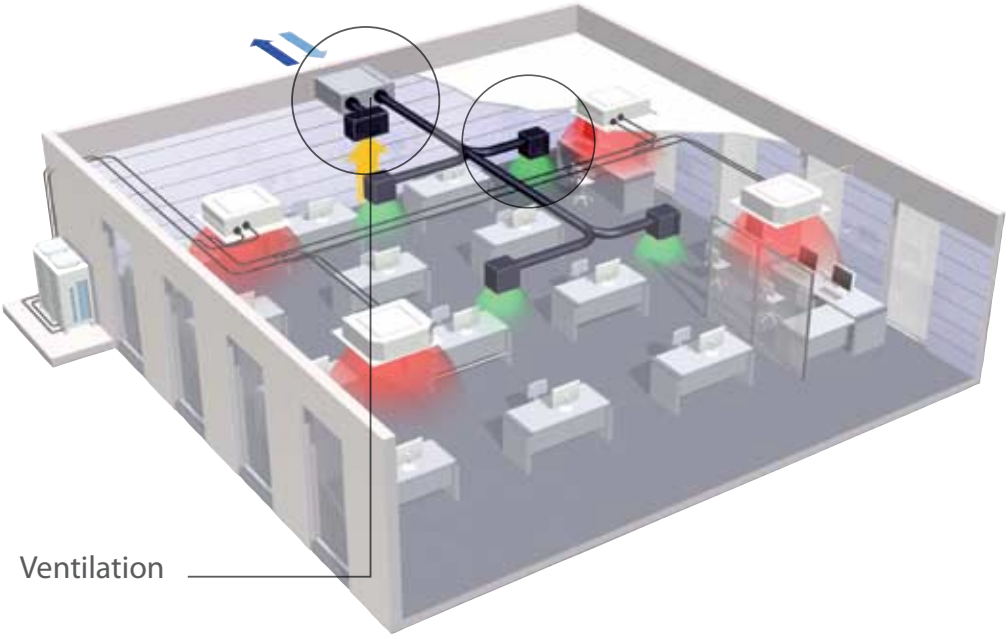
BIDDLE STANDARD AIR CURTAIN FOR CONNECTION TO ERQ				Large			
				CYQL100DK125F*BN / *SN	CYQL150DK200F*BN / *SN	CYQL200DK250F*BN / *SN	CYQL250DK250F*BN / *SN
Power input	Fan only	Nom.	kW	0.75	1.13	1.50	1.88
	Heating	Nom.	kW	0.75	1.13	1.50	1.88
Delta T	Inlet= room temperature		K	15		14	12
Casing	Colour			BN: RAL9010 / SN: RAL9006			
Dimensions	Height	Unit F/C/R	mm	370 / 370 / 370			
	Width	Unit 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	Unit F/C/R	mm	745 / 745 / 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		m^3/h	3,100	4,650	6,200	7,750
Sound pressure level	Heating		dBA	53	54	56	57
Refrigerant	Type			R-410A			
Piping connections	Liquid (OD) / Gas			9.52 / 16.0	9.52 / 16.0	9.52 / 22.0	
Required accessories (should be ordered separately)				Daikin wired remote control (BRC1E52A/B or BRC1D52)			
Power supply	Voltage		V	230			

F: Freehanging model, C: Cassette model, R: Recessed model
(1) Favourable condition | (2) Normal condition | (3) Unfavourable condition

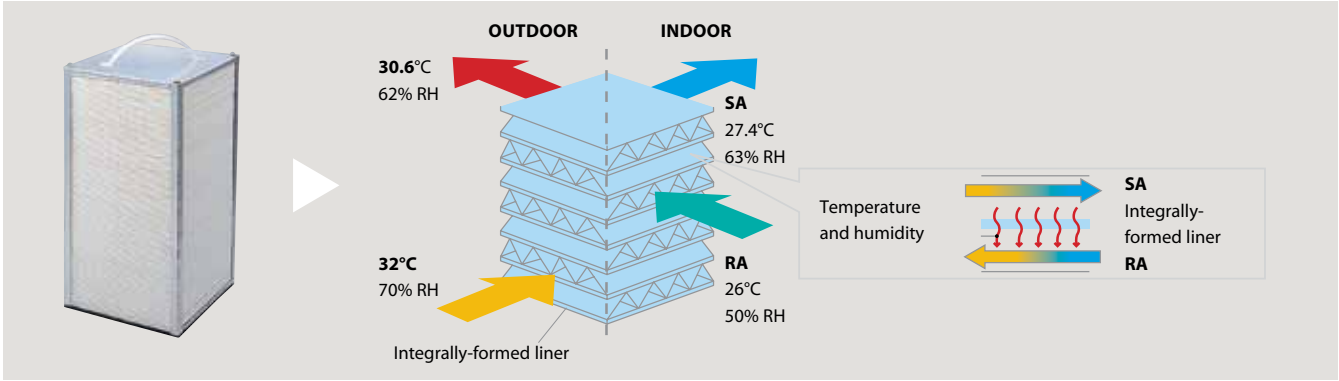


The Daikin heat reclaim ventilation system modulates the temperature and humidity of incoming fresh air to match indoor conditions. A balance is thus achieved between indoor and outdoor ambients, enabling the cooling or heating load placed on the air conditioning system to be reduced significantly. HRV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

- Energy saving ventilation using indoor heating, cooling and moisture recovery
- Ideal solution for shops, restaurants or offices requiring maximum floor space for furniture, decorations and fittings
- Free cooling when outdoor temperature is below indoor temperature (eg. during night time)
- Low energy consumption thanks to DC fan motor on 350 to 2000 units
- Prevent energy losses from over-ventilation while maintaining indoor air quality with optional CO_2 sensor
- Can be used as stand alone or integrated in the Sky Air or VRV system
- Wide range of units: air flow rate from 150 up to 2,000 m^3/h
- Optional medium and fine dust filters M6, F7, F8 to meet customer request or legislation
- Shorter installation time thanks to easy adjustment of nominal air flow rate, so less need for dampers compared with traditional installations
- Specially developed heat exchange element with High Efficiency Paper (HEP)
- No drain piping needed
- Can operate in over- and under pressure
- Total solution for fresh air with Daikin supply of both VAM and electrical heater



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	0.132	0.178	0.196	0.373	0.375	0.828	0.852
	Bypass mode	Nom.	Ultra high	kW	0.116	0.141	0.132	0.178	0.196	0.373	0.375	0.828	0.852
Temperature exchange efficiency - 50Hz	Ultra high			%	74	72	75	74			75		
Enthalpy exchange efficiency - 50Hz	Cooling	Ultra high		%	58		61	58		60	61		
	Heating	Ultra high		%	64		65	62	63	65	66		
Operation mode					Heat exchange mode / Bypass mode / Fresh-up mode								
Heat exchange system					Air to air cross flow total heat (sensible + latent heat) exchange								
Heat exchange element					Specially processed non-flammable paper								
Dimensions	Unit	HeightxWidthxDepth		mm	285x776x525		301x828x816		364x1,004x868		364x1,004x1,156	726x1,512x868	726x1,512x1,156
Weight	Unit			kg	24		33		52	55	64	131	152
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		93	137	157	137	
Sound pressure level - 50Hz	Heat exchange mode	Ultra high		dBA	27 / 28.5	28 / 29	32	33	34.5	36		39.5	40
	Bypass mode	Ultra high		dBA	27 / 28.5	28 / 29	32	33.5	34.5	36		40.5	40
Operation range	Min.			°CDB	-15								
	Max.			°CDB	50								
	Relative humidity			%	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								
Current	Maximum fuse amps (MFA)			A	15		16						

Total solution for fresh air with Daikin supply of both VAM and electrical heaters

- Increased comfort in low outdoor temperature thanks to the heated outdoor air
- Integrated electrical heater concept (no additional accessories required)
- Standard dual flow and temperature sensor
- Flexible setting with adjustable setpoint
- Increased safety with 2 cut-outs: manual & automatic
- BMS integration thanks to:
  - Volt free relay for error indication
  - 0-10VDC input for setpoint control
- Capacities ranging from 1 to 2.5 kW

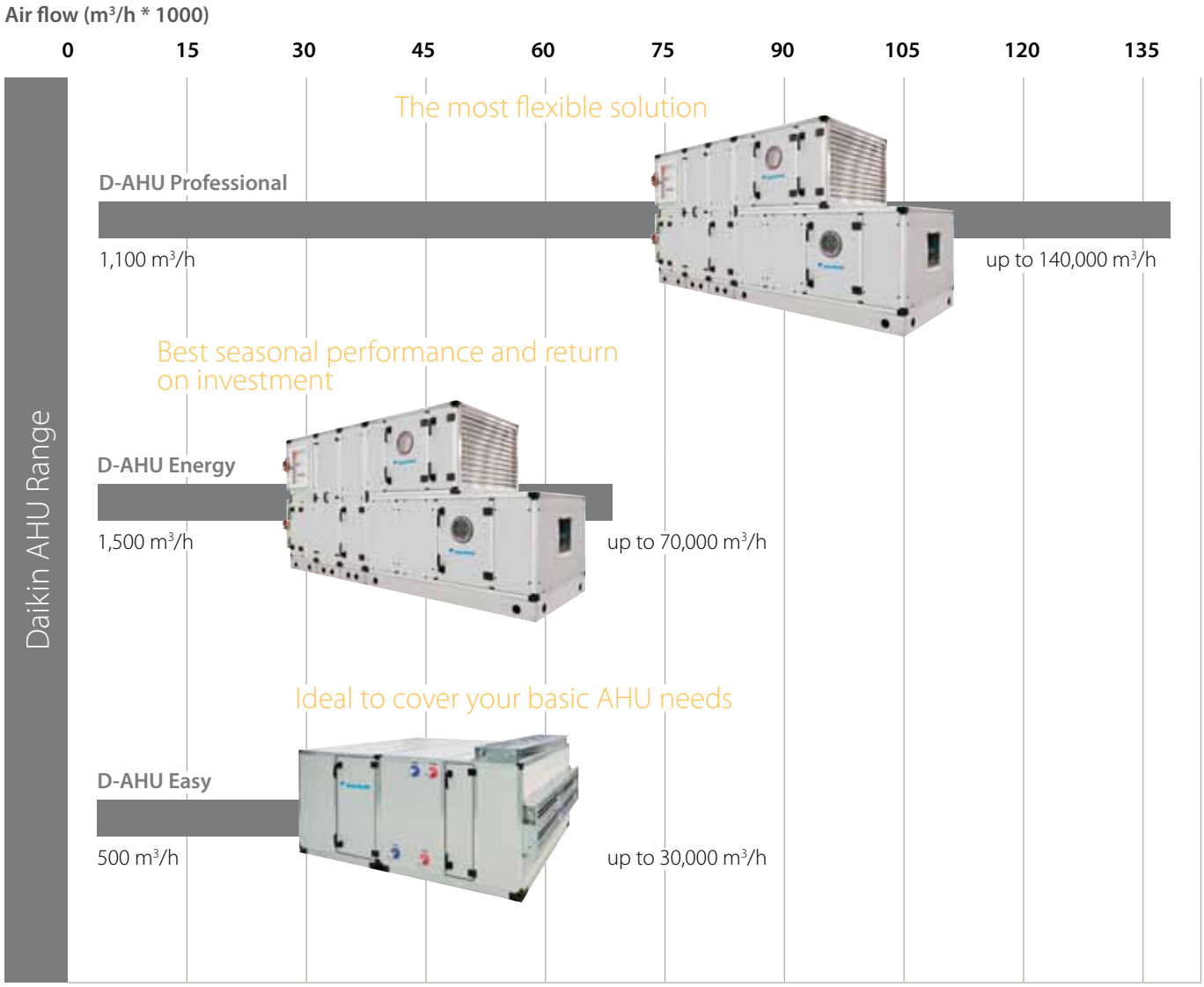
Daikin Air handling units

For small to large commercial spaces Daikin offers a range of R-410A inverter condensing units for use in conjunction with air handling units. In situations where Daikin commercial range ventilation units cannot satisfy the ventilation requirement due to building constraints (large atriums, banquet halls etc), air handling units represent the ideal solution. Air handling units provide large fresh air volumes (> 1,000 m/h) and high ESPs enabling the use of extensive ductwork runs.

An air handler or air handling unit provides a tailor-made solution for optimising air conditions throughout multiple spaces. An air handler can be customised to your building - with no installation restrictions or design limitations - as air handler units are based on a completely unique modular design, so they can be sized (in increments of 1cm) to your exact requirements.

WIDE RANGE OF AIR FLOWS

Daikin's wide range of air handling systems handle air flow rates from 500 m^3/h up to 140,000 m^3/h. The air handler unit can be adapted to deliver whatever air flow you require, via the specific dimensions of flow section available at the installation.



RETURN ON INVESTMENT

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

PRE-DEFINED SIZES

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

HIGH EFFICIENCY COMPONENTS

All Daikin air handlers have been designed for optimum energy efficiency. Polyurethane or Mineral wool panels guarantee excellent thermal insulation performance. Filters are provided with a large choice of efficiency filtration class.

DAIKIN FRESH AIR PACKAGE

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

ASTRA is the powerful software that Daikin has developed to offer a quick and comprehensive service for the customer in order to make the technical choice and the economic valorization of each AHU. It is a complete tool that can configure any type of product and respond exactly to the strictest design needs. The result is a comprehensive economic offer including all the technical data and drawings, the psychrometric diagram with the relative air treatment and the fans' performance curves.

The ASTRA software features a specific DX heat pump coil section able to calculate cooling and heating performances with the automatic selection of the appropriate Daikin expansion valve.

Why use ERQ for connection to air handling units?

HIGH EFFICIENCY

Daikin heat pumps are renowned for their high energy efficiency with COPs up to 4.56 in heating[1].

1 ERQ100AV1 heat pump

HIGH COMFORT LEVELS

Daikin ERQ units respond rapidly to fluctuations in the supply air temperature, resulting in a steady indoor temperature, together with the dehumidification this results in high comfort levels for the end user.

EASY DESIGN AND INSTALLATION

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

Flexible control options

IN ORDER TO MAXIMIZE INSTALLATION FLEXIBILITY, 3 TYPES OF CONTROL SYSTEMS ARE OFFERED.

Control x:
Control of air temperature (discharge temperature, suction temperature, room temperature) via external device (DDC controller)

Control y:
Control of evaporating temperature via Daikin control (no DDC controller needed)

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

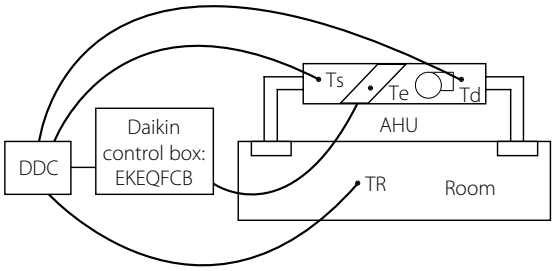
Control possibilities for air handling applications

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

POSSIBILITY X (TD/TR CONTROL):

Air temperature control via DDC controller

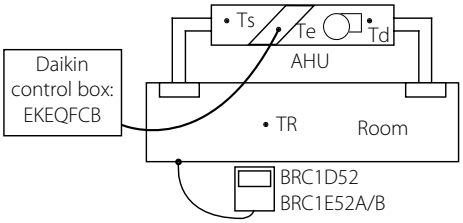
Room temperature is controlled as a function of the air handling unit suction or discharge air (customer selection). The DDC controller is translating the temperature difference between set point and air suction temperature (or air discharge temperature or room temperature) into a reference voltage (0-10V)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



POSSIBILITY 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.

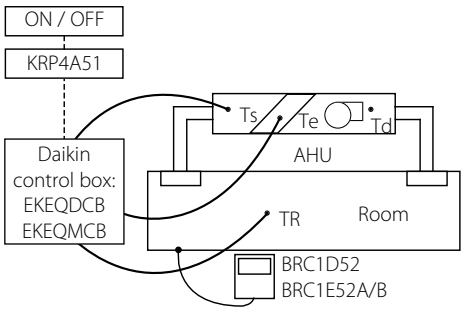


POSSIBILITY Z (TS/TR CONTROL):

Using Daikin wired remote controller (BRC1D52 or BRC1E52A/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

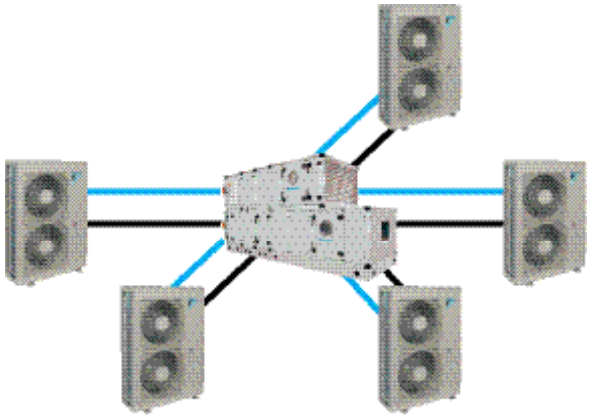
	OPTION KIT	FEATURES
Possibility x	EKEQFCB	DDC controller is required Temperature control using air suction or air discharge temperature
Possibility y		Using fixed evaporating temperature, no set point can be set using remote controller
Possibility z	EKEQDCB EKFQMCB*	Using Daikin wired remote controller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

* EKEQMCB (for 'multi' application)

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

- Inverter controlled units
- Large capacity range (from 100 to 250 class)
- Heat pump
- R-410A
- Wide range of expansion valve kits available
- Up to 5 ERQ units can be connected to an interlaced coil in one air handling unit

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



VENTILATION					ERQ100AV1	ERQ125AV1	ERQ140AV1
Capacity range				HP	4	5	6
Cooling capacity	Nom.			kW	11.2	14.0	15.5
Heating capacity	Nom.			kW	12.5	16.0	18.0
Power input	Cooling	Nom.		kW	2.81	3.51	4.53
	Heating	Nom.		kW	2.74	3.86	4.57
EER					3.99		3.42
COP					4.56	4.15	3.94
Dimensions	Unit	HeightxWidthxDepth		mm	1,345x900x320		
Weight	Unit			kg	120		
Fan-Air flow rate	Cooling	Nom.		m^3/min	106		
	Heating	Nom.		m^3/min	102	105	
Sound power level	Cooling	Nom.		dBA	66	67	69
Sound pressure level	Cooling	Nom.		dBA	50	51	53
	Heating	Nom.		dBA	52	53	55
Operation range	Cooling	Min./Max.		°CDB	-5/46		
	Heating	Min./Max.		°CWB	-20/15.5		
	On coil temperature	Heating	Min.	°CDB	10		
		Cooling	Max.	°CDB	35		
Refrigerant	Type				R-410A		
Piping connections	Liquid	OD		mm	9.52		
	Gas	OD		mm	15.9		19.1
	Drain	OD		mm	26x3		
Power supply	Phase/Frequency/Voltage			Hz/V	1N~/50/220-240		
Current	Maximum fuse amps (MFA)			A	32.0		

VENTILATION					ERQ125AW1	ERQ200AW1	ERQ250AW1
Capacity range				HP	5	8	10
Cooling capacity	Nom.			kW	14.0	22.4	28.0
Heating capacity	Nom.			kW	16.0	25.0	31.5
Power input	Cooling	Nom.		kW	3.52	5.22	7.42
	Heating	Nom.		kW	4.00	5.56	7.70
EER					3.98	4.29	3.77
COP					4.00	4.50	4.09
Dimensions	Unit	HeightxWidthxDepth		mm	1,680x635x765	1,680x930x765	
Weight	Unit			kg	159	187	240
Fan-Air flow rate	Cooling	Nom.		m^3/min	95	171	185
	Heating	Nom.		m^3/min	95	171	185
Sound power level	Nom.			dBA	72	78	
Sound pressure level	Nom.			dBA	54	57	58
Operation range	Cooling	Min./Max.		°CDB	-5/43		
	Heating	Min./Max.		°CWB	-20/15		
	On coil temperature	Heating	Min.	°CDB	10		
		Cooling	Max.	°CDB	35		
Refrigerant	Type				R-410A		
Piping connections	Liquid	OD		mm	9.52		
	Gas	OD		mm	15.9	19.1	22.2
Power supply	Phase/Frequency/Voltage			Hz/V	3N~/50/400		
Current	Maximum fuse amps (MFA)			A	16	25	

Overview of expansion valves and control boxes

Daikin also offers a range of expansion valve kits and control boxes to connect ERQ to third party air handling units.

ERQ COMBINATION TABLE

OUTDOOR UNIT		EXPANSION VALVE KIT						
		CLASS 63	CLASS 80	CLASS 100	CLASS 125	CLASS 140	CLASS 200	CLASS 250
		EKEXV63	EKEXV80	EKEXV100	EKEXV125	EKEXV140	EKEXV200	EKEXV250
1~	ERQ100AV1	P	P	P	P	-	-	-
	ERQ125AV1	P	P	P	P	P	-	-
	ERQ140AV1	-	P	P	P	P	-	-
3 ~	ERQ125AW1	P	P	P	P	P	-	-
	ERQ200AW1	-	-	P	P	P	P	P
	ERQ250AW1	-	-	-	P	P	P	P

P: Pair: Combination depending on air handling units coils volume.

EKEXV - EXPANSION VALVE KIT FOR AIR HANDLING APPLICATIONS

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 - CONTROL BOX FOR AIR HANDLING APPLICATIONS

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

Control systems

Sensors & other devices

Option lists


BRC1D52


BRC944B2


ARC466A1


BRC4*/BRC7*

BRC944B2*/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

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

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.

Graphical display of indicative electricity consumption

Other functions

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

Overview of controllers for Siesta Sky Air

Siesta Sky Air indoor units	Controllers
ACQ*A 4-way blow, ceiling mounted cassette ACQ-B	- Standard wireless remote controller in box of decoration panel ADP125A - Optional wired remote controller ARCWB
AHQ*C ceiling suspended	- Standard wireless remote controller in box of indoor unit - Optional wired remote controller ARCWB
ABQ*A concealed ceiling ABQ*B	Standard wired remote controller (ARCWA) in box of indoor unit

Overview of features

	Feature	**ARCWA**	**ARCWB**
		Standard with ABQ* A/B	Option for AHQ*C and ACQ-A/B
			
1	ON/OFF switch	Standard	Standard
2	Temperature setting		
	- default range 16-30°C	Standard	Standard
	- optional range 20-30°C	By dipswitch selection	By dipswitch selection
	- switch between °C and °F	Standard	Standard
3	Room temperature display	Standard	**Not available**
4	Room temperature sensor on remote controller	Standard	Standard
5	Cool / Fan dry / Heat / Auto	Standard	Standard
6	Sleep mode	Standard	Standard
7	Fan Speed selection	Standard	Standard
8	Delay timer	1, 2 & 4 hours delay	1, 2 & 4 hours delay
9	7-days programmable timer	Standard	Standard
10	Real time clock display	Standard	Standard
11	Air swing selection		
	- ON/OFF swing mode	Standard	Standard
	- Change swing option (draft/soil prevention or standard)	Not available	Standard
12	LCD display without backlight	Standard	Standard
13	Key lock	Standard	Standard
14	Error code indication	Standard	Standard
15	IR receiver to enable compatibility with wireless remote controller (disabled when lock function is activated)	Standard	Standard
16	Last state memory from indoor PCB	Standard	Standard
17	Silent mode	Not available	By dipswitch selection
18	Turbo mode	Not available	By dipswitch selection
19	Compressor test model (compressor force ON)	Standard	Standard
20	Daikin inverter error code	Not available	Standard
21	UART communication port (for Daikin protocol)	Not available	Standard
22	Backup battery	Standard	Standard

Specifications

Dimensions (length x width x height) ARCWB: 0.15 m x 0.21 m x 0.04 m.
ARCWB comes standard with a 10 meter wire, which can be extended to maximum wire length of 15 meter. For reference: ARCWA comes standard with a 10 meter **wire**, which cannot be extended.
ARCWB & ARCWA can only control **one indoor unit** at a time; group control is only possible when using option R04084124324.

Integration of RA, Sky Air, VRV 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

RTD-10

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

RTD-20

› Advanced control of Sky Air, VRV, VAM/VKM and air curtains
› Clone or independent zone control
› Increased comfort with integration of CO_2 sensor for fresh air volume 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

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)			✓	✓	✓	✓	✓
Group control			✓(1)	✓	✓	✓	✓
0 - 10 V control					✓	✓	
Resistance control					✓	✓	
IT application			✓		✓		
Heating interlock					✓	✓	
Output signal (on/defrost, error)					✓	✓****	✓
Retail application						✓	
Partitioned room control						✓	
Air curtain				✓***	✓***	✓	

(1): By combining RTD-RA devices

CONTROL FUNCTIONS	RTD-RA	RTD-NET	RTD-10	RTD-20	RTD-HO
On/Off	M,C	M	M,V,R	M	M*
Set point	M	M	M,V,R	M	M*
Mode	M	M	M,V,R	M	M*
fan	M	M	M,V,R	M	M*
Louver	M	M	M,V,R	M	M*
HRV Damper control		M	M,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

Centralised control systems

DCS302C51

DCS301B51

DST301B51

Centralised control of the Sky Air 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)
- 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

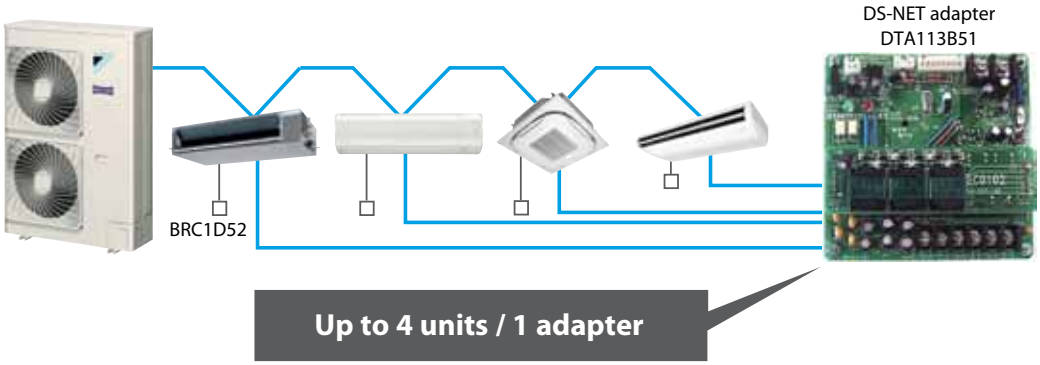
Enabling 64 groups to be programmed.

- 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)

DTA113B51

Basic solution for control of Sky Air and VRV

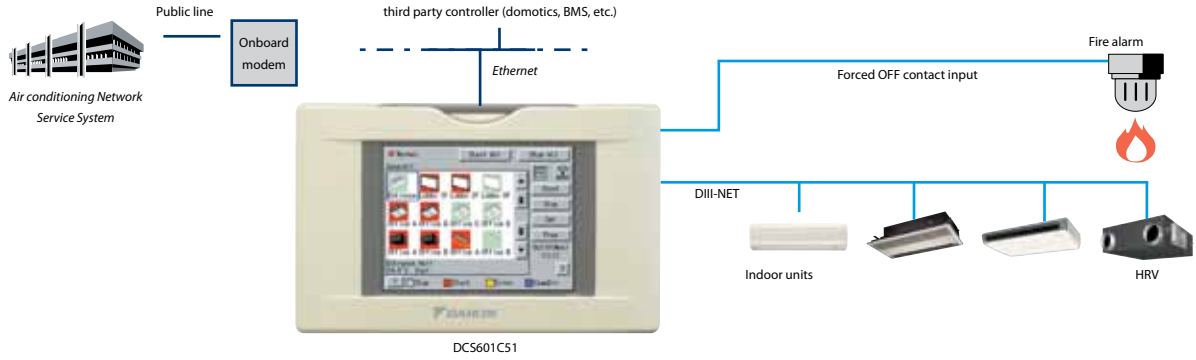
- Rotation function
- Backup operation function.



