



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





PERFECT FEATURES



**Daikin Streamer Technology** Enhances maximum efficiency in cleaning, which uses powerful decomposition properties to decompose substances captured by filter for better air quality.

# **New Products Information**

# Streamer Technology in VRV indoor unit





FXFTQ-AVS / FXFRQ-AVS



### STREAMER TECHNOLOGY



Irradiate streamers when the fan and air conditioning operation is stopped. The streamer fumigates the cabin and sterilizes the filter.

#### Why Daikin Streamer?

Equipped with decomposition technology, Streamer is a type of plasma discharge that eliminates allergens such as pollen, mould, and mites, as well as, deodorises anti-bacterial dust filters so you can breathe with ease.

#### Mechanism of decomposition by Streamer



Streamer emits high-speed electrons.



The electrons collide and combine with nitrogen and oxygen in the air to form four kinds of decomposing



The decomposing elements provide decomposition power.

# Stylish Remote Controller



### A complete redesigned controller focused to enhance user experience



• 21 ×

BRC1H63W (White)

BRC1H63K (Black)



red<mark>dot</mark> design award

- $\checkmark$  Two attractive colors to match any interior
- ✓ Compact, measures only 85 x 85 mm
- Easy setting via Bluetooth App with smartphone (for Installer/Facility manager)
- ✓ Improved setback function to keep hotel room comfortable



✓ Improved Setback Function✓ 4 types of new ventilation related icons

# Air Treatment Equipment

### Heat Reclaim Ventilator VAM-H Series

Controlling the necessary elements will improve the quality of ventilation. Ventilation volume control with CO<sub>2</sub> sensor interlocking Energy saving ventilation (interlocked with air conditioner)





# High Value Smart Solution Creation for Different Application

# Reiri



**Reiri for office** (Touchscreen Controller)



- Reiri for office
- (Controller Extension) • **Reiri for office** 
  - (Multisite Extension) • Reiri for Home



Reiri for Home

• Reiri for Hotel

• Reiri for Resort

(Lite Version)

### For Office

Building Automation System

### For Home

Smart Home Solution



Air Conditioning Guestroom Interlocking Management

# Bedroom Duct

#### Page **32**

# Suitable for close living spaces such as hotels and condominiums

- ✓ Only 700 mm width, installation is possible even in narrow entrance ways at hotels and condominiums.
- ✓ Control of airflow rate can be selected from 5-step and Auto to provide comfortable airflow.
- ✓ Mirror piping allows pipe installation from either side of indoor unit, simplified design process and installation.



FXDBQ-A



# Wide Range Indoor Unit Lineup Create Comfortable Airflow

4

VR	<b>V</b> indoor un		New lineup	VRT smar	t VRT	oor uni smari	its sub t conti	oject to rol		VRT	Indoor units subject to VRT control			STR		Strean Techn	her ology		
Category	Туре	Model Name		Capacity Range Capacity Index	20 0.8 HP 20	25 1 HP 25	32 1.25 HP 31.25	40 1.6 HP 40	50 2 HP 50	63 2.5 HP 62.5	71 3 HP 71	80 3.2 HP 80	100 4 HP 100	125 5 HP 125	140 6 HP 140	200 8 HP 200	250 10 HP 250	400 16 HP 400	500 20 HP 500
		FXFSQ-AVS	VRT smart																
	Round Flow Cassette with Sensing	FXFTQ-AVS	VRT smart	+															
sette	Round Flow Cossetto	FXFQ-AVS	VRT smart	6															
inted Cas	Round Flow Casselle	FXFRQ-AVS	VRT smart	+															
iling Mor	Compact Multi	FXZQ-MVES	VRT	-															
Cei	Flow Cassette	FXZQ-BV2S	VRT smart	+ • *															
	Double Flow Cassette 🕷	FXCQ-BVMS	VRT smart	+ • • • • • • • • • • • • • • • • • • •															
	Single Flow Cassette	FXEQ-AV36	VRT																
	3D Airflow Duct with Sensing	FXDSQ-AVM	VRT																
Duct	Slim Duct (Standard)	FXDQ-PDV2S (with drain pump) FXDQ-PDVTS (without drain pump) FXDQ-NDV2S (with drain pump) EXDQ-NDVTS	VRT smart VRT smart VRT	(700 mm width type)	•		•												
ealed D	Rodroom Duct	(without drain pump) FXDBQ-AVMS	smart VRT	width type	       														
ng Conc	Slim Duct (Compact)	(with drain pump)	VRT																
Ceiling Conce	Middle Static	FXSQ-PAVS	VRT																
	Middle-High Static Pressure Duct	FXMQ-PAVS	VRT smart																
		FXMQ-MVES	VRT																
	High Static Pressure Duct	FXMQ-PVM	VRT smart																
	Outdoor-Air Processing Unit	FXMQ-MFV1	VRT																
led	4-Way Flow Ceiling	EXUQ-AVER	smart VRT		       														
Suspend	Suspended	FXHQ-MAVS	VRT																
ceiling S	Ceiling Suspended	FXHQ-BVMS	VRT smart	+ <															
W	all Mounted	FXAQ-AVMS	VRT smart	STREAMER															
	Floor Standing	FXLQ-MAVE	VRT																
anding	Concealed Floor Standing	FXNQ-MAVE	VRT																
floor St		FXVQ-NY1	VRT																
	Floor Standing Duct	FXVQ-NY16 (high static pressure type)	VRT																
Cle	an Room Air Conditioner	FXBQ-PVE	VRT																
010		FXBPQ-PVE	VRT																
He	eat Reclaim Ventilator th DX-Coil	VKM-GCVE			Airfl	.ow ra	te 500-	-1000 r	m3/h										
He	eat Reclaim Ventilator	VAM-HVE		001	Airfl	.ow ra	te 150-	2000 г	m3/h										
Ai	Air Handling Unit AHUR			6-120 HP															
Du	uct Streamer Chamber 🛛 🔃	BDEZ500A-VE			Airfl	.ow ra	te 80-5	5100 m	13/h										

# **INDOOR UNIT LINEUP**

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







### **3D Airflow Duct with Sensing Type**

3D airflow with sensing function for comfort and energy savings



#### **Bedroom Duct**

Suitable for close living spaces such as hotels and condominiums



### High Static Pressure Duct Type

High static pressure allows for flexible duct design.





**Double Flow Cassette Type** Thin, lightweight, and easy to install in narrow ceiling spaces



# FXCQ-BVMS (Streamer)

Slim Duct (Standard) Type

Slim design, quietness and ideal for drop-ceilings



Middle Static Pressure Duct Type Middle static pressure and slim design allow flexible installations.









Single Flow Cassette Type Slim design for flexible installation



Slim Duct (Compact) Type Slim and compact design for easy and flexible installation



Middle-High Static Pressure **Duct Type** Middle and high static pressure

allows for flexible duct design.





FXMQ-PAVS

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# **Round Flow Cassette with Sensing Type**

# FXFSQ-A

Comfort and energy saving by sensing functions



with sensing

# Daikin advanced sensing technology dual sensors

Comfort and energy saving by sensing functions



## Comfort and energy saving preventing over cooling Comfort

Sensors detecting human presence and temperatures near the floor provide comfortable spaces without uneven temperatures.



# Auto airflow function Comfort

\*When human is not detected for 5 minutes, the unit automatically returns to controlling the flaps for an unoccupied room.



# Sensing sensor mode Energy Saving

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

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



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

Based on preset user conditions, the system automatically stops operation if the room is unoccupied.

\*Adjustment is possible for shift time and set temperature by local setting.

# **Round Flow Cassette with Sensing Type**

# Circulation airflow\*

# Configurations of circulation airflow

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





# Individual airflow direction control

\* Applicable when wired remote controller BRC1E63 is used.

## Comfortable air conditioning for all room layouts and conditions

### Easy setting is possible with a wired remote controller

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



### Comfort is provided to the entire room by individual setting corresponding to 4-way flow conditions.



# **Round Flow Cassette with Sensing Type**

# Other functions

# Comfort

From All-round flow to 2-way flow, various airflow patterns available.

All-round flow



3-way flow





**Opposite 2-way flow** 



(E.g., installed in middle of ceiling) 4-way flow also possible.

### .....

(E.g., installed in a corner)

(E.g., installed in a long room)

### Suitable for high ceilings

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

## Quick and easy installation

### Installable in tight ceiling spaces

Min. of 261 mm\* ceiling space when using standard panel. \* For FXFSQ25-80A models.

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



## 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.

### Just open the suction grille!

Drain outlet (with rubber plug) Note: For inquiries concerning auto grille panel installations, please contact your local dealer or Daikin representative.



## Cleanliness

### Silver ion anti-bacterial drain pan

Prevents the growth of slime, bacteria, and mould that cause odours and clogging.

\* Drain pan should be changed once every two to three years.

### Filter has anti-mould and antibacterial treatment





# Panel (Option)



Standard panel with sensing BYCQ125EEF (Fresh White)



Standard panel with sensing BYCQ125EEK (Black)

### **Specifications**

	MODEL		FXFSQ25AVS	FXFSQ32AVS	FXFSQ40AVS	FXFSQ50AVS	FXFSQ63AVS	FXFSQ80AVS	FXFSQ100AVS	FXFSQ125AVS	FXFSQ140AVS			
Power supp	ly		1-phase, 220 V, 50 Hz											
Cooling capacity Bt		Btu/h	9,600	9,600 12,300		19,100	24,200	30,700	38,200	47,800	54,600			
		Btu/h*	9,600	12,300	15,500	19,300	24,400	30,900	38,400	48,100	54,900			
		kW	2.8 / 2.8*	3.6 / 3.6*	4.5 / 4.6*	5.6 / 5.7*	7.1 / 7.2*	9.0 / 9.1*	11.2 / 11.3*	14.0 / 14.1*	16.0 / 16.1*			
Power consumption kW			0.0	128	0.035	0.056	0.061	0.092	0.164	0.170	0.194			
Casing				Galvanised steel plate										
A. (I	(1.1.(1.15.4.(5.4.(5.41.(1.)	m³/min	13/12.5/1	13/12.5/11.5/11/10 1		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			
Airtiow rate (	(H/HM/M/WL/L)	cfm	459/441/406/388/353		600/477/441/424/388	812/724/671/512/388	830/741/706/565/477	865/777/724/706/530	1,183/1,077/953/830/741	1,218/1,112/1,006/900/812	1,253/1,147/1,041/935/812			
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			256×84	40×840			298×840×840					
Machine wei	ight	kg		19		24	2	2	2	5	26			
D: .	Liquid (Flare)			<b>\$</b> 6	i.4		\$ 9.5							
connections	Gas (Flare)	mm		\$ 1:	2.7		¢15.9							
	Drain					VP25 (Exte	VP25 (External Dia, 34/Internal Dia, 25)							

Note: Specifications are based on the following conditions; •Cooling: Indoor temp.: 27°CDB, 19°CWB,; <u>\*27°CDB, 19.5°CWB</u>, Outdoor temp.: 35°CDB, Equivalent piping length: 7.5 m, Level difference: 0 m, •Capacity of indoor unit is only for reference. Actual capacity of indoor unit is based on the total capacity index. (See Engineering Data Book for details.) •Sound level: Anechoic chamber conversion value, measured at a point 1.5 m downward from the unit centre. During actual operation, these values are normally somewhat higher as a result of ambient conditions.

### Panel (Option)

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

### **Function List**

Pomoto controllor	Wired	Wireless
Remote controller	BRC1E63	BRC7M635F(K)
Dual sensors *1	0	—
Direct airflow *1	0	—
Sensing sensor low mode *1	0	—
Sensing sensor stop mode *1	0	—
Circulation airflow	0	_
Individual airflow direction control	0	—
Switchable 5 step fan speed	0	0
Auto airflow rate	0	0
Auto swing	0	0
Swing pattern selection	0	0
High ceiling application	0	_

\*1. Applicable when sensing panel is installed.

# **Round Flow Cassette Type**

# FXFQ-A

360° airflow for improved comfort

# Circulation airflow\*

# Configurations of circulation airflow

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

#### Cooling



#### Comfort without cold air pockets at floor level.

**Comparison Conditions** Room size: Width 7.5m x depth 7.5m x height 2.6m Indoor unit capacity: 71 class Outdoor air temperature: 35°C Airflow rate and air direction: high / swing



Circulation Airflow reduce uneven temperatures (2-way horizontal + 4-way swing)



\* Calculated under the following comparison conditions: When the average temperature at a height of 0.6m above the floor reaches set temperat ure. [26°C]





# Individual airflow direction control

\* Applicable when wired remote controller BRC1E63 is used.

# Comfortable air conditioning for all room layouts and conditions

### Easy setting is possible with a wired remote controller

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



# Comfort is provided to the entire room by individual setting corresponding to 4-way flow conditions.



# **Round Flow Cassette Type**

# Other functions

# Comfort

From All-round flow to 2-way flow, various airflow patterns available.

#### All-round flow



#### 3-way flow





#### **Opposite 2-way flow**



(E.g., installed in middle of ceiling) 4-way flow also possible.

#### (E.g., installed near a wall)

#### (E.g., installed in a corner)

(E.g., installed in a long room)

### Suitable for high ceilings

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

# Quick and easy installation

### Installable in tight ceiling spaces

Min. of 261 mm\* ceiling space when using standard panel. \* For FXFQ25-80A models

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



## 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.

### Just open the suction grille!

Drain outlet (with rubber plug) Note: For inquiries concerning auto grille panel installations, please contact your local dealer or Daikin representative.



## Cleanliness

### Silver ion anti-bacterial drain pan

Prevents the growth of slime, bacteria, and mould that cause odours and clogging.

\* Drain pan should be changed once every two to three years.

### Filter has anti-mould and antibacterial treatment





### Standard panel



Standard panel BYCQ125EAF (Fresh White)



Standard panel BYCQ125EAK (Black)

FLAT Flatter styling: Suction panel grid texture smoothed.

**CLEAN** 

Clean-cut form:

#### New designer panel

Designer choice has been given a boost with the increase in number of new types of decoration panels.



**Designer** panel BYCQ125EAPF (Fresh White)

Close to ideal styling New designer panel

Subtle distinction: around suction inlets silvering is a tasteful touch.



# Auto grille panel (option)

Grille and air filter cleaning can be performed without need for a stepladder by lowering the grille.

A dedicated remote controller for the auto grille panel (BRC16A2) is included. Operation is not possible using BRC1E63.



Grille panel can be lowered to a maximum of 3.9 m. BYCQ125EASF (Fresh White)

### **Specifications**

	MODEL		FXFQ25AVS	FXFQ32AVS	FXFQ40AVS	FXFQ50AVS	FXFQ63AVS	FXFQ80AVS	FXFQ100AVS	FXFQ125AVS	FXFQ140AVS			
Power suppl	ly		1-phase, 220 V, 50 Hz											
		Btu/h	9,600	12,300	15,400	19,100	24,200	30,700	38,200	47,800	54,600			
Cooling capa	acity	Btu/h*	9,600	12,300	15,500	19,300	24,400	30,900	38,400	48,100	54,900			
		kW	2.8 / 2.8*	3.6 / 3.6*	4.5 / 4.6*	5.6 / 5.7*	7.1 / 7.2*	9.0 / 9.1*	11.2 / 11.3*	14.0 / 14.1*	16.0 / 16.1*			
Power consu	Imption	kW	0.0	)29	0.036	0.040	0.063	0.096	0.158	0.178	0.203			
Casing				Galvanised steel plate										
Airflow roto /		m³/min	13/12.5/1	1.5/11/10	17/13.5/13/12/11	18/17/13.5/12.5/11	21/20/16/15/13.5	22.5/21.5/21/20/15	32/29/26/23/21	33/30.5/28/25.5/21	35.5/32.5/29.5/26.5/23			
AIMOWIALE		cfm	459/441/40	459/441/406/388/353		635/600/477/441/388	741/706/565/530/477	794/759/741/706/530	1,130/1,024/918/812/741	1,165/1,077/988/900/741	1,253/1,147/1,041/935/812			
Sound level	(H/HM/M/ML/L)	dB(A)	30/29.5/2	8.5/28/27	35/29.5/29/28/27	15/29.5/29/28/27 35/33.5/29.5/28.5/27 36/35.5/31.5/31/28 37/36.5/36/35.5/29.5 43/40.5/37.5/35/33 44/41.5/39/36.					46/43.5/40.5/38/35			
Dimensions	(H×W×D)	mm			256×8	40×840								
Machine weight		kg		1	9		2	2	2	5	26			
D	Liquid (Flare)			$\phi$	6.4		\$ 9.5							
connections	Gas (Flare)	mm		φ.	12.7		¢ 15.9							
	Drain					VP25 (Exte	ternal Dia, 34/Internal Dia, 25)							

Note: Specifications are based on the following conditions; •Cooling: Indoor temp.: 27°CDB, 19°CWB,; <u>\*27°CDB, 19.5°CWB</u>, Outdoor temp.: 35°CDB, Equivalent piping length: 7.5 m, Level difference: 0 m. •Capacity of indoor unit is only for reference. Actual capacity of indoor unit is based on the total capacity index. (See Engineering Data Book for details.) •Sound level: Anechoic chamber conversion value, measured at a point 1.5 m downward from the unit centre. During actual operation, these values are normally somewhat higher as a result of ambient conditions.

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

Ctondord	Model		BYCQ125EAF (Fresh White ) / BYCQ125EAK (Black)
panel	Dimensions(H×W×D)	mm	50×950×950
	Weight	kg	5.5
Designed	Model		BYCQ125EAPF (Fresh White)
panel	Dimensions(H×W×D)	mm	97×950×950
1. · · ·	Weight	kg	6.5
Auto	Model		BYCQ125EASF (Fresh White)
grille	Dimensions(H×W×D) mi		105×950×950
panel	Weight	kg	8

### **Function List**

Remete controller	Wired	Wireless
Remote controller	BRC1E63	BRC7M635F(K)
Circulation airflow	0	—
Individual airflow direction control	0	_
Switchable 5 step fan speed	0	0
Auto airflow rate	0	0
Auto swing	0	0
Swing pattern selection	0	0
High ceiling application	0	_

# **Round Flow Cassette Type with Streamer**

# FXFTQ-AVS / FXFRQ-AVS

Enhances maximum efficiency in cleaning, which uses powerful decomposition properties to decompose substances captured by filter for better air quality.







Irradiate streamers when the fan and air conditioning operation is stopped. The streamer fumigates the cabin and sterilizes the filter.



Stylish Remote Controller BRC1H63W/K

#### **Remarks**:

1) Only the remote controller BRC1H63W(K) can be connected for ON /OFF operation of the streamer.

2) Streamer function operates when the fan stops after the air conditioning operation is stopped. The maximum operation of streamer is 180 minutes per day. (*This function is available only when the remote controller BRC1H63W*( $\kappa$ ) *is connected.*)

Streamer function unit is built-in inside the indoor unit for efficient cleaning function.



Wired remote controller	Mode	l name
BRC1H62W/K	FXFTQ-A	FXFRQ-A
Streamer function unit	1	1
Dual sensors*	1	×
Sensing sensor low mode*	$\checkmark$	×
Sensing sensor stop mode*	1	×
Individual airflow direction control	$\checkmark$	1
Switchable 5 step fan speed	$\checkmark$	1
Auto airflow function (Draft prevention)*	1	×
Auto swing	1	1
Swing pattern selection	1	1
High ceiling application	$\checkmark$	1

Note : \*Applicable when sensing panel is installed.

# Why Daikin Streamer?

Equipped with decomposition technology, Streamer is a type of plasma discharge that eliminates allergens such as pollen, mould, and mites, as well as, deodorises anti-bacterial dust filters so you can breathe with ease.

### Mechanism of decomposition by Streamer



Streamer emits high-speed electrons.



The electrons collide and combine with nitrogen and oxygen in the air to form four kinds of decomposing



The decomposing elements provide decomposition power.

### Streamer decomposes and eliminates allergens such as pollen, mould, and mites



Proved with 13 pollen based allergens including cedar pollen and cypress pollen.

Proved with 6 fungal allergens including Alternaria and Eurotium.

Pollen, mould, and mites (dead mites) were placed on the electrode of the Streamer Discharge unit and then photographed through an electron microscope after being irradiated with Streamer Discharge for 15 minutes. <A Joint research with Wakayama Medical University.>

# Demonstration of the inactivation effects against 6 types of Coronavirus variants by Streamer technology.

\*Each survival rate is calculated by comparison with the rate of natural attenuation of each hour.



#### Test Organization:

Conventional strain: Faculty of Veterinary Medicine, Okayama University of Science Alpha, Beta, Gamma, Delta, and Omicron strain: Research Institute for Microbial Diseases, Osaka University

**Test Method:** Quantification was performed by the TCID50 method using an acrylic box of about 31L. The virus loads were quantified using Vero E6 / TMPRSS2 cells. \*This result was obtained by using a Streamer discharge device for testing in lab conditions. The effect of products equipped with Streamer technology or results in actual use environments may differ.

### % Deactivate (New) variant of SARS-CoV-2 leftover from Streamer discharge



In June 2021, Daikin Collaborated with Mahidol University to test the efficacy of Streamer technology against SARS-CoV-2. The test comfirms that Daikin Streamer can deactivate 99.9% of SARS-CoV-2 within 4 hours.

# Daikin advanced sensing technology

### **Dual Sensors**

Comfort and energy saving by sensing functions



Sensing sensor low mode (default: OFF) When there are no people in a room, the set temperature is shifted automatically.

Example • Cooling setpoint: 26°C • Shift temperature: 1.0°C • Shift time: 30 min. • Limit cooling temperature: 30°C



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

Based on preset user conditions, the system automatically stops operation if the room is unoccupied.

\*Adjustment is possible for shift time and set temperature by local setting.

## Individual airflow direction control

Comfortable air conditioning for all room layouts and conditions

Easy setting is possible with a wired remote controller Airflow direction can be individually adjusted for each air discharge outlet to deliver optimal air distribution.

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

Individual settings are possible as stated above.



Swing swing is set for meetings near the windows. Large blow is provided to meeting areas. No individual setting (Auto airflow) No individual setting (Auto airflow) Blow reduced for areas with few people.



# Quick and easy installation

Installable in tight ceiling spaces



Min. of 261 mm\* ceiling space when using standard panel. \*For FXFTQ/FXFRQ25-80A models.

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

## Cleanliness

Silver ion anti-bacterialdrain pan

Prevents the growth of slime, bacteria, and mould that cause odours and clogging.



\* Drain pan should be changed once every two to three years. Filter has anti-mould and antibacterial treatment

# **Easy maintenance**

Drain pan and drain water check

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



### **Specification**

MOD	EL NAME		FXFTQ25AVS	FXFTQ32AVS	FXFTQ40AVS	FXFTQ50AVS	FXFTQ63AVS	FXFTQ80AVS	FXFTQ100AVS	FXFTQ125AVS	FXFTQ140AVS		
Power supply			VM: 1-phase, 220-240 V/220-230 V, 50/60 Hz or V4/VS: 1-phase, 220 V, 50 Hz										
Cooling capacity Btu/h* kW		9,600	12,300	15,400	19,100	24,200	30,700	38,200	47,800	54,600			
		Btu/h*	9,600	12,300	15,700	19,500	24,600	30,800	38,600	48,200	55,000		
		kW	2.8/2.8*	3.6/3.6*	4.5/ 4.6*	5.6 / 5.7*	7.1//7.2*	9.0/9.0*	11.2 / 11.3*	14.0 / 14.1*	16.0/16.1*		
Power consumption	kW	0.0	)28	0.035	0.056	0.061	0.092	0.164	0.170	0.194			
Casing				Galvanised steel plate									
A :		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		
AITTIOW FATE (H/HIVI/IVI/IV	IL/L)	cfm	459/441/406/388/353		600/477/441/424/388	812/724/671/512/388	830/741/706/565/477	865/777/724/706/530	1,183/1,077/953/830/741	1,218/1,112/1,006/900/812	1,253/1,147/1,041/935/812		
Sound level (H/HM/M/M	L/L)	dB(A)	30/29.5/2	30/29.5/28.5/28/27		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			256×84	256×840×840				298×840×840			
Machine weight		kg		19		24	2	2	2	.5	26		
	Liquid (Flare)			φ 6	5.4		¢9.5						
Piping connections	Gas (Flare)	mm		¢ 1	2.7				¢ 15.9				
	Drain				VM/V4: VP25 (Ex	VM/V4: VP25 (External Dia. 32/Internal Dia. 25) or VS: External Dia. 34/Internal Dia. 25							

MOD	EL NAME		FXFRQ25AVS	FXFRQ32AVS	FXFRQ40AVS	FXFRQ50AVS	FXFRQ63AVS	FXFRQ80AVS	FXFRQ100AVS	FXFRQ125AVS	FXFRQ140AVS		
Power supply			VM: 1-phase, 220-240 V/220-230 V, 50/60 Hz or V4/VS: 1-phase, 220 V, 50 Hz										
Cooling capacity		9,600	9,600 12,300		19,100	24,200	30,700	38,200	47,800	54,600			
		Btu/h*	9,600	12,300	15,700	19,500	24,600	30,800	38,600	48,200	55,000		
		kW	2.8/2.8*	3.6/3.6*	4.5 / 4.6*	5.6/5.7*	7.1/7.2*	9.0/9.0*	11.2 / 11.3*	14.0 / 14.1*	16.0 / 16.1*		
Power consumption kW			0.0	29	0.036	0.040	0.063	0.096	0.158	0.178	0.203		
Casing				Galvanised steel plate									
Airflow, rate (H/HNA/NA/NA	1.7.)	m³/min	13/12.5/1	1.5/11/10	17/13.5/13/12/11	18/17/13.5/12.5/11	21/20/16/15/13.5	22.5/21.5/21/20/15	32/29/26/23/21	33/30.5/28/25.5/21	35.5/32.5/29.5/26.5/23		
AITTOW Tate (n/nivi/ivi/ivi	IL/L)	cfm	459/441/406/388/353		600/477/459/424/388	635/600/477/441/388	741/706/565/530/477	794/759/741/706/530	1,130/1,024/918/812/741	1,165/1,077/988/900/741	1,253/1,147/1,041/935/812		
Sound level (H/HM/M/M	L/L)	dB(A)	30/29.5/2	8.5/28/27	35/29.5/29/28/27	35/29.5/29/28/27 35/33.5/29.5/28.5/27 36/35.5/31.5/31/28 37/36.5/36/35.5/29.5 43/40.5/37.5/35/33 44/41.5				44/41.5/39/36.5/33	46/43.5/40.5/38/35		
Dimensions (H×W×D)		mm			256×8	40×840							
Machine weight		kg		1	9		2	2	2	5	26		
	Liquid (Flare)			φ	6.4		¢ 9.5						
Piping connections	Gas (Flare)	mm		¢ 1	2.7				¢ 15.9				
	Drain	1			VM/V4: VP25 (Ex	ternal Dia, 32/Inte	ernal Dia. 25) or V	Dia 25) or VS: External Dia 34/Internal Dia 25					

Notes: Specifications are based on the following conditions; • Cooling: Indoor temp.: 27°CDB, 19°CWB,; \*27°CDB, 19.5°CWB, Outdoor temp.: 35°CDB, Equivalent piping length: 7.5 m, Height difference: 0 m. • Heating: Indoor temp.: 20°CDB, Outdoor temp.: 7°CDB, 6°CWB, Equivalent piping length: 7.5 m, Height 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.

### **Option list**

Name of option	MODEL NAME	FXFTQ25,32,40,50,63,80AVS	FXFTQ100,125,140AVS	FXFRQ25,32,40,50,63,80AVS	FXFRQ100,125,140AVS		
Standard papel with consing	Fresh white	BYCQ1	25EEF	-			
Standard parter with sensing	Black	BYCQ1	25EEK	-			
Ctandard panal	Fresh white	BYCQ1	25EAF	BYCQ125EAF			
Standard panel	Black	BYCQ1	25EAK	BYCQ125EAK			
Panel spacer		KDB55	J160F	KDB55J160F			

Indoor Units

# **Compact Multi Flow Cassette Type**

FXZQ-M

Quiet, compact, and designed for user comfort

# Comfortable airflow





• Fixed angles: 5 levels



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

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



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

## **Specifications**

M	ODEL		FXZQ20MVES	FXZQ25MVES	FXZQ32MVES	FXZQ40MVES	FXZQ50MVES					
Power supply			1-phase, 220-240 V/220 V, 50/60 Hz									
		Btu/h	7,500	9,600	12,300	15,400	19,100					
Cooling capacity		Btu/h*	7,500 9,600		12,300	15,500	19,300					
		kW	2.2 / 2.2* 2.8 / 2.8*		3.6 / 3.6*	4.5 /4.6*	5.6 / 5.7*					
Power consumptior	ו	kW	0.0	)73	0.076	0.089	0.115					
Casing					Galvanised steel plate							
Airflow rate (H/L)		m³/min	9,	/7	9.5/7.5	11/8	14/10					
Airflow rate (H/L)		cfm	318,	/247	335/265	388/282	493/353					
Sound level (H/L)	230 V, 50 Hz- 240 V, 50 Hz	dB(A)	30/25-	-32/26	32/26-34/28	36/28-37/29	41/33-42/35					
Dimensions (H×W×	D)	mm	286×575×575									
Machine weight		kg	18									
	Liquid (Flare)				\$\$ 6.4							
Piping connections	Gas (Flare)	mm			¢12.7							
	Drain			VP20 (E	xternal Dia, 26/Internal	Dia, 20)						
	Model				BYFQ60B3W1							
Danal	Colour		White (6.5Y9.5/0.5)									
Failei	Dimensions(H×W×D)	mm			55×700×700							
	Weight	kg			2.7							

Note: Specifications are based on the following conditions:

Specifications are based on the following conditions;
 Cooling: Indoor temp.: 27°CDB, 19°CWB;
 \*C2°CDB, 19.5°CWB, Outdoor temp.: 35°CDB, Equivalent piping length: 7.5 m, Level difference: 0 m.
 Capacity of indoor unit is only for reference. Actual capacity of indoor unit is based on the total capacity index. (See Engineering Data Book for details.)
 Sound level: Anechoic chamber conversion value, measured at a point 1.5 m downward from the unit centre. During actual operation, these values are normally somewhat higher as a result of ambient conditions.



- Dimensions correspond with 600 mm X 600 mm architectural module ceiling design specifications.
- Low operation sound level
- Drain pump is equipped as standardaccessory with 750 mm lift.



## FXZQ-B

STREAMER TECHNOLOGY

Refer to option list page 108 - 109

- Fully-flat integration in standard architectural ceiling tiles, leaving only 8 mm
- The newly designed panel integrates fully within one ceiling tile enabling lights, speakers and sprinklers to be installed in the adjoining ceiling tiles.

### Efficiency & comfort Dual sensors (Option)

- Two optional intelligent sensors improve energy efficiency and comfort.
- An optional presence and floor sensor kit can be fitted to the cassette for draught prevention, energy-saving operation and to provide optimal control of airflow.

### Individual airflow direction control \*1

- Airflow direction can be individually adjusted for each air discharge outlet to deliver optimal air distribution.
- \*1. This function can only be set via wired remote controller BRC1E63.

# Cleanliness

### **Ceiling soiling prevention**

Prevents air from blowing against the ceiling to prevent ceiling stains.

# Installation of inspection opening Install the inspection opening on the control box sidewhere

maintenance and inspection of the control boxand drain pump are easy.





### Auto swing (up/down)

Possibility to select automatic vertical moving of the air discharge flaps for efficient air and temperature dia distribution throughout the room.





### **Specifications**

M	ODEL		FXZQ20BV2S	FXZQ25BV2S	FXZQ32BV2S	FXZQ40BV2S	FXZQ50BV2S		
Power supply			1-phase, 220 V, 50 Hz						
		Btu/h	7,500	9,600	12,300	15,400	19,100		
Cooling capacity		Btu/h*	7,500	9,600	12,300	15,500	19,300		
		kW	2.2 / 2.2*	2.8 / 2.8*	3.6 / 3.6*	4.5 /4.6*	5.6 / 5.7*		
Power consumption		kW	0.0	043	0.045	0.059	0.092		
Casing					Galvanised steel plate				
Airflow rato (H/M/L)		m³/min	8.7/7.5/6.5	9.0/8.0/6.5	10.0/8.5/7.0	11.5/9.5/8.0	14.5/12.5/10.0		
AITIOW Tate (IT/IV/L)		cfm	307/265/229	318/282/229	353/300/247	406/335/282	542/441/353		
Sound level (H/M/L)	)	dB(A)	32.0/29.5/25.5	33.0/30.0/25.5	33.5/30.0/26.0	37.0/32.0/28.0	43.0/40.0/33.0		
Sound power (H)		dB(A)	49	50	51	54	60		
Dimensions (HxWxI	D)	mm	260x575x575 (For depth add 63mm for electrical box)						
Machine weight		kg	15.5 16.5				18.5		
D' 1	Liquid (Flare)				\$\$ <b>6</b> .4				
Piping	Gas (Flane)	mm			<i>ф</i> 12.7				
Connoctione	Drain			VP20 (E	xternal Dia. 26/Internal I	Dia. 20)			
	Model				BYFQ60CAW				
Banal	Colour				White (N9.5)				
Fallel	Dimensions (HxWxD)	mm			46x620x620				
	Weight	kg			2.8				

Note: Specifications are based on the following conditions;
 Cooling: Indoor temp.: 27°CDB, 19°CWB,; <u>\*27°CDB</u>, 9.5°CWB, Outdoor temp.: 35°CDB, Equivalent piping length: 7.5 m, Level difference: 0 m.
 Capacity of indoor unit is only for reference. Actual capacity of indoor unit is based on the total capacity index. (See Engineering Data Book for details.)
 Sound level: Anechoic chamber conversion value, measured at a point 1 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

# **Double Flow Cassette Type**

# FXCQ-B

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



# Stylish design

- Stylish unit blends easily with any interior.
- The flat flaps close entirely when the unit is not operating and there are no air intake grilles visible.
- Depth of all units is 620 mm, ideal for narrow spaces

# Comfort

### Individual airflow direction control\*1

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





Individual airflow settings
—No individual setting (Auto airflow)
Position Position 0 (Highest point) Position 1 Position 2 Position 3 Swing
Individual settings are possible as stated above.

### 5-step & auto airflow control

• 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

• Power consumption is significantly reduced by specially developed small tube heat exchanger and DC fan motor.



Indoor Units

# Easy maintenance

- The flap parts are easy to clean because it is hard to condensate and get dirty.
- Check contamination in drain pan by simply removing suction grille and panel.
- Adjuster pockets mount at four corners of the unit enable to adjust the main unit without removing the panel.

# Flexible installation

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

# Cleanliness

Silver ion anti-bacterial drain pan

- Prevents the growth of slime, bacteria, and mould that cause odours and clogging.
- \* Drain pan should be changed once every two to three years.

Filter has anti-mould and antibacterial treatment

### **Specifications**

	Model		FXCQ20BVMS	FXCQ25BVMS	FXCQ32BVMS	FXCQ40BVMS	FXCQ50BVMS	FXCQ63BVMS	FXCQ80BVMS	FXCQ125BVMS	
Power s	supply				1-ph	nase, 220-240 V/	220-230 V, 50/6	0 Hz			
		Btu/h	7,500	9,600	12,300	15,400	19,100	24,200	30,700	47,800	
Cooling capacity Btu/		Btu/h*	7,500	9,600	12,300	15,500	19,300	24,400	30,900	48,100	
kW		2.2 / 2.2*	2.8 / 2.8*	3.6 / 3.6*	4.5 / 4.6*	5.6 / 5.7*	7.1 / 7.2*	9.0 / 9.1*	14.0 / 14.1*		
Power co	onsumption	kW	0.031	0.0	39	0.041	0.059	0.063	0.090	0.149	
Casing						Galvanised	steel plate				
Airflow	rate	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	
(H/HM/I	M/ML/L)	cfm	371/335/318/282/265	406/371/33	35/300/282	424/388/371/335/300	530/494/459/406/371	565/530/494/441/406	918/847/794/724/653	1,130/1,041/971/883/794	
Sound lev	el (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	
Dimensi	ons (H×W×D)	mm		305x77	75x620		305x99	90x620	305x1,445x620		
Machin	e weight	kg		1	9		22	25	33	38	
Disian	Liquid (Flare)				φ6.4				φ9.5		
connections	Gas (Flare)	mm			φ12.7			φ15.9			
CONTROCTIONS	Drain				VP2	25 (External Dia,	32/Internal Dia,	25)			
	Model			BYBCO	Q40CF		BYBC	Q63CF	BYBCC	125CF	
Panel	Colour					Fresh white (	6.5Y 9.5/0.5)				
(Option)	Dimensions (H×W×D)	mm		55x1,0	70x700		55x1,2	85x700	55x1,740x700		
	Weight	kg		1	0		1	1	13		

Note: Specifications are based on the following conditions;

Specifications are based on the following conditions;
•Cooling: Indoor temp.: 27°CDB, 19°CWB, 19.5°CWB, Outdoor temp.: 35°CDB, Equivalent piping length: 7.5 m, Level difference: 0 m.
•Capacity of indoor unit is only for reference. Actual capacity of indoor unit is based on the total capacity index. (See Engineering Data Book for details.)
•Sound level: Anechoic chamber conversion value, measured at a point 1.5 m downward from the unit centre. During actual operation, these values are normally somewhat higher as a result of ambient conditions.



Drain socket part



# Single Flow Cassette Type

# **FXEQ-A**

Slim design for flexible installation

# Slim design

- 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 novel smooth panel design makes dust difficult to accumulate, thus causing the cleaning more conveniently.

# Comfort

- 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, Automatic 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.

# Easy maintenance

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

 Maintenance operations can be performed by removing the front panel.



Front view













### **Specifications**

	MODEL		FXEQ20AV36	FXEQ25AV36	FXEQ32AV36	FXEQ40AV36	FXEQ50AV36	FXEQ63AV36			
Power supp	ly				1-phase, 220	-240 V, 50 Hz					
		Btu/h	7,500	9,600	12,300	15,400	19,100	24,200			
Cooling cap	acity	Btu/h*	7,500	9,600	12,300	15,500	19,300	24,400			
		kW	2.2 / 2.2*	2.8 / 2.8*	3.6 / 3.6*	4.5 / 4.6*	5.6 / 5.7*	7.1 / 7.2*			
Capacity inc	lex		20	25	32	40	50	63			
Power cons	umption	kW	0.026	0.027	0.034	0.046	0.048	0.067			
Casing					Galvanised	steel plate					
Airflow rate		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/M	L/L)	cfm	212/191/173/155/141	244/226/205/187/169	282/265/247/222/194	346/311/275/247/219	441/402/367/335/307	530/480/431/388/346			
Sound level (	H/HM/M/ML/L)	dB(A)	30/29/28/27/26	32/31/30/29/28	35/34/33/32/30	38/37/35/33/31	38/37/35/33/31	43/41/39/37/35			
Dimensions	(H×W×D)			200×84	40×470		200×1,2	240×470			
Machine we	ight			17		18	2	3			
Distant	Liquid (Flare)					<b>Ø</b> 9 <u>.</u> 5					
connections	Gas (Flare)	mm		¢15.9							
	Drain			PVC26 (External Dia, 26/Internal Dia, 20)							
	Model			BYEP	40AW1		BYEP	63AW1			
Panel	Colour				Fresh	white					
(Option)	Dimensions(H×W×D)			80×95	0×550		80×1,350×550				
	Weight			8	.0		10.0				

Note: Specifications are based on the following conditions;
 Cooling: Indoor temp.: 27°CDB, 19°CWB;
 \*27°CDB, 19.5°CWB;
 Outdoor temp.: 35°CDB, Equivalent piping length: 7.5 m, Level difference: 0 m.
 Capacity of indoor unit is only for reference. Actual capacity of indoor unit is based on the total capacity index. (See Engineering Data Book for details.)
 Sound level: Anechoic chamber conversion value, measured at a point 1 m in front of the unit and 1 m downward.

# **3D Airflow Duct with Sensing Type**

## FXDSQ-A



3D airflow with sensing function for comfort and energy savings

# Comfort

# 3D airflow

# The wide coverage of the airflow angle creates a comfortable 3D airflow.

- Horizontal & Vertical direction can be adjusted freely by the remote controller settings as to provide 3D airflow to every corner of the room.
- Can freely select 5 positions and swing mode for each up/ down and left/right direction with remote controller.







# 5-step & auto airflow control

• Control of airflow rate can be selected from 5-step and Auto to provide comfortable airflow.

# Installation flexibility

# Slim design

• Slim and compact design with a height of only 200 mm and the depth of only 450 mm which is suitable to install in limited spaces.



\* Panel dimensions are not included.

# Daikin advanced sensing technology

## Dual sensors



#### Infrared presence sensor

The presence sensor detects where people are and adjusts the airflow direction accordingly.

#### 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.



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

• Based on preset user conditions, the system automatically stops operation if the room is unoccupied.

\*Adjustment is possible for shift time and set temperature by local setting.

#### **Specifications**

MODEL		FXDSQ20AVM	FXDSQ25AVM	FXDSQ32AVM	FXDSQ40AVM	FXDSQ50AVM	FXDSQ63AVM	
Power supp	ly				-phase, 220-240/2	20-230 V, 50/60 Hz	2	
Oraliana	14	Btu/h	7,500	9,600	12,300	15,400	19,100	24,200
Cooling capacity		Btu/h*	7,500	9,600	12,300	15,500	19,300	24,400
		kW	2.2/2.8*	3.6/3.6*	4.5/4.6*	5.6/5.7*	7.1/7.2*	9.0/9.1*
Power cons	umption <sup>*1</sup>	kW	0.028	0.029	0.032	0.0	49	0.054
Casing					Galvanized	steel plate		
Airflow rate	(H/HM/M/ML/L)	m³/min	8.7/8.1/7.6/7.0/6.5	9.0/8.5/8.0/7.5/7.0	10.0/9.3/8.6/7.9/7.2	12.0/11.2/10.5/9.7/9.0	15.0/14.0/13.0/11.5/10.5	19.0/17.0/15.0/13.0/11.5
External stat	tic pressure	Pa			10-	0 *2		
Sound level	(H/HM/M/ML/L)*1 *3	dB(A)	31/29/27/26/24	31/29/27/26/24	34/32/30/29/27	39/37/3	5/33/31	39/37/35/33/30
Dimensions	(H×W×D)	mm		200×70	)0×450		200×900×450	200×1,100×450
Machine we	ight	kg		1	7		20	23
Distant	Liquid (Flare)				Ø6.4 (flare)			∕9.5 (flare)
Piping	Gas (Flare)	] mm [			∕12.7 (flare)			∕≠15.9 (flare)
001110010110	Drain			P١	/C26 (External Dia.	26 / Internal Dia. 2	20)	
3D Auto	Dimensions (H×W×D)	mm		180×7	22×70		180×922×70	180×1,122×70
swing	Colour				Fresh	white		
panel	Weight	kg		1	.0		1.5	2.0

Note: Specifications are based on the following conditions; •Cooling: Indoor temp.: 27°CDB, 19°CWB, '2<u>7°CDB, 19.5°CWB</u>, Outdoor temp.: 35°CDB, 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.

\*1 \*2 \*3 . Values are based on external state pressure of Par. External static pressure is changeable to set by the remote controller. This pressure means "High static pressure - Standard" . (Factory setting is 10 Pa.) : 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).

# Slim Duct (Standard) Type

# FXDQ-PD / ND

Slim design, quietness and ideal for drop-ceilings

# Comfort

- 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.
- Low operation sound level: down to 23 dB(A)

# Installation flexibility

- 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.
- FXDQ-PD and FXDQ-ND models are available in two types to suit different installation conditions.

FXDQ-PD/NDV2S: with a drain pump (750 mm lift) as a standard accessory FXDQ-PD/NDVTS: without a drain pump





\*1.100 mm in width for the FXDQ63ND model

### **Specifications**

MODEL	with drain p	bump	FXDQ20PDV2S	FXDQ25PDV2S	FXDQ32PDV2S	FXDQ40NDV2S	FXDQ50NDV2S	FXDQ63NDV2S		
MODEL	without dra	in pump	FXDQ20PDVTS	FXDQ25PDVTS	FXDQ32PDVTS	FXDQ40NDVTS	FXDQ50NDVTS	FXDQ63NDVTS		
Power supply				1-phase, 220 V, 50 Hz						
Btu/h		7,500	9,600	12,300	15,400	19,100	24,200			
Cooling capacity Btu/ kV		Btu/h*	7,500	9,600	12,300	15,500	19,300	24,400		
		kW	2.2/2.2*	2.8/2.8*	3.6 / 3.6*	4.5 / 4.6*	5.6 / 5.7*	7.1 / 7.2*		
Power consum (FXDQ-PDV2S)	ption ★1	kW	0.086 0.089 0.160 0.165 C				0.181			
Power consum (FXDQ-PDVTS)	umption TS) *1 kW 0.06			067	0.070	0.147	0.152	0.168		
Casing					Galvanised	steel plate				
Airflow rate (H		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		
Airiiow rate (H	п/п/L)	cfm	282/254/226			371/335/300 441/388/353 583/512/459				
External static p	ressure	Pa		30-10 <sup>*2</sup>			44-15*2			
Sound level (HF	I/H/L)*1*3	dB(A)	28/2	6/23	28/26/24	30/28/26	33/30/27	33/31/29		
Dimensions (H×	W×D)	mm		200×700×620		200×90	00×620	200×1,100×620		
Machine weight		kg		23		27	28	31		
	Liquid (Flare)				φ	6.4		¢9.5		
Piping	Gas (Flare)	mm			¢1	2.7		¢15.9		
001110010113	Drain				VP20 (External Dia	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; <u>27°CDB, 19°CWB</u>, Outdoor temp.: 35°CDB, Equivalent piping length: 7.5 m, Level difference: 0 m.
 Capacity of indoor unit is only for reference. Actual capacity of indoor unit is based on the total capacity index. (See Engineering Data Book for details.)
 Sound level: Anechoic chamber conversion value, measured at a point 1.5 m downward from the unit centre. During actual operation, these values are normally somewhat higher as a result of ambient conditions.
 \*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).

\* 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).

Indoor Units

# Slim Duct (Compact) Type

# **FXDQ-SP**

Great for residential use

Slim and compact design for easy and flexible installation

# Installation flexibility

200 mm

 Slim and compact design with a height of only 200 mm and the depth of only 450 mm which is suitable to install in limited spaces.

> 700 mm\* \*For FXDQ20-32SP models

Only 450 mm

200 mm

Note: Specifications are based on the following conditions;
Cooling: Indoor temp.: 27°CDB, 19°CWB,; "27°CDB, 19.5°CWB, Outdoor temp.: 35°CDB, 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.
★ : Values are based on the following conditions: FXDQ20-32SP: external static pressure of 10 Pa; FXDQ40-63SP: external static pressure of 20 Pa.
€ : External static pressure is changeable to set by the remote controller. This pressure means "High static pressure - Standard". (Factory setting is 10 Pa for FXDQ20-32SP models and 20 Pa for FXDQ40 + 63SP

for FXDQ40-63SP models.) \*8 : 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).



Top view

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

### **Specifications**

MODEL			FXDQ20SPV1	FXDQ25SPV1	FXDQ32SPV1	FXDQ40SPV1	FXDQ50SPV1	FXDQ63SPV1	
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		Btu/h*	7,500	9,600	12,300	15,500	19,300	24,400	
		kW	2.2 / 2.2*	2.8 / 2.8*	3.6 / 3.6*	4.5 / 4.6*	5.6 / 5.7*	7.1 / 7.2*	
Power consum	ption *1	kW	0.072	0.075	0.078	0.180	0.180	0.196	
Casing					Galvanised	l steel plate	^		
Airflow rate (HL		m³/min	8.7/7.6/6.5	9.0/8.0/7.0	10.0/9.0/8.0	15.0/13.0/10.5		20.0/16.0/12.5	
AIMOW Tate (FIF	1/ []/ []/	cfm	307/268/229	318/282/247	353/318/282	530/4	59/371	706/565/441	
External static	oressure	Pa		30-10*2		50	-20*2	40-20*2	
Sound level (H	H/H/L) *1*3	dB(A)	33/3	1/29	34/32/30	35/3	3/31	37/35/33	
Dimensions (H>	<w×d)< td=""><td>mm</td><td></td><td colspan="3">200×700×450</td><td>00×450</td><td>200×1,100×450</td></w×d)<>	mm		200×700×450			00×450	200×1,100×450	
Machine weigh	t	kg		17		2	:0	23	
	Liquid (Flare)				¢6.4			¢9.5	
Piping	Gas (Flare)	mm			¢12.7			¢15.9	
	Drain								

Ceiling

Side view







# **Bedroom Duct Type**

# FXDBQ-A

Suitable for close living spaces such as hotels and condominiums

# Installation flexibility

### Only 700 mm width

• Installation is possible even in narrow entrance ways at hotels and condominiums.



\*1,000 mm in width for the FXDBQ63/80 model.

### **Mirror piping**

• Allows pipe installation from either side of indoor unit, simplified design process and installation.



# Easy maintenance

### 1-stop service space

• Requires minimum spaces for installation and maintenance can be done from only one inspection access.



### Easier and faster cleaning

• In conventional model, the parts need to be removed one by one in order. However in new model, the integrated fan motor can be removed and reinstalled in one time.



# Easy access to control box from bottom side

• All wiring is simplified to control box, so maintenance can be done from bottom side.



# Delay/Reset Timer features of hotel key card interlock

The FXDBQ series indoor unit can be interlocked with the new hotel key card system, to maximize quest comfort while keeping control of energy usage.

### **Delay Timer**

Delay Timer will start after key card is removed as long as this timer does not expire, the unit continues to operate as per normal.

### Reset Timer

Reset Timer will start after the Delay Timer has expired. The previous setting will be reset to the "Default ResetSetting" state after the Reset Timer finished counting down. The Reset Timer can be set between 0 - 20 hours and default value is set to 20 hours.

# **Energy Efficiency & Comfort**

- Control of airflow rate can be selected from 5-step and Auto to provide comfortable airflow.
- Quiet operation 27 dB(A) in L tap for the FXDBQ40/63



### **Specifications**

MODE	L		FXDBQ40AVM	FXDBQ50AVM	FXDBQ63AVM	FXDBQ80AVM			
Power supply			1-phase, 220-240 V/220-230 V, 50/60 Hz						
		Btu/h	15,400	19,100	24,200	30,700			
Cooling capacity		Btu/h*	15,500	19,300	24,400	30,900			
		kW	4.5 / 4.6*	5.6 / 5.7*	7.1 / 7.2*	9.0 / 9.1*			
Power consumption*	1	kW	0.062	0.080	0.090	0.120			
Casing				Galvanized steel plate					
Airflow rate (H/HM/M/	ML /L )	m³/min	13.3/12/10.5/10/8.5	14.8/13/11.5/10.5/9	22/19/18/16/14.5	25/22/20/18/16			
	IVIL/L)	cfm	470/424/371/353/300	522/459/406/371/318	777/671/635/565/512	883/777/706/635/565			
External static pressu	re	Pa	15-50 (15)* <sup>2</sup>						
Sound level (H/HM/M/	/ML/L)* 1	dB(A)	35/33/31/29/27	37/36/33/31/28	35/33/31/29/27	37/35/34/32/30			
Dimensions (HxWxD)		mm	245×70	00×800	245×1,0	00×800			
Machine weight		kg	2	6	36				
	Liquid (Flare)		φθ	3.4	ф9	0.5			
Piping connections	Gas (Flare)	mm	φ1	2.7	φ15.9				
Drain				VP25 (External Dia.	32/Internal Dia.25)				

\*2: External static pressure is changeable to set by the remote controller. These values indicate the lowest and highest possible static pressures. The rated static pressure is 15 Pa

Notes: Specifications are based on the following conditions; • Cooling: Indoor temp.: 27°CDB, 19°CWB,; 27°CDB, 19.5°CWB, Outdoor temp.: 35°CDB, Equivalent piping length: 7.5 m, Height difference: 0 m.

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.

<sup>\*1:</sup> Power consumption values are based on conditions of rated external static pressure

# Middle Static Pressure Duct Type

# FXSQ-PA

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 245 mm 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 facilitates 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.

# 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.

# Easy installation

### "Airflow rate auto adjustment function" at field setting

(local setting by remote controller)



<Mechanism

- 1. During field setting, power input of DC fan is detected.
- External static pressure is estimated from power input of DC fan because PCB of FXSQ-PA has table of external static pressure vs. power input of DC fan. Actual duct resistance is calculated according to 1 and 2.









### Adjustable external static pressure



50 Pa-150 Pa for FXSQ50-125PAVS 50 Pa-140 Pa for FXSQ140PAVS

Notes: "Airflow rate auto adjustment function" can be adjusted within ±10% of rated airflow (Refer to Engineering Data Book for details) "Airflow rate auto adjustment function" should be used at field setting only

Airflow

Rated airflow

## Comfort

- Control of the airflow rate can be selected from 3-step control. Auto airflow rate control can be selected with wired remote controller.
- Lower sound level: down to 28 dB(A)

# 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

## Cleanliness

### Silver ion anti-bacterial drain pan

• Prevents the growth of slime, bacteria, and mould that cause odours and clogging.

\* Drain pan should be changed once every two to three years.

### Filter has anti-mould and antibacterial treatment



#### **Specifications**

	MODEL		FXSQ20PAVS	FXSQ25PAVS	FXSQ32PAVS	FXSQ40PAVS	FXSQ50PAVS		
Power sup	ply			1-	phase, 220 V, 50 H	lz			
		Btu/h	7,500	9,600	12,300	15,400	19,100		
Cooling capacity		Btu/h*	7,500	9,600	12,300	15,500	19,300		
Power consumption		kW	2.2 / 2.2*	2.8 / 2.8*	3.6 / 3.6*	4.5 / 4.6*	5.6 / 5.7*		
Power cor	nsumption	kW	0.0	58 <sup>*1</sup>	0.101*1	0.075*1			
Casing			Galvanised steel plate						
Airflow rate (H/M/L) m <sup>3</sup> /r		m³/min	9/7.5	5/6.5	9.5/8/7	15/12.5/10.5	17/14.5/11.5		
		cfm	318/20	65/230	335/282/247	530/441/371	600/512/406		
External st	atic pressure	Pa		30-15	0 (50) * <sup>2</sup>		50 <b>-</b> 150 (50)* <sup>2</sup>		
Sound leve	el (H/M/L)	dB(A)	33/3	0/28	34/32/30	36/33/30	34/32/29		
Dimensior	is (H×W×D)	mm		245×550×800		245×700×800	245×1,000×800		
Machine v	veight	kg		25		27	35		
	Liquid (Flare)				φ 6.4				
Piping connections	Gas (Flare)	mm		φ 12.7					
	Drain		VP25 (External Dia, 32/Internal Dia, 25)						
	MODEL		FXSQ63PAVS	FXSQ80PAVS	FXSQ100PAVS	FXSQ125PAVS	FXSQ140PAVS		
Power sup	MODEL		FXSQ63PAVS	FXSQ80PAVS	FXSQ100PAVS phase, 220 V, 50 F	FXSQ125PAVS	FXSQ140PAVS		
Power sup	MODEL oply	Btu/h	<b>FXSQ63PAVS</b> 24,200	FXSQ80PAVS 1- 30,700	FXSQ100PAVS phase, 220 V, 50 F 38,200	FXSQ125PAVS Iz 47,800	<b>FXSQ140PAVS</b> 54,600		
Power sup	MODEL oply	Btu/h Btu/h*	<b>FXSQ63PAVS</b> 24,200 24,400	FXSQ80PAVS 1- 30,700 30,900	FXSQ100PAVS phase, 220 V, 50 H 38,200 38,400	FXSQ125PAVS Hz 47,800 48,100	FXSQ140PAVS 54,600 54,900		
Power sup Cooling ca	MODEL oply apacity	Btu/h Btu/h* kW	FXSQ63PAVS 24,200 24,400 7.1/7.2*	FXSQ80PAVS 1- 30,700 30,900 9.0 / 9.1*	FXSQ100PAVS phase, 220 V, 50 F 38,200 38,400 11.2 / 11.3*	FXSQ125PAVS dz 47,800 48,100 14.0 / 14.1*	FXSQ140PAVS 54,600 54,900 16.0 / 16.1*		
Power sup Cooling ca Power cor	MODEL oply apacity asumption	Btu/h Btu/h* kW kW	FXSQ63PAVS 24,200 24,400 7.1 / 7.2* 0.106 *1	FXSQ80PAVS 1- 30,700 30,900 9.0 / 9.1* 0.126 *1	FXSQ100PAVS phase, 220 V, 50 F 38,200 38,400 11.2 / 11.3* 0.151*1	FXSQ125PAVS dz 47,800 48,100 14.0 / 14.1* 0.206 *1	FXSQ140PAVS 54,600 54,900 16.0 / 16.1* 0.222 *1		
Power sup Cooling ca Power cor Casing	MODEL oply apacity asumption	Btu/h Btu/h* kW kW	FXSQ63PAVS 24,200 24,400 7.1 / 7.2* 0.106 * 1	FXSQ80PAVS 1- 30,700 30,900 9.0 / 9.1* 0.126 *1 G	FXSQ100PAVS phase, 220 V, 50 F 38,200 38,400 11.2 / 11.3* 0.151*1 alvanised steel pla	FXSQ125PAVS           iz           47,800           48,100           14.0 / 14.1*           0.206 *1           te	FXSQ140PAVS 54,600 54,900 16.0 / 16.1* 0.222 *1		
Power sup Cooling ca Power cor Casing	MODEL oply apacity asumption	Btu/h Btu/h* kW kW m³/min	FXSQ63PAVS 24,200 24,400 7.1 / 7.2* 0.106 *1 21/17.5/14.5	FXSQ80PAVS 1- 30,700 30,900 9.0 / 9.1* 0.126*1 G 23/19.5/16	FXSQ100PAVS           phase, 220 V, 50 F           38,200           38,400           11.2 / 11.3*           0.151*1           alvanised steel plat           32/27/22.5	FXSQ125PAVS           4z           47,800           48,100           14.0 / 14.1*           0.206 *1           te           37/31.5/26	FXSQ140PAVS 54,600 54,900 16.0 / 16.1* 0.222 *1 39/33.5/28		
Power sup Cooling ca Power cor Casing Airflow rat	MODEL oply apacity asumption te (H/M/L)	Btu/h Btu/h* kW kW m³/min cfm	FXSQ63PAVS 24,200 24,400 7.1 / 7.2* 0.106 *1 21/17.5/14.5 741/618/512	FXSQ80PAVS 1- 30,700 30,900 9.0 / 9.1* 0.126 *1 G 23/19.5/16 812/688/565	FXSQ100PAVS           phase, 220 V, 50 F           38,200           38,400           11.2 / 11.3*           0.151*1           alvanised steel plat           32/27/22.5           1,130/953/794	FXSQ125PAVS           4z           47,800           48,100           14.0 / 14.1*           0.206 *1           te           37/31.5/26           1,306/1,112/918	FXSQ140PAVS 54,600 54,900 16.0 / 16.1* 0.222 *1 39/33.5/28 1,377/1,183/988		
Power sup Cooling ca Power cor Casing Airflow rat	MODEL oply apacity asumption te (H/M/L) atic pressure	Btu/h Btu/h* kW kW m³/min cfm Pa	FXSQ63PAVS 24,200 24,400 7.1 / 7.2* 0.106 *1 21/17.5/14.5 741/618/512	FXSQ80PAVS 1- 30,700 30,900 9.0 / 9.1* 0.126*1 G 23/19.5/16 812/688/565 50-18	FXSQ100PAVS           phase, 220 V, 50 F           38,200           38,400           11.2 / 11.3*           0.151*1           alvanised steel plat           32/27/22.5           1,130/953/794           50 (50)*2	FXSQ125PAVS           4z           47,800           48,100           14.0 / 14.1*           0.206 *1           te           37/31.5/26           1,306/1,112/918	FXSQ140PAVS 54,600 54,900 16.0 / 16.1* 0.222 *1 39/33.5/28 1,377/1,183/988 50-140 (50)* <sup>2</sup>		
Power sup Cooling ca Power cor Casing Airflow ra External st Sound leve	MODEL oply apacity asumption te (H/M/L) atic pressure el (H/M/L)	Btu/h Btu/h* kW kW m³/min cfm Pa dB(A)	FXSQ63PAVS 24,200 24,400 7.1 / 7.2* 0.106 *1 21/17.5/14.5 741/618/512 36/32/29	FXSQ80PAVS 1- 30,700 30,900 9.0 / 9.1* 0.126 *1 G 23/19.5/16 812/688/565 50-15 37.5/34/30	FXSQ100PAVS           phase, 220 V, 50 F           38,200           38,400           11.2 / 11.3*           0.151*1           alvanised steel plat           32/27/22.5           1,130/953/794           50 (50)*2           39/35/32	FXSQ125PAVS           4z           47,800           48,100           14.0 / 14.1*           0.206 *1           te           37/31.5/26           1,306/1,112/918           42/38.5/35	FXSQ140PAVS 54,600 54,900 16.0 / 16.1* 0.222 *1 39/33.5/28 1,377/1,183/988 50-140 (50)* <sup>2</sup> 43/40/36		
Power sup Cooling ca Power cor Casing Airflow ra External st Sound leve Dimensior	MODEL pply apacity asumption te (H/M/L) atic pressure el (H/M/L) as (H×W×D)	Btu/h Btu/h* kW kW m³/min cfm Pa dB(A) mm	FXSQ63PAVS 24,200 24,400 7.1 / 7.2* 0.106 *1 21/17.5/14.5 741/618/512 36/32/29 245×1,1	FXSQ80PAVS 1- 30,700 30,900 9.0 / 9.1* 0.126 *1 G 23/19.5/16 812/688/565 50-15 37.5/34/30 200×800	FXSQ100PAVS           phase, 220 V, 50 F           38,200           38,400           11.2 / 11.3*           0.151*1           alvanised steel plat           32/27/22.5           1,130/953/794           50 (50)*2           39/35/32           245×1,4	FXSQ125PAVS           4z           47,800           48,100           14.0 / 14.1*           0.206 *1           te           37/31.5/26           1,306/1,112/918           42/38.5/35           400×800	FXSQ140PAVS           54,600           54,900           16.0 / 16.1*           0.222 *1           39/33.5/28           1,377/1,183/988           50-140 (50)*2           43/40/36           245×1,550×800		
Power sup Cooling ca Power cor Casing Airflow ra External st Sound leve Dimensior Machine v	MODEL pply apacity asumption te (H/M/L) atic pressure el (H/M/L) as (H×W×D) veight	Btu/h Btu/h* kW kW cfm Pa dB(A) mm kg	FXSQ63PAVS 24,200 24,400 7.1 / 7.2* 0.106 *1 21/17.5/14.5 741/618/512 36/32/29 245×1,0 35	FXSQ80PAVS 1- 30,700 30,900 9.0 / 9.1* 0.126 *1 G 23/19.5/16 812/688/565 50-15 37.5/34/30 000×800 37	FXSQ100PAVS           phase, 220 V, 50 F           38,200           38,400           11.2 / 11.3*           0.151*1           alvanised steel plat           32/27/22.5           1,130/953/794           50 (50)*2           39/35/32           245×1,4           46	FXSQ125PAVS           4z           47,800           48,100           14.0 / 14.1*           0.206 *1           te           37/31.5/26           1,306/1,112/918           42/38.5/35           400×800           47	FXSQ140PAVS           54,600           54,900           16.0 / 16.1*           0.222 *1           39/33.5/28           1,377/1,183/988           50.140 (50)*2           43/40/36           245×1,550×800           52		
Power sup Cooling ca Power cor Casing Airflow ra External st Sound leve Dimensior Machine v	MODEL pply apacity asumption te (H/M/L) atic pressure el (H/M/L) as (H×W×D) veight Liquid (Flare)	Btu/h Btu/h* kW kW cfm Pa dB(A) mm kg	FXSQ63PAVS 24,200 24,400 7.1 / 7.2* 0.106 *1 21/17.5/14.5 741/618/512 36/32/29 245×1,0 35	FXSQ80PAVS 1- 30,700 30,900 9.0 / 9.1* 0.126 *1 G 23/19.5/16 812/688/565 50-15 37.5/34/30 000×800 37	FXSQ100PAVS           phase, 220 V, 50 F           38,200           38,400           11.2 / 11.3*           0.151*1           alvanised steel plat           32/27/22.5           1,130/953/794           50 (50)*2           39/35/32           245×1,4           46           ∳ 9.5	FXSQ125PAVS           4z           47,800           48,100           14.0 / 14.1*           0.206 *1           te           37/31.5/26           1,306/1,112/918           42/38.5/35           400×800           47	FXSQ140PAVS 54,600 54,900 16.0 / 16.1* 0.222 *1 39/33.5/28 1,377/1,183/988 50-140 (50)* <sup>2</sup> 43/40/36 245×1,550×800 52		
Power sup Cooling ca Power cor Casing Airflow ra External st Sound leve Dimensior Machine v Piping connections	MODEL pply apacity asumption te (H/M/L) atic pressure el (H/M/L) as (H×W×D) veight Liquid (Flare) Gas (Flare)	Btu/h Btu/h* kW kW cfm Cfm Pa dB(A) mm kg mm	FXSQ63PAVS 24,200 24,400 7.1 / 7.2* 0.106 *1 21/17.5/14.5 741/618/512 36/32/29 245×1,0 35	FXSQ80PAVS 1- 30,700 30,900 9.0 / 9.1* 0.126 *1 G 23/19.5/16 812/688/565 50-16 37.5/34/30 000×800 37	FXSQ100PAVS           phase, 220 V, 50 F           38,200           38,400           11.2 / 11.3*           0.151*1           alvanised steel plat           32/27/22.5           1,130/953/794           50 (50)*2           39/35/32           245×1,4           46           \$ 9.5           \$ 15.9	FXSQ125PAVS           4z           47,800           48,100           14.0 / 14.1*           0.206 *1           te           37/31.5/26           1,306/1,112/918           42/38.5/35           400×800           47	FXSQ140PAVS 54,600 54,900 16.0 / 16.1* 0.222 *1 39/33.5/28 1,377/1,183/988 50-140 (50)* <sup>2</sup> 43/40/36 245×1,550×800 52		

Note: Specifications are based on the following conditions: •Cooling: Indoor temp : 27°CDB, 19°CWB,; \*27°CDB,19.5°CWB,

Outdoor temp.: 35°CDB, Equivalent piping length: 7.5 m, Level difference: 0 m. •Capacity of indoor unit is only for reference. Actual capacity of indoor unit is based on the total capacity index. (See Engineering Data Book for details.)

•Sound level: Anechoic chamber conversion value, measured at a point 1.5 m downward from the unit centre.

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

- \*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.

# Middle-High Static Pressure Duct Type

## FXMQ-PA

Middle and high static pressure allows for flexible duct design

# Design flexibility

Using a DC fan motor, the external static pressure can be controlled within a range of 30 Pa\* to 200 Pa\*.

#### Adjustable external static pressure





Notes: "Airflow rate auto adjustment function" can be adjusted within ±10% of rated airflow

"Airflow rate auto adjustment function" should be used at field setting only.

(Refer to Engineering Data Book for details)

# Easy installation

### "Airflow rate auto adjustment function" at field setting



<Mechanism>

1. During field setting, power input of DC fan is detected.

2. External static pressure is estimated from power input of DC fan because PCB of

FXMQ-PA has table of external static pressure vs. power input of DC fan. 3. Actual duct resistance is calculated according to 1 and 2.

4. Fan speed is automatically adjusted to produce rated airflow

- All models are only 300 mm in height and the weight of the FXMQ40-140PA has been reduced.
- Drain pump is equipped as standard accessory with 700 mm lift.

# Comfort

- 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.
- Low operation sound level: down to 29 dB(A)

# Energy saving

• DC fan motor is used to realise energy-saving operation.

# 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
Indoor Units

## Cleanliness

### Silver ion anti-bacterial drain pan

Prevents the growth of slime, bacteria, and mould that cause odours and clogging.

\*Drain pan should be changed once every two to three years.

### Filter has anti-mould and antibacterial treatment

#### **Specifications**

	MODEL		FXMQ20PAVS	FXMQ25PAVS	FXMQ32PAVS	FXMQ40PAVS	FXMQ50PAVS			
Power supply					1-phase, 220 V, 50 Hz					
		Btu/h	7,500	9,600	12,300	15,400	19,100			
Cooling capacity Btu/h		Btu/h*	7,500	9,600	12,300	15,500	19,300			
		kW	2.2 / 2.2* 2.8 / 2.8* 3.6 / 3		3.6 / 3.6*	4.5 / 4.6*	5.6 / 5.7*			
Power consumpt	tion	kW	0.05	6 *1	0.060 *1	0.151*1	0.128*1			
Casing					Galvanised steel plate					
Airflow rate (HE		m³/min	9/7.5	5/6.5	9.5/8/7	16/13/11	18/16.5/15			
Annow rate (m	1/ T 1/ L)	cfm	318/26	55/230	335/282/247	565/459/388	635/582/530			
External static pr	essure	Pa		30-100 (50) *2		30-160 (100) * <sup>2</sup>	50-200 (100) *2			
Sound level (HH/ł	H/L)	dB(A)	33/3	1/29	34/32/30	39/37/35	41/39/37			
Dimensions (H×	W×D)	mm		300x550x700		300x700x700	300x1,000x700			
Machine weight		kg		25		27	35			
	Liquid (Flare)			<i>\$</i> 6.4						
Piping	Gas (Flare)	mm			<i>ф</i> 12.7					
	Drain			VP25 (	External Dia, 32/Internal D	ia, 25)				
MODEL										
	MODEL		FXMQ63PAVS	FXMQ80PAVS	FXMQ100PAVS	FXMQ125PAVS	FXMQ140PAVS			
Power supply	MODEL		FXMQ63PAVS	FXMQ80PAVS	<b>FXMQ100PAVS</b> 1-phase, 220 V, 50 Hz	FXMQ125PAVS	FXMQ140PAVS			
Power supply	MODEL	Btu/h	<b>FXMQ63PAVS</b> 24,200	<b>FXMQ80PAVS</b> 30,700	<b>FXMQ100PAVS</b> 1-phase, 220 V, 50 Hz 38,200	<b>FXMQ125PAVS</b> 47,800	<b>FXMQ140PAVS</b> 54,600			
Power supply Cooling capacity	MODEL	Btu/h Btu/h*	<b>FXMQ63PAVS</b> 24,200 24,400	<b>FXMQ80PAVS</b> 30,700 30,900	FXMQ100PAVS 1-phase, 220 V, 50 Hz 38,200 38,400	<b>FXMQ125PAVS</b> 47,800 48,100	<b>FXMQ140PAVS</b> 54,600 54,900			
Power supply Cooling capacity	MODEL	Btu/h Btu/h* kW	<b>FXMQ63PAVS</b> 24,200 24,400 7.1 / 7.2*	<b>FXMQ80PAVS</b> 30,700 30,900 9.0 / 9.1*	FXMQ100PAVS           1-phase, 220 V, 50 Hz           38,200           38,400           11.2 / 11.3*	<b>FXMQ125PAVS</b> 47,800 48,100 14.0 / 14.1*	<b>FXMQ140PAVS</b> 54,600 54,900 16.0 / 16.1*			
Power supply Cooling capacity Power consumpt	MODEL ,	Btu/h Btu/h* kW kW	FXMQ63PAVS           24,200           24,400           7.1 / 7.2*           0.138 *1	<b>FXMQ80PAVS</b> 30,700 30,900 9.0 / 9.1* 0.185 *1	FXMQ100PAVS 1-phase, 220 V, 50 Hz 38,200 38,400 11.2 / 11.3* 0.215 *1	<b>FXMQ125PAVS</b> 47,800 48,100 14.0 / 14.1* 0.284 *1	<b>FXMQ140PAVS</b> 54,600 54,900 16.0 / 16.1* 0.405 *1			
Power supply Cooling capacity Power consumpt Casing	MODEL ,	Btu/h Btu/h* kW kW	EXMQ63PAVS           24,200           24,400           7.1 / 7.2*           0.138 *1	FXMQ80PAVS           30,700           30,900           9.0 / 9.1*           0.185 *1	FXMQ100PAVS           1-phase, 220 V, 50 Hz           38,200           38,400           11.2 / 11.3*           0.215 *1           Galvanised steel plate	FXMQ125PAVS           47,800           48,100           14.0 / 14.1*           0.284 *1	FXMQ140PAVS           54,600           54,900           16.0 / 16.1*           0.405 *1			
Power supply Cooling capacity Power consumpt Casing	MODEL	Btu/h Btu/h* kW kW m³/min	FXMQ63PAVS           24,200           24,400           7.1 / 7.2*           0.138 *1           19.5/17.5/16	FXMQ80PAVS           30,700           30,900           9.0 / 9.1*           0.185 *1           25/22.5/20	FXMQ100PAVS           1-phase, 220 V, 50 Hz           38,200           38,400           11.2 / 11.3*           0.215 *1           Galvanised steel plate           32/27/23	FXMQ125PAVS           47,800           48,100           14.0 / 14.1*           0.284 *1           39/33/28	<b>FXMQ140PAVS</b> 54,600 54,900 16.0 / 16.1* 0.405 *1 46/39/32			
Power supply Cooling capacity Power consumpt Casing Airflow rate (HH	MODEL , tion I/H/L)	Btu/h Btu/h* kW kW m³/min cfm	FXMQ63PAVS           24,200           24,400           7.1 / 7.2*           0.138 *1           19.5/17.5/16           688/618/565	FXMQ80PAVS           30,700           30,900           9.0 / 9.1*           0.185 *1           25/22.5/20           883/794/706	FXMQ100PAVS           1-phase, 220 V, 50 Hz           38,200           38,400           11.2 / 11.3*           0.215 *1           Galvanised steel plate           32/27/23           1,130/953/812	FXMQ125PAVS           47,800           48,100           14.0 / 14.1*           0.284 *1           39/33/28           1,377/1,165/988	FXMQ140PAVS           54,600           54,900           16.0 / 16.1*           0.405 *1           46/39/32           1,624/1,377/1,130			
Power supply Cooling capacity Power consumpt Casing Airflow rate (HH External static pr	MODEL , tion I/H/L) essure	Btu/h Btu/h* kW kW m³/min cfm Pa	FXMQ63PAVS           24,200           24,400           7.1 / 7.2*           0.138 *1           19.5/17.5/16           688/618/565	FXMQ80PAVS           30,700           30,900           9.0 / 9.1*           0.185 *1           25/22.5/20           883/794/706           50-200	FXMQ100PAVS           1-phase, 220 V, 50 Hz           38,200           38,400           11.2 / 11.3*           0.215 *1           Galvanised steel plate           32/27/23           1,130/953/812           (100) *2	FXMQ125PAVS           47,800           48,100           14.0 / 14.1*           0.284 *1           39/33/28           1,377/1,165/988	FXMQ140PAVS           54,600           54,900           16.0 / 16.1*           0.405 *1           46/39/32           1,624/1,377/1,130           50-140 (100) *2			
Power supply Cooling capacity Power consumpt Casing Airflow rate (HH External static pr Sound level (HH/H	MODEL	Btu/h Btu/h* kW kW m³/min cfm Pa dB(A)	FXMQ63PAVS           24,200           24,400           7.1 / 7.2*           0.138 *1           19.5/17.5/16           688/618/565           42/40/38	FXMQ80PAVS 30,700 30,900 9.0 / 9.1* 0.185 *1 25/22.5/20 883/794/706 50-200 43/4	FXMQ100PAVS           1-phase, 220 V, 50 Hz           38,200           38,400           11.2 / 11.3*           0.215 *1           Galvanised steel plate           32/27/23           1,130/953/812           (100) *2           1/39	FXMQ125PAVS           47,800           48,100           14.0 / 14.1*           0.284 *1           39/33/28           1,377/1,165/988           44/42/40	FXMQ140PAVS           54,600           54,900           16.0 / 16.1*           0.405 *1           46/39/32           1,624/1,377/1,130           50-140 (100) *2           46/45/43			
Power supply Cooling capacity Power consumpt Casing Airflow rate (HH External static pr Sound level (HH/t Dimensions (H×1)	MODEL , tion //H/L) essure 4/L) //XD)	Btu/h Btu/h* kW kW m³/min cfm Pa dB(A) mm	FXMQ63PAVS           24,200           24,400           7.1 / 7.2*           0.138 *1           19.5/17.5/16           688/618/565           42/40/38           300×1,0	FXMQ80PAVS 30,700 30,900 9.0 / 9.1* 0.185 *1 25/22.5/20 883/794/706 50-200 43/4 000×700	FXMQ100PAVS           1-phase, 220 V, 50 Hz           38,200           38,400           11.2 / 11.3*           0.215 *1           Galvanised steel plate           32/27/23           1,130/953/812           (100) *2	FXMQ125PAVS           47,800           48,100           14.0 / 14.1*           0.284 *1           39/33/28           1,377/1,165/988           44/42/40           300×1,400×700	FXMQ140PAVS           54,600           54,900           16.0 / 16.1*           0.405 *1           46/39/32           1,624/1,377/1,130           50-140 (100) *2           46/45/43			
Power supply Cooling capacity Power consumpt Casing Airflow rate (HH External static pr Sound level (HH// Dimensions (H×) Machine weight	MODEL , tion //H/L) essure +/L) N×D)	Btu/h Btu/h* kW kW m³/min cfm Pa dB(A) mm kg	FXMQ63PAVS 24,200 24,400 7.1 / 7.2* 0.138 *1 19.5/17.5/16 688/618/565 42/40/38 300×1,0 3	FXMQ80PAVS           30,700           30,900           9.0 / 9.1*           0.185 *1           25/22.5/20           883/794/706           50-200           43/4           00×700           5	FXMQ100PAVS           1-phase, 220 V, 50 Hz           38,200           38,400           11.2 / 11.3*           0.215 *1           Galvanised steel plate           32/27/23           1,130/953/812           (100) *2           1/39           4	FXMQ125PAVS           47,800           48,100           14.0 / 14.1*           0.284 *1           39/33/28           1,377/1,165/988           44/42/40           300×1,400×700           5	FXMQ140PAVS           54,600           54,900           16.0 / 16.1*           0.405 *1           46/39/32           1,624/1,377/1,130           50-140 (100) *2           46/45/43           46			
Power supply Cooling capacity Power consumpt Casing Airflow rate (HH External static pr Sound level (HH/ł Dimensions (H×1 Machine weight	MODEL , tion //H/L) essure H/L) N×D) Liquid (Flare)	Btu/h Btu/h* kW kW m³/min cfm Pa dB(A) mm kg	FXMQ63PAVS           24,200           24,400           7.1 / 7.2*           0.138 *1           19.5/17.5/16           688/618/565           42/40/38           300×1,0           3	FXMQ80PAVS           30,700           30,900           9.0 / 9.1*           0.185 *1           25/22.5/20           883/794/706           50-200           43/4           000×700           5	FXMQ100PAVS           1-phase, 220 V, 50 Hz           38,200           38,400           11.2 / 11.3*           0.215 *1           Galvanised steel plate           32/27/23           1,130/953/812           (100) *2           1/39           4           \$\overline{9},5	FXMQ125PAVS           47,800           48,100           14.0 / 14.1*           0.284 *1           39/33/28           1,377/1,165/988           44/42/40           300×1,400×700           5	FXMQ140PAVS           54,600           54,900           16.0 / 16.1*           0.405 *1           46/39/32           1,624/1,377/1,130           50-140 (100) *2           46/45/43           46			
Power supply Cooling capacity Power consumpt Casing Airflow rate (HH External static pr Sound level (HH/H Dimensions (H×) Machine weight Piping connections	MODEL , , iion //H/L) essure -/L) //XD) Liquid (Flare) Gas (Flare)	Btu/h Btu/h* kW kW m³/min cfm Pa dB(A) mm kg mm	FXMQ63PAVS           24,200           24,400           7.1 / 7.2*           0.138 *1           19.5/17.5/16           688/618/565           42/40/38           300×1,0           3	FXMQ80PAVS           30,700           30,900           9.0 / 9.1*           0.185 *1           25/22.5/20           883/794/706           50-200           43/4           000×700           5	FXMQ100PAVS           1-phase, 220 V, 50 Hz           38,200           38,400           11.2 / 11.3*           0.215 *1           Galvanised steel plate           32/27/23           1,130/953/812           (100) *2           1/39           4           \$\overline{9.5}\$           \$\overline{15.9}\$	FXMQ125PAVS           47,800           48,100           14.0 / 14.1*           0.284 *1           39/33/28           1,377/1,165/988           44/42/40           300×1,400×700           5	FXMQ140PAVS           54,600           54,900           16.0 / 16.1*           0.405 *1           46/39/32           1,624/1,377/1,130           50-140 (100) *2           46/45/43			

Note: Specifications are based on the following conditions;
 Cooling: Indoor temp.: 27°CDB, 19°CWB,; \*27°CDB, 19.5°CWB, Outdoor temp.: 35°CDB, Equivalent piping length: 7.5 m, Level difference: 0 m.
 Capacity of indoor unit is only for reference. Actual capacity of indoor unit is based on the total capacity index. (See Engineering Data Book for details.)
 Sound level: Anechoic chamber conversion value, measured at a point 1.5 m downward from the unit centre.
 During actual operation, these values are normally somewhat higher as a result of ambient conditions.
 \* 1: Power consumption values are based on conditions of rated external static pressure.
 \* 2: External static pressure can be modified using a remote conversion of there are (FXMQ20-32PA), thirteen (FXMQ40PA), fourteen (FXMQ50-125PA) or ten (FXMQ140PA) levels of control. These values indicate the lowest and highest possible static pressures. The standard static pressure is 50 Pa for FXMQ20-32PA and 100 Pa for FXMQ40-140PA.



# **High Static Pressure Duct Type**

### FXMQ-M

High static pressure allows for flexible duct design.

#### Simplified static pressure control

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

#### Built-in drain pump (option)

• Housing the drain pump inside the unit reduces the space required for installation.



MODEL			FXMQ200MVES	FXMQ250MVES				
Power suppl	y			1-phase, 220-240	V/220 V, 50/60 Hz			
			Btu/h	76,400	95,500			
Cooling capa	acity		Btu/h*	76,900	96,000			
			kW	22.4 / 22.6*	28.0 / 28.2*			
Power consu	umption		kW	1.294 *1	1.465 *1			
Casing				Galvanised steel plate				
Airflow rato	(11/1)		m³/min	58/50	72/62			
Annowrate	(11/ L)		cfm	2,047/1,765	2,542/2,189			
External stati	ic pressu	ure	Pa	132-221*2	191-270 *2			
Coursel lovel (	(14)	220 V		48/	45			
Sound level (	(П/L)	240 V	UB(A)	49/	46			
Dimensions	(H×W×C	D)	mm	470×1,380×1,100				
Machine wei	ight		kg	13	7			
	Liquid (	(Flare)		$\phi$ S	.5			
Piping	Gas (Bra	azing)	mm	<i>ф</i> 19.1	<i>ф</i> 22.2			
Drain			PS	1B				

Note: Specifications are based on the following conditions;

• Cooling: Indoor temp.: 27°CDB, 19°CWB;, <u>\*27°CDB, 19.5°CWB</u>, Outdoor temp.: 35°CDB, Equivalent piping length: 7.5 m, Level difference: 0 m.
 • Capacity of indoor unit is only for reference. Actual capacity of indoor unit is based on the total capacity index. (See Engineering Data Book for details.)
 • Sound level: Anechoic chamber conversion value, measured at a point 1.5 m downward from the unit centre.

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

★ 1: Power consumption values are based on conditions of standard external static pressure.

\* 2: External static pressure is changeable to change over the connectors inside electrical box, this pressure means "Standard-High static pressure".

# **Ceiling Mounted Duct Type**

## VRV Indoor Units

### **FXMQ-PVM**

High static pressure allows for flexible duct design.

### Design flexibility

#### Adjustable external static pressure

• Using a DC fan motor, the external static pressure can be controlled within a range of 50Pa to 250 Pa.



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

## Compact design

 Light weight by changing copper tube diameter of heat exchanger from \$\phi\$ 8 to \$\phi\$7 mm.

# Energy-efficient, airflow control and low operation sound level

	FXMQ-PVM	200	250
Reduce power consumption	Power consumption (kW)	0.55	0.67
Control of the airflow rate	Airflow rate (HH/H/L) (m³/min)	74/61/50	84/71/58
Low operation sound level	Sound level (HH/H/L) (dB(A))	42/38/35	44/40/37

## Easy maintenance

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





# 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.
- 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 HH tap airflow

#### Built-in pre-filter slot

• To cater for easy installation of filter at site, a filter rail is available at the return flange.

#### Drain pump kit (Option)

- Steeper gradient realises more efficient condensate drainage
- High-lift is especially useful for long length of drain piping
- Drain pump is offered as optional accessory with 750 mm. lift
- Heat exchanger, drain pan and fan deck can be easily accessed and removed from bottom for maintenace.







# **Ceiling Mounted Duct Type**

#### **Specifications**

	Model			FXMQ200PVM	FXMQ250PVM	
Power supply				1-phase, 220-240V/220V-230V, 50/60 Hz		
			Btu/h	76,400	95,500	
Cooling capacity			Btu/h*	76,900	96,000	
			kW	22.4 / 22.6*	28.0 / 28.2*	
Power Consumption		Cooling	kW	0.55*1	0.67*1	
Casing				Galvanised steel plate		
Airflow rate (HH/H/L)			m <sup>3</sup> / min	74/61/50	84/71/58	
AITTIOW Tate (TITI/TI/E)			cfm	2,612/2,153/1,765	2,965/2,506/2,047	
External static pressure			Pa	50 - 250 (150) <sup>*2</sup> 50 - 250 (150) <sup>*2</sup>		
Sound level (HH/H/L)			dB(A)	42/38/35	44/40/37	
Dimensions (HxWxD)			mm	470x1,490x1,100	470x1,490x1,100	
Machine weight			kg	95	105	
	Liquid (Flare)			ф9.5	ф9.5	
Piping connections	Gas (Flange)		mm	φ19.1	ф22.2	
	Drain			BSF	21″	

Note: Specifications are based on the following conditions; -Cooling: Indoor temp.: 27 °CDB, 19°CWB,; \*27°CDB, 19.5°CWB, Outdoor temp.: 35°CDB, Equivalent piping length: 7.5 m, Level difference: 0 -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 fifteen. These values indicate the lowest and highest possible static pressures. The standard static pressure is 150 Pa for FXMQ200-250P.

#### **Option list**

Model		FXMQ200PVM	FXMQ250PVM			
8mm pre-filter			BAFL5	BAFL501A250		
30mm long life replacement filter		BAFL5	BAFL502A250			
High officioncy filter		BAFM5	03A250			
High efficiency litter		90%	BAFH5	04A250		
Filter chamber (long life, high efficiency	filter)		BDD50	00A250		
Drain pump kit			BDU510	A250VM		
Insulation kit for high humidity			BDT52	0A250		
	Wingloog	For Cooling only	BRC4C66	5 (Note 1)		
Remote Controller	wireless	For Heatpump	BRC4C65	5 (Note 1)		
	Wired		BRC1C62-9 (Note 1)			
Navigation remote controller (Wired rem	ote controller)		BRC1E62/63 (Notes1, 2)			
Wired remote controller with weekly sch	edule timer		BRC1D61			
Simplified remote controller			BRC2C51			
Remote controller for hotel use			BRC3A61			
Adaptor for wiring			KRP1	KRP1C13A		
Wiring adaptor for electrical appendices	(1)		KRP	KRP2A61		
Wiring adaptor for electrical appendices	(2)		KRP4	AA51		
Remote sensor (for indoor temperature)			KRCS	01-6B		
External control adaptor for outdoor unit	t (Must be installed	l on indoor units)	DTA1	04A61		
Adaptor for multi tenant			DTA1	14A61		
Central Remote Controller			DCS30	2CA61		
Electrical box with earth terminal (3 bloc	ks)		KJB2	12AA		
Unified On/Off Controller			DCS30	DCS301BA61		
Electrical box with earth terminal (2 bloc	ks)		KJB212AA			
Nosie filter (for electromagnetic interface	e use only)		KEK26-1A			
Schedule Timer			DST30	1BA61		

# 4-way Flow Ceiling Suspended Type VRV Indoor Units

## FXUQ-A

Slim and stylish design, optimum air distribution, installation without ceiling cavity

## Slim and stylish design

- Unit body and suction panel have round shapes that form a slim design, that fits various locations such as the ceilings without cavity.
- Flaps close automatically when the unit stops, which gives a simple appearance.
- All models have a unified slim height of 198 mm that gives a similar impression even when models with different capacities are installed in the same area.

### Comfort

- Airflow direction adjustment can be individually adjusted for each air discharge outlet to deliver optimal air distribution. 5 directions of airflow and auto-swing can be selected with wired remote controller BRC1E63.
- Control of the airflow rate can be selected from 3-step control. Auto airflow rate control can be selected with wired remote controller.

4-way flow

## **Flexible installation**

- Drain pump is equipped as a standard accessory with 600 mm lift.
- Depending on installation site requirements or room conditions, 2-way, 3-way and 4-way discharge patterns are available.

## Cleanliness

#### Silver ion anti-bacterial drain pan

 Prevents the growth of slime, bacteria, and mould that cause odours and clogging. \* Drain pan should be changed once every two to three years.

### Filter has anti-mould and antibacterial treatment

#### **Specifications**

	MODEL		FXUQ71AVEB	FXUQ100AVEB			
Power supply			1-phase, 220-240 V/220-230 V, 50/60 Hz				
		Btu/h	27,300	38,200			
Cooling capa	city	Btu/h*	27,500	38,400			
		kW	8.0 / 8.1*	11.2 / 11.3*			
Power consur	nption	kW	0.090	0.200			
Casing			Fresh white				
Airflow rate (		m³∕min	22.5/19.5/16	31/26/21			
Annow rate (	I 1/ 1∨1/ ⊑)	cfm	794/688/565	1,094/918/741			
Sound level (I	H/M/L)	dB(A)	40/38/36	47/44/40			
Dimensions (	H×W×D)	mm	198×950×950				
Machine weig	ht	kg	26	27			
	Liquid (Flare)		\$ 9.5				
Piping	Gas (Flare)	mm	¢ 1	5.9			
connections	Drain		VP20 (External Dia, 26/Internal Dia, 20)				

Note: Specifications are based on the following conditions; • Cooling: Indoor temp.: 27°CDB, 19°CWB,; \*27°CDB, 19.5°CWB, Outdoor temp.: 35°CDB, Equivalent piping length: 7.5 m, Level difference: 0 m.

• Capacity of indoor unit is only for reference. Actual capacity of indoor unit is based on the total capacity index. (See Engineering Data Book for details.)

• Sound level: Anechoic chamber conversion value, measured at a point 1 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

L-shaped 2-way flow

3-way flow



# **Ceiling Suspended Type**



### 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.



## Installation flexibility

• Flexible installation

The unit fits more snugly into tight spaces.



\* 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.

### 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: maximum 4.3 m
- 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.
- The rear side removable frame allows ease of access for piping work.





Easier piping work

## VRV Indoor Units



• Wireless LCD remote controller

- 25

:6:

• A signal receiver must be added to the indoor unit





Signal receiver unit (Install type) Wireless remote controller is supplied in a set with a signal receiver

#### **Specifications**

	MODEL		FXHQ32MAVS	FXHQ63MAVS	FXHQ100MAVS	FXHQ125BVMS	FXHQ140BVMS		
Power supp	ly		1-phase, 220-240 V/220 V, 50/60 Hz						
		Btu/h	12,300	24,200	38,200	48,000	52,900		
Cooling cap	acity	Btu/h*	12,300	24,400	38,400	48,300	53,200		
		kW	3.6 / 3.6*	7.1 / 7.2*	11.2 / 11.3*	14.1/14.2*	15.5 / 15.6*		
Power cons	umption	kW	0.111	0.115	0.135	0.168	0.181		
Casing				White (10Y9/0.5)	Sheet Metal / Light Ivory				
Airflow roto		m³/min	12/ - /10	17.5/ - /14	25/ - /19.5	34/26/20	36/27/20		
Annow rate		cfm	424/ - /353	618/ - /494	883/ - /688	1,200/918/706	1,271/953/706		
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 we	eight	kg	24	28	33	3	8		
	Liquid (Flare)		\$ 6.4		<i>ф</i> 9	.5			
Piping connections	Gas (Flare)	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; <u>\*27°CDB, 19.5°CWB</u>, Outdoor temp.: 35°CDB, Equivalent piping length: 7.5 m, Level difference: 0 m.
Capacity of indoor unit is only for reference. Actual capacity of indoor unit is based on the total capacity index. (See Engineering Data Book for details.)
Sound level: Anechoic chamber conversion value, measured at a point 1 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.

# Wall Mounted Type

### FXAQ-A

Stylish flat panel design harmonised with your interior décor

## Comfort

### Higher airflow



BRC7M676

Wireless LCD remote controller

A signal receiver must be added to the indoor unit.

- 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.

#### 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.

## Stylish design and cleanliness

- 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.

## Flexible installation

- Drain pipe can be fitted to from either left or right sides.
- Drain pump kit is available as optional accessory, which lifts the drain 1,000 mm from the bottom of the unit.



## VRV Indoor Units





#### **Specifications**

MODEL			FXAQ20AVMS	FXAQ25AVMS	FXAQ32AVMS	FXAQ40AVMS	FXAQ50AVMS	FXAQ63AVMS	
Power supply			1-phase, 220-240 V/220 V, 50/60 Hz						
		Btu/h	7,500	9,600	12,300	15,400	19,100	24,200	
Cooling capaci	ty	Btu/h*	7,500	9,600	12,300	15,500	19,300	24,400	
		kW	2.2 / 2.2*	2.8 / 2.8*	3.6 / 3.6*	4.5 / 4.6*	5.6 / 5.7*	7.1 / 7.2*	
Power consum	ption	kW	0.019	0.028	0.030	0.020	0.033	0.050	
Casing			White (3.0Y8.5/0.5)						
Airflow rate (H	/L)	m∛min	9.1/7.0	9.4/7.0	9.8/7.0	12.2/9.7	14.4/11.5	18.3/13.5	
Sound level (H	′L)	dB(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	
Dimensions (H	×W×D)	mm		290×795×266		290×1,050×269			
Machine weigh	t	kg		12.0			15.0		
	Liquid (Flare)			<i>ϕ</i> 6.4					
Piping connections	Gas (Flare)	mm			φ 12.7			\$ 9.5	
Connoctions	Drain			VP13	(External Dia, 18/Int	ernal Dia, 13)		\$\$\phi_15.9\$	

Note: Specifications are based on the following conditions;
 Cooling: Indoor temp.: 27°CDB, 19°CWB;, <u>\*27°CDB, 19.5°CWB</u>, Outdoor temp.: 35°CDB, Equivalent piping length: 7.5 m, Level difference: 0 m.
 Capacity of indoor unit is only for reference. Actual capacity of indoor unit is based on the total capacity index. (See Engineering Data Book for details.)
 Sound level: Anechoic chamber conversion value, measured at a point 1 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.

# **Floor Standing Type**

## **FXLQ-MA**

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



#### **Specifications**

MODEL				FXLQ20MAVE8	FXLQ25MAVE8	FXLQ32MAVE8	FXLQ40MAVE8	FXLQ50MAVE8	FXLQ63MAVE8		
Power supply				1-phase, 220-240 V/220 V, 50/60 Hz							
Btu/h			7,500	9,600	12,300	15,400	19,100	24,200			
Cooling capacity	/		Btu/h*	7,500	9,600	12,300	15,500	19,300	24,400		
			kW	2.2 / 2.2*	2.8 / 2.8*	3.6 / 3.6*	4.5 / 4.6*	5.6 / 5.7*	7.1 / 7.2*		
Power consumption kW			kW	0.0	049	0.	090	0.	110		
Casing					Ivory white (5Y7.5/1)						
Airflow rate (H/			m³/min	7/6		8/6	11/8.5	14/11	16/12		
Annow rate (1)	L)		cfm	247/212		282/212	388/300	494/388	565/424		
Sound lovel (H/I	)	220 V			35/32		38/33	39/34	40/35		
	-/ [	240 V			37/34		40/35	41/36	42/37		
Dimensions (H×	W×D)		mm	600×1,000×222		600×1,140×222		600×1,420×222			
Machine weight			kg	2	25	3	30	3	36		
	Liqui	d (Flare)				\$ 6.4			\$ 9.5		
Piping	Gas	Gas (Flare)				\$ 12.7			\$\$ 15.9		
CONTRECTIONS	Drain	1				21	O.D.				

Note: Specifications are based on the following conditions; • Cooling: Indoor temp.: 27°CDB, 19°CWB,; \*27°CDB, 19.5°CWB, Outdoor temp.: 35°CDB, Equivalent piping length: 7.5 m, Level difference: 0 m. • Capacity of indoor unit is only for reference. Actual capacity of indoor unit is based on the total capacity index. (See Engineering Data Book for details.) • Sound level: Anechoic chamber conversion value, measured at a point 1.5 m 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.

# **Concealed Floor Standing Type**

## VRV Indoor Units

### **FXNQ-MA**

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.
- 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/m3



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

#### **Specifications**

	MOD	EL		FXNQ20MAVE8	FXNQ25MAVE8	FXNQ32MAVE8	FXNQ40MAVE8	FXNQ50MAVE8	FXNQ63MAVE8	
Power supply				1-phase, 220-240 V/220 V, 50/60 Hz						
Btu/h			Btu/h	7,500	9,600	12,300	15,400	19,100	24,200	
Cooling capacity			Btu/h*	7,500	9,600	12,300	15,500	19,300	24,400	
			kW	2.2 / 2.2*	2.8 / 2.8*	3.6 / 3.6*	4.5 / 4.6*	5.6 / 5.7*	7.1 / 7.2*	
Power consumpt	ion		kW	0.0	)49	0.0	)90	0.1	110	
Casing					Galvanised steel plate					
Airflow rate (H/L	)		m³/min	7/6		8/6	11/8.5	14/11	16/12	
	/		cfm	247/212		282/212	388/300	494/388	565/424	
Sound lovel (H/L)		220 V	dD(A)		35/32		38/33	39/34	40/35	
		240 V			37/34		40/35	41/36	42/37	
Dimensions (H×W	/×D)		mm	610×9	30×220	610×1,070×220			610×1,350×220	
Machine weight			kg	1	9	2	.3	2	27	
	Liqu	id (Flare)				<i>ф</i> 6.4			\$ 9.5	
Piping	Gas	(Flare)	mm			\$\phi_12.7	ф 12.7			
connections	Draii	n				21	0.D.			

Note: Specifications are based on the following conditions;

Cooling: Indoor temp.: 27°CDB, 19°CWB; \*27°CDB, 19.5°CWB, Outdoor temp.: 35°CDB, Equivalent piping length: 7.5 m, Level difference: 0 m.
 Capacity of indoor unit is only for reference. Actual capacity of indoor unit is based on the total capacity index. (See Engineering Data Book for details.)
 Sound level: Anechoic chamber conversion value, measured at a point 1.5 m in front of the unit at a height of 1.5 m.

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

# Floor Standing Duct Type

## FXVQ-N

Large airflow type for large spaces



• Full-scale duct connection airflow allows for air conditioning evenly in spacious areas.





Duct connection airflow type

- Direct airflow type
- Adding the plenum chamber (option) allows for simple operation with direct airflow. \*Note that the operation sound increases by approximately 5dB(A).
- The belt drive system allows for use of air discharge outlets in various shapes as well as long ducts.
- A long-life filter (maintenance free up to one year\*) is equipped as a standard accessory. \*8 hr/day, 26 day/month. For dust concentration of 0.15 mg/m3
- A wide range of optional accessories are available such as high-efficiency filters.
- Outdoor air intake mode is useable as an outdoor-air processing air conditioner. \*When using the unit as an outdoor-air processing unit, there are some restrictions. Strictly follow the restrictions specified in the Engineering Data Book.



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

## VRV Indoor Units



#### **Specifications**

	MODEL		FXVQ125NY1	FXVQ200NY1	FXVQ250NY1	FXVQ400NY1	FXVQ500NY1	FXVQ500NY16
Power supp	bly		3-phase 4-wire system, 380–415 V, 50 Hz					
Btu/h		47,800 76,400 95,500 154,000 191,000			,000			
Cooling cap	bacity	Btu/h*	48,100	76,900	96,000	154,400	192	,300
		kW	14.0 / 14.1*	22.4 / 22.6*	28.0 / 28.2*	45.0 / 45.3*	56.0 /	56.4*
Power cons	sumption	kW	0.53	1.33	1.61	3.97	2.62	4.70
Casing cold	our				Ivory white	e (5Y7.5/1)		
Dimensions	(H×W×D)	mm	1,670×750×510	670×750×510 1,670×950×510 1,670×1,170×510 1,900×1,170×720		1,900×1	1,900×1,470×720	
Machine weight kg		kg	118	144	169	236	281	306
Sound level	*1	dB(A)	52	56	60	65	62	66
-	Liquid	mm		∮ 9.5 (Brazing)		φ 12.7 (Brazing) φ15.9 (Brazing)		
Piping	Gas	mm			azing)			
connoctionio	Drain	mm			Rp1 (PS 1B ir	nternal thread)		
Air filter	Туре				Long-life filter (an	ti-mould resin net)		
	Motor output	kW	0.75	1	.5	3.	.7	5.5
	Airflow roto	m³/min	43	69	86	134	165	172
Fan	AITTIOW RATE	cfm	1,518	2,436	3,036	4,730	5,825	6,072
	External static pressure *2	Pa	152	217	281	420	142	390
	Drive system		Belt drive system					

Note: Specifications are based on the following conditions; • Cooling: Indoor temp.: 27°CDB, 19°CWB,; \*27°CDB, 19.5°CWB, Outdoor temp.: 35°CDB, Equivalent piping length: 7.5 m, Level difference: 0 m. • Capacity of indoor unit is only for reference. Actual capacity of indoor unit is based on the total capacity index. (See Engineering Data Book for details.) \*1: Sound level : measured when the air discharge outlet duct (2 m) is attached (anechoic chamber conversion value). It increases by approximately 5 dB(A) when the plenum chamber is installed to deliver direct airflow. \*2: The value is the external static pressure with standard pulley.

# **Clean Room Air Conditioner**

## FXB(P)Q-P

Suitable for hospitals and other clean spaces

#### Easily provides the high cleanliness environment required by various industries

Daikin's clean room air conditioners are specially designed to achieve an environment cleanliness class 10,000. These air conditioners easily realize a cleanliness-class environment and help create a proper environment of hospitals, food and beverage factories, electronics factories, and other spaces that require clean air.

### Select the air flow system and installation method to match the layout and purpose of the room

Two types of clean room air conditioners are available – an integrated unit model and a separate outlet unit model.

It is also possible to configure the air flow system to ceiling intake or floor-level intake according to the panel selected.

This flexible design enables the air conditioner to easily adopt to any room layout or use.

#### Instances of installation by type (for a hospital)

Ту	/pe	Ceiling intake type (high speed contracted flow/high ceiling model)	Floor-level intake type (gentle wind distribution/high cleanness class model)		
Feat	tures	Construction work is simple and a ceiling installation is possible. Dust filtering and air-conditioning can be started immediately.	Easy to increase the cleanness and air-conditioning effect. A low flow speed prevents drying of the affected part and the experience of drafts.		
Cleanne	ss class*1	100,000 to 10,000	10,000		
Wind	speed	1.0 m/s or higher	Approximately 0.5 m/s		
Blow	Integrated outlet unit model	Concentrated air conditioning centered directly under the unit     Easy installation	• Total air conditioning with an emphasis on cleanliness		
method	Separate outlet unit model	<ul> <li>Somewhat concentrated air conditioning centered directly under the outlet</li> <li>Can provide air conditioning in rooms with irregular shapes</li> <li>Outlet Air unit conditioner</li> <li>Applications: CCU*<sup>2</sup>, sterile rooms, etc.</li> </ul>	<ul> <li>Total air conditioning with an emphasis on cleanliness</li> <li>Maintenance possible from a different room</li> <li>Intake a sourced locally</li> <li>Applications: Premature nurseries, newborn nurseries, ICU*<sup>3</sup>, etc.</li> </ul>		

\* 1. Cleanliness class. A scale expressing the cleanliness of air established by NASA (National Aeronautics and Space Administration). Class 10,000 represents a state of less than 10,000 minute particles of diameter under 0.5 μm per cubic foot. For comparison, the cleanliness of a typical office is around class 1,000,000.

\* 2. CCU (Cardiac Care Unit). A ward dedicated to the admission of patients with myocardial infarctions and other heart diseases.
 \* 3. ICU (Intensive Care Unit). A ward for the careful treatment and nursing of patients with serious illnesses, injuries, or recovering from operations.

# Prevents uncomfortable drafts with a low flow speed of approximately 0.5 m/s

The floor-level intake system has a low flow speed of approximately 0.5 m/s.

#### Filtration Class 10,000 clean room condition achieved with a HEPA filter (sold separately)

The low pressure-loss HEPA filter (sold separately) demonstrates superior dust filtering performance and easily accomplishes an air cleanliness of class 10,000.

 $\ast$  It may not be possible to maintain cleanliness in rooms with low air tightness.

### Antibacterial

#### Suppresses the propagation of bacteria in the duct with a proprietary antibacterial coating

The filter implements an antibacterial treatment with a new coating combining a silver-based inorganic antibacterial material (an organic antibacterial material that is effective against germs) that prevents mould.

This enhances the antibacterial properties of the duct.

An antibacterial treatment using a silver-based organic substance reduces mould.

### Antibacterial fiber used in the intake filter

With a long-life filter employing anti-mould antibacterial fiber near the intake, cleaning performance is further enhanced.

\* Please be aware that antibacterial products suppress the propagation of bacteria but do not

Please be aware that antibacterial products suppress the propagation of bacteria but do not have a sterilizing effect. Also, mould may grow in places where dust or soot accumulates.
 \* A material for which the registered safety was verified by Japanese chemicals and dangerous substances regulation law (Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc) is used for the antibacterial material.

\* Periodic maintenance is required (such as cleaning the air filter and washing the inside to the unit).



#### **Specifications**

Туре				Separate outlet unit model				
MODEL	Indoor unit		FXBQ40PVE	FXBQ50PVE	FXBQ63PVE	FXBPQ63PVE		
MODEL	Outlet unit		In	ntegrated with the indoor uni	t	BAF82A63		
Power supply				1-phase, 220-240 V/220 V, 50/60 Hz				
Cooling capacity		Btu/h	15,400	19,100	24,200	24,200		
		Btu/h*	15,500	19,300	24,400	24,400		
		kW	4.5 / 4.6*	5.6 / 5.7*	7.1 / 7.2*	7.1 / 7.2*		
Power cons	sumption	kW	0.3	31	0.	45		
Intake filter	efficiency *1			70% by gravir	metric method			
Outlet HEPA filter efficiency *2				99.97% by DOP method *5				
Indoor unit weight kg		140 *3		185 *3	120 *6			
Casing			Galvanised steel plate					
Airflow rate	х (Ц/L)	m³/min	19.5/17.5		26/	22.5		
Annowrate	(II/L)	cfm	688/618		918	/794		
Sound leve	(H/L) *4	dB(A)	44/42					
Dimensions	(H×W×D)	mm	492×1,788×1,000		492×1,788×1,300	492×1,078×1,300		
Outlet unit	weight	kg	-			65 *3		
	Liquid (Flare)		<i>\$</i> 6	.4	\$ <b>9.</b> 5			
Piping	Gas (Flare)	mm	¢ 12	φ12.7 φ15.9				
CONTRECTIONS	Drain		PT1B					
Filter(Option)	HEPA filter		BAFH8	32A50	BAFH	82A63		
Panel	Ceiling intake type	Model	BYB82	A50C	BYB82A63C	BYB82A63CP		
(Option)	Floor-level intake type		BYB82	A50W	BYB82A63W	BYB82A63WP		

Note: Specifications are based on the following conditions; •Cooling: Indoor temp.: 27°CDB, 19°CWB,; \*27°CDB, 19.5°CWB, Outdoor temp.: 35°CDB, Equivalent piping length: 7.5 m, Level difference: 0 m. •Capacity of indoor unit is only for reference. Actual capacity of indoor unit is based on the total capacity index.

(See Engineering Data Book for details.)

(See Engineering Data Book for decails)
\*1: An intake air filter is only attached to the ceiling intake type.
\*2: HEPA filter sold separately. The dust collection efficiency of HEPA filter is 99.97%. However, air may slightly leak around the filter when installing.

\*3: Weight including HEPA filter and panel. 4: Anechoic chamber conversion value under JIS B 8616 test conditions. Value usually increases slightly in practice due to surrounding conditions.

5: The clean room air conditioner does not support DOP testing (leak test) based on GMP standards (Standards for Manufacturing Control and Quality Control for Medical Devices ) due to slight leakage at time of product installation.

\*6: Weight including panel.

\*In the case of an installation in an operating theatre etc. where an air conditioner malfunction may have serious consequences, please build in redundancy with two or more outdoor units.



#### Because the ceiling intake type provides concentrated air conditioning that blows directly under the outlet. Accordingly, please be aware of the following. Sufficient heating may not be achieved near the floor or at locations far from the outlet. In the case of utilization in a hospital, some patients may be susceptible to cool drafts, so please ensure that they do not come directly under the outlet. Install multiple units using two or more outdoor unit systems for installations to rooms such as operating rooms where the failure of the air conditioner

- may have serious consequences. . In order to maintain static pressure in a room, the indoor fan continues to operate even when an abnormality occurs due to the thermostat shutting off,

In order to maintain static pressure in a room, the indoor fan continues to operate even when an abnormality occurs due to the thermostat shutting oir, defrost operation, protection device operation, or similar issue.
When incorporating outdoor air from the fresh air intake, install a damper or similar device to the duct routing and have it interlocked with the indoor fan so that the outdoor air is shut out when the fan stops.
The air that incorporate the suction filter may flow backward and allow dust trapped in the filter to return to the room.
When using gas to disinfect hospital operating rooms where this unit is installed, stop operation and cover the air inlet and outlet with plastic sheets to prevent the gas from reaching and damaging the air conditioner.

#### Use the floor-level intake type in the following kind of locations

- Locations in which heating of the lower part or the entire room is important.
- Locations necessitating a particularly high cleanliness factor and in which there are many people.

# **VRV** AHU Introduction

The new VRV AHU series released by Daikin, standard air series model AHUR-DCV/CCV/SCV with its outdoor air series AHUR-DCL/CCL/SCL. It is a DX AHU that is specially designed to operate with VRV outdoor unit.

This enabled the users to • reduce maintenance costs

• enjoy more space savings

Daikin VRV AHU improves the indoor air quality caused by haze, pollutants, etc with options of pre-filters and primary filters.

This is the only total AHU solutions provided and manufactured completely by daikin.



#### What is VRV?

Daikin VRV system is a multi-split type air conditioner for commercial buildings that uses variable refridgerant flow control invented by Daikin.



It enables long piping length up to 165 m and maximum level difference (between outdoor and indoor units) of 90m to provide more design flexibility which can match even large-sized buildings.

It allows one touch selection control using Intelligent Touch Manager and includes options to link with Bacnet <sup>®</sup>to enhance the Building Management System (BMS).

#### **VRV** AHU Application

From small to large commercial spaces, Daikin offers a wide range of R410-A inverter condensing units for use in conjunction with Air Handling Units (AHU) from 6 HP to 120 HP.

AHU provides large air volumes and high ESP (External Static Pressure) enabling the use of extensive ductworks. The refrigerant flows through the copper pipes using R-410A and operates like a large VRV fan coil unit.

Daikin AHU represents the ideal solution for large storage places, atrium, lobby, banquet halls, showrooms, exhibition halls, shopping malls, etc.

It also has the options to customize the specifications such as the filtration type, direction of air in-take and discharge, service access door and blower type (backwrad or forward curves and plug fan.)



# **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



AHUR Capacity range : 6 – 120 HP



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.

# Standard Air Series AHUR-DCV/CCV/SCV

#### VRV AHU Standard Air Series

The VRV AHU standard air series are available from the capacity range of 6 HP to 120 HP, also with airflow ranging from 3,240 CMH - 59,760 CMH.



#### Expanded Line Up for Daikin VRV Indoor Series

#### Comparison for External Static Pressure and Capacity between VRV AHU and Duct Typed Unit

VRV AHU offers higher ESP and Capacity as compared to duct type fan coil unit.



#### Daikin's Sales Office

#### VRV AHU Operation Range

VRV AHU AHUR-DCV/CCV/SCV operation is similar as oth ope

V AHU AHUR-DCV/Co le VRV indoor unit. F	CV/SCV operatio ollowing table is	Temperature Range	
eration range for AHI	Cooling		
Entering Air Tem	14°C WB		
to VRV AH	U	Maximum	35°C DB / 25°C WB
Outdoor Unit	VRV	Minimum	-5°C DB
		Maximum	49°C DB
		Minimum	-5°C DB
		Maximum	46°C DB
Standard Air Sori		Minimum	-10°C DB
Stanuaru Air Serie	esped	Maximum	40°C DB

## **Air Handling Units**

#### Possibility Z (Ts/Tr control):

Using Daikin wired remote controller (BRC1E62 optional) Set point can be fixed via standard Daikin wired remote controller. Remote ON/OFF can be achieved by an optional adapter KRP4AA51.

No additional external controller is required. The cooling load is determined from the air suction temperature and set point on the Daikin remote controller.



#### VRV AHU Standard Air Series PCB

			SDR4220199-2
Application			Multi
Outdoor Unit			VRV
Casing	Colour		White grey
casing	Material		Resin
Dimensions	Unit	H x W x D mm	248x421x149
Weight	Unit	Kg	3.6
Operation Range	Cooling	Min. ~ Max. °CDB	<del>-</del> 10.0 ~ 40.0
	Phase		1
Power Supply	Frequency	Hz	50/60
	Voltage	V	230/220



**Front View** 

#### *VRV* AHU Standard Air Series Evaporator Coil, Expansion Valve and Standard air series PCB

AHUR-DCV/CCV/SCV Standard Air Series model use DX coil.

Each DX coil will be connected to the internal expansion valve and controlled by Standard Air Series PCB (SDR4220199-2)

VRV AHU Standard Air Series Evaporator Coils

- 5 capacities of Evaporator Coils
  - 6HP used on 6HP AHU unit
  - 8HP used on 8HP AHU unit
  - 10HP used on 10HP AHU unit
  - 16HP used on 16HP, 32HP, 48HP AHU unit
  - 20HP used on 20HP, 40HP, 60HP, 80HP, 100HP, 120HP AHU unit

VRV AHU Expansion Valve (Built-In Coil)

- 5 capacities of AHU Expansion Valve
  - Heat Exchanger 6HP
  - Heat Exchanger 8HP
  - Heat Exchanger 10HP
  - Heat Exchanger 16HP
  - Heat Exchanger 20HP

VRV AHU Standard Air Series PCB (SDR4220199-2)



Depth Side View

Daikin's air treatment systems creating a higher IAQ

### Components of indoor air quality



A recent trend rapidly gaining popularity is for air treatment to be required as well as air conditioning. Daikin has a lineup of 3 products that provide adequate IAQ, according to the client's needs.

## **Our Solutions for Indoor Air Quality Problems**

You may think cool and comfortable air-conditioned room is enough, but...



		Outdoor-Air P	rocessing Unit	Heat Reclaim Ventilator		
		FXMQ-M Type	FXMQ-B Type	VKM-GC Type	VAM-GJ Type	
		Ventilation Air Proc	Humidification	Ventilation Humidification Air Processing*	Ventilation Humidification Air Processing*	
	Refrigerant Piping	Connec	table	Connectable	Not connectable	
Connections	Wiring	Connectable Available		Connectable	Connectable	
with VRV systems	After-cool Control			Available	Not available	
Heat Exchange Element		-		Energy savings obtained	Energy savings obtained	
High Efficiency Filter		Option		Option	Option	
Ventilation System		Air supply only		Air supply & air exhaust	Air supply & air exhaust	
Power Supply		220-240 V, 50 Hz		220-240 V, 50 Hz	220-240 V/220 V, 50 Hz/60 Hz	
Airflow Rate				500 m³/h	150 m³/h 250 m³/h 350 m³/h 500 m³/h 650 m³/h	
		1080 m³/h	690 m³/h	800 m³/h 1000 m³/h	800 m³/h 1000 m³/h	
		1680 <sub>M</sub> ³/h	1230 <sub>m</sub> ³/h 1740 <sub>m</sub> ³/h		1500 m³/h	
		2100 <sub>m³</sub> /h	2160 m³/h		2000 m³/h	

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

## Outdoor-air processing unit

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

Lineup

Model Name	FXMQ125MFV1	FXMQ200MFV1	FXMQ250MFV1
Capacity Index	125	200	250



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. This results in enhanced design flexibility and 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 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 outdoor units, contact your local distributor.

• Outdoor-air processing units can be used without indoor units.

12:00

25°C 28

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Cool

all

- 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. The set temperature can be varied within the range of 13–25°C during cooling 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 may stop due to mechanical protection control.
  - Ceiling mounted duct units with three different 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.



- Notes: 1. The data shown in the graph illustrates the supported operation ranges under the following conditions.
  - 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  $5\,^\circ\mathrm{C}$  or below.

- High-performance filters with dust collection efficiencies (JIS calorimetry) of 90% and 65% are also available as options.
- For 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. Remote controllers connect to each unit separately.

> BRC1E63 Navigation Remote Controller (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 in areas which standard indoor units are installed, as central control cannot be used with them.



DCS302CA61 Central remote controller (option)

- With the VRV system, the equipment employs the "super wiring system" so that the wiring linking the indoor and outdoor units can also be utilised for central control.
- Notes: \* 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, Installing or 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 standard indoor units is not supported. A
  - separate remote controller should be connected to individual unit. \* The system will not operate in fan mode when the outdoor air temperature is 5°C or below.
  - \* If the product is utilised 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.

## **Standard specifications**

#### Indoor unit

Туре				Ceiling Mounted Duct Type			
MODEL				FXMQ125MFV1	FXMQ200MFV1	FXMQ250MFV1	
Power supply	ý			1-phase 220-240 V (also required for indoor units), 50 Hz			
Cooling capacity *1           Btu/h           kW		Btu/h	47,800	76,400	95,500		
		kW	14.0	22.4	28.0		
Power consu	mption		kW	0.359	0.548	0.638	
Casing					Galvanised steel plate		
Dimensions (	$(H \times W \times D)$		mm	470 × 744 × 1,100	470 × 1,38	30 × 1,100	
	Motor output kW				0.380		
Fan	Airflow rate		m³/min	18	28	35	
	AITTOW Fale		cfm	635	988	1,236	
	External static pressure 220 V/240 V		Pa	185/225	225/275	205/255	
Air filter				*2			
Defiinent	Liquid		mm	∮9.5 (flare)			
piping	Gas		mm	¢ 15.9 (flare)	∮ 19.1 (brazing)	¢ 22.2 (brazing)	
rr J	Drain		mm	PS1B female thread			
Machine wei	ght		kg	86	12	23	
Sound level <sup>3</sup>	k3	220 V/240 V	dB(A)	42/43	47/	/48	
Connectable outdoor units *4				6 HP and above	8 HP and above	10 HP and above	
Operation range (Fan mode operation between 15 and 19°C)				19 to 43°C			
Range of the	discharge temperature *	5		13 to 25°C			

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

 Cooling: Outdoor temp. of 33°CDB, 28°CWB (68% RH), and discharge temp. of 18°CDB.
 Equivalent reference piping length: 7.5 m (0 m horizontal)
 \*2. An intake filter is not supplied, so be sure to install the optional long-life filter or high-efficiency filter. Please mount it in the duct system of the suction side. Select a dust collection efficiency (gravity method) of 50% or more. \*3. Anechoic chamber conversion value, measured at a point 1.5 m downward from the unit centre. These values are normally somewhat higher during actual

operation as a result of ambient conditions. \*4. It is possible to connect to the outdoor unit if the total capacity of the indoor units is 50% to 100% of the capacity index of the outdoor unit.

5. Local setting mode is not displayed on the remote controller.
 This equipment cannot be incorporated into the remote group control of the VRV system.

## Options

#### Indoor unit

MODEL		FXMQ125MFV1	FXMQ200MFV1	FXMQ250MFV1		
Operation remote controller			BRC1E63 / BRC2E61			
ntro	Central remote controller			DCS302CA61		
n/co	Unified ON/OFF controller			DCS301BA61		
atio	Schedule timer			DST301BA61		
Dper	Wiring adaptor for electrical appendices (1)			KRP2A61		
	Wiring adaptor for electrical appendices (2)		KRP4AA51			
	Long-life replacement filter		KAFJ371L140	KAFJ371L280		
ers	Llich officiency filter	Colourimetric method 65%	KAFJ372L140	KAFJ372L280		
Elf	High-efficiency litter	Colourimetric method 90%	KAFJ373L140	KAFJ37	73L280	
	Filter chamber *1		KDJ3705L140 KDJ3705L280			
PM2.5 filtration unit *2		BAF429A20A				
PM2.5 with activated carbon filtration unit *2		BAF429A20AC				
Dra	in pump kit		KDU30L250VE			
Ad	aptor for wiring			KRP1B61		

Notes: \*1. Filter chamber has a suction-type flange. (Main unit does not.)

Dimensions and weight of the equipment may vary depending on the options used.
Some options may not be usable due to the equipment installation conditions, so please confirm prior to ordering.

Some options may not be used in combination.
Operating sound may increase somewhat depending on the options used.

\*2. Refer to pages 181 - 182 for details.

## Dimensions

#### FXMQ125/200/250MFV1



\*These diagrams are based on FXMQ200 and FXMQ250MFV1.

#### FXMQ200/250MFV1



#### Local connection piping size

Model	Gas piping diameter	Liquid piping diameter
FXMQ125MFV1	¢15.9	¢9.5
FXMQ200MFV1		¢9.5
FXMQ250MFV1		¢9.5

#### **Table of dimensions**

Model	А	В	С	D
FXMQ125MFV1	744	685	5X100=500	20-∮4.7 hole
FXMQ200MFV1	1380	1296	11X100=1100	32-∮4.7 hole
FXMQ250MFV1	1380	1296	11X100=1100	32-∮4.7 hole

Notes: 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 form that the sure to mount and the sure to

 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.

Liquid pipe connection
 Gas pipe connection
 Drain piping connection
 Electric parts box
 Ground terminal
 Name plate

⑦ Power supply wiring connection
⑧ Transmission wiring connection
⑨ Hanger bracket
⑩ Discharge companion flange
⑪ Water supply port
⑫ Attached piping (Note. 1)

#### FXMQ125MFV1





## Outdoor-air processing unit



## FXMQ-BFV2S





**MERV8** 



MERV14

#### Lineup

Model Name	FXMQ80BFV2S	FXMQ140BFV2S	FXMQ200BFV2S	FXMQ250BFV2S
Capacity Index	80	140	200	250

## **Product Features**



Room Temperature Control Set point temperature can be selected similar to normal VRV indoor unit.





#### DC Motor

The change from AC motor to DC motor resulted in lower power consumption and more energy efficiency.



#### **3 Steps Airflow**

3 airflow levels (H/M/L) can be selected, which enhance usage and design flexibility.



#### Filter Options

The filter options of MERV8 and MERV14 are available.





#### Slim & Compact Design

Only 300 mm in height and 700 mm in depth, the new casing comes with smaller footprint and with 59% reduction\* in unit size. \*Reduction in size compared to conventional FXM0200/Z50MF series



#### VRT Control

With the VRT\* control feature, highest efficiency can be achieved. \*Default setting is VRT off.

**Extended Operation Range** 

Extended operation range: Cooling: 15°CDB to 43°CDB



#### Lower Power Consumption

The new FXMQ-BF series requires 79% less power making it the perfect choice for small commercial applications.

\*Reduction of power consumption refer from comparison with 22.4kW model (FXMQ-MF series).



Ventilation 🔿

Provide outdoor air ventilation beyond the minimum requirement to reduce risk of air borne disease.

> Filtration Filter that achieve MERV14 or better grade can help remove infectious aerosol for recirculated air.



#### • Air processing

Ventilate occupied space by supplying the fresh air and filtrate the air with MERV filters to enhance the IAQ while able to maintain the comfortability with room temperature control feature.

15°CDB 43°CDB Cooling



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## Benefits to Various Application Types



- Provides fresh air to closed space that are typically crowded such as supermarkets and grocery stores to reduce the risk of airborne transmitted diseases.
- The new 9kW capacity model is the perfect fit for smaller business such as small/medium-sized shops and convenience stores



- Maintains the best IAQ with room temperature control and fresh air ventilation in guest rooms and common areas.
- By maintaining ideal temperature and humidity. the unit could save future costs by extending the life cycle of furniture and appliances.



- Enhances the IAQ of the production areas where machines may generate dusty atmosphere and other contaminants
- Maintains comfortability and precise temperature control in large areas with the remote sensor option BRCS01A-6.



- Many hours were spent in school/office in one day, maintaining comfortability with fresh air and precise room temperature control is essential.
- Improves IAQ to help . prevent occupants from allergies, sick building syndrome (SBS) and building-related illnesses (BRI).



- Freshens up the air by introducing fresh air while reducing the presence of unpleasant smell such as smokes, food smells, and stale air from the cooking area.
- With the MERV14 filter options, it is able to capture the airborne particles between 1 µm to 3 μm size range at 90% efficient rate\* \*ANSI/ASHRAE Standard 52.2-2017 P.44

#### **Specifications**

Model name			FXMQ80BFV2S	FXMQ140BFV2S	FXMQ200BFV2S	FXMQ250BFV2S
Power supply			1 phase, 220 V, 50 Hz			
+1+2 Cooling	anacity	Btu/h	30,700	54,600	76,400	95,500
	apacity	kW	9.0	16.0	22.4	28.0
Power consump	tion	kW	0.080	0.100	0.115	0.180
Casing				Galvanised	steel plate	
Dimensions (H×	N×D)	mm	300×700×700	300×1,000×700	300×1,4	00×700
Airflow rate (H/M/L) I/s		m³/min	11.5/8.6/5.8	20.5/15.4/10.3	29.0/21.8/14.5	36.0/27.0/18.0
		l/s	192/143/97	342/257/172	483/363/242	600/450/300
		cfm	406/304/205	724/544/364	1,024/770/512	1,271/953/635
External static p	ressure	Ра	Rated 100 (200-50)			
Air filter			★3			
	Liquid	mm		φ9.5 (	(Flare)	
Piping	Gas	mm	φ15.9	(Flare)	φ19.1 (Brazing)	φ22.2 (Brazing)
connections	Drain	mm	VM, V24: VP25 (External dia. 32, Internal dia. 25) V2S: VP25 (External dia. 34, Internal dia. 25)			
Machine weight kg		kg	28	36	46	47
Sound level (H/N	Л/L)	dB(A)	37.5/30/23	41/34/25	42/35/26	44/36/27
★4 Operation ra	inge	°CDB	15 to 43			

Notes

\*1. The cooling capacity is the maximum value under the following conditions: Indoor temp.: 33°CDB, 28°CWB / outdoor temp.: 33°CDB, Piping length: 7.5m.

The rated external static pressure and air volume are set in [].

★2. Capacities are net, including a deduction for indoor fan motor heat.

\*4. Air filter is not standard accessory, but please mount it in the duct system of the suction side. Select its dust collection efficiency (gravity method) 50% or more.
 \*4. Operation range can be extend to 15°C by field setting. When the unit is all fresh air (OAPU) connection under cooling operation, the operation limit is at 19°C - 43°C. [extend of operation range is not available.]

5. VRT can be activated with remote controller thermistor and outdoor field setting.

Remarks:

1. This machine cannot be used to handle internal heat loads. The blowout temperature changes depending on the air conditioning load, outside air temperature, and operation of

the protective device. When the protection function is activated, unprocessed outside air maybe set directly. 2. When this unit is connected to another indoor unit, the outside air processing mixing ratio must be as follows: The total content capacity should be A% or less when the unit is connected.

A:B = 100:40 / A:B = 110:30 / A:B = 120:20 / A:B = 130:10 3. During cooling operation, if the ceiling temperature exceeds 30°C and relative humidity reaches 80%, or fresh air is inducted into the ceiling, heat insulation material (glass wool or polyethylene foam, thickness: 10 mm or more) is required to prevent dew condensation.

#### **Option List**

Option name		FXMQ80BFVM         FXMQ140BFVM           FXMQ80BFV24         FXMQ140BFV24           FXMQ80BFV25         FXMQ140BFV25		FXMQ200BFVM FXMQ200BFV24 FXMQ200BFV25	FXMQ250BFVM FXMQ250BFV24 FXMQ250BFV2S		
Filter	MERV8	BAF376B56	BAF376B80	BAF376B160			
	MERV14	BAF377B56	BAF377B80	BAF37	7B160		
Filter chamber		KDDF37AA56	KDDF37AA80	KDDF37	7AA160		
Long life replacement filter		KAF371B56	KAF371B80	KAF371B160			
Service panel		KTBJ25K56F	KTBJ25K80F	KTBJ25K160F			
Air discharge adaptor		KDAJ25K56A	KDAJ25K71A	KDAJ25K140A			
Stylich remote controller	White	BRC1H63W					
stylish remote controller	Black	BRC1H63K					
Navigation remote controller		BRC1E63					
Simplified remote controller		BRC2E61					
Wireless remote controller		BRC4C66					
Remote sensor (for indoor temperatu	ure)	BRCS01A-6					

Note: Refer to Engineering Data for full list of optional accessories

### Air Treatment Equipment

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## Heat Reclaim Ventilator with DX-coil (VKM Series)

The heat reclaim ventilator lineup features the DX-coil in response to recently diversifying outdoor air introduction requirements.



#### Lineup

With DX Coil Type									
Model Name	VKM50GCVE	VKM80GCVE	VKM100GCVE						
Capacity Index	31.25	50	62.5						

#### DX-coil

The Heat Reclaim Ventilator features DX-coil that contributes to the prevention of hot airflow colliding people directly during cooling operation, due to the after-cool operations done beforehand.

#### High static pressure

High external static pressure means enhanced design flexibility.

#### Efficient outdoor air introduction is possible

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

#### Air conditioning and outdoor air processing can be accomplished using a single system.



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

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

#### A compact unit packed with Daikin's cutting-edge technologies.



#### Heat exchange and cooling process



#### Effcient fresh outdoor air supply with heat exchange and cooling operation.

#### Indoor unit with outdoor air treatment

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

#### **Other features**

- Integrated system includes ventilation and air processing operations.
- Ventilation and cooling are possible with one remote controller.



## Specifications :



MODE	L		VKM50GCVE	VKM80GCVE	VKM100GCVE		
Refrigerant			R410A				
Power Supply (50/60Hz)			1-	1-phase, 220-240 V / 1-phase, 220 V			
Airflow Rate & External Static Pressure	Airflow	m³/h	500/500/440	750/750/640	950/950/820		
(Ultra-high / High / Low) (Note1)	Static Pressure	Pa	210/170/140	220/180/125	170/120/90		
Power Consumption	Heat exchange mode	W	270/230/170	390/335/220	440/370/260		
(Ultra-high / High / Low)	Bypass mode	W	305/260/200	390/335/220	440/370/260		
Fan Type				Sirocco Fan			
Motor Output		kW		0.21 x 2			
Sound Level (Note2)	ote2) Heat exchange mode		43/40.5/39	41.5/39/37	41/39/36.5		
(Ultra-high / High / Low) Bypass mode		dB	43/41/39	41.5/39/37	41/39/36.5		
Temp. Exchabge Efficiency (Ultra-high / Hi	gh / Low)	%	76/76/77.5	78/78/79	74/74/76.5		
Enthalpy Exchabge Efficiency	Cooling	%	64/64/67	66/66/68	62/62/66		
(Ultra-high / High / Low)	Heating	%	67/67/69	71/71/73	65/65/69		
Heat Exchanging System			Air to Air Cross Flow Total Heat (Sensible + Latent Heat) Exchange				
Heat Exchanging Element			Specially Processed Non flammable Paper				
Air Filter			Multidirectional Fibrous Fleeces				
DX-coil Capacity (Cooling / Heating) (Note	e3) (Note4)	kW	2.8/3.2	4.5 / 5.0	5.6 / 6.3		
Dimensions (Height x Width x Depth)		mm	387 x 1,764 x 832	387 x 1,76	i4 x 1,214		
Machine Weight		kg	92	113	115		
	Around Unit		0°C-40°CDB, 80%RH or less				
Unit Ambient Condition	OA (Note 5)			-15°C-40°CDB, 80%RH or less			
	RA (Note 5)		0°C-40°CDB, 80%RH or less				

Note: 1. Airflow rate can be changed over to Low mode or High mode. 2. The Operating sound measured at the point 1.5 m below the centre of the unit is converted to that measured in an anechoic chamber built in accordance with the JIS C1502 conditions. The actual operating sound varies depending on the surrounding conditions (near running until's sound, reflected sound and so on) and is normally higher than this value. For Operation in a quiet room, it is required to take measures to lower the sound. For detail, refer to the Engineering Data. 3. Indoor Temperature : 27°CDB, 0°CWB, Outdoor temperature: 35°CDB. 4. Indoor Temperature : 20°CDB, Outdoor temperature: 7°CDB, 6°CWB. 5. OA: fresh air from outdoot. RA: return air from room.

## Options :

Item			Гуре	VKM50GCVE	VKM80GCVE	VKM100GCVE	
	Remote controller *1			BRC1H63W / BRC1H63K / BRC1E63			
Controlling device	PC Board appendices			KRP1A61			
	Adaptor	For heater control kit			BRP4A50		
	Siloncor			—	KDDM24B100		
	Silencei	Norminal pipe diameter	mm	_	<i>ф</i> 250		
Additional	Air suction / Dischanrge grille	White		K-DGL200B	K-DGL250B		
function		Norminal pipe diameter	mm	<i>\$</i> 200	\$\$		
	High efficiency filter			KAF242J180M	KAF242J100M		
	Air filter for replacement			KAF241G80M	KAF241G100M		
Flexible duct 1 m 2 m			1 m	K-FDS251D	-FDS251D K-FDS251D		
			2 m	K-FDS252D	K-FDS252D		
CO <sub>2</sub> Sensor				BRYC24B50M	BRYC24B100M		

\*1 Necessary when operating a Heat Reclaim Ventilator (VKM) independently. When Operating interlocked with other air Conditioners, use the remote controllers of the air conditioners. • Please inquire concerning optional accessories not listed above.

## Optional Accessories

### Installation of Optional Accessories



#### **Optional Accessories**

Item		Applicable model	VKM50GCVE VKM80GCVE VKM100GCV						
e e	Remote cont	troller *1	BRC1H63W / BRC1H63K / BRC1E63						
levic	Centralized	Central remote controller		DC\$302CA61					
Lo C	device	Unified ON/OFF controller	DCS301BA61						

Note: \*1 Necessary when operating a Heat Reclaim Ventilator (VKM) independently. When operating interlocked with other air conditioners, use the remote controllers of the air conditioners.

Item		Applicable mod	el	VKM50GCVE	VKM80GCVE	VKM100GCVE	
Cilencer					KDDM24B100		
la r	Sliencer	Nominal pipe diameter mm			¢250 mm		
tior	Air suction/	White		K-DGL200C	K-DGL250C		
und Idit	discharge grille	Nominal pipe diameter	mm	<i>\$</i> 200	¢250		
Air filter for replacement				KAF241J80M	KAF241J100M		
High efficiency filter				KAF242J80M	KAF242J100M		
CO <sub>2</sub> sensor				BRYC24B50M	A BRYC24B100M		
Drawing No.				C: 3D127790			



Remote controller BRC1E63



Silencer



Central remote controller



Air suction/discharge grille (Noise suppression type)



## Heat Reclaim Ventilator

## VAM-H Series

Daikin VAM series ensures fresh air intake and energy savings

Lineup								
VAM150HVE	VAM250HVE	VAM350HVE						
VAM500HVE	VAM650HVE	VAM800HVE						
VAM1000HVE	VAM1500HVE	VAM2000HVE						
Airflow rate: 150-2,000 m³/h								





### New features

### Design flexibility

By significantly improving external static pressure, support for a variety of duct layouts is possible, and installation flexibility has been improved.

The 1000-2000 class model has become more compact, and ease of installation has improved.

Comparison of external static pressure



### Improvement of installation workability

**Improved workability by changing dimensions and shape of lifting lug** The structure that prevents nut slippage eliminates the need to replace the lifting lug even when installed upside down.



### Energy saving

### Sensing sensor stop mode

In situation of no human occupancy is detected, the operation is turned off.

When the "Sensing sensor" installed on the air conditioner detects no occupancy in the room, the ventilation system and air con

system is turned off automatically to reduce energy wastage.



### Humidity sensor (Option)

A humidity sensor (option) can be installed for greater comfort and energy-saving ventilation.

Conditions of low temperature and high humidity... Example, a rainy day, etc.

When the humidity sensor is not installed	When the humidity sensor is installed
$\checkmark$	$\checkmark$
Outdoor air with high humidity enters through normal ventilation.	When outdoor air with high humidity is detected, the system automatically switches to ventilation mode and prevents the humid outdoor air from entering.
$\mathbf{V}$	$\checkmark$
• Discomfort increases.	• Air conditioning load is reduced.
<ul> <li>Air conditioning load and inefficiency</li> </ul>	<ul> <li>Comfort greatly improves.</li> </ul>
increase.	<ul> <li>Energy savings are also increased.</li> </ul>
	<ul> <li>Moreover, ventilation amount is also</li> </ul>
	controlled according to humidity conditions.

### Stylish remote controller

NEW Stylish Remote Controller BRC1H62W (K) combining many VAM-dedicated functions

- Sensor results can be displayed up to 3 item on the information screen.
- Sensor results can be shared to the remote controller group.
- New icons have been added.



## Heat Reclaim Ventilator

## Energy saving / Heat recovery functions

Air conditioner and ventilation system can be interlocked to provide even greater comfort and energy saving.

The system can be interlocked with Daikin air conditioners to provide energy saving ventilation solution for various situation.



### Pre-cool, Pre-heat control

#### Intentional delay of the start-up time

When the air conditioner is started up, the ventilation start-up is delayed to reduce load caused by the outside air. This reduces power consumption of air conditioners.



#### Auto-ventilation mode changeover switching

#### Automatically determine the appropriate ventilation for each situation

Indoor temperature and the outdoor temperature are detected, and the system automatically switches to the ventilation mode which has higher energy-saving effect.



## Nighttime free cooling operation

#### Efficient use of outdoor air at night.

Rise indoor temperature is avoided by automatically cooling the outdoor air at night, thus reducing air conditioning loadat the start of cooling operation on the next morning.



### **CO<sub>2</sub> sensor control (Option)**

When  $CO_2$  sensor is installed, it detects the concentration of  $CO_2$  in the indoor air and the Ventilation rate is controlled appropriately, reducing the air conditioning load due to ventilation.

### **Improvement of IEQ** (Indoor Environmental Quality)

#### PM2.5 filter (Option)

Removes PM2.5 particulate matter present in the outdoor air, as well as sulfur oxides and nitrogen oxides, providing clean fresh air to the indoor ambient.

- PM2.5 filter: Removes 99% or more of 2.5 μm particulate matter.
- Activated Carbon filter: Removes sulfur oxides and nitrogen oxides.

#### Fresh Air Comfort

Round Flow Cassette indoor units can be connected to a duct to provide fresh outdoor air for comfortable air from the air conditioner. Installation is also possible for existing indoor units.

Heat Reclaim Ventilator

 Heat Reclaim Ventilator
 Round Flow Cassette
 (including with sensing type)



## Heat Reclaim Ventilator

## Specification

Model				VAM150HVE	VAM250HVE	VAM350HVE	VAM500HVE	VAM650HVE	VAM800HVE	VAM1000HVE	VAM1500HVE	VAM2000HVE	
Power Supply					Single phase, 220-240 V/220 V, 50/60 Hz								
Temperature		Ultra-High		66.0/66.0	60.5/60.5	65.0/65.0	61.5/61.5	59.5/59.5	61.5/61.5	58.0/58.0	61.5/61.5	58.5/58.5	
exchange	For	High	%	66.0/66.0	60.5/60.5	65.0/65.0	61.5/61.5	59.5/59.5	61.5/61.5	58.0/58.0	61.5/61.5	58.5/58.5	
(50/60 Hz)	Cooling	Low		69.0/69.5	65.0/65.5	70.0/70.0	63.0/64.0	62.5/63.0	64.0/65.0	61.5/62.0	65.5/66.0	65.5/65.5	
Enthalpy		Ultra-High		63.5/63.5	60.0/60.0	62.5/62.5	62.5/62.5	60.0/60.0	63.0/63.0	60.0/60.0	63.0/63.0	60.0/60.0	
exchange efficiency	For Cooling	High	%	63.5/63.5	60.0/60.0	62.5/62.5	62.5/62.5	60.0/60.0	63.0/63.0	60.0/60.0	63.0/63.0	60.0/60.0	
(50/60 Hz)		Low		66.0/66.5	61.5/62.0	64.5/65.0	64.0/65.0	62.5/63.0	64.5/65.5	62.0/62.5	65.5/66.0	64.5/64.5	
	Heat	Ultra-High		96-103/132	126-141/172	178-193/231	296-326/390	381-426/472	664-684/829	683-736/883	1,274-1,353/1,645	1,365-1,471/1,763	
	exchange	High	W	90-93/118	114-123/144	163-170/207	248-261/329	307-319/413	603-612/712	621-656/763	1,207-1,225/1,423	1,241-1,311/1,526	
Power	mode	Low		68-73/67	75-83/79	132-142/145	223-233/268	264-276/332	504-544/562	539-569/594	1,008-1,089/1,125	1,079-1,138/1,188	
(50/60 Hz)		Ultra-High		96-103/132	126-141/172	178-193/231	296-326/390	381-426/472	664-684/829	683-736/883	1,274-1,353/1,645	1,365-1,471/1,763	
	Bypass	High	W	90-93/118	114-123/144	163-170/207	248-261/329	307-319/413	603-612/712	621-656/763	1,207-1,225/1,423	1,241-1,311/1,526	
	mode	Low		68-73/67	75-83/79	132-142/145	223-233/268	264-276/332	504-544/562	539-569/594	1,008-1,089/1,125	1,079-1,138/1,188	
	Heat	Ultra-High		33.0-34.0/34.0	33.0-34.0/33.5	32.0-33.0/34.5	36.0-37.0/38.5	37.5-38.0/38.0	41.5-42.5/41.0	42.0-43.0/42.5	43.0-44.0/44.0	43.5-44.0/44.5	
	exchange	High	dB(A)	30.5-32.0/28.0	31.5-32.5/28.0	30.0-31.5/27.5	35.0-36.0/35.0	36.0-36.5/37.0	39.5-41.0/37.0	40.0-41.0/38.0	41.0-42.5/39.0	41.5-43.0/40.0	
Sound	mode	Low		23.0-25.5/20.0	23.0-25.5/21.0	26.5-28.5/22.0	32.0-34.0/31.0	34.0-35.0/32.5	36.0-38.5/33.0	38.0-39.5/34.5	38.0-40.5/35.0	39.0-41.0/36.5	
(50/60 Hz)	Bypass mode	Ultra-High	dB(A)	33.5-34.0/36.0	33.0-34.0/34.5	32.5-33.5/34.5	36.0-37.0/38.5	39.5-40.0/42.0	41.5-42.5/41.0	42.0-43.0/42.5	43.0-44.0/44.0	43.5-44.0/44.5	
		High		31.5-33.0/28.5	31.0-32.5/29.0	31.0-32.0/27.5	35.0-36.0/35.0	38.0-38.5/39.0	39.5-41.0/37.0	40.0-41.0/38.0	41.0-42.5/39.0	41.5-43.0/40.0	
		Low		23.0-25.5/20.5	23.5-25.5/21.5	27.0-29.0/23.0	32.0-34.0/31.0	35.5-36.5/33.5	36.0-38.5/33.0	38.0-39.5/34.5	38.0-40.5/35.0	39.0-41.0/36.5	
Casing							Ga	lvanised steel pl	ate				
Insulation Materia	al			Self-extinguishable polyurethane foam									
Dimensions (H × )	N × D)		mm	278 x 551 x 810 306 x 800 x 879 338 x 832 x 973 387 x 1,012 x 1,110 78				785 × 1,0	12 × 1,110				
Machine Weight			kg	22         31         41         43         63         133					33				
Heat Exchange Sy	stem			Specially processed nonflammable paper									
Heat Exchange El	ement Mate	rial					Multidi	rectional fibrous	fleeces				
	Туре							Sirocco fan					
	Airflow	Ultra-High		150/150	250/250	350/350	500/500	650/650	800/800	1,000/1,000	1,500/1,500	2,000/2,000	
	Rate	High	m³/h	150/150	250/250	350/350	500/500	650/650	800/800	1,000/1,000	1,500/1,500	2,000/2,000	
Eap	(50/60 Hz)	Low		100/80	165/145	275/235	470/420	570/495	720/610	880/835	1,350/1,250	1,650/1,580	
ган	External	Ultra-High		125-140/155	115-130/135	170-185/230	165-190/245	185-190/260	210-235/250	205-225/220	195-215/235	190-210/210	
	static	High	Pa	100-120/100	80-90/60	145-165/80	140-175/180	140-155/210	170-215/140	155-195/100	150-180/125	140-180/85	
	(50/60 Hz)	Low		44-80/28	35-75/20	90-102/36	124-155/127	108-119/122	138-174/81	115-150/70	123-146/88	96-123/53	
	Motor Out	put	kW	0.03	0 × 2	0.060 × 2	0.100 × 2	0.170 × 2	0.19	0 × 2	0.19	0 × 4	
Effective ventilation	on rate	Ultra-High	%					90					
Connection duct	diameter	Indoor side	mm	¢100	41	50	4.2	00	4.2	50	φ250	) × 4	
		Outdoor side	mm	φιου	φι	50	φΖ	00	φ250		□(680 ×	290) × 2	
Unit ambient condition				-15°C to 50°CDB, 80%RH or less									

Notes:

 Airflow rate can be changed over to Low mode or High mode.
 Temperature Exchange Efficiency is the mean value between cooling and heating.
 Efficiency is measured under the following conditions:Ratio of rated external static pressure has been maintained as follows; outdoor side to indoor side = 7 to 1.
 In conformance with JIS standards (JIS B 8628), operating sound level is based on the value when one unit is operated, with the value converted for an anechoic chamber. This is transmission sound from the main unit, and does not include sound from the discharge grille. Thus it is normal for the sound to be louder than the indicated value when a unit is operated with the value of the sound to be louder than the indicated value. when the unit is actually installed.
#### Remote controller function for Heat Reclaim Ventilator

		BRC1H63W(K)	BRC1E63	BRC2E61
Function	Detail	-21-		
Air conditioner interlock	Interlock Heat Reclaim Ventilator with air conditioner by one remote controller	•	٠	٠
Ventilation mode	Switch the ventilation mode (Automatic, Heat exchange, Bypass)			_
Ventilation airflow rate	When using CO <sub>2</sub> sensor, ventilation volume can be changed			
Fresh up indication	Indicates that fresh up operation is being carried out		—	_
CO <sub>2</sub> indication	Indicates value of CO <sub>2</sub> sensor	0	—	_
Outdoor temperature indication	Indicates outdoor air temperature (OA)	0	—	_
Nighttime free cooling indication	Indicates that night purge operation is set	0	—	_
24 hour ventilating indication	Indicates that 24 hour ventilating operation is set	0	—	_
Ventilating operation indication	entilating operation indication Indicates that ventilating operation is being carried out even when night purge operation and 24 hour ventilating operation is being carried out		٠	_
Ventilating standby indication	ation Indicates that ventilating operation has been stopped temporarily during pre-cool / pre-heat control		—	—
Sharing CO <sub>2</sub> data	Share the CO <sub>2</sub> data to submit from main unit with in the group	0	—	_

 $\bigcirc$  : New functions /  $\bigcirc$  : Installed functions

#### Options

Item		MODEL	VAM150HVE	M150HVE VAM250HVE VAM350HVE		VAM500HVE	AM500HVE VAM650HVE		VAM1000HVE	VAM1500HVE	VAM2000HVE	
		Silencer					KDDM24B100 KDDM24B100 × 2					
Add	litional	Nominal pipe mm		_		φ2	00		Φ2	50		
fund	ction	High efficiency filter	KAF24	2J25M	KAF242J50M	KAF24	2J65M	KAF242	2K100M	KAF242K100M × 2		
		Air filter for replacement	KAF24	1J25M	KAF241J50M	KAF24	1J65M	KAF241	K100M	KAF241K	100M × 2	
Flex	kible du	ct (1m)	K-FDS101E	K-FDS	5151E	K-FDS	5201E		K-FDS	S251E		
Flex	kible du	ct (2m)	K-FDS102E	K-FDS	5152E	K-FDS	202E		K-FDS	S252E		
CO	2 senso	r	BRYC2	4A25M	BRYC24A35M	BRYC24	4A65M		BRYC24	IA100M		
Hur	midity s	ensor			BI	RYH241A100 (f	or RA) / BRYH2	42A100 (for O	A)			
PM.	2.5 filtr	ation unit	BAF249A150	BAF249A300	BAF249A350	BAF249A500			BAF42	9A20A		
PM2.	.5 with act	ivated carbon filtration unit	BAF249A150C	BAF249A300C	BAF249A350C	BAF249A500C			BAF429	A20AC		
Wir	ed rem	ote controller			BRC1H6	3W (White) / BF	RC1H63K (Black	<) / BRC1E63 /	BRC2E61			
		Residential central	DC\$303451*1									
	Central	remote controller					00000000					
	sed	Central remote					DCS302CA61					
i i ce	con-	Controller										
del	trolling	controllor					DCS301BA61					
ng (	device	Schedule timer	DST201PA61									
	Wirin	a adaptor for electrical					DJIJOIDAOI					
E P appendices							KRP2A62					
Ŭ	Instal	lation box for adaptor					KRP1C18A90					
6	Eor	eater control kit					BRP4A50A					
PCB adaptor for wiring						KRP1C18						
	Ref ref badgion for wining											

Notes:\*1. For residential use only. When connect with a Heat Reclaim Ventilator (VAM), you can only switch the power ON/OFF. It cannot be used with other central control equipment.

#### PCB adaptor for heater control kit [BRP4A50A] (Option)

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



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

## **Air Treatment Equipment**

#### Airflow rate control with CO<sub>2</sub> sensor (Option) for VAM / VKM series

The CO  $_2$ sensor controls airflow rate so that it best matches the changes of CO $_2$ level in the room. This prevents energy losses from over-ventilation while maintaining indoor air quality with optional CO $_2$ 



• Example of CO<sub>2</sub> sensor operation in an office room:

#### PM2.5 filtration unit (Option) for VAM / VKM / FXMQ-MF series

Rapid urbanization has increased industrial and automobile emissions, resulting in higher PM2.5 levels. This has become the source of respiratory diseases and poses a serious threat to a long term health issue. As the air quality has worsened, research has shown the harmful effects of PM2.5 on the health of the general public.

#### **Double-layered efficient filtration**

PM2.5 filters are double-layered.

- 1. The front filter effectively removes large particles.
- 2. The PM2.5 filter layer contains a large amount of static electricity to capture particulate matter efficiently



#### Filtering PM2.5 efficiently for healthier and more comfortable environments

This filter removes 99% or more of 2.5 µm particulate matter



\*Test results by the Heating, Ventilation and Air Conditioning Lab at Tongji University Test environment: temperature 25-26°CDB, humidity 58-60%RH



## Air Treatment Equipment

#### Electrostatic dust collection filter: more efficient and longer lasting effect

The PM2.5 filter layer contains a large amount of static electricity to capture particulate matter efficiently, including those smaller than the grid mesh. The filter is differcult to be blocked by particles and has good ventilation and long life span.

#### Daikin Electrostatic Dust Collecting Filtration



With the capturing effect of static electricity, particles are adsorbed on the fillter fabric.



The filter is not blocked and therefore continuous Supply Air is guaranteed.

Long-lasting highly efficient dust collection capacity

#### **PM2.5 with activated carbon filtration unit (Option) for VAM / VKM / FXMQ-MF series** Extra-high performance filter against sulfur oxides and nitrogen oxides

## Effective Use of Active Carbon Material to Enlarge the Adsorption Area

As an expert in the reserch and development of filters, Daikin has specifically selected active carbon material as the main substance to constitute the filter against sulfur oxides and nitrogen oxides. The material's usable pore surface is fully exploited, thus extending the filter's durability.

Notes: Surface area of active carbon: 700 m²/g Given a newspaper page of 40.6 cm wide by 54.6 cm long, each gram of active carbon has a surface area of 3,000 newspaper pages.

# Activated carbon filter



#### Intelligent Identification, Super-effective Adhesion

The special substance added in the pores of active carbon can exclusively target sulfur oxide and nitrogen oxide gases and stick to them without blocking other unidentified gases. This ensures long durability of the filter.

Notes: The figures are based on in-house tests under the following lab conditions: temperature 22 to 25°CDB, humidity 35 to 40% RH, air flow rate 0.2 m/s.





#### PM2.5 filtration unit

MODEL			BAF249A150	BAF249A300	BAF249A350	BAF249A500	BAF429A20A		
Dimensions (H × W	/ × D)	mm	220×603×366	220×603×366	20×603×366 300×623×366 300		470×971×370		
Connection Duct Diameter mm			¢ 100	¢ 150	¢150	¢200	580×348		
Airflow Rate m³/h		150	250	350	500	2,100			
	Initial Pressure Drop	Pa	34	30	31	42	less than 40		
	Filter Lifetime *1			1 year					
PM2.5 Filter	Filtration Efficiency *2			99% or higher					
	Filter Material No. *3		BAF24	4A300	BAF24	BAF424A20A			

Notes: 1. Annual usage: 400 hrs/month x 12 months = 4,800 hrs 2. 99% or higher removal rate of ultra-fine particles with diameters of 2.5 μm or more. 3. Filters come with applicable filtration units with a one-year life. They can be purchased and replaced according to their model numbers.

#### PM2.5 with activated carbon filtration unit

MODEL			BAF249A150C	BAF249A300C	BAF249A350C	BAF249A500C	BAF429A20AC		
Dimensions (H × W	( × D)	mm	220×603×366	220×603×366 220×603×366 300×623×366 300×623×366			470×971×370		
Connection Duct D	iameter	mm	¢ 100	¢ 150	¢150	¢200	580×348		
Airflow Rate		m³/h	150	250	350	500	2,100		
	Initial Pressure Drop		34	30	31	42	less than 40		
Filter Lifetime *1			1 year						
PIVIZ.5 FIITER	Filtration Efficiency *2			99% or higher					
	Filter Material No. *3		BAF24	4A300	BAF24	4A500	BAF424A20A		
	Initial Pressure Drop	Pa	3	5	5 9		less than 10		
Activated Carbon Filter	Filter Lifetime		1 year						
Filter Material No. 3			BAF244	1A300C	BAF244	1A500C	BAF424A20AC		
Total Initial Pressure Drop for PM2.5 with Activated Carbon Filtration Unit Pa		37	35	35 36 51		less than 50			

Notes: 1. Annual usage: 400 hrs / month × 12 months = 4,800 hrs.

2. 99% or higher removal rate of ultra-fine particles with diameters of 2.5  $\mu m$  or more.

3. Filters come with applicable filtration units with a one-year life. They can be purchased and replaced according to their model numbers.

## **Air Treatment Equipment**

#### New Streamer Duct Chamber

#### Flexibility, Stability, Functionality



Dust collection filter (MERV 14) catch bacteria and viruses and prevents them from entering the room.

Multiple combination of ducting unit.

Streamer technology to decompose harmful substances which caught by the filter.

#### **Filters Location**



#### **Deodorizing Filter**



No need to change deodorizing filters!







#### **Connectable Air Conditioning**



**CAUTION!** 

To ensure the correct usage of the unit, operate it within the operating conditions specified in the table below.

Model	Airflow range (CMH)
BDEZ500A60VE	80-600
BDEZ500A140VE	500-1400
BDEZ500A510VE	1200-5100
Operating Condition	-10° to 50°C Max. 80%RH

#### Do not install the unit in places such as the following :

1.Place subjected to high temperature or direct flame. Overheat orfire may 2.Where there is mist of oil, oil spray, or vapor, for example, kitchen, barber or salon. Fire may result. 3. Where toxic gas from acid, alkaline, organic solvents or coating, or corrosive gas is produced, for example, a machinery or chemical plant. Gas poisoning or fire may result. 4.Place subject to high humidity. Electric shock or electrical leakage may result. 5.Where there is machinery that emits electromagnetic waves. Electromagnetic waves may disturb the control system and cause malfunction of the unit. 6. Where flammable gases may leak, where carbon fiber or ignitable dust is suspended in the air or where volatile flammables, such as thinner or gasoline, arehandled. If the gas should leak and remain around the unit, it may cause ignition. 7. Places with high salt contents such as coastal area. 8. Places with sulfur gas contents such as hot springs. 9. Insides cars or ships. 10. Places with high smoke contents such as smoking room.

#### **Dust Collection Filter (MERV 14)**

Particulate matter as small as 2.5 µm (micrometers) can be breathed deep into the lungs, rest assure that your air remains clean as the filter is able to remove particulate matter assmall as PM2.5 with Dust Collection Filter (MERV 14) ratings in accordance to ASHRAE 52.2 Standards.

Product: Streamer Duct Chamber (Line-Up 1,2,3) Testing Organization: Goldensea Test Number: GS-GL-0817-2021-01/02, GS-GL-0818-2021-01 Test Method: Filter performance test based on ASHRAE 52.2-2017 Test result: The filter meets MERV 14 rating.

Standard 52.2	Composite Average Particle Size Efficiency,						
Minimum Efficiency	% in Size Range, μm						
Reporting Value	Range 1	Range 2	Range 3				
	(0.3-1.0)	(1.0-3.0)	(3.0-10.0)				
14	75%	90%	95%				

#### **Dust Collection Filter (MERV 14) Replacement Period**

Air Quality	Dust concentr	Replacement	
Condition	PM2.5	PM10	period
Case 1	18.5	28.5	12 months
Case 2	35	65	6 months

Replace with a new filter when clogging occurs. The left table shows the approximate replacement time when daily operation is 9 hours and annual operation are 240 days. It shows the calculation result for two air conditions. Adjust the replacement timing in consideration of the air environment in the area where the product is actually installed and the time and day it is operated.

#### **Test Result for Streamer Duct Chamber**

#### JEM1467 Appendix D: Airborne Bacteria Removal Performance



#### Test Organisation:

Tropical Infectious Diseases Research & Education Centre (TIDREC), Universiti Malaya

#### Test Number: (TS4-0390)

(154-0390)

#### Test Method:

Airborne removal of bactericidal activity of the Streamer Duct Chamber unit (BDEZ500A60VE) coupled with VAM150HVE unit installed in the Airborne Testing Chamber and testing method was based on JEM1467 (Appendix D), conducted in a room volume of 24.03 m.

#### Test Result:

Streamer Duct Chamber (BDEZ500A60VE) was able to remove more than 99.9% of airborne bacteria in 30 minutes of operation.

#### JEM1467 Appendix F: Bacteria Decomposition Performance



#### Test Organisation:

Tropical Infectious Diseases Research & Education Centre (TIDREC), Universiti Malaya

#### Test Number:

(TS4-0390)

#### Test Method:

The antibacterial testing method the Streamer Duct Chamber unit (BDEZ500A60VE) coupled with VAM150HVE was based on JEM 1467 (Appendix F) standard, conducted in a room with volume of 31.2 m.

#### Test Result:

Streamer Duct Chamber (BDEZ500A60VE) was able to inactivate bacteria by 99.99% on MERV14 filter after exposure of 4 hours.



#### Test Report from Universiti Malaya (Malaysia)

An efficacy of 99.9% reduction of Escherichia coli ATCC 8739 in 4 hr. in a 31.2 m<sup>3</sup> area.

## Air Treatment Equipment

#### **Streamer Duct Chamber**



#### **Installation Conditions**

#### Duct Type Indoor Unit -

For Duct Type Indoor Unit. Streamer Duct Chamber must be installed before the air conditioner unit to avoid condensation issue due to cold air draft.



#### **Outdoor Air Processing Unit**

For Outdoor Air Processing Unit that combine fresh air treatment and air conditioning. Streamer Duct Chamber must be installed before the air conditioner unit to avoid condensation issue due to cold air draft. Besides, it can avoid OAPU to get dirty from the outdoor polluted air.



#### Heat Reclaim Ventilator (VAM Series)

For Heat Reclaim Ventilator (VAM Series). Streamer Duct Chamber can be installed in either Location 1 or Location 2 . However, Location 1 is hightly recmmended in order to avoid VAM to get dirty from the outdoor polluted air.



#### **Installation Position for Each System**

- If the temperature and humidity inside the ceiling exceed 30°C or RH80%, apply additional insulation materials to the main unit. Refer to engineering data for operating areas. Use glass wool or polyethylene foam as insulation not thicker than 10 mm and fits inside the ceiling opening.
- If the unit intakes foggy, misty, or humid air, water droplets will drip from the air filter or heat exchange element, causing water leakage or failure. If the room is under negative pressure or if there is a strong outside wind, the unit may intake outside air even when the unit is not in operation. In such cases, install an electric shutter, etc., to prevent outside air from coming in.
- (1) Select an installation site where the following conditions are fullfilled
  - Location with sufficient strength and stability (beams, ceilling, and other locations capable of fully supporting the weight of the unit). Insufficient strength may result in the unit falling over and causing injury. It may also cause vibration and unusual noise.
  - Where nothing blocks are passage.
  - Where the Unit is not in direct contact wit the ceiling or wall. If the unit is in contact with the ceiling or wall, it can cause vibration.
  - Where sufficient service space and space for duct connection can be secured.
  - Where the unit is not in direct contact with the ceiling or wall.
  - Where ceiling materials are present (this unit can be installed only above the ceiling). In the absence of ceiling materials. The unit may make noise in quiet places.
- (2) Suspension bolts are used for installation. Check whether the installation location can withstand the weight of the main unit and, if necessary, reinforce the location with beams, etc., before installing the unit.

#### Air Treatment Equipment

#### **Pressure Drop Chart**

Pressure drop chart in each model is as below. Please select the model according to the airflow range required for the entire air conditioning system.

Pressure drop (Pa) for BDEZ500A140VE 70 60 50 40 30 20 10 550 -00 600 650 200 750 950 1050 1100 1150 1200 1250 1300 1350 1400 1450 450 800 850 900 1000 Airflow range (CMH)



#### **Display panel**

Stylish outlook, without affecting the building interior design





Error indication on

#### CAUTION

- Keep the Streamer Duct Chamber and the Streamer display unit least 1 m away from televisions, radios, stereos, and other similar equipment. This may cause distorted picture or noise.
- Turn off the main power supply when it is not used for long periods of time. When the main power switch is turned on, some watts of electricity is being consumed even if the system is not operating.
- Do not install the Steamer display unit where direct sunlight may fall on it. This may cause discoloration or deformation.

#### **Specification**

Model Name			BDE7500A1/0VE				
Model Name		BDE2300A00VE	BDE2300AT40VE	BDE2500A510VE			
Outlook							
Power Supply			1 phase 220-240V/220V 50/60Hz	:			
	H (mm)	269	269	318			
Casing Dimonsion	W (mm)	419	819	1419			
	D (mm)	418	418	653			
Operating Temperature	°C		-10 to 50				
Operating Humidity	%	Max. 80%RH					
Airflow	СМН	80 - 600	500 - 1400	1200 - 5100			
Initial Pressure Drop	Pa	Pa 5 – 59 18 - 76		16 - 156			
Dust Collection Filter (MERV 14) Lifespan	Months (based on median CMH)	12	12	12			
Weight	kg	13	19	38			
Power Consumption	W	6.0	8.5	11.0			
Sound Pressure Level		No increase	e in Sound Pressure Level as	overall system			
	Pre-Filter	1	2	4			
Filters Quantity	Dust Collection Filter (MERV 14)	1	2	4			
	Deodorizing Filter	1	2	4			
Replacement Filter Dust Col	lection Filter (MERV 14)	BAFH500A60 (1pc)	BAFH500A510 (4pcs)				
Dimension H*W*D (mm)		221 x 392 x 50 (referring to 1pc only) 450 x 343 x 50 (referring to					
Working Method		DP sensor					

On off/ Standby Indicator 📕

Eror indicator LED

Streamer backlight

Reset button

#### Individual control systems for VRV systems

#### Stylish remote controller (Option)





Black BRC1H63K

#### Sleek and stylish design

- Combines refinement and simplicity
- Echoes the distinct blue circle and simplicity of design
- Two attractive colours to match any interior
- Compact, measures only 85 x 85 mm





#### A complete redesigned controller focused to enhance user experience

Presentation Movie



#### User-friendly interface

- Just three buttons and a large-figure display
- Customisable display
- Direct access to basic functions (ON/OFF, