DAIKIN

www.daikinmea.com

هيئة الإمارات للمواصفات والمقاييس
Emirates Authority For Standardization & Metrology

الهيئة السعودية للمواصفات والمقاييس والجودة
Saudi Standards, Metrology and Quality Org.

مجلس أبوظبي للجودة والمطابقة
ABU DHABI QUALITY & CONFORMITY COUNCIL

الهيئة العامة للصناعة
PUBLIC AUTHORITY FOR INDUSTRY

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Daikin Middle East and Africa

DMEA20-178

DAIKIN

VRV

Your Reliable Energy Efficiency Partner

VRV X

Cooling Only

High Ambient

INDEX

VRV X

Cooling Only

Equipped with Advanced Technology
that results in high energy efficiency

This technological innovation gives the user
the advantage of better comfort, while working further
towards creating a sustainable environment.

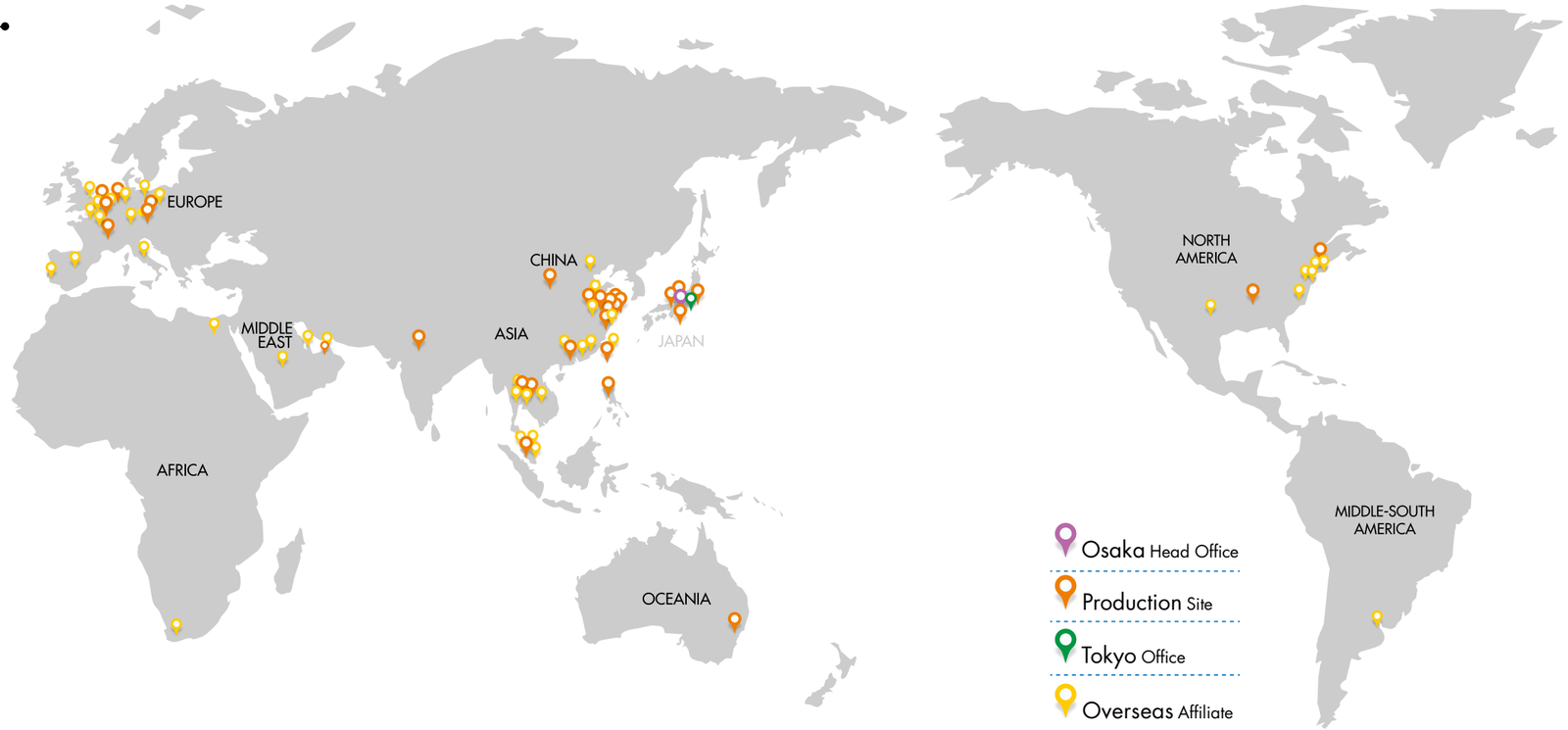
DAIKIN
The world leader in airconditioning

Daikin is the leading innovator and provider of advanced, high-quality air conditioning solutions for residential, commercial and industrial applications with our long line of products from refrigerants to air conditioners.

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

Established in 1924, Daikin Industries Ltd. is a diverse multi-national company that is active in air conditioning, chemicals and oil hydraulics. With headquarters at Osaka, Japan, our Daikin family has more than 76,000 members, working at 292 subsidiaries and across 100 production bases worldwide.

We are present in the 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

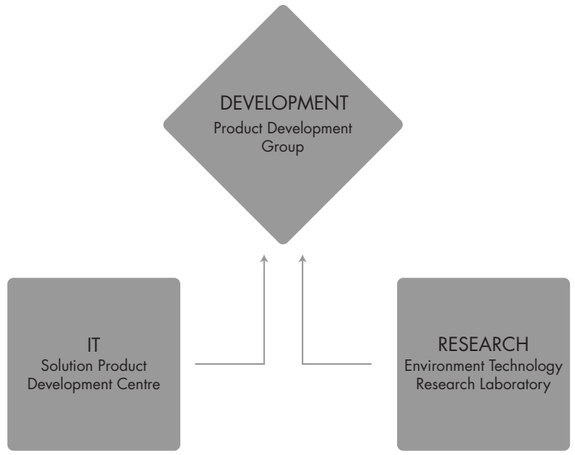
At Daikin, we are creating value through innovative technologies. As a global industry front runner, we are carrying out research and development on the world's most advanced airconditioning technology.

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.

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'.

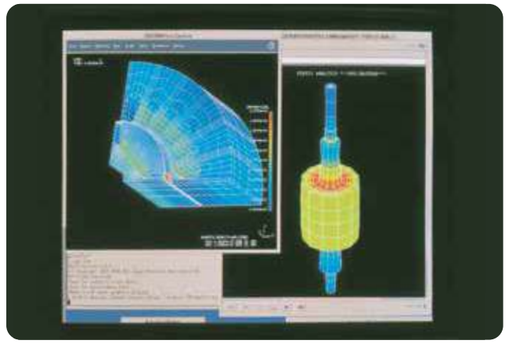
Together with the Product Development Group, these divisions work in close cooperation to precisely ascertain the customers' needs and to enable commercialisation of products by incorporating advanced technologies that take the lead over our competitors.