DCS601C51

touch intelligent Controller

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



Languages

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

System layout

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

Management

- Easy management of electricity consumption
- Enhanced history function

Control

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

iTM Integrator
(DCM601A53)

Up to 2,560 groups

HUB

A maximum of 5 intelligent Touch Managers can be connected to a single iTM Integrator.

Air Conditioning Network Service System

Internal modem (option)

Phone line

touch intelligent Manager
DCM601A51

VRV IV

DIII-NET line

Max. 64 groups

indoor units

HRV

LAN

iTM plus adaptor line

Max. 7 adapters

DCM601A52

Di/Pi port

Internet Intranet

LAN

Malfunction report by E-Mail

USB memory

Di/Pi line Max. 200m

WAGO interface

I/O module

I/O module

I/O module

Web Access

Web Access

Fire alarm

kWh meter

Lighting

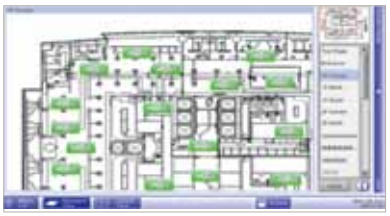
Pump

Fan

Sensor

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 management tools enable monitoring if energy use is according to plan and help detect origins of energy waste, thus maximizing 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

Languages

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

System layout

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

WAGO Interface

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

Management

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

Control

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

Integration of Sky Air and VRV in HA/BMS systems

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-DI Size 45x45x15mm

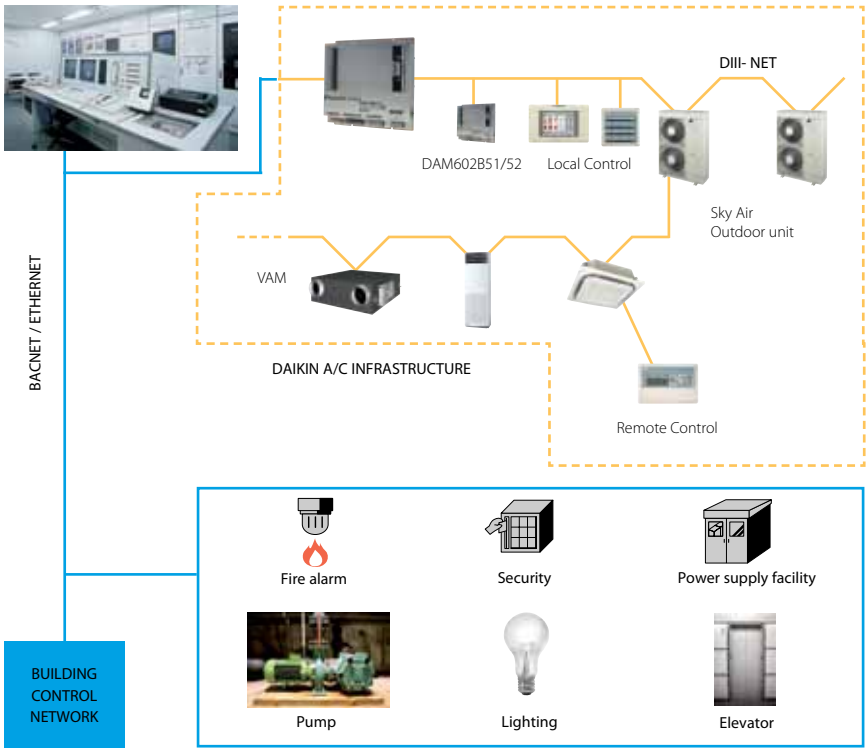
	Sky Air	VRV
BASIC CONTROL		
ON/OFF	✓	✓
Mode	Auto, heat, dry, fan, cool	Auto, heat, dry, fan, cool
Temperature	✓	✓
Fan speed levels	2 or 3	2 or 3
Swing	Stop or movement	Swing or fixed positions (5)

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

BACnet Interface

Integrated control system for seamless connection between VRV and BMS systems

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

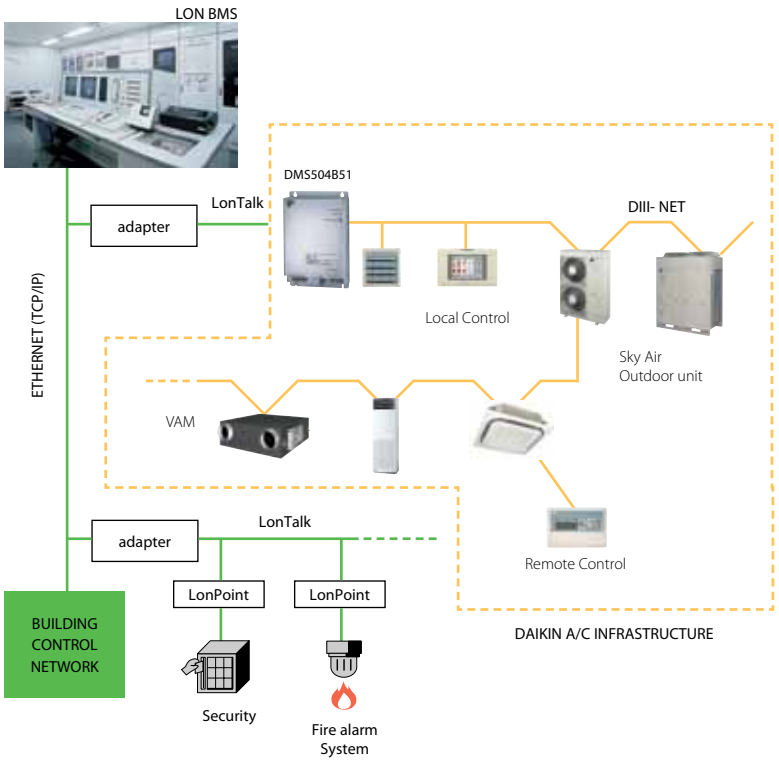


Standard protocol interfaces

LonWorks Interface

Open w integration of VRV monitoring and control functions into LonWorks networks

- Interface for Lon connection to LonWorks networks
- Communication via Lon protocol (twisted pair wire)
- 64 units connectable per DMS-IF
- Unlimited sitesize
- Quick and easy installation



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 (FBQ-C8 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.

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

Other integration devices

Adapter PCB's – Simple solutions for unique requirements

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) (KRP2A* via P1 P2) › Remotely start and stop up to 128 indoor units (64 groups) (KRP4A* via F1 F2) › Alarm indication/ fire shut down › Remote temperature setpoint adjustment

Concept and benefits

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

Sensors & other devices

		INVERTER HEAT PUMP CONDENSING UNITS		
		ERQ 100~140 AV1	ERQ 125 AW1	ERQ 200~250 AW1
Adapters and control	**KRC19-26A6** 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	✓	✓	✓
Others	**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

		AHU APPLICATION CONTROL BOXES		HEAT RECLAIM VENTILATION
		FOR ERQ		
		EKEQDCB	EKEQFCB	VAM 150~2000
Adapters and control	**BRC1E51A/B** Premium wired remote controller with full-text interface and back-light	✓	✓	✓
	BRC1D52 Standard wired remote controller with weekly timer	✓	✓	✓
	BRC301B61 Wired remote controller for HRV	-	-	✓
	BRP4A50 Control kit for auxiliary 3rd party heater	-	-	✓
	KRP50-2 Adaptor PCB for 3rd party humidifier control / for operation signal output	-	-	✓
	External wired temperature sensor	KRCS01-1	-	-
	Wiring adaptor for external monitoring/control via dry contacts and setpoint control via 0-140Ω	KRP4A51	-	-
	Wiring adaptor for external central monitoring/control (controls 1 entire system)	-	-	KRP2A61
	External control adaptor for outdoor unit	DTA104A61	Ask your Daikin representative	-
	Installation box / Mounting plate for adaptor PCBs	-	-	KRP1B93
	Connection to centralized control	-	-	Standard

OUTDOOR UNITS	2MXS40H	2MXS50H	3MXS40K	3MXS52E	3MXS68G	4MXS68F	4MXS80E	5MXS90E
Air direction adjustment grille	KPW945A4							

	RXYSQ
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.	DTA104A53/61/62
	For installation into an indoor unit: exact adaptor type depends on type of indoor unit
	See options & accessories of indoor units
KRC19-26A6 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	✓

Options & accessories - Sky Air

INDOOR UNITS - CONTROL SYSTEMS	FCQHG71F	FCQHG100F	FCQHG125F	FCQHG140F	FCQG35F	FCQG50F	FCQG60F	FCQG71F	FCQG100F	FCQG125F	FCQG140F
Wired remote control	BRC1E52A (3) BRC1E52B (4)				BRC1E52A (3) BRC1E52B (4)						
Wireless remote control + decoration panel	-				-						
I-touch controller	DCS601C51				DCS601C51						
Infrared remote control (heat pump)	BRC7FA532F (5)				BRC7FA532F (5)						
Simplified remote control	-				-						
Remote control for hotel use	BRC3A61				BRC3A61						
Centralised remote control	DCS302C51				DCS302C51						
Unified ON/OFF control	DCS301B51				DCS301B51						
Schedule timer	DST301B51				DST301B51						
Adapter for wiring (interlock for fresh air intake fan)	-				-						
Adapter for external ON/OFF and monitoring/for electrical appendices	KRP1B57/KRP4A53 (1)(5)				KRP1B57/KRP4A53 (1)(5)						
Interface adapter for Sky Air	-				-						
Installation box for adapter PCB	KRP1H98 (5)				KRP1H98 (5)						
Remote sensor	KRCS01-4				KRCS01-4						
Remote ON/OFF, forced OFF	EKRORO2				EKRORO4 (TBC)						
Electrical box with earth terminal (3 blocks)	KJB311A				KJB311A						
Electrical box with earth terminal (2 blocks)	KJB212A				KJB212A						
Adapter for wiring (hour meter)	EKRP1C11 (1)(5)				EKRP1C11 (1)(5)						
Options PCB for external electrical heater, humidifier and/or hour meter	✓				✓						

Notes
(1) Installation box for adapter PCB is necessary
(2) Interface adapter for Sky Air series (DTA112B51) is necessary
(3) Including following languages:English, German, French, Italian, Spanish, Dutch, Greek, Russian, Turkish, Purtuguese, Polish
(4) Including following languages: English, German, Czech, Croatian, Hungarian, Romanian, Slovenian, Bulgarian, Slovak, Serbian, Albanian.
(5) Option not available in combination with BYCQ140*G
(6) Installation box for adapter PCB (KRP1B101) is necessary
(7) Electrical heater, humidifier and hour meter are field supply. These parts should not be installed inside the equipment.
(8) Sensing function is not available
(9) Independently controllable flaps function is not available

INDOOR UNITS	FCQHG71F	FCQHG100F	FCQHG125F	FCQHG140F	FCQG35F	FCQG50F	FCQG60F	FCQG71F	FCQG100F	FCQG125F	FCQG140F
Replacement long-life filter	KAFP551K160				KAFP551K160						
Sealing member of air discharge outlet	KDBHQ55B140 (4)				KDBHQ55B140 (4)						
Decoration panel	BYCQ140D + BYCQ140DW(1) + BYCQ140DG (2)(3)				BYCQ140D + BYCQ140DW(1) + BYCQ140DG (2)(3)						
Decoration panel + wireless remote control	-				-						
Fresh air intake kit (direct installation type)	KDDQ55B140-1 (4)+ KDDQ55B140-2 (6)				KDDQ55B140-1 (4)+ KDDQ55B140-2 (6)						
Panel spacer	-				-						
Sensor kit	BRYQ140A (5)				BRYQ140A (5)						

Notes
(1) The BYCQ140DW has white insulations. Be informed that dirt is more visible on white insulation and that it is consequently not advised to install the BYCQ140DW decoration panel in environments exposed to concentrations of dirt.
(2) To be able to control the BYCQ140DG, the controller BRC1E* is needed
(3) The BYCQ140DG is only compatible with Sky Air RZQ(G), RZQS(G); All VRV outdoors; Split RKS, RXS
(4) Option not available in combination with BYCQ140DG
(5) Sensor kit can only be operated with BRC1E52A/B
(6) BYFQ60B9 = basic , BYFQ60CW = White , BYFQ60CS = Grey
(7) BRYQ60A2W = White, BRYQ60A2S = Grey
(8) Both parts of the fresh air intake kit are needed for each unit.

ACQ71B	ACQ100B	ACQ125B	FFQ25C	FFQ35C	FFQ50C	FFQ60C	FDBQ25B	FBQ35C8	FBQ50C8	FBQ60C8	FBQ71C8	FBQ100C8	FBQ125C8	FBQ140C8	ABQ71B	ABQ125A	ABQ140A
ARCWB			BRC1D52 / BRC1E52A (3) - BRC1E52B (4)(9)				BRC1D52 / BRC1E52A (3) BRC1E52B (4)	BRC1D52 / BRC1E52A (3) BRC1E52B (4)							-		
ADP125A			-				-	-							-		
-			DCS601C51				-	DCS601C51 (2)							-		
-			BRC7E530/BRC7F530W/BRC7F530S (8-9)				-	BRC4C65							-		
-			-				-	-							-		
-			-				-	BRC3A61							-		
-			DCS302B51				-	DCS302C51							-		
-			DCS301B51				-	DCS301B51							-		
-			DST301B51				-	DST301B51							-		
-			-				-	KRP1B54							-		
-			KRP1B57/KRP4A53(6)				-	KRP4A51/KRP2A51							-		
-			-				-	DTA112B51							-		
-			KRP1B101 /KRP1BA101				-	-							-		
-			KRC501-4				-	KRC501-1							-		
-			-				-	EKRORO3							-		
-			-				-	-							-		
-			-				-	-							-		
-			EKRP1B2				EKRP1B2	-							-		
-			✓				✓	EKRP1B2A (7)							-		

ACQ71B	ACQ100B	ACQ125B	FFQ25C	FFQ35C	FFQ50C	FFQ60C	FDBQ25B	FBQ35C8	FBQ50C8	FBQ60C8	FBQ71C8	FBQ100C8	FBQ125C8	FBQ140C8	ABQ71B	ABQ125A	ABQ140A
-			KAFQ441B160				-	-							-		
-			BDBHQ44C60				-	-							-		
-			BYFQ60B2/BYFQ60CW/BYFQ60CS (6)				-	BYBS32D	BYBS45D	BYBS71D		BYBS125D			-		
ADP125A			-				-	-							-		
-			KDDQ44XA60				-	-							-		
-			KDBQ44B60				-	-							-		
-			BRYQ60AW/BRYQ60AS (7)				-	-							-		

Options & accessories - Sky Air

INDOOR UNITS - CONTROL SYSTEMS	FDQ125C	FDQ200B	FDQ250B	FAQ71C	FAQ100C	FHQ35C	FHQ50C	FHQ60C	FHQ71C
Wired remote control	BRC1D52 / BRC1E52A (3) / BRC1E52B (4)			BRC1D52 / BRC1E52A (3) / BRC1E52B (4)		BRC1D52 / BRC1E52A (3) / B			
I-touch controller	DCS601C51	-		DCS601C51		-			
Infrared remote control (heat pump)	BRC4C65	-		BRC7EB518		BRC7G53			
Simplified remote control	-			-		-			
Remote control for hotel use	-			BRC3A61		-			
Centralised remote control	DCS302C51			DCS302C51		DCS302C51			
Unified ON/OFF control	DCS301B51			DCS301B51		DCS301B51			
Schedule timer	DST301B51			DST301B51		DST301B51			
Adapter for wiring (interlock for fresh air intake fan)	KRP1C64	KRP1B54		-		-			
Adapter for external ON/OFF and monitoring/for electrical appendices	KRP4A51			KRP4A51 (1)		KRP1B54 / KRP4A52(1			
Interface adapter for Sky Air (2)	-	DTA112B51		-		-			
Installation box for adapter PCB	-			KRP4A93		KRP1D93A			
Remote sensor	KRCS01-4B	-		KRCS01-1		KRCS01-4B			
Remote ON/OFF, forced OFF	EKRORO3	EKRORO		-		EKRORO4			
Electrical box with earth terminal (3 blocks)	-			KJB311A		KJB311A			
Electrical box with earth terminal (2 blocks)	-			KJB212A		KJB212A			
Options PCB for external electrical heater, humidifier and/or hour meter	EKRP1B2	EKRP1B2		✓		✓			
Mounting plate for adapter PCB	KRP4A96	-		-		-			

Notes
(1) Installation box for adapter PCB is necessary
(2) Interface adapter for Sky Air series (DTA112B51) is necessary
(3) Including following languages:English, German, French, Italian, Spanish, Dutch, Greek, Russian, Turkish, Purtuguese, Polish
(4) Including following languages: English, German, Czech, Croatian, Hungarian, Romanian, Slovenian, Bulgarian, Slovak, Serbian, Albanian.
(5) Electrical heater, humidifier and hour meter are field supply. These parts should not be installed inside the equipment.
(6) With the infrared remote controller, the individual flap control and automatic air volume control cannot be controlled.

INDOOR UNITS	FDQ125C	FDQ200B	FDQ250B	FAQ71C	FAQ100C	FHQ35C	FHQ50C	FHQ60C	FHQ71C
Replacement long-life filter	-			-		KAFP501A56		KAFP501A80	
Drain-up kit	-			K-KDU572EVE		-			
Drain pump kit	-			-		KDU50P60			
L-type piping kit (upward direction)	-			-		KHFP5M35	KHFP5N63		
Sealing member of air discharge outlet	-			-		-			
Decoration panel for air discharge	-			-		-			
Decoration panel	BYBS125D(1)			-		-			
Decoration panel option	EKBYBSD			-		-			
Noise filter	-			KEK26-1A		-			
Air discharge adapter for round duct	KDAJ25K140A			-		-			
Fresh air intake kit (direct installation type)	-			-		KDDQ50A140			

Notes
(1) Decoration panel option EKBYBSD is required for direct mounting of the decoration panel of the unit.

OUTDOOR UNITS		RZQ(S)G125L(7)V1/LY1	RZQ(S)G100L(7)V1/LY1 | RZQ(S)G125L(7)V1/LY1	RZQ(S)G140L(7)V1/LY1
Air direction adjustment grille		-		
Central drain plug		-		
Refrigerant branch piping	For twin	-		
	For triple	KHRQ127H	-	
	For double twin	-	KHRQ127H (x3)-	-
Demand adapter kit		-		
Bottom plate heater		-		

Notes
(1) Bottom plate heater is only available for RZQG* models
(2) For combination of RZQ(S)G71L7V1B and EKBPH140L7 it is required to use the demand adapter KRP58M51 in order to connect the bottom plate heater.
(3) For RZQG71-140L7Y1B/RZQSG100-140L7Y1B in combination with FCQG35-71F and FCQHG71F use the refrigerant branch piping between brackets.

FHQ100C	FHQ125C	FHQ140C	AHQ71C	AHQ100C	AHQ125C	AHQ140C	FUQ71C	FUQ100C	FUQ125C	FVQ71C	FVQ100C	FVQ125C	FVQ140C
RC1E52B (4)			ARCWB				BRC1D52 / BRC1E52A (3) / BRC1E52B (4)			BRC1D52 / BRC1E52A (3) / BRC1E52B (4)			
			-				-			DCS301C51			
			-				BRC7C58 (6)			-			
			-				-			BRC2C51			
			-				-			BRC3A61			
			-				DCS302C51			DCS302C51			
			-				DCS301B51			DCS301B51			
			-				DST301B51			DST301B51			
			-				-			-			
)			-				KRP4A53 (1)			KRP1B57 / KRP4A52			
			-				-			-			
			-				KRP1B97			KRP4AA95			
			-				KRCS01-4			-			
			-				EKRORO5			-			
			-				KJB311A			-			
			-				KJB212A			-			
			-				✓			✓			
			-				-			-			

FHQ100C	FHQ125C	FHQ140C	AHQ71C	AHQ100C	AHQ125C	AHQ140C	FUQ71C	FUQ100C	FUQ125C	FVQ71C	FVQ100C	FVQ125C	FVQ140C
KAFP501A160			-				KAFP551K160			KAFJ95L160			
			-				-			-			
KDU50P140			-				-			-			
KHFP5N160			-				-			-			
			-				KDBHP49B140			-			
			-				KDBTP49B140			-			
			-				-			-			
			-				-			-			
			-				-			-			
			-				-			-			
			-				-			-			

AZQS71AV1/AY1	AZQS125AV1/AY1	AZQS140AV1/AY1	RZQ200C	RZQ250C
-			-	
EKDK04			KWC26B280	
-			KHRQ22M20TA	
-			KHRQ250H7	
-			KHRQ22M20TA (x3)	
KRP58M51			KRP58M51	
-			-	

	UATYQ-C
Rooftop controller	✓
PCB	✓
EXV	✓
Gold Fin (NA549)	✓
Scroll compressor	✓
Saranet Air Filter	✓
Side flow	✓
Convertible	✓
Filter drier	✓
High pressure switch	✓
Low pressure switch	✓
Economiser	ECONO-AY1

No options available for UATYP-AY1(B)
No options available for ECONO-AY1

Power supply

V1 = 1~, 220-240V, 50Hz
VE = 1~, 220-240V/220V, 50Hz/60Hz*
W1 = 3N~, 400V, 50Hz

* For VE power supply only 1~, 220-240V, 50Hz data is displayed in this catalogue.

Measuring conditions

Air conditioning

1) nominal cooling capacities are based on:	
Indoor temperature	27°CDB/19°CWB
Outdoor temperature	35°CDB
Refrigerant piping length	7.5m
Level difference	0m
2) nominal heating capacities are based on:	
Indoor temperature	20°CDB
Outdoor temperature	7°CDB/6°CWB
Refrigerant piping length	7.5m
Level difference	0m

The sound pressure level is measured via a microphone at a certain distance from the unit. It is a relative value, depending on the distance and acoustic environment (for measuring conditions: please refer to the technical databooks).
The sound power level is an absolute value indicating the "power" which a sound source generates.
For more detailed information please consult our technical databooks.

Benefits

We care icons

Seasonal efficiency, smart use of energy
Seasonal efficiency gives a more realistic indication on how efficient air conditioners operate over an entire heating or cooling season.

Inverter technology
In combination with inverter controlled outdoor units

Home leave operation
During absence, the indoor temperature can be maintained at a certain level.

Auto-cleaning panel
The filter in the auto-cleaning decoration panel automatically cleans itself once per day. Simplicity of upkeep means optimum energy efficiency and maximum comfort without the need for expensive or time-consuming maintenance.

Fan only
The air conditioner can be used as fan, blowing air without cooling or heating.

Humidity control

Dry programme
Allows humidity levels to be reduced without variations in room temperature.

Remote control & timer

Weekly timer
Timer can be set to start heating or cooling anytime on a daily or weekly basis

Infrared remote control
Infrared remote control with LCD to start, stop and regulate the air conditioner from a distance.

Wired remote control
Wired remote control to start, stop and regulate the air conditioner from a distance.

Centralised control
Centralised control to start, stop and regulate several air conditioners from one central point.

Air treatment

Air filter
Removes airborne dust particles to ensure a steady supply of clean air.

Comfort

Draught prevention
When starting to warm up or when the thermostat is off, the air discharge direction is set horizontally and the fan to low speed, to prevent draught. After warming up, air discharge and fan speed are set as desired.

Auto cooling-heating changeover
Automatically selects cooling or heating mode to achieve the set temperature (heat pump types only).

Whisper quiet
Daikin indoor units are whisper quiet. Also the outdoor units are guaranteed not to disturb the quiet of the neightbourhood.

Air flow

Ceiling soiling prevention
A special function prevents air blowing out too long in horizontal position, to prevent ceiling stains.

Vertical auto swing
Possibility to select automatic vertical moving of the air discharge louvre, for uniform air flow and temperature distribution.

Fan speed steps
Allows to select up to the given number of fan speed.

Other functions

Auto-restart
The unit restarts automatically at the original settings after power failure.

Twin/triple/double twin application
2, 3 or 4 indoor units can be connected to only 1 outdoor unit even if they have different capacities. All indoor units operate within the same mode (cooling or heating) from one remote control.

VRV for residential application
Up to 9 indoor units (even different capacities and up to 71 class) can be connected to a single outdoor unit. All indoor units can individually be operated within the same mode.

Self-diagnosis
Simplifies maintenance by indicating system faults or operating anomalies.

Multi model application
Up to 5 indoor units (even different capacities) can be connected to a single outdoor unit. All indoor units can individually be operated within the same mode.

Drain pump kit
Facilitates condensation draining from the indoor unit.

Notes

Seasonal efficiency, smart use of energy

Seasonal efficiency is a measure mandated by the European Union to optimise energy consumption. The EU wants to make people aware of what units are consuming and ban non-efficient products from the market. Seasonal efficient units reflect the actual performance you can expect over an entire heating and cooling season. The standard comes into force from January 2013 onwards for products under 12 kW.

Today, Daikin is leading the way towards more efficient and cost-effective comfort solutions. All Daikin products – residential and commercial as well as industrial – are seasonal efficient, they all reduce energy and costs in a smart way.

SEASONAL EFFICIENCY
Smart use of energy

Find out more on www.daikin.eu

DAIKIN

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DAIKIN

technical data

VRV™ Systems

Installation

XXV Installation
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Introduction

Precautions on installation

R-407C applies higher pressure than R-22 and uses refrigeration oil different from R-22. Therefore, piping works and tools are also different from those for R-22 refrigerants.

Refrigerant	R-22 (Single-component refrigerant)	R-407C (Multiple-component refrigerant)
Refrigeration oil	Mineral oil (Suniso)	Synthetic (ether) oil
Condensing pressure	1.84MPa (18.8kg/cm^2)	2.01MPa (20.5kg/cm^2)

Refrigerant piping materials

REFNET piping materials

- Branch pipe and dividing pipe for R-407C are provided specially for REFNET piping. Since these new parts are not interchangeable with current REFNET parts, do not use current REFNET piping materials for R-407C. (Refer to the option list)

Other refrigerant piping materials

- Use C 1220 type copper tube for refrigerant piping. Wall thickness of copper tube shown in the below table can be applied. (The table is the same as the recommendation for R-22)

Recommendable oil for pipe processing

- Daphne Master Draw 510LS•530LS•565NR•566LS (Idemitsu Kosan Co.,Ltd.)
- Master Draw 5128 (Etna Products inc.)
- Shell Drawing XA (Shell)
  * Mixing amount of oil is 30mg/10m at maximum.

