# **VRV** H SERIES

# Saves Space and



# Greater energy savings during low-load 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 80% of their annual operation period.\*

This inspired us to develop new technologies to enhance energy efficiency during low-load operation.

Utilising these technologies, Daikin's new VRV H series raises the standard of energy efficiency.

\* Main factors for frequent operation at low load of 50% or lower · Because individual control is possible for VRV system, air conditioning is turned OFF to unoccupied rooms such as conference rooms, private rooms, and storage rooms. Maximum number of people assumed at the time of design has not been reached.

There are zones without tenants such as the tenants' office building.

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



#### Higher Coefficient of Performance (COP)



- Annual power consumption 14%<sup>\*</sup> lower
- \* Simulation conditions :
- Location : Bangkok, Thailand System : Outdoor unit (10 class) x 1
- Indoor unit (2 class, Round Flow with Sensing type) x 5
- Operation time : 8:00-20:00 5 days/week Outdoor units
- New model : RXYQ10A (VRV H series) Conventional model : RXYQ10T (VRV IV)

VRV IV (RXYQ10T)

### **VRV H** series

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

# **Delivers Excellent Performance VRV H SERIES**

## Advanced technologies for greater energy savings By uniting advanced software and hardware technologies, VRV H Series is able to attain

greater heights in energy savings and comfort.

•Overview of the control (system control flow)





#### **Optimum utilisation of VRT Smart Control and VRT Control**

VRT Smart and VRT control is most effective when all the indoor units operate under low load conditions in a similar manner. Low load conditions is the time when room temperature approaches set temperature. For this reason, please note the following to maximise efficacy.

#### •When selecting indoor units

Indoor units are installed in a system so that they operate largely under the same conditions. Energy efficiency decreases for the installation patterns indicated below. Example:

- 1) A load imbalance occurs because an indoor unit on the same system is installed near the perimeter of the room or in the vicinity of a room entrance.
- 2) Different operating hours for indoor units.
- 3) Energy efficiency decreases when the set temperature of a specified indoor unit is set to an extreme during cooling operation. E.g. 18°C



VRV H SERIE Heat Pump

# Achieves Space Saving & Excellent Performance



#### Advanced oil temperature control

#### Standby power consumption is reduced

The advanced oil temperature control reduces standby power consumption by up to 82.7%\* annually compared to conventional models. Standby power needed for preheating refrigerator oil, which consumed substantial standby power, was reduced to save energy when the air conditioner is stopped.

\* Operation calculation conditions: VRV H series 14 class Location: Singapore Operation time: 08:00-18:00 on weekdays.

# High reliability

#### New inverter PC board

The control functions of inverter technology have been integrated on printed circuit boards. As well as improving reliability, this has reduced the number of parts and enabled downsizing.

- New waveform control improves tolerance of variations in power supply voltage. Even if the power supply has irregularities, rises in current are suppressed and operation continues.
- Durability of the inverter printed circuit board improved by changing the electrolytic capacitors for the compressor to film capacitors.







Electrolytic capacitors

## Comfort Low operation sound

High efficiency heat exchanger helps to achieve low operation sound.



#### Large airflow, high static pressure and quiet technology

Advanced analytic technologies are utilised to optimise fan design and increase airflow rate and high external static pressure.





Streamlined sc The curvature of e reduces both vibr loss.	r <b>oll fan</b> each fan blade edge ation and pressure										
Streamlined scroll fan	Streamlined scroll fan										
Illustrated fan											

#### Nighttime quiet operation function

For areas with stringent restrictions placed on outdoor sound levels, the outdoor unit can be set for low operation sound during the nighttime to meet sound restrictions.

The automatic night quiet mode will initiate 8 hours<sup>\*1</sup> after the peak temperature is reached in the daytime, and normal operation will resume 9 hours\*2 after that.

- \*1. Initial setting is 8 hours. Can be selected from 6, 8 and 10 hours. \*2. Initial setting is 9 hours. Can be selected from 8, 9 and 10 hours.
- \*3. In case of 10 class outdoor unit.



Note

· The night quiet mode lowers operating sound by reducing capacity. This function is available in setting at site. The operating sound in guiet operation mode is the actual value measured by our company. Because priority is given to protection mode, such as for oil recovery, the operating sound may become higher temporarily.

The relationship of outdoor temperature (load) and time shown above is just an example.

# Compact design with high performance

### Highly integrated heat exchanger

The unique 4-sided all round heat exchanger ensures sufficient surface area for the heat exchanger. This improves the heat exchanger performance without increasing the footprint.

#### Waffle Fin

A waffled-shaped fin with fin pitch of 1.4 mm was adopted to realise sufficient heat exchanger area for optimum unit efficiency

### **Optimised inner design to** ensure smooth airflow

Electric components were downsized and positioned in the dead space of the bell mouth side to decrease airflow resistance.



### Sufficient cooling for electrical components

The VRV H series is designed with the electrical box strategically positioned between a region of positive and negative pressure. This design allows large airflow from negative pressure to positive pressure due to the high pressure difference.

> High pressure since air enters near the fan blower inlet

# Positive pressure space ive pressure space

### High reliability at high ambient temperatures

It is possible to keep operation stable even at high ambient temperatures by cooling the inverter power module. This helps maintain air-conditioning capacity and reduces failure ratio.

### Outer Rotor DC Motor (ODM)

Only Daikin has adapted an ODM with the feature of stable rotation and volumetric efficiency.

#### Advantages of ODM

- Thanks to the large diameter of the rotor,
- (i) Large torque with same electromagnetic force
- 2 Stable rotation in all ranges and can be operated with small number of rotations



4-sided heat exchanger





High efficiency heat exchanger is realised by reducing airflow resistance with adoption of small cooling tubes with a diameter of  $\Phi7$ .

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#### Easy maintenance Electrical components

The electrical components are strategically located on the top which eases the maintenance process.

Moreover, the heat exchanger on the front side can be used effectively to improve its performance.

#### **Eliminate suction** resistance issue

Without affecting the fan volume, the electric components are designed to be at the top and this ulitises dead space. This eliminates the problem of suction resistance.









PC Board

# 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.



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

\*1. No special requirements up to 40 m. The maximum actual piping length can be 90 m, depending on conditions. The VRV H series is easy to extend to 90 m by lessening the conditions from conventional VRV IV models. Be sure to refer to the Engineering Data Book for details of these conditions and requirements.

\*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. Refer to the Engineering Data Book and contact your local dealer for more information.

#### **Connection ratio**

Connection capacity at maximum is 200%.



#### Connection ratio =

Total capacity index of the indoor units

#### Conditions of VRV indoor unit connection capacity



\*1 For the FXF(S)Q25 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 24 for outdoor unit combination details.



When a mixed combination of *VRV* and residential indoor units is connected or when only residential indoor units are connected

	Actual piping length (Equiv	valent)	100 m (120 m)					
	Total piping length		<b>250</b> m					
		If indoor unit capacity index < 60.	<b>2</b> m– <b>15</b> m					
Maximum allowable	Between BP unit and indoor unit	If indoor unit capacity index is 60.	<b>2</b> m– <b>12</b> m					
piping length		If indoor unit capacity index is 71.	<b>2</b> m– <b>8</b> m					
	Between the first indoor between the first indoor br	Between the first indoor branch and the farthest BP unit or between the first indoor branch and the farthest <b>VRV</b> indoor unit						
	Between outdoor unit and	<b>5</b> m						
	Between the indoor units	Between the indoor units						
	Between BP units		<b>15</b> m					
Maximum allowable	Between the outdoor unit	If the outdoor unit is above.	<b>50</b> m					
level difference	and the indoor unit	If the outdoor unit is below.	<b>40</b> m					
	Between the outdoor unit a	<b>40</b> m						
	Between the BP unit and t	<b>5</b> m						

### High external static pressure

**VRV** H series outdoor unit has been 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.







- \*1. If the piping length between the first indoor branch and BP unit or VRV indoor unit is over 20 m, it is necessary to increase the gas and liquid piping size between the first indoor branch and BP unit or VRV indoor unit. If the piping diameter of the sized up piping exceeds the diameter of the piping before the first indoor branch kit, then the latter also requires a liquid piping and gas piping size up. Please refer to Engineering Data Book for details.
- \*When a mixed combination of *VRV* and residential indoor units is connected or when only residential indoor units are connected, connection ratio must be 80% to 130%. Refer to page 24 for outdoor unit combination details.

# **Reliable and Stable System**

# More accurate test operation and stable system

### Efficient automatic test operation

Daikin VRV H series incorporates a simplified and efficient test operation function, that not only greatly accelerates the installation process, but also effectively improves the field setting quality.

- Automatically checks the wiring between outdoor units and indoor units to confirm whether there is defective wiring.
- Confirms piping length to optimise operation.
- Automatically checks whether the stop valve in each outdoor unit is functioning normally to ensure the smooth operation of air conditioning system.

# Simplified commissioning and after-sales service

### Function of information display by luminous digital tube

**VRV** H series utilises 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.



# emitting state of different diodes, which inefficient and

Wiring check

Piping check

Stop valv check

# Advanced control main PC board

#### SMT\* packaging technology

- SMT packaging technology adopted by the computer control panel improves the anti-clutter performance.
- Protects your computer boards from the adverse effects of sandy climates and humid weather.

# demand function

Limit to power consumption can be set precisely to one of 11 levels. Peak power cut-off can be accomplished according to each user situation. \*Set on the circuit board of the outdoor unit.





Automatic check

# Wide operation temperature range

The versatile operation range of the VRV H series works to reduce limitations on installation locations. The operation temperature range for heating goes all the way down to -20°C, while cooling can be performed with outdoor temperatures as high as 49°C.



# Automatic sequencing operation

During start-up, Daikin VRV H series outdoor unit sequencing operation will be automatically enabled to ensure balance operation of each outdoor unit to improve longevity of equipment and operation stability. Stage 2 Stage 1 Stage 3



# **Double backup operation functions**

Daikin VRV H series outdoor unit boasts double backup operation functions, which can secure the use of air conditioners in this area to the greatest extent in an emergency by enabling double backup operation functions even if failure occurs in a set of air conditioning equipment. In the event of a failure, emergency operation can be conveniently enabled to allow the remaining system to operate in a limited fashion.

#### Unit backup operation function

If one of the units in a multiple outdoor system The outdoor unit is equipped with two compressors. Even malfunctions, the other outdoor units provide if one compressor malfunctions, the other compressor emergency operation until repairs can be made. provides emergency operation, reducing the risk of air conditioning shutdown due to compressor failure. \* For systems composed of two or more outdoor units. (Capacity is saved during backup operation.) \* For single outdoor unit system RXYQ14-20AYM models. On-site settings are Emergency required using the printed circuit board of the outdoor unit Malfunction operation Emergency operation Malfunction

# Ease of maintenance

VRV H 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



#### **Compressor backup operation function**



# **Outdoor Unit Lineup**

# VRV H Series Outdoor Units Heat Pump

### The outdoor unit capacity is up to 60 class (168 kW) in increment of 2 class.

- VRV H series outdoor unit offers a high capacity of up to 60 class, responding to the needs of large-sized building.
- 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 class, customers' needs can be precisely met.

#### Lineup

class			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
	High-COP Type																												
VAV IT SERIES	Standard Type																												



# Outdoor Unit Combinations

#### For connection of only VRV indoor units

#### **High-COP** Type

class	kW	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
12	32.0	300	RXYQ12AH	RXYQ6A × 2		150 to 390 (480)	19 (24)
14	38.4	350	RXYQ14AH	RXYQ6A + RXYQ8A		175 to 455 (560)	22 (28)
16	44.8	400	RXYQ16AH	RXYQ8A × 2	BHFP22P100	200 to 520 (640)	26 (32)
18	50.4	450	RXYQ18AH	RXYQ8A + RXYQ10A	]	225 to 585 (720)	29 (36)
20	55.9	500	RXYQ20AH	RXYQ8A + RXYQ12A	]	250 to 650 (800)	32 (40)
22	60.8	550	RXYQ22AH	RXYQ6A + RXYQ8A × 2		275 to 715 (715)	35 (35)
24	67.2	600	RXYQ24AH	RXYQ8A × 3		300 to 780 (780)	39 (39)
26	72.8	650	RXYQ26AH	RXYQ8A × 2 + RXYQ10A		325 to 845 (845)	42 (42)
28	78.3	700	RXYQ28AH	RXYQ8A × 2 + RXYQ12A		350 to 910 (910)	45 (45)
30	83.9	750	RXYQ30AH	RXYQ8A + RXYQ10A + RXYQ12A	DHFF22F131	375 to 975 (975)	48 (48)
32	89.4	800	RXYQ32AH	RXYQ8A + RXYQ12A × 2		400 to 1,040 (1,040)	52 (52)
34	95.0	850	RXYQ34AH	RXYQ10A + RXYQ12A × 2	]	425 to 1,105 (1,105)	55 (55)
36	101	900	RXYQ36AH	RXYQ12A × 3		450 to 1,170 (1,170)	58 (58)

#### Standard Type

class	kW	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	16.0	150	RXYQ6A	RXYQ6A	-	75 to 195 (300)	9 (15)
8	22.4	200	RXYQ8A	RXYQ8A	-	100 to 260 (400)	13 (20)
10	28.0	250	RXYQ10A	RXYQ10A	-	125 to 325 (500)	16 (25)
12	33.5	300	RXYQ12A	RXYQ12A	-	150 to 390 (600)	19 (30)
14	40.0	350	RXYQ14A	RXYQ14A	-	175 to 455 (700)	22 (35)
16	45.0	400	RXYQ16A	RXYQ16A	-	200 to 520 (800)	26 (40)
18	50.0	450	RXYQ18A	RXYQ18A	-	225 to 585 (900)	29 (45)
20	56.0	500	RXYQ20A	RXYQ20A	-	250 to 650 (1,000)	32 (50)
22	61.5	550	RXYQ22A	RXYQ10A + RXYQ12A		275 to 715 (880)	35 (44)
24	67.0	600	RXYQ24A	RXYQ12A × 2		300 to 780 (960)	39 (48)
26	73.5	650	RXYQ26A	RXYQ12A + RXYQ14A		325 to 845 (1,040)	42 (52)
28	78.5	700	RXYQ28A	RXYQ12A + RXYQ16A		350 to 910 (1,120)	45 (56)
30	83.5	750	RXYQ30A	RXYQ12A + RXYQ18A	DHFF22F100	375 to 975 (1,200)	48 (60)
32	90.0	800	RXYQ32A	RXYQ16A × 2		400 to 1,040 (1,280)	52 (64)
34	95.0	850	RXYQ34A	RXYQ16A + RXYQ18A		425 to 1,105 (1,360)	55 (64)
36	101	900	RXYQ36A	RXYQ16A + RXYQ20A		450 to 1,170 (1,440)	58 (64)
38	107	950	RXYQ38A	RXYQ12A × 2 + RXYQ14A		475 to 1,235 (1,235)	61 (61)
40	112	1,000	RXYQ40A	RXYQ12A × 2 + RXYQ16A		500 to 1,300 (1,300)	
42	118	1,050	RXYQ42A	RXYQ10A + RXYQ16A × 2		525 to 1,365 (1,365)	
44	124	1,100	RXYQ44A	RXYQ12A + RXYQ16A × 2		550 to 1,430 (1,430)	
46	130	1,150	RXYQ46A	RXYQ14A + RXYQ16A × 2		575 to 1,495 (1,495)	
48	135	1,200	RXYQ48A	RXYQ16A × 3		600 to 1,560 (1,560)	
50	140	1,250	RXYQ50A	RXYQ16A × 2 + RXYQ18A	DHIFZZFIJI	625 to 1,625 (1,625)	64 (64)
52	145	1,300	RXYQ52A	RXYQ16A + RXYQ18A × 2		650 to 1,690 (1,690)	
54	150	1,350	RXYQ54A	RXYQ18A × 3		675 to 1,755 (1,755)	
56	156	1,400	RXYQ56A	RXYQ18A × 2 + RXYQ20A		700 to 1,820 (1,820)	
58	162	1,450	RXYQ58A	RXYQ18A + RXYQ20A × 2		725 to 1,885 (1,885)	
60	168	1,500	RXYQ60A	RXYQ20A × 3		750 to 1,950 (1,950)	

Note: \*1. For multiple connection, 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 19 for notes on connection capacity of indoor units.

#### For mixed combination of VRV and residential indoor units or connection of residential indoor units only

Model name*1	kW	class	Capacity	Total capacity	index of connectable Combination (%)	e indoor units*2	Maximum number of
			in a cont	80%	100%	130%	
RXYQ6AYM	16.0	6	150	120	150	195	9
RXYQ8AYM	22.4	8	200	160	200	260	13
RXYQ10AYM	28.0	10	250	200	250	325	16
RXYQ12AYM	33.5	12	300	240	300		19
RXYQ14AYM	40.0	14	350	280	350	455	22
RXYQ16AYM	45.0	16	400	320	400	520	26
RXYQ18AYM	50.0	18	450	360	450	585	29
RXYQ20AYM	56.0	20	500	400	500	650	32

Note: \*1. Only single outdoor unit (RXYQ6-20AYM) can be connected. \*2. Total capacity index of connectable indoor units must be 80%-130% of the capacity index of the outdoor unit.

RXYQ32AYMA RXYQ34AYMA RXYQ36AYMA



RXYQ52AYMA RXYQ60AYMA

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# Enhanced range of choices

A mixed combination of VRV indoor units and residential indoor units is enabled all in one system, opening the door to stylish and quiet indoor units.

VRV indoor units										New	lineu	ıp	1	Indo VRT	or un smar	its su t con	ıbject trol	to
			20	25	32	40	50	63	71	80	100	125	140	145	160	180	200	250
Туре	Model Name	Capacity Range(kW)	2.2	2.8	3.6	4.5	5.6	7.1			11.2	14	16	16.2	18	20	22.4	28
		Capacity Index	20	25	31.25	40	50	62.5	71	80	100	125	140	145	160	180	200	250
Ceiling Mounted Cassette (Round Flow with Sensing)	FXFSQ-AVM 💩	-												1 1 1 1 1				
Ceiling Mounted Cassette (Round Flow)	FXFQ-PVE													1 1 1 1 1				
Ceiling Mounted Cassette (Compact Multi Flow)	FXZQ-A2VEB									1								
4-Way Flow Ceiling Suspended	FXUQ-AVEB	-					1			- - - - - - - - -								
Ceiling Mounted Cassette (Double Flow)	FXCQ-AVM																	
Ceiling Mounted Cassette (Single Flow)	FXEQ-AV36									- - - - - - - - - - - - - - - - - - -								
Slim Ceiling Mounted Duct (Compact Series)	FXDQ-TV1B(A)																	
Slim Ceiling Mounted Duct	FXDQ-PDVE 🔊	(700mm width type)																
(Standard Series)	FXDQ-NDVE 🔊	(900 / 1,100mm width type)																
Ceiling Concealed Duct	FXDYQ-MAV1																	
Middle Static Pressure Ceiling Mounted Duct	FXSQ-PAVE																	
Ceiling Mounted	FXMQ-PAVE																	
Duct	FXMQ-PV1A																	
Outdoor-Air Processing Unit	FXMQ-MFV1						1			- - - - -								
Ceiling Suspended	FXHQ-MAVE	-																
	New FXHQ-AVM				       		- - - - - -			1 1 1 1 1	1			1 1 1 1 1				
Wall Mounted	New FXAQ-AVM																	
Floor Standing	FXLQ-MAVE									1 1 1 1 1								
Concealed Floor Standing	FXNQ-MAVE	F																
Heat Reclaim Ventilator with DX-Coil and Humidifier	VKM-GA(M)V1		A	irflow	v rate	e 500	0-10	00 m	³/h									
Heat Reclaim Ventilator	VAM-GJVE	001	A	irflov	v rate	e 150	)-20	00 m	³/h									
Air Handling Unit	AHUR														6	-60 c	lass	

Residential indoor units with connection to BP units													
			20	25	35	50	60	71					
Туре	Model Name	Rated Capacity (kW)	2.0	2.5	3.5	5.0	6.0	7.1					
		Capacity Index	20	25	35	50	60	71					
Ceiling Mounted Cassette (Compact Multi Flow)	FFQ-BV1B												
Slim Ceiling Mounted Duct	FDXS-CVMA	(900/1,100 mm width type)											
Wall	FTXS-KVMA												
Mounted	FTXS-KAVMA												

Note: BP units are necessary for residential indoor units. Only single outdoor unit (RXYQ6-20AYM) can be connected.

#### VRV indoor unit type combinations

VRV indoor unit system



64 indoor units

control and VRT control are disabled.

Mixed residential and VRV indoor unit system



BP units are necessary for residential indoor units. Only single outdoor unit (RXYQ6-20AYM) can be connected.
If a system has both residential indoor units and VRV indoor units, the system is operated under VRT control.

