VRV X

Equipped with Advanced Technology, that results in high energy efficiency. This technological innovation gives end user the advantage of better comfort and work further towards creating a sustainable environment.

DAIKIN
The world leader in airconditioning

At Daikin we are a leading innovator and provider of advanced, high-quality air conditioning solutions for residential, commercial and industrial applications.

As World's leading air conditioning company, we are committed to deliver air conditioning solutions that enhance the quality of life all around the world.

Established in 1924 Daikin Industries Ltd., are a diverse multinational company, active in air conditioning, chemicals and oil hydraulics. With headquarters at Osaka, Japan, our Daikin family has more than 67,000 members, working across 80 production base and 208 consolidated subsidiaries worldwide.

As the world's sole manufacturer that develops a long line of products from refrigerants to air conditioners, we advocate comfortable living on the strength of advanced technologies.

We are present in USA, Europe and Russia, The Middle East, Africa, Asia, Oceania and Middle-South America. We aim to serve our customers in each of these markets by providing optimal air conditioning solutions.

EUROPE / MIDDLE EAST / AFRICA


Daikin Europe N.V.


Daikin Airconditioning France


Daikin Airconditioning Germany


Daikin Airconditioning Central Europe


Daikin Airconditioning Spain


Daikin Airconditioning Italy


Daikin Airconditioning UK


Daikin Industries Czech Republic


Daikin Chemical France

CHINA


Daikin (China) Investment


Daikin Airconditioning Shanghai


Xi'an Daikin Qing'an Compressor


Hui Zhou Daikin Suns Airconditioning


Daikin Device (Suzhou)


Daikin Fluoro Coating Shanghai


Daikin Fluorochemicals China

ASIA / OCEOANIA


Daikin Airconditioning India


Daikin Compressor Industries


Daikin Airconditioning Singapore


Daikin Australia


Daikin Industries Thailand


Daikin Industries Head Office Japan (Inside Umeda Center Building)

NORTH AMERICA/CENTRAL & SOUTH AMERICA


Daikin America


Daikin AC America


Daikin Holding USA

Exploring new R&D frontiers

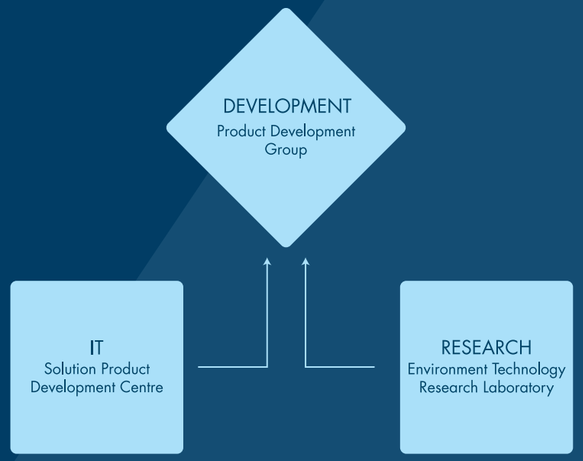
At Daikin, we are creating value through innovative technologies. As a global industry front runner, we are carrying out research and development on the world's most advanced airconditioning technology.

Our strong R&D edge has helped us create futuristic products that enrich people's lives. As symbolised by the VRV, Daikin has put forth a multitude of products and varied technology that have always been, and continue to be, at the forefront of innovation.

To be able to offer such products and services that delight and astound our customers, we have constructed an advanced R&D architecture.

Formation of a three-division system of research, IT, and development to support our superior products.

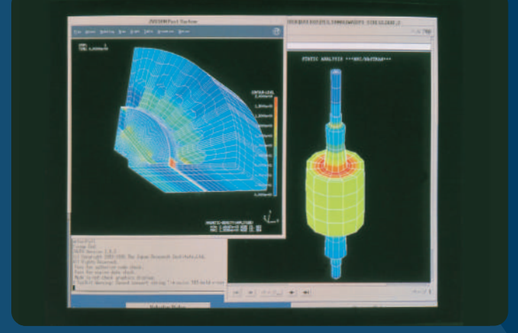
To create more advanced functions and new value, we have instituted specialised R&D divisions: the 'Environmental Technology Research Laboratory' and the 'Solution Product Development Centre'. In combination with the Product Development Group, each of the three divisions work in close cooperation to precisely ascertain the customers' needs and to enable commercialisation of products, incorporating advanced technology that take the lead over our competitors.



Environmental Technology Research Laboratory: Intensive Research on Environmentally Conscious, Energy Saving Air Conditioning Technology

Accelerating globalisation of our airconditioning business and varied needs of customers across geographies are increasing our research challenges. We have established a research laboratory devoted to the two fields of 'airconditioning' and 'the environment'. With our mission to promote energy savings in airconditioners, we are engaged in R&D on cutting-edge technologies. Our aim is to create futuristic products from fundamental research on motor inverters, and other areas to support individual product development.

Going forward, we will elevate our technology edge to achieve further business expansion globally.



The Solutions Product Development Centre: Integrating Air Conditioners with IT

Keeping in mind the changes in business brought in by the computerisation and networking of society, we have integrated IT into our airconditioners, including communication technology, software technology and digital control. We are initiating R&D that will offer new system services - a comfortable environment with superior energy savings by networking air conditioners. Such a scenario will enable them to exchange information with service centres.

Technology & Innovation Centre, Japan:

Aiming for new value creation as a core base for technology development.

Research & Development Centre, India:

Reiterating to its commitment to Indian market, Daikin India R&D is dedicated to provide customized solutions to its customers.

World's most advanced VRV X airconditioning system with Innovative VRT technology.

First launched in Japan in 1982, the Daikin VRV system has been embraced by the world markets for over three decades. Now, we at Daikin introduce the next generation VRV X system to reinforce our industry leadership. The system offers an enhanced lineup to meet an ever widening variety of needs, while improving energy savings, comfort and ease of installation.

The VRV X is the most advanced airconditioning system in the world and is ideal for small and large spaces.

Energy saving technology for *VRV* X System

X' TRA POWER SAVINGS

Next Generation Compressor & VRT Smart Control

VRT-Variable Refrigerant Temperature in Indoor Unit (IDU) and Outdoor Unit (ODU)

The new VRV X system now features VRT technology in IDU & ODU. VRT automatically adjusts refrigerant temperature to individual building load and climate requirement, thus further improving annual energy efficiency and maintaining comfort. With this technology, running costs are reduced.

X' TENSIVE RANGE
Up to 60 HP

X' CELLENT TECHNOLOGY
4D Inverter System

X' TENDED RELIABILITY
Auto Optimization Refrigerant Charging

Standard Type

New series with compact and light weight design

6 HP-60 HP with 28 models lineup

VRV X

Installation Space	0.95 m^2
Product Weight	285 kg

Lineup

HP	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60
Cooling only	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

X' TRA POWER SAVING

New heights in energy efficiency during actual operation

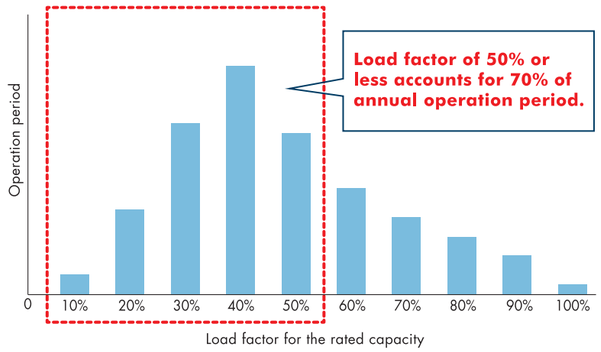
The key to innovative energy savings is to increase efficiency during low-load operation.

Using data gathered from actual operation, Daikin discovered that air conditioning systems operate at a load factor of 50% or less for 70% of their annual operation period.

This inspired us to develop new technologies to enhance energy efficiency during low loads.

Utilising these technologies, Daikin's new VRV X series raise the standard for energy efficiency.

•Correlation between the load factor for the rated capacity and operation time
*According to a survey by Daikin (based on Air Conditioning Network Service System data)

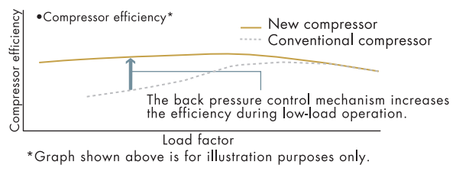


New Scroll Compressor*

Hardware technology

Refrigerant leakage is minimised during low-load operation.

Operation loss due to refrigerant leakage is reduced by the proprietary back pressure control mechanism to ensure stable low-load operation.

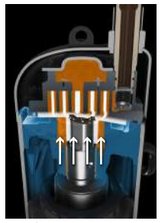


*Graph shown above is for illustration purposes only.

Back pressure control mechanism

Conventional mechanism

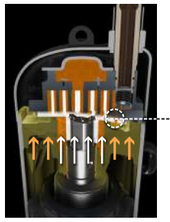
The movable scroll is pressed by the pressure difference between high and low pressures. The force pressing the movable scroll decreases during low-load operation, resulting in compression leakage from movable parts.



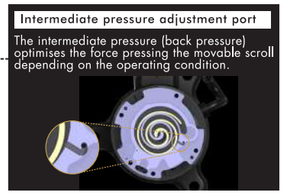
The force pressing the movable scroll decreases during low-load operation.

New intermediate pressure mechanism

The force pressing the movable scroll is optimised according to operating conditions. The behaviour of the movable scroll has been stabilised to increase efficiency during low-load operation.



The intermediate pressure keeps pressing the movable scroll during low-load operation.



Advanced oil temperature control

Standby power consumption is reduced

The advanced oil temperature control reduces standby power consumption compared to conventional models. Standby power needed for preheating refrigerator oil, which consumes substantial standby power, was reduced to save energy when the air conditioner is stopped.

Energy saving

VRV+VRT+VAV

Uniting advanced software and hardware technologies for greater energy savings during actual operation.

VRT Smart Control (Fully Automatic Energy-saving Refrigerant Control)

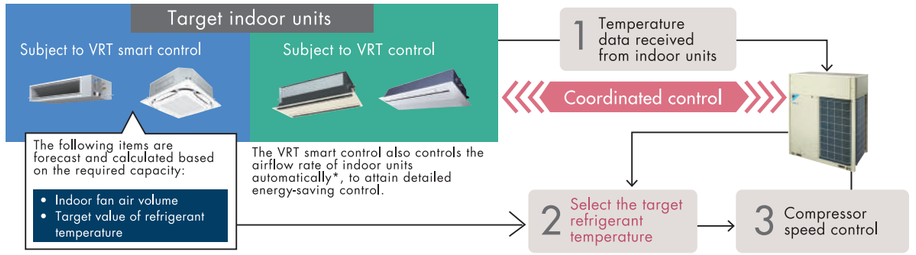
Software technology

Optimally supply only for the needed capacity of indoor units

Daikin developed VRT smart control by combining air volume control (VAV: Variable Air Volume) for indoor units with conventional VRT control, which optimises compressor speed by calculating the required load for the entire system and optimal target refrigerant temperature based on data sent from each indoor unit. Coordination with the air volume control reduces compressor load and minimises operation loss based on detailed control. VRT smart control ensures energy savings and comfortable air conditioning to meet actual operating conditions.

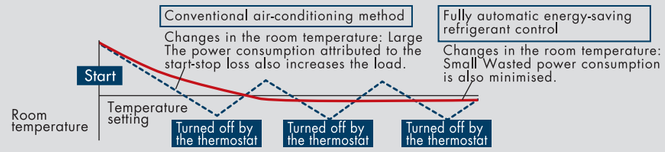
- Overview of the control (system control flow)

Different automatic energy-saving refrigerant control applies depending on the indoor units connected.



The smooth control (which keeps the compressor running) saves energy and ensures comfort during low-load operation.

- Changes in the air-conditioned room temperature during low-load operation*

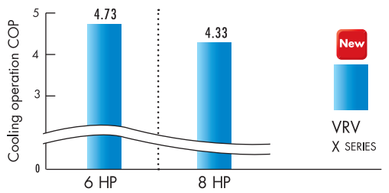


*Graph shown above is for illustration purpose only.

Note:
- For the classification of indoor units (VRT smart control and VRT control), refer to page 20.
- In case system is having both VRT Control and VRT Smart Control types of Indoor units, system will operate under VRT Control.
- If a system has air handling unit or outdoor-air processing type indoor units, VRT smart control and VRT control are disabled.

Higher efficiency is provided during rated operation.

COP at 100% operation load



Cooling operation conditions : Indoor temp, of 27°CDB, 19°CWB, and outdoor temp, of 35°CDB.

VRT - VARIABLE REFRIGERANT TEMPERATURE

State-of-the-art energy saving technology for VRV system

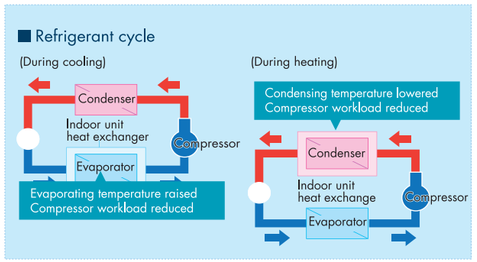
Customise your VRV system for optimal annual efficiency

The new VRV X system features VRT technology. VRT automatically adjusts refrigerant temperature to individual building and climate requirement, thus further improving annual energy efficiency and maintaining comfort.

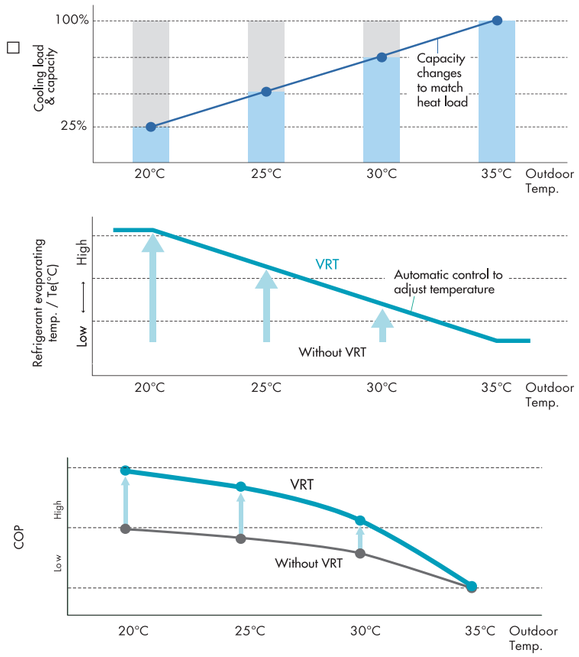
With this excellent technology, running costs are reduced.

How is energy reduced?

During cooling, the refrigerant evaporating temperature (Te) is raised to minimise the difference with the condensing temperature. During heating, the condensing temperature (Tc) is lowered to minimise the difference to the evaporating temperature. Compressors work less, and this reduces power comsumption.



Typical changes in evaporating temperature and COP depending on changing indoor load



Required capacity changes as airconditioning load changes according to outdoor temperature.

In case of fixed evaporating temperature, excessive cooling, thermo on-off loss, and other inefficiencies occur.

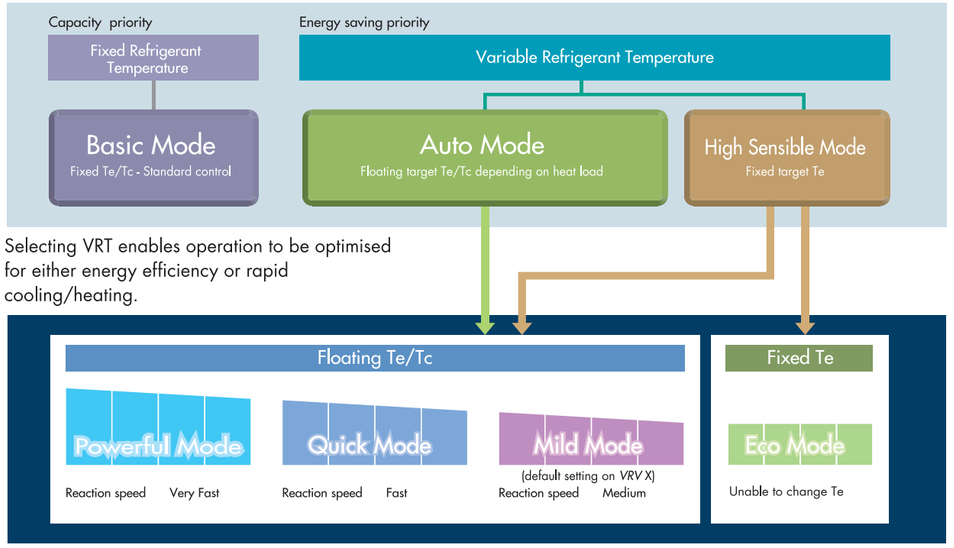
Automatic control adjusts evaporating temperature to heat load change.

Energy efficiency is improved without sacrificing comfort.

Fine control to match user preference available through mode selection

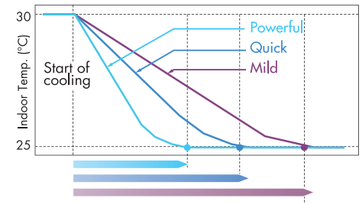
Basic mode is selected to maintain optimal comfort.

VRT is selected to save energy and prevent excessive cooling or heating.



Selecting VRT enables operation to be optimised for either energy efficiency or rapid cooling/heating.

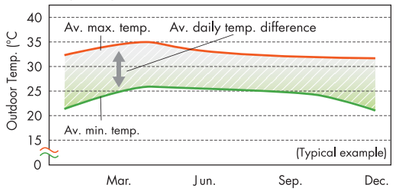
VRT offers quicker cool down to shorten uncomfortable pull down time.



Powerful mode	The refrigerant temperature can go low in cooling (high in heating) than the set minimum (maximum in heating). Gives priority to very fast reaction speed. The refrigerant temperature goes down (or up in heating) fast to keep the room setpoint stable.
Quick mode	Gives priority to fast reaction speed. The refrigerant temperature goes down (or up in heating) fast to keep the room setpoint stable.
Mild mode	Gives priority to efficiency. The refrigerant temperature goes down (or up in heating) gradually giving priority to the efficiency of the system instead of the reaction speed.

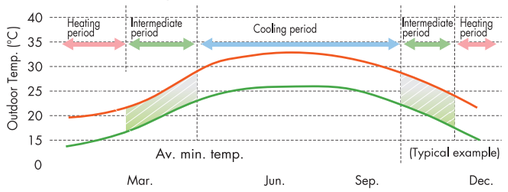
Recommended for use in these situations

☐ Cooling only regions having differences in daily temperature.



VRT is particularly effective at night when temperatures are low.

☐ Cooling/heating regions having periods of mild outdoor temperatures.



VRT is particularly effective during the intermediate periods.

X' CELLENT TECHNOLOGY

Large capacity all DC inverter compressor in compact casing

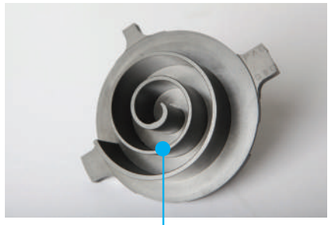
Large capacity inverter compressor using high tensile strength material, realise 12 HP compressor using 8 HP casing.

High strength material by adopting Thixocasting technology

Gives 2.4 times tensile strength compared to conventional material

New Material: 600 MPa
Conventional Material : 250 MPa

Increases compression chamber volume by using thin spiral design.

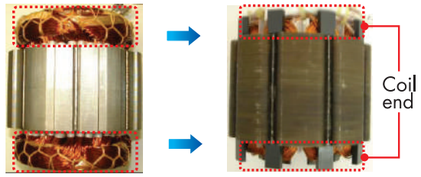


As a result of having thin wall - thickness of the scroll, compression chamber volume increases by 50%

Compact & high efficiency concentrated winding motor

Distributed winding motor (Current 8 HP compressor)

Concentrated winding motor (New 12 HP compressor)



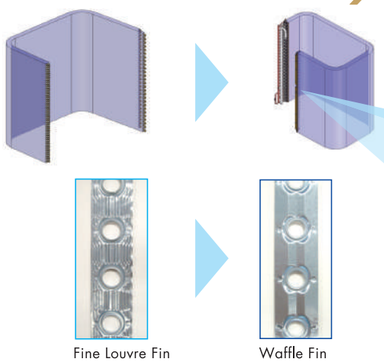
Small size coil end using concentrated winding, reduces copper loss (winding resistance).

Improves motor efficiency in low rpm range (improves intermediate efficiency).

Highly integrated heat exchanger

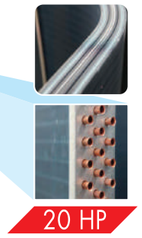
Improves performance by increasing heat exchanger area while maintaining the same installation space.

Conventional



VRV X

Realises highly integrated heat exchanger performance by employing 3 rows & reduced fin pitch coil as well as reduction in airflow resistance by adopting small pipe size design.



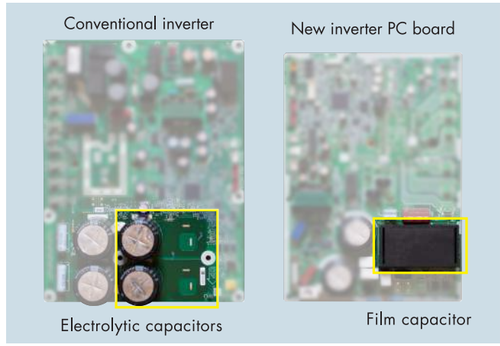
3 rows with small pipe design, increase heat transfer efficiency

4D Inverter Technology

Improved reliability by introducing Daikin 3-phase capacitor-less 4D Inverter technology

4D means…
- Direct Inverter
- Dynamic
- Drive
- High Energy Density

- Direct conversion circuit which eliminates the electrolytic capacitor and minimize the reactor size
- Dynamic waveform control that suppresses the resonance phenomenon generated by miniaturizing parts
- Drive technology
- High Density integration of parts on small printed circuit board



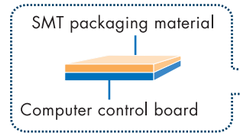
Excellent Performance

Various advanced control main PC board

SMT* packaging technology

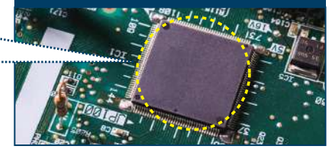
SMT packing technology adopted by the whole computer control panel improve the anti-clutter performance.

Protects your computer board from adverse effect of sandy and humid weather.



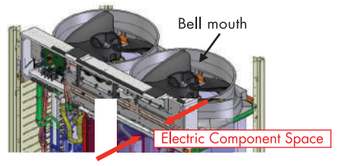
*SMT: Surface mounted technology

Computer control board surface adopting SMT packaging technology



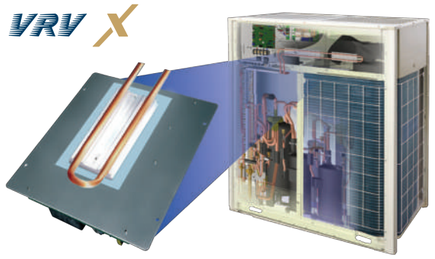
Improved inner design to increase smooth airflow

Downsizes electric component, relocates to dead space of bell mouth side to decrease airflow resistance.



ADVANCE TECHNOLOGY ACHIEVED

Excellent Performance



Refrigerant cooling technology, ensures stability of PCB temperature

Improves reliability at high ambient temperature

It is possible to cool the inverter power module stability even at high ambient temperature.This helps to keep airconditioning capacity and also ensures efficient and reliable operation.

Comfort

Lower operation sound

Improves heat exchanger efficiency, helps reduced operation sound.

Large airflow, high static pressure and quiet technology

Without increasing operation sound, advanced analytic technologies are utilised to optimise fan design, increase airflow rate and external static pressure.

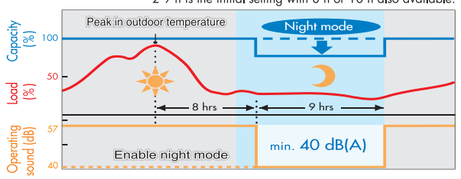
Sound level(dB(A))

	6 HP	8 HP	10 HP	12 HP
VRV X	56	56	57	59

Quiet night-time operation function

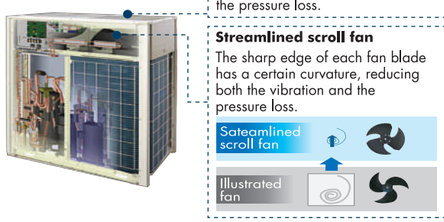
Outdoor PCB automatically memorises the time when the peak outdoor temperature appears. It enables quiet operation mode after 8 h*1, and returns to normal mode after it keeps this on for 9 h*2.

*1 8 h is the initial setting with 6 h or 10 h also available.
*2 9 h is the initial setting with 8 h or 10 h also available.

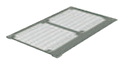


Notes:

- This function is available in field setting.
- The operating sound in quiet operation mode is the actual value measured by Daikin.
- The relationship of outdoor temperature (load) and time shown above is just an example.
- For 10 HP ODU.



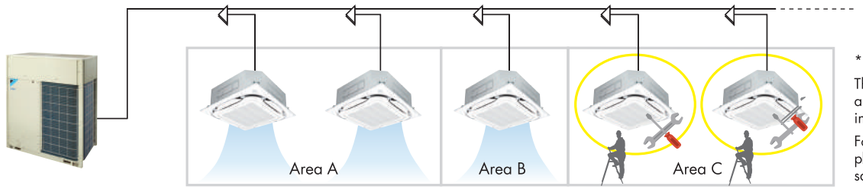
Streamlined air grille
It promotes the discharge of swirling airflow, further reducing the pressure loss.



Streamlined scroll fan
The sharp edge of each fan blade has a certain curvature, reducing both the vibration and the pressure loss.

Ease of Maintenance

VRV X series provides a maintenance feature* which allows the shutdown of indoor unit without shutting down the whole ***VRV*** system. This feature comes in handy during maintenance period as the remaining indoor units continue to operate.



* Field setting is required.
This feature does not apply to residential indoor unit connection.
For more information, please contact Daikin sales office.

X' TENDED RELIABILITY

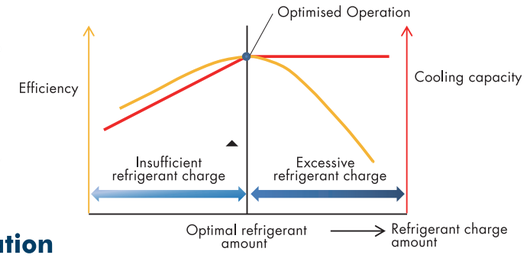
Automatic Refrigerant Charge Function

Contribute to optimised operation efficiency, higher quality and easier installation

Optimised operation efficiency

The automatic refrigerant charge function automatically determines the optimal amount of refrigerant to be charged.

This function prevents a capacity shortage or energy loss due to excessive or insufficient refrigerant.



Higher quality and easier installation

The automatic refrigerant charge function automates the charging of the proper refrigerant amount and the closing of shut-off valves with just one press of the switch after pre-charging. Simplified installation eliminates excessive and insufficient refrigerant charge amounts due to calculation mistakes, and this has led to higher installation quality.

Conventional

1. Calculate necessary refrigerant amount from design drawing
2. Recalculate refrigerant amount from final installation drawing
3. Charge refrigerant
4. Regularly check refrigerant weight on weighing scale
5. Complete by manually closing valves when proper weight is reached

VRV X SERIES

1. Calculation of necessary refrigerant amount from design drawing

2. Pre-charge of refrigerant*

3. Start of automatic refrigerant charge operation

- Automatic completion with optimal refrigerant amount
- Monitoring refrigerant charging is not required
- No recalculation of charge amounts due to minor design changes at site

*Pre-charge amount changes according to conditions, and there are cases when pre-charging is unnecessary.

Multiple Advanced Features Ensuring More Accurate Test Operation And Stable System

Efficient automatic test operation

Automatically checks the wirings between outdoor units and indoor units to confirm whether there is a defective wiring.

Confirms and corrects the actual piping length.