Wall thickness of refrigerant pipe (Reference) (Unit: mm)

Type	O type					1/2H and H type				
Copper tube O.D.	ø 6.4	ø 9.5	ø 12.7	ø 15.9	ø 19.1	ø 22.2	ø 25.4	ø 28.6	ø 34.9	ø 41.3
Copper tube W.T.	0.8	0.8	0.8	1.0	1.0	1.0	1.0	1.2	1.3	1.7

NOTE

1 When selecting and using a copper tube, observe strictly the relevant standards or regulations of each country.

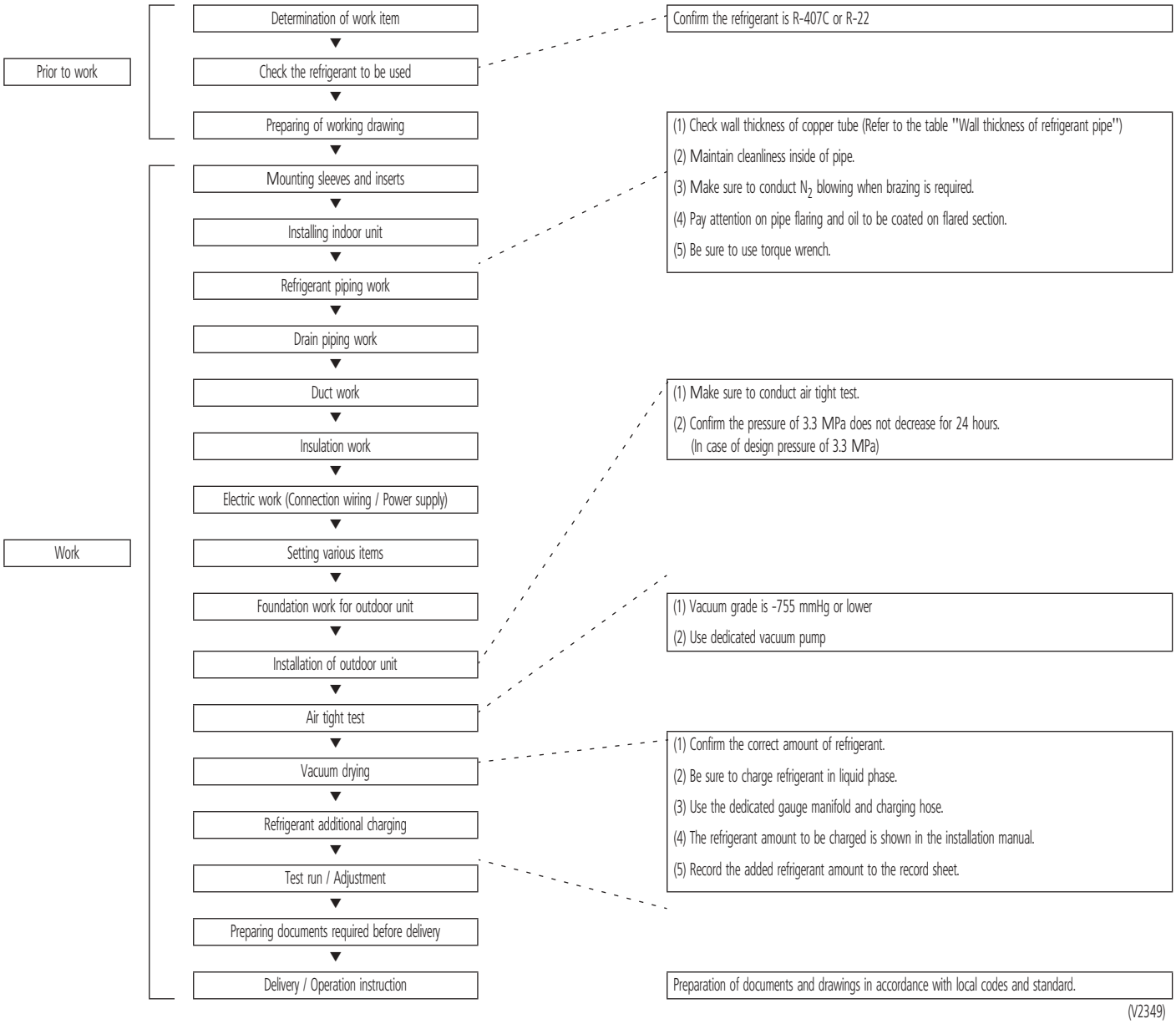
Introduction

Procedure and tools for refrigerant piping work

Procedure

- Piping work for R-407C models partially differs from R-22 models in items and procedures of piping work and refrigerant charging due to different component and higher pressure for R-407C. The chart below shows general work procedure for R-407C models.

Work items and precautions



(V2349)

Introduction

Procedure and tools for refrigerant piping work

Tools

- Several dedicated tools are required for the installation work of R-407C models. Some conventional tools can be used except tools actually used to install R-22 models.

Representative tools and devices and interchangeability

Tool name	Work process / Usage		Interchangeability with conventional tool
Pipe cutter	Refrigerant piping work	Pipe cutting	Interchangeable and can be used.
Flaring tool		Pipe flaring	
Refrigeration oil		Applying to flared section	Use dedicated ether oil, ester oil, alkyl-benzene oil or mixture of those oils.
Torque wrench		Flare nut jointing	Interchangeable and can be used.
Pipe expander		Pipe expanding in connection of pipe	
Pipe bender		Pipe bending	
Nitrogen	Air tight test	Oxidation proof for inside pipe	
Welder		Pipe brazing	
Gauge manifold	From air tight test to refrigerant additional charging	Refrigerant charging using vacuum and operation check	Dedicated gauge is required due to high pressure.
Charging hose			To prevent refrigerant leakage and mixing of foreign matters, dedicated charging hose is required.
Vacuum pump	Vacuum drying		Interchangeable and can be used. (Be strictly sure that oil does not flow in reverse to the unit during pump stop.)
Charging cylinder	Refrigerant additional charging		Not required since charging work conducted with weighing scale.
Weighing scale for refrigerant charging			Interchangeable and can be used.
Gas leakage detector		Gas leakage check	Dedicated detector is required (Detector for R-134a can be used).

Precautions for installation work

Caution to be taken when brazing refrigerant piping

- "Do not use flux when brazing copper-to-copper refrigerant piping. (Particularly for the HFC refrigerant piping) Therefore, use the phosphor copper brazing filler metal (BCuP) which does not require flux."
  (Flux has extremely harmful influence on refrigerant piping systems. For instance, if the chlorine based flux is used, it will cause pipe corrosion or, in particular, if the flux contains fluorine, it will damage the refrigerant oil. The use of flux is strictly forbidden since the cleaning on site is impossible.)

NOTE

1 Keep in mind that if the phosphor copper brazing filler metal is used and the brazing temperature and the heating time exceed a certain point, the phosphor changes into the gaseous state (e.g. BCuP -1 to 5 : between 700 and 800°C) which causes pin holes and results in refrigerant leakage.

Joint brazing

- Since stricter caution should be necessary for R-407C to prevent intrusion of foreign matters into the refrigerant piping line, be sure to conduct N_2 blowing when brazing is required.
- Other than brazing, a stricter work control including pipe covering and drying is required to prevent pipe from intrusion of foreign matters.

Flaring

- Make sure to conduct chamfering (filing) at cut section, since a large wall thickness of pipe results large burr. Be aware of no cutting chips left inside pipe.
- Apply appropriate amount of refrigeration oil on outer / inner surface of flared section to prevent leakage. Make sure to use synthetic oil (ether oil, ester oil, archi-benzene oil or mixture of those oils) as refrigeration oil.

Introduction

Procedure and tools for refrigerant piping work

Refrigerant charging

- Charge R-407C from service port at liquid side stop value of outdoor unit in liquid phase. At that time, conduct vacuum drying using vacuum pump.

Air-tightness test

- Make sure to conduct air-tightness test.

Conduct installation work for R-407C models according to above mentioned piping work procedure. Otherwise, the unit may have trouble. Refer to the "Work execution and control for R-407C model" for the details on handling of R-407C, installation works and tools.

CAUTION

1 Air conditioners should not be installed in areas where corrosive gases, such as acid gas or alkaline gas, are produced.

2 If the outdoor unit is to be installed close to the sea shore, direct exposure to the sea breeze should be avoided and choose an outdoor unit with anti-corrosion treatment.

Introduction

Installation of outdoor units

Determination of the Installation Location

Selection of location

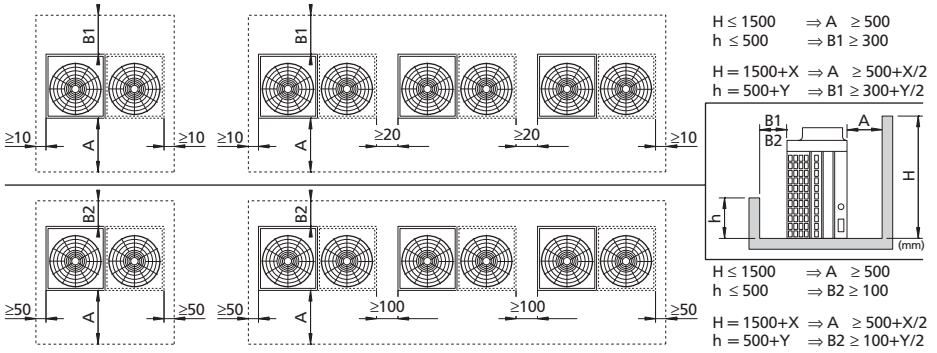
- This unit, both indoor and outdoor, is suitable for installation in a commercial and light industrial environment. If installed as a household appliance it could cause electromagnetic interference.
- The VRV outdoor units should be installed in a location that meets the following requirements:

1. The foundation is strong enough to support the weight of the unit and the floor is flat to prevent vibration and noise generation.
2. The space around the unit is adequate for servicing and the minimum space for air inlet and air outlet is available. (Refer to below figure and choose one of both possibilities.)
3. There is no danger of fire due to leakage of inflammable gas.
4. Ensure that water cannot cause any damage to the location in case it drips out of the unit (e.g. in case of a blocked drain pipe).
5. The piping length between the outdoor unit and the indoor unit may not exceed the allowable piping length. (See "Example of connection".)
6. Select the location of the unit in such a way that neither the discharged air nor the sound generated by the unit disturb anyone.
7. Make sure that the air inlet and outlet of the unit are not positioned towards the main wind direction. Frontal wind will disturb the operation of the unit. If necessary, use a windscreen to block the wind.
8. Locations where there is mineral oil or kitchens and other locations where oil may splatter or there may be a lot of steam in the air. Deterioration of resin parts may cause parts to fall or leak.
9. Locations where corrosive gases are present, such as sulfuric gas. This may cause corrosion of copper pipes and brazed parts, causing the refrigerant to leak.
10. Locations with machinery which gives off electromagnetic waves. Such waves may cause the control system to malfunction and prevent normal operation.

Introduction

Installation of outdoor units

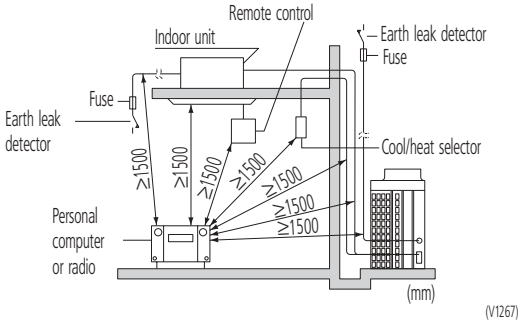
5, 8, 10HP



(V2350)

CAUTION

1 An inverter air conditioner may cause electronic noise generated from AM broadcasting. Examine where to install the main air conditioner and electric wires, keeping proper distances away from stereo equipment, personal computers, etc.



(V1267)

If the electric wave of AM broadcasting is particularly weak, keep distances of 3m or more and use conduit tubes for power and transmission lines.

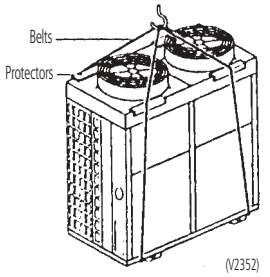
2 In heavy snowfall areas, select an installation site where snow will not affect operation of the unit.

3 The refrigerant R-407C itself is nontoxic, nonflammable and is safe. If the refrigerant should leak however, its concentration may exceed the allowable limit depending on room size. Due to this it could be necessary to take measures against leakage. Refer to the chapter "Caution for refrigerant leaks".

Suspension Method

- The units are packed in a wooden crate and attached on a wooden pallet.
  At delivery, the package should be checked and any damage should be reported immediately to the carrier claims agent.
  When handling the unit, take into account the following:
  1. Fragile, handle the unit with care.
     Keep the unit upright in order to avoid compressor damage.
  2. Lift the unit preferably with a crane and 2 belts of at least 8m long.
  3. When lifting the unit with a crane, always use protectors to prevent belt damage and pay attention to the position of the unit's center of gravity.
  4. Bring the unit as close to its final installation position in its original package to prevent damage during transport.

5, 8, 10HP



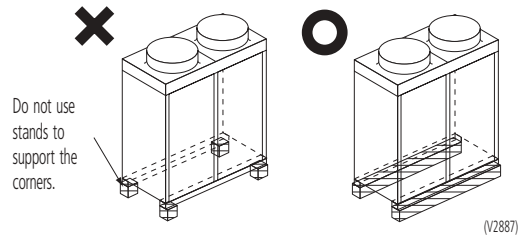
(V2352)

Introduction

Installation of outdoor units

Caution when installing

1. Remove the crate from the unit.
2. Remove the four screws fixing the unit to the pallet.

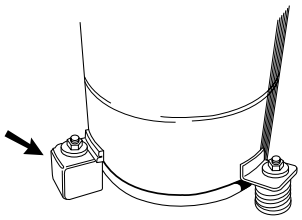


(V2887)

NOTE

1 Note : Maximum height of the foundation is 150mm.

3. Lift the unit from the pallet and place it on its installation position.
4. Fasten the unit in place using four anchor bolts M12.
5. Remove the upper and lower service plate.
6. When closing the service panels take care that the tightening torque does not exceed 4.1 Nm.
7. Remove the yellow shipping stays from the compressor support as shown in the figure (2 stays per single compressor). Tighten the installation bolts firmly again afterwards



(V2357)

CAUTION

1 Prepare a water drainage channel around the foundation to drain waste water from around the unit.

2 If the unit is to be installed on a roof, check the strength of the roof and its drainage facilities first.

3 If the unit is to be installed on a frame, install the waterproofing board within a distance of 150mm under the unit in order to prevent infiltration of water coming from under the unit.

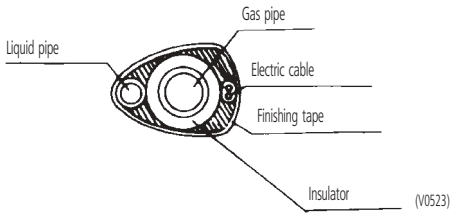
1 Field refrigerant piping

(1) The following materials should be used for all refrigerant piping.

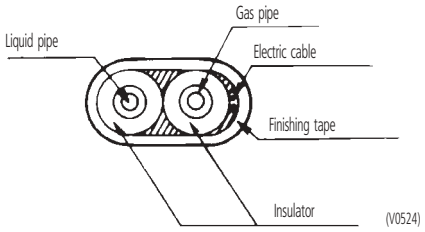
- Materials: Deoxidized phosphorous seamless copper pipe (for external diameters of 25.4mm or more, C1220T-0 for the rest) or equivalent

(2) Tips for insulation

- Gas piping must be insulated.
- If it is considered likely that the air conditioner will be operated at temperatures between 0°C and 10°C in cooling mode then the liquid pipes must also be insulated.
- Materials: Glass fiber or heat resistant polyethylene foam.
  Thickness: 10mm or more
  Heat resistance: Gas pipe : 120°C or more / Liquid pipe : 70°C or more
- Insulation of single pipe only

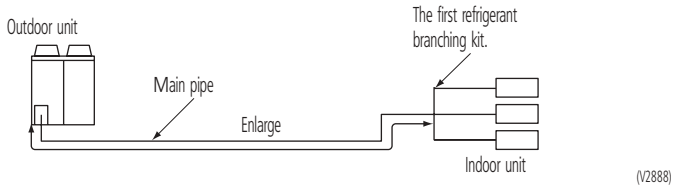


- Insulation of both liquid and gas pipe



Precautions when selecting branch piping

- If the piping between the outdoor units is 90m or longer, be sure to enlarge the main pipe in the gas-side branch piping. Depending on the length of the refrigerant piping, the power may drop, but even in such cases it is ok to enlarge the main pipe.



NOTES

$5H_P$ f19.1 Æ f22.2
(Lowest thickness 1.0mm)

$8H_P$ f25.4 Æ f28.6
(Lowest thickness 1.2mm)

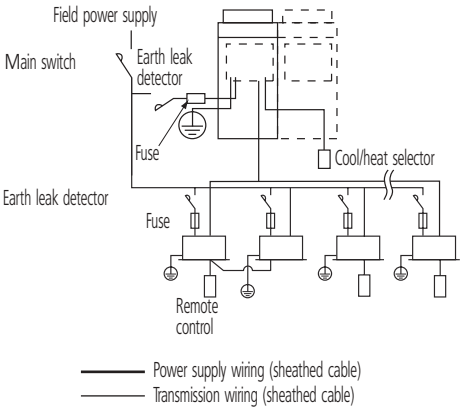
$10H_P$ f28.6 Æ f31.8
(Lowest thickness 1.2mm)

2 Field wiring

2-1 VRV™ cooling only / heat pump

- Up to 3 units can be connected by crossover power source wiring between outdoor units. However, units of smaller capacity must be connected downstream. For details, refer to the equipment design data and technical data.
- Make sure to connect the power source wire to the power source terminal block and to clamp it as shown in figure chapter "Field line connection".
- As this unit is equipped with an inverter, installing a phase advancing capacitor not only will deteriorate power factor improvement effect, but also may cause capacitor abnormal heating accident due to high frequency waves. Therefore, never install a phase advancing capacitor.
- Keep power imbalance within 2% of the supply rating.
  1. Large imbalance will shorten the life of the smoothing capacitor.
  2. As a protective measure, the product will stop operating and an error indication will be made, when power imbalance exceeds 4% of the supply rating.
- Follow the "electrical wiring diagram" when carrying out any electrical wiring.
- Only proceed with wiring work after blocking off all power.
- Always ground wires. (In accordance with national regulations of the pertinent country.)
- Do not connect the ground wire to gas pipes, sewage pipes, lightning rods, or telephone ground wires.
  ∑ Gas pipes: can explode or catch fire if there is a gas leak.
  ∑ Sewage pipes: no grounding effect is possible if hard plastic piping is used.
  ∑ Telephone ground wires and lightning rods: dangerous when struck by lightning due to abnormal rise in electrical potential in the grounding.
- This unit uses an inverter, and therefore generates noise, which will have to be reduced to avoid interfering with other devices. The outer casing of the product may take on an electrical charge due to leaked electrical current, which will have to be discharged with the grounding.
- Be sure to install an earth leak detector. (One that can handle higher harmonics.)
  (This unit uses an inverter, which means that an earth leak detector capable handling high harmonics in order to prevent malfunctioning of the earth leak detector itself.)
- Earth leak detectors made especially for protecting ground-faults should be used in conjunction with main switch or fuse for use with wiring.
- This unit has a negative phase protection circuit. (If it operates, only operate the unit after correcting the wiring.)

Heat Pump (5~10HP)



(V2398)

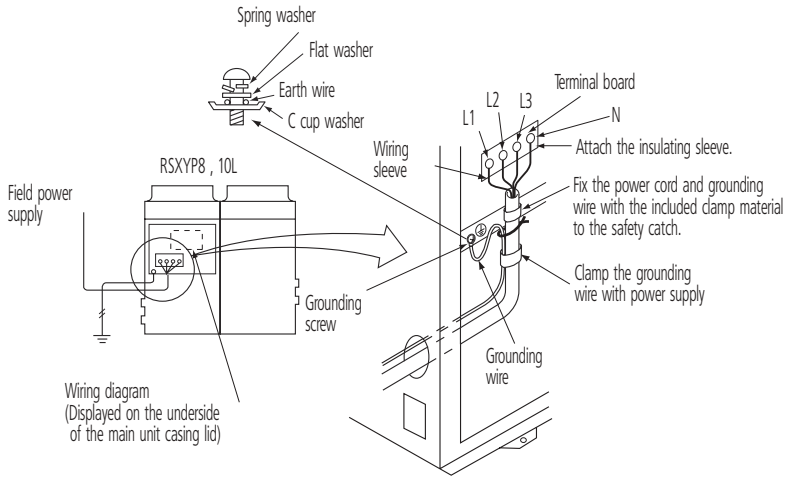
2 Field wiring

2-1 VRV™ cooling only / heat pump

2-1-1 Field line connection

- L1, L2, L3, N-phase of the power cord should be clamped to the safety catch using the included clamp material.
- The green and yellow striped wrapped wires should be used for grounding.

Heat Pump



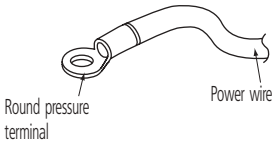
(V2889)

CAUTION

1 Wire so that the ground line does not come into contact with the compressor lead line. If these two lines touch, it may have an adverse effect on the other devices.

2 Precautions when laying power wiring

- Use a round pressure terminal for connections to the power terminal block. (Refer to figure)
- For wiring, use the designated power wire and connect firmly, then secure using the included clamping material to prevent outside pressure being exerted on the terminal board.

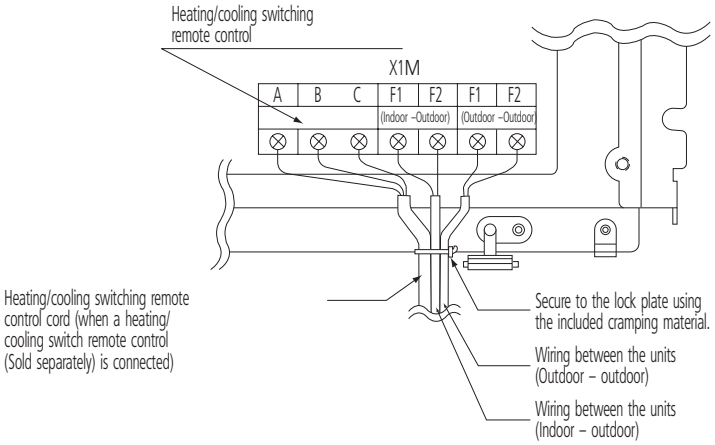


(V2889)

2 Field wiring

2-1 VRV™ cooling only / heat pump

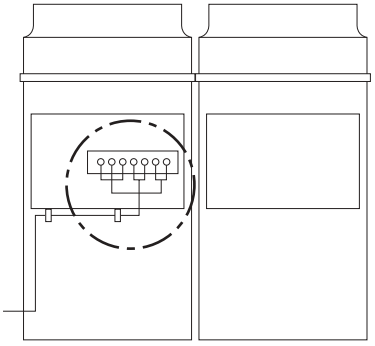
2-1-2 Field line connection: transmission wiring (cool/heat selection)



(V2889)

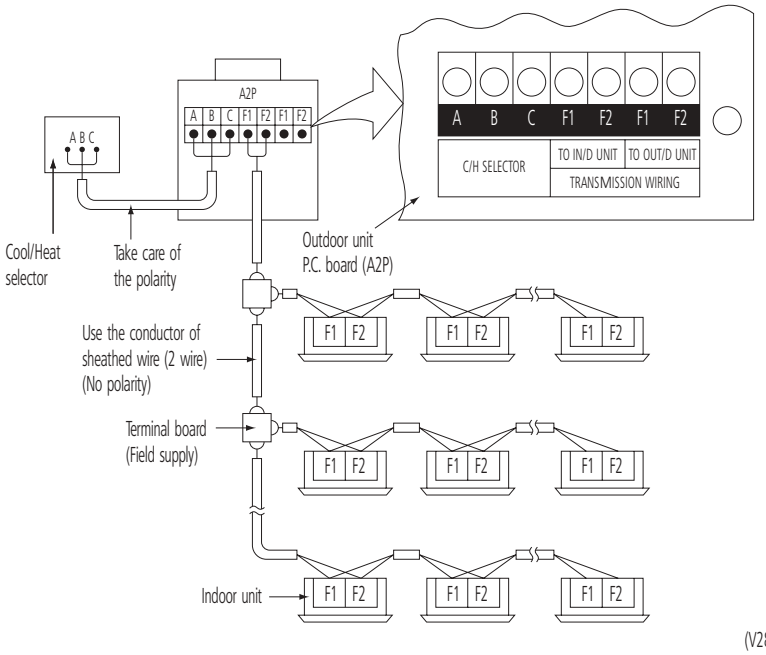
NOTES

1 Pass the wiring between the units through the 2 wire clips in the bottom part of the switch box and out of the unit



(V2889)

Example of performing cool/heat with cool/heat selector



(V2889)

2 Field wiring

2-1 VRV™ cooling only / heat pump

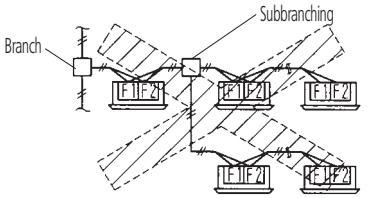
2-1-3 Example of performing cool/heat setting of two or more outdoor units in block with cool/heat selector

- For the wiring shown in front figure, be sure to use 0.75-1.25 mm^2 vinyl cords with sheath or cables (two-core). (Three-core cables can be used only for the cool/heat selector.)
- The wires above figure are field supply.

CAUTION

1 Be sure to follow the limits below. If the unit-to-unit cables are beyond these limits, it may result in malfunction of transmission.
Maximum wiring length: 1,000m
Total wiring length: 2,000m
Max branches No. of branches: 16

2 Up to 16 branches are possible for unit-to unit cabling. No branching is allowed after branching.

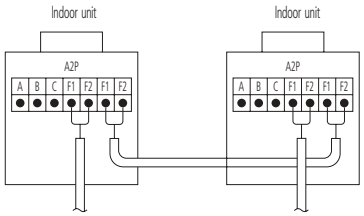


(V1313)

3 Never connect the power supply to unit-to-unit cabling terminal block. Otherwise the entire system may break down.

2-1-4 Sequential start

- Make the outdoor unit cable connections shown below.
- The outdoor unit PC board (A2P) is factory set at "Sequential start available".

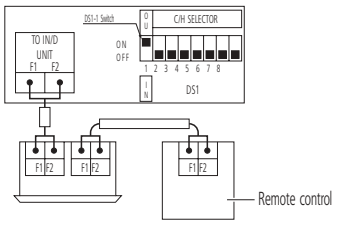


(V1314)

2-1-5 Setting the cool/heat operation

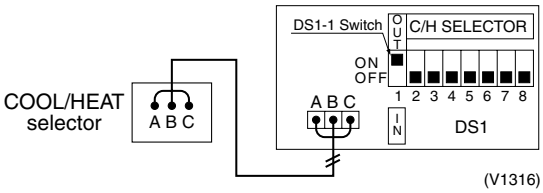
Heat Pump System

1. Performing cool/heat setting with the remote control connected to the indoor unit.
Keep the cool/heat selector switch (DS1-1) on the outdoor unit PC board (A2P) at the factory setting position IN/D UNIT.



(V1315)

2. Connect the optional remote control for COOL/HEAT changeover to the outdoor unit printed circuit board (PCB) (A2P) and change the COOL/HEAT setting switch (DS1-1) from IN (factory set) to out.



(V1316)

CAUTION

1 For low-noise operation, it is necessary to get the optional "External control adapter for outdoor unit".

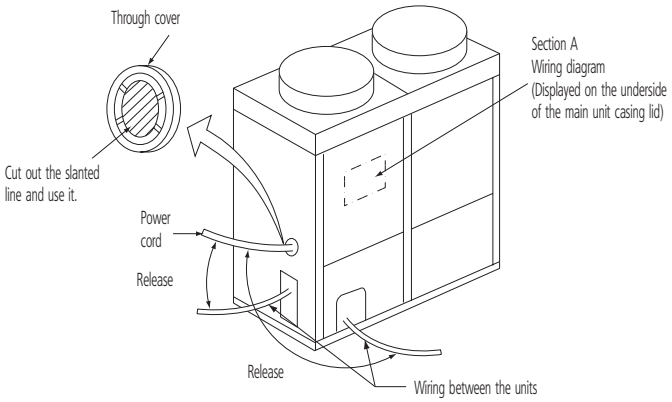
2 For details, see the installation manual attached to the adapter.

2 Field wiring

2-1 VRV™ cooling only / heat pump

2-1-6 Picking power line and transmission line

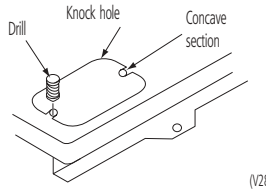
- Pick the power line from the upper hole on the left side plate, from the front position of the main unit (Through the conduit hole of the wiring mounting plate - optional parts) or from a knock out hole to be made in the unit's bottom plate.