Residential indoor unit only system



BP units are necessary for residential indoor units. Only single outdoor unit (RXYQ6-20AYM) can be connected.
If a system has only residential indoor units, the system is operated under VRT control.

Note: For indoor units without 'VRT Smart', the standard 'VRT' control is available (excludes Heat Reclaim Ventilators & Outdoor-Air Processing Unit).

# **VRV** H series

VRV H SERIES Heat Pump

• If a system has indoor units subject to both VRT smart and VRT control, the system is operated under VRT control. • If a system has both outdoor-air processing air conditioners and outdoor-air processing type indoor units, VRT smart

# Specifications

# **VRV H Series Outdoor Units Heat Pump RXYQ-A**

High-COP Type

Model			RXYQ12AHYMA	RXYQ14AHYMA	RXYQ16AHYMA	RXYQ18AH	IYMA	RXYQ20AHYMA	RXYQ22AHYMA	
			RXYQ6AYM	RXYQ6AYM	RXYQ8AYM	RXYQ8A	YM	RXYQ8AYM	RXYQ6AYM	
Combination uni	ts		RXYQ6AYM	RXYQ8AYM	RXYQ8AYM	RXYQ104	AYM	RXYQ12AYM	RXYQ8AYM	
			_	_	-	-		-	RXYQ8AYM	
Power supply			3	B-phase 4-wire system, 380-415 V/380 V, 50/60	Hz		3-	ohase 4-wire system, 380-415 V/380 V, 50/60 Hz		
Cooling capacity		Btu/h	109,000	131,000	153,000	172,00	0	191,000	207,000	
Cooling capacity		kW	32.0	38.4	44.8	50.4		55.9	60.8	
Heating capacity		Btu/h	123,000	147,000	171,000	193,00	0	213,000	232,000	
		kW	36.0	43.0	50.0	56.5		62.5	68.0	
Power	Cooling	kW	6.76	8.55	10.3	12.0		13.9	13.7	
consumption	Heating	kW	7.46	9.40	11.3	12.9		14.6	15.1	
Capacity control		%	12-100	11-100	10-100			7-100		
Casing colour		Ivory white (5Y7.5/1)				Ivory white (5Y7.5/1)				
Compressor	ре			Hermetically sealed scroll type				Hermetically sealed scroll type		
N N	otor output	kW	(2.4×1)+(2.4×1)	(2.4×1)+(3.4×1)	(3.4×1)+(3.4×1)	(3.4×1)+(4	.5×1)	(3.4×1)+(5.5×1)	(2.4×1)+(3.4×1)+(3.4×1)	
Airflow rate		ℓ/s	1,983+1,983	1,983+2,967	2,967+2,967	2,967+2,	967	2,967+3,183	1,983+2,967+2,967	
		m³/min	119+119	119+178	178+178	178+17	78	178+191	119+178+178	
Dimensions (H×W	×D)	mm		(1,657×930×765)+(1,657×930×765)			(1,657×930×765)+(1,65	7×930×765)	(1,657×930×765)+(1,657×930×765)+(1,657×930×765)	
Machine weight		kg		185+185			185+200		185+185+185	
Sound level		dB(A)		59		60			61	
Sound power		dB(A)		80		81			82	
Operation range	Cooling	°CDB		-5 to 49						
operation range	Heating	°CWB		-20 to 15.5				-20 to 15.5		
Refrigerant	Туре			R-410A				R-410A		
	Charge	kg	6.9+6.9	6.9+7.0	7.0+7.0	7.0+7.	4	6.9+7.0+7.0		
Piping	Liquid	mm		φ12.7 (Brazing)				φ15.9 (Brazing)		
connections	Gas	mm		φ28.6 (Brazing)				φ28.6 (Brazing)		

Model			RXYQ24AHYMA	RXYQ26AHYMA	RXYQ28AHYMA	RXYQ30AHYMA	RXYQ32AHYMA	RXYQ34AHYMA	RXYQ36AHYMA				
			RXYQ8AYM	RXYQ8AYM	RXYQ8AYM	RXYQ8AYM	RXYQ8AYM	RXYQ10AYM	RXYQ12AYM				
Combination u	nits		RXYQ8AYM	RXYQ8AYM	RXYQ8AYM	RXYQ10AYM	RXYQ12AYM	RXYQ12AYM	RXYQ12AYM				
			RXYQ8AYM	RXYQ10AYM	RXYQ12AYM	RXYQ12AYM	RXYQ12AYM	RXYQ12AYM	RXYQ12AYM				
Power supply			3-r	ohase 4-wire system, 380-415 V/380 V, 50/	60 Hz	3-phase 4-wire system, 380-415 V/380 V, 50/60 Hz							
Cooling consoit		Btu/h	229,000	248,000	267,000	286,000	305,000	324,000	345,000				
Cooling capacity	у	kW	67.2	72.8	78.3	83.9	89.4	95.0	101				
Leating consolt		Btu/h	256,000	278,000	299,000	321,000	341,000	365,000	386,000				
Heating capacit	У	kW	75.0	81.5	87.5	94.0	100	107	113				
Power	Cooling	kW	15.5	17.2	19.0	20.7	22.6	24.2	26.1				
consumption	Heating	kW	17.0	18.6	20.3	21.8	23.5	25.1	26.7				
Capacity contro	I	%	7-100		5-100	5-	100	4-1	100				
Casing colour				Ivory white (5Y7.5/1)			Ivory whit	e (5Y7.5/1)					
0	Туре	Hermetically sealed sc					Hermetically sealed scroll type						
Compressor	Motor output	kW	(3.4×1)+(3.4×1)+(3.4×1)	(3.4×1)+(3.4×1)+(4.5×1)	(3.4×1)+(3.4×1)+(5.5×1)	(3.4×1)+(4.5×1)+(5.5×1)	(3.4×1)+(5.5×1)+(5.5×1)	(4.5×1)+(5.5×1)+(5.5×1)	(5.5×1)+(5.5×1)+(5.5×1)				
Airflow rate		l/s	2,967+2,9	967+2,967	2,967+2,967+3,183	2,967+2,967+3,183	2,967+3,	183+3,183	3,183+3,183+3,183				
Almow rate		m³/min	178+1	78+178	178+178+191	178+178+191	178+1	91+191	191+191+191				
Dimensions (H×	W×D)	mm	(1,65	57×930×765)+(1,657×930×765)+(1,657×93	30×765)		(1,657×930×765)+(1,657×930×765)						
Machine weight		kg	185+185+185	185-	+185+200	185+2	200+200	200+20	00+200				
Sound level		dB(A)	6	51	62	62		53	64				
Sound power		dB(A)	8	32	83	83		34	85				
Operation range	Cooling	°CDB		-5 to 49			-5 1	o 49					
Operation range	Heating	°CWB		-20 to 15.5			-20 t	o 15.5					
Pofrigorant	Туре			R-410A			R-4	10A					
nemgerani	Charge	kg	7.0+7.0+7.0	7.0+7.0+7.4	7.0+7.0+7.6	7.0+7.4+7.6	7.0+7.6+7.6	7.4+7.6+7.6	7.6+7.6+7.6				
Piping	Liquid	mm	φ15.9 (Brazing)	φ19.1	1 (Brazing)		φ19.1 (	Brazing)					
connections	Gas	mm		φ34.9 (Brazing)			φ34.9 (Brazing)		φ41.3 (Brazing)				

tions 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. •Heating: Indoor temp.: 20°CDB, Outdoor temp.: 7°CDB, 6°CWB, Equivalent piping length: 7.5 m, Level difference: 0 m.

bund 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 and oil recovery mode. When there is concern for noise the surrounding area such as residences, we recommend investigating the installation location and taking soundproofing measures.



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<b>RVH</b> SERIES Heat Pump	
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# Specifications

# **VRV H Series Outdoor Units Heat Pump RXYQ-A**

Standard Type

Model			RXYQ6AYM	RXYQ8AYM	RXYQ10AYM	RXYQ12AYM	RXYQ14AYM	RXYQ16AYM	RXYQ18AYM	RXYQ20AYM	RXYQ22AYMA	RXYQ24AYMA	RXYQ26AYMA	RXYQ28AYMA	RXYQ30AYMA	RXYQ32AYMA
O a multi mati ana a			-	-	_	-	_	-	-	-	RXYQ10AYM	RXYQ12AYM	RXYQ12AYM	RXYQ12AYM	RXYQ12AYM	RXYQ16AYM
Combination L	inits		-	-	_	-	_	-	-	-	RXYQ12AYM	RXYQ12AYM	RXYQ14AYM	RXYQ16AYM	RXYQ18AYM	RXYQ16AYM
Power supply				3-r	phase 4-wire system, 3	80-415 V/380 V, 50/60	0 Hz			3-phase 4-wire system, 380-415 V/380 V, 50/60 Hz						
Cooling consoi	+1/	Btu/h	54,600	76,400	95,500	114,000	136,000	154,000	171,000	191,000	210,000	229,000	251,000	268,000	285,000	307,000
Cooling capaci	Ly	kW	16.0	22.4	28.0	33.5	40.0	45.0	50.0	56.0	61.5	67.0	73.5	78.5	83.5	90.0
Lipsting concei	÷.,	Btu/h	61,400	85,300	107,000	128,000	154,000	171,000	191,000	215,000	235,000	256,000	281,000	299,000	319,000	341,000
Heating capaci	ty	kW	18.0	25.0	31.5	37.5	45.0	50.0	56.0	63.0	69.0	75.0	82.5	87.5	93.5	100
Power	Coo	ling kW	3.38	5.17	6.84	8.70	10.7	12.9	15.3	17.7	15.5	17.4	19.4	21.6	24.0	25.8
consumption	Hea	ting kW	3.73	5.67	7.23	8.91	11.0	12.6	14.9	17.1	16.1	17.8	19.9	21.5	23.8	25.2
Capacity contro	ol	%	25-100	20-100	13-100	12-100	11-100	10-100	10-100	7-100	6-1	100		5-	100	
Casing colour					Ivory white	e (5Y7.5/1)						Ivory whit	e (5Y7.5/1)			
Compressor Type Moto	Туре				Hermetically se	ealed scroll type						Hermetically se	ealed scroll type			
	Motor outpu	it kW	2.4×1	3.4×1	4.5×1	5.5×1	(2.9×1)+(3.3×1)	(3.6×1)+(3.7×1)	(4.1×1)+(4.0×1)	(3.7×1)+(6.3×1)	(4.5×1)+(5.5×1)	(5.5×1)+(5.5×1)	(5.5×1)+(2.9×1)+ (3.3×1)	(5.5×1)+(3.6×1)+ (3.7×1)	(5.5×1)+(4.1×1)+ (4.0×1)	(3.6×1)+(3.7×1)+ (3.6×1)+(3.7×1)
Airflow roto		l/s	1,983	2,	967	3,183	4,	283	4,200	4,950	2,967+3,183	3,183+3,183	3,183	+4,283	3,183+4,200	4,283+4,283
Almow rate		m³/min	119	1	78	191	2	57	252	297	178+191	191+191	191	+257	191+252	257+257
Dimensions (H	×W×D)	mm		1,657×	930×765	·	1,657×1,240×765		1,657×	1,657×1,240×765		+(1,657×930×765)	(1,657×930×765)+(1,657×1,240×765)		40×765)	(1,657×1,240×765)+ (1,657×1,240×765)
Machine weigh	t	kg	1	85	20	00	2	85	305	325	200	+200	200	+285	200+305	285+285
Sound level		dB(A)	5	56	57	59	6	60	61	65	61	62		6	3	
Sound power		dB(A)	7	77	78	80	8	31	82	86	82	83		8	34	
Operation rang	Coo	ling °CDB			-5 t	o 49						-5 t	o 49			
Operation rang	Hea	ting °CWB			-20 to	o 15.5						-20 t	o 15.5			
Pofrigorant	Тур	e			R-4	10A						R-4	10A			
neingeran	Cha	rge kg	6.9	7.0	7.4	7.6	9.1	9.3		11.8	7.4+7.6	7.6+7.6	7.6+9.1	7.6+9.3	7.6+11.8	9.3+9.3
Piping	Liqu	id mm		φ9.5 (Brazing)			φ12.7 (Brazing)			φ15.9	(Brazing)			φ19.1 (	Brazing)	
connections	Gas	mm	φ19.1 (	Brazing)	φ22.2 (Brazing)		φ28.6 (Brazing)			φ28.6 (Brazing)				φ 34.9 (Brazing)		

Model			RXYQ34AYMA	RXYQ36AYMA	RXYQ38AYMA	RXYQ40AYMA	RXYQ42AYMA	RXYQ44AYMA	RXYQ46AYM	RXYQ48AYMA	RXYQ50AYMA	RXYQ52AYMA	RXYQ54AYMA	RXYQ56AYMA	RXYQ58AYMA	RXYQ60AYMA
			RXYQ16AYM	RXYQ16AYM	RXYQ12AYM	RXYQ12AYM	RXYQ10AYM	RXYQ12AYM	RXYQ14AYM	RXYQ16AYM	RXYQ16AYM	RXYQ16AYM	RXYQ18AYM	RXYQ18AYM	RXYQ18AYM	RXYQ20AYM
Combination	units		RXYQ18AYM	RXYQ20AYM	RXYQ12AYM	RXYQ12AYM	RXYQ16AYM	RXYQ16AYM	RXYQ16AYN	RXYQ16AYM	RXYQ16AYM	RXYQ18AYM	RXYQ18AYM	RXYQ18AYM	RXYQ20AYM	RXYQ20AYM
			-	-	RXYQ14AYM	RXYQ16AYM	RXYQ16AYM	RXYQ16AYM	RXYQ16AYN	RXYQ16AYM	RXYQ18AYM	RXYQ18AYM	RXYQ18AYM	RXYQ20AYM	RXYQ20AYM	RXYQ20AYM
Power supply				3-p	hase 4-wire system, 3	80-415 V/380 V, 50/60	) Hz			3-phase 4-wire system, 380-415 V/380 V, 50/60 Hz						
Cooling capaci	tv	Btu/h	324,000	345,000	365,000	382,000	403,000	423,000	444,000	461,000	478,000	495,000	512,000	532,000	553,000	573,000
Cooling capaci	ty	kW	95.0	101	107	112	118	124	130	135	140	145	150	156	162	168
Heating capac	tv	Btu/h	362,000	386,000	409,000	427,000	450,000	471,000	495,000	512,000	532,000	553,000	573,000	597,000	621,000	645,000
Treating capac	ty	kW	106	113	120	125	132	138	145	150	156	162	168	175	182	189
Power	Cooling	kW	28.2	30.6	28.1	30.3	32.6	34.5	36.5	38.7	41.1	43.5	45.9	48.3	50.7	53.1
consumption	Heating	l kW	27.5	29.7	28.8	30.4	32.4	34.1	36.2	37.8	40.1	42.4	44.7	46.9	49.1	51.3
Capacity contr	ol	%	5-100	5-100 4-100 3-100				100			3-	100			2-1	100
Casing colour	ing colour Ivory white (5Y7.5/1)								Ivory whit	e (5Y7.5/1)						
Compressor Motor of	Туре			Hermetically sealed scroll type								Hermetically se	ealed scroll type			
	Motor output	kW	(3.6×1)+(3.7×1)+ (4.1×1)+(4.0×1)	(3.6×1)+(3.7×1)+ (3.7×1)+(6.3×1)	(5.5×1)+(5.5×1)+ (2.9×1)+(3.3×1)	(5.5×1)+(5.5×1)+ (3.6×1)+(3.7×1)	(4.5×1)+(3.6×1)+(3.7×1)+ (3.6×1)+(3.7×1)	(5.5×1)+(3.6×1)+(3.7×1)+ (3.6×1)+(3.7×1)	(2.9×1)+(3.3×1)+(3.6 (3.7×1)+(3.6×1)+(3.	<1)+ (3.6×1)+(3.7×1)+(3.6×1) (3.7×1)+(3.6×1)+(3.7×1)	+ (3.6×1)+(3.7×1)+(3.6×1)+ (3.7×1)+(4.1×1)+(4.0×1)	(3.6×1)+(3.7×1)+(4.1×1)+ (4.0×1)+(4.1×1)+(4.0×1)	(4.1×1)+(4.0×1)+(4.1×1)+ (4.0×1)+(4.1×1)+(4.0×1)	(4.1×1)+(4.0×1)+(4.1×1)+ (4.0×1)+(3.7×1)+(6.3×1)	(4.1×1)+(4.0×1)+(3.7×1)+ (6.3×1)+(3.7×1)+(6.3×1)	(3.7×1)+(6.3×1)+(3.7×1)+ (6.3×1)+(3.7×1)+(6.3×1)
Airflow roto		ℓ/s	4,283+4,200	4,283+4,950	3,183+3,1	83+4,283	2,967+4,283+4,283	3,183+4,283+4,283	4,283	+4,283+4,283	4,283+4,283+4,200	4,283+4,200+4,200	4,200+4,200+4,200	4,200+4,200+4,950	4,200+4,950+4,950	4,950+4,950+4,950
Almow rate		m³/min	257+252	257+297	191+19	91+257	178+257+257	191+257+257	25	7+257+257	257+257+252	257+252+252	252+252+252	252+252+297	252+297+297	297+297+297
Dimensions (H	×W×D)	mm	(1,657×1,240×765)-	+(1,657×1,240×765)	(1,657×930×765)+ (1,657×1,	(1,657×930×765)+ 240×765)	(1,657×930×765)+( (1,657×1,	1,657×1,240×765)+ 240×765)			(1,657×	1,240×765)+(1,657×1	,240×765)+(1,657×1,24	40×765)		
Machine weigh	t	kg	285+305	285+325	200+20	0+285	200+28	35+285	28	5+285+285	285+285+305	285+305+305	305+305+305	305+305+325	305+325+325	325+325+325
Sound level		dB(A)	64	66		6	64				65		66	68	69	70
Sound power		dB(A)	85	87		8	35				86		87	89	90	91
Operation range	Cooling	CDB			-5 te	o 49						-5 t	o 49			
Operation rang	e Heating	) °CWB			-20 to	15.5						-20 te	o 15.5			
Pofrigorant	Туре				R-4	10A			R-410A							
Themgerant	Charge	kg	9.3+	+11.8	7.6+7.6+9.1	7.6+7.6+9.3	7.4+9.3+9.3	7.6+9.3+9.3	9.1+9.3+9.3	9.3+9.3+9.3	9.3+9.3+11.8	9.3+11.8+11.8		11.8+1	1.8+11.8	
Piping	Liquid	mm			φ19.1 (E	Brazing)						φ19.1 (E	Brazing)			
connections	Gas	mm	φ34.9 (Brazing)			φ41.3 (Brazing)						φ41.3 (E	Brazing)			

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. •Heating: Indoor temp.: 20°CDB, Outdoor temp.: 7°CDB, 6°CWB, 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 and oil recovery mode. When there is concern for noise the surrounding area such as residences, we recommend investigating the installation location and taking soundproofing measures.

#### **URU** H SERIES Heat Pump

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# **VRVR** SERIES

# Maximum Comfort via Simultaneous Cooling and Heating





# What is Heat Recovery Air Conditioner?

Modern office buildings are highly airtight and subject to an increasing heat load due to the use of computers, lighting equipment and other office equipment. In these buildings some rooms may require artificial cooling even in winter, depending on the amount of sunshine received and the number of people in the room. In order to meet such requirements the Heat Recovery Series enables the simultaneous operation of cooling and heating by controlling the BS unit that switches cooling and heating. This series also substantially improves energy efficiency by recycling waste heat.

# Operation mode

### Heat recovery operation mode



Note: Operation modes (A) and (E) are applicable when the outdoor temperature is 35°C and 7°C respectively; The other modes are applicable under typical outdoor conditions

# Increasing demand for simultaneous cooling and heating needs





cooling requirement

#### Winter season (Office Building)

- Difference between the load of cold air and heat from room is large
- Can be use with the outdoor air processing air conditioning

# BS unit (Individual type/Centralised type)

By adding suction gas piping and a BS unit (sold separately), simultaneous cooling and heating operation can be provided by a single system.















Winter season (Hotel) Able to cater to individual heating and

Individual BS unit ¬



#### Individual office

Provides heating and annual cooling depending on space area



#### Individual BS unit

Centralised BS unit



# Advanced technologies for greater energy savings

By utilising advanced software technologies, VRV R Series is able to attain greater heights in energy savings and comfort.



#### **Optimum utilisation of VRT Smart Control and VRT Control**

VRT Smart and VRT control is most effective when all the indoor units operate under low load conditions in a similar manner. Low load conditions is the time when room temperature approaches set temperature. For this reason, please note the following to maximise efficacy.

#### •When selecting indoor units

Indoor units are installed in a system so that they operate largely under the same conditions.

Energy efficiency decreases for the installation patterns indicated below.

Example:

- 1) A load imbalance occurs because an indoor unit on the same system is installed near the perimeter of the room or in the vicinity of a room entrance.
- 2) Different operating hours for indoor units.