Environmental Technology Research Laboratory: Intensive Research on Environmentally Conscious, Energy Saving Airconditioning 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 study of 'airconditioning' and 'the environment'. 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 technological edge to achieve further business expansion globally.



The Solutions Product Development Centre: Integrating Airconditioners with IT.

We have integrated IT solutions like communication and software technologies into our airconditioners to respond to the increasing need and reliance of the market on computerization and networking.

This will enable us to provide excellent service through the exchange of information with service centers.

Technology & Innovation Centre, Japan:
Aiming for new value creation as a core base for technological development.

Research & Development Centre, India:
Reiterating its commitment to the respective markets it serves, Daikin India R&D is dedicated to providing customized solutions to its customers.

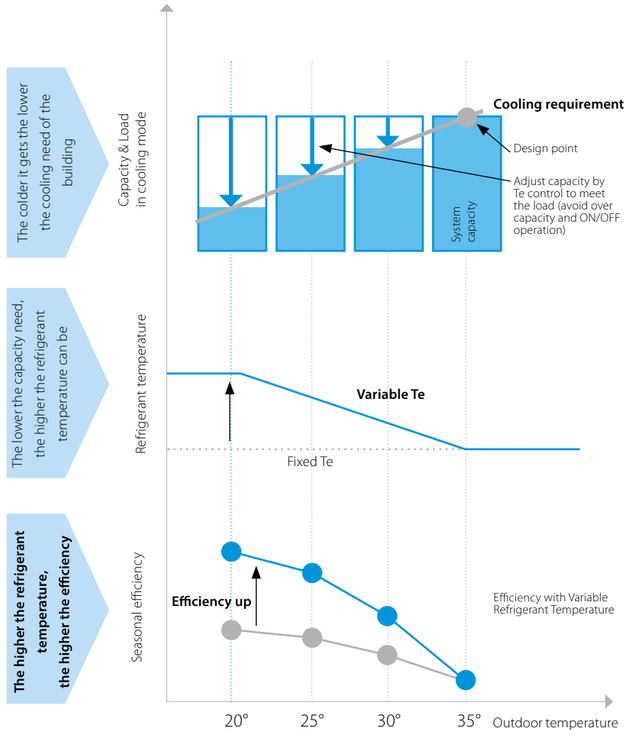
Variable refrigerant
temperature

Variable Refrigerant Temperature

Customise your VRV for best seasonal efficiency and comfort

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

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



How does it work?

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

Daikin VRV X
Variable Refrigerant Temperature control for energy saving in partial load condition.

The capacity is controlled by the inverter compressor AND variation of the evaporating (Te) temperature of the refrigerant in order to achieve the highest seasonal efficiency.

Standard Type

New series with compact and light weight design
6HP - 48HP with 22-model lineup

Lineup

HP	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48
Cooling only	● NEW	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

EFFICIENT POWER SAVINGS

New heights in energy efficiency during actual operation

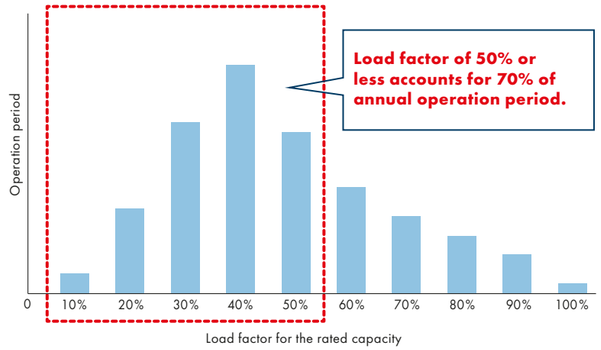
The key to innovative energy savings is to increase efficiency during low-load operation.

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 raises 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)

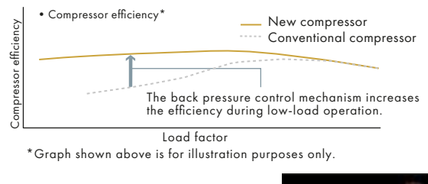


New Scroll Compressor*

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.

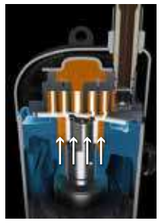


*Graph shown above is for illustration purposes only.

Back pressure control mechanism

Conventional mechanism

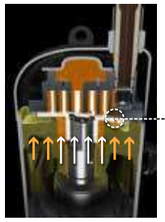
The movable scroll is pressed by the pressure difference between high and low pressures. The force pressing the movable scroll decreases during low-load operation, resulting in compression leakage from movable parts.



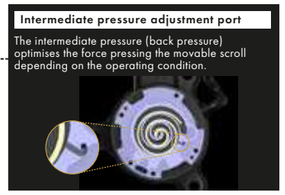
The force pressing the movable scroll decreases during low-load operation.

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.



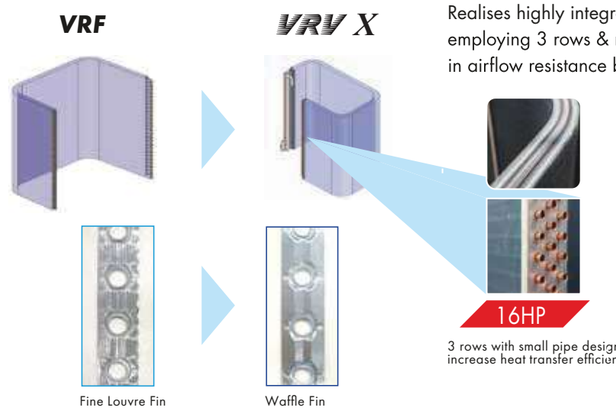
The intermediate pressure keeps pressing the movable scroll during low-load operation.



STATE-OF-THE-ART TECHNOLOGY

Highly integrated heat exchanger

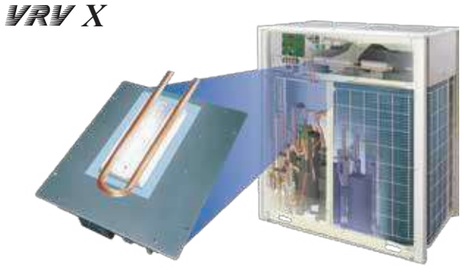
Improves performance by increasing heat exchanger area while maintaining the same installation space.



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.

Refrigerant-Cooled PCB

VRV X



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.

EXTENDED RELIABILITY

Simplified commissioning and after-sales service

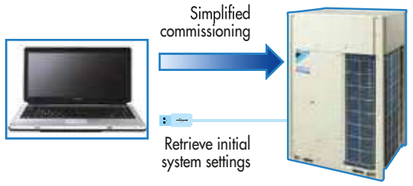
Function of information display by luminous digital tube

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

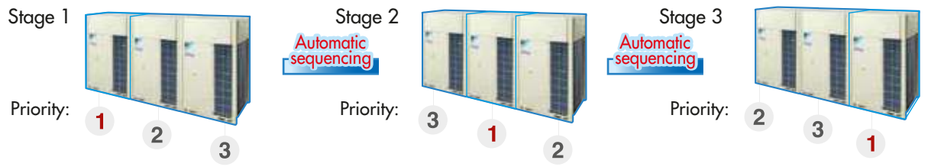
- The VRV configurator is an advanced solution that allows for easy system configuration and commissioning.
- Less time is required on the roof configuring the outdoor unit.
- Multiple system at different sites can be managed in exactly the same way, thus offering simplified commissioning for key accounts.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

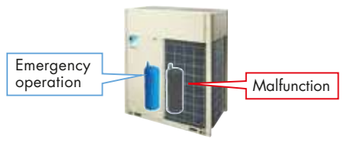
Double backup operation functions

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).