(V2890)

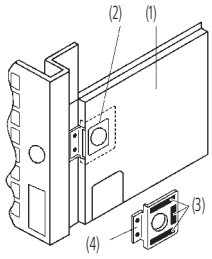
Precautions when knocking out knock holes

- Be sure to avoid damaging the casing
- After knocking out the holes, we recommend you paint the edges and areas around the edges using the repair paint to prevent rusting.
- When passing electrical wiring through the knock holes, wrap the wiring with protective tape to prevent damage.
- Open knock holes around the 4 concave knock holes in the base frame, using a f6mm-bit drill.



(V2890)

- If you pick the power line from the front position of the unit, proceed as follows and refer to figure
  - Remove the lower frontplate (1), punch a hole in the knock hole and cut the hole (2) all the way to the slit.
  - Attach the 3 sealing pads (Optional parts) (3) on the wiring mounting plate (Optional parts) (4) corresponding to the overlapped area of the front plate.
  - Install the wiring mounting plate to the front side of the side plate with the 2 delivered screws.
- Pick the transmission line from the middle positioned conduit hole on the left side plate, from the lower conduit hole on the right side plate or from the front position of the main unit (After binding it to the piping with finishing tape as in figure 2).



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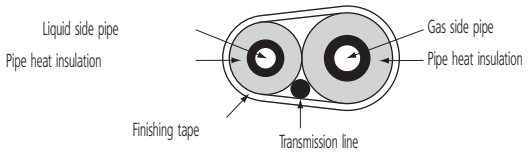


Figure 2

(V2890)

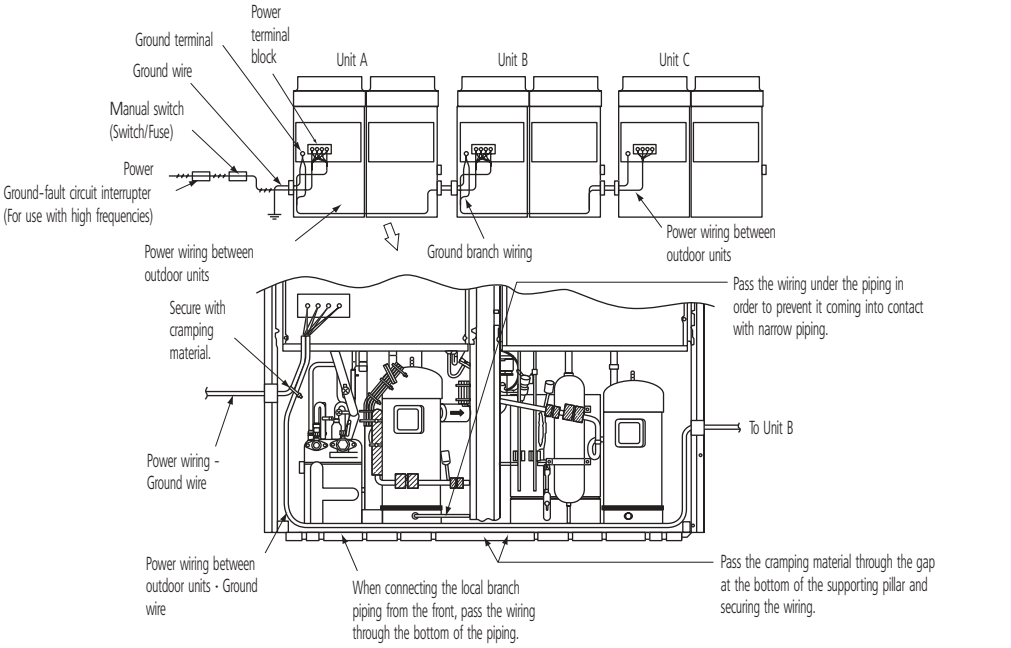
2 Field wiring

2-1 VRV™ cooling only / heat pump

2-1-6 Picking power line and transmission line

When the power goes from outdoor unit to outdoor unit

- Pass the power wiring which goes between the outdoor units through the bottom after securing it to the power wiring using cramping material so that it does not come into contact with the shut-off valve and the piping.



(V2890)

CAUTION

1 Be sure to keep the power line and transmission line apart from each other.
2 Be careful about polarity of the transmission line.
3 Make sure that the transmission line is clamped as shown in the figure in chapter "Field line connection".
4 Check that wiring lines do not make contact with refrigerant piping.
5 Firmly close the lid and arrange the electrical wires so as to prevent the lid or other parts from coming loose.

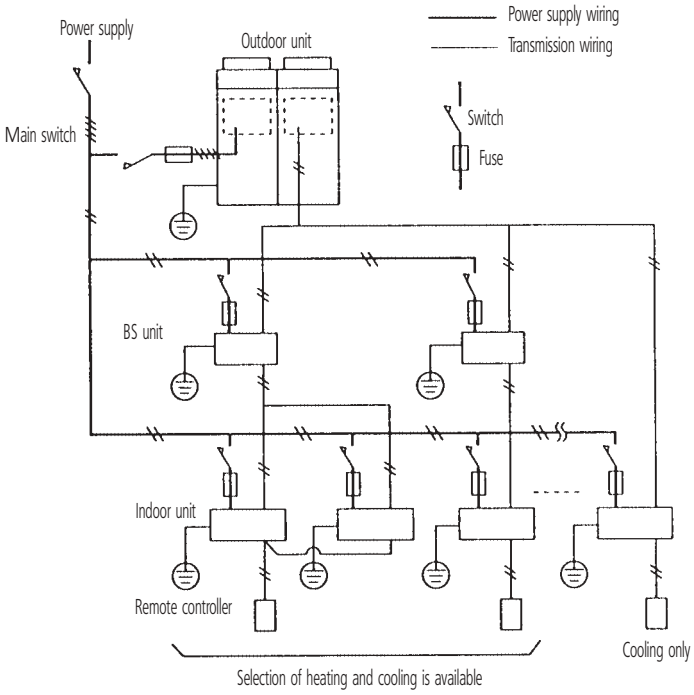
2 Field Wiring

2-2 Heat recovery series

2-2-1 General instructions

- All wiring components, parts which will be obtained locally and materials must comply with the applicable standards of the country and the region.
- Use copper conductors only.
- Follw the schematic attached to the unit for details on wiring.
- The electric work must be executed entirely by the authorized electricians.
- The attached gist of wiring gives only an outline and does not refer to any further details on the actual installation work.
- Install the main switch that can interrupt all the power sources in an integrated manner because this system consists of the equipment utilizing the multiple power sources.
- Be sure to install the switch and the fuse to the power line of each equipment.
- Connect the wires tightly and with no force upon the terminals. Dress the wires so that the covers and other related parts do not get loose. If poorly connected or loosely placed, an overheat, electric shock or fire may result.
- Unit shall be grounded in compliance with the applicable local and national codes.

2-2-2 Example for the whole system



2-2-3 Specifications for field supplied fuses and wire

Model	Power supply wiring			Transmission wiring	
	Field fuse	Wire	Size	Wire	Size
RSEY8K	30A	H05V V-U5G	Note 1	Sheated wire (2 wire)	0.75 - 1.25 mm^2
RSEY10K	35A				

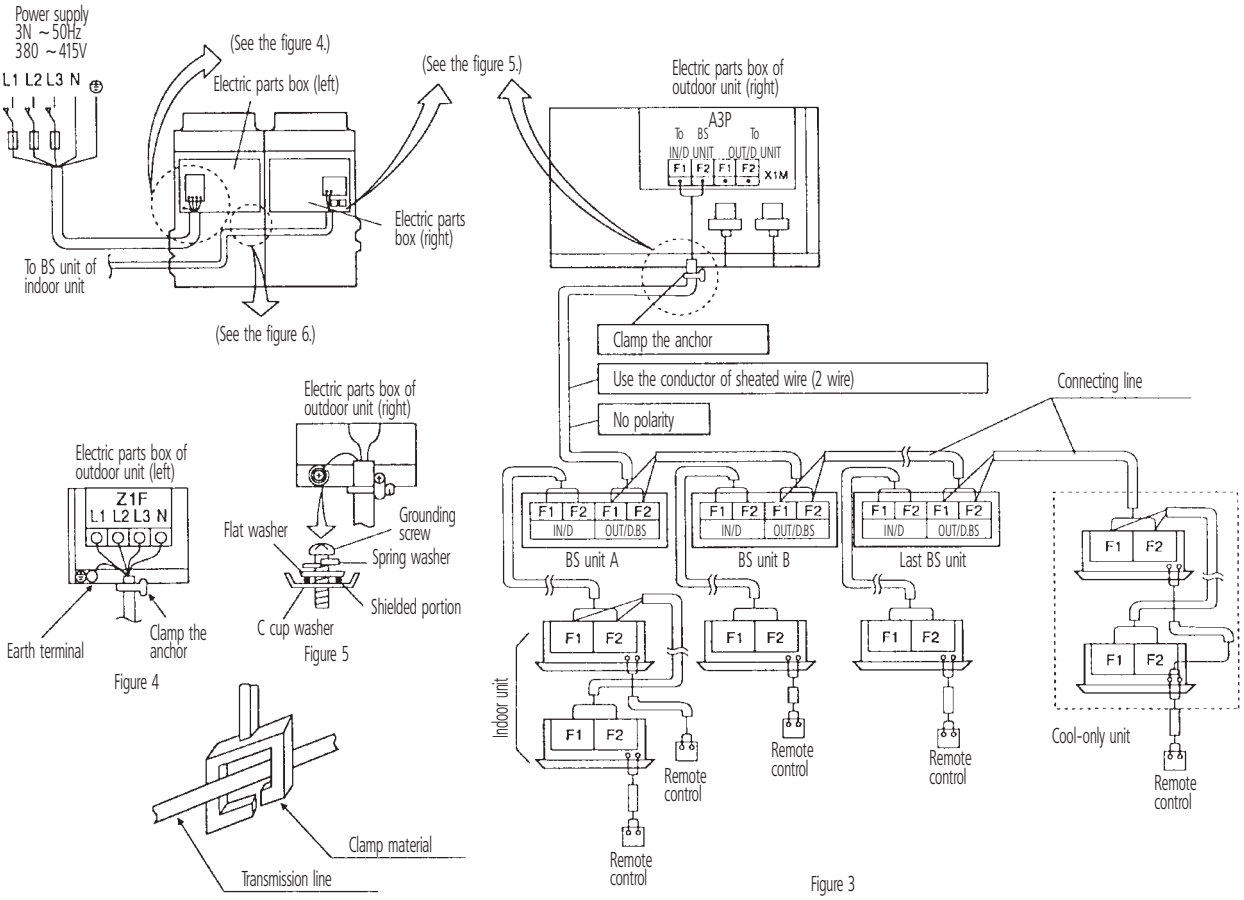
NOTE

1 Select the particular size of electrical wire for power supply wiring in accordance with the standards of the given nation and region.

2 Field Wiring

2-2 Heat recovery series

2-2-4 Gist of field line connection



NOTES

1 Be sure to keep the power supply wiring away from the transmission wiring.
2 No sagging of transmission line as shown in the figure 6 by always clamping them together.
3 No contact of line with refrigerant piping.

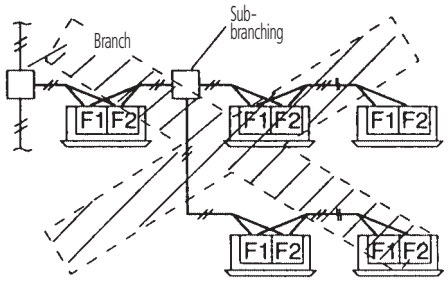
2-2-5 Example of transmission line connection

- Connect the output terminal F1 and F2 of the terminal block (X1M) on the PC board of outdoor unit with the input terminal F1 and F2 of the first BS unit A. (See the figure 3.)
- In case of the indoor unit connect as the cool-only unit, it wire the terminal 

of the last BS unit.

NOTES

1 Be sure to follow limits below. If the unit-to-unit cables are beyond these limits, it may result in malfunction of transmission.
Max wiring length: 1000m
Total wiring length: 2000m
Max branches No. of branches: 16
2 Up to 16 branches are possible for unit-to-unit cabling. No branching is allowed after branching.



- Never connect the power supply to the unit-to-unit cabling terminal block. Otherwise the entire system may break down.

2 Field Wiring

2-2 Heat recovery series

2-2-6 Gist of picking power line and transmission line

- Be sure to let the power supply wiring and the transmission wiring pass through the conduit tube as shown in the right figure.
- Pick the power supply wiring from the upper position or the front position on the flank of the main unit or a knock out hole to made in the unit button board. Pick the power supply wiring, as shown in the figure 9, with the attached wiring board if it is picked from the front position.
- Pick the transmission wiring from the middle position of the main unit or from the front position. Pick the transmission wiring after binding it to the piping with finishing tape if it is picked from the front position.

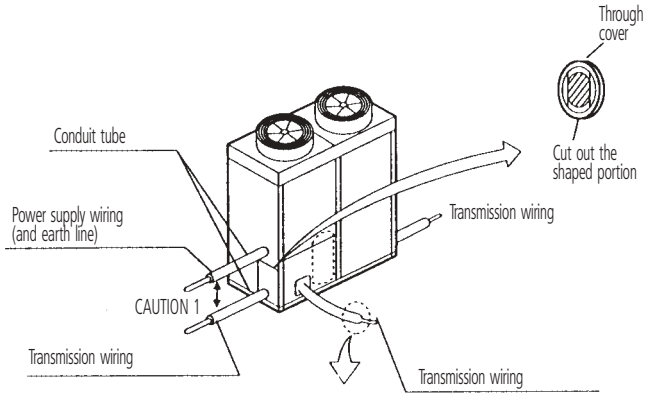


Figure 7

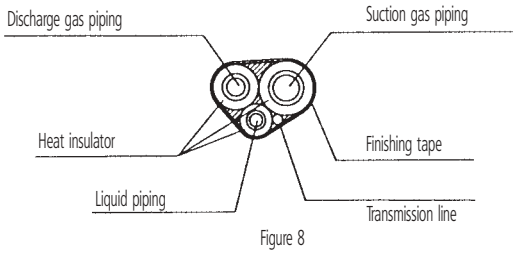


Figure 8

NOTES

1 Be sure to keep the power supply wiring and transmission wiring apart from each other.
2 No sagging of transmission wirings as shown in the figure 7 by always clamping together.
No contact of line with refrigerant piping.

2-2-7 Gist of picking power line and transmission line

- Remove the front plate (lower), and punch a hole in the knock hole: then, cut it off all the way to the slit. (knock hole in the front plate)
- Apply the sealing pad the line installation plate.
- Install the line installation plate to the front side of the side plate (left) with the attached screw.

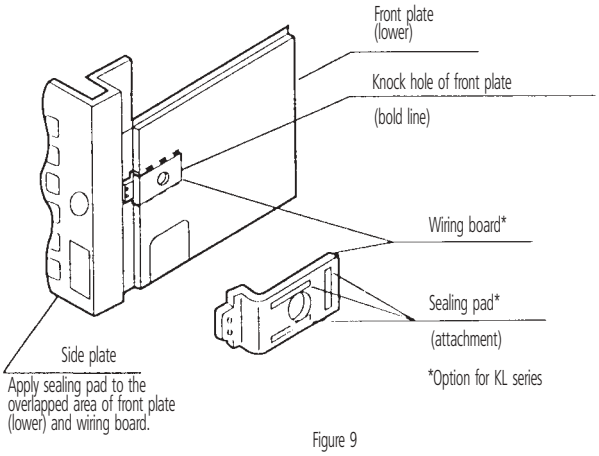


Figure 9

2 Field Wiring

2-3 VRV plus

2-3-1 General instructions

- All field wiring and components must be installed and maintenanced by a licensed electrician and must comply with relevant local and national regulations.
- The field wiring must be carried out in accordance with the wiring diagrams and instructions given below.
- Be sure to use a dedicated power circuit. Never use a power supply shared by another appliance.
- Use copper conductors only.
- When using the adaptor for sequential start, refer to chapter "Examples".
- For connection wiring to outdoor-outdoor transmission F1-F2, outdoor-indoor transmission F1-F2, refer to chapter "Examples".
- For connection wiring to the central remote controller, refer to the installation manual of the central remote controller.
- Use insulated wire for the power cord.

Power circuit and cable requirements

A power circuit (See table below) must be provided for connection of the unit. This circuit must be protected with the required safety devices, i.e. a main switch, a slow blow fuse on each phase and an earth leak detector.

	Phase and frequency	Voltage	Recommended fuses	Transmission
RSXYP16	3N~50Hz	380-415V	45A	0.75-1.25mm^2
RSXYP18	3N~50Hz	380-415V	50A	0.75-1.25mm^2
RSXYP20	3N~50Hz	380-415V	60A	0.75-1.25mm^2
RSXYP24	3N~50Hz	380-415V	60A	0.75-1.25mm^2
RSXYP26	3N~50Hz	380-415V	70A	0.75-1.25mm^2
RSXYP28	3N~50Hz	380-415V	70A	0.75-1.25mm^2
RSXYP30	3N~50Hz	380-415V	70A	0.75-1.25mm^2

When using residual current operated circuit breakers, be sure to use a high-speed type 200mA rated residual operating current.

- Select the power supply cable in accordance with relevant local and national regulations.
- Make sure to connect the power source wire to the power source terminal block and to clamp it as shown in figure 19, chapter "Field line connection".
- As this unit is equipped with an inverter, installing a phase advancing capacitor not only will deteriorate power factor improvement effect, but also may cause capacitor abnormal heating accident due to high-frequency waves. Therefore, never install a phase advancing capacitor.
- Keep power imbalance within 2% of the supply rating.
  1. Large imbalance will shorten the life of the smoothing capacitor.
  2. As a protective measure, the product will stop operating and an error indication will be made, when power imbalance exceeds 4% of the supply rating.
- Follow the "electrical wiring diagram" when carrying out any electrical wiring.
- Only proceed with wiring work after blocking off all power.
- Always ground wires. (In accordance with national regulations of the pertinent country.)
- Do not connect the ground wire to gas pipes, sewage pipes, lightning rods, or telephone ground wires.
  - Gas pipes can explode or catch fire if there is a gas leak.
  - Sewage pipes: no grounding effect is possible if hard plastic piping is used.
  - Telephone ground wires and lightning rods: dangerous when struck by lightning due to abnormal rise in electrical potential in the grounding.
  - This unit uses and inverter, and therefore generates noise which will have to be reduced to avoid interfering with other devices. The outer casing of the product may take on an electrical charge due to leaked electrical current, which will have to be discharged with the grounding.
- Be sure to install an earth leak detector. (One that can handle higher harmonics.)
- This unit uses an inverter, which means that an earth leak detector capable handling high harmonics in order to prevent malfunctioning of the earth leak detector itself.)
- Earth leak detector which are especially for protecting groundfaults should be used in conjunction with main switch or fuse for use with wiring.
- This unit has a negative phase protection circuit. (If it operates, only operate the unit after correcting the wiring.)

2 Field Wiring

2-3 VRV plus

2-3-2 System Example

1. Field power supply
2. Main switch
3. Earth leak detector
4. Fuse
5. Cool/heat selector
6. Remote control

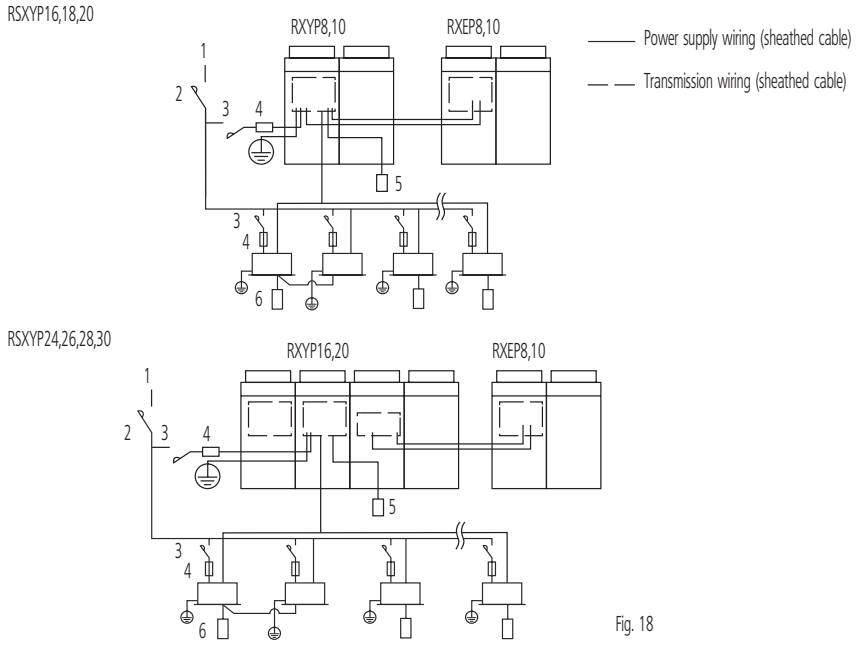


Fig. 18

2-3-3 Field line connection

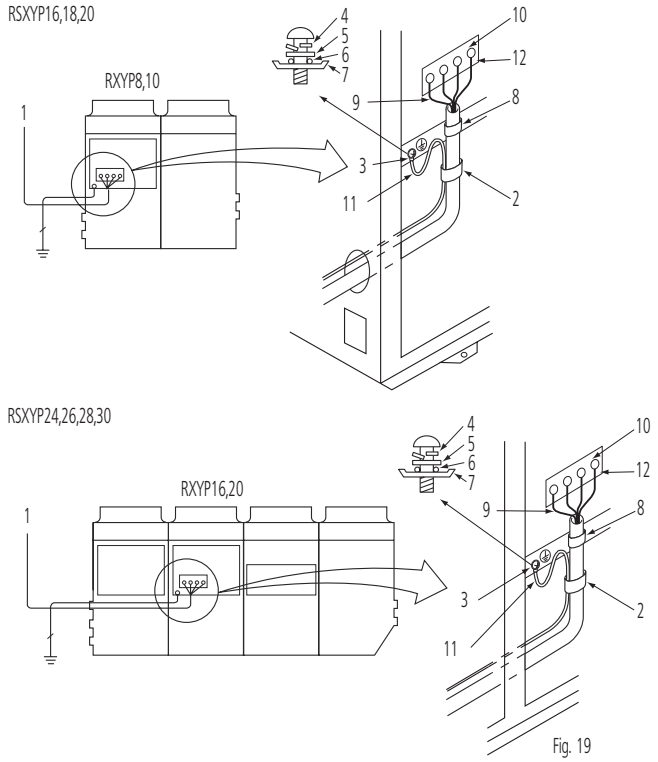


Fig. 19

L1, L2, L3, N-phase of the power cord should be clamped to the safety catch using the included clamp material.

The green and yellow striped wrapped wires should be used for grounding.

1. field power supply
2. clamp the grounding wire with power supply
3. grounding screw
4. spring washer
5. flat washer
6. earth wire
7. C cup washer
8. Fix the power cord with the included clamp material to the safety catch.
9. Wiring sleeve
10. Terminal board
11. Grounding wire
12. Attach the insulating sleeve.

2 Field Wiring

2-3 VRV plus

2-3-4 Field line connection between main unit (RXYP-) and sub unit (RXEP-)

NOTES

1 In the event that the main unit and the sub unit are separated by 1000 mm or more, the attached cables cannot be used. The wiring between the outdoor units should be connected by extending the attached cable using the included connectors.

2 The connector must be wired to be inside the switch box.

RSXYP16,18,20 (Refer to figure 20)

1. RXYP8,10 (main unit)
2. RXEP8,10 (sub unit)
3. Power supply
4. Branch wiring between outdoor units (high voltage)
5. Branch wiring between outdoor units (low voltage)
6. insulation material
7. gas line
8. cable (high voltage)
9. insulation material
10. liquid line
11. cable (low voltage)
12. RXYP (main unit) Switch box
13. RXYP (main unit) Inverter box
14. RXEP (sub-unit)
15. Fix to the safety catch.
16. Connect the ground wire (green/yellow) to the ground terminal
17. Extended wiring (7000 mm or less)
    (Sheathed cable or 0.75 mm2 cables)
18. Divide the low voltage wire from the high voltage wire using the wire clip on the bottom of the inverter box
19. Always separate the high voltage wiring from the low voltage wiring in the branch wiring
20. 30 mm or more
21. Connection binder

RSXYP16,18,20

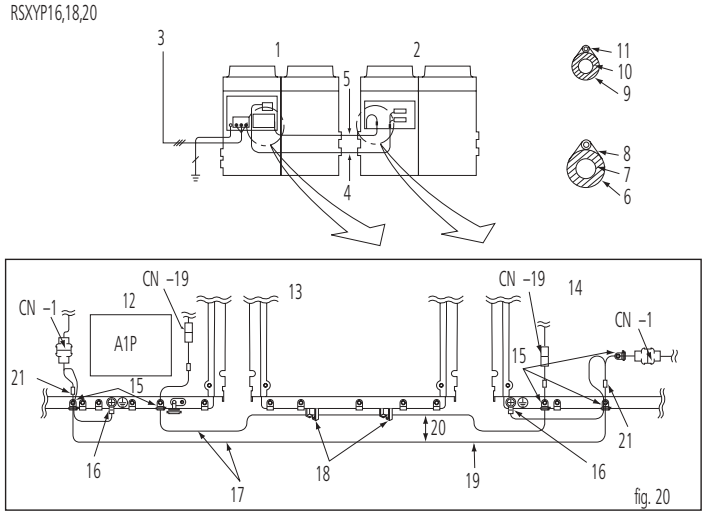


fig. 20

2 Field Wiring

2-3 VRV plus

2-3-4 Field line connection between main unit (RXYP-) and sub unit (RXEP-)

RSXYP24,26,28,30

1. RXYP16,20 (main unit)
2. RXEP8,10 (sub unit)
3. Power supply
4. Branch wiring between outdoor units (high voltage)
5. Branch wiring between outdoor units (low voltage)
6. insulation material
7. gas line
8. cable (high voltage)
9. insulation material
10. liquid line
11. cable (low voltage)
12. RXYP (main unit) Switch Box
13. RXEP (sub-unit) Switch box
14. Connect the ground wire (green/yellow) to the ground terminal
    Extended wiring (7000 mm or less)
    (Sheathed cable or 0.75 mm2 cables)

    Always separate the high voltage wiring from the low voltage wiring in the branch wiring
15. Fix to safety catch
16. Connection binder
17. 30mm or more

RSXYP24,26,28,30

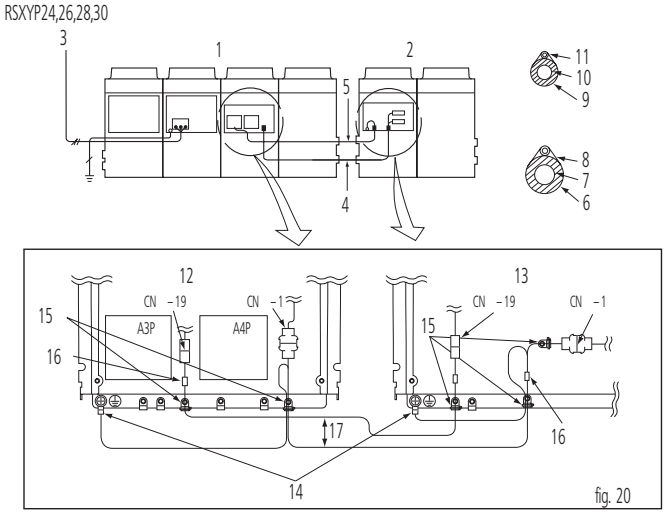


fig. 20

2 Field Wiring

2-3 VRV plus

2-3-5 Field line connection: transmission wiring and cool/heat selection

1. Switch box (main unit)
2. Fix to the safety catch using the attached clamp material
3. Attached cable (between main and sub units)

RXYP 8, 10, 16, 20

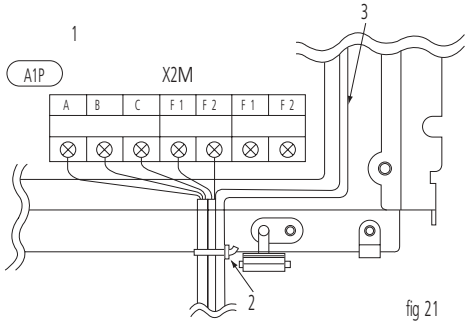


fig 21

2-3-6 Example of performing cool/heat with cool/heat selector

1. Cool/heat selector (optional for heat pump unit only)
2. Outdoor unit P.C. board (A1P)
3. Take care of the polarity
4. Use the conductor of sheathed wire (2 wire) (no polarity)
5. Terminal board (field supply)
6. Indoor unit

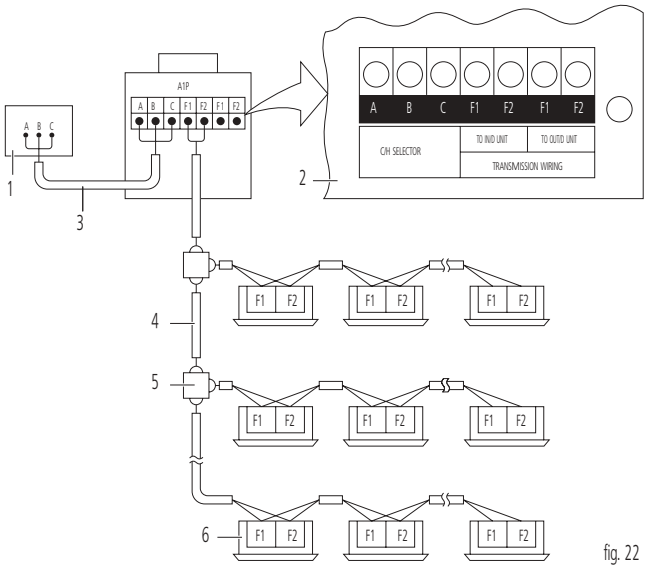


fig. 22

2 Field Wiring

2-3 VRV plus

2-3-7 Example of performing cool/heat setting of two or more outdoor units in block with cool/heat selector

- For the wiring shown in figure 22, be sure to use 0.75-1.25 mm^2 vinyl cords with sheath or cables (two-core). (Three-core cables can be used only for the cool/heat selector.) (Insulated thickness: 1mm or more)
- The wires shown in figure 22 are field supply.