Automatically checks whether the stop valve in each outdoor unit is in normal status to ensure the smooth operation of airconditioning system.

Automatic check

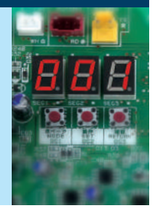
Free Phase Technology

Phase reversal occurs in areas where power supply are freequent. At the time of power recovery phase reversal may take place due to AC source, and device may stop for PCB protection. By employing Free Phase technology, continued operation is achieved.

Simplified commissioning and after-sales service

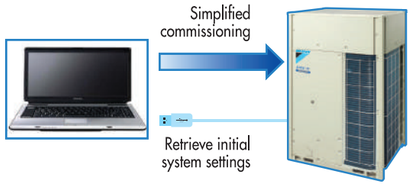
Function of information display by luminous digital tube

VRV X system utilises the 7-segment luminous digital tubes to display system operation information, enabling the operational state to be visually displayed whilst facilitating simplified commissioning and after-sales service.

7-segment digital display	Conventional LED display
Displays system operation information directly 	Figures out system operation information by reading light emitting state of different diodes, which is both inefficient and fallible. 

VRV configurator

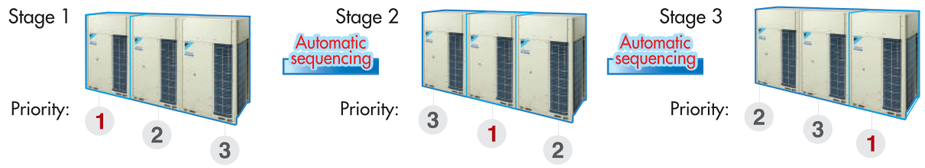
- The VRV configurator is an advanced solution that allows for easy system configuration and commissioning.
- Less time is required on the roof configuring the outdoor unit.
- Multiple system at different sites can be managed in exactly the same way, thus offering simplified commissioning for key accounts.
- Initial setting on the outdoor unit can be easily retrieved.



Outdoor unit sequencing technology

Automatic sequencing operation

During start-up, the Daikin VRV X unit sequencing operation will be automatically enabled to ensure balanced operation of each outdoor unit to improve longevity of equipment and stable operation.



Double backup operation functions responding resiliently to various unexpected situations

Double backup operation functions

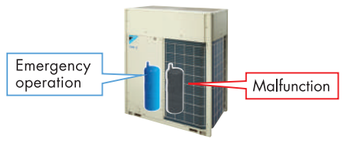
Daikin VRV X system boasts double backup operation functions, which can secure the use of air conditioners in this area to the greatest extent by emergently enabling double backup operation functions even if failure occurs in a set of airconditioning equipment.

In the event of a failure, emergency operation can be enabled conveniently to allow the remaining system to operate in a limited fashion.

Compressor Backup Operation Function

If malfunction occurs in a compressor...

Emergency operation can be easily set and enabled by the outdoor unit (for a single outdoor unit system RXQ16-20ARY6 models).



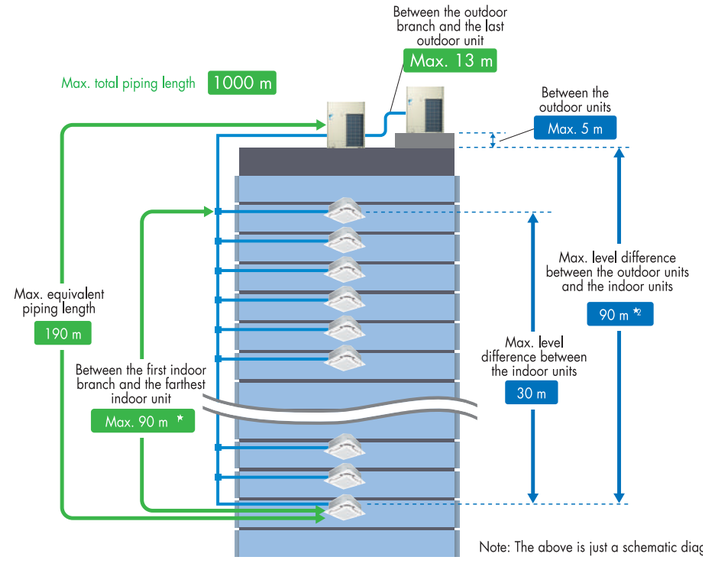
Unit backup operation function

If malfunction occurs in an outdoor unit emergency operation can be conveniently set and enabled by the remote controller for indoor unit (for systems composed of two or more outdoor units).

More options for installation location

Long piping length

The long piping length provides more design flexibility, which can match even large-sized buildings.



Note: The above is just a schematic diagram.

Maximum allowable piping length	Actual piping length (Equivalent)	165 m (190 m)
	Total piping length	1000 m
	Between the first indoor branch and the farthest indoor unit	90 m*1
	Between the outdoor branch and the last outdoor unit (Equivalent)	10 m (13 m)
Maximum allowable level difference	Between the outdoor units (Multiple use)	5 m
	Between the indoor units	30 m
	Between the outdoor units and the indoor units	90m*2

1. No special requirements up to 40 m. The maximum actual piping length can be 90 m, depending on conditions. Various conditions and requirements have to be met to allow utilisation of 90 m piping length.
2. When level differences are 50 m or more, the diameter of the main liquid piping size must be increased. If the outdoor unit is above the indoor unit, a dedicated setting on the outdoor unit is required.

Connection ratio

Connection capacity at maximum is 200%.

Connection ratio
50%–200%

Connection ratio =
Total capacity index of the indoor units / Capacity index of the outdoor units

Conditions of VRV indoor unit connection capacity

Applicable VRV indoor units	FXDQ,	FXMQ-PA,	FXAQ, models	Other VRV indoor unit models*1
Single outdoor units	200%			200%
Double outdoor units				160%
Triple outdoor units				130%

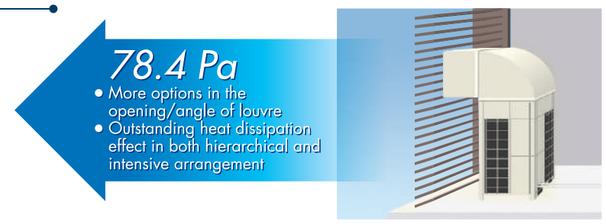
*1 For the FXFQ25 and FXVQ models, maximum connection ratio is 130% for the entire range of outdoor units.

Note: If the operational capacity of indoor units is more than 130%, low airflow operation is enforced in all the indoor units.
*Refer to page 54 for outdoor unit combination details.

OUTDOOR UNIT LINEUP

High external static pressure

VRV X outdoor unit has achieved high external static pressure up to 78.4 Pa, ensuring the efficient heat dissipation and stable operation of equipment in either hierarchical or intensive arrangement.



Outdoor Units

The outdoor unit capacity is up to 60 HP in increment of 2 HP.

- VRV X outdoor unit offers a higher capacity of up to 60 HP, responding to the needs of large-sized buildings.
- The single outdoor unit has only 2 different shapes and dimensions, not only simplifying the design process, but also bringing the system flexibility to a new level.
- With the outdoor unit capacity increased in increment of 2 HP, customers' needs can be precisely met.
- Outdoor units with anti-corrosion specifications (-E type on request) are designed specifically for use in areas which are subject to salt damage and atmospheric pollution.

Standard Type

- Single Outdoor Units

6, 8, 10, 12 HP

RXQ6ARY6
RXQ8ARY6
RXQ10ARY6
RXQ12ARY6

14, 16 HP

RXQ14ARY6
RXQ16ARY6

18, 20 HP

RXQ18ARY6
RXQ20ARY6

- Double Outdoor Units

22, 24 HP

RXQ22ARY6
RXQ24ARY6

26, 28, 30, 32 HP

RXQ26ARY6
RXQ28ARY6
RXQ30ARY6
RXQ32ARY6

- Double Outdoor Units

34, 36, 38, 40 HP

RXQ34ARY6
RXQ36ARY6
RXQ38ARY6
RXQ40ARY6

- Triple Outdoor Units

42, 44 HP

RXQ42ARY6
RXQ44ARY6

46, 48, 50, 52, 54, 56, 58, 60 HP

RXQ46ARY6
RXQ48ARY6
RXQ50ARY6
RXQ52ARY6
RXQ54ARY6
RXQ56ARY6
RXQ58ARY6
RXQ60ARY6

Lineup

HP	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60
Cooling only	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

VRV X

Enhanced Range Of Choices

A variety of VRV indoor units are enabled in one system, opening the door to stylish and quiet indoor units.

VRV Indoor Units **15 types 77 models**

Type	Model Name	Capacity Range / Capacity Index	0.8 HP 20	1 HP 25	1.25 HP 31.25	1.6 HP 40	2 HP 50	2.5 HP 62.5	3 HP 71	3.2 HP 80	4 HP 100	5 HP 125	6 HP 140	7 HP 170	8 HP 200	10 HP 250	16 HP 400	20 HP 500
Ceiling Mounted Cassette (Round Flow with Sensing) (Optional)	VRT FXFQ-SVM			●	●	●	●	●		●	●	●						
Ceiling Mounted Cassette (Round Flow)	New VRT FXFQ-AVM VRT Smart Control			●	●	●	●	●		●	●	●	●					
Ceiling Mounted Cassette (Compact Multi Flow)	VRT FXZQ-MVE		●	●	●	●	●											
Ceiling Mounted Cassette (Double Flow)	VRT FXCQ-MVE		●	●	●	●	●	●		●		●						
Ceiling Mounted Cassette Corner	VRT FXEQ-AV		●	●	●	●	●	●										
Slim Ceiling Mounted Duct	VRT FXDQ-PBVE (with drain pump)	 (700 mm width type)	●	●	●													
	VRT FXDQ-NBVE (with drain pump)	 (900/1,100 mm width type)				●	●	●										
Ceiling Mounted Duct	New VRT FXMQ-PBV36 VRT Smart Control		●	●	●	●	●	●		●	●	●	●					
	VRT FXMQ-NVE													●	●	●		
Ceiling Suspended	VRT FXHQ-MAVE				●			●			●							
4-Way Flow Ceiling Suspended	VRT FXUQ-AVEB								●		●							
Wall Mounted	VRT FXAQ-PVE		●	●	●	●	●	●										
Floor Standing	VRT FXLQ-MAVE				●		●	●										
Concealed Floor Standing	VRT FXNQ-MAVE				●		●	●										
Floor Standing Duct	VRT FXVQ-NY16											●			●	●	●	●

At Daikin, we offer a wide range of indoor units, including both *VRV* and residential models, responding to a variety of needs of our customers that require airconditioning solutions.

VRV Indoor Units

Ceiling Mounted Cassette (Round Flow with Sensing) Type (Optional)

FXFQ-SVM

Presence of people and floor temperature can be detected to provide comfort and energy savings

Ceiling Mounted Cassette (Compact Multi Flow) Type

FXZQ-MVE

Quiet, compact, and designed for user comfort

Ceiling Mounted Cassette (Round Flow)

FXFQ-AVM

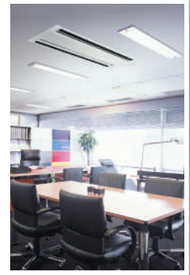
New

360° airflow improves temperature distribution and offers a comfortable living environment.

Ceiling Mounted Cassette (Double Flow) Type

FXCQ-MVE

Thin, lightweight, and easy to install in narrow ceiling spaces



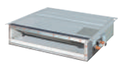
Ceiling Mounted Cassette Corner Type

FXEQ-AVE

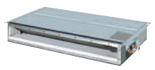
Slim design for flexible installation

Slim Ceiling Mounted Duct Type

FXDQ-PBVE



FXDQ-NBVE



Slim design, quietness and static pressure switching

Ceiling Mounted Duct Type

New

FXMQ-PBV36

FXMQ-NVE

High external static pressure allows flexible installations

4-Way Flow Ceiling Suspended Type

FXUQ-AVEB

This slim and stylish indoor unit achieves optimum air distribution, and can be installed without the need for ceiling cavity.

INDOOR UNIT LINEUP

Ceiling Suspended Type

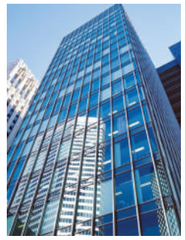
FXHQ-MAVE

Slim body with quiet and wide airflow

Floor Standing Duct Type

FXVQ-NY16
(high static pressure type)

Large airflow type for large spaces. Flexible interior design for each tenant.



Floor Standing Type

FXLQ-MAVE

Concealed Floor Standing Type

FXNQ-MAVE

Suitable for perimeter zone air conditioning

Wall Mounted Type

FXAQ-PVE

Stylish flat panel design harmonised with your interior décor

VRV Indoor Units

Ceiling Mounted Cassette (Round Flow with Sensing) **Type** (Optional)

FXFQ25S / FXFQ32S / FXFQ40S
FXFQ50S / FXFQ63S / FXFQ80S
FXFQ100S / FXFQ125S

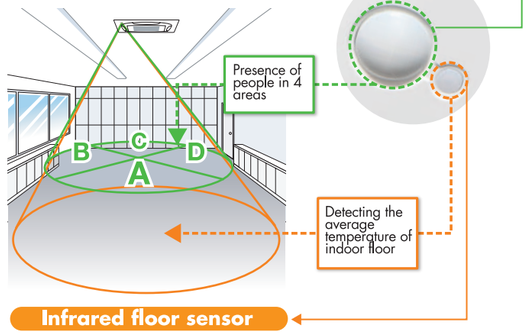
Round flow with sensing

Presence of people and floor temperature can be detected to provide comfort and energy savings

- Dual sensors detect the presence of people and floor temperature to provide comfortable air-conditioning and energy savings.

Infrared presence sensor

- The sensor detects human presence and adjusts the airflow direction automatically to prevent drafts. Energy saving control can be performed when no people are detected.

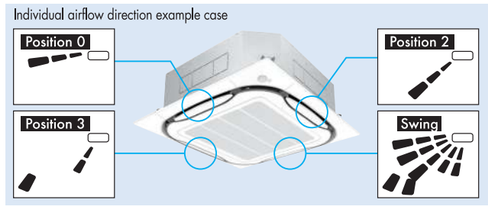


Infrared floor sensor

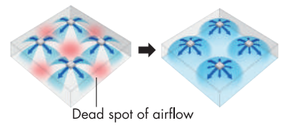
- The sensor detects the floor temperature and automatically adjusts operation of the indoor unit to reduce the temperature difference between the ceiling and the floor.

Individual airflow direction control

- Thanks to the individual airflow direction control function, airflow direction can be individually adjusted for each air discharge outlet. Five directions of airflow and auto-swing can be selected with wired remote controller BRC1E62, which realises optimum air distribution.



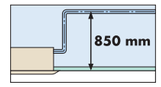
- Indoor unit offers 360° airflow, discharges air in all directions with more uniform temperature distribution.



- Energy efficiency has been improved. Thanks to the adoption of a new heat exchanger with smaller tubes, DC fan motor and DC drain pump motor.
- Low operation sound level

FXFQ-S	25/32	40	50	63	80	100	125
Sound level (H/M/L)	30/28.5/27	31/29/27	36/32/28	38/33/28	38/35/31	44/38/32	45/40/35

- Control of airflow rate can be selected from 3-step control, which provides comfortable airflow. Auto airflow rate control can be selected with wired remote controller BRC1E62.
- Drain pump is equipped as standard accessory with 850 mm lift.



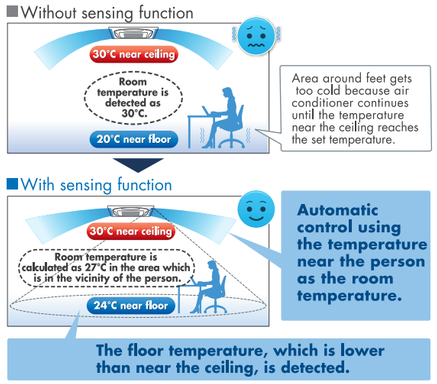
VRV Indoor Units

Ceiling Mounted Cassette (Round Flow with Sensing) Type (Optional)

Sensing function

Auto airflow rate mode + Auto airflow direction mode

- Floor temperature is detected and over cooling prevented.



Energy savings

The temperature near the person is automatically calculated by detecting the temperature of the floor. Energy is saved, because the area around the feet does not get too cold.

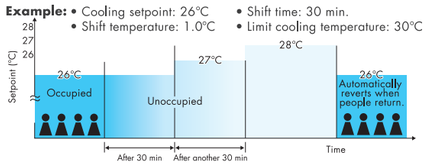
Comfortable airflow

Airflow rate automatically increases during hot or cold periods (when there is a large difference with set temperature), and operation is rapidly performed for cooling or heating.When the difference with set temperature becomes small, drafts are prevented by automatically reducing airflow rate, and raising the flap to a horizontal position during the cooling operation.

Sensing sensor mode

Sensing sensor low mode

- When there are no people in a room, the set temperature is shifted automatically.



If people do not return, the air conditioner will raise the temperature 1°C every 30 minutes and then operate at 30°C.

Shift temperature and time can be selected from 0.5 to 4°C in 0.5°C increments and 15, 30, 45, 60, 90 or 120 minutes respectively with remote controller.

Sensing sensor stop mode *1. 2

- When there are no people in a room, the system stops automatically.

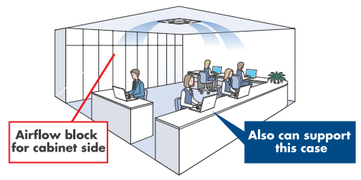
Absent stop time can be selected from 1 to 24 hrs in 1 hr increments with remote controller.

*1. These functions are not available when using the group control system.
*2. User can set these functions with remote controller.

Airflow block function

- Total comfort by individual airflow direction control and newly-equipped "airflow block function"

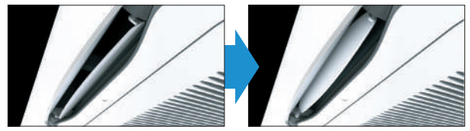
Airflow block function prevents uncomfortable drafts by reducing air velocity to approx. 0.3m/s.*4



- New airflow block function prevents uncomfortable drafts by reducing air velocity.

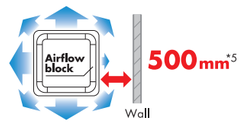
  It can be set using the BRC1E62 remote controller. There is no need for sealing material of air discharge outlet (option).

- This function only works when all-round flow is used. It cannot be used when sealing material is used in the air discharge outlet (option).
- Easy setup with remote controller



Horizontal flow → Airflow block

- The airflow block function is useful when rearranging the room layout.



*3. Works in one direction only.
*4. In case of FXFQ63S type (Data is based on Daikin research.)
*5. A gap of 1500 mm is required if the air block function is not used.

VRV Indoor Units

Ceiling Mounted Cassette (Round Flow) Type

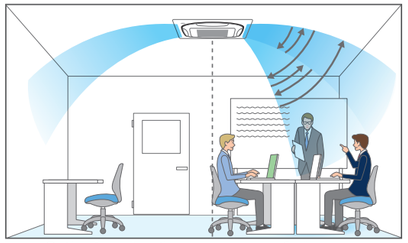
FXFQ25AV / FXFQ32AV / FXFQ40AV
FXFQ50AV / FXFQ63AV / FXFQ80AV
FXFQ100AV / FXFQ125AV / FXFQ140AV

360° airflow improves temperature distribution and offers a comfortable living environment.

New Circulation Airflow

The illustration shows typical airflow. Effectiveness may differ according to room conditions, room size, and distance to walls.

New Direct Airflow



Optimal air direction by "Auto" — Swing (narrow)

Individual Airflow Direction Control

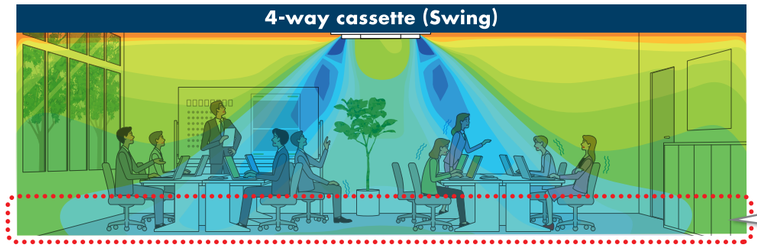
The illustration shows typical airflow.

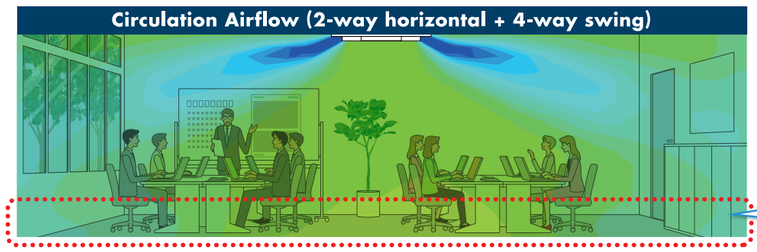
Circulation Air Flow

*1. Applicable when wired remote controller BRC1E62 is used.
*2. Not applicable when using individual airflow direction control.

Circulation airflow cools the entire room to deliver comfort that never feels cold.

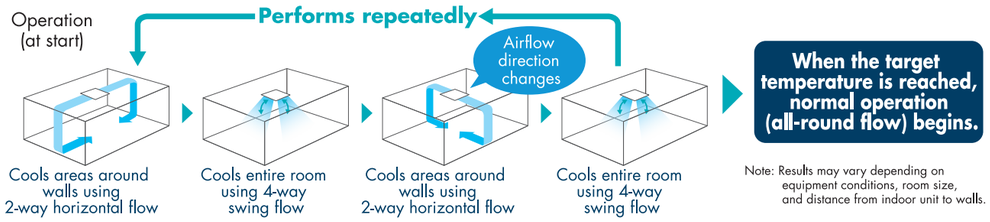
Comfort to the entire room with even temperatures and no cold air pockets at floor level





*3.Calculated under the following comparison conditions:
When the average temperature at a height of 0.6m above the floor reaches set temperature. (26°C)

Configurations of Circulation Airflow



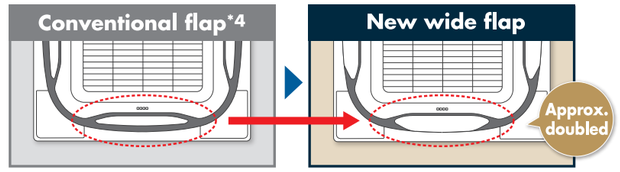
Note: Results may vary depending on equipment conditions, room size, and distance from indoor unit to walls.

Three technologies that achieved circulation airflow

Flow-out is straight, horizontally and strong, so the air travels far and even reaches the wall from which it falls to the floor. This approach and technology makes circulation airflow possible.

1 Use of new wide flaps (Straight)

Compared to conventional models, the new wide flap increases straightness of the airflow, so coverage is approximately doubled.



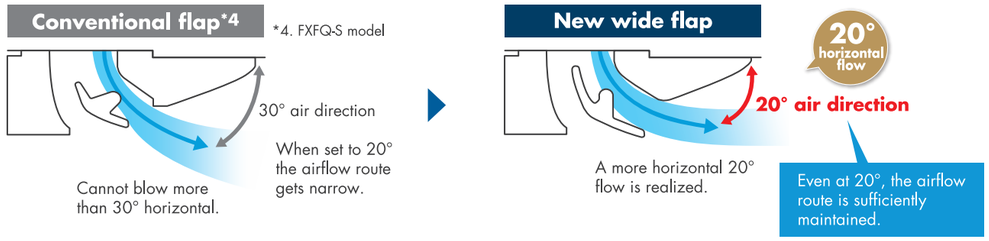
*4. FXFQ-S model

New wide flap construction inhibits ceiling dirt and grime

By tapering both flap ends, the airflow that causes dirty ceilings is directed downward.

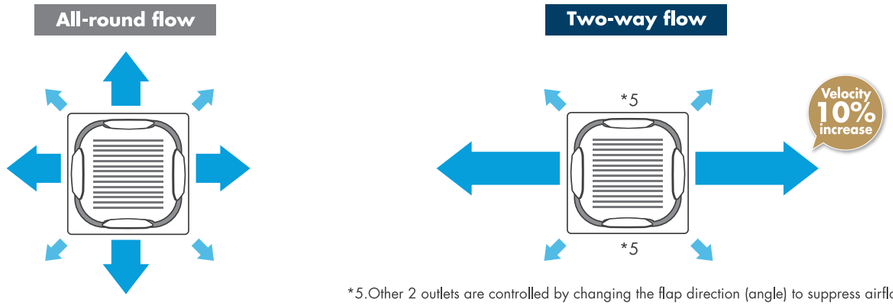
2 Optimizing airflow angle (Horizontally)

Even with the flap angle raised, a sufficient airflow route is maintained to realize a more horizontal airflow angle.



3 Increased velocity in 2-way flow (Strongly)

Velocity increased by making 2-way flow. Powerful airflow was realized.



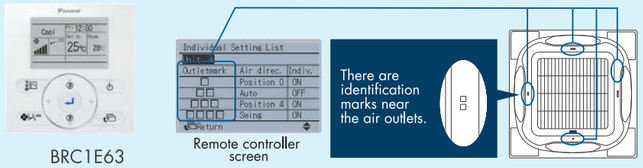
*5.Other 2 outlets are controlled by changing the flap direction (angle) to suppress airflow volume.

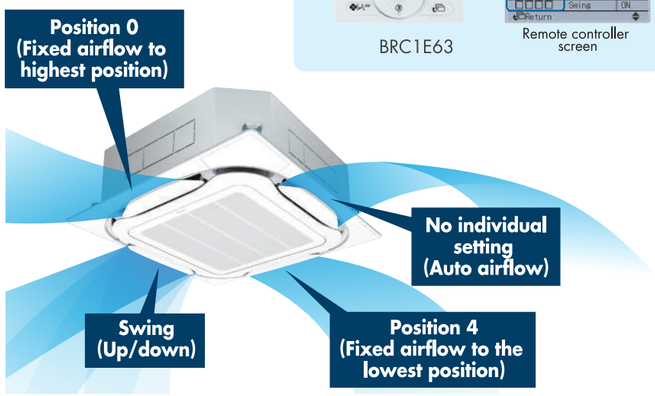
*1. Applicable when wired remote controller BRC1E63 is used.

Comfortable air conditioning for all room layouts and Conditions

Airflow direction can be individually adjusted for each air discharge outlet to deliver optimal air distribution.

Easy setting is possible with a wired remote controller.





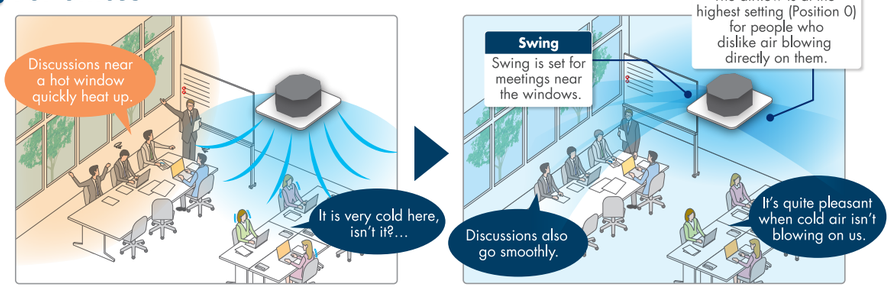
Individual airflow settings

- No individual setting (Auto airflow)
- Position 0 (Highest point)
- Position 1
- Position 2
- Position 3
- Position 4 (Lowest point)
- Swing

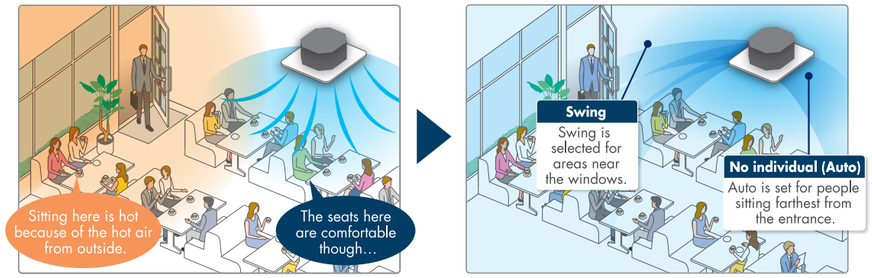
Individual settings are possible as stated above.