Unit backup operation function

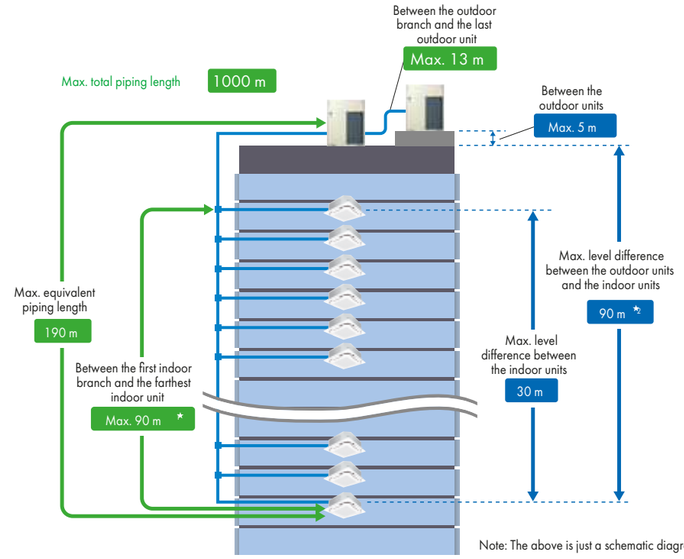
If malfunction occurs in an outdoor unit emergency operation can be conveniently set and enabled by the remote controller for indoor unit (for systems composed of two or more outdoor units).

MORE FLEXIBLE SYSTEM DESIGN

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 (Equivalen t)	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 130%.

Connection ratio
50%–130%

Connection ratio =

$$\frac{\text{Total capacity index of the indoor units}}{\text{Capacity index of the outdoor units}}$$

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 UNIT LINEUP

Outdoor Units

The outdoor unit capacity is up to 48 HP in increment of 2 HP.

- VRV X outdoor units offer a capacity of up to 48HP, 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 HP

RXQ6ARYFK
RXQ8ARYFK

10, 12 HP

RXQ10ARYFK
RXQ12ARYFK

14, 16 HP

RXQ14ARYFK
RXQ16ARYFK

- Double Outdoor Units

18, 20 HP

RXQ18ARYFK
RXQ20ARYFK

- Double Outdoor Units

24, 26, 28, 30, 32 HP

RXQ24ARYFK
RXQ26ARYFK
RXQ28ARYFK
RXQ30ARYFK
RXQ32ARYFK

- Triple Outdoor Units

34, 36, 38, 40, 42, 44, 46, 48 HP

RXQ34ARYFK
RXQ36ARYFK
RXQ38ARYFK
RXQ40ARYFK
RXQ42ARYFK
RXQ44ARYFK
RXQ46ARYFK
RXQ48ARYFK

Lineup

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

INDOOR UNIT LINEUP

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

Type	Model Name	Capacity Range / Capacity Index	0.8 HP 20	1 HP 25	1.25 HP 32	1.6 HP 40	2 HP 50	2.5 HP 63	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
Ceiling Mounted Cassette (Round Flow with Sensing) (Optional)	VRT FXFSQ-ARV1			●	●	●	●	●		●	●	●	●			
Slim Ceiling Mounted Duct	VRT FXDQ-PDVM (with drain pump)	(700 mm width type)	●	●	●											
	VRT FXDQ-NDVM (with drain pump)	(900/1,100 mm width type)				●	●	●								
Concealed Ceiling Duct	VRT FXMQ-PBV1 (with drain pump)					●	●	●		●	●	●	● NEW			
	FXMQ-ARV1					●	●	●		●	●					
	VRT FXMQ-NVE6													●	●	●
													NEW			
Wall Mounted	VRT FXAQ-ARVM		●	●	●	●	●	●								

At Daikin, we offer a wide range of VRV indoor units that respond to a variety of customer needs for airconditioning solutions.

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

FXFSQ-ARV1

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

Slim Ceiling Mounted Duct Type

FXDQ-PDVM

FXDQ-NDVM

Slim design, quietness and static pressure switching

Ceiling Mounted Duct Type

FXMQ-PBV1

FXMQ-NVE6

High external static pressure allows flexible installations

Wall Mounted Type

FXAQ-ARV1

Stylish flat panel design harmonised with your interior décor

INDOOR UNIT LINEUP

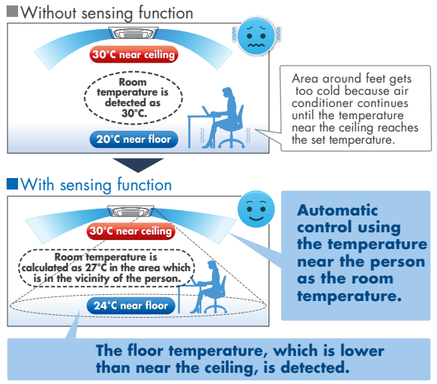
VRV Indoor Units

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.

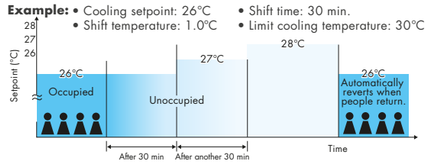
Comfortable airflow

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.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

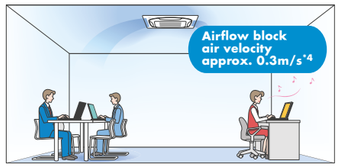
- When there are no people in a room, the system stops automatically.

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

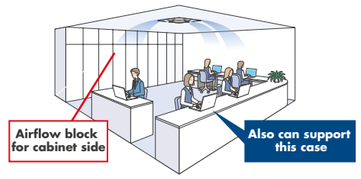
*1. These functions are not available when using the group control system.
*2. User can set these functions with remote controller.

Airflow block function

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



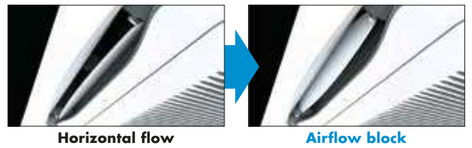
Airflow block function prevents uncomfortable drafts by reducing air velocity to approx. 0.3m/s.*4



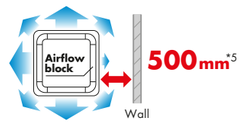
- New airflow block function prevents uncomfortable drafts by reducing air velocity.