NOTES

Be sure to follow the limits below. If the unit-to-unit cables are beyond these limits, it may result in malfunction of transmission.
Maximum wiring length: 1000m
Total wiring length: 2000m
Max branches No. of branches: 16
Up to 16 branches are possible for unit-to unit cabling. No branching is allowed after branching.

1. Branch
2. Subbranching

Never connect the power supply to unit-to-unit cabling terminal block. Otherwise the entire system may break down.

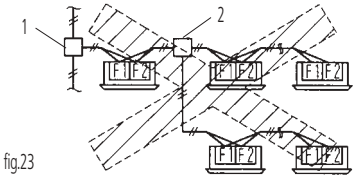


fig.23

2-3-8 Setting the cool/heat operation

1. Performing cool/heat setting with the remote controller connected to the indoor unit.

   Keep the cool/heat selector switch (SS1) on the outdoor unit PC board (A1P) at the factory setting position IN/D UNIT.

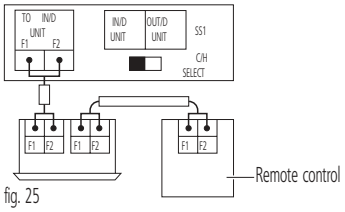


fig. 25

2. Performing cool/heat setting with the cool/heat selector.

   Connect the cool/heat selector remote controller (optional) to the A/B/C terminals and set the cool/heat selector switch (SS1) on the outdoor unit PC board (A1P) to OUT/D UNIT.

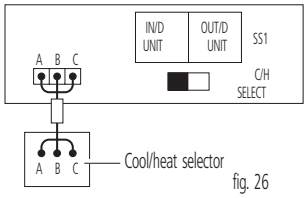


fig. 26

NOTES

For low-noise operation, it is necessary to get the optional "External control adaptor for outdoor unit".

For details, see the installation manual attached to the adaptor.

2 Field Wiring

2-3 VRV plus

2-3-9 Picking power line and transmission line

- Be sure to let the power line and the transmission line pass through a conduit hole.
- Pick the power line from the upper hole on the left side plate, from the front position of the main unit (through the conduit hole of the wiring mounting plate - optional parts) or from a knock out hole to be made in the unit's bottom plate.

RXYP16,18,20

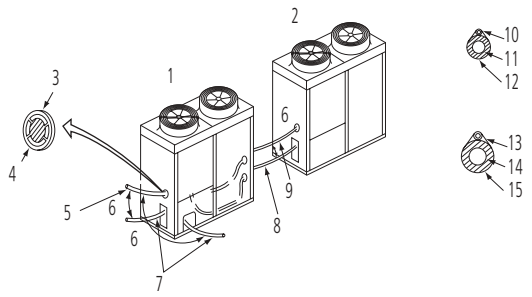
1. RXYP8,10 (main unit)
2. RXEP8,10 (sub unit)
3. Through -slot cover
4. Cut out the diagonal line area
5. Power cord
6. Separate
7. Branch wiring between indoor and outdoor units.
8. Branch wiring between outdoor units (high voltage)
9. Branch wiring between outdoor units (low voltage)
10. cable (low voltage)
11. liquid line
12. insulation material
13. cable (high voltage)
14. gas line
15. insulation material

RXYP24,26,28,30

1. RXYP16,20 (main unit)

2-15. Same as RXYP16,18,20

RSXYP16,18,20



RSXYP24,26,28,30

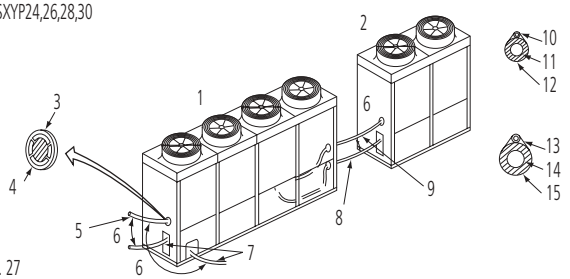


fig. 27

- If you pick the power line from the front position of the unit, proceed as follows and refer to figure 28:

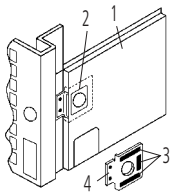


fig. 28

- Remove the lower frontplate (1), punch a hole in the knock hole and cut the hole (2) all the way to the slit.
- Attach the 3 sealing pads (optional parts) (3) on the wiring mounting plate (optional parts) (4) corresponding to the over-lapped area of the front plate.
- Install the wiring mounting plate to the front side of the side plate with the 2 delivered screws.
- Pick the transmission line from the middle positioned conduit hole on the left side plate, or from the front position of the main unit (after binding it to the piping with finishing tape as in figure 29).

1. liquid side pipe
2. gas side pipe
3. pipe heat insulation
4. transmission line
5. finishing tape

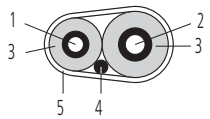


fig. 29

NOTE

Be sure to keep the power line and transmission line apart from each other.
Be careful about polarity of the transmission line.
Make sure that the transmission line is clamped as shown in the figure in chapter "Field line connection".
Check that wiring lines do not make contact with refrigerant piping.
Firmly close the lid and arrange the electrical wires so as to prevent the lid or other parts from coming loose.
When you don't use a wire conduit, be sure to protect the wires with vinyl tubes etc, to prevent the edge of the knock-out hole from cutting the wires.

2

VRV™ Systems

ISO14001 assures an effective environmental management system in order to help protect human health and the environment from the potential impact of our activities, products and services and to assist in maintaining and improving the quality of the environment.

Daikin units comply with the European regulations that guarantee the safety of the product.

Daikin Europe N.V. is approved by LRQA for its Quality Management System in accordance with the ISO9001 standard. ISO9001 pertains to quality assurance regarding design, development, manufacturing as well as to services related to the product.

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

Specifications are subject to change without prior notice

DAIKIN EUROPE N.V.

Zandvoordestraat 300
B-8400 Ostend - Belgium
Internet: http://www.daikineurope.com

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Prepared in Belgium by Vanmelle

Freshen up your air

VENTILATION
CATALOGUE

Benefits for

building owners

Decreasing the energy costs of a building while, at the same time, maintaining or improving the air quality is our objective. We achieve this via high-efficiency heat recovery ventilation to reduce the loading on the air conditioning, combined with free cooling from the introduction of fresh outdoor air. Optional CO_2 sensors to ensure that over-ventilation does not occur while maintaining indoor comfort high.

end users

High-quality air is essential for peak performance and pleasant environmental conditions. That means introducing fresh air with the correct level of humidity and necessary filtration to remove dust and other suspended particles which can cause respiratory issues or transmit odours. It also means ensuring the correct balance of CO_2 and oxygen guaranteed by the optional CO_2 sensors.

design offices & consultants

Part of the Daikin 'Total Solution', all components are supplied by Daikin thus ensuring seamless integration and maximum flexibility. The wide range of units, from large air handling units to small ventilation ensure there is a perfect solution to meet the individual customer's needs.

installers

As a result of the compact designs and modular assembly, shorter installation times are the norm. And, since all components of the system are supplied by Daikin, installers can be certain that all components will and work seamlessly together, reducing overall installation and configuration time.

Ventilation and air purification

Daikin ventilation and air purification

Fresh air is vital to our quality of life and well being. But as buildings become more airtight, fresh air circulation is much reduced. Daikin offers a variety of ventilation, air purification and large scale air handling solutions to help provide a fresh, healthy and comfortable environment in offices, hotels, stores and other commercial environments.

Why we need fresh air in buildings

As building regulations raise standards in the energy efficient design of buildings, insulation levels become much higher, reducing the heating and cooling demand in buildings. However, stale air can remain trapped and cause:

- Need of oxygen
- Greater risk of allergies
- Odours lingering for longer
- Increased condensation causing mould

VENTILATION

Daikin commercial ventilation systems provide outdoor fresh air, remove stale air and balance the humidity within a building. This all helps to create a clean and comfortable environment that enhances the well-being of building users. Ventilation provides free cooling using fresh outside air. The option of heat recovery from within the building is also available to provide the highest levels of energy efficiency.

Save energy with heat recovery

The beauty of Daikin commercial ventilation systems is that they can use heat reclaimed from the stale air being extracted from buildings to heat the incoming clean air to a comfortable temperature. This reduces the load on the air conditioning system, delivering 40% energy savings compared with introducing unheated fresh air into a building.

INTEGRATED VENTILATION

Ventilation can be integrated with Daikin's cooling and heating systems, for simplified control of the entire system. By including ventilation as part of a complete climate control solution, it is possible to manage up to 50% of a building's energy use - delivering huge potential savings in running costs and carbon emissions.

Which system offers me the best solution?

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 both Sky Air and VRV systems themselves.

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 air conditioning system up to 40% 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 indoor air conditioning fan coil units and an outdoor air treatment unit can be connected to the same refrigerant line.

DAIKIN AIR HANDLING UNITS COMBINED WITH CONDENSING UNITS

For small, medium and large commercial spaces, we offer a range of R-410A inverter condensing units that connect plug & play to our air handling units. This approach combines the high efficiency of our ERQ and VRV units with the fully customisable Daikin air handling units, resulting in a simple, reliable design for **optimum control of indoor air quality and maximum efficiency**.

AIR PURIFIERS

Daikin air purifiers utilise the very latest technology to eliminate potentially harmful agents from the air. They deliver superior performance with silent operation, to improve indoor air quality and **create a healthier environment**.

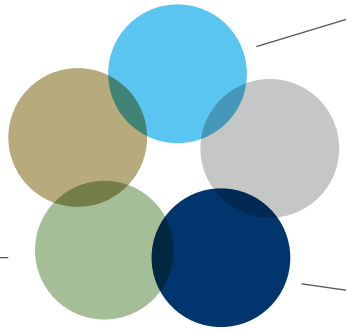
OVERVIEW VENTILATION RANGE

Ventilation

provision of fresh air

Air processing

heats or cools incoming fresh air, maximising comfort and minimizing the load on the air conditioning installation



Humidification

optimise the balance between indoor and outdoor humidity

Heat recovery

recovers heat and moisture from the outgoing air to maximise comfort & efficiency

Filtration

Removes dust, pollution and odours from the air

Air flow rate (m³/h)

Type	name	Components of indoor air quality		0	200	400	600	800	1,000	1,500	2,000	4,000	6,000	8,000	124,000
HEAT RECLAIM VENTILATION	VAM-FA/FB	› Ventilation › Heat recovery													
	VKM-GB	› Ventilation › Heat recovery › Air processing													
	VKM-GBM	› Ventilation › Heat recovery › Air processing › Humidification													
OUTDOOR AIR PROCESSING UNIT[1]	FXMQ-MF	› Ventilation › Air processing													
AIR HANDLING UNITS	DX total fresh air package	› Ventilation › Heat recovery › Air processing › Humidification › Filtration												(3)	
AIR PURIFIERS	MC70L	› Filtration													
	MCK75J	› Filtration › Humidification													

[1] Not connectable to VRVIII-S (RXYSQ-PAV, RXYSQ-PAY)

[2] Air flow rate is a calculated indication only, based on the following values: heating capacity EKEXV-kit * 200m³/h

[3] Daikin AHU connected to Daikin chiller solution

Table of contents

What's new?

All ventilation units fully eco design compliant

From 01/01/2013 all ventilation units with a fan from 125 W to 500 kW have to comply to the LOT 11 Eco design requirements. As market leader Daikin takes the step to comply with all ventilation units to this by adopting DC fan motors in all ventilation units in scope of this legislation, improving their energy efficiency even further.

SEASONAL EFFICIENCY
Smart use of energy

HEAT RECLAIM VENTILATION VAM-FB - VKM-GB(M)

- Better efficiency with DC fan motor
- Optional CO_2 sensor saves energy while maintaining comfort
- Optional M6, F7 and F8 dust filters (for VAM-FB series only)
- Shorter installation time thanks to easy adjustment of nominal air flow rate

ELECTRICAL HEATER FOR VAM

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

DAIKIN AIR HANDLING UNITS D-AHU PROFESSIONAL/EASY/ENERGY

- Total solution with Daikin supply of R-410A inverter condensing units or Chillers
- Plug & play concept: factory mounted DDC controller, control box, expansion valve and all other components designed and configured for connecting Daikin ERQ or VRV condensing units
- Highly efficiency heat recovery AHU recovering up to 80% of heat
- Standard G4 filters and optional filters available up to class F7
- 5 pre-defined AHU packages (from 2,000 to 10,000m^3/h) make selection quick and easy

HRV

Heat reclaim ventilation

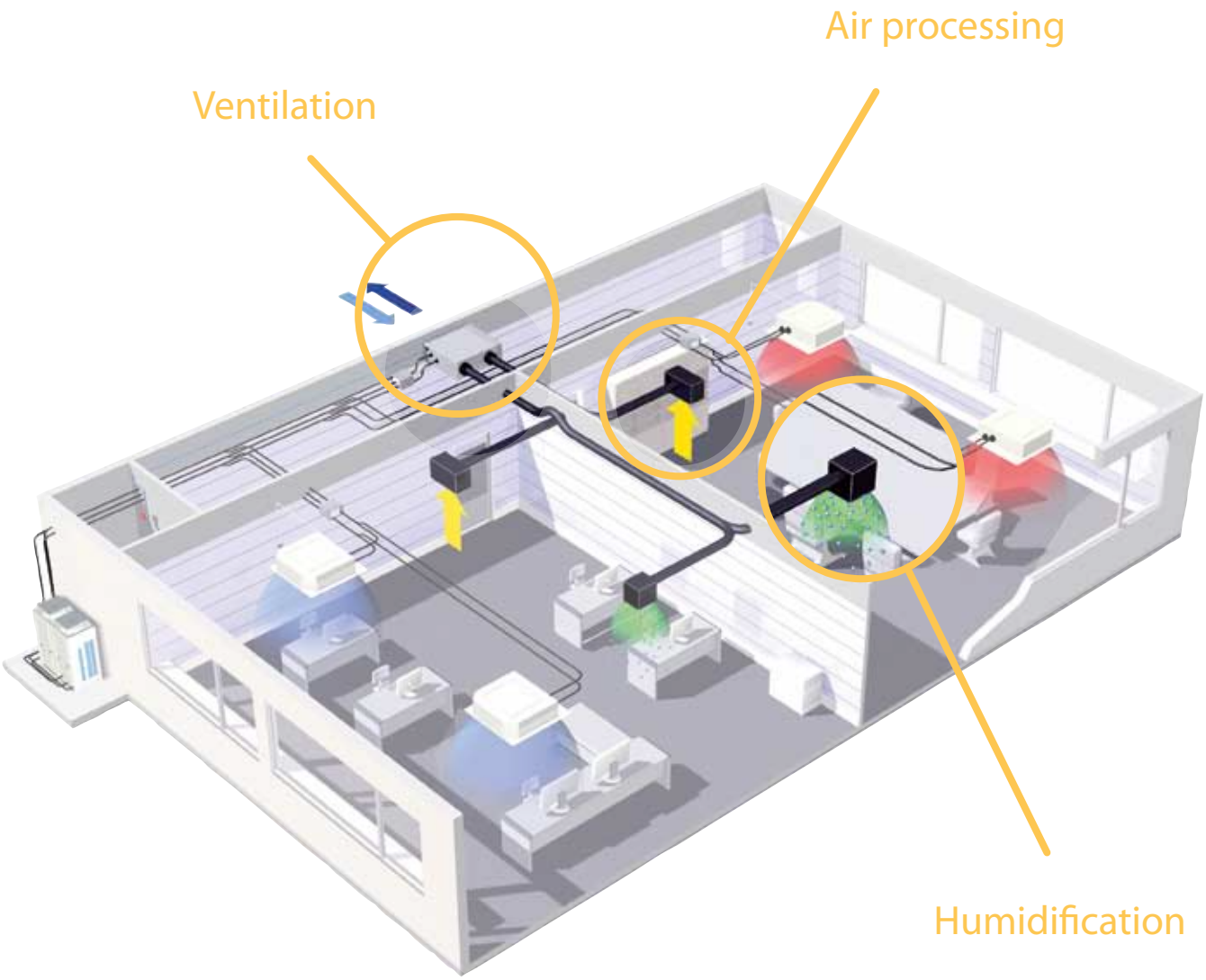
Create a high quality indoor environment

Energy saving ventilation
using indoor heating, cooling and moisture recovery

The Daikin HRV (Heat Reclaim Ventilation) unit recovers heat energy lost through ventilation and maintains a comfortable and clean indoor environment without changes in room temperature. This also reduces the load on the air conditioning system and produces up to 40% saving on energy when compared with introducing unheated fresh air into a building.
In addition to the paper heat exchanger, the current HRV line-up includes models with or without a DX coil and/or humidifier. The DX coil helps to prevent cold draughts on people during the heating and cooling cycle. While the humidifier conditions the incoming fresh air to produce a comfortable indoor humidity level, even during heating. And the optional CO_2 sensors will help maintain a comfortable indoor air quality, while preventing over-ventilation. In addition, the HRV can be locked into Daikin's air conditioning systems (for example, the VRV and Sky Air) and set to automatically switch over to ventilation mode when needed, further increasing energy conservation. The HRV can also be integrated in the air conditioner remote control allowing total control over air conditioning and ventilation via a simple configuration.

Integration

Integrating the HRV with Daikin's Sky Air or VRV air conditioning produces a system that works perfectly together. The automatic controls ensure that the system always operates in the most optimal state. For example, free cooling via the ventilation will be applied where possible and not via the air conditioning.


Air processing
Ventilation
Humidification

High efficiency

Benefits for building owners

ENERGY SAVING VENTILATION VIA HEAT RECOVERY OF BOTH HEAT AND HUMIDITY

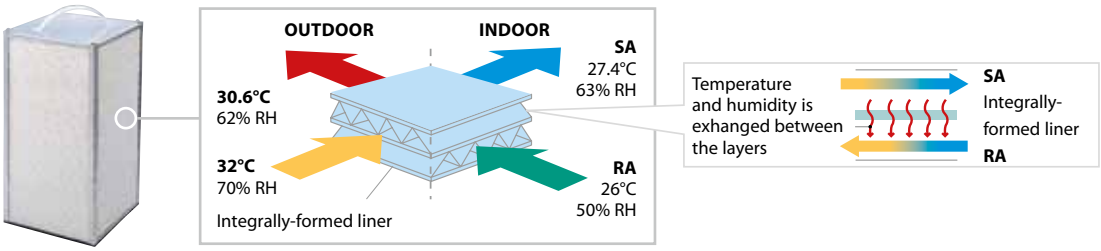
Buildings need ventilation, all year round. However, in traditional ventilation systems, conditioned air from the building is simply expelled, then new unheated air is brought into the building. So a large volume of air is heated up or cooled down unnecessarily, leading to a substantial waste of energy. Daikin's HRV solutions prevent energy being wasted by recovering up to 80% waste heat from the outgoing air, thus offering much greater levels of efficiency, while improving comfort levels too.

Specially developed heat exchange element

The heat exchange element uses a high efficiency paper (HEP) possessing superior moisture absorption and humidifying properties. The heat exchange unit rapidly recovers heat contained in latent heat (vapour). The element is made of a material with flame resistant properties and is treated with an anti-moulding agent.

Operation of the high effiency paper.

Cross flow of air to exchange heat and moisture.



Thanks to the heat and moisture exchange the hot and humid outside air is brought to levels close to indoor conditions saving on the air conditioning runningcost and maintaining comfort.

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

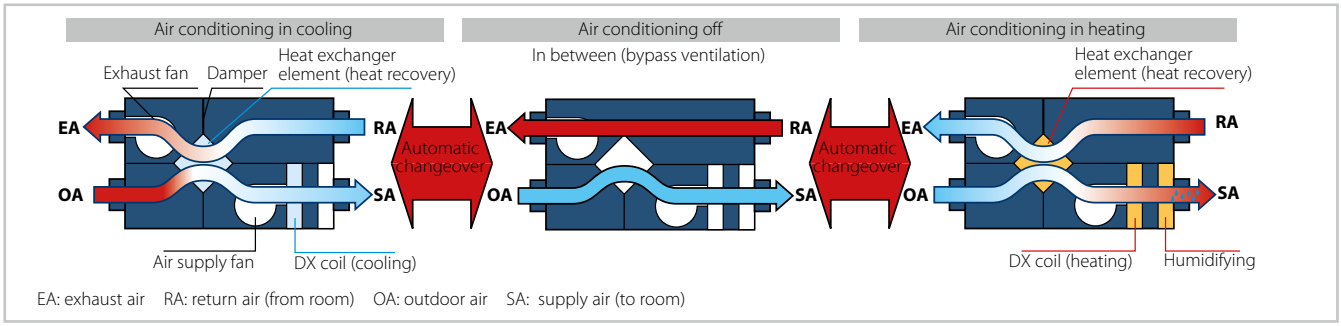
REDUCING THE LOAD ON THE AIR CONDITIONING SYSTEM UP TO 31%

Thanks to the use of heat reclaim ventilation the load on the air conditioning is reduced with approximately 31%.

- 23% by operating in total heat exchange mode (in comparison with normal ventilation fans)
- another 6 % by auto-ventilation mode changeover switching
- a further 2% by pre-cool, pre-heat control (reduces air conditioning load by not running the HRV shortly after the air conditioning is switched on.)

Note: the values mentioned above may vary according to weather and other environmental conditions at the location of the unit's installation

Advantages of integration of ventilation and air conditioning (automatic change over)

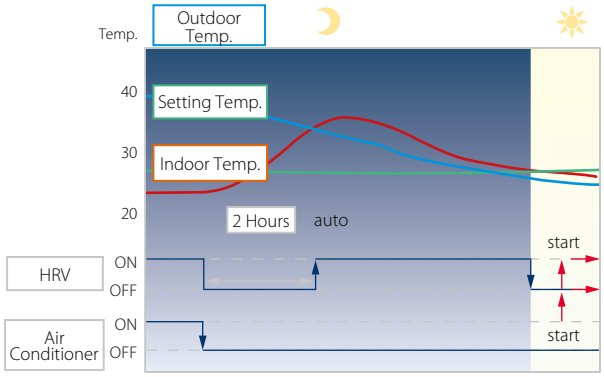


For VKM-GB(M) units

NIGHTTIME FREE COOLING

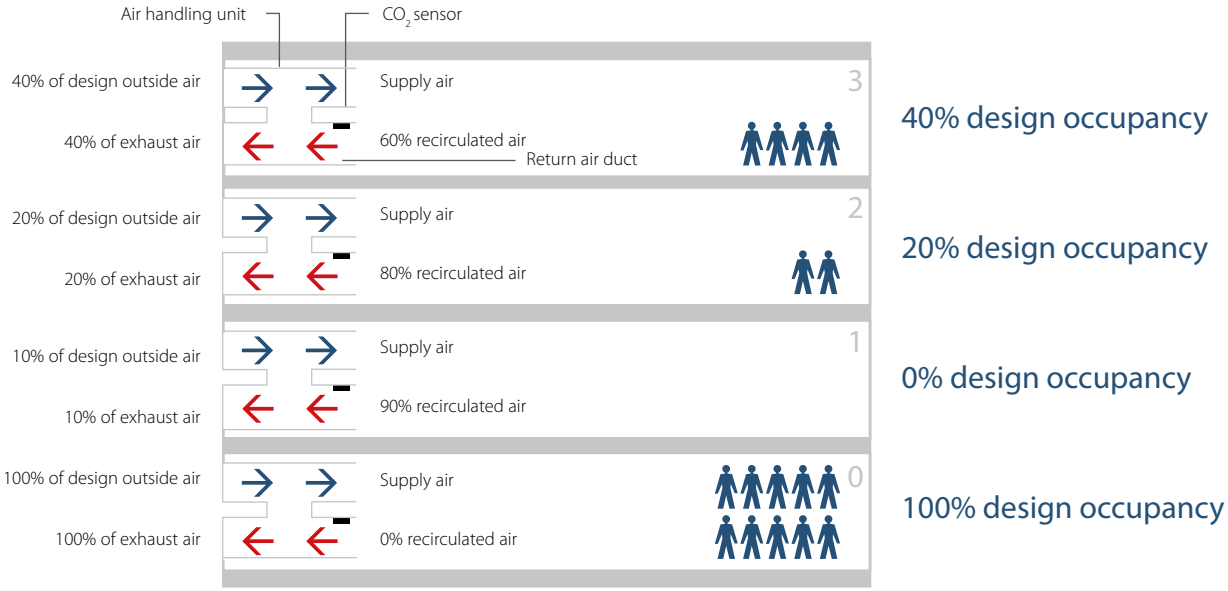
Nighttime free cooling operation is an energy saving function operating at night when the air conditioning is switched off. By ventilating rooms containing office equipment that increases room temperature, night purge reduces the cooling load when air conditioning is switched on in the morning, reducing the daily running costs.

The new VAM-FB series can also perform nighttime free cooling in stand alone operation. The set temperature is a field setting at installation.



Prevent energy losses from over-ventilation while maintaining indoor air quality with optional CO_2 sensor

Enough fresh air is needed to create an enjoyable environment, but ventilating constantly is leading to energy waste. Therefore an optional CO_2 sensor can be installed which switches off the ventilation system when there is enough fresh air in the room, thus saving energy. When the CO_2 levels rise, the ventilation is switched on maintaining air quality at the highest level. As a customer you have the possibility to customize the critical CO_2 levels when and how the ventilation should react (the ventilation system switches on by itself or shifts to a higher fan speed to lower the CO_2 levels).