When individual airflow is selected, airflow direction can be adjusted to room layout.

For offices



For shops and restaurant



VRV Indoor Units

Ceiling Mounted Cassette (Compact Multi Flow) Type

FXZQ20M / FXZQ25M / FXZQ32M
FXZQ40M / FXZQ50M

Quiet, compact, and designed for user comfort

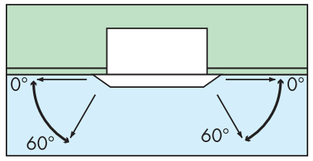
- Dimensions correspond with 600 mm X 600 mm architectural module ceiling design specifications.

Low operation sound level (dB(A))

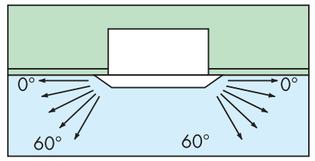
FXZQ-M	20/25	32	40	50
Sound level (H/L)	30/25	32/26	36/28	41/33

Comfortable airflow

1. Wide discharge angle: 0° to 60°
   - Auto swing

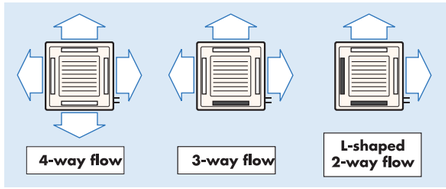


   - Fixed angles: 5 levels



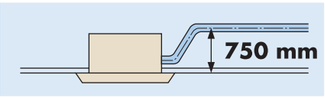
*Angles can be also set on site to prevent drafts (0°-35°) or soiling of the ceiling (25°-60°), other than standard setting (0°-60°).

2. 2-, 3-, and 4-way airflow patterns are available, enabling installation in the corner of a room.



*For 3-way or 2-way flow installation, the sealing member for air discharge outlet (option) must be used to close each unused outlet.

Drain pump is equipped as standard accessory with 750 mm lift.



VRV Indoor Units

Ceiling Mounted Cassette (Double Flow) Type

FXCQ20M / FXCQ25M / FXCQ32M
FXCQ40M / FXCQ50M / FXCQ63M
FXCQ80M / FXCQ125M

Thin, lightweight, and easy to install in narrow ceiling spaces

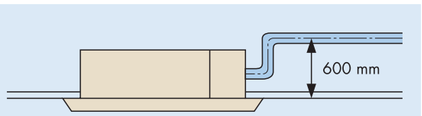
- The thin unit (only 305 mm high) can be installed in a ceiling space as narrow as 350 mm. All models feature a compact design with a depth of only 600 mm.

(When a high-efficiency filter is attached, the unit's height is 400 mm.)

Low operation sound level (220 V)(dB(A))

FXCQ-M	20	25/32	40/50	63	80	125
Sound level (H/L)	32/27	34/28	34/29	37/32	39/34	44/38

- Designed with higher airflow suitable for high ceiling application up to 3 metres.
- Providing 2 different settings of standard and ceiling soiling prevention, the auto swing mechanism realises even distribution of airflow and room temperature.
- Drain pump is equipped as standard accessory with 600 mm lift.



- Two types of optional high-efficiency filters are available (65% and 95%, colourimetric method).
- A long-life filter is equipped as a standard accessory.

* 8 hr/day, 25 day/month. For dust concentration of 0.15 mg/m3

- Major maintenance work can be performed by removing the panel. A flat-type suction grille and a detachable blade make cleaning easy.

VRV Indoor Units

Ceiling Mounted Cassette Corner Type

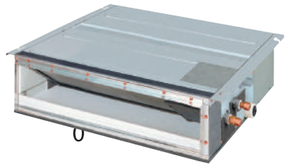
FXEQ20AV / FXEQ25AV
FXEQ32AV / FXEQ40AV
FXEQ50AV / FXEQ63AV

- Single-flow type allows effective air discharge from corner or from drop-ceiling
- Dual-Flap for better air flow coverage
- United Grill design-Flap closes completely when AC not in use
- 3D airflow-Circulates a cloud of air right to the corners of even large spaces
- Easy maintenance-Screw-less design makes panel detachment faster and easier servicing

VRV Indoor Units

Slim Ceiling Mounted Duct Type

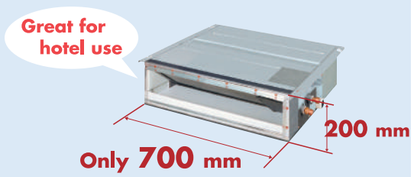
Slim design, quietness and static pressure switching



Suited to use in drop-ceilings

FXDQ20PB / FXDQ25PB / FXDQ32PB

- Only 700 mm in width and 23 kg in weight, this model is suitable for installation in limited spaces like drop-ceilings in hotels.



- Control of the airflow rate has been improved from 2-step to 3-step control.

Low operation sound level (dB(A))

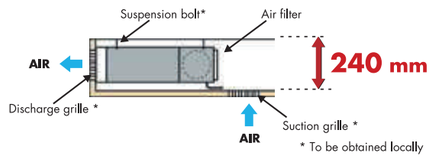
FXDQ-PB/NB	20/25/32	40	50	63
Sound level (HH/H/L)	33/31/29	34/32/30	35/33/31	36/34/32

* The values of operation sound level represent those for rear-suction operation. Sound level values for bottom-suction operation can be obtained by adding 5 dB(A).
* Values are based on the following conditions:
FXDQ-PB: external static pressure of 10 Pa; FXDQ-NB: external static pressure of 15 Pa.

FXDQ40NB / FXDQ50NB / FXDQ63NB

- Only 200 mm in height, this model can be installed in rooms with as little as 240 mm depth between the drop-ceiling and ceiling slab.

* 1,100 mm in width for the FXDQ63NB model.

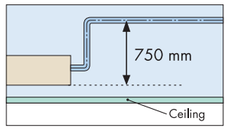


- External static pressure selectable by remote controller switching make this indoor unit a very comfortable and flexible model.

  10 Pa-30 Pa/factory set: 10 Pa for FXDQ-PB models.
  15 Pa-44 Pa/factory set: 15 Pa for FXDQ-NB models.

- FXDQ-PB and FXDQ-NB models are available with a drain pump as a standard accessory.

  FXDQ-PB/NBVE: with a drain pump (750 mm lift) as a standard accessory



VRV Indoor Units

Ceiling Mounted Duct Type

FXMQ20P / FXMQ25P / FXMQ32P
FXMQ40P / FXMQ50P / FXMQ63P
FXMQ80P / FXMQ100P / FXMQ125P
FXMQ140P

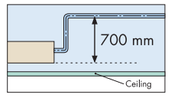
Middle and high static pressure allows for flexible duct design

- A DC fan motor increases the external static pressure capacity range to include middle to high static pressures, increasing design flexibility.

  30 Pa–100 Pa for FXMQ20P-32P
  30 Pa–160 Pa for FXMQ40P
  50 Pa–200 Pa for FXMQ50P-125P
  50 Pa–140 Pa for FXMQ140P

All models are only 300 mm in height, an improvement over the 390 mm height of conventional models. The weight of the FXMQ40P has been reduced from 44 kg to 28 kg.

Drain pump is equipped as standard accessory with 700 mm lift.



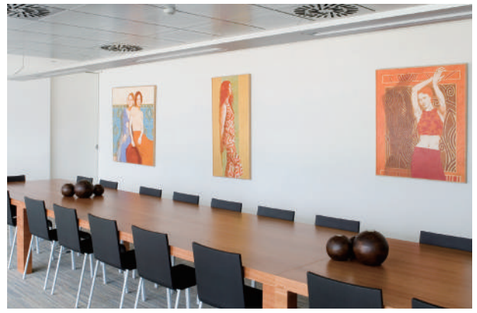
Control of the airflow rate has been improved from 2-step to 3-step control.

Low operation sound level (dB(A))

FXMQ-P	20/25	32	40	50	63	80/100	125	140
Sound level (HH/H/L)	33/31/29	34/32/30	39/37/35	41/39/37	42/40/38	43/41/39	44/42/40	46/45/43

Energy-efficient

- The adopted DC fan motor is much more efficient than the conventional AC motor, yielding an approximate 20% decrease in energy consumption (FXMQ125P).



Improved ease of installation

- Airflow rate can be controlled using a remote controller during test operations. With the conventional model, the airflow rate was controlled from the PC board. It is automatically adjusted to the range between approximately ±10% of the rated HH tap airflow for FXMQ20P–125P.

Improved ease of maintenance

- The drain pan can be detached for easy cleaning. An antibacterial treatment that uses silver ions has been applied to the drain pan, preventing the growth of slime, mould and bacteria that cause blockages and odours.

FXMQ170N/FXMQ200N
FXMQ250N

Simplified Static Pressure Control

External static pressure can be easily adjusted using a change-over switch inside the electrical box to meet the resistance in the duct system.

VRV Indoor Units

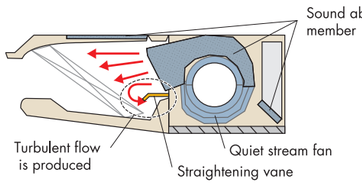
Ceiling Suspended Type

FXHQ32MA / FXHQ63MA
FXHQ100MA

Slim body with quiet and wide airflow

Adoption of QUIET STREAM FAN

Uses the quiet stream fan and many more advanced technologies.

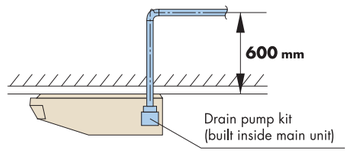


Low operation sound level (dB(A))

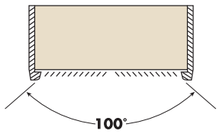
FXHQ-MA	32	63	100
Sound level (H/L)	36/31	39/34	45/37

Installation is easy

- Drain pump kit (optional) can be easily incorporated.



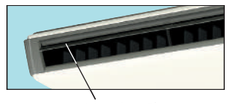
- Wide air discharge openings produce a spreading 100° airflow.



Maintenance is easy

- Non-dew flap with no implanted bristles

Bristle-free flap minimises contamination and makes cleaning simpler.



- Easy-to-clean flat design
- Maintenance is easier because everything can be performed from below the unit.
- A long-life filter is equipped as standard accessory.

* 8 hr/day, 25 day/month. For dust concentration of 0.15 mg/m3

VRV Indoor Units

Wall Mounted Type

FXAQ20P / FXAQ25P
FXAQ32P / FXAQ40P
FXAQ50P / FXAQ63P

Stylish flat panel design harmonised with your interior décor

- Stylish flat panel design creates a graceful harmony that enhances any interior space.
- Flat panel can be cleaned with only the single pass of a cloth across their smooth surface.

  Flat panel can also be easily removed and washed for more thorough cleaning.

Low operation sound level (dB(A))

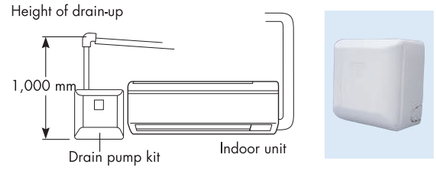
FXAQ-P	20	25	32	40	50	63
Sound level (H/L)	35/31	36/31	38/31	39/34	42/37	47/41

- Drain pan and air filter can be kept clean by mould-proof polystyrene.
- Vertical auto-swing realises efficiency of air distribution. The louvre closes automatically when the unit stops.
- 5 steps of discharge angle can be set by remote controller.
- Discharge angle is automatically set at the same angle as the previous operation when restarting. (Initial setting: 10° for cooling)

Flexible installation

- Drain pipe can be fitted to it from either left or right sides.

- Drain pump kit is available as optional accessory, which lifts the drain 1,000 mm from the bottom of the unit.



VRV Indoor Units

Floor Standing Type

FXLQ32MA / FXLQ50MA
FXLQ63MA

Suitable for perimeter zone airconditioning

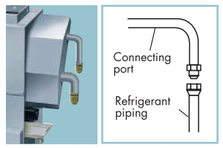
- Floor Standing types can be hung on the wall for easier cleaning. Running the piping from the back allows the unit to be hung on walls. Cleaning under the unit, where dust tends to accumulate, is considerably easier.
- The adoption of a fibre-less discharge grille, featuring an original design to prevent condensation, also helps prevent staining and makes cleaning easier.
- A long-life filter is equipped as standard accessory.
  * 8 hr/day, 25 day/month. For dust concentration of 0.15 mg/m3

Concealed Floor Standing Type

FXNQ32MA / FXNQ50MA
FXNQ63MA

Designed to be concealed in the perimeter skirting-wall

- The unit is concealed in the skirting-wall of the perimeter, that creates a classy interior design.
- The connecting port faces downwards, greatly facilitating on-site piping work.
- A long-life filter is equipped as a standard accessory.
  * 8 hr/day, 25 day/month. For dust concentration of 0.15 mg/m3



* Applies also to Floor Standing type (FXLQ-MA).

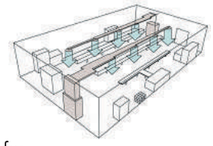
VRV Indoor Units

Floor Standing Duct Type

FXVQ125N / FXVQ200N
FXVQ250N / FXVQ400N
FXVQ500NY16

Large airflow type for large spaces. Flexible interior design for each customer.

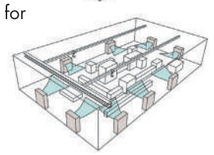
- Large airflow type that fits for spacious areas such as factories and large stores.
- Various installations can be supported from full-scale duct connection airflow to direct airflow that allows for easy installation.
- Full-scale duct connection airflow allows for airconditioning evenly in spacious areas.



Duct connection airflow type

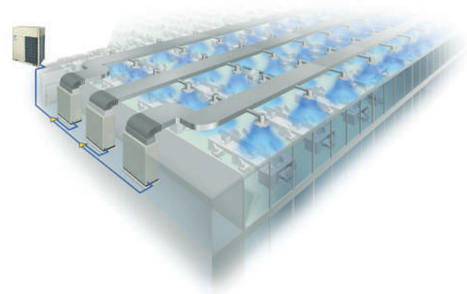
- Adding the plenum chamber (option) allows for simple operation with direct airflow.

  * Note that the operation sound increases by approximately 5 dB(A).



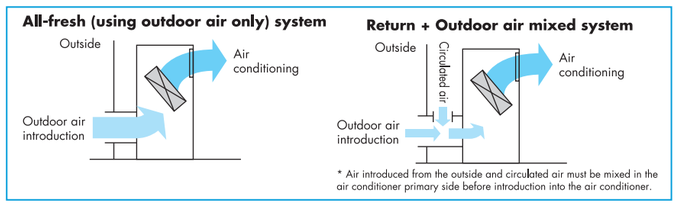
Direct airflow type

- The high static pressure type driven by the belt drive system allows for use of air discharge outlets in various shapes as well as long ducts. Highly flexible installation is possible.
- High maintainability design that allows major services and maintenance services to be performed at the front.
- A long-life filter is equipped as a standard accessory.
  * 8 hr/day, 26 day/month. For dust concentration of 0.15 mg/m3
- A wide range of optional accessories are available such as high-efficiency filters.



- Outdoor air intake mode is useable as an outdoor-air processing airconditioner.

*When using the unit as an outdoor-air processing unit, there are some restrictions.



* Air introduced from the outside and circulated air must be mixed in the air conditioner primary side before introduction into the air conditioner.

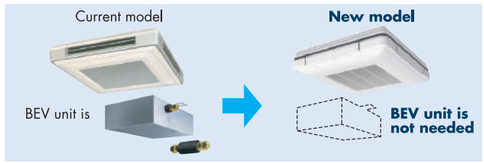
4-Way Flow Ceiling Suspended Type

FXUQ71A / FXUQ100A

This slim and stylish indoor unit achieves optimum air distribution, and can be installed without a ceiling cavity.

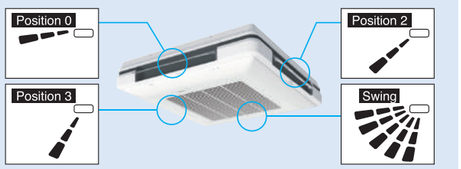
- Unit body and suction panel adopted round shapes and realized a slim appearance design. The unit can be used for various locations such as the ceilings with no cavity and bore ceilings.
- Flaps close automatically when the unit stops, which gives a simple appearance.
- Unified slim height of 198 mm for all models that gives the unified impression even when models with different capacities are installed in the same area.

- Built-in electronic expansion valve eliminates the need for a BEV unit, which improves flexibility of installation.

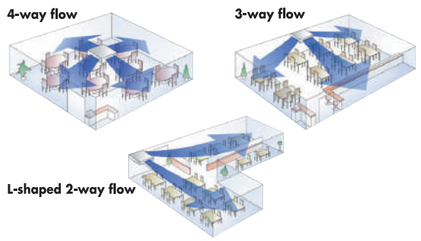


- With adoption of the individual flap control, airflow direction adjustment can be individually set for each air outlet. Five directions of airflow and auto-swing can be selected with wired remote controller BRC1E62, which realizes the optimum air distribution.

Individual airflow direction example case



- Control of the airflow rate has been improved from 2-step to 3-step control. Auto airflow rate control can be selected with wired remote controller BRC1E62.
- Energy efficiency has been improved, thanks to the adoption of new heat exchanger with smaller tubes, DC fan motor and DC drain pump motor.
- Drain pump is equipped as a standard accessory, and the lift height has been improved from 500 mm to 600 mm.
- Depending on the installation site requirements or room conditions, 2-way, 3-way and 4-way discharge patterns are available.



VRV X SPECIFICATIONS

SPECIFICATIONS

VRV Indoor Units

Ceiling Mounted Cassette (Round Flow with Sensing) **Type** (Optional)

MODEL			FXFQ25SVM	FXFQ32SVM	FXFQ40SVM	FXFQ50SVM	FXFQ63SVM	FXFQ80SVM	FXFQ100SVM	FXFQ125SVM
Power supply			1-phase, 220-240 V, 50 Hz							
Cooling capacity		Btu/h	9,600	12,300	15,400	19,100	24,200	30,700	38,200	47,800
		kW	2.8	3.6	4.5	5.6	7.1	9.0	11.2	14.0
Casing			Galvanised steel plate							
Airflow rate (H/M/L)		m^3/min	12.5/11.5/10.0	12.5/11.5/10.0	14.5/13.0/11.0	22.0/17.5/13.5	23.5/18.5/13.5	23.5/19.5/15.0	33.0/26.0/19.0	34.5/27.5/21.0
		cfm	441/406/353	441/406/353	512/459/388	777/618/477	830/653/477	830/688/530	1,165/918/671	1,218/971/741
Sound level (H/M/L)		dB(A)	30/28.5/27	30/28.5/27	31/29/27	36/32/28	38/33/28	38/35/31	44/38/32	45/40/35
Dimensions (HxWxD)		mm	246×840×840						288×840×840	
Machine weight		kg	19			23			26	
Piping connections	Liquid (Flare)	mm	ø 6.4			ø 9.5				
	Gas (Flare)		ø 12.7			ø 15.9				
	Drain		I.D. Ø25×O.D. Ø32(VP25)							
Panel (Option)	Model		BYCQ125B-W1							
	Colour		Fresh white							
	Dimensions(HxWxD)	mm	50x950x950							
	Weight	kg	5.5							

Ceiling Mounted Cassette (Compact Multi-Flow) **Type**

MODEL			FXZQ20MVE	FXZQ25MVE	FXZQ32MVE	FXZQ40MVE	FXZQ50MVE
Power supply			1-phase, 220-240 V/220 V, 50 Hz				
Cooling capacity		Btu/h	7,500	9,600	12,300	15,400	19,100
		kW	2.2	2.8	3.6	4.5	5.6
Casing			Galvanised steel plate				
Airflow rate (H/L)		m^3/min	9/7		9.5/7.5	11/8	14/10
		cfm	318/247		335/265	388/282	493/353
Sound level (H/L)	230 V	dB(A)	30/25		32/26	36/28	41/33
Dimensions (HxWxD)		mm	286x575x575				
Machine weight		kg	18				
Piping connections	Liquid (Flare)	mm	ø 6.4				
	Gas (Flare)		ø 12.7				
	Drain		VP20 (External Dia, 26/Internal Dia, 20)				
Panel (Option)	Model		BYFQ60B8W1				
	Colour		White (6.5Y9.5/0.5)				
	Dimensions(HxWxD)	mm	55x700x700				
	Weight	kg	2.7				

Note: Specification are based on the following conditions;

- Cooling: Indoor temp.: 27°CDB, 19°CWB, Outdoor temp.: 35°CDB, Equivalent piping length: 7.5 m, Level difference: 0 m.
- Capacity of indoor unit is only for reference. Actual capacity of indoor unit is based on the total capacity index.
- Sound level: Anechoic chamber conversion value, measured at a point 1.5 m downward from the unit centre.
- During actual operation, these values are normally somewhat higher as a result of ambient conditions.

Ceiling Mounted Cassette (Round Flow) **Type**

MODEL			FXFQ25AVM	FXFQ32AVM	FXFQ40AVM	FXFQ50AVM	FXFQ63AVM	FXFQ80AVM	FXFQ100AVM	FXFQ125AVM	FXFQ140AVM
Power supply			1-phase, 220-240 V/220-230 V, 50/60 Hz								
Cooling capacity		Btu/h	9,600	12,300	15,400	19,100	24,200	30,700	38,200	47,800	54,600
		kW	2.8	3.6	4.5	5.6	7.1	9.0	11.2	14.0	16.0
Casing			Galvanised steel plate								
Airflow rate (HH/HM/M/ML/L)		m^3/min	13/12.5/11.5/11/10		15/14/13/12/11	17.5/15/13.5/12.5/11	20/18.5/16.5/15/13.5	22.5/21/19/17/15	32/29/26/23/20	33/30.5/28/25.5/22.5	35.5/32.5/29.5/26.5/23
		cfm	459/441/406/388/353		530/494/459/424/388	618/530/477/441/388	706/653/582/530/477	794/741/671/600/530	1,130/1,024/918/812/706	1,165/1,077/988/900/794	1,253/1,147/1,041/935/812
Sound level (HH/HM/M/ML/L)		dB(A)	30/29.5/28.5/28/27		31/30/29/28/27	34/31/29.5/28.5/27	34.5/33/31/29.5/28	37/35.5/33.5/31.5/29.5	43/40.5/37.5/35/32	44/41.5/39/36.5/34	46/43.5/40.5/38/35
Dimensions (HxWxD)		mm	256×840×840						298×840×840		
Machine weight		kg	19			23			26		
Piping connections	Liquid (Flare)	mm	ø 6.4			ø 9.5					
	Gas (Flare)		ø 12.7			ø 15.9					
	Drain		VP25 (External Dia, 32/Internal Dia, 25)								
Panel (Option)	Model		BYCQ125EAF(Fresh White)								
	Dimensions(HxWxD)	mm	50X950X950								
	Weight	kg	5.5								

Note: Specifications are based on the following conditions;

- Cooling: Indoor temp.: 27°CDB, 19°CWB, Outdoor temp.: 35°CDB, Equivalent piping length: 7.5 m, Level difference: 0 m.
- Capacity of indoor unit is only for reference. Actual capacity of indoor unit is based on the total capacity index. (See Engineering Data Book for details.)
- Sound level: Anechoic chamber conversion value, measured at a point 1.5 m downward from the unit centre. During actual operation, these values are normally somewhat higher as a result of ambient conditions.

VRV Indoor Units

Ceiling Mounted Cassette (Double Flow) Type

MODEL			FXCQ20MVE	FXCQ25MVE	FXCQ32MVE	FXCQ40MVE	FXCQ50MVE	FXCQ63MVE	FXCQ80MVE	FXCQ125MVE
Power supply			1-phase, 220-240 V/220 V, 50 Hz							
Cooling capacity		Btu/h	7,500	9,600	12,300	15,400	19,100	24,200	30,700	47,800
		kW	2.2	2.8	3.6	4.5	5.6	7.1	9.0	14.0
Casing			Galvanised steel plate							
Airflow rate (HH/M/L)		m^3/min	7/5	9/6.5	9/6.5	12/9	12/9	16.5/13	26/21	33/25
		cfm	247/177	318/230	318/230	424/318	424/318	582/459	918/741	1,165/883
Sound level (H/L) 220 V		dB(A)	32/27	34/28	34/28	34/29	34/29	37/32	39/34	44/38
Dimensions (HxWxD)		mm	305x775x600	305x775x600	305x775x600	305x990x600	305x990x600	305x1,175x600	305x1,665x600	305x1,665x600
Machine weight		kg	26.0	26.0	26.0	31.0	32.0	35.0	47.0	48.0
Piping connections	Liquid (Flare)	mm	Ø 6.4	Ø 6.4	Ø 6.4	Ø 6.4	Ø 6.4	Ø 9.5	Ø 9.5	Ø 9.5
	Gas (Flare)		Ø 12.7	Ø 12.7	Ø 12.7	Ø 12.7	Ø 12.7	Ø 15.9	Ø 15.9	Ø 15.9
	Drain		VP25 (External Dia, 32/Internal Dia, 25)							
Panel (Option)	Model		BYBC32G-W1			BYBC50G-W1		BYBC63G-W1	BYBC125G-W1	
	Colour		White (10Y9/0.5)							
	Dimensions(HxWxD)	mm	53x1,030x680	53x1,030x680	53x1,030x680	53x1,245x680	53x1,245x680	53x1,430x680	53x1,920x680	53x1,920x680
	Weight	kg	8.0	8.0	8.0	8.5	8.5	9.5	12.0	12.0

Ceiling Mounted Cassette Corner Type

MODEL			FXEQ20AV36	FXEQ25AV36	FXEQ32AV36	FXEQ40AV36	FXEQ50AV36	FXEQ63AV36
Power supply			1-phase, 230V, 50 Hz					
Cooling Capacity		Btu/h	7,500	9,600	12,300	15,400	19,100	24,200
		kW	2.2	2.8	3.6	4.5	5.6	7.1
Casing/Colour			Galvanised steel plate					
Dimensions (HxWxD)		mm	200x840x470				200x1240x470	
Airflow Rate (H/HM/M/ML/L)	Cooling	m^3/min	6.0/5.4/4.9/4.4/4.	6.9/6.4/5.8/5.3/4.	8.0/7.5/7.0/6.3/5.	9.8/8.8/7.8/7.0/6.	12.5/11.4/10.4/9.5/8.	15.0/13.6/12.2/11.4/9.8
		cfm	212/191/173/155/14	244/226/205/187/16	282/265/247/222/19	346/311/275/247/21	441/402/367/335/30	530/480/431/388/346
Piping connections	Liquid Pipes	mm	6.4 (Flare Connection)	6.4 (Flare Connection)	6.4 (Flare Connection)	6.4 (Flare Connection)	6.4 (Flare Connection)	9.5 (Flare Connection)
	Gas Pipes	mm	12.7 (Flare Connection)	12.7 (Flare Connection)	12.7 (Flare Connection)	12.7 (Flare Connection)	12.7 (Flare Connection)	15.9 (Flare Connection)
	Drain Pipe	mm	PVC 26 (External dia. 26) (Internal dia. 20)					
Mass		Kg	17	17	17	18	23	23
Sound Pressure Level (H/HM/M/ML/L)	Cooling	dB (A)	30/29/28/27/26	32/31/30/29/28	35/34/33/32/30	38/37/35/33/31	38/37/35/33/31	43/41/39/37/35
Decoration Panel (Options)	Model		BYEP40AW16	BYEP40AW16	BYEP40AW16	BYEP40AW16	BYEP63AW16	BYEP63AW16
	Panel Colour		Fresh White					
	Dimensions (HxWxD)	mm	80x950x550				80x1350x550	
	Air Filter		Resin net (with mould resistance)					
	Mass	Kg	8				10	

Note: Specifications are based on the following conditions;

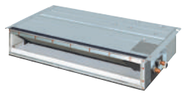
- Cooling: Indoor temp.: 27°CDB, 19°CWB, Outdoor temp.: 35°CDB, Equivalent piping length: 7.5 m, Level difference: 0m
- Capacity of indoor unit is only for reference. Actual capacity of indoor unit is based on the total capacity index.