  It can be set using the BRC1E63 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



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



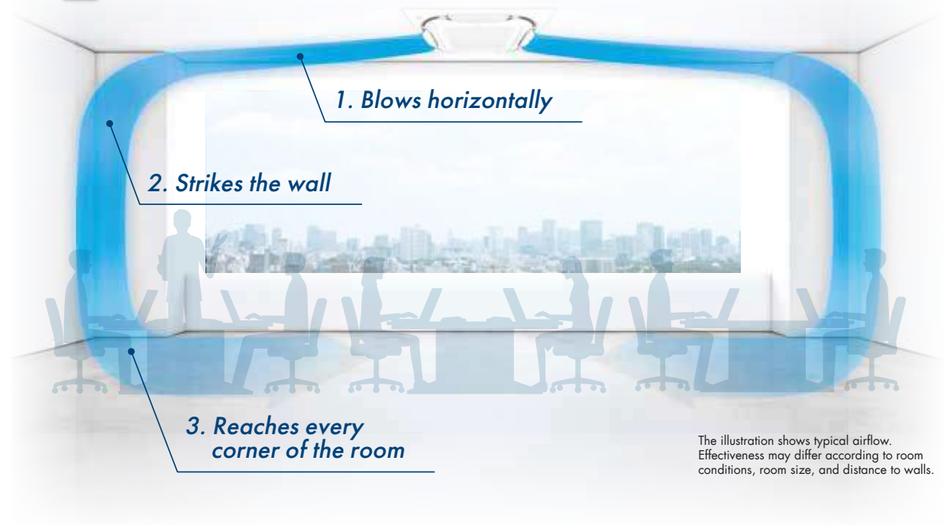
*3. Works in one direction only.
*4. In case of FXFSQ63 type (Data is based on Daikin research.)
*5. A gap of 1500 mm is required if the air block function is not used.

VRV Indoor Units

Ceiling Mounted Cassette (Round Flow without Sensing)

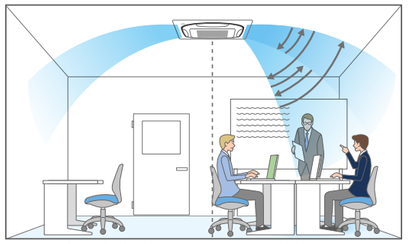
360° airflow improves temperature distribution and offers a comfortable living environment.

New **Circulation Airflow**

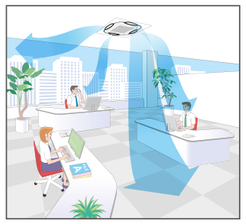


The illustration shows typical airflow. Effectiveness may differ according to room conditions, room size, and distance to walls.

New **Direct Airflow**



Individual Airflow Direction Control



The illustration shows typical airflow.

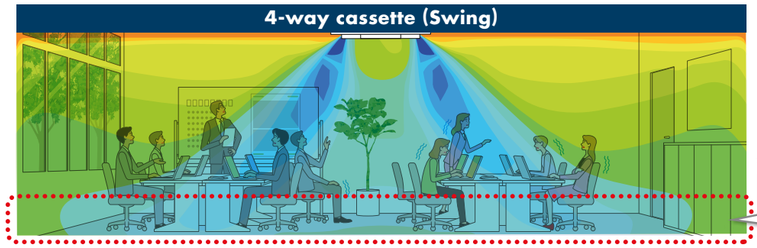
INDOOR UNIT LINEUP

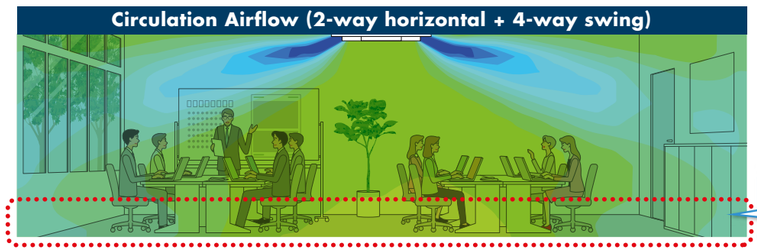
Circulation Air Flow

*1. Applicable when wired remote controller BRC1E63 is used.
*2. Not applicable when using individual airflow direction control.

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

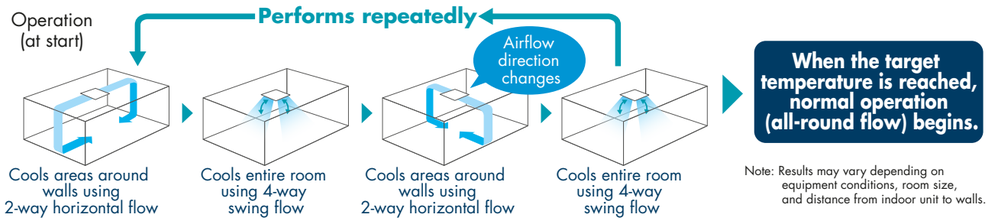
Comfort to the entire room with even temperatures and no cold air pockets at floor level





*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



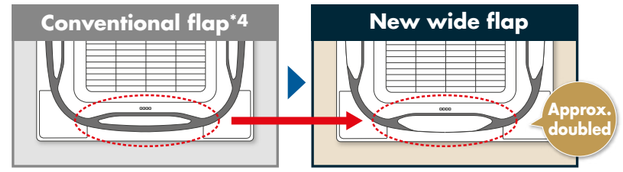
Note: Results may vary depending on equipment conditions, room size, and distance from indoor unit to walls.

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 flap (Straight)

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



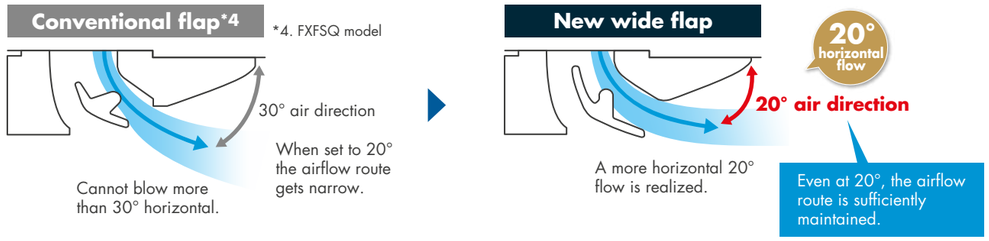
*4. FXFSQ model

New wide flap construction inhibits ceiling dirt and grime

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

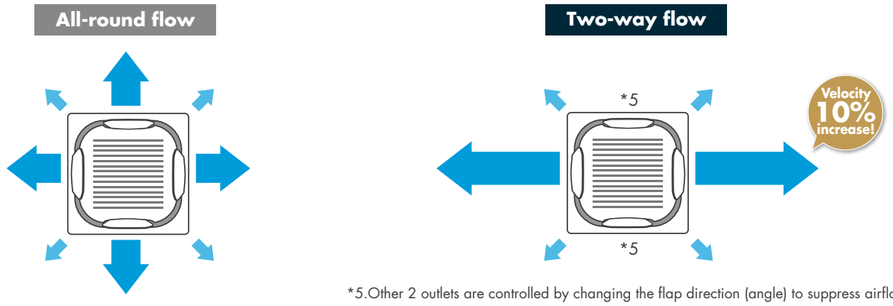
2 Optimizing airflow angle (Horizontally)

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.