3) Energy efficiency decreases when the set temperature of a specified indoor unit is set to an extreme during cooling operation. E.g. 18°C

# Enhanced lineup Wider capacity range from 6 to 60 class

With its enhanced lineup of 2 types-High-COP and Standard types, VRV R series Heat Recovery outdoor units offer a wider capacity range from 6 class (16 kW) to 60 class (168 kW) to meet an ever wider variety of needs.

#### Single Outdoor Unit



#### Lineup













30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60

## Ease of installation **Compact & lightweight design**

Highly-integrated VRV R series offers compact outdoor units to achieve maximum utilisation of the installation space.



## **Comfort** Lower operation sound

Improve heat exchanger efficency, helps to reduced operation sound.



#### Large airflow, high static pressure and quiet technology

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



#### Nighttime quiet operation function

Outdoor PCB automatically memorises the time when the peak outdoor temperature appears. It will enable quiet operation mode after 8 h\*1, and return to normal mode after it keeps for 9 h<sup>\*2</sup>.

\*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 \*3. In case of 10 class outdoor unit during cooling operation.





· The relationship of outdoor temperature (load) and time shown above is just an example.

# Energy saving

#### **Higher Coefficient of Performance (COP)**

It has become essential for air conditioning manufacturers to develop systems that provide high energy savings. We at Daikin have made great efforts in this field, and the VRV R series delivers highly efficient performance, contributing to high energy savings.





### The heat recovery system utilises waste heat, achieving outstanding energy conservation performance.









16 class

\*Cooling operation conditions:

VRV III

16 class



\*Heating operation conditions Indoor temp. of 20°CDB and outdoor temp. of 7°CDB, 6°CWB.

The (cold) waste heat from heating is used for the cooling operation.

> The waste heat from cooling is used to generate heat that is needed for heating operation while conserving electricity.

# The flexibility of simultaneous cooling and heating operation has been further enhanced by various advanced technologies.

### Development of a highly efficient heat exchanger utilising of a two-split structure

In a conventional system, two heat exchanger panels are utilised: one is used as an evaporator; while the other is used as a condenser. In the newly developed system, a two-split structure is utilised, with one panel split into two parts (top and bottom) at an optimal ratio depending on the capacity required for simultaneous cooling and heating operation. Heat radiation loss has been minimised, and the heat recovery efficiency and partial load characteristics have been improved.

#### Comparison of 12 class system (During simultaneous cooling and heating operation)



#### Indoor and outdoor heat balance (conceptual image)



### Heat Recovery Link control to reduce the heat loss

Heat loss is minimised by interlocking the heat exchanger switching, motor-operated valves, compressors, and fans, which are conventionally controlled independently during simultaneous cooling and heating operation, leading to a significant increase in efficiency.



### Advanced technologies achieve excellent performance Highly integrated heat exchanger

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



### Various advanced control main PC

#### SMT\* packaging technology

SMT packaging technology adopted by the whole computer control panel improves the anti-clutter performance.

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



### Refrigerant cooling technology, ensures stability of PCB temperature

#### Improved inner design to increase smooth airflow

Downsize electric component, re-locate to dead space of bell mouth side to decrease airflow resistance.

VRV III



Roof terrace temperature in summer is over 40°C, seriously affecting inverter cooling efficiency, resulting in decline of inverter operating speed. Finally device parts response speed is reduced

Improve reliability at high ambient temperature It is possible to cool the inverter power module stability even at high ambient temperature. This helps to keep air-conditioning capacity and also reduces failure ratio.



Realise highly integrated heat exchanger performance (increase row, reduce fin pitch) by reducing of airflow resistance which changes cooling tube to Ø7.

Change fin shape from fine louvre to waffle fin. Fin pitch can be reduced fin pitch from 2.0 mm to 1.4 mm, to realise unit efficiency whichincreased heat exchanger area.

	Heat exchanger area	Contribution of COP (cooling)
16 class (45 kW)	24%UP	108.5%



SERIES

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board
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Control board failure ratio at stable operation is reduced.

# Enhanced Lineup of BS Units

# Individual and centralised BS unit allow greater design flexibility.

#### Individual BS unit









No. of branches	4	6	8	10	12	16
Conventional Centralised BS Unit						
Centralised BS Unit						



### Installation and maintenance work have been made easier through the integration of multiple BS units.



### Greater design flexibility achieved by increasing the connection capacity range



By merging two branches Adaptable up to 28.0 kW

### Combined use of a centralised BS unit and individual BS units meets the needs of many design plans.



# Faster installation of centralised BS unit thanks to open connection Time saving!



### Lower transient sound

New BS units achieve lower transient sound level than conventional BS units

Moving transient out	- d	Centralised BS unit								
waximum transient sou	na	4 branch	6 branch	8 branch	10 branch	12 branch	16 branch			
New BS units	Sound level (dB(A))*	45	47	47	48	48	49			
Conventional BS units	Sound level (dB(A))*	51.5	53.5	—						

\*Anechoic chamber conversion value, measured at a point 1 m downward from the unit centre



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

> Individual BS unit 100 type | 160 type | 250 type 40 45 45 45.5 46.5 47.5

# More Flexible System Design

## More options for equipment placement Long piping length

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



	Actual piping length (Equivalent)	165 m (190 m)
	Total piping length	<b>1000</b> m
Maximum allowable piping length	Between the first indoor branch and the farthest indoor unit	<b>90</b> m*1
	Between the outdoor branch and the last outdoor unit (Equivalent)	10 m (13 m)
	Between the outdoor units (Multiple use)	<b>5</b> m
Maximum allowable level difference	Between the indoor units	<b>30</b> m* <sup>3</sup>
	Between the outdoor units and the indoor units	<b>90</b> m*2

\*1. No special requirements up to 40 m. The maximum actual piping length can be 90 m, depending on conditions. The VRV R series is easy to extend to 90 m by lessening the conditions from conventional VRV IV models. Be sure to refer to the Engineering Data Book for details of these conditions and requirements

\*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. Refer to the Engineering Data Book and contact your local dealer for more information

\*3. When level differences are 15 m or more, maximum actual piping length must be 120 m.

#### **Connection ratio**





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 46 for outdoor unit combination details.

#### **High external static pressure**

VRV R series outdoor unit has been 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.



### Wide operation temperature range

The versatile operation range of the VRV R series works to reduce limitations on installation locations. The operation temperature range for heating goes all the way down to -20°C, while cooling can be performed with outdoor temperatures as high as 49°C. Both these achievements are due to the employment of a high-pressure dome-type compressor.









# **Reliable and Stable System**

## Multiple advanced features ensuring more accurate test operation and stable system **Efficient automatic test operation**

Daikin VRV R series incorporates a simplified and efficient test operation function, not only greatly accelerating the installation process, but effectively improving the field setting quality as well.

- Automatically checks the wirings between outdoor units and indoor units to confirm whether there is a defective wiring.
- Optimises operations to suit field piping lengths.
- Automatically check whether the stop valve in each outdoor unit is in normal status to ensure the smooth operation of air conditioning system.



# Simplified commissioning and after-sales service

### Function of information display by luminous digital tube

VRV R series utilises 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-segmen	t digital display
Displays system operation information directly	



# Compliant with the RoHS Directive\*

We have been making efforts to facilitate the transition to using RoHS Directive\*-compliant materials for system parts.

#### \* RoHS Directive

The RoHS (Restriction of Hazardous Substances (in electrical and electronic equipment)) Directive is an environmental directive enacted to regulate the use of designated chemical substances (lead, cadmium, hexavalent chromium, mercury, polybrominated biphenyls and polybrominated diphenylether) in electrical equipment. All household products subject to this Directive and sold in Europe from July 1, 2006 are legally bound to comply with the RoHS Directive.

## Outdoor unit sequencing technology Automatic sequencing operation

During start-up, Daikin VRV R series outdoor 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 R series 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 air conditioning equipment.

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

#### 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 ).









# **Outdoor Unit Lineup**

# **VRV R Series Outdoor Units Heat Recovery**

### Wider capacity range from 6 to 60 class

- With its enhanced lineup of 2 types-High-COP and Standard types, VRV R series Heat Recovery outdoor units offer a wider capacity range from 6 class (16 kW) to 60 class (168 kW) to meet an ever wider variety of needs.
- The single outdoor unit has only 2 different shapes and dimensions, not only simplifying the design process, but also bringing the system design flexibility to a new level.



-																													
cla	ISS	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
	High-COP Type																												
VAV A SERIES	Standard Type												•			•					•						•		

# Outdoor Unit Combinations

#### **High-COP Type**

class	kW	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
12	32.0	300	REYQ12TAH	REYQ6TA x 2		150 to 390 (480)	19 (24)
14	38.4	350	REYQ14TAH	REYQ6TA + REYQ8TA		175 to 455 (560)	22 (28)
16	44.8	400	REYQ16TAH	REYQ8TA x 2	BHFP26P90	200 to 520 (640)	26 (32)
18	50.4	450	REYQ18TAH	REYQ8TA + REYQ10TA		225 to 585 (720)	29 (36)
20	55.9	500	REYQ20TAH	REYQ8TA + REYQ12TA		250 to 650 (800)	32 (40)
22	60.8	550	REYQ22TAH	REYQ6TA + REYQ8TA x 2		275 to 715 (715)	35 (35)
24	67.2	600	REYQ24TAH	REYQ8TA x 3		300 to 780 (780)	39 (39)
26	72.8	650	REYQ26TAH	REYQ8TA x 2 + REYQ10TA		325 to 845 (845)	42 (42)
28	78.3	700	REYQ28TAH	REYQ8TA x 2 + REYQ12TA		350 to 910 (910)	45 (45)
30	83.9	750	REYQ30TAH	REYQ8TA + REYQ10TA + REYQ12TA	BHFF20F130	375 to 975 (975)	48 (48)
32	89.4	800	REYQ32TAH	REYQ8TA+ REYQ12TA x 2		400 to 1,040 (1,040)	52 (52)
34	95.0	850	REYQ34TAH	REYQ10TA+ REYQ12TA x 2		425 to 1,105 (1,105)	55 (55)
36	101	900	REYQ36TAH	REYQ12TA x 3		450 to 1,170 (1,170)	58 (58)

Note: \*1. The outdoor unit multi connection piping kit (separately sold) is required for multiple connection. \*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 42 for note on connection capacity of indoor units.

#### **Standard Type**

class	kW	Capacity index	Model name	Combination	Outdoor unit multi connection piping kit <sup>*1</sup>	Total capacity index of connectable indoor units <sup>*2</sup>	Maximum number of connectable indoor units <sup>*2</sup>
6	16.0	150	REYQ6TA	REYQ6TA	-	75 to 195 (300)	9 (15)
8	22.4	200	REYQ8TA	REYQ8TA	-	100 to 260 (400)	13 (20)
10	28.0	250	REYQ10TA	REYQ10TA	-	125 to 325 (500)	16 (25)
12	33.5	300	REYQ12TA	REYQ12TA	-	150 to 390 (600)	19 (30)
14	40.0	350	REYQ14TA	REYQ14TA	-	175 to 455 (700)	22 (35)
16	45.0	400	REYQ16TA	REYQ16TA	-	200 to 520 (800)	26 (40)
18	50.0	450	REYQ18TA	REYQ18TA	-	225 to 585 (900)	29 (45)
20	56.0	500	REYQ20TA	REYQ20TA	-	250 to 650 (1,000)	32 (50)
22	61.5	550	REYQ22TA	REYQ10TA + REYQ12TA		275 to 715 (880)	35 (44)
24	67.0	600	REYQ24TA	REYQ12TA × 2		300 to 780 (960)	39 (48)
26	73.5	650	REYQ26TA	REYQ12TA + REYQ14TA	]	325 to 845 (1,040)	42 (52)
28	78.5	700	REYQ28TA	REYQ12TA + REYQ16TA	DUEDOGDOO	350 to 910 (1,120)	45 (56)
30	83.5	750	REYQ30TA	REYQ12TA + REYQ18TA	ВПГР20Р90	375 to 975 (1,200)	48 (60)
32	90.0	800	REYQ32TA	REYQ16TA × 2		400 to 1,040 (1,280)	52 (64)
34	95.0	850	REYQ34TA	REYQ16TA + REYQ18TA		425 to 1,105 (1,360)	55 (64)
36	101	900	REYQ36TA	REYQ16TA + REYQ20TA		450 to 1,170 (1,440)	58 (64)
38	107	950	REYQ38TA	REYQ12TA × 2 + REYQ14TA		475 to 1,235 (1,235)	61 (61)
40	112	1,000	REYQ40TA	REYQ12TA × 2 + REYQ16TA		500 to 1,300 (1,300)	
42	118	1,050	REYQ42TA	REYQ10TA + REYQ16TA × 2		525 to 1,365 (1,365)	
44	124	1,100	REYQ44TA	REYQ12TA + REYQ16TA × 2		550 to 1,430 (1,430)	
46	130	1,150	REYQ46TA	REYQ14TA + REYQ16TA × 2		575 to 1,495 (1,495)	
48	135	1,200	REYQ48TA	REYQ16TA × 3		600 to 1,560 (1,560)	
50	140	1,250	REYQ50TA	REYQ16TA × 2 + REYQ18TA	BHFF20F130	625 to 1,625 (1,625)	64 (64)
52	145	1,300	REYQ52TA	REYQ16TA + REYQ18TA × 2		650 to 1,690 (1,690)	
54	150	1,350	REYQ54TA	REYQ18TA × 3		675 to 1,755 (1,755)	
56	156	1,400	REYQ56TA	REYQ18TA × 2 + REYQ20TA		700 to 1,820 (1,820)	
58	162	1,450	REYQ58TA	REYQ18TA + REYQ20TA × 2	]	725 to 1,885 (1,885)	
60	168	1,500	REYQ60TA	REYQ20TA × 3		750 to 1,950 (1,950)	

Note: \*1. For multiple connection of 22 class 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 42 for note on connection capacity of indoor units.





# Enhanced range of choices

										New	lineu	р	æ	Indo VRT	or un smar	its su t cor	ubject itrol	to
			20	25	32	40	50	63	71	80	100	125	140	145	160	180	200	250
Туре	Model Name	Capacity Range(kW)	2.2	2.8	3.6	4.5	5.6	7.1	8	9	11.2	14	16	16.2	18	20	22.4	28
Ceiling Mounted Cassette (Round Flow with Sensing)	FXFSQ-AVM		20	20	<b>91.29</b>	40	50	02.5	1	00				140	160	160	200	250
Ceiling Mounted Cassette (Round Flow)	FXFQ-PVE																	
Ceiling Mounted Cassette (Compact Multi Flow)	FXZQ-A2VEB																	
4-Way Flow Ceiling Suspended	FXUQ-AVEB				- - - - - - -	- - - - - - - -	- - - - - -	- - - - - - - - -										
Ceiling Mounted Cassette (Double Flow)	FXCQ-AVM 💩																	
Ceiling Mounted Cassette (Single Flow)	FXEQ-AV36												       	1				
Slim Ceiling Mounted Duct (Compact Series)	FXDQ-TV1B(A) 💩																	
Slim Ceiling	FXDQ-PDVE 💩	(700mm width type)					1						- - - - - -	- - - - - - - - - - - - - - - - - - -				- - - - - - - - - - - - - - - - - - -
(Standard Series)	FXDQ-NDVE 💩	(900 / 1,100mm width type)																
Ceiling Concealed Duct	FXDYQ-MAV1				- - - - - - -		1											
Middle Static Pressure Ceiling Mounted Duct	FXSQ-PAVE 💩																	
Ceiling Mounted	FXMQ-PAVE 💩																	
Duct	FXMQ-PV1A																	
Outdoor-Air Processing Unit	FXMQ-MFV1				- - - - -		     						- - - - - - -					
Ceiling Suspended	FXHQ-MAVE	-																
	w FXHQ-AVM				1 1 1 1		1 1 1 1							-         				
Wall Mounted	FXAQ-AVM 💩																	
Floor Standing	FXLQ-MAVE												1					
Concealed Floor Standing	FXNQ-MAVE	F																
Heat Reclaim Ventilator with DX-Coil and Humidifier	VKM-GA(M)V1		Ai	rflow	/ rate	e 500	0-10	00 m	³/h									
Heat Reclaim Ventilator	VAM-GJVE	001	Ai	rflow	/ rate	e 150	)-20(	00 m	³/h									





control and VRT control are disabled.









Note: For indoor units without 'VRT Smart', the standard 'VRT' control is available (excludes Heat Reclaim Ventilators & Outdoor-Air Processing Unit).



• If a system has indoor units subject to both VRT smart and VRT control, the system is operated under VRT control. • If a system has both outdoor-air processing air conditioners and outdoor-air processing type indoor units, VRT smart







# **VRV R Series Outdoor Units Heat Recovery REYQ-TA**

High-COP Type

Model			REYQ12TAHY1	REYQ14TAHY1	REYQ16TAHY1	REYQ18TAHY1	REYQ20TAHY1	REYQ22TAHY1	REYQ24TAHY1	REYQ26TAHY1	REYQ28TAHY1	REYQ30TAHY1		
			REYQ6TAY1	REYQ6TAY1	REYQ8TAY1	REYQ8TAY1	REYQ8TAY1	REYQ6TAY1	REYQ8TAY1	REYQ8TAY1	REYQ8TAY1	REYQ8TAY1		
Combinatio	on units		REYQ6TAY1	REYQ8TAY1	REYQ8TAY1	REYQ10TAY1	REYQ12TAY1	REYQ8TAY1	REYQ8TAY1	REYQ8TAY1	REYQ8TAY1	REYQ10TAY1		
			_	-	-	-	-	REYQ8TAY1	REYQ8TAY1	REYQ10TAY1	REYQ12TAY1	REYQ12TAY1		
Power supp	bly			3-pha	se 4-wire system, 380-415 V	, 50 Hz			3	-phase 4-wire system, 380-415 V, 50	Hz	•		
Cooling oor	acity	Btu/h	109,000	131,000	153,000	172,000	191,000	207,000	229,000	248,000	267,000	286,000		
Cooling cap	Jacity	kW	32.0	38.4	44.8	50.4	55.9	60.8	67.2	72.8	78.3	83.9		
Heating car	acity	Btu/h	123,000	147,000	171,000	193,000	213,000	232,000	256,000	278,000	299,000	321,000		
Treating Cap	Jaony	kW	36.0	43.0	50.0	56.5	62.5	68.0	75.0	81.5	87.5	94.0		
Power	Cooling	kW	6.76	8.54	10.3	12.2	13.8	13.7	15.5	17.4	19.0	20.9		
consumptio	n Heating	kW	7.46	9.41	11.4	13.0	14.9	15.1	17.0	18.7	20.6	22.2		
Capacity co	ontrol	%		10-100		8-	-100	7-	100	6-100 5-100				
Casing cold	ur				Ivory white (5Y7.5/1)					Ivory white (5Y7.5/1)	Ivory white (5Y7.5/1)			
Compresso	Туре				Hermetically sealed scroll typ	e				Hermetically sealed scroll type				
Compresso	Motor output	kW	(2.3×1)+(2.3×1)	(2.3×1)+(3.3×1)	(3.3×1)+(3.3×1)	(3.3×1)+(4.0×1)	(3.3×1)+(4.9×1)	(2.3×1)+(3.3×1)+(3.3×1)	(3.3×1)+(3.3×1)+(3.3×1)	(3.3×1)+(3.3×1)+(4.0×1)	(3.3×1)+(3.3×1)+(4.9×1)	(3.3×1)+(4.0×1)+(4.9×1)		
Airflow rato		ℓ/s	1,983+1,983	1,983+2,633	2,633+2,633	2,633+2,800	2,633+3,000	1,983+2,633+2,633	2,633+2,633+2,633	2,633+2,633+2,800	2,633+2,633+3,000	2,633+2,800+3,000		
Annow rate		m³/min	119+119	119+158	158+158	158+168	158+180	119+158+158	158+158+158	158+158+168	158+158+180	158+168+180		
Dimensions	(H×W×D)	mm		(1,	657×930×765)+(1,657×930×7	765)			(1,657>	(930×765)+(1,657×930×765)+(1,657×9	J30×765)			
Machine we	eight	kg		215+215		215	5+230	215+2	15+215	215+2	15+230	215+230+230		
Sound level		dB(A)		59		60	61		61		<u>(</u>	62		
Sound pow	er	dB(A)		80		81	82		82		1	83		
Onesting	Cooling	°CDB			-5 to 49					-5 to 49				
range	Heating	°CWB			-20 to 15.5					-20 to 15.5				
· · · · · · · · · · · · · · · · · · ·	Cooling & Heating	°CWB			-6 to 15.5					-6 to 15.5				
Definerent	Туре				R-410A					R-410A				
Refrigerant	Charge	kg		9.7+9.7		9.7+9.8	9.7+9.9	9.7+9	9.7+9.7	9.7+9.7+9.8	9.7+9.7+9.9	9.7+9.8+9.9		
Disister	Liquid	mm		φ12.7 (Brazing)		φ15.9	(Brazing)	φ15.9	(Brazing)		φ19.1 (Brazing)			
Piping	Gas	mm			φ28.6 (Brazing)			φ28.6 (Brazing)		φ34.9 (	(Brazing)			
Connections	High and low pressure gas	s mm	<pre></pre>		φ22.2 (Brazing)		φ28.6 (Brazing)			φ28.6 (Brazing)				

Model			REYQ32TAHY1	REYQ34TAHY1	REYQ36TAHY1					
			REYQ8TAY1	REYQ10TAY1	REYQ12TAY1					
Combinatio	on units		REYQ12TAY1	REYQ12TAY1	REYQ12TAY1					
			REYQ12TAY1	REYQ12TAY1	REYQ12TAY1					
Power supp	ly		3-pha	se 4-wire system, 380-415 V,	50 Hz					
Cooling con	ooitu	Btu/h	305,000	324,000	345,000					
Cooling cap	acity	kW	89.4	95.0	101					
Heating can	ooity	Btu/h	341,000	365,000	386,000					
Heating cap	acity	kW	100	107	113					
Power	Cooling	kW	22.5	24.4	26.0					
consumption	n Heating	kW	24.1	25.7	27.7					
Capacity co	ntrol	%		5-100	*					
Casing colo	ur			Ivory white (5Y7.5/1)						
C	Туре		Hermetically sealed scroll type							
Compressor	Motor output	kW	(3.3x1)+(4.9x1)+(4.9x1)	(4.9x1)+(4.9x1)+(4.9x1)						
Ainflow wata		ℓ/s	2,633+3,000+3,000	3,000+3,000+3,000						
Alfilow rate		m³/min	158+180+180	168+180+180	180+180+180					
Dimensions	(H×W×D)	mm	(1,657×930>	765)+(1,657×930×765)+(1,65	57×930×765)					
Machine we	ight	kg	215+230+230	230+2	30+230					
Sound level		dB(A)	6	3	64					
Sound powe	er	dB(A)	8	4	85					
	Cooling	°CDB		-5 to 49						
Operation	Heating	°CWB		-20 to 15.5						
Tungo	Cooling & Heating	°CWB		-6 to 15.5						
	Туре			R-410A						
Refrigerant	Charge	kg	9.7+9.9+9.9	9.8+9.9+9.9	9.9+9.9+9.9					
	Liquid	mm		φ19.1 (Brazing)						
Piping	Gas	mm	φ34.9 (E	Brazing)	φ41.3 (Brazing)					
connections	High and low pressure gas	mm	φ28.6 (Brazing)							

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.
Heating: Indoor temp.: 20°CDB, Outdoor temp.: 7°CDB, 6°CWB, 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 and oil recovery mode.
When there is concern for noise the surrounding area such as residences, we recommend investigating the installation location and taking soundproofing measures.



VRV R SERIES Heat Recovery

# **VRV R Series Outdoor Units Heat Recovery REYQ-TA**

Standard Type

					MANA												
Model			REYQ6TAY1	REYQ8TAY1	REYQ10TAY1	REYQ12TAY1	REYQ14TAY1	REYQ16TAY1	REYQ18TAY1	REYQ20TAY1	REYQ22TAY1	REYQ24TAY1	REYQ26TAY1	REYQ28TAY1	REYQ30TAY1	REYQ32TAY1	
Combinatio	on units			-	-	-	-	-	-	-	REYQ10TAY1	REYQ12TAY1	REYQ12TAY1	REYQ12TAY1	REYQ12TAY1	REYQ16TAY1	
Power supr	alv		-	-	3-phase 4-wire syste	em 380-415 V 50 Hz		-	-	-	RETUIZIATI	3-phase 4-wire syst	tem 380-415 V 50 Hz	RETQIOIATI	RETQIOIATI	RETUTIONATI	
1 ower supp	, iy	Btu/h	54.600	76.400	95.500	114.000	136.000	154.000	171.000	191.000	210.000	229.000	251.000	268.000	285.000	307.000	
Cooling cap	pacity	kW	16.0	22.4	28.0	33.5	40.0	45.0	50.0	56.0	61.5	67.0	73.5	78.5	83.5	90.0	
		Btu/h	61,400	85,300	107,000	128,000	154,000	171,000	191,000	215,000	235,000	256,000	281,000	299,000	319,000	341,000	
Heating cap	Dacity	kW	18.0	25.0	31.5	37.5	45.0	50.0	56.0	63.0	69.0	75.0	82.5	87.5	93.5	100	
Power	Cooling	kW	3.38	5.16	7.04	8.66	10.9	13.0	15.4	18.0	15.7	17.3	19.6	21.7	24.1	26.0	
consumptio	n Heating	kW	3.73	5.68	7.29	9.22	10.8	12.7	15.0	17.5	16.5	18.4	20.0	21.9	24.2	25.4	
Capacity co	ontrol	%	20-	·100	16-100	15-100	11-100	10-100		8-	100		6-1	100	5-	100	
Casing cold	our				Ivory white	te (5Y7.5/1)						Ivory whi	ite (5Y7.5/1)				
	Туре			1	Hermetically se	ealed scroll type	1	1		1	1	Hermetically s	ealed scroll type	1	1		
Compresso	Motor output	kW	2.3x1	3.3x1	4.0x1	4.9x1	(3.0×1)+(3.1×1)	(3.4×1)+(3.7×1)	(3.6×1)+(5.0×1)	(4.0×1)+(6.1×1)	(4.0×1)+(4.9×1)	(4.9×1)+(4.9×1)	(4.9×1)+(3.0×1)+(3.1×1)	(4.9×1)+(3.4×1)+(3.7×1)	(4.9×1)+(3.6×1)+(5.0×1)	(3.4×1)+(3.7×1)+ (3.4×1)+(3.7×1)	
Airflow rate		ℓ/s	1,983	2,633	2,800	3,000	3,900	3,983	3,767	4,483	2,800+3,000	3,000+3,000	3,000+3,900	3,000+3,983	3,000+3,767	3,983+3,983	
		m³/min	119	158	168	180	234	239	226	269	168+180	180+180	180+234	180+239	180+226	239+239	
Dimensions	; (H×W×D)	mm		1,657×	930×765		1,657×1	,240×765	1,657×1,	,240×765	(1,657×930×765)-	+(1,657×930×765)	(1,657	×930×765)+(1,657×1,24	0×765)	(1,657×1,240×765)+ (1,657×1,240×765)	
Machine we	eight	kg	2	15	23	30	3	10	3	42	230-	+230	230+310 230+342 3 63 64			310+310	
Sound level	l	dB(A)	5	56	57	59	60	61	62	65	61	62	63			64	
Sound pow	er	dB(A)	7	7	78	80	81	82	 83	86	82	83	8	34	6	35	
Operation	Cooling	°CDB			-5 t	to 49						-5	to 49				
range	Heating	°CWB			-20 to	0 15.5						-201	10 15.5				
	Tupo	-CMB			-6 tC B_4	110.0 110.0						-0 I B-	Δ 15.5 Δ10Δ				
Refrigerant	Charge	ka	9	7	98	99	1	1.8	11	1.8	9.8+9.9	9 9+9 9		9 9+11 8		11.8+11.8	
	Liquid	mm		φ9.5 (Brazing)	0.0	0.0				φ15.9 (	Brazing)	0101010		φ19.1 (	Brazing)		
Piping	Gas	mm	φ19.1 (l	Brazing)	φ22.2 (Brazing)		φ28.6 (Brazing)			628.6 (Brazing)							
connections	High and low pressure gas	s mm	φ15.9 (l	Brazing)	φ19.1 (	Brazing)	φ22.2 (	(Brazing)	φ22.2 (Brazing)				φ28.6 (Brazing)				
Model			REYQ34TAY1	REYQ36TAY1	REYQ38TAY1	REYQ40TAY1	REYQ42TAY1	REYQ44TAY1	REYQ46TAY1	REYQ48TAY1	REYQ50TAY1	REYQ52TAY1	REYQ54TAY1	REYQ56TAY1	REYQ58TAY1	REYQ60TAY1	
			REYQ16TAY1	REYQ16TAY1	REYQ12TAY1	REYQ12TAY1	REYQ10TAY1	REYQ12TAY1	REYQ14TAY1	REYQ16TAY1	REYQ16TAY1	REYQ16TAY1	REYQ18TAY1	REYQ18TAY1	REYQ18TAY1	REYQ20TAY1	
Combinatio	on units		REYQ18TAY1	REYQ20TAY1	REYQ12TAY1	REYQ12TAY1	REYQ16TAY1	REYQ16TAY1	REYQ16TAY1	REYQ16TAY1	REYQ16TAY1	REYQ18TAY1	REYQ18TAY1	REYQ18TAY1	REYQ20TAY1	REYQ20TAY1	
Devier ever			-	-	RETQ14IAT1	RETQ161AT1	RETQ161AT1	RETQ161AT1	RETQ161AT1	RETQ161AT1	RETQ18TAT1	RETQ18IAT1		RETQ201AT1	RETQ201AT1	RETQ201AT1	
Power supp	лу	Btu/b	324 000	345 000	365 000	382 000	403.000	423 000	444.000	461.000	478 000	2-priase 4-wire syst	512 000	532 000	553 000	573.000	
Cooling cap	pacity	kW	95.0	101	107	112	118	124	130	135	140	145	150	156	162	168	
		Btu/h	362.000	386.000	409.000	427.000	450.000	471.000	495.000	512.000	532.000	553.000	573.000	597.000	621.000	645.000	
Heating cap	bacity	kW	106	113	120	125	132	138	145	150	156	162	168	175	182	189	
Power	Cooling	kW	28.4	31.0	28.2	30.3	33.0	34.7	36.9	39.0	41.4	43.8	46.2	48.8	51.4	54.0	
consumptio	n Heating	kW	27.7	30.2	29.2	31.1	32.7	34.6	36.2	38.1	40.4	42.7	45.0	47.5	50.0	52.5	
Capacity co	ontrol	%			4-	100						3-	-100				
Casing cold	bur				Ivory whit	te (5Y7.5/1)						Ivory whi	ite (5Y7.5/1)	7.5/1)			

Model			REYQ34TAY1	REYQ36TAY1	REYQ38TAY1	REYQ40TAY1	REYQ42TAY1	REYQ44TAY1		REYQ46TAY1	REYQ48TAY1	REYQ50TAY1	REYQ52TAY1	REYQ54TAY1	REYQ56TAY1	REYQ58TAY1	REYQ60TAY1
			REYQ16TAY1	REYQ16TAY1	REYQ12TAY1	REYQ12TAY1	REYQ10TAY1	REYQ12TAY1		REYQ14TAY1	REYQ16TAY1	REYQ16TAY1	REYQ16TAY1	REYQ18TAY1	REYQ18TAY1	REYQ18TAY1	REYQ20TAY1
Combinatio	on units		REYQ18TAY1	REYQ20TAY1	REYQ12TAY1	REYQ12TAY1	REYQ16TAY1	REYQ16TAY1		REYQ16TAY1	REYQ16TAY1	REYQ16TAY1	REYQ18TAY1	REYQ18TAY1	REYQ18TAY1	REYQ20TAY1	REYQ20TAY1
			-	-	REYQ14TAY1	REYQ16TAY1	REYQ16TAY1	REYQ16TAY1		REYQ16TAY1	REYQ16TAY1	REYQ18TAY1	REYQ18TAY1	REYQ18TAY1	REYQ20TAY1	REYQ20TAY1	REYQ20TAY1
Power supp	ly				3-phase 4-wire syst	em, 380-415 V, 50 Hz							3-phase 4-wire syst	em, 380-415 V, 50 Hz			
Cooling car	acity	Btu/h	324,000	345,000	365,000	382,000	403,000	423,000		444,000	461,000	478,000	495,000	512,000	532,000	553,000	573,000
Cooling cap	acity	kW	95.0	101	107	112	118	124		130	135	140	145	150	156	162	168
Heating car	acity	Btu/h	362,000	386,000	409,000	427,000	450,000	471,000		495,000	512,000	532,000	553,000	573,000	597,000	621,000	645,000
Tieating cap	acity	kW	106	113	120	125	132	138		145	150	156	162	168	175	182	189
Power	Cooling	kW	28.4	31.0	28.2	30.3	33.0	34.7		36.9	39.0	41.4	43.8	46.2	48.8	51.4	54.0
consumptio	n Heating	kW	27.7	30.2	29.2	31.1	32.7	34.6		36.2	38.1	40.4	42.7	45.0	47.5	50.0	52.5
Capacity co	ntrol	%			4-	100				3-100							
Casing colo	ur				Ivory whit	e (5Y7.5/1)				Ivory white (5Y7.5/1)							
	Туре				Hermetically s	ealed scroll type							Hermetically s	ealed scroll type			
Compresso	Motor output	kW	(3.4×1)+(3.7×1)+ (3.6×1)+(5.0×1)	(3.4×1)+(3.7×1)+ (4.0×1)+(6.1×1)	(4.9×1)+(4.9×1)+ (3.0×1)+(3.1×1)	(4.9×1)+(4.9×1)+ (3.4×1)+(3.7×1)	(4.0×1)+(3.4×1)+ (3.7×1)+(3.4×1)+(3.7×1)	(4.9×1)+(3.4×1)+ (3.7×1)+(3.4×1)+(3.7×1)		(3.0×1)+(3.1×1)+(3.4×1)+ (3.7×1)+(3.4×1)+(3.7×1)	(3.4×1)+(3.7×1)+(3.4×1)+ (3.7×1)+(3.4×1)+(3.7×1)	(3.4×1)+(3.7×1)+(3.4×1)+ (3.7×1)+(3.6×1)+(5.0×1)	(3.4×1)+(3.7×1)+(3.6×1)+ (5.0×1)+(3.6×1)+(5.0×1)	(3.6×1)+(5.0×1)+(3.6×1)+ (5.0×1)+(3.6×1)+(5.0×1)	(3.6×1)+(5.0×1)+(3.6×1)+ (5.0×1)+(4.0×1)+(6.1×1)	(3.6×1)+(5.0×1)+(4.0×1)+ (6.1×1)+(4.0×1)+(6.1×1)	- (4.0×1)+(6.1×1)+(4.0×1)+ (6.1×1)+(4.0×1)+(6.1×1)
Airflow roto		l/s	3,983+3,767	3,983+4,483	3,000+3,000+3,900	3,000+3,000+3,983	2,800+3,983+3,983	3,000+3,983+3,983		3,900+3,983+3,983	3,983+3,983+3,983	3,983+3,983+3,767	3,983+3,767+3,767	3,767+3,767+3,767	3,767+3,767+4,483	3,767+4,483+4,483	4,483+4,483+4,483
Allilow rate		m³/min	239+226	239+269	180+180+234	180+180+239	168+239+239	180+239+239		234+239+239	239+239+239	239+239+226	239+226+226	226+226+226	226+226+269	226+269+269	269+269+269
Dimensions	(H×W×D)	mm	(1,657×1,240×765)	+(1,657×1,240×765)	(1,657×930×765) +(1,657×	+(1,657×930×765) I,240×765)	(1,657×930×765)+ +(1,657×	-(1,657×1,240×765) 1,240×765)				(1,65	7×1,240×765)+(1,657×1	,240×765)+(1,657×1,240	0×765)		
Machine we	ight	kg	310-	+342	230+2	30+310	230+3	10+310		310+3	10+310	310+310+342	310+342+342		342+3	42+342	
Sound level		dB(A)	65	66	64		65			65		66	1	67	68	69	70
Sound pow	er	dB(A)	86	87	85		86			86		87		88	89	90	91
<b>A 1</b>	Cooling	°CDB			-5 1	o 49							-5 t	to 49			
Operation	Heating	°CWB			-20 t	o 15.5				-20 to 15.5							
range	Cooling & Heating	°CWB			-6 to	15.5			-6 to 15.5								
Definement	Туре				R-4	10A			R-410A								
Retrigerant	Charge	kg	11.8	+11.8	9.9+9	9+11.8	9.8+11.8+11.8	9.9+11.8+11.8	+11.8 11.8+11.8+11.8								
Distant	Liquid	mm	φ19.1 (Brazing)						φ19.1 (Brazing)								
Piping	Gas	mm	φ34.9 (Brazing)			φ41.3 (Brazing)							φ41.3 (	Brazing)			
Piping connections High and	High and low pressure ga	gas mm	φ28.6 (l	Brazing)		φ34.9 (B	Brazing)						φ34.9 (	Brazing)			

Note: Specifications are based on the following conditions:

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.
Heating: Indoor temp.: 20°CDB, Outdoor temp.: 7°CDB, 6°CWB, 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 and oil recovery mode. When there is concern for noise the surrounding area such as residences, we recommend investigating the installation location and taking soundproofing measures.

0×765)+(	1,657×1,240×765)	

**VRV R** SERIES Heat Recovery

Daikin offers a wide range of indoor units includes both *VRV* and residential models responding to variety of needs of our customers that require air-conditioning solutions.

# **VRV** indoor units







## Residential indoor units with connection to BP units





## Air treatment equipment











# Ceiling Mounted Cassette (Round Flow with Sensing) Type



### **Specifications**

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

	MODEL		FXFSQ25AVM	FXFSQ32AVM	FXFSQ40AVM	FXFSQ50AVM	FXFSQ63AVM	FXFSQ80AVM	FXFSQ100AVM	FXFSQ125AVM	FXFSQ140AVM
Power suppl	ly					1-phase, 22	0-240 V/220-230	) V, 50/60 Hz			
Cooling con	ooitu	Btu/h	9,600	12,300	15,400	19,100	24,200	30,700	38,200	47,800	54,600
Cooling capa	acity	kW	2.8	3.6	4.5	5.6	7.1	9.0	11.2	14.0	16.0
Heating con	ooitu	Btu/h	10,900	13,600	17,100	21,500	27,300	34,100	42,700	54,	600
neating capa	acity	kW	3.2	4.0	5.0	6.3	8.0	10.0	12.5	16	6.0
Dowor concu	Cooling	LAM/	0.0	028	0.035	0.056	0.061	0.092	0.164	0.170	0.194
Fower consu	Heating	KVV	0.0	026	0.034	0.056	0.060	0.092	0.144	0.159	0.183
Casing						Ga	Ivanised steel pl	ate			
		l/s	217/208/19	92/183/167	283/225/208/ 200/183	383/342/317/ 242/183	392/350/333/ 267/225	408/367/342/ 333/250	558/508/450/ 392/350	575/525/475/ 425/383	592/542/492/ 442/383
Airflow rate (	H/HM/M/ML/L)	m³/min	13/12.5/1	1.5/11/10	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
Sound level	(H/HM/M/ML/L)	dB(A)	30/29.5/2	8.5/28/27	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	(H×W×D)	mm			256×8	40×840				298×840×840	
Machine wei	ight	kg		19		24	2	2	2	25	26
Disian	Liquid (Flare)			$\phi$ e	6.4				<b>∮</b> 9.5		
Piping connections	Gas (Flare)	mm		¢ 1	2.7				¢15.9		
	Drain					VP25 (Exte	rnal Dia. 32/Inter	nal 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. •Heating: Indoor temp.: 20°CDB, Outdoor temp.: 7°CDB, 6°CWB, 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.

#### **Decoration Panel (Option)**

Standard	Model		BYCQ125EEF (Fresh White) / BYCQ125EEK (Black
panel with	Dimensions(H×W×D)	mm	50×950×950
sensing	Weight	kg	5.5

#### Function List

Romoto controllor	Wired	BRC1E63	-	
Nerriote controller	Wireless	-	BRC7M634F(K)	
Dual sensors		0		
Direct airflow		0		
Sensing sensor low mo	ode	0		
Sensing sensor stop m	iode	0		
Circulation airflow		0		
Individual airflow direct	tion control	0		
Switchable 5 step fan s	speed	0	0	
Auto airflow rate		0	0	
Auto swing		0	0	
Swing pattern selection	n	0	0	
High ceiling application	1	0		
			-	



## **FXFSQ-A**

k) 

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

# **Daikin Advanced Sensing Functions**<sup>\*\*</sup>

#### Dual sensors<sup>\*1</sup>

Dual sensors and individual airflow direction control automatically provide optimal control of airflow.



Infrared presence sensor							
The 4 sensors detect human presence.							
Ceiling height	2.7m	3.5m	4.0m				
Detection range (diameter)*2	approx. 8.5m	approx. 11.5m	approx. 13.5m				

\*2. The infrared presence sensor detects 80 cm above the floor.

#### 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.

Ceiling height	2.7m	3.5m	4.0m
Detection range	approx.	approx.	approx.
(diameter)*3	11m	14m	16m

\*3. The infrared floor sensor detects at the floor surface



#### Sensing sensor functions<sup>\*4\*5</sup>

Sensing sensor low mode (default: OFF)

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

The system automatically saves energy by detecting whether or not the room is occupied. The set temperature is shifted automatically if the room is unoccupied.