Sound level: (FXCQ-M) Anechoic chamber conversion value, measured at a point 1.5 m downward from the unit centre.
(FXEQ-AV) Anechoic chamber conversion value, measured at a point 1 m in front of the unit and 1 m downward.
During actual operation, these values are normally somewhat higher as a result of ambient conditions.

Slim Ceiling Mounted Duct Type (700 mm width type)

MODEL	with drain pump		FXDQ20PBVE	FXDQ25PBVE	FXDQ32PBVE
Power supply			1-phase, 220-240 V/220 V, 50 Hz		
Cooling capacity		Btu/h	7,500	9,600	12,300
		kW	2.2	2.8	3.6
Casing			Galvanised steel plate		
Airflow rate (HH/H/L)		m^3/min	8.0/7.2/6.4	8.0/7.2/6.4	8.0/7.2/6.4
		cfm	282/254/226	282/254/226	282/254/226
External static pressure		Pa	30-10★2		
Sound level (HH/H/L)	★1★3	dB(A)	33/31/29	33/31/29	33/31/29
Dimensions (HxWxD)		mm	200x700x620	200x700x620	200x700x620
Machine weight		kg	23.0	23.0	23.0
Piping connections	Liquid (Flare)	mm	Ø 6.4	Ø 6.4	Ø 6.4
	Gas (Flare)		Ø 12.7	Ø 12.7	Ø 12.7
	Drain		VP20 (External Dia, 26/Internal Dia, 20)		

Slim Ceiling Mounted Duct Type (900/1,100 mm width type)



MODEL	with drain pump		FXDQ40NBVE	FXDQ50NBVE	FXDQ63NBVE
Power supply			1-phase, 220-240 V/220 V, 50 Hz		
Cooling capacity		Btu/h	15,400	19,100	24,200
		kW	4.5	5.6	7.1
Casing			Galvanised steel plate		
Airflow rate (HH/H/L)		m^3/min	10.5/9.5/8.5	12.5/11.0/10.0	16.5/14.5/13.0
		cfm	371/335/300	441/388/353	583/512/459
External static pressure		Pa	44-15★2		
Sound level (HH/H/L)	★1★3	dB(A)	34/32/30	35/33/31	36/34/32
Dimensions (HxWxD)		mm	200x900x620	200x900x620	200x1,100x620
Machine weight		kg	27.0	28.0	31.0
Piping connections	Liquid (Flare)	mm	Ø 6.4	Ø 6.4	Ø 6.4
	Gas (Flare)		Ø 12.7	Ø 12.7	Ø 12.7
	Drain		VP20 (External Dia, 26/Internal Dia, 20)		

Note: Specifications are based on the following conditions;

- Cooling: Indoor temp.: 27°CDB, 19°CWB, Outdoor temp.: 35°CDB, Equivalent piping length: 7.5 m, Level difference: 0 m.
- Capacity of indoor unit is only for reference. Actual capacity of indoor unit is based on the total capacity index.
- Sound level: Anechoic chamber conversion value, measured at a point 1.5 m downward from the unit centre.
  During actual operation, these values are normally somewhat higher as a result of ambient conditions.

★ 1: Values are based on the following conditions: FXDQ-PB: external static pressure of 10 Pa; FXDQ-NB: external static pressure of 15 Pa.
★ 2: External static pressure is changeable to set by the remote controller. This pressure means "High static pressure - Standard". (Factory setting is 10 Pa for FXDQ-PB models and 15 Pa for FXDQ-NB models.)
★ 3: The values of operation sound level represent those for rear-suction operation. Sound level values for bottom-suction operation can be obtained by adding 5 dB(A).

VRV Indoor Units

Ceiling Mounted Duct Type

MODEL			FXMQ20PVE	FXMQ25PVE	FXMQ32PVE	FXMQ40PVE	FXMQ50PVE
Power supply			1-phase, 220-240 V/220 V, 50 Hz				
Cooling capacity		Btu/h	7,500	9,600	12,300	15,400	19,100
		kW	2.2	2.8	3.6	4.5	5.6
Casing			Galvanised steel plate				
Airflow rate (HH/H/L)		m^3/min	9/7.5/6.5	9/7.5/6.5	9.5/8/7	16/13/11	18/16.5/15
		cfm	318/265/230	318/265/230	335/282/247	565/459/388	635/582/530
External static pressure		Pa	30-100 (50)*2	30-100 (50)*2	30-100 (50)*2	30-160 (100)*2	50-200 (100)*2
Sound level (HH/H/L)		dB(A)	33/31/29	33/31/29	34/32/30	39/37/35	41/39/37
Dimensions (HxWxD)		mm	300X550X700	300X550X700	300X550X700	300X700X700	300X1,000X700
Machine weight		kg	25	25	25	28	36
Piping connections	Liquid (Flare)	mm	Ø 6.4	Ø 6.4	Ø 6.4	Ø 6.4	Ø 6.4
	Gas (Flare)		Ø 12.7	Ø 12.7	Ø 12.7	Ø 12.7	Ø 12.7
	Drain		VP25 (External Dia, 32/Internal Dia, 25)				

MODEL			FXMQ63PAVE	FXMQ80PAVE	FXMQ100PAVE	FXMQ125PAVE	FXMQ140PAVE
Power supply			1-phase, 220-240 V/220 V, 50 Hz				
Cooling capacity		Btu/h	24,200	30,700	38,200	47,800	54,600
		kW	7.1	9.0	11 .2	14.0	16.0
Casing			Galvanised steel plate				
Airflow rate (HH/H/L)		m^3/min	19.5/17.5/16	25/22.5/20	32/27/23	39/33/28	46/39/32
		cfm	688/618/565	883/794/706	1,130/953/812	1,377/1,165/988	1,624/1,377/1,130
External static pressure		Pa	50-200 (100)*2	50-200 (100)*2	50-200 (100)*2	50-200 (100)*2	50-140 (100)*2
Sound level (HH/H/L)		dB(A)	42/40/38	43/41/39	43/41/39	44/42/40	46/45/43
Dimensions (HxWxD)		mm	300x1,000x700	300x1,000x700	300x1,400x700	300x1,400x700	300x1,400x700
Machine weight		kg	36	36	46	46	47
Piping connections	Liquid (Flare)	mm	9.5	9.5	9.5	9.5	9.5
	Gas (Flare)		15.9	15.9	15.9	15.9	15.9
	Drain		VP25 (External Dia, 32/Internal Dia, 25)				

Note: Specifications are based on the following conditions

- Cooling: Indoor temp.: 27°CDB, 19°CWB, Outdoor temp.: 35°CDB, Equivalent piping length: 7.5 m, Level difference: 0 m.
- Capacity of indoor unit is only for reference. Actual capacity of indoor unit is based on the total capacity index.
- Sound level: Anechoic chamber conversion value, measured at a point 1.5 m downward from the unit centre.
  During actual operation, these values are normally somewhat higher as a result of ambient conditions.

★ 1: Power consumption values are based on conditions of rated external static pressure.
★ 2: External static pressure can be modified using a remote controller that offers seven (FXMQ20-32P), thirteen (FXMQ40P), fourteen (FXMQ50-125P) or ten (FXMQ140P) levels of control. These values indicate the lowest and highest possible static pressures. The standard static pressure is 50 Pa for FXMQ20-32P and 100 Pa for FXMQ40-140P

Ceiling Mounted Duct Type

MODEL			FXMQ170NVE6	FXMQ200NVE6	FXMQ250NVE6
Power supply			1-phase, 220, 240 V/220 V, 50 Hz		
Cooling capacity		Btu/h	65,800	76,400	95,500
		kW	19.3	22.4	28
Casing			Galvanised steel plate		
Airflow rate (H/L)		m^3/min	58/50	65/58	80/73
		cfm	2,047/1,765	2,295/2,047	2,825/2,578
External static pressure		Pa	100-140*2	100-200*2	190-270*2
Sound level (H/L) 220V		dB(A)	45/42	47/45	49/47
Dimensions (HxWxD)		mm	440x1,190x1,090	440x1,190x1,090	440x1,490x1,090
Machine weight		kg	110	110	130
Piping connections	Liquid (Flare)	mm	ø 9.5	ø 9.5	ø 9.5
	Gas (Flare)		ø 19.1	ø 19.1	ø 22.2
	Drain		External Dia 32		

Ceiling Suspended Type

MODEL			FXHQ32MAVE	FXHQ63MAVE	FXHQ100MAVE
Power supply			1-phase, 220-240 V/220 V, 50 Hz		
Cooling capacity		Btu/h	12,300	24,200	38,200
		kW	3.6	7.1	11.2
Casing			White (10Y9/0.5)		
Airflow rate (H/L)		m^3/min	12/10	17.5/14	25/19.5
		cfm	424/353	618/494	883/688
Sound level (H/L) 220V		dB(A)	36/31	39/34	45/37
Dimensions (HxWxD)		mm	195x960x680	195x1,160x680	195x1,400x680
Machine weight		kg	24.0	28.0	33.0
Piping connections	Liquid (Flare)	mm	ø 6.4	ø 9.5	ø 9.5
	Gas (Flare)		ø 12.7	ø 15.9	ø 15.9
	Drain		VP20 (External Dia, 26/Internal Dia, 20)		

Note: Specifications are based on the following conditions

- Cooling: Indoor temp.: 27°CDB, 19°CWB, Outdoor temp.: 35°CDB, Equivalent piping length: 7.5 m, Level difference: 0 m.
- Capacity of indoor unit is only for reference. Actual capacity of indoor unit is based on the total capacity index.
- Sound level: **(FXMQ-MA)** Anechoic chamber conversion value, measured at a point 1.5 m downward from the unit centre.
  (FXHQ-MA) Anechoic chamber conversion value, measured at a point 1 m in front of the unit and 1 m downward.
  During actual operation, these values are normally somewhat higher as a result of ambient conditions

★ 1: Power consumption values are based on conditions of standard external static pressure.
★ 2: External static pressure is changeable to change over the connectors inside electrical box, this pressure means "Standard-High static pressure".

VRV Indoor Units

4-way Flow Ceiling Suspended Type

MODEL			FXUQ71AVEB	FXUQ100AVEB
Power supply			1-phase, 220-240 V/220-230V, 50 Hz	
Cooling capacity		Btu/h	27,300	38,200
		kW	8.0	11.2
Casing			Fresh white	
Airflow rate (H/L)		m^3/min	22.5/19.5/16	31/26/21
		cfm	794/688/565	1,094/918/741
Sound level (H/M//L)		dB(A)	40/38/36	47/44/40
Dimensions (HxWxD)		mm	198×950×950	
Machine weight		kg	26	27
Piping connections	Liquid (Flare)	mm	9.5	
	Gas (Flare)		15.9	
	Drain		VP20 (External Dia, 26/Internal Dia, 20)	

- Cooling: Indoor temp.: 27°CDB, 19°CWB, Outdoor temp.: 35°CDB, Equivalent piping length: 7.5 m, Level difference: 0 m.
- Capacity of indoor unit is only for reference. Actual capacity of indoor unit is based on the total capacity index.
- Sound level: Anechoic chamber conversion value, measured at a point 1.5 m downward from the unit centre.
  During actual operation, these values are normally somewhat higher as a result of ambient conditions.

Wall Mounted Type

MODEL			FXAQ20PVE	FXAQ25PVE	FXAQ32PVE	FXAQ40PVE	FXAQ50PVE	FXAQ63PVE
Power supply			1-phase, 220-240 V/220 V, 50 Hz					
Cooling capacity		Btu/h	7,500	9,600	12,300	15,400	19,100	24,200
		kW	2.2	2.8	3.6	4.5	5.6	7.1
Casing			White (3.0Y8.5/0.5)					
Airflow rate (H/L)		m^3/min	7.5/4.5	8/5	8.5/5.5	12/9	15/12	19/14
		cfm	265/159	282/177	300/194	424/318	530/424	671/494
Sound level (H/L)		dB(A)	35/31	36/31	38/31	39/34	42/37	47/41
Dimensions (HxWxD)		mm	290x795x238	290x795x238	290x795x238	290x1,050x238	290x1,050x238	290x1,050x238
Machine weight		kg	11.0	11.0	11.0	14.0	14.0	14.0
Piping connections	Liquid (Flare)	mm	Ø 6.4	Ø 6.4	Ø 6.4	Ø 6.4	Ø 6.4	Ø 9.5
	Gas (Flare)		Ø 12.7	Ø 12.7	Ø 12.7	Ø 12.7	Ø 12.7	Ø 15.9
	Drain		VP13 (External Dia, 18/Internal Dia, 13)					

Floor Standing Type/Concealed Floor Standing Type

FXLQ

FXNQ

MODEL			FXLQ32MAVE / FXNQ32MAVE	FXLQ50MAVE / FXNQ50MAVE	FXLQ63MAVE / FXNQ63MAVE
Power supply			1-phase, 220-240 V/220 V, 50 Hz		
Cooling capacity		Btu/h	12,300	19,100	24,200
		kW	3.6	5.6	7.1
Casing			FXLQ: Ivory white (5Y7.5/1)/FXNQ: Galvanised steel plate		
Airflow rate (H/L)		m^3/min	8/6	14/11	16/12
		cfm	282/212	494/388	565/424
Sound level (H/L) 220V		dB(A)	35/32	39/34	40/35
Dimensions (HxWxD)	FXLQ	mm	600x1,140x222	600x1,420x222	600x1,420x222
	FXNQ		610x1,070x220	610x1,350x220	610x1,350x220
Machine weight	FXLQ	kg	30.0	36.0	36.0
	FXNQ		23.0	27.0	27.0
Piping connections	Liquid (Flare)	mm	Ø 6.4	Ø 6.4	Ø 9.5
	Gas (Flare)		Ø 12.7	Ø 12.7	Ø 15.9
	Drain		21O.D.		

Note: Specifications are based on the following conditions

- Cooling: Indoor temp.: 27°CDB, 19°CWB, Outdoor temp.: 35°CDB, Equivalent piping length: 7.5 m, Level difference: 0 m.
- Capacity of indoor unit is only for reference. Actual capacity of indoor unit is based on the total capacity index.
- **Sound level: (FXAQ-P)** Anechoic chamber conversion value, measured at a point 1 m in front of the unit and 1 m downward.
  (FXLQ-MA, FXNQ-MA) Anechoic chamber conversion value, measured at a point 1.5 m in front of the unit at a height of 1.5 m.
  During actual operation, these values are normally somewhat higher as a result of ambient conditions.

Floor Standing Duct Type

MODEL			FXVQ125NY1	FXVQ200NY1	FXVQ250NY1	FXVQ400NY1	FXVQ500NY16
Power supply			3-phase 4-wire system, 380 -415 V, 50 Hz				
Cooling capacity		Btu/h	47,800	76,400	95,500	1,54,000	1,91,000
		kW	14.0	22.4	28.0	45.0	56.0
Casing colour			Ivory white (5Y7.5/1)				
Dimensions (HxWxD)		mm	1670x750x510	1670x950x510	1670x1170x510	1900x1170x720	1900x1470x720
Machine weight		kg	118	144	169	236	306
Airflow rate		m^3/min	43	69	86	134	172
		cfm	1,518	2,436	3,036	4,730	6,072
External static Pressure*2		Pa	152	217	281	420	390
Drive system			Belt drive system				
Air Filter	Type		Long-life filter (anti-mould resin net)				
Sound level *1		dB(A)	52	56	60	65	66
Piping connections	Liquid (Flare)	mm	9.5 (Brazing)			12.7 (Brazing)	15.9 (Brazing)
	Gas (Flare)		15.9 (Brazing)	19.1 (Brazing)	22.2 (Brazing)	28.6 (Brazing)	
	Drain		Rp1 (PS 1B internal thread)				

Notes: Specifications are based on the following conditions;

- Cooling : Indoor temp. of 27°CDB, 19°CWB, and outdoor temp. of 35°CDB.
- Capacity of indoor unit is only for reference. Actual capacity of indoor unit is based on the total capacity index.

* 1Sound level : measured when the air discharge outlet duct (2 m) is attached (anechoic chamber conversion value).
It increases by approximately 5 dB(A) when the plenum chamber is installed to deliver direct airflow.
*2 The value is the external static pressure with standard pulley.

Outdoor Units

VRV X

MODEL			RXQ6ARY6	RXQ8ARY6	RXQ10ARY6	RXQ12ARY6	RXQ14ARY6	RXQ16ARY6
Combination units			—	—	—	—	—	—
Power supply			3-phase, 380–415 V, 50 Hz					
Cooling capacity		Btu/h	54,600	76,400	95,500	1,14,000	1,36,000	1,54,000
		kW	16.0	22.4	28.0	33.5	40.0	45.0
Capacity control		%	25~100	20~100	13~100	12~100	11~100	10~100
Casing colour			Ivory white (5Y7.5/1)					
Compressor	Type		Hermetically Sealed Scroll Type					
	No. of compressor		1	1	1	1	1	2
Airflow rate		m^3/min	119	178		191	257	
Dimensions (HxWxD)		mm	1,657X930X765				1,657X1,240X765	
Machine weight		kg	165		175		220	260
Sound level		dB(A)	56	56	57	59	60	60
Operation range	Cooling	°CDB	10 ~ 49					
Refrigerant	Type		R410A					
	Charge	kg	5.9		6.7	6.8	7.4	8.2
Piping connections	Liquid	mm	ø 9.5			ø 12.7		
	Gas	mm	ø 19.1		ø 22.2	ø 28.6		

Note: Specifications are based on the following conditions;
- Cooling: Indoor temp.: 27°CDB, 19°CWB, Outdoor temp.: 35°CDB, Equivalent piping length: 7.5 m, Level difference: 0
- Sound level: Anechoic chamber conversion value, measured at a point 1 m in front of the unit at a height of 1.5 m.
  During actual operation, these values are normally somewhat higher as a result of ambient conditions.

Cooling Only

VRV X

MODEL			RXQ18ARY6	RXQ20ARY6	RXQ22ARY6	RXQ24ARY6
Combination units			—	—	RXQ10ARY6	RXQ12ARY6
			—	—	RXQ12ARY6	RXQ12ARY6
			—	—	—	—
Power supply			3-phase, 380–415 V, 50 Hz			
Cooling capacity		Btu/h	1,71,000	1,91,000	2,10,000	2,29,000
		kW	50.0	56.0	61.5	67.0
Capacity control		%	10~100	7~100	6~100	
Casing colour			Ivory white (5Y7.5/1)			
Compressor	Type		Hermetically Sealed Scroll Type			
	No. of compressor		2	2	1+1	1+1
Airflow rate		m^3/min	257	297	178+191	191+191
Dimensions (HxWxD)		mm	1,657X1,240X765		(1,657X930X765)+(1,657X930X765)	
Machine weight		kg	260	285	175+175	
Sound level		dB(A)	61	65	61	62
Operation range	Cooling	°CDB	10 ~ 49			
Refrigerant	Type		R410A			
	Charge	kg	8.4	11.8	6.7+6.8	6.8+6.8
Piping connections	Liquid	mm	ø 15.9			
	Gas	mm	ø 28.6			ø 34.9

Note: Specifications are based on the following conditions;
- Cooling: Indoor temp.: 27°CDB, 19°CWB, Outdoor temp.: 35°CDB, Equivalent piping length: 7.5 m, Level difference: 0 m.
- Sound level: Anechoic chamber conversion value, measured at a point 1 m in front of the unit at a height of 1.5 m.
  During actual operation, these values are normally somewhat higher as a result of ambient conditions.

SPECIFICATIONS

Outdoor Units

VRV X

								
MODEL			**RXQ26ARY6**	**RXQ28ARY6**	**RXQ30ARY6**	**RXQ32ARY6**	**RXQ34ARY6**	**RXQ36ARY6**
Combination units			**RXQ12ARY6**	**RXQ12ARY6**	**RXQ12ARY6**	**RXQ14ARY6**	**RXQ16ARY6**	**RXQ18ARY6**
			RXQ14ARY6	**RXQ16ARY6**	**RXQ18ARY6**	**RXQ18ARY6**	**RXQ18ARY6**	**RXQ18ARY6**
			—	—	—	—	—	—
Power supply			3-phase, 380–415 V, 50 Hz					
Cooling capacity		Btu/h	2,47,000	2,68,000	2,85,000	3,05,000	3,24,000	3,41,000
		kW	73.5	78.5	83.5	90	95.0	100
Capacity control		%	6~100	5~100	5~100	5~100	4~100	5~100
Casing colour			Ivory white (5Y7.5/1)					
Compressor	Type		Hermetically Sealed Scroll Type					
	No. of compressor		1+1	1+2	1+2	1+2	2+2	2+2
Airflow rate		m^3/min	191+257	191+257	191+257	257+257	257+257	257+257
Dimensions (HxWxD)		mm	(1,657X930X765)+(1,657X1,240X765)			(1,657X1,240X765)+(1,657X1,240X765)		
Machine weight		kg	175+220	175+260		220+260	260+260	
Sound level		dB(A)	63			64		
Operation range	Cooling	°CDB	10 ~ 49					
Refrigerant	Type		R410A					
	Charge	kg	6.8+7.4	6.8+8.2	6.8+8.4	7.4+8.4	8.2+8.4	8.4+8.4
Piping connections	Liquid	mm	Ø 19.1	Ø 19.1	Ø 19.1	Ø 19.1	Ø 19.1	Ø 19.1
	Gas	mm	Ø 34.9	Ø 34.9	Ø 34.9	Ø 34.9	Ø 34.9	Ø 41.3

Note: Specifications are based on the following conditions;
- Cooling: Indoor temp.: 27°CDB, 19°CWB, Outdoor temp.: 35°CDB, Equivalent piping length: 7.5 m, Level difference: 0 m.
- Sound level: Anechoic chamber conversion value, measured at a point 1 m in front of the unit at a height of 1.5 m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.

Cooling Only

VRV X

							
RXQ38ARY6	**RXQ40ARY6**	**RXQ42ARY6**	**RXQ44ARY6**	**RXQ46ARY6**	**RXQ48ARY6**	**RXQ50ARY6**	
RXQ18ARY6	**RXQ20ARY6**	**RXQ12ARY6**	**RXQ12ARY6**	**RXQ14ARY6**	**RXQ14ARY6**	**RXQ14ARY6**	
RXQ20ARY6	**RXQ20ARY6**	**RXQ12ARY6**	**RXQ12ARY6**	**RXQ14ARY6**	**RXQ16ARY6**	**RXQ18ARY6**	
—	—	**RXQ18ARY6**	**RXQ20ARY6**	**RXQ18ARY6**	**RXQ18ARY6**	**RXQ18ARY6**	
3-phase, 380–415 V, 50 Hz							
3,62,000	3,82,000	3,99,000	4,20,000	4,40,000	4,57,000	4,78,000	
106	112	117	123	129	134	140	
4~100	4~100	4~100	3~100	4~100	3~100	3~100	
Ivory white (5Y7.5/1)							
Hermetically Sealed Scroll Type							
2+2	2+2	1+1+2	1+1+2	1+1+2	1+1+2	1+2+2	
257+297	297+297	191+191+257	191+191+297	257+257+257		257+257+257	
(1,657X1,240X765)+ (1,657X1,240X765)		(1,657X930X765)+ (1,657X930X765)+ (1,657X1,240X765)		(1,657X1,240X765)+ (1,657X1,240X765)+ (1,657X1,240X765)			
260+285	285+285	175+175+260	175+175+285	220+220+260	220+260+260	220+260+260	
66	68	65	67	65	65	65	
10 ~ 49							
R410A							
8.4+11.8	11.8+11.8	6.8+6.8+8.4	6.8+6.8+11.8	7.4+7.4+11.8	7.4+8.2+8.4	7.4+8.4+8.4	
Ø 19.1	Ø 19.1	Ø 19.1	Ø 19.1	Ø 19.1	Ø 19.1	Ø 19.1	
Ø 41.3	Ø 41.3	Ø 41.3	Ø 41.3	Ø 41.3	Ø 41.3	Ø 41.3	

Outdoor Units

VRV X

							
MODEL			**RXQ52ARY6**	**RXQ54ARY6**	**RXQ56ARY6**	**RXQ58ARY6**	**RXQ60ARY6**
Combination units			**RXQ16ARY6**	**RXQ18ARY6**	**RXQ18ARY6**	**RXQ18ARY6**	**RXQ20ARY6**
			RXQ18ARY6	**RXQ18ARY6**	**RXQ18ARY6**	**RXQ20ARY6**	**RXQ20ARY6**
			RXQ18ARY6	**RXQ18ARY6**	**RXQ20ARY6**	**RXQ20ARY6**	**RXQ20ARY6**
Power supply			3-phase, 380–415 V, 50 Hz				
Cooling capacity		Btu/h	4,95,000	5,12,000	5,32,000	5,53,000	5,73,000
		kW	145	150	156	162	168
Capacity control		%	3~100	3~100	3~100	3~100	2~100
Casing colour			Ivory white (5Y7.5/1)				
Compressor	Type		Hermetically Sealed Scroll Type				
	No. of compressor		2+2+2	2+2+2	2+2+2	2+2+2	2+2+2
Airflow rate		m^3/min	257+257+257		257+297+297		
Dimensions (HxWxD)		mm	(1,657X1,240X765 + 1,657X1,240X765 + 1,657X1,240X765)				
Machine weight		kg	260+260+260		260+260+285	260+285+285	285+285+285
Sound level		dB(A)	65	66	68	69	70
Operation range	Cooling	°CDB	10 ~ 49				
Refrigerant	Type		R410A				
	Charge	kg	8.2+8.4+8.4	8.4+8.4+8.4	8.4+8.4+11.8	8.4+11.8+11.8	11.8+11.8+11.8
Piping connections	Liquid	mm	Ø 19.1	Ø 19.1	Ø 19.1	Ø 19.1	Ø 19.1
	Gas	mm	Ø 41.3	Ø 41.3	Ø 41.3	Ø 41.3	Ø 41.3

Note: Specifications are based on the following conditions;

- Cooling: Indoor temp.: 27°CDB, 19°CWB, Outdoor temp.: 35°CDB, Equivalent piping length: 7.5 m, Level difference: 0 m.
- Sound level: Anechoic chamber conversion value, measured at a point 1 m in front of the unit at a height of 1.5 m.
  During actual operation, these values are normally somewhat higher as a result of ambient conditions.

VRV X

OUTDOOR UNIT COMBINATIONS & OPTION LIST

OUTDOOR UNIT COMBINATIONS

VRV X

HP	Capacity index	Model name	Combination	Outdoor unit multi connection piping kit *1	Total capacity index of connectable indoor units*2	Maximum number of connectable indoor units*2
6	150	RXQ6A	RXQ6A	—	75 to 195 (300)	9 (15)
8	200	RXQ8A	RXQ8A	—	100 to 260 (400)	13 (20)
10	250	RXQ10A	RXQ10A	—	125 to 325 (500)	16 (25)
12	300	RXQ12A	RXQ12A	—	150 to 390 (600)	19 (30)
14	350	RXQ14A	RXQ14A	—	175 to 455 (700)	22 (35)
16	400	RXQ16A	RXQ16A	—	200 to 520 (800)	26 (40)
18	450	RXQ18A	RXQ18A	—	225 to 585 (900)	29 (45)
20	500	RXQ20A	RXQ20A	—	250 to 650 (1,000)	32 (50)
22	550	RXQ22A	RXQ10A + RXQ12A	BHFP22P100	275 to 715 (880)	35 (44)
24	600	RXQ24A	RXQ12A x 2		300 to 780 (960)	39 (48)
26	650	RXQ26A	RXQ8A + RXQ18A		325 to 845 (1,040)	42 (52)
28	700	RXQ28A	RXQ12A + RXQ16A		350 to 910 (1,120)	45 (56)
30	750	RXQ30A	RXQ12A + RXQ18A		375 to 975 (1,200)	48 (60)
32	800	RXQ32A	RXQ12A + RXQ20A		400 to 1,040 (1,280)	52 (64)
34	850	RXQ34A	RXQ16A + RXQ18A		425 to 1,105 (1,360)	55 (64)
36	900	RXQ36A	RXQ18A x 2		450 to 1,170 (1,440)	58 (64)
38	950	RXQ38A	RXQ18A + RXQ20A		475 to 1,235 (1,520)	61 (64)
40	1,000	RXQ40A	RXQ20A x 2		500 to 1,300 (1,600)	64 (64)
42	1,050	RXQ42A	RXQ12A x 2 + RXQ18A	BHFP22P151	525 to 1,365 (1,365)	
44	1,100	RXQ44A	RXQ12A x 2 + RXQ20A		550 to 1,430 (1,430)	
46	1,150	RXQ46A	RXQ12A + RXQ16A + RXQ18A		575 to 1,495 (1,495)	
48	1,200	RXQ48A	RXQ12A+ RXQ18A x 2		600 to 1,560 (1,560)	
50	1,250	RXQ50A	RXQ14A + RXQ18A + RXQ18A		625 to 1,625 (1,625)	
52	1,300	RXQ52A	RXQ16A + RXQ18A x 2		650 to 1,690 (1,690)	
54	1,350	RXQ54A	RXQ18A x 3		675 to 1,755 (1,755)	
56	1,400	RXQ56A	RXQ18A x 2 + RXQ20A		700 to 1,820 (1,820)	
58	1,450	RXQ58A	RXQ18A + RXQ20A x 2		725 to 1,885 (1,885)	
60	1,500	RXQ60A	RXQ20A x 3		750 to 1,950 (1,950)	

Note: *1 For multiple connection of 22 HP systems and above, the outdoor unit multi connection piping kit (separately sold) is required.
*2 Values inside brackets are based on connection of indoor units rated at maximum capacity, 200% for single outdoor units, 160% for double outdoor units, and 130% for triple outdoor units. Refer to page 17 for notes on connection capacity of indoor units.

Option List

Ceiling Mounted Cassette (Round Flow With Sensing) Type (Optional)

No.	Item \ Type		FXFQ25S	FXFQ32S	FXFQ40S	FXFQ50S	FXFQ63S	FXFQ80S	FXFQ100S	FXFQ125S
1	Decoration panel		BYCQ125B-W1							
2	Sealing material of air discharge outlet		KDBHQ55B140							
3	Panel spacer		KDBP55H160FA							
4	Filter related	High efficiency filter unit 65%	KAFP556B80						KAFP556B160	
		High efficiency filter unit 90%	KAFP557B80						KAFP557B160	
		Replacement high efficiency filter 65%	KAFP552B80						KAFP552B160	
		Replacement high efficiency filter 90%	KAFP553B80						KAFP553B160	
		Filter chamber	KDDFP55B160							
		Long life replacement filter	KAFP551K160							
		Ultra long-life filter	KAFP55B160							
		Replacement ultra long-life filter	KAFP55H160H							
5	Fresh air intake kit	Chamber type: Without T joint-pipe and fan	KDDQ55B140							
		Chamber type: With T joint-pipe without fan	KDDP55B160K							
		Direct installation type	KDDP55X160							
6	Branch duct chamber		KDJP55B80						KDJP55B160	
7	Insulation kit for high humidity		KDTP55K80						KDTP55K160	

Ceiling Mounted Cassette (Round Flow) Type

No.	Item \ Type			Round Flow Type: FXFQ25AVM FXFQ32AVM FXFQ40AVM	Round Flow Type: FXFQ50AVM FXFQ63AVM FXFQ80AVM	Round Flow Type: FXFQ100AVM FXFQ125AVM FXFQ140AVM
1	Decoration panel	Standard panel	Fresh white	BYCQ125EAF *		
2	Sealing material of air discharge outlet [4]		1 Outlet	KDBH551C160		
			2 Outlet	KDBH552C160		
3	Panel spacer			KDBP55H160FA		
4	Fresh air intake kit		Chamber type [5,6]: Without T-duct joint	KDDP55B160 (Components: KDDP55C160-1, KDDP55B160-2) [8]		
			Chamber type [5,6]: With T-duct joint	KDDP55B160K (Components: KDDP55C160-1, KDDP55B160K2) [8]		
			Direct installation type [7]	KDDP55X160A		
5	High-efficiency filter unit [9] (Including filter chamber)		(Colorimetric method 65%)	KAFP556C80	KAFP556C160	
			(Colorimetric method 90%)	KAFP557C80	KAFP557C160	
6	Replacement high-efficiency filter [9,10]		(Colorimetric method 65%)	KAFP552B80	KAFP552B160	
			(Colorimetric method 90%)	KAFP553B80	KAFP553B160	
7	Filter chamber			KDDFP55C160		
8	Replacement long-life filter			KAFP551K160		
9	Replacement long-life filter (Auto grille panel)			KAFP551H161		
10	Ultra long-life filter unit (Including filter chamber) [9]			KAFP55C160		
11	Replacement ultra long-life filter [9,10]			KAFP55H160H		
12	Branch duct chamber [4]			KDJP55C80	KDJP55C160	
13	Insulation kit for high humidity [9,11]			KDTP55K80	KDTP55K160	
14	Remote controller		Wireless type: Cooling only	BRC4M150W16		
			Wireless type: Receiver	BRC7M632F-6		
			Wired type	BRC1E63		
15	Adaptor for wiring [12]			KRP1C11A		
16	Wiring adaptor for electrical appendices [12]			KRP4AA53		
17	Installation box for adaptor PCB			KRP1H98A		
18	Remote sensor (for indoor temperature)			KRCS01-5B		

Note: 1. When installing designer panel, body height (ceiling required dimension) is 42 mm higher than standard panel. Designer panel cannot operate 2 and 3 way flow.
2. A dedicated wireless remote controller (BRC16A2) for the auto grille panel is included for lowering and raising the suction grille.
3. When installing auto grille panel, body height (ceiling required dimension) is 55 mm higher than standard panel.
4. Circulation airflow is not available with this option.
5. When installing a fresh air intake kit (chamber type), two air outlet corners are closed.
6. It is recommended that the volume of outdoor air introduced through the kit is limited to 10% of the maximum airflow rate of the indoor unit. Introducing higher quantities will increase the operating sound and may also influence temperature sensing.
7. The volume of fresh air for direct installation type is approximately 1% of the indoor unit airflow. The chamber type is recommended when more fresh air is necessary.
8. Please order using the names of both components instead of set name.
9. This option cannot be installed to designer panel and auto grille panel.
10. Filter chamber is required.
11. Please use in case temperature/humidity inside ceiling may get over 30°C, 80% RH.
12. Installation box for adaptor PCB(KRP1H98A) is necessary.
*These panels do not contain the sensing function.

OPTION LIST

VRV Indoor Units

Ceiling Mounted Cassette (Compact Multi Flow) Type

No.	Item \ Type	FXZQ20M	FXZQ25M	FXZQ32M	FXZQ40M	FXZQ50M
1	Decoration panel	BYFQ60B8W1				
2	Sealing material of air discharge outlet	KDBH44BA60				
3	Panel spacer	KDBQ44BA60A				
4	Replacement long-life filter	KAFQ441BA60				
5	Fresh air intake kit Direct installation type	KDDQ44XA60				

Ceiling Mounted Cassette (Double Flow) Type

No.	Item	Type	FXCQ20M FXCQ25M FXCQ32M	FXCQ40M	FXCQ50M	FXCQ63M	FXCQ80M	FXCQ125M
1	Decoration panel		BYBC32G-W1	BYBC50G-W1		BYBC63G-W1	BYBC125G-W1	
2	Filter related	High efficiency filter 65%★1	KAFJ532G36	KAFJ532G56		KAFJ532G80	KAFJ532G160	
		High efficiency filter 90%★1	KAFJ533G36	KAFJ533G56		KAFJ533G80	KAFJ533G160	
		Filter chamber bottom suction	KDDFJ53G36	KDDFJ53G56		KDDFJ53G80	KDDFJ53G160	
		Long life replacement filter	KAFJ531G36	KAFJ531G56		KAFJ531G80	KAFJ531G160	

Note: * 1 Filter chamber is required if installing high efficiency filter.

Ceiling Mounted Cassette Corner Type

No.	Item	Type	FXKQ25MA	FXKQ32MA	FXKQ40MA	FXKQ63MA
1	Panel related	Decoration panel	BYK45FJW1			BYK71FJW1
		Panel spacer	KPBJ52F56W			KPBJ52F80W
2	Air inlet and air discharge outlet related	Long life replacement filter	KAFJ521F56			KAFJ521F80
		Air discharge grille	K-HV7AW			K-HV9AW
		Air discharge blind panel	KDBJ52F56W			KDBJ52F80W
		Flexible duct (with shutter)	KFDJ52FA56			KFDJ52FA80

Slim Ceiling Mounted Duct Type (700 mm width type)

No.	Item \ Type	FXDQ20PB	FXDQ25PB	FXDQ32PB
1	Insulation kit for high humidity	KDT25N32		

Slim Ceiling Mounted Duct Type (900/1,100 mm width type)

No.	Item \ Type	FXDQ40NB	FXDQ50NB	FXDQ63NB
1	Insulation kit for high humidity	KDT25N50		KDT25N63

Ceiling Mounted Duct Type

No.	Item	Type	FXMQ20P FXMQ25P FXMQ32P	FXMQ40P	FXMQ50P FXMQ63P FXMQ80P	FXMQ100P FXMQ125P FXMQ140P	FXMQ200MA FXMQ250MA
1	Drain pump kit		–				KDU30L250VE
2	High efficiency filter	65%	KAF372AA36	KAF372AA56	KAF372AA80	KAF372AA160	KAFJ372L280
		90%	KAF373AA36	KAF373AA56	KAF373AA80	KAF373AA160	KAFJ373L280
3	Filter chamber		KDDF37AA36	KDDF37AA56	KDDF37AA80	KDDF37AA160	KDJ3705L280
4	Long life replacement filter		KAF371AA36	KAF371AA56	KAF371AA80	KAF371AA160	KAFJ371L280
5	Long life filter chamber kit		KAF375AA36	KAF375AA56	KAF375AA80	KAF375AA160	–
6	Service panel	White	KTBJ25K36W	KTB25KA56W	KTB25KA80W	KTB25KA160W	
		Fresh white	KTBJ25K36F	KTBJ25K56F	KTBJ25K80F	KTBJ25K160F	
		Brown	KTBJ25K36T	KTBJ25K56T	KTBJ25K80T	KTBJ25K160T	
7	Air discharge adaptor		KDAJ25K36A	KDAJ25K56A	KDAJ25K71A	KDAJ25K140A	

VRV Indoor Units

Ceiling Suspended Type

No.	Item \ Type	FXHQ32MA	FXHQ63MA	FXHQ100MA
1	Drain pump kit	KDU50N60VE	KDU50N125VE	
2	Replacement long-life filter (Resin net)	KAF501DA56	KAF501DA80	KAF501DA112
3	L-type piping kit (for upward direction)	KHFP5MA63	KHFP5MA160	

Wall Mounted Type

No.	Item \ Type	FXAQ20P	FXAQ25P	FXAQ32P	FXAQ40P	FXAQ50P	FXAQ63P
1	Drain pump kit	K-KDU572EVE					

Floor Standing Type

No.	Item \ Type	FXLQ32MA	FXLQ50MA	FXLQ63MA
1	Long life replacement filter	KAFJ361K45	KAFJ361K71	

Concealed Floor Standing Type

No.	Item \ Type	FXNQ32MA	FXNQ50MA	FXNQ63MA
1	Long life replacement filter	KAFJ361K45	KAFJ361K71	

Floor Standing Duct Type

No.	Item \ Type				FXVQ125N	FXVQ200N	FXVQ250N	FXVQ400N	FXVQ500N
1	Discharge and Suction	Replacement long life filter			KAFJ261L140	KAFJ261L224	KAFJ261L280	KAFJ261M450	KAFJ261M560
2		Ultra long-life filter			–			KAFSJ9A400	KAFSJ9A560
3		Front suction filter chamber for High efficiency filter	Filter chamber for high efficiency filter *1	65%	KDDF-92A140	KDDF-92A200	KDDF-92A280	KDDF-92A400	KDDF-92A560
4				90%	KDDF-93A140	KDDF-93A200	KDDF-93A280	KDDF-93A400	KDDF-93A560
5			Front suction base flange		KD-9A140	KD-9A200	KD-9A280	KD-9A400	KD-9A560
6			Suction grille		KDGF-9A140	KDGF-9A200	KDGF-9A280	KDGF-9A400	KDGF-9A560
7			Replacement filter *2 Long-life filter *3		KAF-91A140	KAF-91A200	KAF-91A280	KAF-91A400	KAF-91A560
8			Replacement filter *2 High efficiency filter	65%	KAF-92A140	KAF-92A200	KAF-92A280	KAF-92A400	KAF-92A560
9				90%	KAF-93A140	KAF-93A200	KAF-93A280	KAF-93A400	KAF-93A560
10		Plenum chamber *4			KPCJ140A	KPC5J	KPC8J	KPCJ400A	KPC15JA
11		Pulley for plenum chamber *4			KPP8JA	KPP9JA	KPP10JA	–	
12		Fresh air intake kit			KD106D10			KDFJ906A560	
13		Rear suction kit			KDFJ905A140	KDFJ905A200	KDFJ905A280	KDFJ905A400	KDFJ905A560
14		Discharge grille for plenum side			KD101A10			KD101A20	
15	Wood base				KKWJ9A140	KWF1G5P	KWF1G8P	KKWJ9A400	KWF1G15
16	Vibration isolating frame				K-ABSG1406A	K-ABSG1407A	K-ABSG1408A	K-ABSG1409A	K-ABSG1410A

*1 A front suction base flange and suction grille are required (option).
*2 A filter chamber for high efficiency is required (option).
*3 Different from the filter attached as standard.
*4 Use the plenum chamber and pulley for plenum chamber in combination.

OPTION LIST

Outdoor Units

VRV X

Optional Accessories		RXQ6ARY6 RXQ8ARY6 RXQ10ARY6	RXQ12ARY6	RXQ14ARY6 RXQ16ARY6
Distributive piping	REFNET header	KHRP26M22H, (Max. 4 branch) KHRP26M33H (Max. 8 branch)	KHRP26M22H, KHRP26M33H, KHRP26M72H (Max. 4 branch) (Max. 8 branch) (Max. 8 branch)	
	REFNET joint	KHRP26A22T KHRP26A33T	KHRP26A22T, KHRP26A33T, KHRP26A72T	

Optional Accessories		RXQ18ARY6 RXQ20ARY6
Disinbutive piping	REFNET header	KHRP26M22H, KHRP26M33H, KHRP26M72H (Max.4 branch) (Max.8 branch) (Max.8 branch)
	REFNET joint	KHRP26A22T, KHRP26A33T, KHRP26A72T

Optional Accessories		RXQ22ARY6	RXQ24ARY6	RXQ26ARY6 RXQ28ARY6 RXQ30ARY6 RXQ32ARY6	RXQ34ARY6 RXQ36ARY6 RXQ38ARY6 RXQ40ARY6
Disinbutive piping	REFNET header	KHRP26M22H (Max.4 branch), KHRP26M33H (Max.8 branch), KHRP26M72H (Max.8 branch),	KHRP26M22H, KHRP26M33H, KHRP26M72H, KHRP26M73H (Max.4 branch) (Max.8 branch) (Max.8 branch) (Max.8 branch)		
	REFNET joint	KHRP26A22T, KHRP26M33T, KHRP26M72T,	KHRP26A22T, KHRP26A33T, KHRP26A72T, KHRP26A73T		
Pipe size reducer		—	KHRP26M73TP, KHRP26M73HP		
Outdoor unit connection piping kit		BHFP22P100			

Optional Accessories		RXQ42ARY6 RXQ44ARY6	RXQ46ARY6 RXQ48ARY6 RXQ50ARY6 RXQ52ARY6 RXQ54ARY6 RXQ56ARY6 RXQ58ARY6 RXQ60ARY6
Disinbutive piping	REFNET header	KHRP26M22H, KHRP26M33H, KHRP26M72H, KHRP26M73H (Max.4 branch) (Max.8 branch) (Max.8 branch) (Max.8 branch)	
	REFNET joint	KHRP26A22T, KHRP26A33T, KHRP26A72T, KHRP26A73T	
Pipe size reducer		KHRP26M73TP, KHRP26M73HP	
Outdoor unit connection piping kit		BHFP22P151	

VRV X

CONTROL SYSTEMS

Individual Control Systems for VRV Indoor Units

Navigation remote controller (Wired remote controller) (Optional)

BRC1E62 &
BRC1F61 (Only for FXEQ Series)

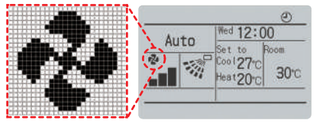
Clear display

- **Dot matrix display**

A combination of fine dots enables various icons. Large text display is easy to see.

- **Backlight display**

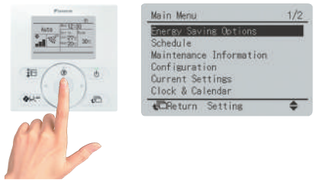
Backlight display helps operating in dark rooms.



Simple operation

- **Large buttons and arrow keys**

Large buttons and arrow keys enable easy operation. Basic setting such as fan speed and temperature can be intuitively operated. For other settings just select the function from the menu list.



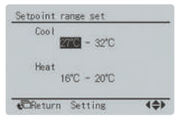
- **Guide on display**

The display gives an explanation of each setting for easy operation.

Energy saving

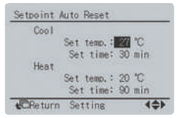
- **Setpoint range set**

- Saves energy by limiting the min. and max. set temperature.
- Avoids excessive cooling or heating.
- This function is convenient when the remote controller is installed at a place where any number of people may operate it.



- **Setpoint auto reset**

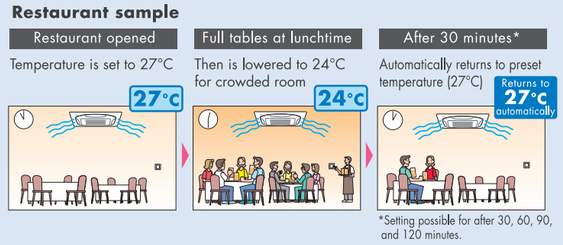
- Even if the set temperature is changed, it returns to the preset temperature after a preset period of time.
- Period selectable from 30 min/60 min/90 min/120 min.



- **Off timer**

- Turns off the airconditioner after a preset period of time.
- Period can be preset from 30 to 180 minutes in 10-minute increments.

Restaurant sample



*Setting possible for after 30, 60, 90, and 120 minutes.

Individual Control Systems for VRV Indoor Units

Convenience

- **Setback (default:OFF)**

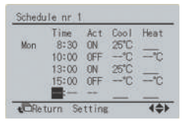
Maintains the room temperature in a specific range during an unoccupied period by temporarily starting airconditioner that was turned OFF.

Ex) Setback temperature Cooling : 35°C Recovery differential Cooling : -2°C
When the room temperature goes above 35°C, the air conditioner starts operating in Cooling automatically.
When room temprature reaches 33°C, the air conditioner turns OFF.

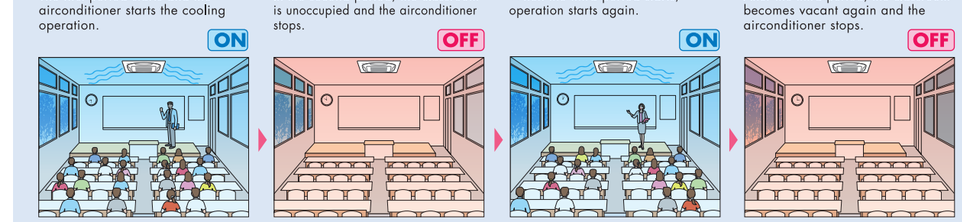
	Setback temperature	Recovery differential
Cooling	33— 37°C	-2 — -8°C

- **Weekly schedule**

- Five actions per day can be scheduled for each day of the week.
- The holiday function will disable schedule timer for the days that have been set as holiday.
- Three independent schedules can be set. (e.g. summer, winter, mid-season)



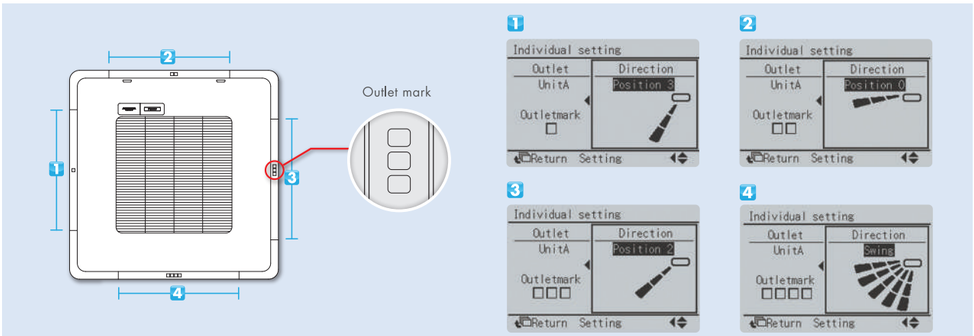
College classroom sample (a summer Monday case)



Comfort

- **Individual airflow direction (*1)**

Airflow direction of each of the four air outlets can be controlled individually.
(Positions 0 to 4, Swing, and No individual setting are selectable.)



- **Auto airflow rate (*2)**

Airflow rate is automatically controlled in accordance with the difference between room temperature and set temperature.

*1 Only available for *VRV* 4-Way Flow Ceiling Suspended type FXUQ-A series
*2 Only available for *VRV* 4-Way Flow Ceiling Suspended type FXUQ-A series

Individual Control Systems for VRV Indoor Units

Wired remote controller (Option)

BRC1C62

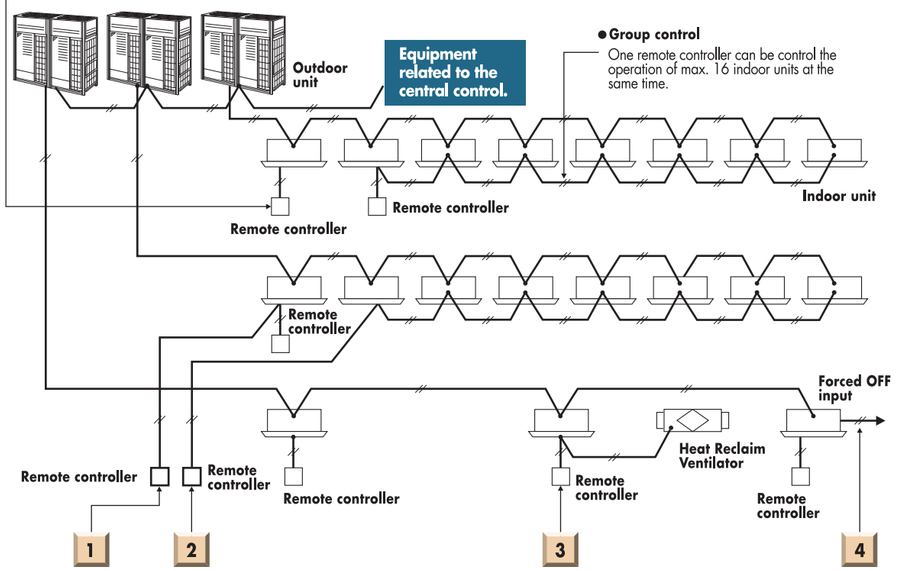
- Displays current airflow, swing, temperature operating mode and timer settings.

*Easier to read because LCD screen is larger.

- Digital display lets you set temperature in 1°C Units.
- Lets you individually programme by timer the respective times for operation start and stop within a maximum of 72 hours.
- Equipped with a thermostat sensor in the remote controller that makes possible more comfortable room temperature control.
- Enables you to select cool/heat/fan operation mode with the indoor remote controller of your choice without using the cool/heat selector.
- Constantly monitor malfunctions in the system for a min. of 40 items, and is equipped with a self-diagnosis function that lets you know through message immediately when a malfunction occurs.
- Lets you carry out various field setting by remote controller.
- Enables you to select the ventilation mode and the volume of the HRV.
- The rubber switch and the oil-resisting resin casing have been adopted for durability.
- When the auto-swing function is not available, the message, THIS FUNCTION IS NOT AVAILABLE is displayed when the wind direction adjustment button is pressed.

The wired remote controller supports a wide range of control functions.

● Control of Cool/Heat changeover In all the series of *VRV*, cool/heat changeover in the same refrigerant circuit can be changed by the remote controller of the indoor unit.



1 Control by two remote controller
The indoor unit can be connected by the two remote controller, for example one in the room and the other one in the control room, which can control the operation of indoor unit freely. (The last command has a priority.) Of course, the group control by two remote controllers is also possible

2 Remote control
The wiring of remote controller can be extended to max. 500m and it is possible to install the remote controllers for the different indoor units in one place.

3 Control for the combined operation
The operation of Heat Reclaim ventilator can be controlled by the remote controller of the indoor unit. Of course the remote controller can display the time to clean the filter.

4 Expansion of system control
The system can be expanded to add several controllers, such as BMS, Forced OFF input and etc.

Individual Control Systems for VRV Indoor Units

Wireless remote controller (Option)

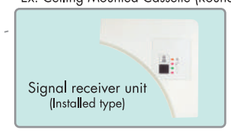
Signal receiver unit (Installed type)

- Then same operation mode and setting as with wired remote controllers are possible.

*Individual airflow direction, auto airflow rate and sensing sensor control can be set only via wired remote controller BRC1E62. Cannot be set via other remote controllers.

- A compact signal receiver unit (separate type) to be mounted into wall or ceiling is included.
- A signal receiver unit (installed type) for a Ceiling Mounted Cassette (Round Flow, Compact Multi Flow, Double Flow) type, ceiling suspended type and wall Mounted type is Mounted Into the Indoor unit.

Signal receiver unit can be installed on the panel.
Ex. Ceiling Mounted Cassette (Round Flow) type



*Wireless remote controller and signal receiver unit are sold as a set
*Refer to page 74 for the name of each model

Simplified remote controller (Option)

Exposed type
(BRC2C51)

Concealed type
(For hotel use)
(BRC3A61)

- The remote controller has centralized its frequently used operation selector and switches (in/off, operation mode, temperature setting and airflow volume), making itself suitable for use in hotel room or conference rooms.
- The exposed type remote controller is fitted with a thermostat sensor.

The concealed type remote controller smartly fits into a night or console panel in a hotel room.