INDOOR UNIT LINEUP

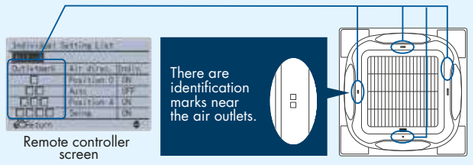
*1. Applicable when wired remote controller BRC1E63 is used.

Comfortable air conditioning for all room layouts and Conditions

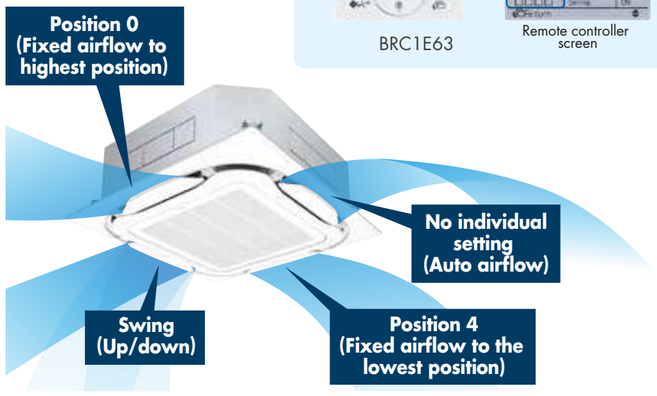
Airflow direction can be individually adjusted for each air discharge outlet to deliver optimal air distribution.

Easy setting is possible with a wired remote controller.

BRC1E63



Remote controller screen



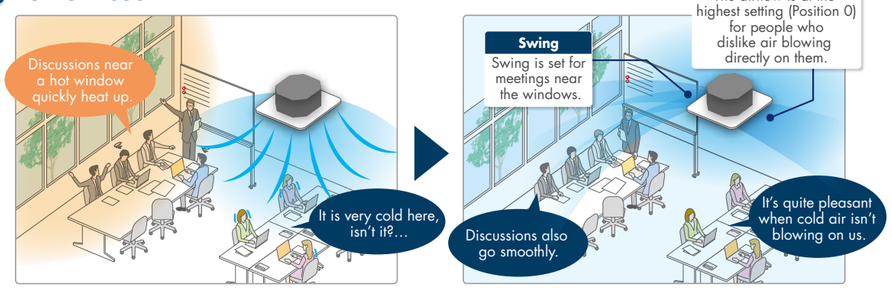
Individual airflow settings

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

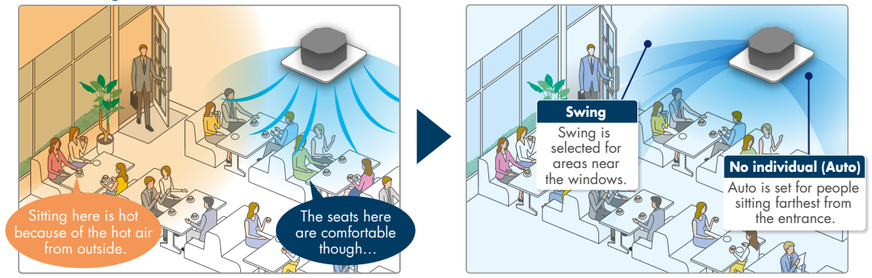
Individual settings are possible as stated above.

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

For offices



For shops and restaurant



VRV Indoor Units

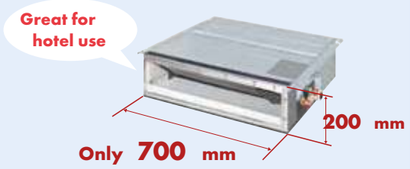
Slim Ceiling Mounted Duct Type

Slim design, quietness and static pressure switching

Suited to use in drop-ceilings

FXDQ20PD / FXDQ25PD / FXDQ32PD

- 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.

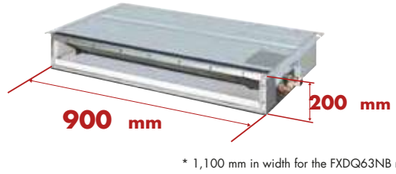
Low operation sound level (dB(A))

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

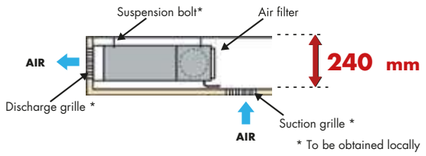
* The values of operation sound level represent those for rear-suction operation. Sound level values for bottom-suction operation can be obtained by adding 5 dB(A).
* Values are based on the following conditions:
FXDQ-PD: external static pressure of 10 Pa; FXDQ-ND: external static pressure of 15 Pa.

FXDQ40ND / FXDQ50ND / FXDQ63ND

- 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.

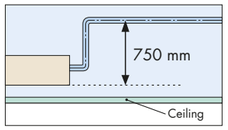


* To be obtained locally

- 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-PD models.
  15 Pa-44 Pa/factory set: 15 Pa for FXDQ-ND models.

- FXDQ-PD and FXDQ-ND models are available with a drain pump as a standard accessory.



INDOOR UNIT LINEUP

VRV Indoor Units

Ceiling Mounted Duct Type

FXMQ40PB / FXMQ50PB / FXMQ63PB
FXMQ80PB / FXMQ100PB / FXMQ125PB
FXMQ140PB

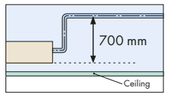
Middle and high static pressure allows for flexible duct design

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

  30 Pa–160 Pa for FXMQ40PB
  50 Pa–200 Pa for FXMQ50P-125PB
  50 Pa–140 Pa for FXMQ140PB

All models are only 300 mm in height, an improvement over the 390 mm height of conventional models. The weight of the FXMQ40PB 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-PB	40	50	63	80/100	125	140
Sound level (HH/H/L)	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 (FXMQ125PB).

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 FXMQ40P–125PB.

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.

FXMQ170NV /FXMQ200NV
FXMQ250NV

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

Wall Mounted Type

FXAQ20AR / FXAQ25AR
FXAQ32AR / FXAQ40AR
FXAQ50AR / FXAQ63AR

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-AR	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.

INDOOR UNIT LINEUP

VRV X

Cooling Only

SPECIFICATIONS

SPECIFICATIONS

VRV Indoor Units

Ceiling Mounted Cassette (Round Flow) Type

MODEL			FXFSQ25ARV1	FXFSQ32ARV1	FXFSQ40ARV1	FXFSQ50ARV1	FXFSQ63ARV1	FXFSQ80ARV1	FXFSQ100ARV1	FXFSQ125ARV1	FXFSQ140ARV1
Power supply			1 -Phase, 220-240V, 50/60Hz								
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	16
Casing			Galvanised steel plate								
Airflow rate (HH/HM/M/ML/L)		m^3/min	13/12.5/11.5/11/10	13/12.5/11.5/11/10	17/13.5/12.5/12/11	23/20.5/19/14.5/11	23.5/21/20/16/13.5	24.5/22/20.5/20/15	33.5/30.5/27/23.5/21	34.5/31.5/28.5/25.5/23	35.5/32.5/29.5/26.5/23
		cfm	459/441/406/388/353	459/441/406/388/353	600/477/441/424/388	812/724/671/515/388	830/742/706/565/477	865/777/724/706/530	1183/1077/953/830/742	1218/1112/1006/901/812	1254/1148/1042/936/812
Sound level (H/L)		dB(A)	30/29.5/28.5/28/27	30/29.5/28.5/28/27	35/29.5/29/28/27	38/35/34.5/29.5/27	38/36/35.5/31.5/28	39/37/36/35.5/31	44/41/38/35/33	45/42.5/39.5/37/35	46/43.5/40.5/38/35
Dimensions (HxWxD)		mm	256x840x840	256x840x840	256x840x840	256x840x84 0	256x840x840	256x840x840	298x840x840	298x840x840	298x840x840
Machine weight		kg	19	19	19	23	23	23	26	26	26
Piping connections	Liquid (Flare)	mm	ϕ6.4	ϕ6.4	ϕ6.4	ϕ6.4	ϕ9.5	ϕ9.5	ϕ9.5	ϕ9.5	ϕ9.5
	Gas (Flare)		ϕ12.7	ϕ12.7	ϕ12.7	ϕ12.7	ϕ15.9	ϕ15.9	ϕ15.9	ϕ15.9	ϕ15.9
	Drain		VP25 (External Dia, 32/Internal Dia, 25)								
Panel (Non sensi)	Model		BYCQ125EAF6 (Fresh White)								
	Dimensions(HxWxD)	mm	50X950X950								
	Weight	kg	5.5								
Panel (Sensi)	Model		BYCQ125EEF6 (Fresh White)								
	Dimensions(HxWxD)	mm	50X950X950								
	Weight	kg	5.5								

Slim Ceiling Mounted Duct Type (700 mm width type)

MODEL	with drain pump		FXDQ20PDVM36	FXDQ25PDVM36	FXDQ32PDVM36
Power supply			1-phase, 220-240 V/220 V, 50/60 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		FXDQ40NDVM36	FXDQ50NDVM36	FXDQ63NDVM36
Power supply			1-phase, 220-240 V/220 V, 50/60 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)		

SPECIFICATIONS

VRV Indoor Units

Ceiling Mounted Duct Type

MODEL			FXMQ40PBV1	FXMQ50PBV1	FXMQ63PBV1	FXMQ80PBV1	FXMQ100PBV1	FXMQ125PBV1	FXMQ140PBV1
Power supply			1 phase,230 V, 50/60Hz						
Cooling capacity		Btu/h	15,400	19,100	24,200	30,700	38,200	47,800	54,600
		kW	4.5	5.6	7.1	9.0	11.2	14.0	16.0
Casing			Galvanised Steel Plate						
Airflow rate (HH/H/L)		m^3/min	16/13/11	18/16.5/15	19.5/17.5/16	25/22.5/20	32/27/23	39/33/28	46/39/32
		cfm	565/459/388	635/582/530	688/618/565	883/794/706	1130/953/812	1377/1165/988	1624/1377/1130
External static pressure		Pa	100(160-30)*1	100(200-50)*1	100(200-50)*1	100(200-50)*1	100(200-50)*1	100(200-50)*1	100(140-50)*1
Sound level (HH/H/L)		dB(A)	39/37/35	41/39/37	42/40/38	43/41/39	44/42/39	43/41/39	46/45/43
Dimensions (HxWxD)		mm	300x700x700	300x1000x700	300x1000x700	300x1000x700	300x1400x700	300x1400x700	300x1400x700
Machine weight		kg	27.0	35.00	35.0	35.0	45.0	45.0	46.0
Piping connections	Liquid (Flare)	mm	6.4	6.4	9.5	9.5	9.5	9.5	9.5
	Gas (Flare)		12.7	12.7	15.9	15.9	15.9	15.9	15.9
	Drain		VP25(External dia.32 Internal dia.25)						

MODEL			FXMQ40ARV1	FXMQ50ARV1	FXMQ63ARV1	FXMQ80ARV1	FXMQ100ARV1
Power supply			1 phase,230 V, 50/60Hz				
Cooling capacity		Btu/h	15,400	19,100	24,200	30.700	38,200
		kW	4.5	5.6	7.1	9.0	11.2
Casing			Galvanised Steel Plate				
Airflow rate (H/L)		m^3/min	15/12	19/16	24/20	30/25	34/29
		cfm	530/424	671/565	847/706	1059/883	1200/1024
External static pressure		Pa	30(50) *1	30(50) *1	30(50) 1	30(50) 1	30(60) 1
Sound level (H/L)		dB(A)	39/37	41/39	42/40	43/41	44/42
Dimensions (HxWxD)		mm	300X700X700	300X700X700	300X1000X700	300X1000X700	300X1000X700
Machine weight		kg	27.0	28.0	35.0	35.0	36.0
Piping connections	Liquid (Flare)	mm	6.4	6.4	9.5	9.5	9.5
	Gas (Flare)		12.7	12.7	15.9	15.9	15.9
	Drain		VP25 (External Dia, 32/Internal Dia, 25)				

* 1 Maximum static pressure

Ceiling Mounted Duct Type

MODEL			FXMQ170NVE6	FXMQ200NVE6	FXMQ250NVE6
Power supply			1-phase, 220, 240 V/220 V, 50/60 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		

Wall Mounted Type

MODEL			FXAQ20ARVM	FXAQ25ARVM	FXAQ32ARVM	FXAQ40ARVM	FXAQ50ARVM	FXAQ63ARVM
Power supply			1-phase, 220-240 V/220 V, 50/60 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 (N9.5)					
Airflow rate (H/L)		m^3/min	7.5/4.5	9/5	11/5.5	13/9	15/12	19/14
		cfm	265/159	318/177	388/194	459/318	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	298x929x258	298x929x258	298x929x258	298x929x258	298x929x258	298x929x258
Machine weight		kg	13	13	13	13	13	13
Piping connections	Liquid (Flare)	mm	ϕ6.4	ϕ6.4	ϕ6.4	ϕ6.4	ϕ6.4	ϕ9.5
	Gas (Flare)		ϕ12.7	ϕ12.7	ϕ12.7	ϕ12.7	ϕ12.7	ϕ15.9
	Drain		VP13 (External Dia, 18/Internal Dia, 13)					

SPECIFICATIONS

Outdoor Units

VRV X Cooling Only

Model			RXQ6ARYFK	RXQ8ARYFK	RXQ10ARYFK	RXQ12ARYFK	RXQ14ARYFK	RXQ16ARYFK
Capacity Class			6HP	8HP	10HP	12HP	14HP	16HP
Power supply			380-415V / 3N /50 Hz, 400V / 3N / 60Hz					
Cooling Capacity	T1	Btu/h	54,600	76,450	95,550	114,350	136,500	153,550
		kW	16.0	22.4	28.0	33.5	40.0	45.0
	T3	Btu/h	50,000	64,000	89,000	92,500	116,400	118,000
		kW	14.7	18.8	26.1	27.1	34.1	34.6
Power Input	T1	W	4,500	6,600	7,900	9,500	11,300	13,150
	T3	W	5,100	6,500	9,400	10,400	12,500	12,500
Power Input ODU	T3	W	4,610	5,830	8,640	9,540	11,520	11,370
EER	T1	Btu/h W	12.13	11.58	12.09	12.04	12.08	11.68
	T3	Btu/h W	9.80	9.85	9.47	8.89	9.31	9.44
Combination Ratio			50-130%					
Casing Color			Ivory White					
Compressor	Type		Hermitically Sealed Scroll Compressor					
	No of Compressor		1	1	1	1	2	2
Air Flow rate		m3/min	178	178	257	257	297	297
Dimension	H	mm	1,657	1,657	1,657	1,657	1,657	1,657
	W	mm	930	930	1,240	1,240	1,240	1,240
	D	mm	765	765	765	765	765	765
Machine weight		kg	165	175	220	220	285	285
Sound Level		dBA	56	57	60	60	65	65
Operation range	Cooling	CDB	10 ~ 52					
Refrigerant	Type		R410A					
	Charge	kg	5.9	7.3	9.0	9.3	11.7	11.8
Piping Connection	Liquid	mm	9.5	9.5	12.7	12.7	15.9	15.9
	Gas	mm	19.1	22.2	28.6	28.6	28.6	28.6

- 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.

VRV X

Cooling Only

CONTROL SYSTEMS

CONTROL SYSTEMS

Individual Control Systems for VRV Indoor Units

BRC1H81W7 / BRC1H81S7

Madoka wired remote controller for VRV

BRC1H81W7

BRC1H81S7

A complete redesigned controller focused on enhancing user experience

› Sleek and elegant design
› Intuitive touch-button control
› Two display options: standard and detailed
› Direct access to basic functions
(on/off, set point, mode, target values, fan speed, louvres, filter icon & reset, error & code)
› Two colours to match any interior
› Compact, measures only 85 x 85 mm
› Real time clock with auto update to daylight saving time
› Equipped with a buzzer

Hotel application features

› Energy saving through key card, window contact integration and set point limitation (BRP7A*)
› Flexible setback function ensures room temperature remains within comfortable limits to ensure guest comfort

Advanced settings can be easily done via your smartphone

A series of energy saving functions that can be individually selected

› Temperature range limit
› Setback function
› Presence & floor sensor setting
(available on round flow and fully flat cassette)
› kWh indication
› Set temperature auto reset
› Off timer

Other functions

› Up to 3 independent schedules can be set, so the user can easily change the schedule himself throughout the year (e.g. summer, winter, mid-season)
› Possibility to individually restrict menu functions

Temperature range limit avoids excessive cooling

Save energy by constraining the lower temperature limit in cooling

Individual Control Systems for VRV Indoor Units

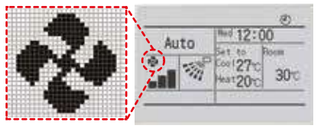
Navigation remote controller (Wired remote controller) (Optional)

BRC1E63*

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.



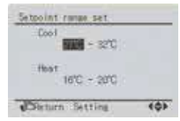
Simple operation

● **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.

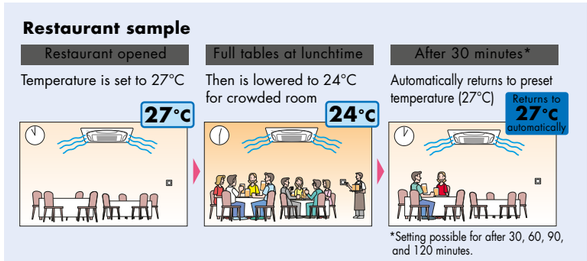
Energy saving

● **Setpoint range set**
- Saves energy by limiting the min. and max. set temperature.
- Avoids excessive cooling.
- 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.



*BRC1E63 not applicable in UAE

CONTROL SYSTEMS

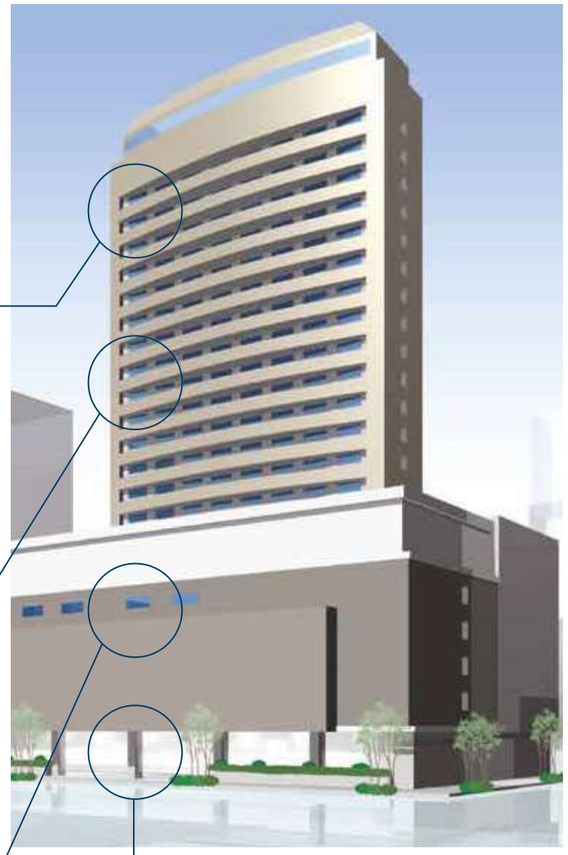
Advanced Control Systems for VRV Indoor Units

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.



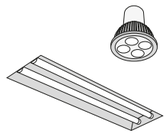
Individual air-conditioning control

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.

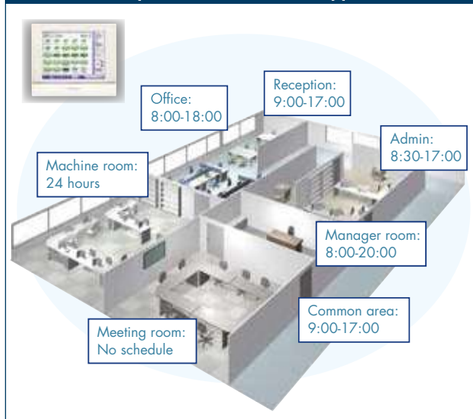
It is also easy to use with standardized remote Web Access from your PC.

It can manage a total of 650 management points consisting of up to 512 Daikin indoor unit groups

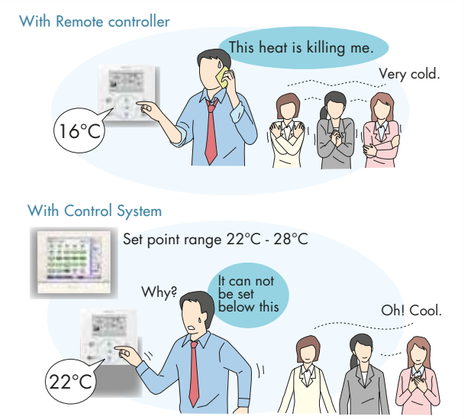
(up to 1024 indoor units) along with building equipment control / monitoring with Digital Inputs / Output

(Di/Dio), Analog Inputs / Output (Ai/Ao) and Pulse input (Pi) optional devices.