#### Sensing sensor stop mode (default: OFF)

When there are no people in a room, the system stops automatically.\*6\*7

The system automatically saves energy by detecting whether or not the room is occupied. Based on preset user conditions, the system automatically stops operation if the room is unoccupied.

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

- \*4. These functions are not available when using the group control system
- \*5. User can set these functions with remote controller
- \*6. Please note that upon re-entering the room, air conditioner will not switch on automatically
- \*7. To protect the machine, the standby system may operate temporarily







Energy savings The tendency of people to raise the temperature too much is prevented, because you are warmed up from the feet

To increase comfort, Auto airflow rate mode controls the airflow in accordance with the difference between floor and ceiling temperatures. When there is a large difference between the ceiling and floor temperatures, the airflow rate is automatically increased. When the difference becomes small, the airflow rate is automatically reduced. \*10. Draft prevention function is set OFF in the initial setting.



## **VRV** Indoor Units

Indoor Unit Lineup

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

\*1. Applicable when wired remote controller BBC1E63 is used.

\*2. Not applicable when using individual airflow direction control.

# **Circulation Airflow**<sup>1,2</sup>



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



#### Entire room evenly comfortable: warmth reaches feet

Heating

Cooling





cold feet.

\*4.Calculated under the following comparison conditions: When the average temperature at a height of 0.6m above the floor reaches set temperature. (22°C)

> Areas around walls and feet are warm.



## **VRV** Indoor Units

## **FXFSQ-A**

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

### **Individual Airflow Direction Control<sup>\*1</sup>** te controller BRC1E63 is used.

### Comfortable air conditioning for all room layouts and conditions



#### When individual airflow is selected, airflow direction can be adjusted to room layout. **For offices** highest setting (Position 0)



#### For shops and restaurant





Position 0

The airflow is at the

for people who

dislike air blowing directly on them

# **Other Functions**

#### Comfort

#### 360° Airflow & Selectable Airflow Pattern

Indoor unit offers 360° airflow discharges air in all directions with more uniform temperature distribution. Because air flows out from corner outlets, comfort spreads more widely.



### Optimal comfort and convenience assured by 3 air discharge modes



#### Switchable fan speed: 5 steps and Auto

Control of airflow rate has been improved from 3-step to 5-step. Auto airflow rate is newly available.

#### Suitable for high ceilings



When all round flow is selected, ceilings up to 4.2 m in height can be accommodated. (FXFSQ100-140A)





## **FXFSQ-A**

n setting	Ceiling soiling prevention setting <sup>2</sup> (field setting)				
unwanted.	For shops with light coloured ceilings that must be kept spotless.				
,					
<del>,</del>					
automatically to the memorised is air direction.					

Note:

<sup>1</sup>Air direction is set to the standard position when the unit is shipped from the factory. The position can be changed from the remote controller.

<sup>2</sup>Closing of the corner discharge outlets is recommended

Criteria for ceiling height and number of air discharge outlets (Ceiling height is reference value)

		Number of air discharge outlets used								
			FXFSQ	25-80A		FXFSQ100–140A				
		All round flow	4-way flow	3-way flow	2-way flow	All round flow	4-way flow	3-way flow	2-way flow	
	Standard	2.7 m	3.1 m	3.0 m	3.5 m	3.2 m	3.4 m	3.6 m	4.2 m	
	$\operatorname{High}\operatorname{ceiling} \operatorname{\textcircled{1}}$	3.0 m	3.4 m	3.3 m	3.8 m	3.6 m	3.9 m	4.0 m	4.2 m	
1	High ceiling (2)	3.5 m	4.0 m	3.5 m	—	4.2 m	4.5 m	4.2 m	—	

·Factory settings are for standard ceiling height and all-round flow High ceiling settings (1) and (2) are set with the remote controller by field setting · High-efficiency filters are not available for high ceiling applications

Indoor Unit Lineup

# Ceiling Mounted Cassette (Round Flow with Sensing) Type

#### **Quick and Easy Installation**

#### Lightweight

Easy removal of

It is possible to easily

remove without use of screws or tools.

corner cover

All models can be installed without using a lifter.

### Installable in tight ceiling spaces

256 mm (25-80A) 298 mm (100-140A)		261 mm (25-80A) 303 mm (100-140A)						

### Easy hanging

Washer fixing plates secure washers in place and prevent washers from falling for easy installation.





#### Easy height adjustment

Each corner of the unit has an adjuster pocket that lets you easily adjust the unit's suspended height.



If the wireless remote controller is installed. a signal receiver unit is housed in one of the adjuster pockets

#### **Temporary placement** of control box lid

Because the control box lid can be temporarily hung on the unit, there is no need to climb down the stepladder to retrieve it.



#### Installed in any direction

Since the orientation of the suction grille can be adjusted after installing the direction of the suction grille lines can be unified when multiple units are installed.



#### Ease in temporary hanging of decoration panel

In addition to the temporary hanging fixtures in 2 places normally used, corner part mounting fixtures in 4 places are provided.



Corner part mounting fixtures (in 4 places) Temporary hanging fixtures (in 2 places

#### Drain pump

Equipped as standard accessory with 850 mm lift.

# 850 n 175 mm **Transparent drain socket**

#### Hanging height adjustment

Because the configuration of the hanger bracket changed, the dimensions from the ceiling to the hanger bracket also change during height adjustment for indoor unit.





#### **Easy Maintenance**

#### **Drain pan and drain water check**

The condition of the drain pan and drain water can be checked by removing the suction grille and drain plug.

#### 24 mm diameter drain outlet

The drain outlet allows insertion of a finger or dental mirror for inspection of the internal cleanliness of the drain pan. Removal of the suction panel enables access.



#### Ultra long-life filter (option) See page 190

Maintenance is not required in normal shops or offices for up to four years.

#### Cleanliness

#### Silver ion anti-bacterial drain pan

A built-in antibacterial treatment that uses silver ion in the drain pan prevents the growth of slime, bacteria, and mould that cause odours and clogging.

(The lifespan of a silver ion cartridge depends on the usage environment, but should be changed once every two to three years.)





### **VRV** Indoor Units

### **FXFSQ-A**



#### **Non-flocking flaps**

Flaps can be detached without use of tools. Condensation does not easily form and dirt does not cling to non-flocking flaps. They are easy to clean



#### Filter has anti-mould and antibacterial treatment

Prevents mould and microorganisms growing out of the dust and moisture that adheres to the filters.

Indoor Unit Lineup

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

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



• The industry's first\* Round Flow Ceiling Mounted Cassette type offers 360° airflow with improved temperature distribution.

\* As of April 2004, the release date for Japan.



The light weight unit at 19.5 kg for FXFQ25-50P models makes installation easy

Drain pump is equipped as a standard accessory with a 850 mm lift.

850 mm

•A modern sophisticated decoration panel has been applied, with a panel surface that has been treated with a dirt-repellant coating.



Control of the airflow rate can be selected from 3-step control.

- •The horizontal louvres prevent dew condensation. Their non-flocking surfaces, which repel dirt, are easy to clean.
- •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. (The lifespan of a silver ion cartridge depends on the usage environment, but should be changed once every two to three years.)



•The air filter has an anti-mould and antibacterial treatment that prevents the growth of mould generated from dust or moisture that may adhere to the filter.



Note: Whatever the discharge direction, the same type of panel is used. If installing for other than all-round flow, an air discharge outlet sealing material (option) must be used to close each unused outlet.

#### **Specifications**

MODEL			FXFQ25PVE	FXFQ32PVE	FXFQ40PVE	FXFQ50PVE	FXFQ63PVE	FXFQ80PVE	FXFQ100PVE	FXFQ125PVE	
Power supply	r supply 1-phase, 220-240 V/220 V, 50/60 Hz										
Cooling capac	sity		Btu/h	9,600	12,300	15,400	19,100	24,200	30,700	38,200	47,800
Cooling capac	Jity		kW	2.8	3.6	4.5	5.6	7.1	9.0	11.2	14.0
Heating capa	oity		Btu/h	10,900	13,600	17,100	21,500	27,300	34,100	42,700	54,600
Tieating capac	JILY		kW	3.2	4.0	5.0	6.3	8.0	10.0	12.5	16.0
Power concur	antion	Cooling	kW	0.0	33	0.047	0.052	0.066	0.093	0.187	0.209
Fower consum		Heating	kW	0.0	27	0.034	0.038	0.053	0.075	0.174	0.200
Casing							Galvanised	steel plate			
Airflow rato (H	JU/U/I )		l/s	216/191/166		250/216/183	266/225/183	316/275/225	350/300/250	533/433/333	550/466/375
Ainow rate (i			m³/min	13/11.5/10		15/13/11	16/13.5/11	19/16.5/13.5	21/18/15	32/26/20	33/28/22.5
Sound level (H	HH/H/L)	)	dB(A)	30/28.5/27		31/29/27	32/29.5/27	34/31/28	36/33.5/31	43/37.5/32	44/39/34
Sound power	(HH/H/	L)	dB(A)	48/46.5/45		49/47/45	50/47.5/45	52/49/46	53/51.5/49	60/54.5/50	61/56/52
Dimensions (H	H×W×D	))	mm	246×840×840 288×840×840							340×840
Machine weig	ht		kg	19.5			22 25			25	
<b>D</b> '	Liquic	d (Flare)			\$ 6	.4			$\phi$ 9	9.5	
connections	Gas (	Flare)	mm		<i>φ</i> 12.7			¢15.9			
	Drain				VP25 (External Dia. 32/Internal Dia. 25)						
	Mode			BYCP125K-W1							
Panel	Colou	ır		Fresh white							
(Option)	Dimensio	ons(H×W×D)	mm				50X95	0X950			
	Weigh	nt	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. •Heating: Indoor temp.: 20°CDB, Outdoor temp.: 7°CDB, 6°CWB, 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.

### **FXFQ-P**

#### **Ceiling Mounted Cassette (Compact Multi Flow) Type** FXZQ-A2

### Quiet, compact, and designed for user comfort

•The newly designed panel integrates fully within one ceiling tile enabling lights, speakers and sprinklers to be installed in the adjoining ceiling tiles.



•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 material for air discharge outlet (option) must be used to close each unused outle

#### **Specifications**

MODEL				FXZQ20A2VEB	FXZQ25A2VEB	FXZQ32A2VEB	FXZQ40A2VEB	FXZQ50A2VEB		
Power supply					1-pha	se, 220-240 V/220 V, 50/	60 Hz			
Cooling capac	sity		Btu/h	7,500	9,600	12,300	15,400	19,100		
Cooling capac	лту	[	kW	2.2	2.8	3.6	4.5	5.6		
Heating canad	sity		Btu/h	8,500	10,900	13,600	17,100	21,500		
Treating capac	лу		kW	2.5	3.2	4.0	5.0	6.3		
Power consum	C C	ooling	kW	0.0	)43	0.045	0.059	0.092		
Fower consult	H	eating	kW	0.0	036	0.038	0.053	0.086		
Casing						Galvanised steel plate				
Airflow rate (H	1/1/1/1)		l/s	145/125/108	150/133/108	167/142/117	192/158/133	242/208/167		
Allilow fale (II	/ IVI/ L)		m³/min	8.7/7.5/6.5	9/8/6.5	10/8.5/7	11.5/9.5/8	14.5/12.5/10		
Sound level (H	H/M/L)		dB(A)	32/29.5/25.5	33/30/25.5	33.5/30/26	37/32/28	43/40/33		
Sound power	(H)		dB(A)	49	50	51	54	60		
Dimensions (H	H×W×D)		mm	260×575×575 (For depth add 63mm for electrical box)						
Machine weig	ht		kg	15	5.5	16.5 18.5				
Distant	Liquid (F	Flare)				\$¢6.4				
connections	Gas (Fla	are)	mm			<i>\$</i> 12.7				
	Drain			VP20 (External Dia. 26/Internal Dia. 20)						
	Model			BYFQ60C2W1W						
Panel	Colour			White (N9.5)						
(Option)	Dimensions	(H×W×D)	mm			46x620x620				
	Weight		kg			2.8				

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. •Heating: Indoor temp.: 20°CDB, Outdoor temp.: 7°CDB, 6°CWB, 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 ti 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



- Dimensions correspond with 600 mm X 600 mm architectural module ceiling design specifications.
- Drain pump is equipped as standard accessory with 850 mm lift.



•An optional presence and floor sensor kit (BRYQ60A2W) can be fitted to the cassette for draught prevention, energy saving operation and to avoid temperature stratification during heating.



#### This slim and stylish indoor unit achieves optimum air distribution, and can be installed without

• Unit body and suction panel adopted round shapes and realised a slim appearance design. The unit can be used for various locations such as the ceilings with no cavity and bare ceilings.

the need for ceiling cavity.

- 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.
- With adoption of the individual flap control, airflow direction adjustment can be individually set for each air outlet. 5 directions of airflow and auto-swing can be selected with wired remote controller BRC1E63, which realises the optimum air distribution.



• 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 BRC1E63.

#### **Specifications**

MODEL			FXUQ71AVEB	FXUQ100AVEB				
Power supply			1-phase, 220-240 V/220-230 V, 50/60 Hz					
Cooling capacit	V	Btu/h	27,300	38,200				
	y	kW	8.0	11.2				
Heating capaci	N	Btu/h	30,700	42,700				
Tieating capaci	· y	kW	9.0	12.5				
Power consum	Cooling	kW	0.090	0.200				
	Heating	kW	0.073	0.179				
Casing			Fresh white					
Airflow rate (U/	4/1)	l/s	375/325/267	517/433/350				
Airiow rate (i i/i	vi/ L)	m³/min	22.5/19.5/16	31/26/21				
Sound level (H/	M/L)	dB(A)	40/38/36	47/44/40				
Sound power (I	H/M/L)	dB(A)	58/56/54	65/62/58				
Dimensions (H>	W×D)	mm	198×950×950					
Machine weight		kg	26	27				
<b>D</b> : 1	Liquid (Flare)		φ9.5	5				
Connections	Gas (Flare)	mm	¢15.	9				
	Drain		VP20 (External Dia. 2	26/Internal Dia. 20)				

Note: Specifications are based on the following conditions:

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.
Heating: Indoor temp.: 20°CDB, Outdoor temp.: 7°CDB, 6°CWB, 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 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

### **VRV** Indoor Units

# 4-way Flow Ceiling Suspended Type

### **FXUQ-A**



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



- 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.
- Drain pump is equipped as a standard accessory, and the lift height has been improved from 500 mm to 600 mm.
- Depending on installation site requirements or room conditions, 2-way, 3-way and 4-way discharge patterns are available.



• 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.



(The lifespan of a silver ion cartridge depends on the usage environment, but should be changed once every two to three years.)

## **Ceiling Mounted Cassette (Double Flow) Type**

Stylish unit blends easily with any interior. Integrated ceiling surface with sophisticated panel design with the adoption of flat flap.



#### New panel design

- This model features a stylish flat panel with fresh white colour for a new sophisticated appearance.
- The flat flaps close entirely when the unit is not operating and there are no air intake grilles visible.

#### Individual Airflow Direction Control \*1

• Airfow direction can be individually adjusted for each air discharge outlet to deliver optimal air distribution. \*1. Applicable when wired remote controller BRC1E63 is used.



remote contr	oller.		
Individual Setting Lis Dutetmark Air direc. Outetmark Air direc. Position ( DDD - CReturn	t Indiv. ON D ON	There are identification marks near the air outlets.	

#### Individual airflow settings

•No individua	I setting (Auto a	urflow)	<ul> <li>Position 0 (Highest point)</li> </ul>
<ul> <li>Position 1</li> </ul>	<ul> <li>Position 2</li> </ul>	<ul> <li>Position</li> </ul>	on 3
• Position 4 (L	owest point)	<ul> <li>Swing</li> </ul>	

Individual settings are possible as stated above.

#### Switchable fan speed: 5 steps and Auto

• Control of airflow rate has been improved from 3-step to 5-step. Auto airflow rate is newly available.

#### Suitable for high ceilings

• Even in spaces with high ceilings maximum 3.5 m, a comfortable airflow is carried down to the floor level.





#### Energy saving : Reduction of energy consumption



#### Enhanced functions from various aspects such as maintenance

- The flap parts are easy to clean because it is hard to condensate and get dirty.
- Check contamination in drain pan by simply remove suction grille and panel.
- Equipped with long life filter which requires only 1-year maintenance interval.

Adjuster Pocket

 Adjuster pockets mount at four corners of the unit enable to adjust the main unit without removing the panel.



 Easy visual inspection of drainage through the transparent body drain socket. Drain socket part



#### **Specifications**

	MO	DEL		FXCQ20AVM	FXCQ25AVM	FXCQ32AVM	FXCQ40AVM	FXCQ50AVM	FXCQ63AVM	FXCQ80AVM	FXCQ125AVM	
Power supply	/			1-phase, 220-240 V/220-230 V, 50/60 Hz								
Cooling capa	city		Btu/h	7,500	9,600	12,300	15,400	19,100	24,200	30,700	47,800	
Cooling capacity		kW	2.2	2.8	3.6	4.5	5.6	7.1	9.0	14.0		
Heating appacity Btu/h		Btu/h	8,500	10,900	13,600	17,100	21,500	27,300	34,100	54,600		
Treating capa	ony		kW	2.5	3.2	4.0	5.0	6.3	8.0	10.0	16.0	
Power consu	motion	Cooling	L/M	0.031	0.0	39	0.041	0.059	0.063	0.090	0.149	
i ower consu	inption	Heating	KVV	0.028	0.0	35	0.037	0.056	0.060	0.086	0.146	
Casing					Galvanised steel plate							
		l/s	175/158/150/133/125	5 192/175/158/142/133 20		200/183/175/158/142	250/233/217/192/175	267/250/233/208/192	433/400/375/342/308	533/492/458/417/375		
Allilow fate (i	1/1 1111/1/11/1	VIL/L)	m³/min	10.5/9.5/9/8/7.5	11.5/10.5/9.5/8.5/8		12/11/10.5/9.5/8.5	15/14/13/11.5/10.5	16/15/14/12.5/11.5	26/24/22.5/20.5/18.5	32/29.5/27.5/25/22.5	
Sound level (I	H/HM/M/	ML/L)	dB(A)	32/31/30/29/28	34/33/31/30/29	34/33/32/31/30	36/35/33/32/31	37/36/35/33/31	39/38/37/35/32	42/40/38/36/33	46/44/42/40/38	
Dimensions (I	H×W×D)		mm	305x775x620				305x99	0x620	305x1,445x620		
Machine weig	ght		kg		1	9		22	25	33	38	
Disiss	Liquid (	Flare)		\$ 6.4					\$ 9.5			
Piping	Gas (Fla	are)	mm			\$\$12.7				<i>∲</i> 15.9		
Connoctionio	Drain					VP25	5 (External Dia.	32/Internal Dia	ı. 25)			
	Model				BYBC	Q40CF		BYBC	Q63CF	BYBCC	125CF	
Panel	Colour						Fresh white (	6.5Y 9.5/0.5)				
(Option)	Dimensio	ns (H×W×D)	mm		55x1,0	70x700		55x1,2	35x700	55x1,740x700		
	Weight		kg		1	0		1	1	13		

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. •Heating: Indoor temp.: 20°CDB, Outdoor temp.: 7°CDB, 6°CWB, 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 thindex. (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

New FXCQ-A

• Drain pump is equipped as standard accessory with 850 mm lift.



• 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. (The lifespan of a silver ion cartridge depends on the usage environment, but should be changed once every two to three years.)



## **Ceiling Mounted Cassette (Single Flow) Type**

#### Slim design for flexible installation

•The body features a compact design with a height of just 200 mm and depth 470 mm, making the installation possible in tight ceiling spaces.



•The swinging of horizontal and vertical swing flaps can be adjusted freely with the remote controller, providing 3D airflow to every corner of the room.



- •Control of airflow rate can be selected from 5-step control and quiet operation mode, which provides comfortable airflow.
- •DC motor is adopted both in the fan and drain pump of the indoor unit, not only enhancing the energy saving performance, but also reducing the operating sound and the vibration incurred to the unit.
- •While creating a cozy indoor environment, the unit can prevent the suspended ceiling from being soiled by adjusting its louvre angle.



- •The novel smooth panel design makes dust difficult to accumulate, thus causing the cleaning more conveniently.
- Drain pump is equipped as standard accessory with 850 mm lift.



•Servicing of common parts such as the control box etc. can be performed easily only with the suction panel removed.





### New Remote Controller (Option)

#### ■ Wireless Remote Controller

- Stylish new design giving more satisfaction of ownership •Comes in white colour
- •User-friendly buttons with new functions such as 2 flaps control, 5-step airflow control, automatic airflow
- Back light function helps operating in dark rooms

#### Navigation Remote Controller (Wired Remote Controller)

New functions such as 2 flaps control, 5-step airflow control, automatic airflow can be also adjusted with the new wired remote controller.



BRC1F61

#### **Specifications**

MODEL				FXEQ20AV36	FXEQ25AV36	FXEQ32AV36	FXEQ40AV36	FXEQ50AV36	FXEQ63AV36		
Power supp	ly			1-phase, 220-240 V, 50 Hz							
Casling con	a a itu		Btu/h	7,500	9,600	12,300	15,400	19,100	24,200		
Cooling capacity		kW	2.2	2.8	3.6	4.5	5.6	7.1			
Lipsting con	e e itu		Btu/h	8,500	10,900	13,600	17,100	21,500	27,300		
пеаціпд сар	acity		kW	2.5	3.2	4.0	5.0	6.3	8.0		
Power	C	Cooling	1414	0.026	0.027	0.034	0.046	0.048	0.067		
consumptio	n H	leating	KVV	0.022	0.023	0.030	0.042	0.044	0.063		
Casing						Galvanised	steel plate				
		Cooling	l/s	100/90/82/73/67	115/107/97/88/80	133/125/117/105/92	163/147/130/117/103	208/190/173/158/145	250/227/203/183/163		
Airflow rate		Joonny	m³/min	6.0/5.4/4.9/4.4/4.0	6.9/6.4/5.8/5.3/4.8	8.0/7.5/7.0/6.3/5.5	9.8/8.8/7.8/7.0/6.2	12.5/11.4/10.4/9.5/8.7	15.0/13.6/12.2/11.0/9.8		
(H/HM/M/ML/L)		Joating	l/s	100/93/85/78/70	120/112/102/93/83	143/133/123/112/100	170/155/140/127/113	233/213/193/178/163	282/255/227/205/183		
Hea		leating	m³/min	6.0/5.6/5.1/4.7/4.2	7.2/6.7/6.1/5.6/5.0	8.6/8.0/7.4/6.7/6.0	10.2/9.3/8.4/7.6/6.8	14.0/12.8/11.6/10.7/9.8	16.9/15.3/13.6/12.3/11.0		
Sound level	C	Cooling		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		
(H/HM/M/M	L/L) F	leating	UB(A)	33/31/29/28/26	33/31/29/28/26 35/33/31/30/28 38/36/34/33/31 41/39/37/35/33		41/39/37/36/34	46/44/42/40/38			
Dimensions	(H×W×	D)	mm		200×84	40×470		200×1,2	240×470		
Machine we	eight		kg		17		18	2	3		
Disian	Liquid	(Flare)				¢6.4			<b>Ø</b> 9.5		
connections	Gas (F	-lare)	mm			¢12.7			¢15.9		
	Drain					PVC26 (External Dia	. 26/Internal Dia. 20)				
	Model	I			BYEP	40AW1		BYEP	63AW1		
Panel	Colour	r			Fresh white						
(Option)	Dimension	ns(H×W×D)	mm		80×95	i0×550		80×1,3	50×550		
	Weigh	nt	kg		8	.0		10	0.0		

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.
Heating: Indoor temp.: 20°CDB, Outdoor temp.: 7°CDB, 6°CWB, 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 m in front of the unit and 1 m downward

### **VRV** Indoor Units

### **FXEQ-A**



BRC4M61



The LCD panel lights up during use, making the remote controller easy to handle even in dark.



## Slim Ceiling Mounted Duct Type (Compact Series)

#### Slim and compact design for easy and flexible installation

#### DC Fan Motor / DC Drain Pump

Adoption of a DC motor for both the fan motor and the drain pump has greatly reduced power consumption and also operation noise.







 Slim and compact design with a height of only 200 mm allows for installation in drop ceilings with ceiling voids of as little as 240 mm in height. The depth is also only 450 mm making it suitable for installation in limited spaces such as wardrobes.



#### •Features rear or bottom return to suite site constraints.



#### Air filter included

Clip-on resin net filter attached to the rear of the unit as standard.

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



#### Auto & 5-step Airflow Control

Airflow rate can be selected from 5 Steps and AUTO airflow mode. AUTO will automatically regulate the airflow rate in accordance to the difference between room temperature and set temperature.



\*Wireless remote controller does not have AUTO airflow mode. Use wired remote controller to select AUTO airflow mode

#### 3-D Auto Swing Discharge Grille (Optional Accessory)

Motorised louvres provide 3-D airflow distribution for improved air circulation. Operations via BRC1E63 with functions including 3-D Auto Swing, Horizontal Auto Swing, Vertical Auto Swing & Fixed Positioning.

#### Auto Clean Air Filter Module (Optional Accessory)

A unique rear suction mounted motorised filter cleaning module with included polyester filter for convenient filter maintenance. Scheduled automatic filter cleaning occurs once a week during non operational hours of the indoor unit (set via BRC1E63) to ensure optimal performance and increased energy savings.





port installed under the ceiling

Cleaning unit moves across the filter removing dust which is collected in the dust box

#### **Two Series Available**

FXDQ-TV1B - Standard Model FXDQ-TV1BA - Features Built-in Multi Tenancy Kit

This kit allows an independent 24V power source to be supplied to the indoor unit PCB in conjunction with 1 phase power from the tenants board. This ensures critical operations, such as oil return are not affected should there be an interruption to the main indoor unit power.

#### **Specifications**

N	IODEL		FXDQ20TV1B(A)	FXDQ25TV1B(A)	FXDQ32TV1B(A)	FXDQ40TV1B(A)	FXDQ50TV1B(A)	FXDQ63TV1B(A)	
Power supply					1-phase, 220	-240 V, 50 Hz			
		Btu/h	7,500	9,600 12,300		15,400	19,100	24,200	
Cooling capacity		kW	2.2	2.8	3.6	4.5	5.6	7.1	
Liesting conc.		Btu/h	8,500	10,900	13,600	17,100	21,500	27,300	
Heating capa	лу	kW	2.5	3.2	4.0	5.0	6.3	8.0	
Power	Cooling	1.34/	0.030	0.0	)37	0.050	0.0	)75	
consumption	Heating	KVV	0.025	0.025 0.032		0.045	0.070		
Casing					Galvanised steel plate				
		l/s	135	150		210	250	325	
Airflow rate		m³/min	8.1	9	9.0		15.0	19.5	
External statio	pressure	Pa	40-	-10*2	50-10*2	60-10*2	45	-10*2	
Sound level (H	H/H/L) *1 *3	dB (A)	32/30/28	33/30	0.5/28	34/31.5/29	35/32.5/30	37/35/33	
Dimensions (H	I x W x D)	mm		200×700×450		200×90	)0×450	200×1,100×450	
Machine weight kg			18		21 24				
	Liquid (Flare)				¢6.4			¢9.5	
Piping	Gas (Flare)	mm	φ12.7					¢15.9	
connections Drain		1			PVC26 (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: 5 m, Level difference: 0 m.
•Heating: Indoor temp.: 20°CDB, Outdoor temp.: 7°CDB, 6°CWB, Equivalent piping length: 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

\* 1 : Values are based on external static pressure of 10 Pa. For FXQC-TV1BA models, +0.0005kW on top of cooling/heating power consumption values.
 \* 2 : External static pressure is changeable to set by the remote controller. This pressure means "High static pressure - Standard". (Factory setting is 10 Pa)
 \* 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

### FXDQ-T





Model	Compatibility	HxWxD (mm)
BDG20A09	20-32 Class	180x722x70
BDG20A15	40-50 Class	180x922x70
BDG20A20	63 Class	180x1,122x70





Dust in the dust box can be emptied by vacuuming out the dust via the vacuum port

#### Slim Ceiling Mounted Duct Type (Standard Series) FXDQ-PD/ND

#### Slim design, guietness and static pressure switching



this model is suitable to install in limited spaces like drop-ceilings in hotels.

200 mm Only 700 mm

- Control of the airflow rate can be selected from 3-step control and Auto. Auto airflow rate control can be selected with wired remote controller BRC1E63.
- Low operation sound level.
- 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



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



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



### **Specifications**

	MODE	L		FXDQ20PDVE	FXDQ25PDVE	FXDQ32PDVE	FXDQ40NDVE	FXDQ50NDVE	FXDQ63NDVE	
Power supply						1-phase, 220-240	V/220 V, 50/60 Hz			
Cooling concoit			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		
Heating capacit	37		Btu/h	8,500	10,900	13,600	17,100	21,500	27,300	
r leating capaci	.y		kW	2.5	3.2	4.0	5.0	6.3	8.0	
Power consum	ntion *1	Cooling	1414/	0.0	)86	0.089	0.160	0.165	0.181	
Fower consum	puon	Heating	KVV	0.0	067	0.070	0.147	0.152	0.168	
Casing						Galvanised	ed steel plate			
Airflow rate (H			ℓ/s		133/120/106		175/158/141	208/183/166	275/241/216	
Alfilow rate (H	п/п/L)		m³/min		8.0/7.2/6.4		10.5/9.5/8.5	12.5/11.0/10.0	16.5/14.5/13.0	
External static p	ressure		Pa		30-10* <sup>2</sup>			44-15* <sup>2</sup>		
Sound level (HH	I/H/L)*1*3		dB(A)	28/2	6/23	28/26/24	30/28/26	33/30/27	33/31/29	
Sound power (H	H/H/L)		dB(A)	56/5	4/51	56/54/52	58/56/54	61/58/55	61/59/57	
Dimensions (H×	W×D)		mm		200×700×620			00×620	200×1,100×620	
Machine weight kg		kg		23		27	28	31		
	Liquid (	Flare)				¢6.4			<i>∲</i> 9.5	
Piping	Gas (Fla	are)	mm			¢12.7			¢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. • Heating: 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. \*1 : Values are based on the following conditions: FXDQ-PD: external static pressure of 10 Pa; FXDQ-ND: 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-PD models and 15 Pa for FXDQ-ND 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).

## **Ceiling Concealed (Duct) Type**

High static pressure offers flexible duct design that blends in with any interior décor in stores and offices

- High efficiency Hi-X heat exchanger coils that provide even more energy savings.
- High external static pressure allows comprehensive duct layout for various applications. 120 Pa for FXDYQ80MA-145MA

Design of indoor units allows installation in limited roof spaces.

### **Specifications**

I	IODEL		FXDYQ80MAV1	FXDYQ100MAV1	FXDYQ125MAV1	FXDYQ145MAV1			
Power supply			1-phase, 220-240 V, 50 Hz						
Cooling capacity Btu		Btu/h	30,000	38,200	47,400	54,600			
		kW	8.8	11.2	13.9	16.0			
Heating appacity Btu/		Btu/h	33,800	42,700	54,600	62,800			
Heating capacity		kW	9.9	12.5	16.0	18.4			
Power concumr	tion Cooling	kW	0.415	0.700	0.780	0.880			
Heating kW		kW	0.415	0.700	0.780	0.880			
Casing				Galvanised	d steel plate				
Airflow rate (LI)		ℓ/s	510	778	852	957			
AITIOW Tate (H)		m³/min	30.6 46.7 51.1		57.4				
External static p	ressure	Pa	120*1						
Sound level (H)	240 V	dB(A)	45	46	48	51			
Dimensions (H>	W×D)	mm	360×1168×869		360×1478×899				
Machine weight		kg	50	60	65	66			
D'	Liquid (Flare)			φ	9.5				
Piping	Gas (Flare)	mm		¢1	15.9				
connections	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.
 Heating: Indoor temp.: 20°CDB, Outdoor temp.: 7°CDB, 6°CWB, 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

\*1: External static pressure is changeable to change over the connectors inside electrical box (High static pressure-Standard static pressure). The data above is for high static pressure setting.

### **VRV** Indoor Units



### **FXDYQ-MA**



- Return air spigots included for ease of installation for FXDYQ80MA-145MA models.
- •Two external static pressure settings for added flexibility
- Quiet yet powerful supply air fan.
- High strength galvanised steel casing.

# Middle Static Pressure Ceiling Mounted Duct Type

Middle static pressure and slim design allow flexible installations



### Installation flexibility

#### Slim design

• With a height of only 245 mm, installation is possible even in buildings with narrow ceiling spaces.





#### Standard DC drain pump

• DC drain pump is equipped as standard accessory with 850 mm lift.



#### Bottom suction possible

 Bottom suction is possible which facilitate installation and maintenance. Wiring connections and maintenance of control box can be done from under the unit with an optional shield plate for side plate\*, extending the degree of freedom for installation in the ceiling.



• Air suction direction can be altered from rear to bottom suction.



\*An optional shield plate for side plate is required if wiring connections and available for FXSQ20-125PA models.

### **Design flexibility**

#### Adjustable external static pressure

• Using a DC fan motor, the external static pressure can be controlled within a range of 30 Pa\* to 150 Pa.



Comfortable airflow is achieved in accordance with conditions such as duct lenath.

\*30 Pa-150 Pa for FXSQ20-40PAVE 50 Pa-150 Pa for FXSQ50-125PAVE 50 Pa-140 Pa for FXSQ140PAVE

### Comfort

#### Switchable airflow rate

 Control of the airflow rate can be selected from 3-step control.

#### Auto airflow rate

•5-step airflow rate is automatically controlled in accordance with the difference between room temperature and set temperature. Auto airflow rate control can be selected with wired remote controller BRC1E63



#### Low operation sound level

•							(UD(A))
FXSQ-PAVE	20/25	32	4	0	50		63
Sound level (H/M/L)	33/30/28	34/32/30	36/3	3/30	34/32/29		36/32/29
FXSQ-PAVE	80	10	0		125		140
Sound level (H/M/L)	37.5/34/30	0 39/35	6/32	42/3	38.5/35	4	43/40/36



#### **Easy installation**

#### Airflow rate auto adjustment function

• During installation, even if the external static pressure changes due to a change in the duct route, the airflow can be automatically adjusted to within the unit's external static pressure range.

#### **Specifications**

l N	IODEL		FXSQ20PAVE	FXSQ25PAVE	FXSQ32PAVE	FXSQ40PAVE	FXSQ50PAVE		
Power suppl	ly			1-phase,	220-240 V/220 V,	50/60 Hz			
Casling con	a aitr	Btu/h	7,500	9,600	12,300	15,400	19,100		
Cooling capa	acity	kW	2.2	2.8	3.6	4.5	5.6		
Liesting con	a aitr	Btu/h	8,500	10,900	13,600	17,100	21,500		
Heating capacity		kW	2.5	3.2	4.0	5.0	6.3		
Power consumption		kW	0.058 *1		0.066 * 1	0.101*1	0.075*1		
Power consumption Heating		kW	0.05	3 *1	0.061 *1	0.096*1	0.070*1		
Casing				G	alvanised steel pla	te			
Airflow roto	(11/1/1/1)	l/s	150/12	25/108	158/133/116	250/208/175	283/242/192		
Annow rate	(⊓/101/∟)	m³/min	9/7.5	5/6.5	9.5/8/7	15/12.5/10.5	17/14.5/11.5		
External stati	ic pressure	Pa		30-15	0 (50) * <sup>2</sup>		50-150 (50) * <sup>2</sup>		
Sound level (I	H/M/L)	dB(A)	33/3	0/28	34/32/30	36/33/30	34/32/29		
Sound power	r (H)	dB(A)	6	1	62	64	62		
Dimensions	(H×W×D)	mm		245×550×800		245×700×800	245×1,000×800		
Machine wei	ight	kg		25		27	35		
Liquid (Flare)			¢ 6.4						
Piping connections Gas (Flare) mm		mm			φ12.7				
Drain				VP25 (Ext	ernal Dia. 32/Intern	al Dia. 25)			
M	IODEL		FXSQ63PAVE	FXSQ80PAVE	FXSQ100PAVE	FXSQ125PAVE	FXSQ140PAVE		
Power suppl	ly			1-phase,	220-240 V/220 V,	50/60 Hz			
Casling con	a a itu	Btu/h	24,200	30,700	38,200	47,800	54,600		
Cooling capa	acity	kW	7.1	9.0	11.2	14.0	16.0		
Liesting con	o o itu (	Btu/h	27,300	34,100	42,700	54,600	61,400		
Heating capa	acity	kW	8.0	10.0	12.5	16.0	18.0		
Power concurr	Cooling	kW	0.106 *1	0.126*1	0.151*1	0.206 *1	0.222 *1		
rower consum	Heating	kW	0.101 *1	0.121 *1	0.146*1	0.201 *1	0.217*1		
Casing				G	alvanised steel pla	te			
Airflow rate	(1)////	l/s	350/292/242	383/325/267	533/450/375	617/525/433	650/558/467		
Annow rate	(11/10// L)	m³/min	21/17.5/14.5	23/19.5/16	32/27/22.5	37/31.5/26	39/33.5/28		
External stati	ic pressure	Pa		50-1	50 (50)* <sup>2</sup>		50-140 (50)* <sup>2</sup>		
Sound level (I	H/M/L)	dB(A)	36/32/29	37.5/34/30	39/35/32	42/38.5/35	43/40/36		
Sound power	r (H)	dB(A)	64	65.5	67	70	71		
Dimensions	(H×W×D)	mm	245×1,0	000×800	245×1,4	400×800	245×1,550×800		
Machine wei	ight	kg	35	37	46	47	52		
Li	iquid (Flare)				\$ 9.5				
Piping connections G	ias (Flare)	mm			¢ 15.9				
D	rain			VP25 (Ext	ernal Dia. 32/Intern	al Dia. 25)			





### **VRV** Indoor Units

### **FXSQ-PA**

#### **Easy maintenance**

• Inspection and cleaning is facilitated by separating the drain pipe and inspection opening and by the drain pan maintenance check hole.



Separate drain pipe and inspection opening

Drain pan maintenance check hole

 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. (The lifespan of a silver ion cartridge depends on the usage environment, but should be changed once every two to three years.)



• Airflow rate can be controlled using a remote controller during test operation. It is automatically adjusted to the range between approximately ±10% of the rated H tap airflow.

- Note: Specifications are based on the following conditions; •Cooling: Indoor temp.: 27°CDB, 19°CWB, Outdoor temp.: 35°CDB, Equivalent piping

  - Heating: Indoor temp.: 20°CDB, Culturation piping
    Heating: Indoor temp.: 20°CDB,
    Outdoor temp.: 7°CDB, 6°CWB, 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.
  - \*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 thirteen
  - (FXSQ20-40PA), eleven (FXSQ50-125PA) or ten (FXSQ140PA) levels of control. These values indicate the lowest and highest possible static pressures. The rated static pressure is 50 Pa.

## **Ceiling Mounted Duct Type**

#### Middle and high static pressure allows for flexible duct design

FXMQ20PA / FXMQ25PA / FXMQ32PA / FXMQ40PA FXMQ50PA / FXMQ63PA / FXMQ80PA / FXMQ100PA FXMQ125PA / FXMQ140PA

FXMQ160P / FXMQ180P / FXMQ200P FXMQ250P



•A built-in drain pump with 700mm lift is equipped as a standard accessory for FXMQ20PA-140PA models. For FXMQ160P-250P models, a 750mm drain pump kit is available as an optional accessory.



- •Automatic Airflow Adjustment feature allows the fan speed to adjust automatically to suit your duct design during commissioning, simplifying the process and saving time. The airflow is adjusted to a range between ±10% of the model's rated airflow.
- •To facilitate installation, the FXMQ160P-250P models can be separated into 2 sections for convenient handling and easier installation through openings in the ceiling.