Using CO_2sensors has the most energy-saving potential in buildings where occupancy fluctuates during a 24-hour period, is unpredictable and peaks at a high level. For example office buildings, government facilities, retail stores and shopping malls, movie theaters, auditoriums, schools, entertainment clubs and nightclubs.

All ventilation units fully eco design compliant

From 01/01/2013 all ventilation units from 125 W to 500 kW have to comply to the LOT 11 Eco design requirements on fan motors. As market leader Daikin takes the step to comply with all ventilation units to this by adopting DC fan motors in all ventilation units in scope of this legislation, improving their energy efficiency even further.

SEASONAL EFFICIENCY
Smart use of energy

Ideal solution for shops, restaurants or offices requiring maximum floor space for furniture, decorations and fittings

Our HRV range of units are not only energy efficient, they also blend in any interior and leave all the maximum of usable floor space. The units are invisible to see and can be installed in service spaces, making service possible while the building is in operation.

High quality indoor air

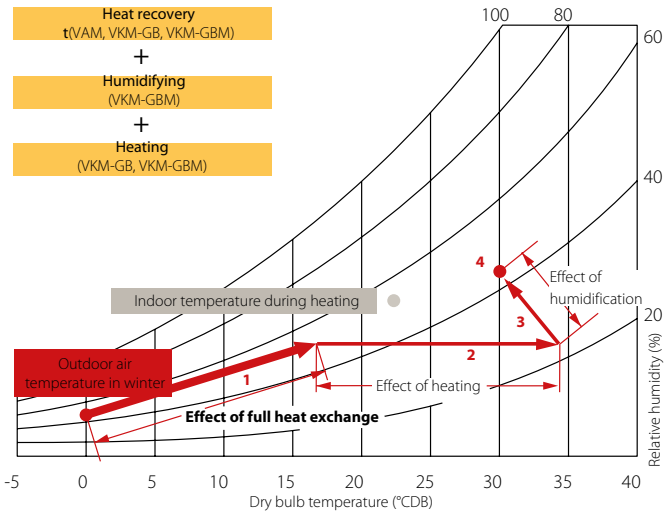
Benefits for end users

CREATING A HIGH QUALITY ENVIRONMENT

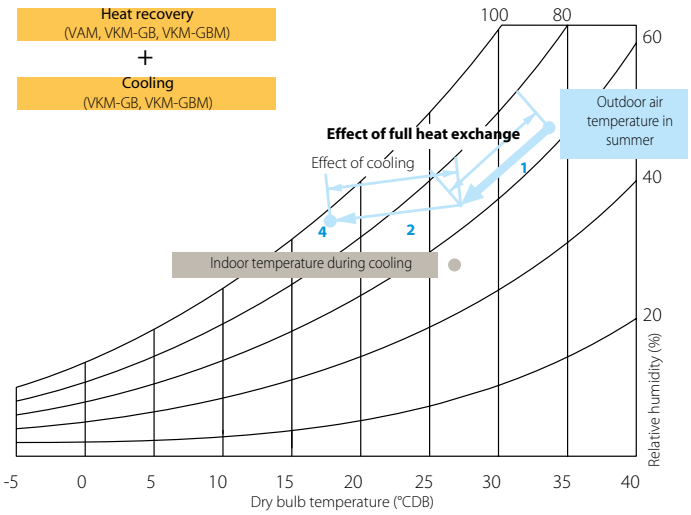
Next to the paper heat exchanger of the VAM the VKM-GB models additionally contain a DX-coil and VKM-GBM both a DX coil and humidifier. The result is the units can ensure the best possible indoor environment.

How do the HRV units work?

In heating

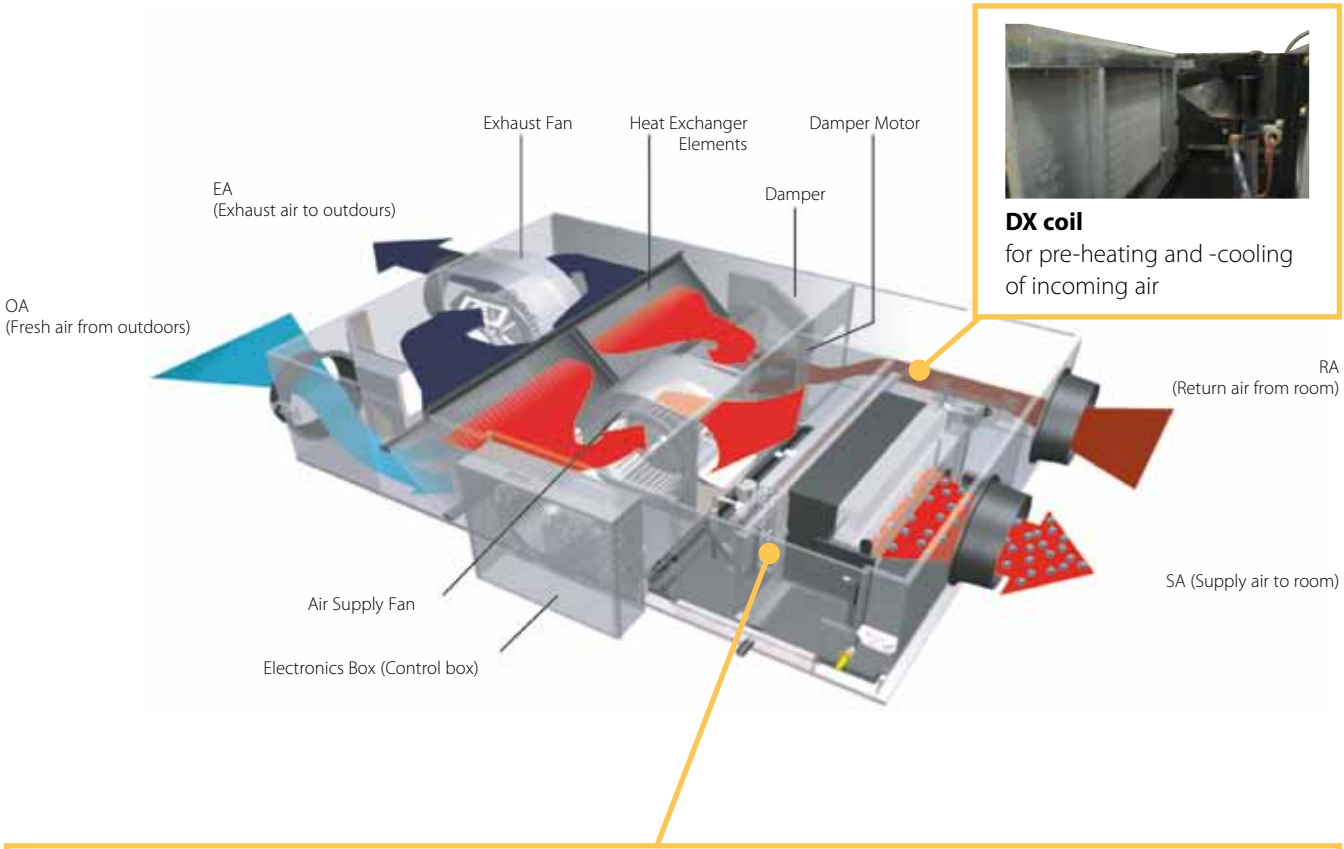


In cooling



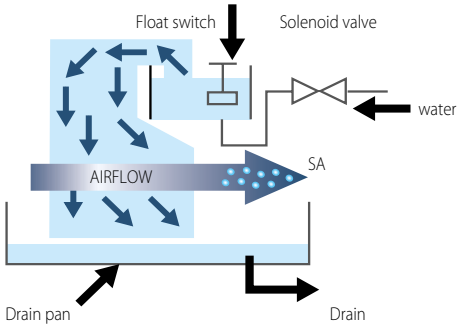
In heating we bring in cold outdoor fresh air and want to avoid cold draught and dry air. This is done in the following way:	In cooling we bring in hot outdoor fresh air and want to prevent additional load on the air conditioning system and too hot indoor temperatures. This is done in the following way:
1. Cold outside air is crossed with hot inside air. In the example the incoming air is heated up from 0 to 16°CDB while keeping the same relative humidity. This is the effect of the heat and moisture exchange.	**1.** Hot outside air is crossed with cold inside air. In the example the incoming air is cooled down from 34 to 27°CDB while keeping the same relative humidity. This is the effect of the heat and moisture exchange.
2. After the heat exchange the DX coil further heats up the air to prevent cold draught. In the example the incoming air is further heated from 16 to 34°CDB	**2.** After the heat exchange the DX coil further cools down the air to prevent hot indoor temperatures and reduce the load on the air conditioning system. In the example the incoming air is further cooled down from 27 to 18°CDB
3. Because of the heating up of the air the relative humidity decreases. To counter negative effects of dry air the air passes the humidifier which adds moisture in case needed. In the example the relative humidity rises from 22 to a comfortable 42%.	**3.** No humidification is needed in cooling as the air is not dried out
4. The end result is incoming fresh air with the same humidity and slightly higher temperature for perfect comfort.	**4.** The end result is incoming fresh air with a slightly lower temperature for perfect comfort.

Operation of humidification and air processing in heating mode (VKM-GBM)



DX coil
for pre-heating and -cooling of incoming air

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.



OPTIONAL MEDIUM AND FINE DUST FILTERS AVAILABLE

M6, F7 and F8 filters are available on the VAM-FB models to meet your customer request or the local legislation.

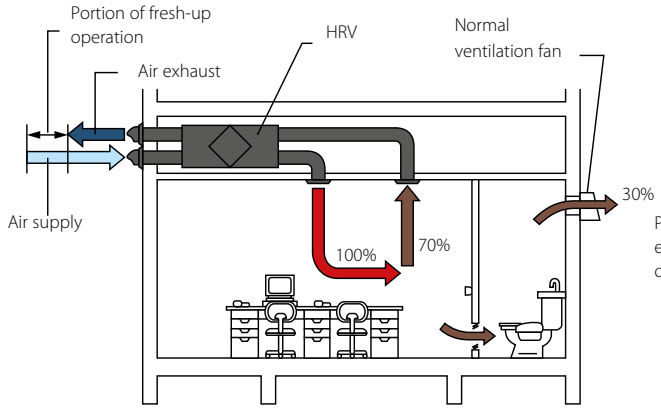
As one has no control of the air quality in the building surroundings, you can rely on one of our dust filters to ensure the best indoor air quality possible.

CAN OPERATE IN OVER- AND UNDERPRESSURE TO PREVENT UNPLEASANT ODOURS

The user can select 2 fresh-up modes via the remote control for a more comfortable air environment.

1. Supply rich mode (overpressure):

A higher air supply than air exhaust maintains proper room pressure to prevent back-flow of toilet/kitchen odours or moisture inflow.

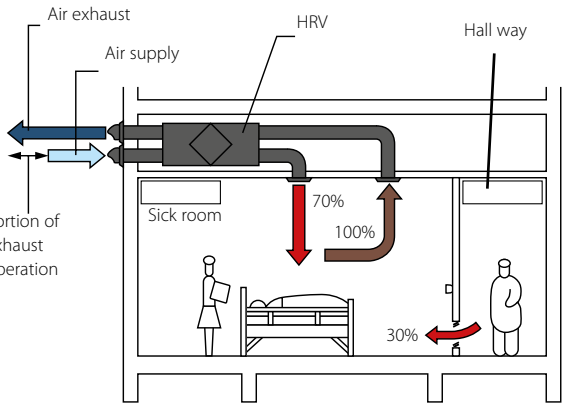


eg. Office

Preventing that toilet odours flow to the office

2. Exhaust fresh-up (underpressure):

A higher exhaust air than air supply decreases room pressure to prevent the leaking of odours or floating bacteria into other rooms.



eg. Hospital

No bacteria can flow from the sick room to the hall way

LOW OPERATION SOUND LEVEL

Continues research by Daikin into reducing operation sound levels has resulted in sound pressure levels down to 20.5dBA (VAM150FA).

Daikin indoor units

DBA	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

25

Benefits for design offices and consultants

TOTAL SOLUTION CONCEPT - INTEGRATED VENTILATION

The integration of ventilation into a total building climate system, such as the VRV system, offers numerous advantages. Daikin supplies all components of the entire system, simplifying its design and presenting an ideal solution for the building itself and a 'one-stop' solution for the client.
As well as design benefits, it also simplifies project follow-up, installation and subsequent commissioning and maintenance since only one party is involved.
Finally, the end user benefits from 'interlocking' ventilation with air conditioner operation by virtue of greatly simplified overall system control.

Note: more information on integrated control can be found in the control systems chapter.

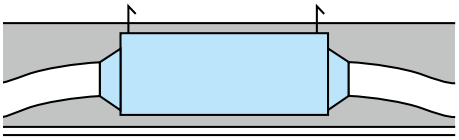
FLEXIBLE INSTALLATION

Slim Design

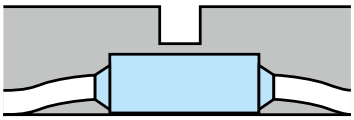
The slim design of the HRV unit enables it to be mounted in narrow ceiling voids and irregularly shaped spaces.

VAM250FA

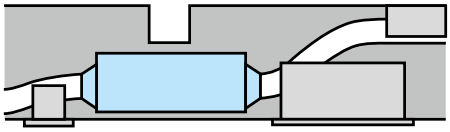
Installation under the floor of a small building



Installation under a beam



Installation in an irregular space

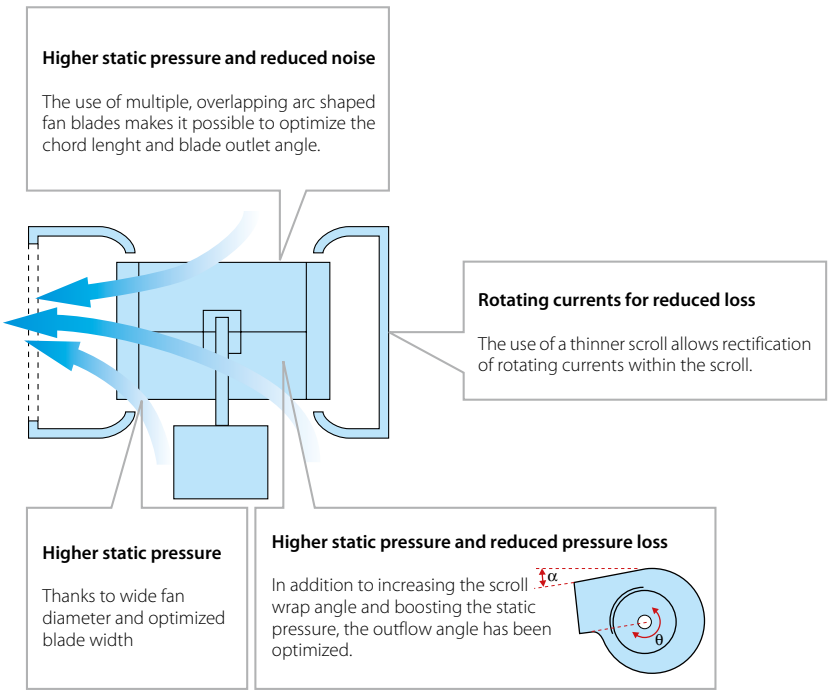


Horizontal or vertical installation

The VAM and VKM units can be installed horizontal in false ceilings for example. However if there are no false ceilings or the space is limited the unit can also be installed vertically in narrow service spaces or behind a wall. In this way the the consultant can focus fully on the design of the building.

HIGH STATIC PRESSURE

External static pressure (ESP) up to 137 Pa facilitates the use with flexible ducts of varying lengths.



WIDE RANGE OF UNITS

The wide Daikin range ensures correct equipment design and sizing.

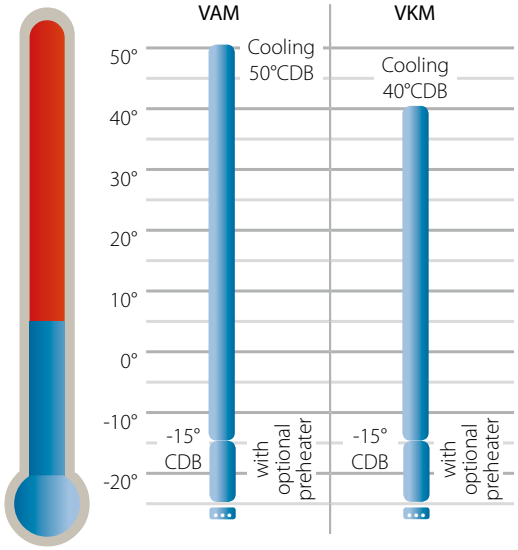
WIDE OPERATION RANGE

The HRV unit can be installed practically anywhere.
The standard operation range (outdoor temperature) is from -15°C to 40°CDB (50°CDB for VAM units) and can be extended down if a Daikin pre-heater is installed.

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

Daikin's supplied electrical heater VH provides a total solution for fresh air and pre-heating.

- Integrated electrical heater concept (no additional accessories required)
- Standard dual flow and temperature sensor
- Flexible setting with adjustable setpoint
- Increased safety with 2 cut-outs: manual & automatic
- BMS integration thanks to:
  - volt free relay or error indication
  - 0-10V DC input for setpoint control

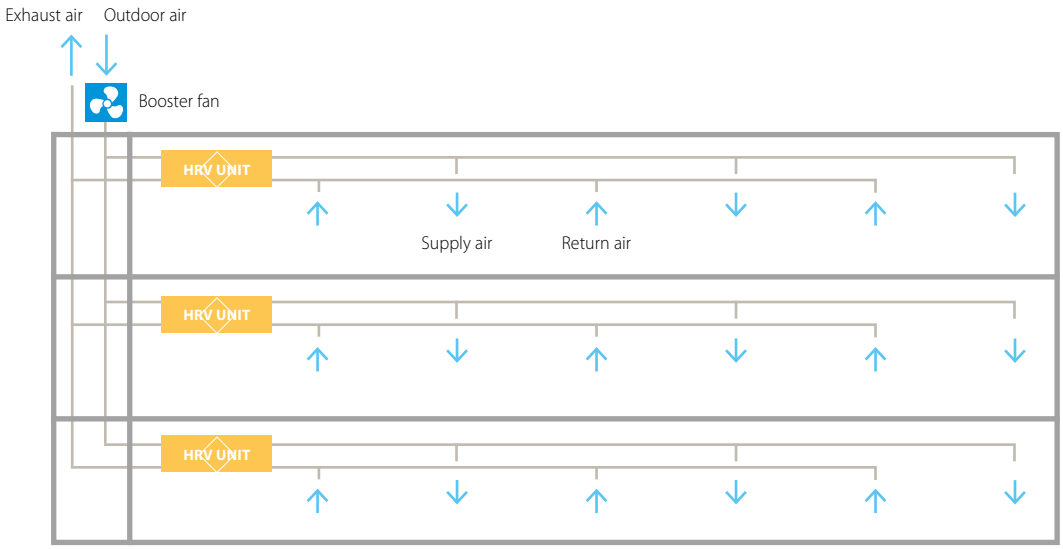


ENSURE THE MOST EFFICIENT SELECTION VIA THE SELECTION SOFTWARE

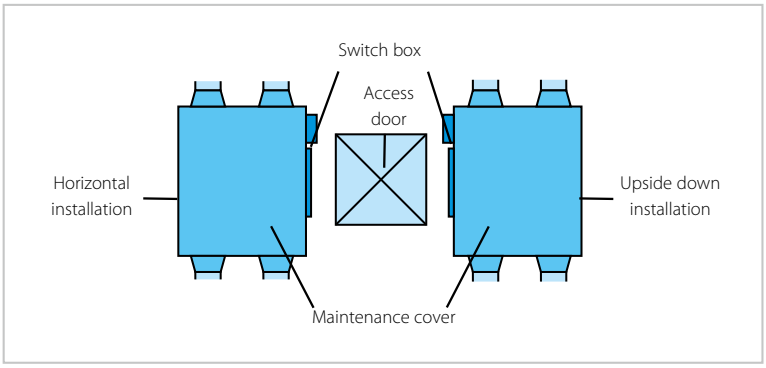
The selection software Daikin supplies enables you to make the most optimum selection in the shortest possible time. The software proposes the best suited unit based upon the climate, building and applied ducting and proposes any needed accessories (electrical heater, …).

CONNECTION TO FIELD SUPPLIED BOOSTER FAN INCREASES FLEXIBILITY EVEN MORE

The connection to a field supplied booster fan allows longer ducting from and away from the HRV unit or allows central ducting to reduce the installation time and space.
Furthermore flexibility is also increased as different combinations of VAM units and booster fans allow the installation to be suited exactly to installation space, selected filters, comfort or sound requirements and energy use.



Benefits for installers



SIMPLE DESIGN AND CONSTRUCTION

The unit can be installed either horizontally or upside down always allowing easy access for inspection and maintenance.
A 450 mm square inspection hatch enables maintenance and heat exchange element replacement to be performed with ease.

NO DRAIN NEEDED

For the VAM-FA/FB models no drain piping is needed, meaning there additional flexibility for the installation of the units.

VAM800FB

Specifications

VENTILATION					VAM150FA	VAM250FA	VAM350FB	VAM500FB	VAM650FB	VAM800FB	VAM1000FB	VAM1500FB	VAM2000FB
Power input - 50Hz	Heat exchange mode	Nom.	Ultra high	kW	0.116	0.141	0.132	0.178	0.196	0.373	0.375	0.828	0.852
	Bypass mode	Nom.	Ultra high	kW	0.116	0.141	0.132	0.178	0.196	0.373	0.375	0.828	0.852
Temperature exchange efficiency - 50Hz	Ultra high			%	74	72	75	74			75		
Enthalpy exchange efficiency - 50Hz	Cooling	Ultra high		%	58		61	58		60	61		
	Heating	Ultra high		%	64		65	62	63	65	66		
Operation mode					Heat exchange mode / Bypass mode / Fresh-up mode								
Heat exchange system					Air to air cross flow total heat (sensible + latent) exchange								
Heat exchange element					Specially processed non-flammable paper								
Dimensions	Unit	HeightxWidthxDepth		mm	285x776x525		301x828x816		364x1,004x868		364x1,004x1,156	726x1,512x868	726x1,512x1,156
Weight	Unit			kg	24		33		52	55	64	131	152
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		93	137	157	137	
Sound pressure level - 50Hz	Heat exchange mode	Ultra high		dBA	27 / 28.5	28 / 29	32	33	34.5	36		39.5	40
	Bypass mode	Ultra high		dBA	27 / 28.5	28 / 29	32	33.5	34.5	36		40.5	40
Operation range	Min.			°CDB	-15								
	Max.			°CDB	50								
	Relative humidity			%	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								
Current	Maximum fuse amps (MFA)			A	15		16						

Total solution for fresh air with Daikin supply of both VAM and electrical heaters

- Increased comfort in low outdoor temperature thanks to the heated outdoor air
- Integrated electrical heater concept (no additional accessories required)
- Standard dual flow and temperature sensor
- Flexible setting with adjustable setpoint
- Increased safety with 2 cut-outs: manual & automatic
- BMS integration thanks to:
  - Volt free relay for error indication
  - 0-10V DC input for setpoint control
- Capacities ranging from 1 to 2.5 kW

VH Electrical heater for VAM

VKM-GB(M)

Heat reclaim ventilation,
air processing and humidification

VKM80-100GB(M)

Specifications

VENTILATION & DX COIL					VKM50GB	VKM80GB	VKM100GB
Power input - 50Hz	Heat exchange mode	Nom.	Ultra high	kW	0.270	0.330	0.410
	Bypass mode	Nom.	Ultra high	kW	0.270	0.330	0.410
Fresh air conditioning load	Cooling			kW	4.71 (1) / 1.91 (2) / 3.5 (3)	7.46 (1) / 2.96 (2) / 5.6 (3)	9.12 (1) / 3.52 (2) / 7.0 (3)
	Heating			kW	5.58 (1) / 2.38 (2) / 3.5 (3)	8.79 (1) / 3.79 (2) / 5.6 (3)	10.69 (1) / 4.39 (2) / 7.0 (3)
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) exchange		
Heat exchange element					Specially processed non-flammable paper		
Dimensions	Unit	HeightxWidthxDepth		mm	387x1,764x832	387x1,764x1,214	
Weight	Unit			kg	94	110	112
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	210		150
Sound pressure level - 50Hz	Heat exchange mode	Ultra high		dBA	39	41.5	41
	Bypass mode	Ultra high		dBA	40	41.5	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		
Refrigerant	Type				-		
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					VKM50GBM	VKM80GBM	VKM100GBM
Power input - 50Hz	Heat exchange mode	Nom.	Ultra high	kW	0.270	0.330	0.410
	Bypass mode	Nom.	Ultra high	kW	0.270	0.330	0.410
Fresh air conditioning load	Cooling			kW	4.71 (1) / 1.91 (2) / 3.5 (3)	7.46 (1) / 2.96 (2) / 5.6 (3)	9.12 (1) / 3.52 (2) / 7.0 (3)
	Heating			kW	5.58 (1) / 2.38 (2) / 3.5 (3)	8.79 (1) / 3.79 (2) / 5.6 (3)	10.69 (1) / 4.39 (2) / 7.0 (3)
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) 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	100	119	123
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	200	205	110
Sound pressure level - 50Hz	Heat exchange mode	Ultra high		dBA	38	40	
	Bypass mode	Ultra high		dBA	39	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		
Refrigerant	Type				R-410A		
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		

Accessories

		VAM150FA	VAM250FA	VAM350FB	VAM500FB	VAM650FB
Dust filters	EN779 Medium M6	-	-	EKAFV50F6	EKAFV50F6	EKAFV80F6
	EN779 Fine F7	-	-	EKAFV50F7	EKAFV50F7	EKAFV80F7
	EN779 Fine F8	-	-	EKAFV50F8	EKAFV50F8	EKAFV80F8
Silencer	Model name	-	-	-	KDDM24B50	KDDM24B100
	Nominal pipe Diameter (mm)	-	-	-	200	200
CO_2 sensor		-	-	BRYMA65	BRYMA65	BRYMA65
VH electrical heater for VAM		VH1B	VH2B	VH2B	VH3B	VH3B

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

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

OTHERS	VAM150-250FA	VAM350-2000FB	VKM-GB(M)
Wiring adaptor for electrical appendices (note 6)	KRP2A51 (note 3)	tbc	tbc
Adaptor PCB for humidifier	KRP50-2 (note 3)	BRP4A50A (note 4/5)	BRP4A50A (note 4/5)
Adaptor PCB for 3rd party heater	BRP4A50	BRP4A50A (note 4/5)	BRP4A50A (note 4/5)
Remote sensor	-	-	-

Notes

(1) Cool/heat selector required for operation

(2) Do not connect the system to DIII-net devices (Intelligent controller, Intelligent Manager, LonWorks interface, BACnet interface…).

(3) Installation box KRP50-2A90 needed for VAM150-250FA.

(4) Fixing plate EKMPVAM additionally needed for VAM1500-2000FB.

(5) 3rd party heater and 3rd party humidifier cannot be combined

(6) For external control and monitoring (ON/OFF control, operation signal, error indication)

	VH ELECTRICAL HEATER FOR VAM
Supply voltage	220/250V ac 50/60 Hz. +/-10%
Output current (maximum)	19A at 40°C (ambient)
Temperature sensor	5k ohms at 25°C (table 502 1T)
Temperature control range	0 to 40°C / (0-10V 0-100%)
Run on timer	Adjustable from 1 to 2 minutes (factory set at 1.5 minutes)
Control fuse	20 X5 mm 250 m A
LED indicators	Power ON - Yellow Heater ON - Red (solid or flashing, indicating pulsed control) Airflow fault - Red
Mounting holes	98mm X 181mm centres 5 mm ø holes
Maximum ambient adjacent to terminal box	35°C (during operation)
Auto high temp. cutout	100°C Pre-set
Man. reset high temp. cutout	125°C Pre-set
Run relay	1A 120V AC or 1A 24V DC
BMS setpoint input	0-10VDC

VH ELECTRICAL HEATER FOR VAM		VH1B	VH2B	VH3B	VH4B	VH4/AB	VH5B
Capacity	kW	1	1	1	1.5	2.5	2.5
Duct diameter	mm	100	150	200	250	250	350
Connectable VAM		VAM150FA	VAM250FA	VAM500FB	VAM800FB	VAM800FB	VAM1500FB
		–	VAM350FB	VAM650FB	VAM1000FB	VAM1000FB	VAM2000FB

preliminary information

VAM800FB	VAM1000FB	VAM1500FB	VAM2000FB	VKM50GB(M)	VKM80GB(M)	VKM100GB(M)
EKAFV80F6	EKAFV100F6	EKAFV100F6 x2	EKAFV100F6 x2	-	-	-
EKAFV80F7	EKAFV100F7	EKAFV100F7 x2	EKAFV100F7 x2	-	-	-
EKAFV80F8	EKAFV100F8	EKAFV100F8 x2	EKAFV100F8 x2	-	-	-
KDDM24B100	KDDM24B100	KDDM24B100 x2	KDDM24B100 x2	-	-	-
250	250	250	250	-	-	-
BRYMA100	BRYMA100	BRYMA200	BRYMA200	BRYMA65	BRYMA100	BRYMA200
VH4B / VH4/AB	VH4B / VH4/AB	VH5B	VH5B	-	-	-

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	-	-	-

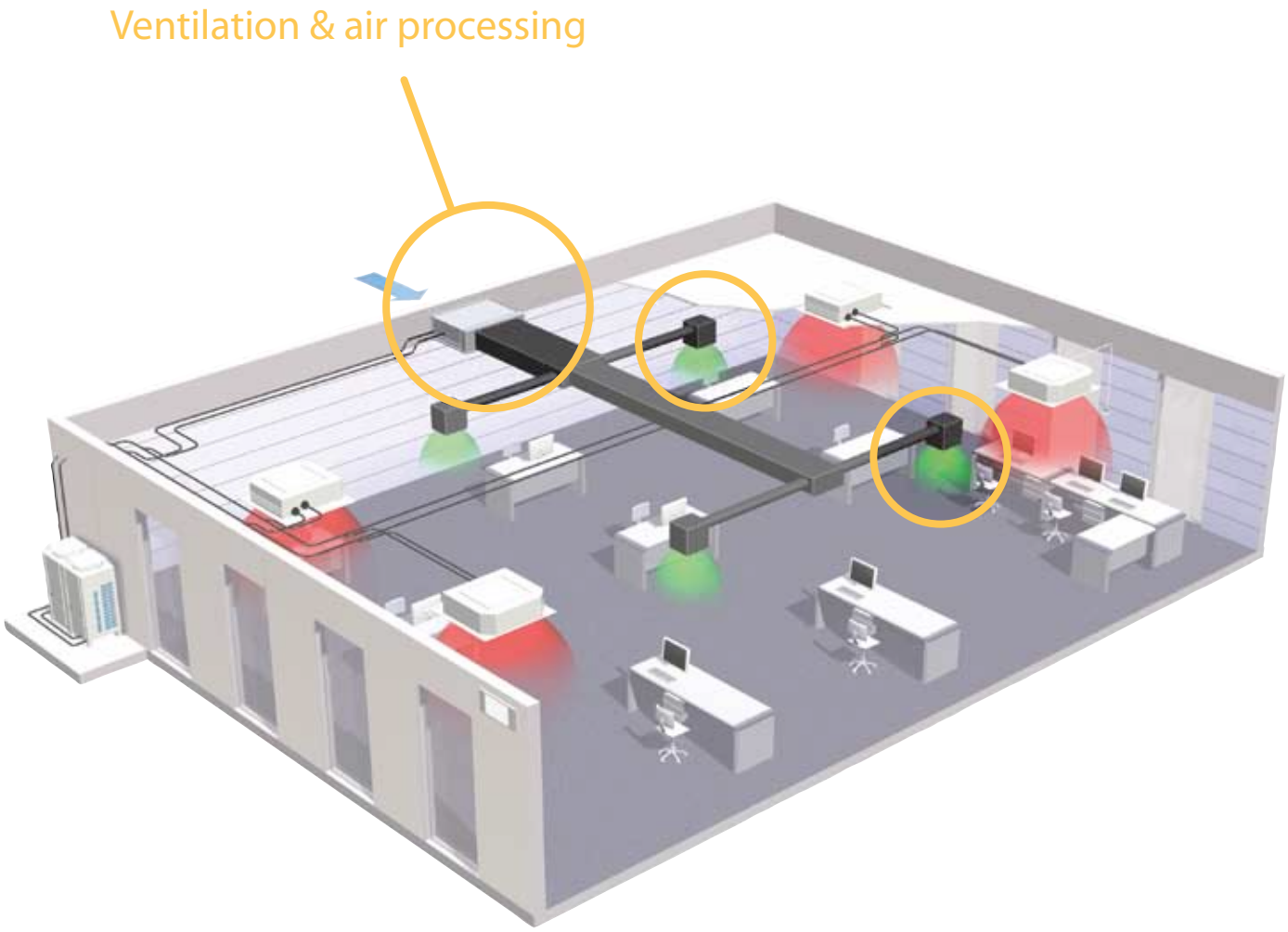
FXMQ-MF	EKEQFCB [2]	EKEQDCB [2]	EKEQMCB [2]
-	-	-	-
-	-	-	-
-	-	-	-
-		KRCS01-1	

FXMQ-MF

Outdoor Air Processing Unit

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. This without the usual design problems associated with balancing air supply and discharge. Air conditioning indoor units and an outdoor air processing units can be connected to the same refrigerant circuit, resulting in enhanced design flexibility and a significant reduction in total system costs.


Ventilation & air processing

Benefits

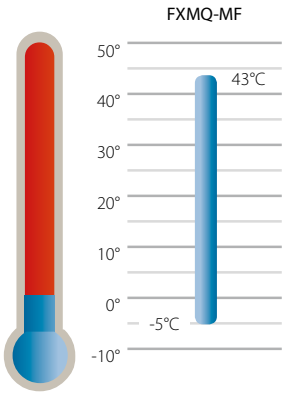
100% FRESH AIR INTAKE POSSIBLE

Outdoor air processing units can be used exclusively to provide 100% fresh air into the building. Even if only partly used the system reduces the load on the air conditioner by adjusting the outdoor air temperature via fixed discharge temperature control.

LEAVING MAXIMUM FLOOR AND WALL SPACE FOR FURNITURE, DECORATION AND FITTINGS

WIDE OPERATION RANGE

The outdoor air processing unit can be installed practically anywhere. The unit operates at outdoor ambients up to 43°C in cooling mode and down to -5°C in heating mode.



HIGH STATIC PRESSURE

External static pressure (ESP) up to 225 Pa allows the use of extensive ductwork runs and facilitates the use with flexible ducts of varying lengths. Ideal for use in large areas.

BUILT-IN DRAIN PUMP

A drain pump kit increases the reliability of the drain system [1]

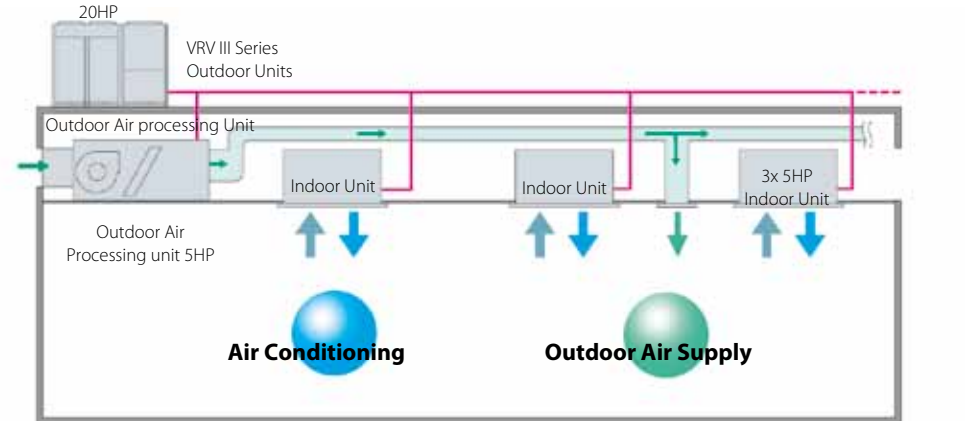
[1] Drain pump kit available as accessory

Connection conditions

› The total connected capacity of the standard indoor units and fresh air treatment units must be between 50% and 100% of the capacity of the air conditioning outdoor units. The connected capacity of the fresh air treatment units must not exceed 30% of the capacity of the air conditioning outdoor units.

› A fresh air treatment unit can also be used exclusively. The connected capacity of the fresh air treatment unit must be between 50% and 100% of the capacity of the air conditioning outdoor unit.

› Connectable outdoor units:
- VRVIII Heat pump Optimised for heating (RTSYQ)
- VRVIII Heat pump High COP combination (RXYHQ)
- VRVIII Heat pump Small footprint combination (except 5HP unit) (RXYQ)



FXMQ-MF
125, 200, 250

Outdoor air processing unit, ventilation and air processing

FXMQ200-250MF

Specifications

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		

Accessories

OTHERS		FXMQ125MF	FXMQ200-250MF
High efficiency filter	-65%	KAFJ372L140	
	-90%	KAFJ373L140	
Replacement long life filter		KAFJ371L140	KAFJ371L280
Filter chamber [1]		KDJ370SL140	KDJ370SL280
Drain pump kit		KDU30LL250VE	
Adapter for wiring		KRP1B61	

(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	FXMQ-MF
Wired remote control	BRC1E52A / BRC1D52

CENTRALISED CONTROL SYSTEMS	FXMQ-MF
Centralised remote control	DCS302C51
Unified ON/OFF control	DCS301B51
Schedule timer	DST301B51

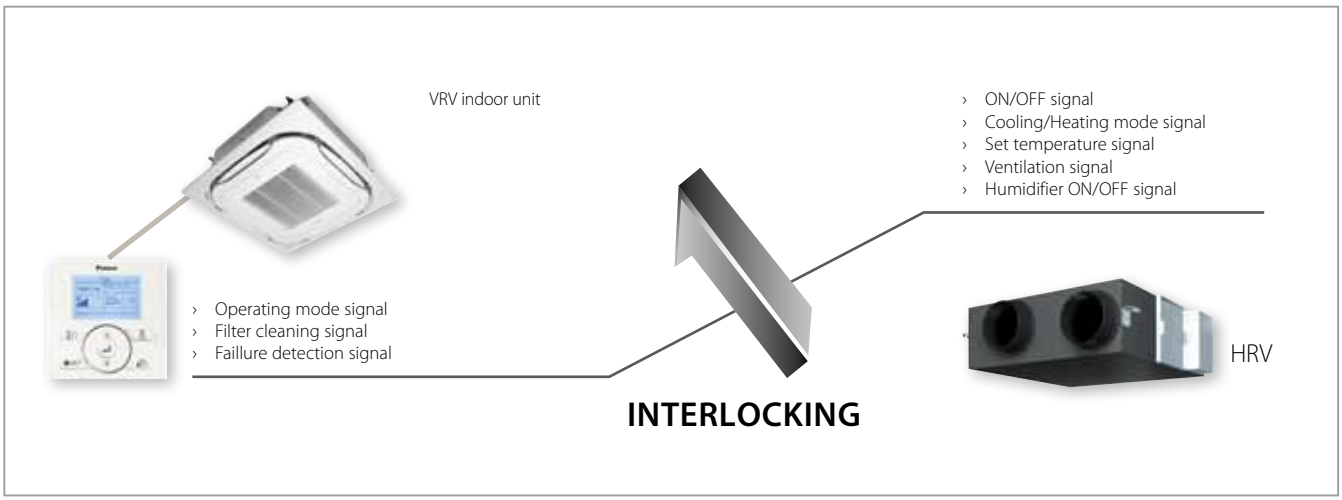
OTHERS	FXMQ-MF
Wiring adapter for electrical appendices (control and monitoring F1 F2)	KRP2A61
Wiring adapter for electrical appendices (control and monitoring P1 P2)	KRP4A51

User friendly control systems

INTERLOCK OF THE VENTILATION OPERATION WITH THE AIR CONDITIONER OPERATION

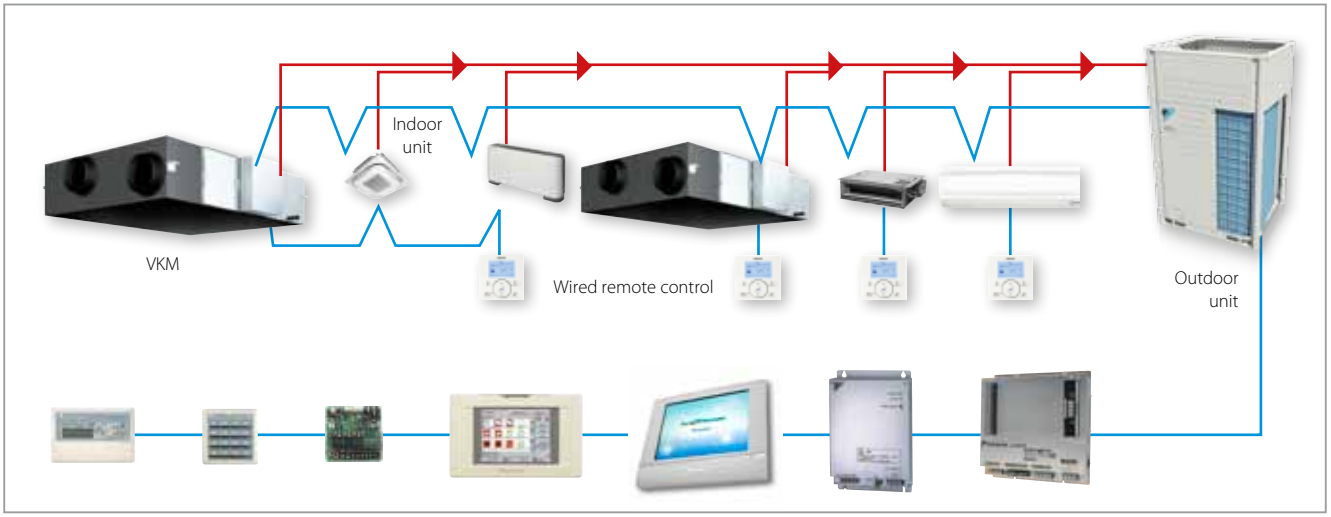
Interlock of the ventilation operation with the air conditioner operation greatly simplifies overall system control. The same remote control centralizes air conditioning and ventilation. Using a centralized remote control also frees the user to choose from a wide range of control systems that integrate air conditioning and ventilation. By incorporating a variety of centralized control equipment, the user can build a large, high grade centralized control system.

[1]Linked control of FXMQ-MF and HRV is not supported



"SUPER WIRING" SYSTEM

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.



Overview of control systems

INDIVIDUAL CONTROL SYSTEMS

5 individual control systems give the user control over the VRV system and the combined ventilation.

› BRC1D52 and BRC1E52A/B are wired remote controllers, giving access to room temperature settings, schedule timer, … Next to that they also have user friendly HRV functions.
› BRC301B61 is a wired controller especially designed for VAM units.
› BRC2C51 and BRC3A61 are compact, easy to use remote controllers, ideal for use in hotel bedrooms.

VAM remote control
BRC301B61

Wired remote control
BRC1E52A/B

Wired remote control
BRC1D52

CENTRALISED CONTROL SYSTEMS

By combining the (optional) centralised control equipment listed below, the user can achieve a wide range of comprehensive centralised control systems for air conditioning and ventilation.

Centralised
remote control
DCS302C51

Unified ON/OFF control
DCS301B51

Schedule timer
DST301B51

NETWORK SOLUTIONS

HRV and the Outdoor Air Processing unit are connectable to all current Daikin network solutions:

DTA113B51	Basic solution for control (Sky Air and VRV).
DCS601C51 intelligent Touch Controller	Allows detailed and easy monitoring and operation of VRV systems (maximum 2 x 64 control groups).
DCM601A51 intelligent Touch Manager	The ideal solution for full control and management of maximum 1,024 VRV indoor units.
DMS504B51 **LonWorks Interface**	Open network integration of VRV monitoring and control functions into LonWorks networks.
DMS502A51 **BACnet Interface**	Integrated control system for seamless connection between VRV and BMS systems.

For more information consult the Daikin controls systems brochure or contact your local dealer

Individual
control systems

- Control up to 16 indoor units or 8 HRV units (1group)
- Easy to use: all main functions directly accessible
- Easy setup: improved graphical user interface for advanced menu settings
- Simultaneous ON/OFF of HRV and air conditioner (BRC1D52/BRC1E52A/B)
- Airflow rate switching (initial setting)
- Ventilation mode switching (initial setting)
- Self diagnostic functions
- Filter sign display and reset
- Timer settings, simultaneous control with air conditioner (BRC1D52/BRC1E52A/B)
- ON/OFF of VAM (BRC301B61)
- Independent operation of HRV
- Timer settings (BRC301B61)
- Fresh-up mode switching (HRV only) (Selectable: supply rich mode, exhaust rich mode; initial setting)

Notes:
The remote control wired to the FXMQ-MF cannot be set as master remote control. Otherwise, when set to 'auto', the operation mode will switch according to outdoor air conditions, regardless of indoor temperature.

BRC1E52A/B

BRC1D52

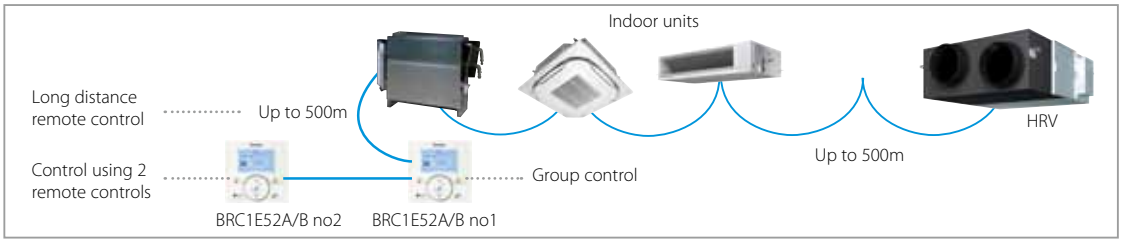
BRC301B61

A variety of units can be controlled using only the BRC1D52 or the BRC1E51A (HRV only)

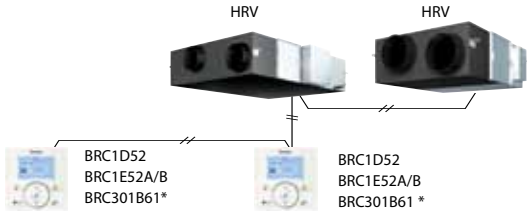
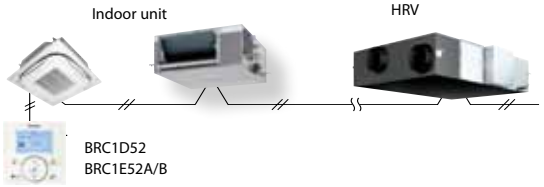
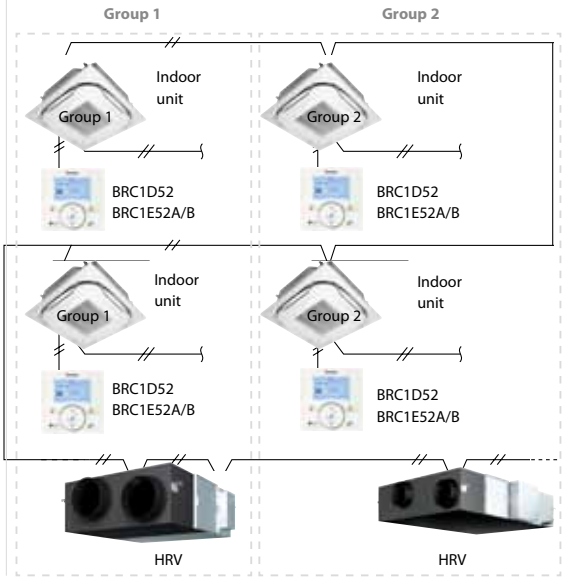
› **Group Control**
One air conditioner remote control simultaneously controls up to 16 air conditioning and HRV units.

› **Control using 2 remote controls**
Allows control of air conditioning and HRV units from two locations by connecting two air conditioner remote controls. (group control is possible)

› **Long-distance Remote Control**
Remote operation control - from a distant control room for example - is possible thanks to wiring of up to 500 m.
(2 remote controllers possible)



*1: Count VKM unit as two air conditioner indoor units. For details, see below.

System construction (HRV only)			System Characteristics	Necessary Accessories
Air conditioning interlocked control (VRV, Sky Air) system	Independent Operation system		› Independent operation of HRV is possible › Operation is possible using 2 remote controls › Multiple HRV units can be simultaneously controlled in batch. (Up to 8 HRV units can be connected) › Air conditioner remote control can be used	BRC1D52 or BRC1E52A/B BRC301B61 *
	Standard system	 During group control operation, the VKM unit has a capacity equivalent to 2 standard indoor units. Up to 16 standard indoor units can be connected at the same time. Connectable indoor units: VKM 0 1 2 3 4 5 6 7 8 Max. no. of VRV 16 14 12 10 8 6 4 2 0 Note: The VKM uses 2 remote controller addresses per unit. The number of units that can be group controlled is shown above.	› Multiple VRV indoor units or HRV units can be connected and controlled in batches, with interlocked operation of HRV and air conditioners by using the air conditioner remote control. › The HRV unit can also be operated independently using the remote control for the indoor unit, even if the indoor unit is not in operation	BRC1D52 or BRC1E52A/B
	Multiple groups interlocked Operation system		› Can control interlocked operation of multiple groups of VRV or Sky Air indoor units › When one of the multiple groups operates, HRV units are interlocked and operate simultaneously	BRC1D52 or BRC1E52A/B

* BRC301B61 only available for VAM-FA/FB

Centralised control systems

By combining the (optional) centralised control equipment listed below, the user can achieve a wide range of comprehensive centralised control systems for air conditioning and ventilation.

DCS302C51

Centralised remote control - DCS302C51

- 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
- Group control (up and down buttons are added for group selection)
- Zone control
- Malfunction code display
- Max. wiring length 1,000 m (total : 2,000 m)
- Combination with unified ON/OFF control, schedule timer and BMS system
- Airflow volume and direction can be controlled individually for indoor units in each group operation.
- Ventilation volume and mode can be controlled for Heat Reclaim Ventilation (VKM).
- Up to 4 'operation/stop' pairs can be set per day by connecting a schedule timer.

DCS301B51

Unified on/off control - DCS301B51

Providing simultaneous and individual control on 16 groups of indoor units

- A maximum of 16 groups (128 air conditioning indoor and HRV units) can be controlled
- 2 remote controls in separate locations can be used
- Centralised control indication
- Maximum wiring length of 1,000m (total: 2,000m)

DST301B51

Schedule timer - DST301B51

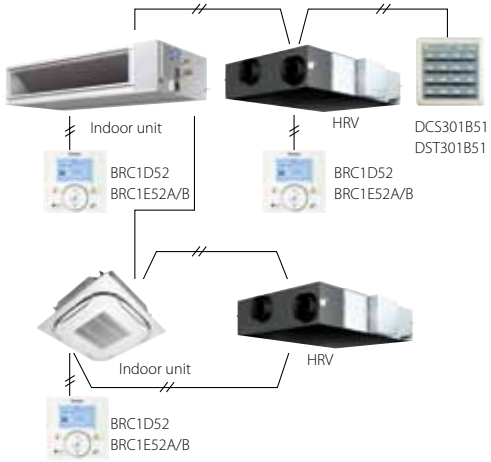
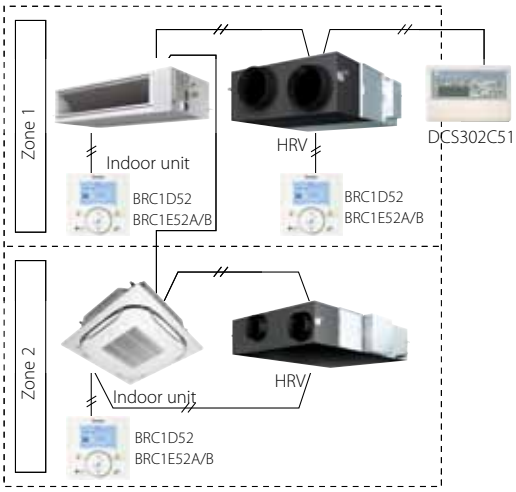
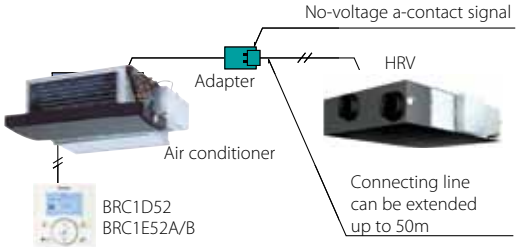
Enabling 64 groups to be programmed

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

Number of HRV units that can be connected per system

Centralised remote control	2 units
Unified on/off control	8 units
Schedule timer	1 unit

Note:
- Group control is not possible between FXMQ-MF and standard type indoor units. Connect remote controllers to each unit.
- Not all FXMQ-MF functions are available when using centralised control. Please refer to your local installer for detailed information.
- The remote control wired to the FXMQ-MF cannot be set as master remote control. Otherwise, when set to 'auto', the operation mode will switch according to outdoor air conditions, regardless of indoor temperature.
- Temperature setting and PPD are not possible, even when Intelligent Touch Controller or Intelligent Manager are installed.

SYSTEM CONSTRUCTION (HRV only)			SYSTEM CHARACTERISTICS	NECESSARY ACCESSORIES
Air Conditioning Interlocked Centralised Control System	Batch / Individual Control System		**Unified ON/OFF control - DCS301B51** › One controller can control the on/ off operation of 16 groups of units collectively or individually › Up to 8 controllers can be installed in one centralised transmission line (in one system), which enables control of up to 128 groups. (16 groups x 8 = 128 groups) **Schedule timer - DST301B51** › One schedule timer can control the weekly sche-dule of up to 128 units › HRV remote control can set the individual operation of each HRV unit › Control system can be expanded depending on its purposes by combining a variety of centralised control equipment	DCS301B51 or DST301B51, BRC1D52 or BRC1E52A/B If necessary: DCS302C51
	Zone Control System		**Centralised remote control - DCS302C51** › The centralised remote control provides settings and monitoring functions and can control up to 128 VRV and HRV units. A special adapter is required to connect Sky Air to the centralised line. › Control is possible in 3 different patterns: individual, batch or zone › Multiple groups can be controlled within the same zone › Multiple HRV units can be operated independently › System without air condi-tioning or HRV remote controls can be constructed › Control system can be expanded depending on requirements by combining a variety of centralised control systems	DCS302C51, BRC1D52 or BRC1E52A/B If necessary: DSC301B51 or DST301B51
Combination with other types of air conditioners			› Simultaneous operation of HRVs and air conditioners is possible via BRC1D52/ BRC1E52A/B › Use of the HRV remote control enables to change settings or operate HRVs independently	Connection adapter (no-voltage-a-contact-signal)

Daikin air handling units

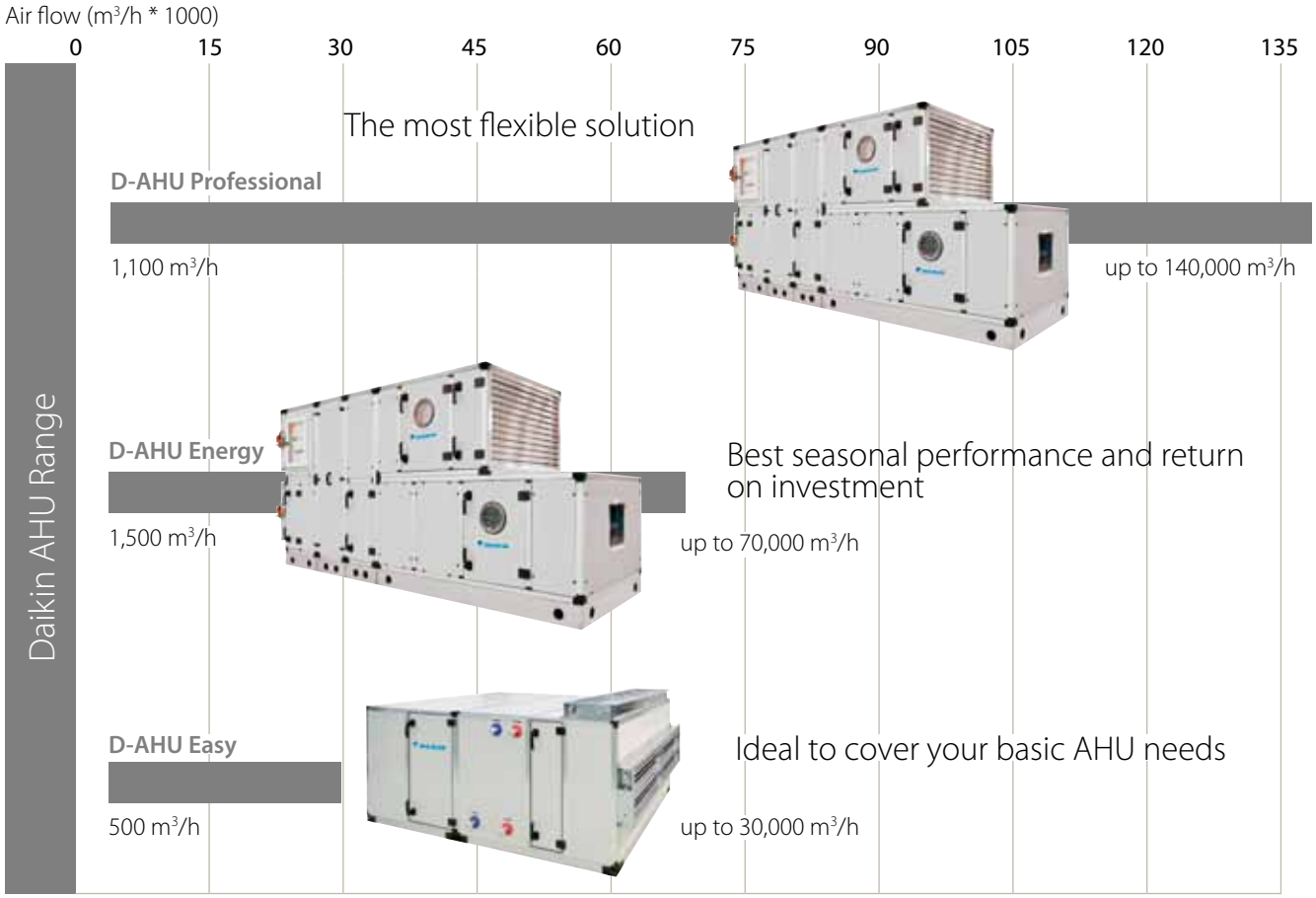
For small to large commercial spaces Daikin offers a range of R-410A inverter condensing units for use in conjunction with air handling units. In situations where Daikin commercial range ventilation units cannot satisfy the ventilation requirement due to building constraints (large atriums, banquet halls etc), air handling units represent the ideal solution.
Air handling units provide large fresh air volumes (>1,000 m/h) and high ESPs enabling the use of extensive ductwork runs.
An air handler or air handling unit provides a tailor-made solution for optimising air conditions throughout multiple spaces. An air handler can be customised to your building - with no installation restrictions or design limitations - as air handler units are based on a completely unique modular design, so they can be sized (in increments of 1cm) to your exact requirements.

ASTRA is the powerful software that Daikin has developed to offer a quick and comprehensive service for the customer in order to make the technical choice and the economic valorization of each AHU. It is a complete tool that can configure any type of product and respond exactly to the strictest design needs. The result is a comprehensive economic offer including all the technical data and drawings, the psychrometric diagram with the relative air treatment and the fans' performance curves.

The ASTRA software features a specific DX heat pump coil section able to calculate cooling and heating performances with the automatic selection of the appropriate Daikin expansion valve.

WIDE RANGE OF AIR FLOWS

Daikin's wide range of air handling systems handle air flow rates from 500 m^3/h up to 140,000 m^3/h. The air handler unit can be adapted to deliver whatever air flow you require, via the specific dimensions of flow section available at the installation.



RETURN ON INVESTMENT

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

PRE-DEFINED SIZES

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

HIGH EFFICIENCY COMPONENTS

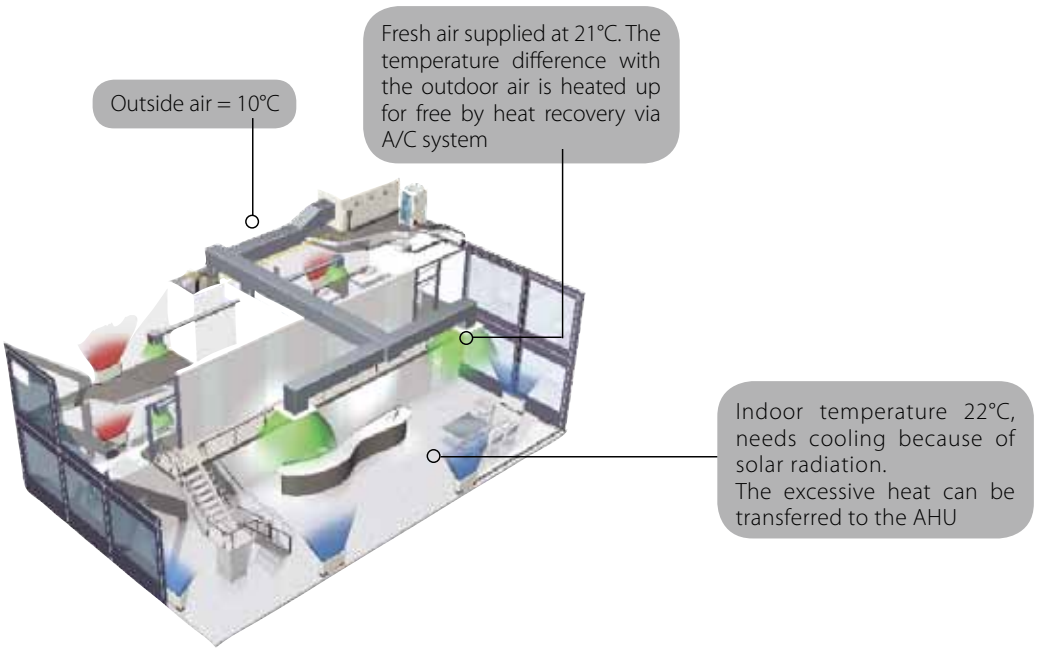
All Daikin air handlers have been designed for optimum energy efficiency. Polyurethane or Mineral wool panels guarantee excellent thermal insulation performance. Filters are provided with a large choice of efficiency filtration class.

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

HIGH EFFICIENCY

Daikin heat pumps are renowned for their high energy efficiency with COPs up to 4.56 in heating[1]. The VRV range offers both heat pump and heat recovery units with part load efficiencies as high as 9.02 Integrating the AHU with a heat recovery system is highly effective since an office system can frequently be in cooling mode while the outdoor air is too cold to be brought inside in an unconditioned state. In this case heat from the offices is merely transferred to heat up the cold incoming fresh air. In the absence of an AHU this 'free heating' the incoming fresh air would not be possible.

1 ERQ100AV1 heat pump
2 REYQ8P8 50% cooling - 50% heating load. Conditions: outdoor temperature 11°CDB, indoor temperature 18°CWB, 22°CDB



HIGH COMFORT LEVELS

Daikin ERQ and VRV units respond rapidly to fluctuations in supply air temperature, resulting in a steady indoor temperature and resultant high comfort levels for the end user.

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

EASY DESIGN AND INSTALLATION

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

Flexible control options

IN ORDER TO MAXIMIZE INSTALLATION FLEXIBILITY, 3 TYPES OF CONTROL SYSTEMS ARE OFFERED.

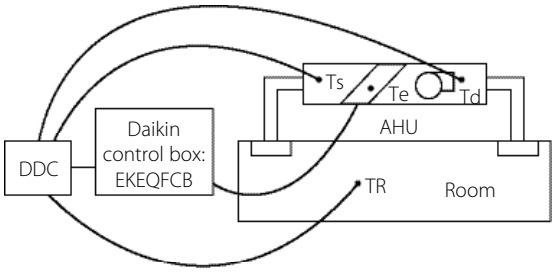
Control x: Control of air temperature
(discharge temperature, suction temperature, room temperature) via external device (DDC controller)
Control y: Control of evaporating temperature via Daikin control (no DDC controller needed)
Control z: Control of air temperature (suction temperature, room temperature) via Daikin control (no DDC controller needed)

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

POSSIBILITY X (TD/TR CONTROL):

Air temperature control via DDC controller

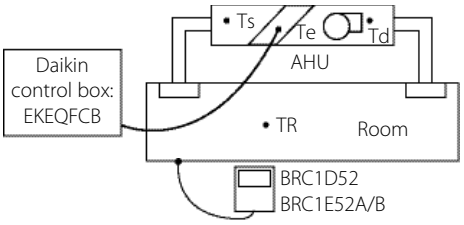
Room temperature is controlled as a function of the air handling unit suction or discharge air (customer selection). The DDC controller is translating the temperature difference between set point and air suction temperature (or air discharge temperature or room temperature) into a reference voltage (0-10V)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

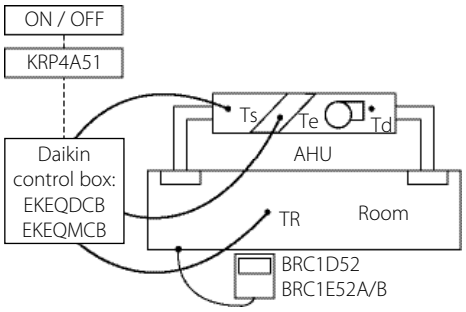


POSSIBILITY Z (TS/TR CONTROL):

Using Daikin wired remote controller (BRC1D52 or BRC1E52A/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	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)

VRV
Air handling application (pair & multi)

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

- Inverter controlled units
- Large capacity range (from 8 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

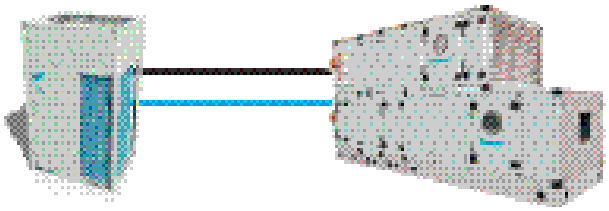
DIFFERENT CONTROL POSSIBILITIES

		VRV IV heat pump				VRV III heat recovery	VRV III-S	VRV III-C	VRV-WIII
		R*YQ8-10T	R*YQ12-30T	R*YQ32-50T	R*YQ52-54T	REYHQ-P8/P9 REYHQ-P REYAQ-P	RXYSQ-PAV RXYSQ-PAY	RTSYQ-PA	RWEYQ-P RWEYQ-PR
Control possibilities	**X**	P	P[1]	P[2]	-	-	-	-	-
	Y	P	P[1]	P[2]	-	-	-	-	-
	Z	M	M	M	M	M	M	M	M

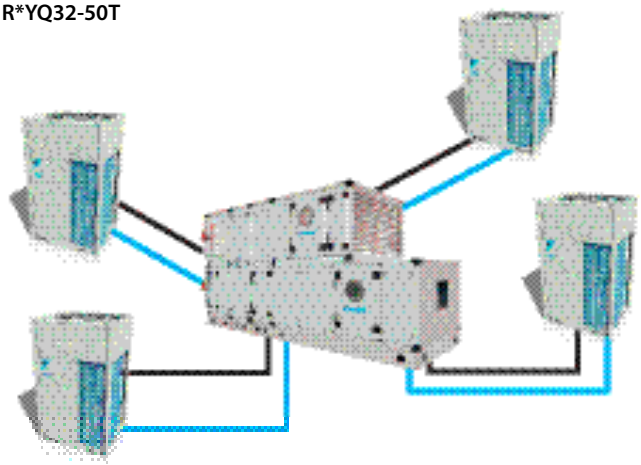
P = pair
M = multi
1 By use of split coil (interlaced)
2 Separate coil per outdoor unit

X,Y CONTROL FOR VRV IV

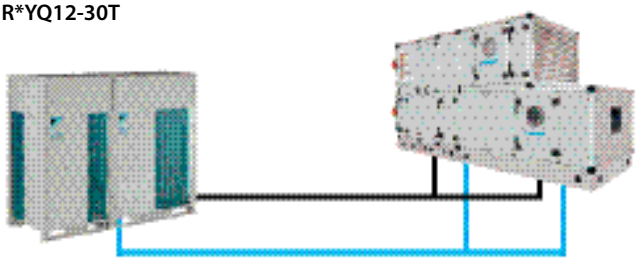
R*YQ8-10T



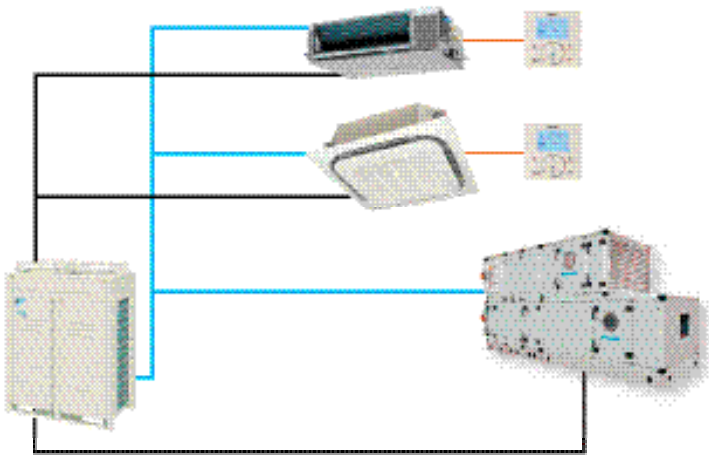
R*YQ32-50T



R*YQ12-30T



Z CONTROL FOR ALL VRV OUTDOOR UNITS



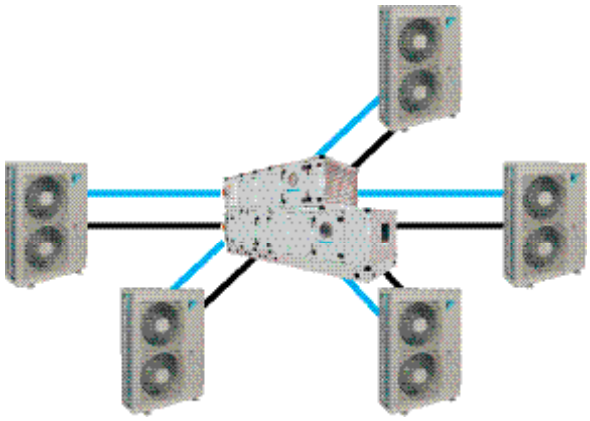
Refrigerant piping
F1-F2
other communication

ERQ
Air handling application (pair)

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

- Inverter controlled units
- Large capacity range (from 100 to 250 class)
- Heat pump
- R-410A
- Wide range of expansion valve kits available
- Up to 5 ERQ units can be connected to an interlaced coil in one air handling unit

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



VENTILATION					ERQ100AV1	ERQ125AV1	ERQ140AV1
Capacity range				HP	4	5	6
Cooling capacity	Nom.			kW	11.2	14.0	15.5
Heating capacity	Nom.			kW	12.5	16.0	18.0
Power input	Cooling	Nom.		kW	2.81	3.51	4.53
	Heating	Nom.		kW	2.74	3.86	4.57
EER					3.99		3.42
COP					4.56	4.15	3.94
Dimensions	Unit	HeightxWidthxDepth		mm	1,345x900x320		
Weight	Unit			kg	120		
Fan-Air flow rate	Cooling	Nom.		m^3/min	106		
	Heating	Nom.		m^3/min	102	105	
Sound power level	Cooling	Nom.		dBA	66	67	69
Sound pressure level	Cooling	Nom.		dBA	50	51	53
	Heating	Nom.		dBA	52	53	55
Operation range	Cooling	Min./Max.		°CDB	-5/46		
	Heating	Min./Max.		°CWB	-20/15.5		
	On coil temperature	Heating	Min.	°CDB	10		
		Cooling	Max.	°CDB	35		
Refrigerant	Type				R-410A		
Piping connections	Liquid	OD		mm	9.52		
	Gas	OD		mm	15.9		19.1
	Drain	OD		mm	26x3		
Power supply	Phase/Frequency/Voltage			Hz/V	1N~/50/220-240		
Current	Maximum fuse amps (MFA)			A	32.0		

VENTILATION					ERQ125AW1	ERQ200AW1	ERQ250AW1
Capacity range				HP	5	8	10
Cooling capacity	Nom.			kW	14.0	22.4	28.0
Heating capacity	Nom.			kW	16.0	25.0	31.5
Power input	Cooling	Nom.		kW	3.52	5.22	7.42
	Heating	Nom.		kW	4.00	5.56	7.70
EER					3.98	4.29	3.77
COP					4.00	4.50	4.09
Dimensions	Unit	HeightxWidthxDepth		mm	1,680x635x765	1,680x930x765	
Weight	Unit			kg	159	187	240
Fan-Air flow rate	Cooling	Nom.		m^3/min	95	171	185
	Heating	Nom.		m^3/min	95	171	185
Sound power level	Nom.			dBA	72	78	
Sound pressure level	Nom.			dBA	54	57	58
Operation range	Cooling	Min./Max.		°CDB	-5/43		
	Heating	Min./Max.		°CWB	-20/15		
	On coil temperature	Heating	Min.	°CDB	10		
		Cooling	Max.	°CDB	35		
Refrigerant	Type				R-410A		
Piping connections	Liquid	OD		mm	9.52		
	Gas	OD		mm	15.9	19.1	22.2
Power supply	Phase/Frequency/Voltage			Hz/V	3N~/50/400		
Current	Maximum fuse amps (MFA)			A	16	25	

Overview
of expansion valves and control boxes

Daikin also offers a range of expansion valve kits and control boxes to connect ERQ and VRV condensing units to third party air handling units.

VRV COMBINATION TABLE

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

ERQ COMBINATION TABLE

OUTDOOR UNIT		EXPANSION VALVE KIT						
		CLASS 63	CLASS 80	CLASS 100	CLASS 125	CLASS 140	CLASS 200	CLASS 250
		EKEXV63	EKEXV80	EKEXV100	EKEXV125	EKEXV140	EKEXV200	EKEXV250
1~	ERQ100AV1	P	P	P	P	-	-	-
	ERQ125AV1	P	P	P	P	P	-	-
	ERQ140AV1	-	P	P	P	P	-	-
3 ~	ERQ125AW1	P	P	P	P	P	-	-
	ERQ200AW1	-	-	P	P	P	P	P
	ERQ250AW1	-	-	-	P	P	P	P

P: Pair: Combination depending on air handling units coils volume.

EKEXV - EXPANSION VALVE KIT FOR AIR HANDLING APPLICATIONS

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 - CONTROL BOX FOR AIR HANDLING APPLICATIONS

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		

Accessories

ERQ	ERQ100-125AV1	ERQ140AV1	ERQ125AW1	ERQ200-250AW1
Central drain pan			KWC26B160	KWC26B280
Central drain plug	KKPJ5F180	KKPJ5F180	-	
Cool/heat selector	KRC19-26A6			
Fixing box	KJB111A			

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.

EKEQ	EKEQFCB	EKEQDCB	EKEQMCB
Wired remote control	BRC1E52A / BRC1D52	BRC1E52A / BRC1D52 1	BRC1E52A / BRC1D52 1
Wiring adapter for electrical appendices (control and monitoring F1 F2)	KRP2A61	-	KRP4A51
Remote sensor	-	-	KRCS01-1

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…).

Caution for options

- Do not connect the system to DIII-net devices (Intelligent Controller, Intelligent Manager, LonWorks interface, BACnet interface…). This could result in malfunction or breakdown of the total system.
- Only use the ERQ, EKEQ, EKEXV in combination with an air handling unit. Do not connect this system to other indoor units.

Selection of air handling units

PAIR APPLICATION

Step 1: Select required capacity of AHU

Based on the required capacity of the AHU please select the expansion valve

Step 1

	Allowed heat exchanger volume (dm³)		Allowed heat exchanger capacity in coolong (kW)			Allowed heat exchanger capacity in heating (kW)		
EKEXV class	**Minimum**	**Maximum**	**Minimum**	**Standard**	**Maximum**	**Minimum**	**Standard**	**Maximum**
63	1.66	2.08	6.3	7.1	7.8	7.1	8.0	8.8
80	2.09	2.64	7.9	9.0	9.9	8.9	10.0	11.1
100	2.65	3.3	10	11.2	12.3	11.2	12.5	13.8
125	3.31	4.12	12.4	14.0	15.4	13.9	16.0	17.3
140	4.13	4.62	15.5	16.0	17.6	17.4	18.0	19.8
200	4.63	6.6	17.7	22.4	24.6	19.9	25.0	27.7
250	6.61	8.25	24.7	28.0	30.8	27.8	31.5	34.7

Heat exchanger capacity is defined under following conditions:
Saturated suction temperature (SST) = 6°C, Superheat (SH) = 5K
Subcool condensor (SC) = 3K
Air temperature = 27°CDB/19°CWB

Eg: If you need 14kW in cooling, you will require an expansion valve of 125class (EKEXV125).

The heat exchanger capacity has priority over the volume of the heat exchanger and is therefore the determining factor for the selection of the expansion valve. More information on the volume can be found in the data book and service manual.

Step 2: Select outdoor unit

Pair combinations with ERQ outdoor units are possible based on the same principle as standard DX units. The capacity of the AHU unit is indicated by the capacity of the expansion valve and can be connected as indicated in below table.

Step 2

OUTDOOR UNIT			CONTROL BOX		EXPANSION VALVE KIT						
			Control z	Control x or y	Class 63	Class 80	Class 100	Class 125	Class 140	Class 200	Class 250
			EKEQDCB	EKEQFCB	EKEXV63	EKEXV80	EKEXV100	EKEXV125	EKEXV140	EKEXV200	EKEXV250
ERQ	1~	ERQ100AV1	P	P	P	P	P	P	-	-	-
		ERQ125AV1	P	P	P	P	P	P	P	-	-
		ERQ140AV1	P	P	-	P	P	P	P	-	-
	3~	ERQ125AW1	P	P	P	P	P	P	P	-	-
		ERQ200AW1	P	P	-	-	P	P	P	P	P
		ERQ250AW1	P	P	-	-	-	P	P	P	P

P: Pair, combination depending on AHU coil volume and capacity

Eg: Based on above selected expansion valve, the EKEXV125 has a capacity of class 125. Therefore we can choose to connect it in pair with all outdoor units indicated in the table above with P.

Step 3: Control box selection

Please make your selection of the control box based on your requirements. All the different control possibilities are mentioned on page 28.
More information on the selection is available in the service manual.

MULTI APPLICATION

Step 1: Select required capacity of AHU

Based on the required capacity of the AHU please select the expansion valve

Step 1

EKEXV class	Allowed heat exchanger volume (dm^3)		Allowed heat exchanger capacity in cooling (kW)			Allowed heat exchanger capacity in heating (kW)		
	Minimum	Maximum	Minimum	Standard	Maximum	Minimum	Standard	Maximum
50	0.76	1.65	5.0	5.6	6.2	5.6	6.3	7.0
63	1.66	2.08	6.3	6.9	7.1	7.8	7.1	8.0	8.8
80	2.09	2.64	7.9	9.0	9.9	8.9	10.0	11.1
100	2.65	3.3	10	11.2	12.3	11.2	12.5	13.8
125	3.31	4.12	12.4	14.0	15.4	13.9	16.0	17.3
140	4.13	4.62	15.5	16.0	17.6	17.4	18.0	19.8
200	4.63	6.6	17.7	22.4	24.6	19.9	25.0	27.7
250	6.61	8.25	24.7	28.0	30.8	27.8	31.5	34.7

Eg: If the required capacity of the AHU is 6.9kW in cooling, which lies between 6.3 and 7.8, the EKEXV63 can be selected.

The heat exchanger capacity has priority over the volume of the heat exchanger and is therefore the determining factor for the selection of the expansion valve. More information on the volume can be found in the data book and service manual.

Step 2: Select outdoor unit

Multiple AHU can be connected to a VRV system and the connection principle is similar as for ERQ. Connection of the full system can be up till 110% including at least 1 Daikin indoor unit (cassette, duct, …) The capacity index of the AHU needs to be calculated based on the indicated capacity of the selected expansion valve and the actual capacity.
The AHU capacity index = capacity class (expansion valve) * ratio (actual capacity AHU / standard capacity expansion valve)

Eg: AHU has a capacity requirement of 6.9kW and the selected expansion valvue is the EKEXV63 with a standard capacity of 7.1kW.
So the AHU capacity = 63 * (6.9kW / 7.1kW) = 61 class
In case that in the system 2 FXSQ50 class are connected, the total sum of capacity would be 61 + 2*50 = 161 class
Based on the 161 class a 10 HP is required as outdoor unit.

[1] For detailed specifications of VRV outdoor units, refer to the VRV catalogue or databooks

Step 3: Control box selection

EKEQMCB is the control box which is required to control the communication between the AHU and the VRV system beside the standard communication of the Daikin DX indoor units (cassette, duct, wall…).
More information on the selection is available in the service manual.

Pure air

STREAMER

Daikin air purifiers

Air purification - MC70L

The streamer technology air purifier, a blend of new technology, improved performance, and ultra quiet operation, it is designed to care for you by unobtrusively providing purified air to produce a healthy environment. Purified air improves the perception of comfort and, by removing and destroying contaminants and odours, the streamer technology air purifier also plays an essential role for those who suffer from asthma or allergies.

Air purification and humidification - MCK75J

There are many substances in the air you breathe such as allergen, bacteria, virus and tobacco smoke, which causes your health to suffer. Above all things, dryness is especially a big issue during wintertime. Daikin Ururu Air Purifier moisturizes the air and relieves the effects of dry air. Just fill the 4l tank occasionally and it will humidify your room with a maximum volume of 600ml/h.

MC70L

- Air purification
- Portable
- No installation needed
- Super quiet operation
- Unprecendented comfort
- Easy to maintain

MCK75J

- Humidification
- Air purification
- Portable
- No installation needed
- Super quiet operation
- Unprecendented comfort
- Easy to maintain

SIX-LAYER POWERFUL DECOMPOSITION AND REMOVAL SYSTEM

1 High-speed electrons are discharged*1 that enable decomposition and removal

6 Formaldehyde *4 and odours are decomposed

Deodorising catalyst filter

2 Dust is captured. Bacteria and allergens are removed *2

Prefilter

3 Dust and pollen are electrically charged and then sent to the filter

Plasma ionizer

4 Dust and pollen are absorbed by the electrically charged filter

Electrostatic dust collection filter (front of pleated dust collection filter)

5 Odours and viruses are kept under control by photocatalyst*3

Titanium apatite filter (back of pleated dust collection filter)

MCK75J

Daikin products are distributed by:

FSC

ECPEN13-203

DAIKIN EUROPE N.V. Naamloze Vennootschap - Zandvoordestraat 300, B-8400 Oostende - Belgium - www.daikin.eu - BE 0412 120 336 - RPR Oostende

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