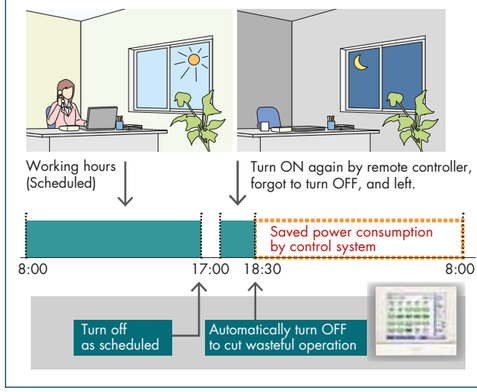
Schedule the operation time for each application.



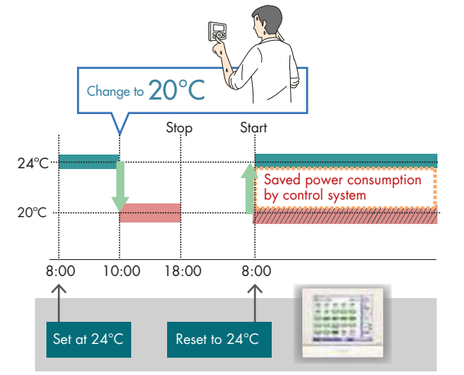
Define the setpoint range that users can change.



Turn the unit OFF if a user didn't.



Reset setpoint regularly.



CONTROL SYSTEMS

Tenant Management (PPD Option)

Reporting the power consumption of VRV system for each tenant

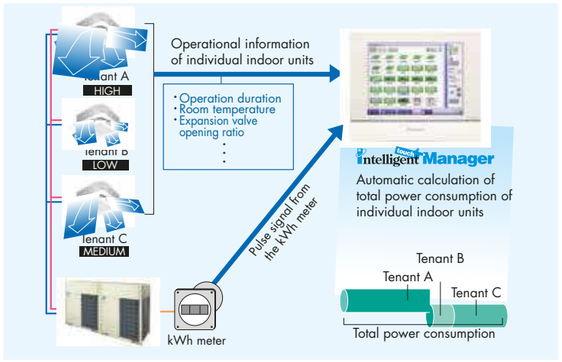
With the PPD function, power consumption can be calculated for each indoor unit (Optional)

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 Network Service System

Daikin Offers a Variety of Control Systems

Convenient controllers that offers more freedom to administrators

DCS601C51

intelligent touch 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®

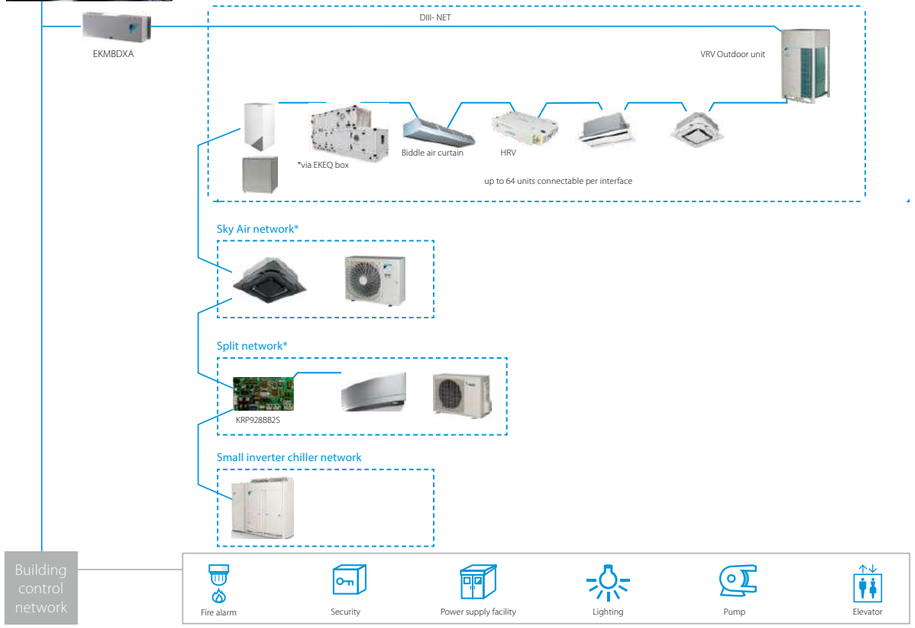
Notes: 1. BACnet® is a registered trademark of American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE).
2. LONWORKS® is a trademark of Echelon Corporation registered in the United States and other countries.

DIII-net Modbus interface

EKMBDXA

Integrated control system for seamless connection between Split, Sky Air, VRV and small inverter chillers and BMS systems

- Communication via Modbus RS485 protocol
- Detailed monitoring and control of the VRV total solution
- Easy and fast installation via DIII-net protocol
- As the Daikin DIII-net protocol is being used, only one modbus interface is needed for a group of Daikin systems (up to 10 outdoor units systems).



* Additional centralized controller might be required. For more information contact your local dealer.

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

NOTES

NOTES

- Ask an authorised Daikin dealer to install Daikin products. Do not try to install the product yourself or get it installed by any unauthorised dealer. Improper installation can result in water or refrigerant leakage, electrical shock, fire or explosion. Warranty of the product shall be void if not installed by an authorised Daikin dealer.
- Use only those parts and accessories supplied or specified by Daikin. Ask authorised Daikin dealer for any repairs or components. Warranty of the product / component shall be void if non-specified spares are used or repaired by a non Daikin dealer.
- Please ensure to install ELCB (Earth Leakage Circuit Breaker) for outdoor units to prevent ground fault effects.
- Read the User's manual carefully before using the product. The User's Manual provides important safety instructions and warnings. Be sure to follow these instructions and warnings.

For any inquiries, either call the numbers mentioned back cover or contact your nearest Daikin dealer.

Cautions on product corrosion

1. Air conditioners should not be installed in areas where corrosive gases, such as acid gas or alkaline gas, are produced.
2. If the outdoor unit is to be installed close to the sea shore, direct exposure to the sea breeze should be avoided. If you need to install the outdoor unit close to the sea shore, contact your local distributor.

JMI-0107

JQA-1452

About ISO 9001

ISO 9001 is a plant certification system defined by the International Organization for Standardization (ISO) relating to quality assurance. ISO 9001 certification covers quality assurance aspects related to the "design, development, manufacture, installation, and supplementary service" of products manufactured at the plant.

EC99J2044

About ISO 14001

ISO 14001 is the standard defined by the International Organization for Standardization (ISO) relating to environmental management systems. Our group has been acknowledged by an internationally accredited compliance organisation as having an appropriate programme of environmental protection procedures and activities to meet the requirements of ISO 14001.