### **Specifications**

-	MODEL	i.		FXMQ20PAVE	FXMQ25PAVE	FXMQ32PAVE	FXMQ40PAVE	E FXMQ50PAVE		
Power supply					1-pha	lse, 220-240 V/220 V,	50/60 Hz			
0 "			Btu/h	7,500	9,600	12,300	15,400	19,100		
Cooling capac	ity		kW	2.2	2.8	3.6	4.5	5.6		
	·		Btu/h	8,500	10,900	13,600	17,100	21,500		
Heating capac	ity		kW	2.5	3.2	4.0	5.0	6.3		
Power consum	ntion C	ooling	kW	0.0	)56	0.060	0.151	0.128		
Fower consum	*1 H	eating	kW	0.044 0.048			0.139	0.116		
Casing		-				te				
A: (1 ) (1)			l/s	150/125/108		158/133/116	267/216/183	300/275/250		
Airflow rate (H	H/H/L)		m³/min	9/7.5	5/6.5	9.5/8/7	16/13/11	18/16.5/15		
External static	External static pressure*2		Pa		30-100 (50)	1	30-160 (100)	50-200 (100)		
Sound level (H	IH/H/L)		dB(A)	33/3	1/29	34/32/30	39/37/35	41/39/37		
Sound power (	(H)		dB(A)	5	1	52	57	59		
Dimensions (H	l×W×D)		mm		300x550x700		300x700x700	300x1,000x700		
Machine weigh	nt		kg		25		27	35		
0	Liquid (F	Flare)			-	¢6.4				
Piping	Gas (Fla	are)	mm			<i>φ</i> 12.7				
connections	Drain				VP25 (	External Dia. 32/Interr	Internal Dia, 25)			
	MODEL			EVMOCODAVE	EXMOSODAVE	EVMOTORDAVE	EVMOdeEDAV			
Devereurphy	MODEL			FXMQ63PAVE	FXIVIQ80PAVE		FXINQ125PAV	E FXMQ140PAVE		
Power supply			Dtu/b	04.000	1-pria	15e, 220-240 V/220 V,		F1 600		
Cooling capac	ity			24,200	30,700	38,200	47,800	54,600		
			KVV Dtu/b	/.1	9.0	11.2	14.0 54.000	16.0		
Heating capac	ity	-	Blu/n	27,300	34,100	42,700	54,600	61,400		
		aaling	KVV	8.0	0.01	12.5	16.0	18.0		
Power consumption		KVV	0.138	0.185	0.215	0.284	0.405			
*1 Heating kW		KVV	0.127	0.173	0.203	0.272	0.380			
Casing		010	005/000/007	447/075/000	Galvanised steel pla	1e	707/040/500			
Airflow rate (H	H/H/L)		£/S	325/292/267	417/375/333	533/450/383	650/550/466	/6//649/533		
External statio		+0		19.0/17.0/10	25/22.5/20	32/21/23	39/33/28	40/39/32		
		;^2		40/40/00	50-200	1/20	44/40/40	50-140 (100)		
Sound never (I	(L)			42/40/30	60 61		44/42/40	40/45/45		
Dimonsions (L	(T)  ~\//~D)		UD(A)	200v1.0	60 61		200x1 400x70	64		
Machina waid	1X V V X D )		ka	300X1,0	5		300X1,400X70	J		
wachine weigi	IL iquid /	Eloro)	ку	3	0		40	40		
Piping	Gac (El		mm			φ9.5 d15.0				
connections	Drain				V/D25 /	913.9 Extornal Dia 22/Interi	al Dia 25)			
	Dialit				VF23 (		iai Dia. 23)			
	MODEL			FXMQ160PV1A	FXMQ180	PV1A F	XMQ200PV1A	FXMQ250PV1A		
Power supply					1	I-phase, 220-240 V, 5	0 Hz			
Cooling capac	ity		Btu/h	61,400	68,200	)	76,400	95,500		
	·		kW	18.0	20.0		22.4	28.0		
Heating capac	ity		Btu/h	68,200	76,400	)	85,300	107,500		
	·		kW	20.0	22.4		25.0	31.5		
Power consum	ption C	ooling	kW		0.650		0.640	0.810		
	*1  H	eating	kW		0.650		0.640	0.810		
Casing				1	Galvanized steel pla	te				
Airflow rate (HH/H/L)		l/s	1,120/955/790	1,160/995	/820 1	200/1,025/850	1,400/1,200/1,000			
m		m³/min	67.2/57.3/47.4	69.6/59.7/	49.2	72.0/61.5/51.0	84.0/72.0/60.0			
External static pressure*2		Pa	60-217 (138)	50-210 (1	30)	50-250	(150)			
Sound level (H	IH/H/L)		dB(A)		45/41.5/38		44/40.5/37	46/42.5/39		
Sound power (	(H)		dB(A)		73		72	74		
Dimensions (H	I×W×D)		mm	4	70x1,133x919		470x1,333x919			
Machine weigh	nt		kg		70		79	85		
Piping	Liquid			\$\$\phi_9.5 (Flare)		φ	9.5 (Brazing)			
connections	Gas		mm	¢15.9 (Flare)				<i>∲</i> 22.2 (Brazing)		
connections Drain					BSP	3/4 internal thread (O	D \$\varphi\$32.7)	32.7)		

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.
 Heating: Indoor utemp.: 20°CDB, Outdoor temp.: 7°CDB, 6°CWB, Equivalent piping length: 7.5 m, Level difference: 0 m.
 Capacity of indoor unit is only for reference. Actual capacity of indoor unit is obseed on the total capacity of indoor unit is obseed on the total capacity of indoor unit is obseed on the total capacity of indoor unit is obseed on the total capacity of indoor unit is obseed on the total capacity of indoor unit is obseed on the total capacity of indoor unit is obseed on the total capacity of indoor unit is obseed on the total capacity of indoor unit is obseed on the total capacity of indoor unit is obseed on 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 (FXMQ20-32PA), thirteen (FXMQ40PA), fourteen (FXMQ50-125PA), ten (FXMQ140PA) or fifteen (FXMQ160-250P) levels of control.
 These values indicate the lowest and highest possible static pressure. The rated static pressure is 50 Pa for FXMQ20-32PA 100 Pa for FXMQ40-140PA.

These values indicate the lowest and highest possible static pressures. The rated static pressure is 50 Pa for FXMQ20-32PA 100 Pa for FXMQ40-140PA, 138 Pa for FXMQ160P, 130 Pa for FXMQ200-250P.

- •Each model is fitted with a high efficiency DC fan motor with adjustable external static pressure to suit your duct design. The available ranges for each model are listed below: 30 Pa - 100 Pa for FXMQ20PA-32PA 30 Pa - 160 Pa for FXMQ40PA 50 Pa - 200 Pa for FXMQ50PA-125PA 50 Pa - 140 Pa for FXMQ140PA 60 Pa – 217 Pa for FXMQ160P 50 Pa - 210 Pa for FXMQ180P
- 50 Pa 250 Pa for FXMQ200P-250P
- •The adopted DC fan motor is much more energy efficient than a conventional AC motor, yielding an approximate 20% decreased in energy consumption (FXMQ125PA)
- •FXMQ20PA-140PA models are only 300mm in height making it ideal for use in modern commercial and medium density apartment development where ceiling spaces are tight.
- •Control of the airflow rate can be selected from 3-step control and Auto. Auto airflow rate control can be selected with wired remote controller BRC1E63 for FXMQ20PA-140PA models.

## FXMQ-P(A)

# **Ceiling Suspended Type**

Slim body with quiet and wide airflow





FXHQ125 / 140A

New 125 / 140 models provide greater capacity for large spaces

- The technology of the DC fan motor, wide sirocco fan, and large heat exchanger combine for greater airflow and quiet operation.
- Sophisticated design •Flap neatly closes when not in use.



• Suitable for high ceilings



• Switchable fan speed: 3 steps

- •Control of airflow rate has been improved from 2-step to 3-step.
- Drain pump kit (option) includes a silver ion antibacterial agent that assists in preventing the growth of slime, bacteria, and mould that cause smells and clogging.
- Wireless LCD remote controller
- A signal receiver must be added to the indoor unit.





#### Comfort

- Auto swing (up and down) and louvers (left and right by hand) bring comfort to the room.
- Louver manually adjusts for straight or wide angle airflow.



#### Quiet operation

Sound • Uses quiet stream fan absorption and other quiet member technologies. (FXHQ32-100MA) Quiet stream fan Turbulent flow Straightening vane is produced

			dB(A)
Indoor unit		Sound level	
	Н	М	L
FXHQ32MA	36	_	31
FXHQ63MA	39	_	34
FXHQ100MA	45	_	37
FXHQ125A	46	41	37
FXHQ140A	48	42	37

#### **Easy maintenance**

- Non-dew flap
- Condensation does not easily form on and dirt does not cling to non-dew flap. It is easy to clean.



- Non-dew flap
- Easy-clean, flat surfaces
- •It is easy to wipe dirt off the flat side and lower surfaces of the unit.
- Oil-resistant plastic is used for the air suction grille. This satisfies durability in restaurants and other similar environments.

Note: Intended for use in salons, dining rooms, and ordinary sales floors, this specification is not suitable for kitchens or other harsh environments

### **Specifications**

MODEL			FXHQ32MAVE	FXHQ63MAVE	FXHQ100MAVE	FXHQ125AVM	FXHQ140AVM	
Power supply			1-phas	se, 220-240 V/220 V, 50	1-phase, 220-240 V/220-230 V, 50/60 Hz			
Cooling capacity		Btu/h	12,300 24,200 38,200		48,000	52,900		
		kW	3.6	7.1	11.2	14.1	15.5	
Heating can	acity	Btu/h	13,600	27,300	42,700	54,600	58,000	
r leating cap	lacity	kW	4.0	8.0	12.5	16.0	17.0	
Power	Cooling	12/M	0.111	0.115	0.135	0.168	0.181	
consumptio	n Heating	KVV	0.111	0.115	0.135	0.168	0.181	
Casing			She	et Metal / White (10Y9,	(0.5)	Sheet Metal / White		
Airflow roto	(1)/(1)	ℓ/s	200/-/166	291/-/233	416/-/325	567/433/333	600/450/333	
AIMOWIALE	(H/IVI/L)	m³/min	12/-/10	17.5/-/14	25/-/19.5	34/26/20	36/27/20	
Sound level	(H/M/L)	dB(A)	36/-/31	39/-/34	45/-/37	46/41/37	48/42/37	
Dimensions	(H×W×D)	mm	195×960×680	195×1,160×680	195×1,400×680	235×1,5	590×690	
Machine weight kg		kg	24	28 33		41		
	Liquid (Flare)		\$\$6.4		<i>\$</i> 9	.5		
Piping connections	Gas (Flange)	mm	\$12.7	φ12.7         φ15.9           VP20 (External Dia. 26/Internal Dia. 20)				
	Drain							

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. • Heating: Indoor temp.: 20°CDB, Outdoor temp.: 7°CDB, 6°CWB, 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 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.

### **VRV** Indoor Units

### New FXHQ-MA / A

#### Installation flexibility

Flexible installation

- •The unit fits more snugly into tight spaces.
  - [Required installation space (mm)]



\*Water used in the test-run can be drained from the air discharge opening rather than from the side as was formerly the case.

- Drain pump kit (option) can be easily incorporated.
- Drain pipe connection can be done inside the unit. Refrigerant and drain pipe outlets are at the same opening.



- All wiring and internal servicing can be done from under the unit.
- The rear side removable frame allows ease of access for piping work.





# Wall Mounted Type

### Stylish flat panel design harmonised with your interior décor



#### **Higher airflow**

- An invisible air intake at the top of the unit
- Vertical auto-swing enables efficient air and temperature distribution throughout the room.
- The louver closes automatically when the unit stops.
- Enhanced comfort is achieved.
- •5 step discharge angles can be set by remote controller.
- Discharge angle is automatically set at the same angle as previous operation when restart.

MODEL			FXAQ20A	FXAQ25A	FXAQ32A	FXAQ40A	FXAQ50A	FXAQ63A
Ainflann make	Н	ma3/main	9.1	9.4	9.8	12.2	15.0	19.0
Alfliow rate	L		7.0	7.0	7.0	9.7	12.0	14.0

#### Lower sound level

- Whisper quiet in operation, with sound levels as low as 28.5 dB(A)\* \*Sound level for FXAQ20-32A
- An ideal solution for a wide range of commercial spaces, including individual office spaces.
- A signal receiver must be added to the indoor unit.



Wireless LCD remote controller



MODEL			FXAQ20A	FXAQ25A	FXAQ32A	FXAQ40A	FXAQ50A	FXAQ63A
Sound lovel	Н		33.0	35.0	37.5	37.0	41.0	46.5
	L	UB(A)	28.5	28.5	28.5	33.5	35.5	38.5

- 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.
- •Drain pan and air filter can be kept clean by mould-proof polystyrene.

#### External EV kit (for heating operation) (Option)

This product, which is concealed in ceilings or corridors for quieter heating operation, is used to connect indoor units in places where quiet environment is required such as residential living rooms.



#### \* This option is only effective for reducing operation sound during heating operation. Therefore it is ineffective when connected to cooling only outdoor units.

### **Specifications**

MODEL		FXAQ20AVM	FXAQ25AVM	FXAQ32AVM	FXAQ40AVM	FXAQ50AVM	FXAQ63AVM		
Power supp	Power supply			1-phase, 220-240 V/220-230 V, 50/60 Hz					
Cooling can	O a alliana a sana aita		7,500	9,600	12,300	15,400	19,100	24,200	
Cooling cap	acity	kW	2.2	2.8	3.6	4.5	5.6	7.1	
Heating can	acity	Btu/h	8,500	10,900	13,600	17,100	21,500	27,300	
rieating cap	Heating capacity		2.5	3.2	4.0	5.0	6.3	8.0	
Power	Cooling	k/M/	0.040	0.040	0.040	0.050	0.060	0.100	
consumptio	n Heating	NVV	0.040	0.040	0.050	0.050	0.070	0.110	
Casing	Casing			Resin / White N9.5					
Airflow rate	(11/1.)	l/s	151/116	156/116	163/116	203/161	250/200	316/233	
AIMOW Tale	(п/ц)	m³/min	9.1/7.0	9.4/7.0	9.8/7.0	12.2/9.7	15.0/12.0	19.0/14.0	
Sound level	Cooling	dR(A)	33.0/28.5	35.0/28.5	37.5/28.5	37.0/33.5	41.0/35.5	46.5/38.5	
(H/L)	Heating		34.0/28.5	36.0/28.5	38.5/28.5	38.0/33.5	42.0/35.5	47.0/38.5	
Dimensions	(H×W×D)	mm		290×795×266			290×1,050×269		
Machine we	Machine weight kg			12			15		
	Liquid (Flare)				\$ 6.4			\$ 9.5	
Piping connections	Gas (Flange)	mm	φ12.7 φ15.9					¢15.9	
Drain			VP13 (External Dia. 18/Internal Dia. 15)						

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. Heating: Indoor temp.: 20°CDB, 15°CWB, Outdoor temp.: 7°CDB, 6°CWB, 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 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.



An invisible air intake at the top of the unit

### **VRV** Indoor Units

Indoor Unit Lineup

# **Floor Standing Type**

Suitable for perimeter zone air conditioning

- •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 (maintenance free up to one year\*) is equipped as standard accessory.

Btu/h

kW

Btu/h

kW

kW

kW

l/s

m³/min

dB(A)

mm

kg

mm

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

**Specifications** 

Power supply

Cooling capacity

Heating capacity

Casing

Piping

Power consumption

Airflow rate (H/L)

Machine weight

connections

Dimensions (H×W×D)

Sound level (H/L) 240 V

MODEL



FXLQ32MAVE FXLQ40MAVE

1-phase, 220-240 V/220 V, 50/60 Hz

0.090

0.090

FXLQ: Ivory white (5Y7.5/1)

600×1,140×222

30.0

210.D.

15.400

4.5

17,100

5.0

183/141

11/8.5

40/35

12,300

3.6

13,600

4.0

133/100

8/6

\$¢6.4

*φ*12.7

# **Concealed Floor Standing Type**

#### Designed to be concealed in the perimeter skirting-wall

• The unit is concealed in skirting-wall of perimeter, that enables to create high class interior design.

•The connecting port faces downward, greatly facilitating on-site piping work.



Applies also to Floor Standing type (FXLQ-MA)

• A long-life filter (maintenance free up to one year\*) is equipped as standard accessory. \* 8 hr/day, 25 day/month. For dust concentration of 0.15 mg/m

### **Specifications**

Note: Specifications are based on the following conditions;

N	ODEL		FXNQ20MAVE	FXNQ25MAVE	FXNQ32MAVE	FXNQ40MAVE	FXNQ50MAVE	FXNQ63MAVE		
Power supply			1-phase, 220-240 V/220 V, 50/60 Hz							
Cooling consoit/		Btu/h	7,500	9,600	12,300	15,400	19,100	24,200		
Cooling capacity		kW	2.2	2.8	3.6	4.5	5.6	7.1		
Heating canacity		Btu/h	8,500	10,900	13,600	17,100	21,500	27,300		
Treating capacity		kW	2.5	3.2	4.0	5.0	6.3	8.0		
Power concumpt	Cooling	kW	0.0	)49	0.090		0.110			
Fower consumpt	Heating	kW	0.0	)49	0.090		0.110			
Casing				FXNQ: Galvanised steel plate						
Airflow rate (H/I	`	l/s	116/100		133/100	183/141	233/183	266/200		
Annow rate (17/	-)	m³/min	7.	7/6		11/8.5	14/11	16/12		
Sound level (H/L	) 240 V	dB(A)		37/34		40/35	41/36	42/37		
Dimensions (H×	V×D)	mm	610×93	30×220	610×1,0	70×220	610×1,350×220			
Machine weight		kg	19	9.0	23.0		27.0			
Distant	iquid (Flare)				\$ 6.4			¢9.5		
Connections	àas (Flare)	mm			φ12.7			¢15.9		
	Irain		210.D.							

Liquid (Flare)

Gas (Flare)

Drain

Cooling

Heating

FXLQ20MAVE

7.500

2.2

8,500

2.5

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. •Heating: Indoor temp.: 20°CDB, Outdoor temp.: 7°CDB, 6°CWB, 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.)

FXLQ25MAVE

9.600

2.8

10,900

3.2

37/34

•Sound level: Anechoic chamber conversion value, measured at a point 1.5 m in front of the unit at a height of 1.5 m

0.049

0.049

116/100

7/6

600×1,000×222

25.0

During actual operation, these values are normally somewhat higher as a result of ambient conditions

**FXLQ-MA** 



FXLQ50MAVE

19.100

5.6

21,500

6.3

233/183

14/11

41/36

0.110

0.110

600×1,420×222

36.0

FXLQ63MAVE

24.200

7.1

27,300

8.0

266/200

16/12

42/37

\$\phi 9.5

 $\phi_{15.9}$ 

### **VRV** Indoor Units

### **FXNQ-MA**





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.
 Heating: Indoor temp.: 20°CDB, Outdoor temp.: 7°CDB, 6°CWB, 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 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 condit

Indoor Unit Lineup

# Residential Indoor Units with connection to BP units

## Ceiling Mounted Cassette (Compact Multi Flow) Type

Quiet, compact, and designed for user comfort

#### •Designed to fit 600 mm wide ceiling grids



•T-bar grid does not need to be cut.



•Comfortable across all areas



Note: Angles shown above are provided as a guide. They may differ depending on the installation site



Option



Note: Remote controller cables not included. Cables should be obtained locally.

•Low draft performance is designed for your comfort.





DAIKIN

as a set.

Signal receiver unit

Note: Wireless remote

controllers and signal receiver units are sold

with 750 mm lift.



### **Specifications**

	MODEL		FFQ25BV1B	FFQ35BV1B	FFQ50BV1B	FFQ60BV1B		
Power supply			1-phase, 220-240 V, 50 Hz					
Airflow rate (H	)	m³/min( l/s)	9.0 (150)	9.0 (150) 10.0 (167)		15.0 (250)		
Sound level (H	1/L)*	dB(A)	29.5/24.5	32/25	36/27	41/32		
Sound power	level (H)	dB(A)	46.5	49	53	58		
Fan speed				2 steps				
Temperature of	ontrol			Microcom	puter control			
Dimensions (H	l×W×D)	mm	286x575x575					
Machine weig	ht	kg		17.5				
<b>.</b>	Liquid (Flare)			\$ 6.4				
Piping	Gas (Flare)	mm	φ!	φ9.5 φ12.7		12.7		
Connoctione	Drain	]		VP20 (External Dia	. 26/Internal Dia. 20)			
Heat insulation	1			Both liquid	and gas pipes			
	Model			BYFQ60B3W1				
Panel	Colour			W	/hite			
(Option)	Dimensions(H×W×D)	mm		55x7	00x700			
	Weight	kg	2.7					

Note: \* Anechoic chamber conversion value, measured according to JIS parameters and criteria. During operation these values are somewhat higher owing to ambient conditions.

## FFQ-B

# Residential Indoor Units with connection to BP units

# **Slim Ceiling Mounted Duct Type**

FDXS-C

# Slim and smooth design suits your shallow ceiling



Standard accessory Option

•Models in the FDXS25/35 series are only 900 mm in width and 25 kg in weight, so are easily installed in limited spaces. Just 200 mm in height, all models can be installed in rooms with as little as 240 mm depth between the drop ceiling and ceiling slab, making them ideal for even shallow ceilings.



- Home Leave Operation prevents large rises or falls in the indoor temperature by continuing operation\* while you are sleeping or out of your home. This means that an air-conditioned welcome awaits when you wake or return. It also means that the indoor temperature can quickly return to your favourite comfort setting.
- \* Home Leave Operation can be selected for any temperature from 18 to 32°C for cooling operation and 10 to 30°C for heating operation.
  \* Home Leave Operation function must be set using the remote controller when going to sleep or leaving the house, and after waking up or returning home.



1. To prevent an increase in operation noise, avoid installing the air suction grille directly below the suction chamber.

Grilles, piping connections, ducts, and installation parts should be obtained locally. Slim Ceiling Mounted Duct type models do not have drain-up pumps.

The signal receiver unit must be located near the air suction inlet, because the unit includes a sensor that detects room temperature.

### **Specifications**

MODEL			FDXS25CVMA	FDXS35CVMA	FDXS50CVMA	FDXS60CVMA	
Power supply			1-phase, 220-240 V/220-230 V, 50/60 Hz				
Airflow rate (H) m <sup>3</sup> /min( l/s)		m³/min( l/s)	9.5 (158)	10.0 (167)	12.0 (200)	16.0 (267)	
Sound level (H	H/L/SL)*	dB(A)	35/3	1/29	37/33/31	38/34/32	
Sound power	(H)	dB(A)	5	3	55	56	
Fan speed			5 steps, quiet and automatic				
Temperature control			Microcomputer control				
Dimensions (H	H×W×D)	mm	200x900x620			200x1,100x620	
Machine weig	ht	kg	2	5	27	30	
Dist	Liquid (Flare)			$\phi$	5.4		
Piping	Gas (Flare)	mm	φ9	9.5	φ	12.7	
Connocación	Drain	]					
Heat insulation			Both liquid and gas pipes				
External static	pressure	Pa	40				

Note: \* The operation sound level values represent those for rear-suction operation and an external static pressure of 40 Pa Sound level values for bottom-suction operation can be obtained by adding 5 dB (A).

## Wall Mounted Type

# Stylish flat panel harmonises with your interior décor

 Intelligent Eye with its infrared sensor automatically controls air conditioner operation according to human movement in a room. When there is no movement, it adjusts the temperature by 2°C for energy savings.



When you are in the room

om When you go ou

•Comfort Airflow Mode prevents uncomfortable drafts from blowing directly on to your body. With this function, when you press the COMFORT button during cooling operation, the flap moves upward to prevent direct cold drafts. During heating operation, it also moves downward to prevent direct drafts and deliver warm air to the floor.



### **Specifications**

MODEL				FTXS20KVMA	FTXS25KVMA	FTXS35KVMA	FTXS50KAVMA	FTXS60KAVMA	FTXS71KAVMA	
Power supply				1-phase, 220-240 V/220-230 V, 50/60 Hz						
Front panel co	lour				White					
Airflow roto (H)	C	ooling	m3/min(1/0)	9.7 (161)		11.3 (188)	14.7 (245)	16.2 (270)	17.4 (290)	
AINOW Tate (H	' H	leating	m7mm(e/s)	10.5	(175)	11.5 (191)	16.2 (270)	17.4 (290)	21.5 (358)	
Sound loval (L)		ooling		38/2	5/22	42/26/23	44/35/32	45/36/33	46/37/34	
Souria level (H/	LISL) H	leating	UD(A)	39/28/25		42/29/26	42/33/30	44/35/32	46/37/34	
O		ooling		5	4	58	60	61	62	
Sound power (	''' H	leating	g ub(A)	55			8	60	62	
Fan speed				5 steps, quiet and automatic						
Temperature c	ontrol			Microcomputer control						
Dimensions (H	l×W×D)		mm	295x800x215			290x1,050x250			
Machine weigh	nt		kg		9	10		12		
Distant	Liquid (F	Flare)				$\phi$	6.4			
connections	Gas (Fla	are)	mm		\$ 9.5		¢1	2.7	¢15.9	
Connocación	Drain				I.D¢14.0xO.D¢18.0					
Heat insulation	1					Both liquid a	nd gas pipes			





FTXS-K(A)

Standard accessory

Option

#### **Titanium Apatite Deodorising Filter**

•While the filter's micron-level fibres trap dust, titanium apatite effectively adsorbs odours and allergens, as well as deodorises odours.



This filter is not a medical device. Benefits such as the adsorption of odours and allergens and deodorisation of odours are only effective for substances which are directly attached to the Titanium Apatite Deodorising Filter.

# **BP Units / BS Units**

## **BP Units** for Connection to Residential Indoor Units

# BS Units for Heat Recovery



#### **Connectable to Residential Indoor Units**

BP units allow VRV systems to be connected to Daikin's stylish and quiet residential indoor units.



#### **Quiet Operating Sound**

Expansion valves tend to create refrigerant passing noise. However, this noise can be reduced by installing the valves in BP units. The units can be fitted inside the ceiling or roof-space far from an indoor unit. Some Daikin residential indoor units also provide minimum sound levels of just 22 dB(A). Together these features ensure your system continues to operate as quietly as possible.



#### **Specifications**



BPMKS967A3

|--|

BPMKS967A2

	МО	DEL		BPMKS967A3	BPMKS967A2		
ower sup	oply			1-phase, 220-240 V/220-230 V, 50/60 Hz			
lumber of ports				3 (connectable to 1-3 indoor units) 2 (connectable to 1-2 indoor un			
ower co	nsumpt	ion	W	10			
Running c	urrent		A	0.	05		
Dimensior	ns (HXV	VXD)	mm	180×294(+	356*)X350		
/lachine v	achine weight kg			8	7.5		
Jumber of wiring connections		tions	3 for power supply (including earth wiring),       2 for power supply (including earth wiring),         2 for interunit wiring (outdoor unit-BP, BP-BP),       2 for interunit wiring (outdoor unit- 3 for interunit wiring (BP-indoor unit)				
	Linudal	Main		∮9.5X1			
'iping	Liquia	Branch	mm	¢6.4X3	\$ 6.4X2		
Brazing)	0.00	Main		¢19.	1X1		
	Gas	Branch		¢15.9X3	¢15.9X2		
leat insul	ation			Both liquid and gas pipes			
Connecta	ble indo	oor units	;	2.0 kW class to 7.1 kW class			
/lin. rated capacity of kW connectable indoor units		kW	2.0				
Aax. rated	d capac ble indo	ity of or units	kW	20.8	14.2		

Note: \* Total auxiliary piping length.

4 branch

000000

16 branch

	MO	DEL		BSQ100AV1	BSQ250AV1		
Power sup	oply			1-phase, 220-240 V, 50 Hz			
No. of bra	nches			1			
Total capacity	index of c	onnectable indoor	runits	20 to 100 More than 100 but 160 or less More than 160 but 250 or			
No. of cor	nectabl	e indoor unit	s	Max. 5 Max. 8 Max. 8			
Casing				Galvanised steel plate			
Dimensior	Dimensions (H×W×D) mm 207×388×326						
	Indoor	Liquid	mm		Ø9.5 (Brazing)	$\phi$ 9.5 (Brazing)	
Dist	Unit	Gas					
connections		Liquid		$\phi$ 9.5 (Brazing)	<i> </i>	$\phi$ 9.5 (Brazing)	
	Outdoor	Suction gas	mm			$\phi$ 22.2 (Brazing) *3	
	Unit	High and low pressure gas	1	<i> </i>			
Machine v	veight		kg	11 11		14	
Sound lev	el		dB(A)	35(40)*4	41(45)*4	41(45)*4	

Note: \* 1. When connecting with an indoor unit with a capacity index between 20 and 50, connect the attached pipe to the field pipe. (Braze the connection between the attached and field pipe.) ★ 2. When connecting with indoor units with total capacity indexes 150 or more and 160 or less, connect the attached pipe to the field pipe. (Braze the connection between the attached and field pipe.)

★ 3. When connecting with indoor units with a capacity index of 200, or with total capacity indexes more than 160 and less than 200, connect the attached pipe to the field pipe. (Braze the connection between the attached and field pipe.) ★ 4. Figures in brackets () indicate maximum value of transient sound (the change of cooling and heating).

. Do not install at the place such as bed room. Small sound of refrigerant will be made, which may be disturbing

### Specifications — Centralised BS Unit

		MO	DEL		BS4Q14AV				
	Power su	Power supply							
	No. of bra		4						
	Capacity index	of connecta	able indoor units of	branch					
	Capacity ind	lex of con	nectable indoor	units	Max. 400				
	No. of conne	ectable in	door units per b	ranch					
F	Casing								
	Dimensio	ns (H×V	V×D)	mm	298×370×43				
		Indoor	Liquid	mm					
		Unit	Gas						
	Piping	nnections Unit	Liquid	mm	¢9.5 Brazing				
	connections		Suction gas		¢22.2 Brazir (¢19.1)*²				
			High and low pressure gas		¢19.1 Brazir (¢15.9)*²				
	Machine v	weight	kg	17					
	Sound lev	vel	dB(A)	38(45) <sup>*3</sup>					
	Drain pipe	e size		mm					

3. Figures in brackets () indicate maximum value of transient sound (the change of cooling and heating).
 Must be installed in locations where the noise generated by the BS unit does not cause any problem.

#### Specifications — Individual BS Unit

#### /1 BS6Q14AV1 BS8Q14AV1 BS10Q14AV1 BS12Q14AV1 BS16Q14AV1 1-phase, 220-240 V, 50 Hz 10 8 12 16 6 Max. 140 Max. 600 Max 750 5 Galvanised steel plate 298×580×430 298×1060×430 30 298×820×430 *ϕ*6.4, *ϕ*9.5 Brazing<sup>\*1</sup> φ12.7, φ15.9 Brazing\* φ<sup>\*2</sup> φ12.7 Brazing<sup>\*2</sup> φ<sup>4</sup>12.7 Brazing φ<sup>4</sup>15.9 Brazing<sup>\*2</sup> φ<sup>4</sup>15.9 ¢19.1 Brazing<sup>★2</sup> ng $\phi$ 28.6 Brazing<sup>\*2</sup> ¢28.6 Brazing(¢34.9)\*2 ¢34.9 Brazing<sup>★2</sup> ng $\phi$ 19.1 Brazing $\phi$ 19.1 Brazing $(\phi$ 22.2)\*2 $(\phi$ 22.2,28.6)\*2 ¢28.6 Brazing<sup>★2</sup> 50 24 38 26 35 39(47)\*3 40(48)\*3 41(49)<sup>\*3</sup> VP20 (External Dia. 26/Internal Dia. 20)

Note: 🗙 1. When connecting with an indoor unit with a capacity index between 20 and 50, connect the attached pipe to the field pipe.

(Braze connection between the attached and field pipe.) In case of others, cut the outlet pipe and connect to the connecting pipe.

★ 2. Reducer may be required (obtain locally) if joint diameter does not fit on the triple piping side. Figures in brackets () is the size when using the attached reducer. Insulators are necessary (obtain locally) for piping connections on the outdoor unit side.

Units Units / BS BD

# Air Handling Unit

# Air Handling Unit

Integrate your air handling unit in a total solution for large size spaces such as factories and large stores.





• Easy design and installation

• The system is easy to design and install since no additional water systems such as boilers, tanks and gas connections etc are required.

- •Inverter controlled units
- •Control of air temperature via standard Daikin wired remote control for standard series



Daikin air handling units can be connected to VRV systems.

This combination can be built to order as a system. Outdoor air series is also possible. Please contact your local sales office for details.



# **Air Handling Unit**

# Air Treatment Equipment Lineup



A recent trend rapidly gaining popularity is for air treatment to be required as well as air conditioning. Daikin's 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 \*,<sup>1</sup>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: VAM150/250/350/650/800/1000/2000GJVE \*2 For models: VAM150/350/500GJVE

		Outdoor-Air		Heat Recla	im Ventilator	
		Processing Unit	VKM-GAM Type	VKM-GA Type	VAM-GJ Type	
		Ventilation Humidification Air Processing*	Ventilation Humidification Air Processing*		Ventilation Humidification	
			001			
Refrigerant Piping		Connectable	Connectable		Not connectable	
Connections	Wiring	Connectable	Conne	ctable	Connectable	
system	After-cool & After-heat Control	Available	Available		Not available	
Heat Exchai	nge Element	_	Energy savings obtained		Energy savings obtained	
Humidifier		-	Fitted	_	_	
High Efficier	ncy Filter	Option	Opt	ion	Option	
Ventilation S	System	Air supply only	Air supply &	air exhaust	Air supply & air exhaust	
Power Supp	bly	220-240 V, 50 Hz	220-240	V, 50 Hz	220-240 V/220 V, 50/60 Hz	
Airflow Rate			500 800	m³/h m³/h m³/h	150 m³/h 250 m³/h 350 m³/h 500 m³/h 650 m³/h 800 m³/h	
		1080 m³/h 1680 m³/h	1000	111711	1500 m <sup>3</sup> /h	
		2100 m <sup>3</sup> /h			2000 m³/h	

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

# Air Treatment Equipment Lineup

# Outdoor-Air Processing Unit

#### Combine fresh air treatment and air conditioning, supplied from a single system.



Fresh air treatment and air conditioning can be achieved with a single system by using heat pump technology—without the usual troublesome air supply and air discharge balance design. Fan coil units for air conditioning 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.



#### Air conditioning 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
- 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.
   Because connection is possible depending on conditions ever when the capacity index of outdoor-air processing units exceeds 30% of the capacity index of the
- Because connection is possible depending on conditions ever when the capacity index of outdoor-air processing units exceeds 30% of the capacity index of the outdoor units, contact your local distributor.
- Outdoor-air processing units can be used without indoor units.

- The unit introduces outdoor air and adjusts the outdoor air temperature via fixed discharge temperature control, thereby reducing the air conditioning load.
- \* The system can operate with outdoor-air temperatures ranging from -5 to 43°C. Heating performance is somewhat adversely affected when the outdoor-air temperature is 0°C or below.
- \* When shipped from the factory, the thermostat is set at 18°C for cooling and 25°C for heating. The set temperature can be varied within the range of 13–25°C during cooling operation, and 18–30°C during heating operation, in the local setting mode using the wired remote controller. The temperature, however, is not displayed on the remote controller.
- \* While in machine protection mode and depending on outdoor air conditions, discharge air temperature may not be at the set temperature.
- \* The fan stops when operating in defrosting, oil returning and hot start operations. The fan also may stop due to mechanical protection control.
- Ceiling mounted duct units with three differing capacities are available. These can be connected to VRV series outdoor units to meet a variety of different requirements.

Airflow rate					
FXMQ125MFV1	1,080 m³/h				
FXMQ200MFV1	1,680 m³/h				
FXMQ250MFV1	2.100 m³/h				

- Optional equipment includes long-life filters.
- Compatible with outdoor temperatures from -5°C to 43°C.



- Indoor and Outdoor Unit
- Effective piping length: 7.5 m
- Height differential: 0 m
- The discharge temperature can be set using the remote controller. However, the actual temperature may not match the temperature setting under some circumstances due to the outdoor-air processing load or mechanical protection controls.
- 3. The system will not operate in fan mode when the outdoor air temperature is  $5^\circ\text{C}$  or below.

- High-performance filters with dust collection efficiencies (JIS calorimetry) of 90% and 65% are also available as options.
- As with the VRV system, a variety of control systems can be deployed, including remote control from distances of up to 500 m.
- \* Group control is not possible between this unit and standard type indoor units. Connect remote controllers to each unit.



BRC1E63 "Nav Ease" (Wired remote controller) (option)

- The "self-diagnosis function" indicates the occurrence and nature of abnormalities in the system by displaying codes on the remote controller.
- A central control system compatible with the VRV system can be installed.
- \* It is not possible to change the discharge air temperature settings from the central control system.
- \* Do not associate this equipment into zones with standard indoor units, as central control will not be possible.



DCS302CA61 Central remote controller (option)

 As with the VRV system, the equipment employs the "super wiring system" so that the wiring linking indoor and outdoor units can also be utilised for central control.

#### Note:

- \* Linked control of the product and the Heat Reclaim Ventilator is not supported.
- \* This equipment is intended for the treatment of outdoor air only. It is not to be used for maintaining indoor air temperature. Install and use with standard indoor units. Be sure to position the air discharge openings of the product in positions where the airflow will not blow on people directly. When outdoor-air processing is in excess, the unit switches to thermo-off mode, and outdoor air flows into the room directly.
- \* For outdoor ducts, be sure to provide heat insulation to prevent condensation.
- Group control of the product and the standard indoor units is not supported. A separate remote controller should be connected to each individual unit.
- \* The system will not operate in fan mode when the outdoor air temperature is 5°C or below.
- \* If the product is allowed to operate 24 hours a day, maintenance (part replacement, etc.) must be performed periodically.
- \* Temperature setting and Power Proportional Distribution (PPD) are not possible even if the intelligent Touch Controller or the intelligent Touch Manager is installed.
- \* The remote controller wired to the outdoor-air processing unit must not be set as the master remote controller. Otherwise, when set to "Auto," the operation mode will switch according to the outdoor air conditions, regardless of the indoor temperature.

# Air Treatment Equipment Lineup

# Standard Specifications

#### Indoor unit

Туре				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			Btu/h	47,800	76,400	95,500	
			kW	14.0	22.4	28.0	
Heating capacity *1			Btu/h	30,400 47,400		59,400	
			kW	8.9 13.9		17.4	
Power cor	nsumption		kW	0.359	0.548	0.638	
Casing				Galvanised steel plate			
Dimensions (H×W×D)			mm	470X744X1,100 470X1,380X1,100		30X1,100	
	Motor output	Motor output		0.380			
Fan	Airflow rate	Airflow rate		300	466	583	
. can			m³/min	18	28	35	
	External static pressure	240 V	Pa	225	275	255	
Air filter				*2			
	Liquid		mm	¢ 9.5 (flare)			
Refrigerant	Gas		mm	φ 15.9 (flare)	$\phi$ 19.1 (brazing)	$\phi$ 22.2 (brazing)	
111.3	Drain		mm	PS1B female thread			
Machine	Machine weight k			86 123		23	
Sound level *3 240 V		dB(A)	43	4	8		
Connectable outdoor units *4				6 class and above 8 class and above		10 class and above	
Operation range			Cooling	19 to 43°C			
(Fan mode operation between 15 and 19°C)		Heating	-5 to 15°C				
Range of the discharge temperature *5		Cooling	13 to 25°C				
			Heating	18 to 30°C			

Note: \*1. Specifications are based on the following conditions:

Cooling: Outdoor temp. of 33°CDB, 28°CVB (66% RH), and discharge temp. of 18°CDB.
 Heating: Outdoor temp. of 0°CDB, -2.9°CVB (60% RH), and discharge temp. of 25°CDB.
 Equivalent reference piping length: 7.5 m (0 m horizontal)
 An intake filter is not supplied, so be sure to install the optional long-life filter or

An enhance merchanism of bags and bags to be out on status are optimized and enhance the high-efficiency filter. Pleases mount it in the duct system of the suction side. Select a dust collection efficiency (gravity method) of 50% or more.
An enchoic 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



#### Indoor unit

Model			FXMQ125MFV1 FXMQ200MFV1 FXMQ25		FXMQ250MFV1		
ation/control	Operation remo	ote controller	BRC1E63 / BRC2E61				
	Central remote	controller	DCS302CA61				
	Unified ON/OF	F controller	DCS301BA61				
	Schedule timer		DST301BA61				
Dper	Wiring adaptor for electrical appendices (1)		KRP2A61				
	Wiring adaptor fo	or electrical appendices (2)	KRP4AA51				
	Long-life replacement filter		KAFJ371L140	KAFJ371M280			
ers	High-efficiency	Colourimetric method 65%	KAFJ372L140 KAFJ372M280				
Filte	filter	Colourimetric method 90%	KAFJ373L140	KAFJ373M280			
	Filter chamber *1		KDJ3705L140	KDJ3705L280			
PM2.5 filtration unit *2			BAF429A20A				
PM2.5 with activated carbon filtration unit *2			BAF429A20AC				
Drain pump kit			KDU30L250VE				
Adaptor for wiring			KRP1B61				

Note : \*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 or

\*2. Refer to page 168-170 for details.

· Some options may not be used in combination

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Operating sound may increase somewhat depending on the options used.

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

4. It is possible to connect to bottle of unit in the total equality of the indice units is 50% to 100% of the capacity index of the outdoor unit.
\*5. Local setting mode. Not displayed on the remote controller.
• This equipment cannot be incorporated into the remote group control of the VRV system.

# Dimensions

#### FXMQ125/200/250MFV1





#### FXMQ200/250MFV1





#### Local connection piping size

Model	Gas piping diameter	Liquid piping diameter	
FXMQ125MFV1	<i>ф</i> 15.9	φ9.5	
FXMQ200MFV1	$\phi$ 19.1 attached piping	φ9.5	
FXMQ250MFV1	$\phi$ 22.2 attached piping	φ9.5	

#### Table of dimensions

Model	Α	В	С	D
FXMQ125MFV1	744	685	5X100=500	20- $\phi$ 4.7 hole
FXMQ200MFV1	1380	1296	11X100=1100	32-φ4.7 hole
FXMQ250MFV1	1380	1296	11X100=1100	32- <i>\$</i> 4.7 hole

Note:

- 1. The attached piping in the diagram is for FXMQ200MFV1 and FXMQ250MFV1 only. The gas piping connection port ( 2) in 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 ⑦ Power supply wiring connection 2 Gas pipe connection (8) Transmission wiring connection ③ Drain piping connection ④ Hanger bracket ④ Electric parts box 1 Discharge companion flange (5) Ground terminal 1 Water supply port 6 Name plate (2) Attached piping (Note. 1)

#### FXMQ125MFV1