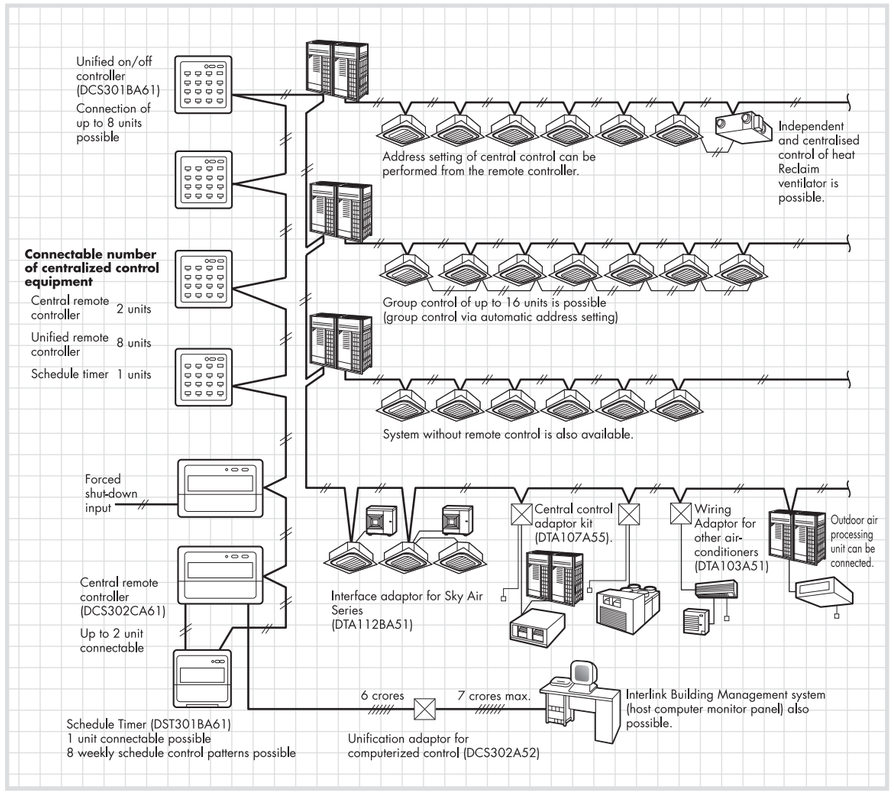
Wide variation of remote controller for *VRV* indoor unit

	FXFQ-AVM FXFQ-5	FXZQ	FXCQ	FXUQ	FXEQ	FXDQ	FXMQ	FXHQ	FXAQ	FXL(N)Q	FXVQ
Navigation remote controller (Wired remote controller) (BRC1E62)	●	●	●	●	●	●	●	●	●	●	●
Wired remote controller (BRC1C62)	●	●	●	●	●	●	●	●	●	●	●
Wireless remote controller*	●	●	●	●	●	●	●	●	●	●	●
Simplified remote controller (Exposed type) (BRC2C51)						●	●			●	
Simplified remote controller (Concealed type: for HOTEL use) (BRC3A61)						●	●			●	

*Refer to page 74 for the name of each model

Centralised Control Systems for VRV Indoor Units

- Up to 64 groups of indoor units (128 units) can be centrally controlled.
- Optional Controllers for centralised control can be combined freely, and system can be designed in accordance with building scale and purpose.
- System integrated with various airconditioning peripheral equipment such as Heat Reclaim Ventilator is easy.
- Wiring can be run up to a length of 2km, and adapts easily to large-scale system expansion.



• Certain indoor units limit the functions of some control systems.

Centralised Control Systems for VRV Indoor Units

Residential remote controller (Optional)

DCS303A51

Max. 16 groups of indoor units can be easily controlled with the large LCD Panel.

- Max. 16 group (128 indoor units) controllable.
- Backlight and large LCD panel for easy readability
- ON/OFF, temperature setting and scheduling can be controlled individually for indoor units.
- All indoor units can be turned on or off at once with "ALL" button.
- Outside temperature display

*For residential use only. Cannot be used with other centralized control equipment.

Central remote controller (Optional)

DCS302CA61

Max. 64 groups(zones) of indoor units can be controlled individually same as LCD remote controller.

- Max. 64 group (128 indoor units) controllable.
- Max. 128 group (128 indoor units) are controllable by using 2 central remote controllers, which can be control from 2 different place.
- Zone control
- Malfunction code display
- Max. wiring length 1,000m (Total: 2,000m)
- Connectable with Unified ON/Off controller, 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 Ventilator.
- Up to 4 ON/OFF pairs can be set per day by connecting a schedule timer.

Unified ON/OFF controller (Optional)

DCS301BA61

Max. 16 groups of indoor units can be operated simultaneously/individually.

- Max. 16 group (128 indoor units) controllable.
- 2 remote controllers can be used to control 2 different places.
- Operating status indication (Normal Operation, Alarm)
- Centralised control indication
- Max. wiring length 1,000m (Total: 2,000m)
- Compact size casing (Thickness: 16mm)
- Connectable with Central Remote controller, Schedule timer and BMS system.

Schedule timer (Optional)

DST301BA61

Max. 128 indoor units can be operated as programmed schedule.

- Max. 128 indoor units controllable
- When used in combination with a central remote controller, a maximum of 8 weekly schedule patterns can be set, while the central controller can be used to select desired zones. Up to 2 ON/OFF pairs can be set per day.
- Max. $8 hours back up power supply.
- Max. wiring length 1,000m (Total: 2,000m)
- Compact size casing (Thickness: 16mm)
- Connectable with Central Remote controller, Unified ON/OFF controller and BMS system.

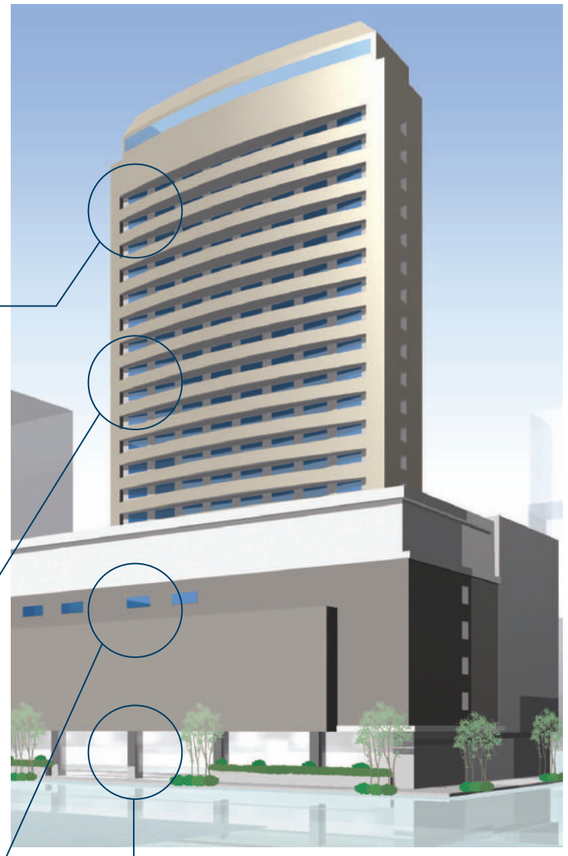
Advanced Control Systems for VRV Indoor Units

intelligent touch Manager

One touch selection enables flexible control of equipment in a building.

DCM601A51

Various types of equipment in a building can be controlled by a single controller.



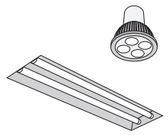
Individual air-conditioning control

The flexible control achieved by the VRV system precisely meets different air conditioning needs in each room (e.g. offices, conference rooms, hotel rooms).

Lighting control

DALI-compatible

DALI-compatible LED lighting systems can be controlled and monitored. Lighting control is enhanced through an interlock function with air conditioners and other functions.



Air-conditioning control for large spaces

Air handling units can also be controlled. Large spaces, such as entrance halls and shopping malls, can be easily controlled to ensure comfort.

Building equipment control

Various types of equipment other than air conditioners, including ventilators, fans, and pumps, can also be controlled.

Pump

Fan

For Energy Saving & Comfort

Intelligent Touch Manager maximises the advantages of VRV features

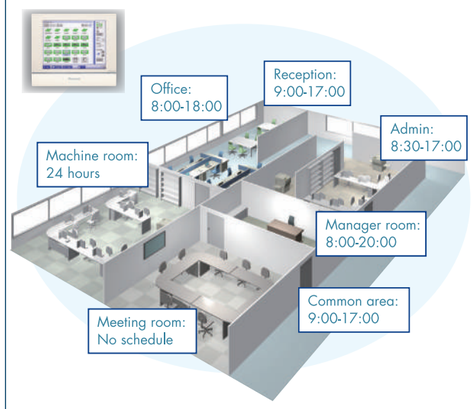
Intelligent Touch Manager is an advanced multi-zone controller that provides the most cost-effective way to control and monitor the Daikin VRV system.

The 10.4" LCD touch screen is easy to use with three different screen views to include the floor plan layout view, icon view and list view and menus for system configurations.

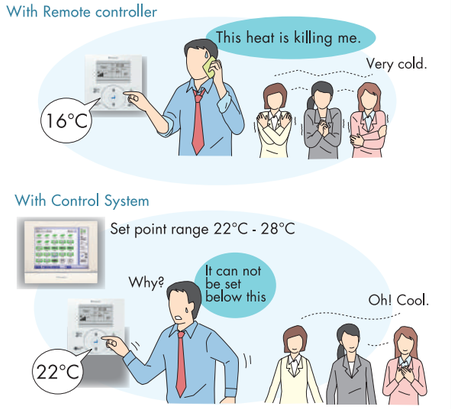
It is also easy to use with standardized remote Web Access from your PC.

It can manage a total of 650 management points consisting of up to 512 Daikin indoor unit groups (up to 1024 indoor units) along with building equipment control / monitoring with Digital Inputs / Output (Di/Dio), Analog Inputs / Output (Ai/Ao) and Pulse input (Pi) optional devices.

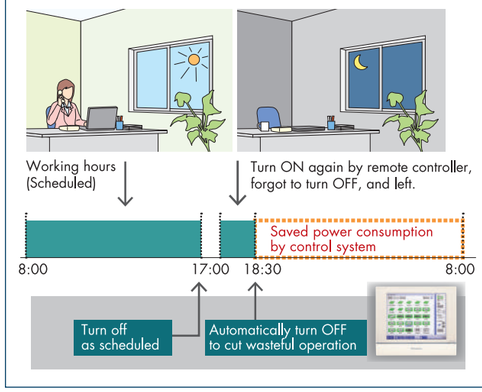
Schedule the operation time for each application.



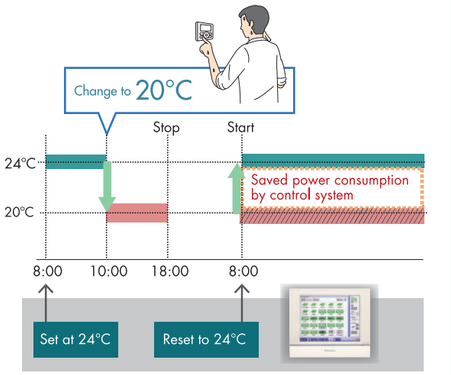
Define the setpoint range that users can change.



Turn the unit OFF if a user didn't.



Reset setpoint regularly.



Advanced Control Systems for VRV Indoor Units

In addition to switching lights on and off, advanced lighting control, such as illuminance adjustment, can be achieved

Lighting control (Optional)

Connection to DALI - compatible lighting control system
Simple wiring (daisy chain) enables management of LED lighting by the *intelligent Touch Manager.*
Various air conditioning and lighting control is enabled through the interlock with occupancy sensors and illuminance sensors.

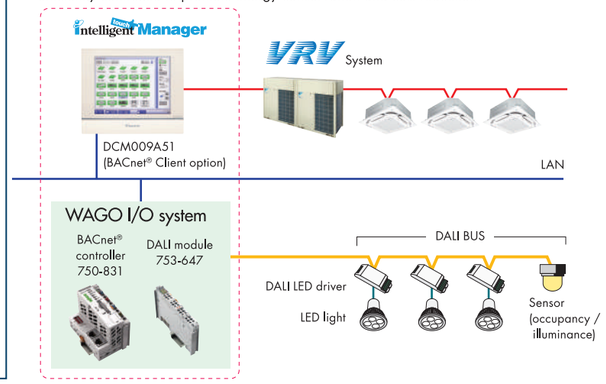
DALI-compatible
Please contact your local sales office for details.

Lighting control achieved by the intelligent Touch Manager

[Operation]
- Switch-on/switch-off operation
- Illuminance (1–100%) control
- Various illuminance patterns can be registered
- Registered pattern can be selected from *intelligent Touch Manager*

[Monitoring]
- Switch-on/switch-off status monitoring
- Lighting abnormality monitoring
- Illuminance monitoring
- DALI occupancy sensor monitoring
- DALI illuminance sensor monitoring

Air conditioning and lighting for which power consumption is high can be efficiently controlled to promote energy conservation and cost reduction!



[Overview of control]
- Up to 5 DALI modules can be connected to a single BACnet® controller.
- Up to 64 DALI LED drivers (64 addresses) can be connected to a single DALI module.
- 64 DALI addresses can be freely assigned to up to 16 groups using a single DALI module. (Each group corresponds to a management point of the *intelligent Touch Manager.*)
- Up to 16 scenes can be set to a single DALI module.
- Up to 12 sensors (occupancy, illuminance) can be connected to a single DALI module.
- DALI BAS simplifies wiring and setting work by daisy chain wiring and automatic address setting.

Easy maintenance and energy saving by lighting control

Case 1

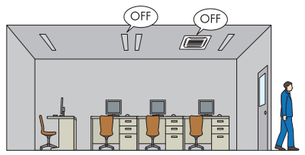
Switch-on / switch-off and illuminance are controlled based on a schedule to cut wasteful power consumption.

- Failing to switch off lights is prevented.

- Optimal illuminance reduces energy.

Case 2

Occupancy sensors are used to eliminate both wasteful lighting and air conditioning.
When a room is unoccupied, the air conditioning stops and the lighting is switched off.



Case 3

Lighting abnormalities (e.g. burned-out bulbs) can be checked on the *intelligent Touch Manager* screen.

Lighting maintenance becomes easier and quicker.

The layout screen enables quick identification of specific locations.

Tenant Management (PPD Option)

Reporting the power consumption of VRV system for each tenant

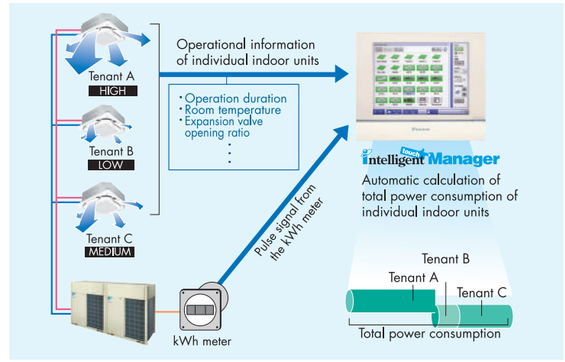
With the PPD function, power consumption can be calculated for each indoor unit (Optional)

The energy consumption is proportionally calculated for each indoor unit. The data can be used for energy management and calculation of air conditioning usage fees for respective tenants.

Operational information of individual indoor units are monitored, based on distribution of power consumption of outdoor units.

Daikin's PPD keeps track of power distribution for each indoor unit. It performs air conditioning billing calculations quickly and automatically.

It is easy to output PPD data.
PPD data is output in CSV format to a PC or USB memory device and can be freely processed and managed.



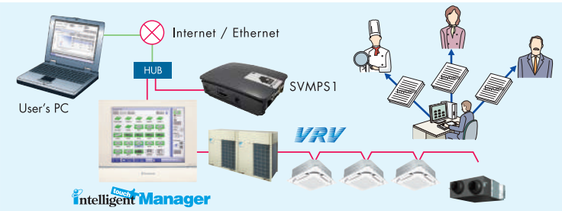
*PPD (Power Proportional Distribution) is Daikin's proprietary calculation method.

Air conditioning bills can be issued by one click

Electricity bills can be easily calculated for each tenant (Optional)

The power consumption of VRV controlled by the intelligent Touch Manager can be easily managed for each tenant using a PC. The electricity bill settings facilitate billing work through easy calculation and issuance of VRV electricity bills.

[Main functions]
- Register tenants
- Set the electricity unit price for 5 time zones
- Calculate power consumption and electricity charge for each tenant
- Show aggregation results in the specified period for each tenant
- Output the results (Printout and CSV file)




Tenant registration screen

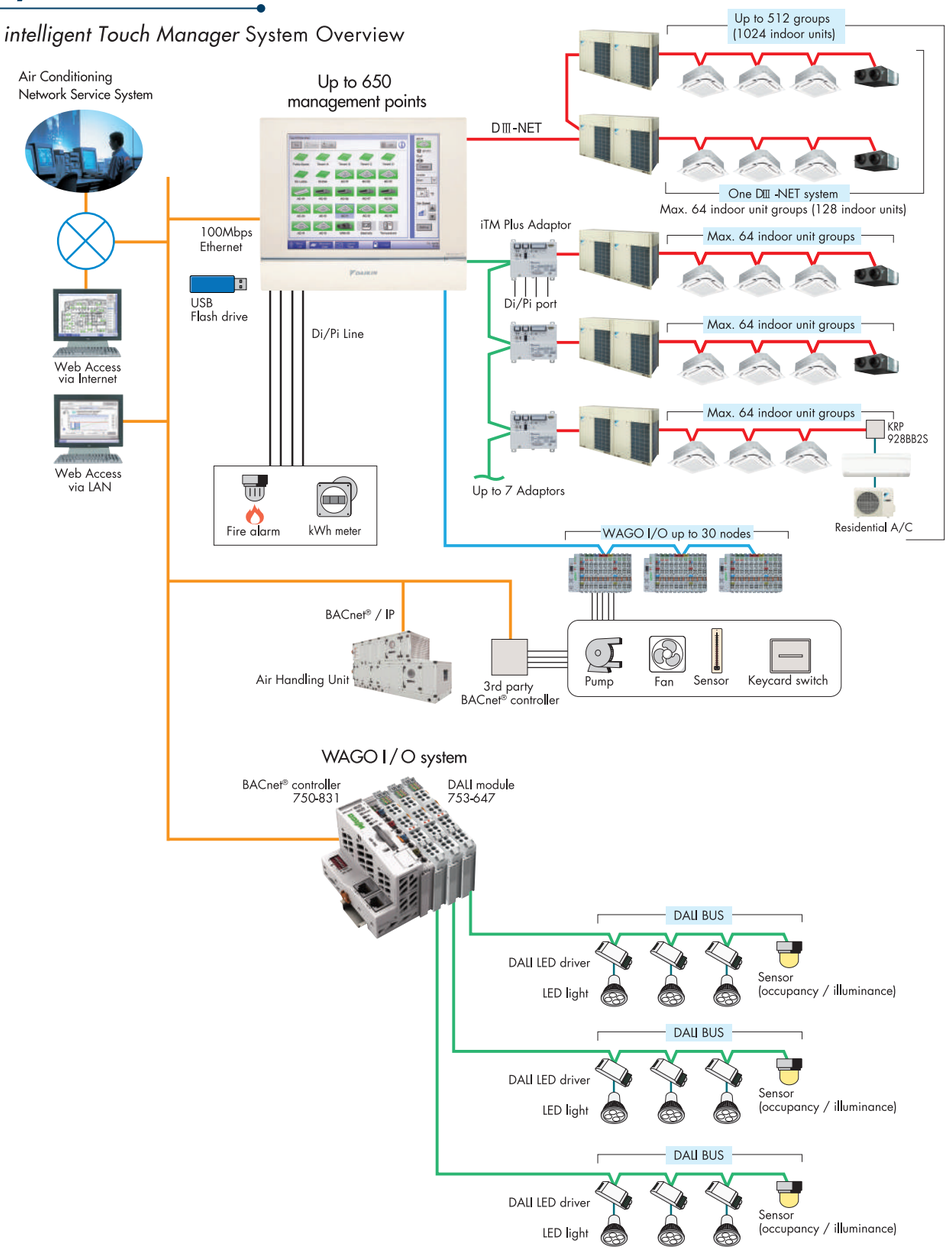

Setup screen


VRV electricity bill screen

Advanced Control Systems for VRV Indoor Units

System structure

intelligent Touch Manager System Overview



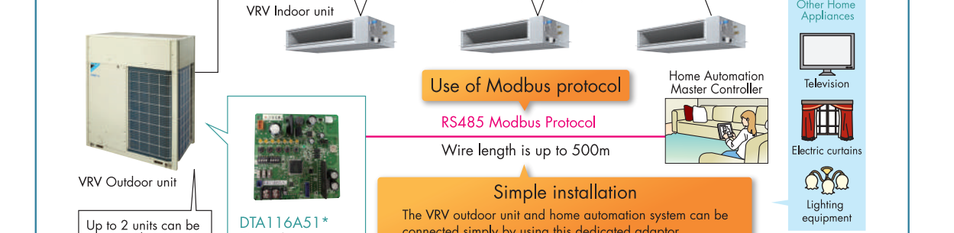
Air Conditioning Network Service System

Preventive Maintenance

The *intelligent Touch Manager* can be connected to Daikin's own Air Conditioning Network Service System for remote monitoring and verification of operation status for VRV system. By its ability to predict malfunctions, this service provides customers with additional peace of mind.

Enhanced convenience with link to the Air Conditioning Network Service System

The *intelligent Touch Manager* connects seamlessly to Daikin's 24-hour Air Conditioning Network Service System.



Daikin Offers a Variety of Control Systems

Convenient controllers that offers more freedom to administrators

DCS601C51

touch intelligent Controller

Ease of use and expanded control functions

The user-friendly controller features colours, multilingual function, and icons in the display for ease of understanding. A wide variety of control methods can be accommodated, permitting administrators to monitor and operate the system even when they are away from the controller.

Connect VRV system to your BMS via BACnet® or LONWORKS®

Compatible with BACnet® and LONWORKS®, the two leading open network comunication protocols, Daikin offers interfaces that provide a seamless connection between VRV system and your BMS.

Dedicated interfaces make Daikin air conditioners freely compatible with open networks

DMS502B51
(Interface for use in BACnet®)

BACnet®
Seamless connection between VRV system and BACnet® open network protocol.

DMS504B51
(Interface for use in LONWORKS®)

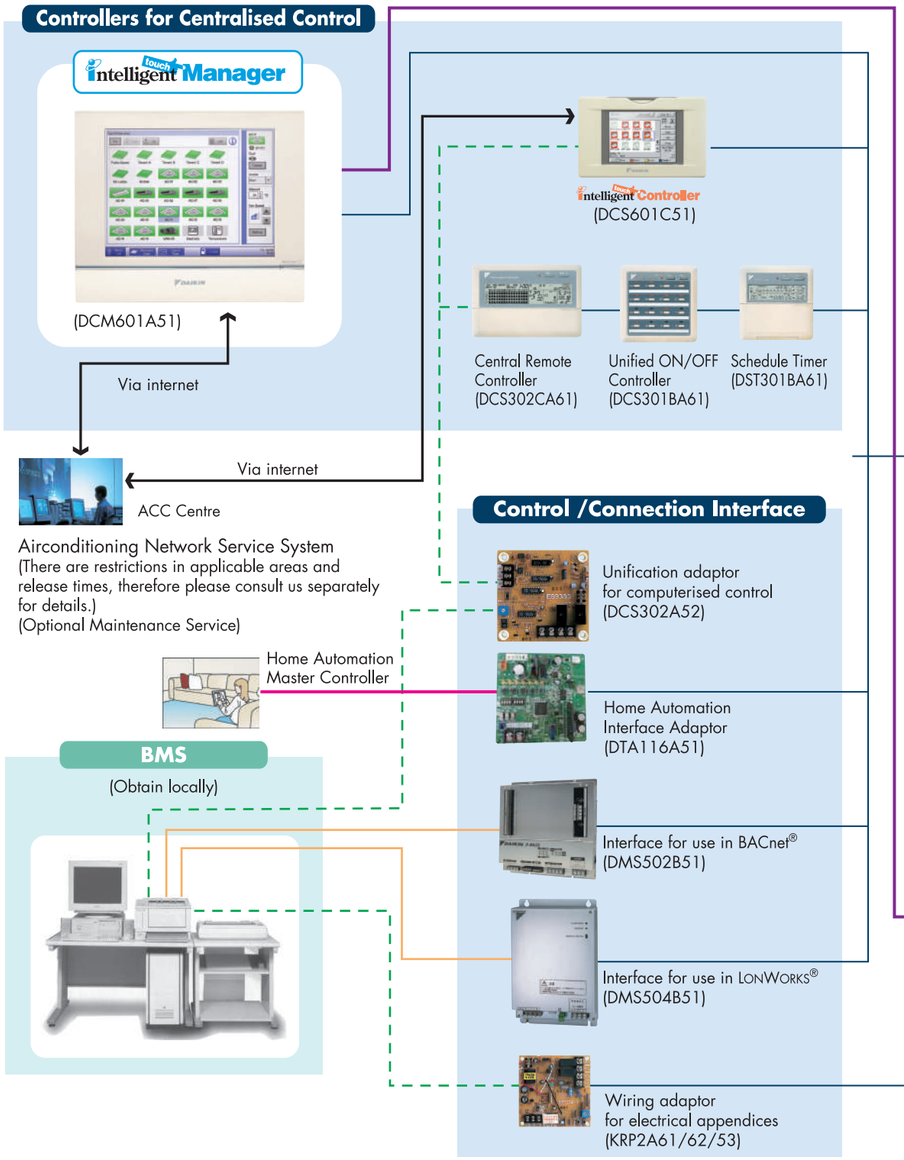
LONWORKS®
Facilitating the network integration of VRV system and LONWORKS®

Notes: 1. BACnet® is a registered trademark of American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE).
2. LONWORKS® is a trademark of Echelon Corporation registered in the United States and other countries.

Home Automation Interface Adaptor

Integrated Building Monitoring System

The high speed transmission of DIII-NET enables more advanced control of the VRV system, providing you with enhanced comfort.



Integrated Building Monitoring System

DIII-NET Line
BACnet®/Ethernet or LONWORKS® Network Communication Line
Contact Signal Line
RS485 Modbus Line
WAGO Connection

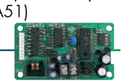
The DIII-NET system provides for:
- Close control and monitoring by integrating a wide variety of airconditioners in the entire building.
- Saving the in-building cabling using non-polar, two-wire cables. Easier wiring work with tremendously fewer wiring errors.
- Additional setups readily up and running. An extendable cabling up to 2 km in total.
- Different control equipment flexibly joined in the system for hierarchical risk diversification.
- Daikin's total heat exchangers and other devices all under integral control.

DIII-NET
(High Speed Multiple Transmission)

DIII-NET, Our unique high speed multiple transmission system, links airconditioners and various other building equipment in accordance with applications, scale and conditions and transmits vast amounts of information between them.

Heat Reclaim Ventilator

Interface Adaptor for SkyAir Series (DTA112BA51)



SkyAir

* No adaptor is required for the FCQ-B and FHQ-BV.

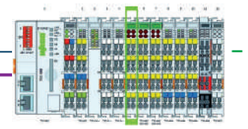
Central Control Adaptor Kit (DTA107A55)

Packaged Airconditioner

Interface Adaptor for DIII-NET use (KRP928BB2S)

Residential Airconditioner

WAGO



Building services equipment
- Electrical equipment
- Supply water and drainage equipment
- Automatic fire alarm
- Parking equipment
- Lift
- Ventilation equipment
- Lighting
- Crime and fire prevention equipment

Caution:
Limitation may apply to some models and functions. Please contact your local sales office for details. Consultation is necessary before employing this control system. Please contact your local sales office before making a purchase.

Note: BACnet® is a registered trademark of American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE). LONWORKS® is a trademark of Echelon Corporation registered in the United States and other countries.

Option List

Operation Control System Optional Accessories

For *VRV* indoor unit use

No.	Item			Type	FXFQ-S	FXFQ-AV	FXZQ-M	FXUQ-A	FXCQ-M	FXEQ-A	FXDQ-PB FXDQ-NB
1	Remote controller	Wireless	Receiver		BRC7M632F-6		BRC7M630W-6	BRC7CB58	BRC7C62-9	BRC7M626-6	BRC4M61-6
			Handset		BRC4M150W16					BRC4M150W16	
		Wired			BRC1C62	BRC1E63	BRC1C62				
2	Navigation remote controller (Wired remote controller)				BRC1E62	BRC1E63	BRC1E62 Note 7				
3	Simplified remote controller (Exposed type)				—						BRC2C51
4	Remote controller for hotel use (Concealed type)				—						BRC3A61
5	Adaptor for wiring				★KRP1C63		★KRP1BA57	—	★ KRP1B61	KRP1B61	★ KRP1B56
6-1	Wiring adaptor for electrical appendices (1)				★ KRP2A62		★ KRP2A62	—	★ KRP2A61	KRP2A61	★KRP2A53
6-2	Wiring adaptor for electrical appendices (2)				★ KRP4AA53		★KRP4AA53	★KRP4AA53	★KRP4AA51	KRP4AA51	★ KRP4A54
7	Remote sensor (for indoor temperature)				KRCS01-4B		KRCS01-1B				
8	Installation box for adaptor PCB ☆				Note 2, 3 KRP1H98		Note 4, 6 KRP1BA101	KRP1BA97	Note 2, 3 KRP1B96	—	Note 4, 6 KRP1BA101
9	External control adaptor for outdoor unit				★DTA104A62		★DTA104A62	—	★DTA104A61	DTA104A61	★DTA104A53
10	Adaptor for multi tenant				★ DTA114A61		—				

No.	Item			Type	FXMQ-P	FXMQ-NVE	FXHQ-MA	FXAQ-P	FXLQ-MA FXNQ-MA	FXVQ-N
1	Remote controller	Wireless	Receiver		BRC4M61-6		BRC7EA63W	BRC7M618-6	BRC4M61-6	—
			Handset		BRC4M150W16			BRC4M150W16		—
		Wired			BRC1C62					BRC1C62 Note 8
2	Navigation remote controller (Wired remote controller)				BRC1E62 Note 7					BRC1E62 Note 9
3	Wired remote controller with weekly schedule timer				BRC1D61					—
4	Simplified remote controller (Exposed type)				BRC2C51	BRC2C51	—		BRC2C51	—
5	Remote controller for hotel use (Concealed type)				BRC3A61	BRC3A61	—		BRC3A61	—
6	Adaptor for wiring				★ KRP1C64	KRP1B61	KRP1BA54	—	KRP1B61	KRP1C67
7-1	Wiring adaptor for electrical appendices (1)				★ KRP2A61	KRP2A61	★ KRP2A61	★ KRP2A61	KRP2A61	—
7-2	Wiring adaptor for electrical appendices (2)				★KRP4AA51	KRP4AA51	★ KRP4AA52	★KRP4AA52	KRP4AA51	KRP2A62
8	Remote sensor (for indoor temperature)				KRCS01-4B			KRCS01-1B		
9	Installation box for adaptor PCB ☆				Note 1 KRP4A96	—	Note 3 KRP1CA93	Note 1 KRP4AA93	—	
10	External control adaptor for outdoor unit				★ DTA104A61	DTA104A61	★ DTA104A62	★DTA104A61	DTA104A61	DTA104A62
11	Adaptor for multi tenant				★ DTA114A61	—	—	★DTA114A61	—	
12	External control adaptor for cooling / heating				—					KRP6A1
13	Remote controller with key				—					KRCB37-1

Notes: 1. Installation box ☆ is necessary for each adaptor marked ★.
2. Up to 2 adaptors can be fixed for each installation box.
3. Only one installation box can be installed for each indoor unit.
4. Up to 2 installation boxes can be installed for each indoor unit.
5. Installation box ☆ is necessary for second adaptor.
6. Installation box ☆ is necessary for each adaptor.
7. Individual airflow direction, auto airflow rate and sensing sensor control can be set only via wired remote controller BRC1E62. Cannot be set via other remote controllers.
8. Since the control panel is equipped as standerd, use the option for 2 remote control system.
9. When using BRC1E62, be sure to remove the control panel and since BRC1E62 cannot be stored inside the indoor unit, please place it separately.

Option List

System Configuration

No.	Item		Type	Model No.	Function
1	Residential central remote controller			Note 2 DCS303A51	• Up to 16 groups of indoor units (128 units) can be easily controlled using the large LCD panel. ON/OFF, temperature settings and scheduling can be controlled individually for indoor units.
2	Central remote controller			DCS302CA61	• Up to 64 groups of indoor units(128 units) can be connected, and ON/OFF, temperature setting and monitoring can be accomplished individually or simultaneously. Connectable up to 2 controllers in one system.
2-1	Electrical box with earth terminal (3 blocks)			KJB311AA	
3	Unified ON/OFF controller			DCS301BA61	• Up to 16 groups of indoor units(128 units) can be turned, ON/OFF individually or simultaneously, and operation and malfunction can be displayed. Can be used in combination with up to 8 controllers.
3-1	Electrical box with earth terminal (2 blocks)			KJB212AA	
3-2	Noise filter (for electromagnetic interface use only)			KEK26-1A	
4	Schedule timer			DST301BA61	• Programmed time weekly schedule can be controlled by unified control for up to 64 groups of indoor units (128 units). Can turn units ON/OFF twice per day.
5	5-room centralised controller for residential indoor units	For CDXS, FDK(X)S, FTK(X)S		Note 3 KRC72A	• Up to 5 indoor units can be controlled. This is a low cost system which can only control ON/OFF.
6	Interface adaptor for residential indoor units	For CDXS, FDK(X)S, FTK(X)S		KRP928BB2S	• Adaptors required to connect products other than those of the *VRV* System to the high-speed DIII-NET communication system adopted for the *VRV* System. * To use any of the above optional controllers, an appropriate adaptor must be installed on the product unit to be controlled.
7	Interface adaptor for SkyAir-series	For FCQ-B, FFQ-B, FHQ-BV, FBQ-B		★DTA112BA51	
8	Central control adaptor kit	For UAT(Y)-K(A), FD-K		★DTA107A55	
9	Wiring adaptor for other air-conditioner			★DTA103A51	
10	DIII-NET Expander Adaptor			DTA109A51	• Up to 1024 units can be centrally controlled in 64 different groups. • Wiring restrictions (max. length: 1,000m, total wiring length: 2,000m, max. number of branches: 16) apply to each adaptor.
10-1	Mounting plate			KRP4A92	• Fixing plate for DTA109A51

Note: 1. Installation box for ★ adaptor must be obtained locally.
2. For residential use only. Cannot be used with other centralised control equipment.
3. A wiring adaptor (KRP413AB1S) is also required for each indoor unit.

Building Management System

No.	Item				Model No.	Function
1	intelligent Touch Controller	Basic	Hardware	intelligent Touch Controller	DCS601C51	• Airconditioning management system that can be controlled by a compact all-in-one unit.
1-1		Option	Hardware	DIII-NET plus adaptor	DCS601A52	• Additional 64 groups (10 outdoor units) is possible.
1-2	Electrical box with earth terminal (4 blocks)				KJB411A	• Wall embedded switch box.
2	intelligent Touch Manager	Basic	Hardware	intelligent Touch Manager	DCM601A51	• Airconditioning management system that can be controlled by touch screen.
2-1		Option	Hardware	iTM plus adaptor	DCM601A52	• Additional 64 groups (10 outdoor units) is possible. Max. 7 iTM plus adaptors can be connected to intelligent Touch Manager.
2-2						
2-3			Software	iTM power proportional distribution	DCM002A51	• Power consumption of indoor units are calculated based on operation status of the indoor unit an doutdoor unit power consumption measured by kWh metre.
2-4				iTM energy navigator	DCM008A51	• Building energy consumption is visualised. Wasted airconditioning energy can be found out.
2-5	Di unit				DEC101A51	• 8 pairs based on a pair of ON/OFF input and abnormality input.
2-6	Dio unit				DEC102A51	• 4 pairs based on a pair of ON/OFF input and abnormality input.
3	Communication interface	*1 Interface for use in BACnet ®			DMS502B51	• Interface unit to allow communications between *VRV* and BMS. Operation and monitoring of airconditioning systems through BACnet ® communication.
3-1		Optional DIII board			DAM411B51	• Expansion kit, installed on DMS502B51, to provide 2 more DIII-NET communication ports. Not usable independently.
3-2		Optional Di board			DAM412B51	• Expansion kit, installed on DMS502B51, to provide 16 more wattmeter pulse input points. Not usable independently.
4		*2 Interface for use in LONWORKS®			DMS504B51	• Interface unit to allow communications between *VRV* and BMS. Operation and monitoring of airconditioning systems through LonWorks® communication.
5		Home Automation Interface Adaptor			DTA116A51	• Use of the Modbus protocol enables the connection of the *VRV* system with a variety of home automation systems from other manufacturers.

Notes: *1. BACnet® is a registered trademark of American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE).
*2. LonWorks® is a trademark of Echelon Corporation registered in the United States and other countries.
*3. Installation box for★ adaptor must be obtained locally.

VRV X

AIR TREATMENT EQUIPMENT LINEUP

A recent trend rapidly gaining popularity is the need for air treatment along with air conditioning. Our Outdoor-Air Processing Unit can combine fresh air treatment and air conditioning, supplied from a single system. It adjusts the temperature of air from outdoors using a fixed discharge temperature control. Along with Outdoor-Air Processing Units, we also offer Heat Reclaim Ventilator systems. The Heat Reclaim Ventilator VAM-GJ series units in particular have been praised for their compactness, energy conservation and extensive operation range of outdoor temperatures. This series provides higher enthalpy efficiency★1, due to the greatly enhanced performance of the thin film element. Furthermore, improved external static pressure ★2 offers more flexibility for installation. The Heat Reclaim Ventilator VKM-GAM series units, equipped with a DX-coil and a humidifier, provide further advanced features, such as temperature adjustment to suit conditions indoors and to prevent cold air from blowing on people directly during heating operation. The series also realises significant energy savings by exercising heat recovery.

★ 1 For models: VAM 250/650/800/1000/2000GJVE
★ 2 For models: VAM 500GJVE

AIR TREATMENT EQUIPMENT LINEUP

		Outdoor-Air Processing Unit	Heat Reclaim Ventilator		
			VKM-GAM Type	VKM-GA Type	VAM-GJ Type
					
Connections with ***VRV*** X	Refrigerant Piping	Connectable	Connectable		Not connectable
	Wiring	Connectable	Connectable		Connectable
	After-cool & After-heat Control	Available	Available		Not available
Heat Exchange Element		—	Energy savings obtained		Energy savings obtained
Humidifier		—	Fitted	—	—
High Efficiency Filter		Option	Option		Option
Ventilation System		Air supply only	Air supply & air exhaust		Air supply & air exhaust
Power Supply		220-240 V, 50 Hz	220-240 V, 50 Hz		220-240 V/220 V, 50 Hz
Airflow Rate		1080 m^3/h 1680 m^3/h 2100 m^3/h	500 m^3/h 800 m^3/h 1000 m^3/h		250 m^3/h 500 m^3/h 650 m^3/h 800 m^3/h 1000 m^3/h 1500 m^3/h 2000 m^3/h

*Refers to bringing outdoor air to near indoor temperature and delivering to a room.

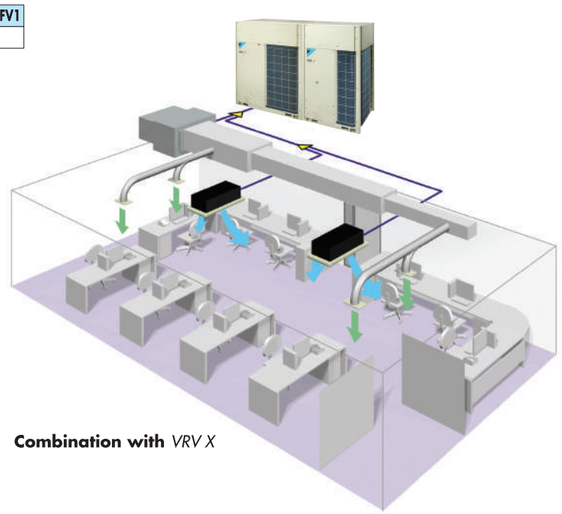
Outdoor-Air Processing Unit For outdoor units of 8 HP and above

Combination of fresh air treatment and airconditioning, supplied from a single system.

Lineup

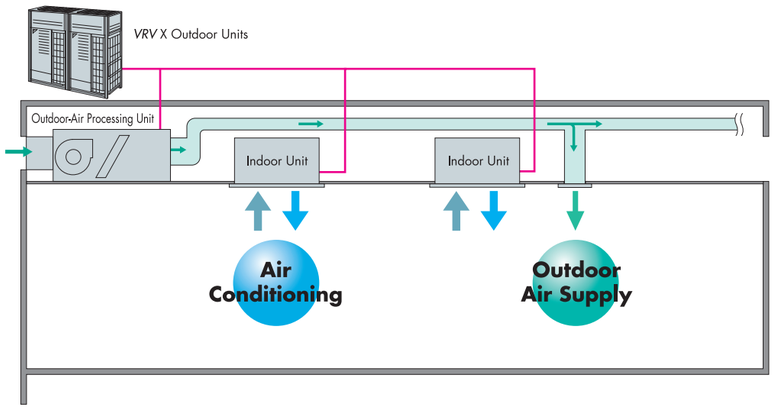
Model Name	FXMQ125MFV1	FXMQ200MFV1	FXMQ250MFV1
Capacity Index	125	200	250

Fresh air treatment and airconditioning can be achieved with a single system by using the heat pump technology - without the usual troublesome air supply and air discharge balance design. Fan coil units for airconditioning and an outdoor-air processing unit can be connected to the same refrigerant line. The results are enhanced design flexibility and a significant reduction in total system costs.



Combination with *VRV X*

Airconditioning and outdoor air processing can be accomplished using a single system.



Connection Conditions

The following restrictions must be observed in order to maintain the indoor units connected to the same system.

- When outdoor-air processing units are connected, the total connection capacity index must be 50% to 100% of the capacity index of the outdoor units.
- When outdoor-air processing units and standard indoor units are connected, the total connection capacity index of the outdoor-air processing units must not exceed 30% of the capacity index of the outdoor units.
- Outdoor-air processing units can be used without indoor units.

Standard Specifications

Indoor unit

Type				Ceiling Mounted Duct Type		
Model				FXMQ125MFV1	FXMQ200MFV1	FXMQ250MFV1
Power supply				1-phase 220-240 V (also required for indoor units), 50 Hz		
Cooling capacity *1			kcal/h	12,000	19,300	24,100
			Btu/h	47,800	76,400	95,500
			kW	14.0	22.4	28.0
Heating capacity *1			kcal/h	7,700	12,000	15,000
			Btu/h	30,400	47,400	59,400
			kW	8.9	13.9	17.4
Power consumption			kW	0.359	0.548	0.638
Casing				Galvanised steel plate		
Dimensions (HXWXD)			mm	470X744X1,100	470X1,380X1,100	
Fan	Motor output		kW	0.380		
	Airflow rate		m^3/min	18	28	35
			cfm	635	988	1,236
	External static pressure	220 V/240 V	Pa	185/225	225/275	205/255
Air filter				*2		
Refrigerant piping	Liquid		mm	ϕ 9.5 (flare)		
	Gas		mm	Ø 15.9 (flare)	Ø 19.1 (brazing)	Ø 22.2 (brazing)
	Drain		mm	PS1B female thread		
Machine weight			kg	86	123	
Sound level *3		220 V/240 V	dB(A)	42/43	47/48	
Connectable outdoor units *4 *5				8 HP and above		10 HP and above
Operation range (Fan mode operation between 15 and 19°C)			Cooling	19 to 43°C		
			Heating	-5 to 15°C		
Range of the discharge temperature *6			Cooling	13 to 25°C		
			Heating	18 to 30°C		

Notes: *1. Specifications are based on the following conditions;
- Cooling: Outdoor temp. of 33°CDB, 28°CWB (68% RH), and discharge temp. of 18°CDB.
- Equivalent reference piping length: 7.5 m (0 m horizontal)

*2 An intake filter is not supplied, so be sure to install the optional long-life filter or high-efficiency filter. Please mount it in the duct system of the suction side. Select a dust collection efficiency (gravity method) of 50% or more.

*3 Anechoic chamber conversion value, measured at a point 1.5 m downward from the unit centre. These values are normally somewhat higher during actual operation as a result of ambient conditions.

*4. It is possible to connect to the outdoor unit if the total capacity of the indoor units is 50% to 100% of the capacity index of the outdoor units.

*5 It is not possible to connect to the 6 HP outdoor unit.

*6 Local setting mode. Not displayed on the remote controller.
- This equipment cannot be incorporated into the remote group control of the VRV X system.

Options

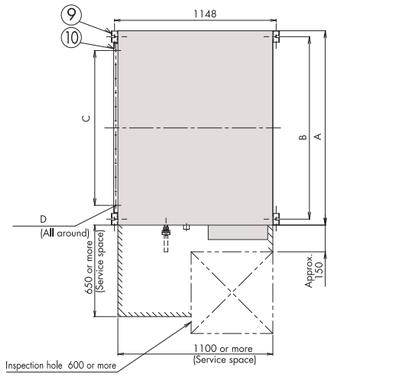
Indoor unit

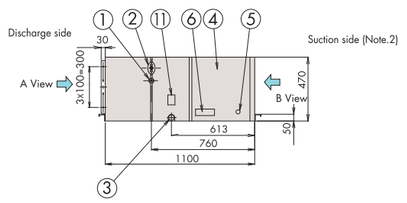
Model			FXMQ125MFV1	FXMQ200MFV1	FXMQ250MFV1
Operation/control	Operation remote controller		BRC1E62/BRC1C62		
	Central remote controller		DCS302CA61		
	Unified ON/OFF controller		DCS301BA61		
	Schedule timer		DST301BA61		
	Wiring adaptor for electrical appendices (1)		KRP2A61		
	Wiring adaptor for electrical appendices (2)		KRP4AA51a		
Filters	Long-life replacement filter		KAFJ371L140	KAFJ371L280	
	High-efficiency filter	Colourimetric method 65%	KAFJ372L140	KAFJ372L280	
		Colourimetric method 90%	KAFJ373L140	KAFJ373L280	
	Filter chamber *1		KDJ3705L140	KDJ3705L280	
Drain pump kit			KDU30L250VE		
Adaptor for wiring			KRP1B61		

Notes: *1. Filter chamber has a suction-type flange. (Main unit does not.)
- Dimensions and weight of the equipment may vary depending on the options used.
- Some options may not be usable due to the equipment installation conditions, so please confirm prior to ordering.
- Some options may not be used in combination.
- Operating sound may increase somewhat depending on the options used.

Dimensions

FXMQ125/200/250MFV1





*These diagrams are based on FXMQ200 and FXMQ250MFV1.

Local connection piping size

Model	Gas piping diameter	Liquid piping diameter
FXMQ125MFV1	Ø 15.9	Ø 9.5
FXMQ200MFV1	Ø 19.1 attached piping	Ø 9.5
FXMQ250MFV1	Ø 22.2 attached piping	Ø 9.5

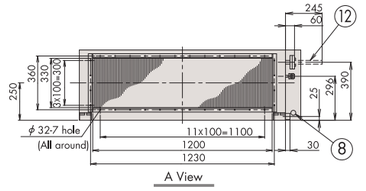
Table of dimensions

Model	A	B	C	D
FXMQ125MFV1	744	685	5X100=500	20-Ø 4.7 hole
FXMQ200MFV1	1380	1296	11X100=1100	32-Ø 4.7 hole
FXMQ250MFV1	1380	1296	11X100=1100	32-Ø 4.7 hole

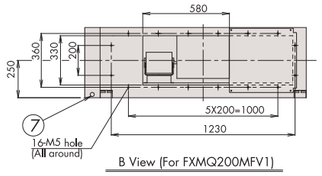
Notes:
1. The attached piping in the diagram is for FXMQ200MFV1 and FXMQ250MFV1 only. The gas piping connection port (②in the diagram) has a different bore form with FXMQ125MFV1.
2. An air filter is not supplied with this unit. Be sure to mount an air filter in the suction side.[Use a filter with dust collection efficiency of at least 50% (gravimetric method). This is available as an option.]
3. For outdoor ducts, be sure to provide heat insulation to prevent condensation.

① Liquid pipe connection
② Gas pipe connection
③ Drain piping connection
④ Electric parts box
⑤ Ground terminal
⑥ Name plate
⑦ Power supply wiring connection
⑧ Transmission wiring connection
⑨ Hanger bracket
⑩ Discharge companion flange
⑪ Water supply port
⑫ Attached piping (Note. 1)

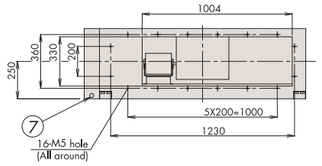
FXMQ200/250MFV1



A View

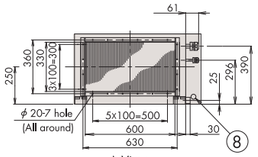


B View (For FXMQ200MFV1)

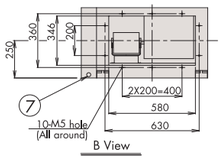


B View (For FXMQ250MFV1)

FXMQ125MFV1



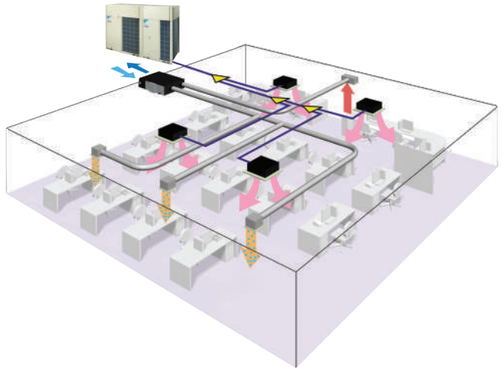
A View



B View

Heat Reclaim Ventilator with DX-Coil and Humidifier-VKM Series

The Heat Reclaim Ventilator lineup features the DX-coil in response to recently diversifying outdoor air introduction requirements.



Efficient outdoor air introduction is possible

The Heat Reclaim Ventilator (VKM series) series introduces fresh outdoor air with minimum heat losses, while a wide variety of features respond to customer requirements.

Lineup

	With DX Coil & Humidifier Type		
Model Name	VKM50GAMV1	VKM80GAMV1	VKM100GAMV1
Capacity Index	31.25	50	62.5

	With DX Coil Type		
Model Name	VKM50GAV1	VKM80GAV1	VKM100GAV1
Capacity Index	31.25	50	62.5

VKM80GAV1

Humidifier

The lineup includes models with a humidifier, in response to diversifying customer requirements. (VKM50/80/100GAMV1 only)

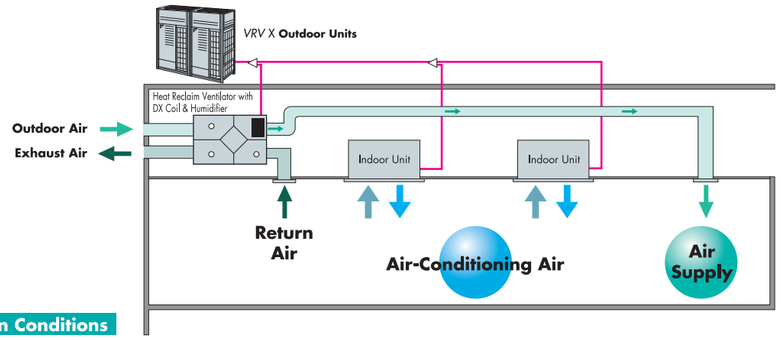
DX-coil

The Heat Reclaim Ventilator features DX-coil that contributes to the prevention of cold airflow hitting people directly during heating operation, due to the after-cool, after-heat operations done beforehand.

High static pressure

High external static pressure means enhanced design flexibility.

Airconditioning and outdoor air processing can be accomplished using a single system.



Connection Conditions

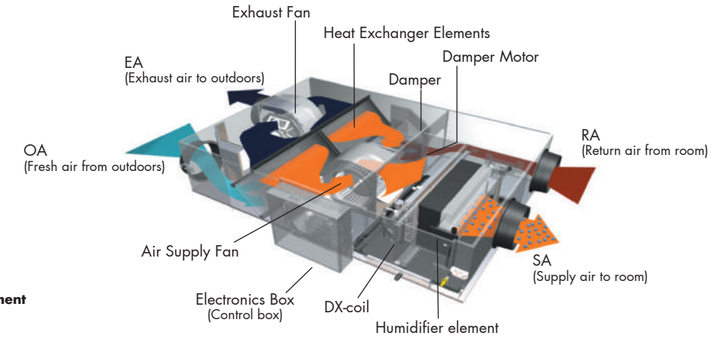
The following restrictions must be observed in order to maintain the indoor units connected to the same system.

- When the Heat Reclaim Ventilator VKM series units are connected, the total connection capacity index must be 50% to 130% of the capacity index of the outdoor units.

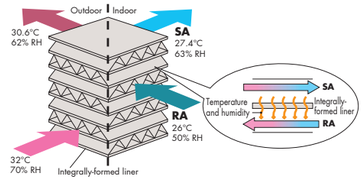
Heat Reclaim Ventilator with DX-Coil and Humidifier-VKM Series

A compact unit packed with our cutting-edge technology

HEP Element
(Anti-mould)



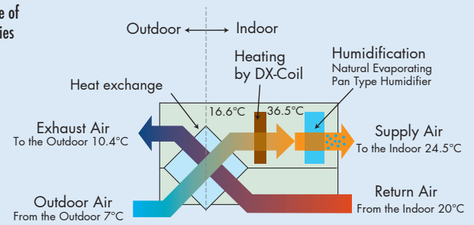
Operation of the heat exchanger element



DX-coil (Direct expansion coil)

Humidifier element

Heating and humidification process



Humidification:5.4kg/h (VKM100GAMV1)

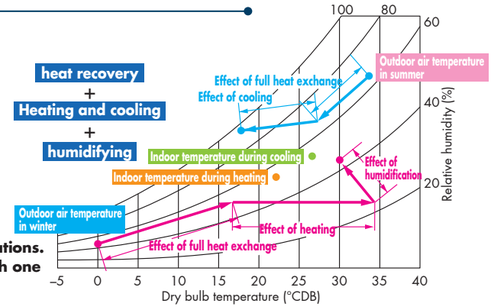
The Outdoor air is heated from 16.6°C to 36.5°C with DX-coil, Natural Evaporating Pan Type Humidifier is passed and humidification capacity is improved.

DX-Coil: Heat Exchanger which heating or cooling the air by VRV outdoor unit's refrigerant.

Efficient outdoor air introduction with heat exchanger and cooling/heating operations

Indoor unit with outdoor air treatment

Using outdoor air, the temperature can be brought near room temperature with minimal cooling capacity through the use of outdoor air.



Other features

- **Integrated system includes ventilation and humidifying operations.**
- **Ventilation, cooling/heating and humidifying are possible with one remote controller.**

AIR TREATMENT EQUIPMENT LINEUP

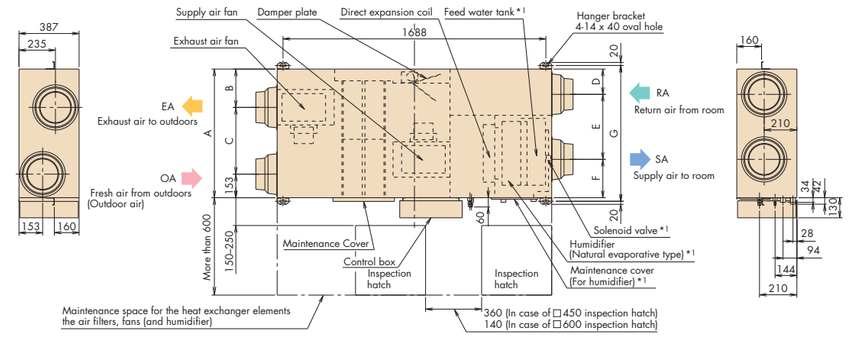
Specifications

MODEL				VKM50GAMV1 *	VKM80GAMV1 *	VKM100GAMV1 *	VKM50GAV1	VKM80GAV1	VKM100GAV1
Refrigerant				R-410A					
Power Supply				1-phase, 220–240 V, 50 Hz					
Airflow Rate & Static Pressure (Note 7)	Ultra-high	Airflow rate	m^3/h	500	750	950	500	750	950
		Static pressure	Pa	160	140	110	180	170	150
	High	Airflow rate	m^3/h	500	750	950	500	750	950
		Static pressure	Pa	120	90	70	150	120	100
	Low	Airflow rate	m^3/h	440	640	820	440	640	820
		Static pressure	Pa	100	70	60	110	80	70
Power Consumption	Heat exchange mode	Ultra-high	W	560	620	670	560	620	670
		High		490	560	570	490	560	570
		Low		420	470	480	420	470	480
	Bypass mode	Ultra-high	W	560	620	670	560	620	670
		High		490	560	570	490	560	570
		Low		420	470	480	420	470	480
Fan Type				Sirocco Fan					
Motor Output			kW	0.280 x 2	0.280 x 2	0.280 x 2	0.280 x 2	0.280 x 2	0.280 x 2
Sound Level (Note 5) (220/230/240 V)	Heat exchange mode	Ultra-high	dB(A)	37/37.5/38	38.5/39/40	39/39.5/40	38/38.5/39	40/41/41.5	40/40.5/41
		High		35/35.5/36	36/37/37.5	37/37.5/38	36/36.5/37	37.5/38/39	38/38.5/39
		Low		32/33/34	33/34/35.5	34/34.5/35.5	33.5/34.5/35.5	34.5/36/37	35/36/36.5
	Bypass mode	Ultra-high	dB(A)	37/37.5/38	38.5/39/40	39/39.5/40	38/38.5/39	40/41/41.5	40/40.5/41
		High		35/35.5/36	36/37/37.5	37/37.5/38	36/36.5/37	37.5/38/39	38/38.5/39
		Low		32/33/34	33/34/35.5	34/34.5/35.5	33.5/34.5/35.5	34.5/36/37	35/36/36.5
Humidification Capacity (Note 4)			kg/h	2.7	4.0	5.4	—		
Temp. Exchange Efficiency	Ultra-high		%	76	78	74	76	78	74
	High			76	78	74	76	78	74
	Low			77.5	79	76.5	77.5	79	76.5
Enthalpy Exchange Efficiency (Cooling)	Ultra-high		%	64	66	62	64	66	62
	High			64	66	62	64	66	62
	Low			67	68	66	67	68	66
Enthalpy Exchange Efficiency (Heating)	Ultra-high		%	67	71	65	67	71	65
	High			67	71	65	67	71	65
	Low			69	73	69	69	73	69
Casing				Galvanised Steel Plate					
Insulating Material				Self-Extinguishable Urethane Foam					
Heat Exchanging System				Air to Air Cross Flow Total Heat (Sensible + Latent Heat) Exchange					
Heat Exchanger Element				Specially Processed Nonflammable Paper					
Air Filter				Multidirectional Fibrous Fleeces					
DX-coil Capacity	Cooling (Note 2)		kW	2.8	4.5	5.6	2.8	4.5	5.6
	Heating (Note 3)			3.2	5.0	6.4	3.2	5.0	6.4
Dimensions	Height		mm	387	387	387	387	387	387
	Width			1,764	1,764	1,764	1,764	1,764	1,764
	Depth			832	1,214	1,214	832	1,214	1,214
Connection Duct Diameter			mm	Ø 200	Ø 250		Ø 200	Ø 250	
Machine Weight		Net	kg	102	120	125	96	109	114
		Gross (Note 8)		107	129	134	—		
Unit Ambient Condition		Around Unit		0°C–40°C DB, 80%RH or less					
		OA (Note 9)		-15°C–40°C DB, 80%RH or less					
		RA (Note 9)		0°C–40°C DB, 80%RH or less					

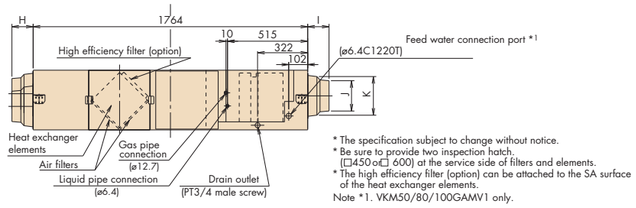
Notes: 1. Cooling and heating capacities are based on the following conditions. Fan is based on High and Ultra-high.
When calculating the capacity as indoor units, use the following figures:
VKM50GAMV1/GV1: 3.5 kW, VKM80GAMV1/GV1: 5.6 kW, VKM100GAMV1/GV1: 7.0 kW
2. Indoor temperature: 27°C DB, 19°C WB, Outdoor temperature: 35°C DB
3. Indoor temperature: 20°C DB, Outdoor temperature: 7°C DB, 6°C WB
4. Humidifying capacity is based on the following conditions:
Indoor temperature: 20°C DB, 15°C WB, Outdoor temperature: 7°C DB, 6°C WB
5. The operating sound measured at the point 1.5 m below the centre of the unit is converted to that measured in an anechoic chambar built in accordance with the JIS C 1502 conditions. The actual operating sound varies depending on the surrounding conditions (near running unit's sound, reflected sound and so on) and is normally higher than this value.
For operation in a quiet room, it is required to take measures to lower the sound.
For details, refer to the Engineering Data.
6. The noise level at the air discharge port is about 8–11 dB(A) or higher than the unit's operating sound.
For operation in a quiet room, it is required to take measures to lower the sound.
7. Airflow rate can be changed over to Low mode or High mode.
8. In case of holding full water in humidifier.
9. OA: fresh air from outdoor. RA: return air from room.
10. Specifications, design and information here are subject to change without notice.
11. Power consumption and efficiency depend on the above value of airflow rate.
12. Temperature exchange efficiency is the mean value for Cooling and Heating. Efficiency is measured under the following condition: Ratio of rated external static pressure outdoor to indoor is kept constant at 7 to 1.
13. In heating operation, freezing of the outdoor unit's coil increases. Heating capability decreases and the system goes into defrost operation. During defrost operation, the fans of the unit continues driving (factory setting). The purpose of this is to maintain the amount of ventilation and humidifying.
14. When connecting with a VRV system heat recovery outdoor unit and bringing the RA (exhaust gas intake) of this unit directly in from the ceiling, connect to a BS unit identical to the VRV indoor unit (master unit), and use group-linked operation. (See the Engineering Data for details.)
15. When connecting the indoor unit directly to the duct, always use the same system on the indoor unit as with the outdoor unit, perform group-linked operation, and make the direct duct connection settings from the remote controller. (Mode No. "17 (27)" – First code No. "5" – Second code No. "6".) Also, do not connect to the outlet side of the indoor unit. Depending on the fan strength and static pressure, the unit might back up.
★ Feed clean water (city water, tap water or equivalent). Dirty water may clog the valve or cause dirt deposits in the water container, resulting in poor humidifier performance. (Never use any cooling tower water and heating-purpose water.)
Also, if the supply water is hard water, use a water softener because of short life.
* Life of humidifying element is about 3 years (4,000 hours) under the supply water conditions of hardness: 150 mg/l. (Life of humidifying element is about 1 year (1,500 hours) under the supply water conditions of hardness: 400 mg/l.)
Annual operating hours: 10 hours/day x 26 days/month x 5 months = 1,300 hours

Dimensions

VKM50/80/100GA(M)V1



	VKM50GA(M)V1	VKM80/100GA(M)V1
A	832	1,214
B	248	439
C	431	622
D	164	183
E	420	592
F	248	439
G	878	1,262
H	137	89
I	137	89
J	ø196	ø246
K	ø250	ø263



* The specification subject to change without notice.
* Be sure to provide two inspection hatch.
(□450 or□ 600) at the service side of filters and elements.
* The high efficiency filter (option) can be attached to the SA surface of the heat exchanger elements.
Note *1. VKM50/80/100GAMV1 only.

Options

Item \ Type				VKM50/80/100GA(M)V1										
Controlling device	Remote controller			BRC1E62/BRC1C62 *1										
	Centralised controlling device	Residential central remote controller		DCS303A51 *2										
		Central remote controller		DCS302CA61										
		Unified ON/OFF controller		DCS301BA61										
		Schedule timer		DST301BA61										
	PC Board Adaptor	Wiring adaptor for electrical appendices		KRP2A61										
		For humidifier running ON signal output		KRP50-2										
		For heater control kit		BRP4A50										
		For wiring	Type (indoor unit of VRV)	FXFQ-S FXFQ-LU	FXZQ-M	FXUQ-A	FXCQ-M	FXKQ-MA	FXDQ-PB FXDQ-NB	FXMQ-P	FXMQ-MA	FXHQ-MA	FXAQ-P	FXLQ-MA FXNQ-MA	FXVQ-M
				KRP1C63 ★	KRP1BA57★	KRP1C67	KRP1B61★	KRP1B61	KRP1B56 ★	KRP1C64 ★	KRP1B61	KRP1BA54	—	KRP1B61	KRP1C67
		Installation box for adaptor PCB ☆		Notes 2, 3 KRP1H98	Note 4, 6 KRP1BA101	—	Notes 2, 3 KRP1B96	—	Notes 4, 6 KRP1BA101	Notes 2, 3 KRP4A96	—	Note 3 KRP1CA93	Notes 2, 3 KRP4AA93	—	—

Notes: 1. Installation box ☆ is necessary for each adaptor marked ★.
2. Up to 2 adaptors can be fixed for each installation box.
3. Only one installation box can be installed for each indoor unit.
4. Up to 2 installation boxes can be installed for each indoor unit.
5. Installation box ☆ is necessary for second adaptor.
6. Installation box ☆is necessary for each adaptor.
7. *1 Necessary when operating a Heat Reclaim Ventilator (VKM) independently. When operating interlocked with other air conditioners, use the remote controllers of the air conditioners.
*2 For residential use only. When connected with a Heat Reclaim Ventilator (VKM), you can only switch the power ON/OFF. Cannot be used with other centralised control equipment.

Item \ Type				VKM50GA(M)V1	VKM80GA(M)V1	VKM100GA(M)V1
Additional function	Silencer			—	KDDM24B100	
		Nominal pipe diameter	mm	—	ø 250	
	Air suction / Discharge grille	White		K-DGL200B	K-DGL250B	
		Nominal pipe diameter	mm	ø 200	ø 250	
	High efficiency filter			KAF242H80M	KAF242H100M	
	Air filter for replacement			KAF241G80M	KAF241G100M	
Flexible duct (1 m)				K-FDS201D	K-FDS251D	
Flexible duct (2 m)				K-FDS202D	K-FDS252D	

Heat Reclaim Ventilator – Vam Series

The Heat Reclaim Ventilator Creates a High-Quality Environment by Interlocking with the Airconditioner

Model Name

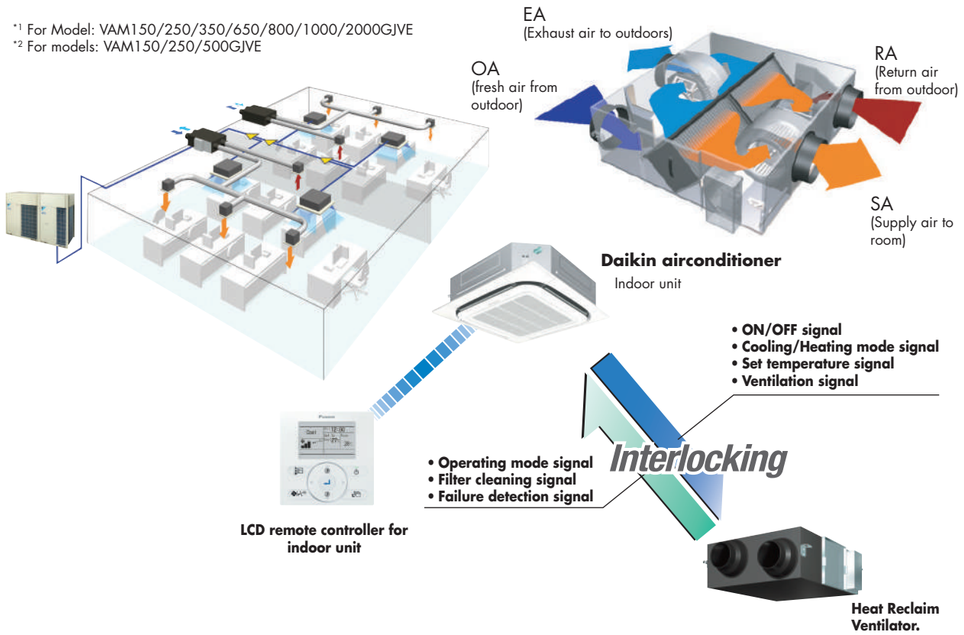
VAM250GJVE, VAM500GJVE, VAM650GJVE, VAM800GJVE, VAM1000GJVE, VAM1500GJVE, VAM2000GJVE

Improved Enthalpy Efficiency*1
Higher External Static Pressure*2
Enhanced Energy Saving Functions

Heat Reclaim Ventilator remote controller* BRC301B61 (Option)
This remote controller is used in case of independent operated of Heat Reclaim Ventilator.

This VAM series provides higher Enthalpy Efficiency*1 due to the greatly enhanced performance of the thin film element. Furthermore, improved external static pressure*2 offers more flexibility of installation. Along with these three outstanding improvement, the night-time free cooling operation contributes to energy conservation and more comfortable space.

*1 For Model: VAM150/250/350/650/800/1000/2000GJVE
*2 For models: VAM150/250/500GJVE



Compact Equipment

With a height of just 306mm, the unit easily fits in limited spaces, such as above ceiling.

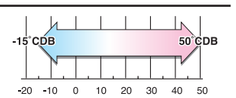
*For VAM500GJVE

Energy Conservation

Airconditioning load reduced by approximately 31%

Cold Climate Compatible

Standard operation at temperatures down to -15°C.



Heat Reclaim Ventilator – Vam Series

Airconditioning load reduced by approximately 31%

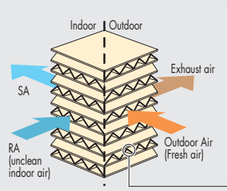
Total heat exchange ventilation **23%**
This unit recovers heat energy lost through ventilation and curbs room temperature changes caused by ventilation, thereby conserving energy and reducing the load on the airconditioning system.

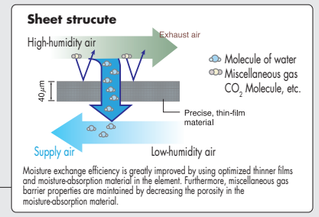
Enthalpy Efficiency drastically improved by employing thin film element (VAM-GJ model)

Due to thinner film.....
- Decreases the moisture resistance of the partition sheets drastically.
- Realises more space for extra layers in the element, resulting in increased effective area that supply and exhaust air can be exposed to.

Thickness of the partition sheet **40 µm**

Moisture absorption increased by approx. 10%





+

Auto - ventilation Mode Changeover Switching **6%**

Automatically switches the ventilation mode (Total heat Exchange Mode/Bypass Mode) according to the operating status of the airconditioner.

+

Pre-cool, Pre heat Control **2%**

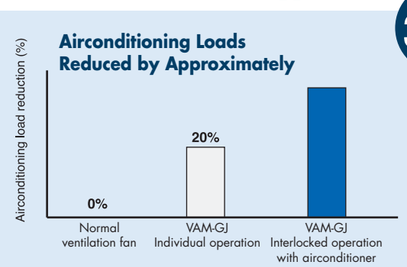
Reduces airconditioning load by not running the Heat Reclaim ventilator while air is still clean soon after the airconditioner is turned ON.

=

- The airconditioning load reduction value may vary according to weather and other environmental conditions at the location of the machine's installation.
- The airconditioning load reduction values are based on the following conditions:

Application: Tokyo office building
Building from: 6 floors above ground, 2 floors underground, floor area 2,100 m²
Personnel density: 0.25 person/m²
Ventilation volume: 25 m³/h
Indoor airconditioning level: summer 25°C 50% RH, intermediate seasons 24°C 50% RH, Winter 22°C 40%RH
Operating time: 2746 hours (9 hours per day, approx. 25 days per month)
Calculation method: simulation based on "MICRO-HASP/1982" of the Japan Building Mechanical and Electrical Engineers Association.

Airconditioning Loads Reduced by Approximately **31%**

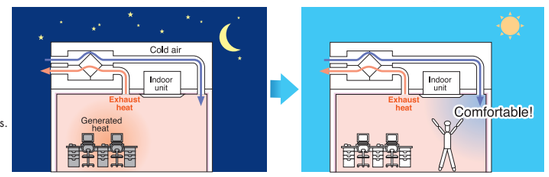


Night-time free cooling operation*1

Night-time free cooling operation is an energy-conserving function that works at night when airconditioners are off. By ventilating rooms containing equipment that raises that room temperature, night-time free cooling operation reduces the cooling load when airconditioners are turned on in the morning. It also alleviated feeling of discomfort in the morning caused by heat accumulated during the night.

Airconditioning sensible heat load reduced by **approx. 5%*2**

The indoor accumulated heat is discharged at night.
This reduces the airconditioning load the next day thereby increasing efficiency.



- Night -time free cooling operation only works to cool and if connected to Building Multi or VRV systems.
- Nighttime free cooling operation is set to "off" in the factory setting, so if you wish to use it, request your dealer to turn it on.

*1 This Function can be operated only when interlocked with airconditioners.
*2 Value is based on the following conditions:
- Cooling operation performed from April to October.
- Calculated for airconditioning sensible heat load only (latent heat load not included).

* Interlocked operation with an air conditioner.

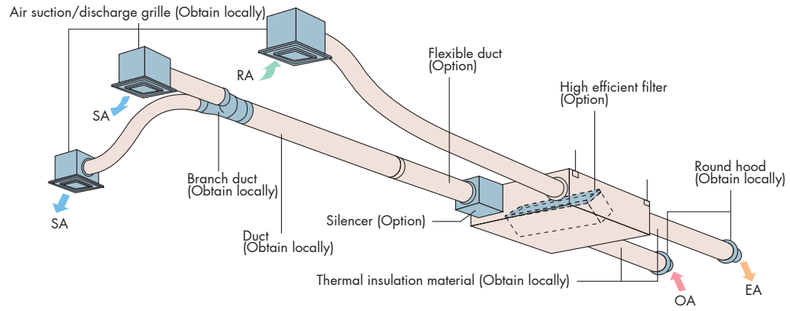
AIR TREATMENT EQUIPMENT LINEUP

Specifications

MODEL				VAM250GJVE	VAM500GJVE	VAM650GJVE	VAM800GJVE	VAM1000GJVE	VAM1500GJVE	VAM2000GJVE
Power Supply				1-phase, 220-240 V/ 220 V, 50 Hz						
Temp. Exchange Efficiency (50/60 Hz)		Ultra-High	%	75/75	74/74	75/75	72/72	78/78	72/72	77/77
		High		75/75	74/74	75/75	72/72	78/78	72/72	77/77
		Low		79/79	80/80.5	77/77.5	74/74.5	80.5/81	75.5/76	79/81
Enthalpy Exchange Efficiency (50/60 Hz)	For Heating	Ultra-High	%	71/72	67/67	67.5/67.5	65/65	70/70	65/65	72/72
		High		71/71	67/67	67.5/67.5	65/65	70/70	65/65	72/72
		Low		74/74	74/74.5	71.5/72	67.5/68	72.5/73	67/67.5	76/76
	For Cooling	Ultra-High	%	63/63	55/55	61/61	61/61	64/64	61/61	62/62
		High		63/63	55/55	61/61	61/61	64/64	61/61	62/62
		Low		66/66	59/59.5	64/64.5	64/64.5	68.5/69	64/64.5	66/67
Power Consumption (50/60 Hz)	Heat Exchange Mode	Ultra-High	W	137/141	248/270	342/398	599/680	635/760	1,145/1,300	1,289/1,542
		High		120/125	225/217	300/332	517/597	567/648	991/1,144	1,151/1,315
		Low		60/59	128/136	196/207	435/483	476/512	835/927	966/1,039
	Bypass Mode	Ultra-High	W	137/141	248/270	342/398	599/680	635/760	1,145/1,300	1,289/1,542
		High		120/125	225/217	300/332	517/597	567/648	991/1,144	1,151/1,315
		Low		60/59	128/136	196/207	435/483	476/512	835/927	966/1,039
Sound Level (50/60 Hz)	Heat Exchange Mode	Ultra-High	dB(A)	27-29/29	33-35.5/34	34-36/36	39-40.5/39.5	39.5-41.5/39.5	39.5-41.5/41.5	41.5-43.5/42
		High		26-27.5/28	31.5-34/32	33-34.5/34	37-39.5/37.5	37.5-39.5/37.5	37.5-39.5/39.5	39-43/40
		Low		21-22/21	25-28.5/24	27.5-29.5/28	35-37.5/34	35-37.5/34.5	35-37.5/36	36-39/39
	Bypass Mode	Ultra-High	dB(A)	28.5-30.5/30.5	34.5-36/35.5	35-37.5/37.5	40.5-42/41	40.5-42.5/40.5	41-43/42.5	43-45.5/44
		High		27.5-29/29.5	33-34.5/33.5	33-35.5/35.5	38.5-40/39	38.5-40.5/38.5	39.5-41/41.5	40.5-45/42
		Low		22.5-23/22.5	25.5-28.5/25.5	27.5-30.5/29.5	36-38.5/35.5	36-38.5/35.5	36.5-38/37.5	37.5-39.5/41
Casing				Galvanised steel plate						
Insulation Material				Self-extinguishable polyurethane foam						
Dimensions (HXWXD)			mm	278X810X551	306X879X800	338X973X832	387X1,111X832	387X1,111X1,214	785X1,619X832	785X1,619X1,214
Machine Weigh			kg	24	32	45	55	67	129	157
Heat Exchange System				Air to air cross flow total heat (Sensible heat+latent heat) exchange						
Heat Exchange Element Material				Specially processed nonflammable paper						
Air Filter				Multidirectional fibrous fleeces						
Fan	Type			Sirocco fan						
	Airflow Rate (50/60 Hz)	Ultra-High	m³/h	250/250	500/500	650/650	800/800	1,000/1,000	1,500/1,500	2,000/2,000
		High		250/250	500/500	650/650	800/800	1,000/1,000	1,500/1,500	2,000/2,000
		Low		155/155	320/295	500/470	700/670	860/840	1,320/1,260	1,720/1,580
	External Static Pressure (50/60 Hz)	Ultra-High	Pa	70/96	105/150	85/125	133/170	168/192	112/150	116/140
		High		54/65	66/52	53/67	92/85	110/86	73/72	58/32
		Low		24/20	32/18	35/38	72/61	85/60	56/50	45/45
	Motor Output		kW	0.030X2	0.090X2	0.140X2	0.280X2		0.280X4	
Connection Duct Diameter			mm	ø 150	ø 200		ø 250		ø 350	
Unit ambient condition				-15°C~50°CDB, 80%RH or less						

Notes: 1. Sound level is measured at 1.5m below the centre of the body.
2. Airflow rate can be changed over to Low mode or High mode.
3. Sound level is measured in an anechoic chamber.
Sound level generally becomes greater than this value depending on the operating conditions, reflected sound, and peripheral noise.
4. The sound level at the air discharge port is about 8 dB(A) higher than the unit's sound level.
5. The specifications, designs and information given here are subject to change without notice.
6. Temperature Exchange Efficiency is the mean value between cooling and heating.
7. Efficiency is measured under the following conditions:
Ratio of rated external static pressure has been maintained as follows; outdoor side to indoor side = 7 to 1.
8. In conformance with JIS standards (JIS B 8628), operating sound level is based on the value when one unit is operated, with the value converted for an anechoic chamber.
This is transmission sound from the main unit, and does not include sound from the discharge grille. Thus it is normal for the sound to be louder than the indicated value when the unit is actually installed.
9. Sound level from the discharge port causes the value to be approximately 8 dB(A) (models with the airflow rate of less than 150 to 500m3/h) to approximately 11 dB(A) (models with the airflow rate of 650m3/h or more) greater than the indicated value. Furthermore, fan rotation and noise from the discharge grille may increase depending on the on-site duct resistance conditions. Please consider noise countermeasures when installing the unit.
10. With large models in particular (1500 and 2000m3/h models), if the supply air (SA) grille is installed near the main unit, the noise of the main unit may be heard from the discharge grille via the duct, and this will result in a marked increase in noise. In such cases, if peripheral effects are included (such as reverberation of the floor and walls, combination with other equipment, and background noise), sound level may be as much as 15 dB(A) higher than the indicated value. When installing a large model, please provide as much separation as possible between the main unit and the discharge grille. If the equipment and discharge grille are near each other, please consider countermeasures such as the following:
• Use a sound-muffling box, flexible duct and sound-muffling air supply/discharge grilles
• Decentralised installation of discharge grilles
11. When installing in a location with particularly low background noise such as a classroom, please consider the following measures to avoid transmission sound from the main unit:
• Use of ceiling materials with high sound insulating properties (high transmission loss)
• Methods of blocking sound transmission, for example, by adding sound insulating materials around the bottom of the sound source.
Alternatively, consider supplementary methods such as installing the equipment in a different location (corridor, etc.)

Options



Option List

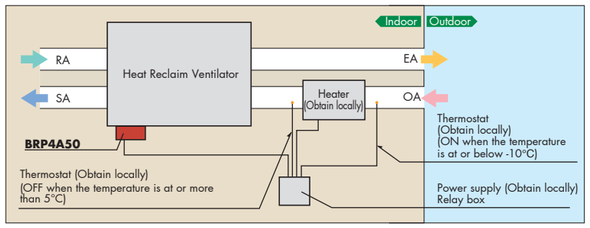
Item			Type	VAM 250 • 500 • 650 • 800 • 1000 • 1500 • 2000 GJVE
Controlling device	Centralised controlling device		Heat Reclaim Ventilator remote controller	BRC301B61
			Residential central remote controller	DCS303A51 *1
			Central remote controller	DCS302CA61
			Unified ON/OFF controller	DCS301BA61
			Schedule timer	DST301BA61
	PC Board Adaptor		Wiring adaptor for electrical appendices	KRP2A61
			For humidifier	KRP50-2
			Installation box for adaptor PCB	KRP50-2A90 (Mounted electric component assy of Heat Reclaim Ventilator)
			For heater control kit	BRP4A50
		For wiring	Type (indoor unit of VRV)	FXFQ-S FXFQ-LU / FXZQ-M / FXUQ-A / FXCQ-M / FXKQ-MA / FXDQ-PB FXDQ-NB / FXMQ-P / FXMQ-MA / FXHQ-MA / FXAQ-P / FXLQ-MA FXNQ-MA / FXVQ-M
				KRP1C63 ★ / KRP1BA57★ / KRP1C67 / KRP1B61★ / KRP1B61 / KRP1B56 ★ / KRP1C64★ / KRP1B61 / KRP1BA54 / — / KRP1B61 / KRP1C67
		Installation box for adaptor PCB ☆		Notes 2, 3 KRP1H98 / Note 4, 6 KRP1BA101 / — / Notes 2, 3 KRP1B96 / — / Notes 4, 6 KRP1BA101 / Notes 2, 3 KRP4A96 / — / Note 3 KRP1CA93 / Notes 2, 3 KRP4AA93 / — / —

Notes: 1. Installation box ☆ is necessary for each adaptor marked ★.
2. Up to 2 adaptors can be fixed for each installation box.
3. Only one installation box can be installed for each indoor unit.
4. Up to 2 installation boxes can be installed for each indoor unit.
5. Installation box ☆ is necessary for second adaptor.
6. Installation box ☆ is necessary for each adaptor.
7. *1 For residential use only. When connected with a Heat Reclaim Ventilator (VAM), you can only switch the power ON/OFF. Cannot be used with other centralised control equipment.

Item			Type	VAM250GJVE	VAM500GJVE	VAM650GJVE	VAM800GJVE	VAM1000GJVE	VAM1500GJVE	VAM2000GJVE
Additional function	Silencer			—	KDDM24B50	KDDM24B100			KDDM24B100X2	
		Nominal pipe diameter	mm	—	ø 200	ø 250				
	High efficiency filter			KAF242H25M	KAF242H50M	KAF242H65M	KAF242H80M	KAF242H100M	KAF242H80MX2	KAF242H100MX2
	Air filter for replacement			KAF241G25M	KAF241G50M	KAF241G65M	KAF241G80M	KAF241G100M	KAF241G80MX2	KAF241G100MX2
Flexible duct (1 m)				K-FDS151D	K-FDS201D		K-FDS251D			
Flexible duct (2 m)				K-FDS152D	K-FDS202D		K-FDS252D			
Duct adaptor				—					YDFA25A1	
		Nominal pipe diameter	mm	—					ø 250	

PC board adaptor for heater control kit (BRP4A50)

When the installation of an electric heater is required in a cold region, this adaptor with an internal timer function eliminates the complicated timer connecting work that was necessary with conventional heaters.



Notes when installing

- Examine fully an installation place and specification for using the electric heater based on the standard and regulation of each country.
- Supply the electric heater and safety production devices such as a relay and a thermostat, etc of which qualities satisfy the standard and regulation of each country at site.
- Use a non-inflammable connecting duct to the electric heater. Be sure to allow 2 m or more between the electric heater and the Heat Reclaim Ventilator for safety.
- For the Heat Reclaim Ventilator, use a different power supply from that of the electric heater and install a circuit breaker for each.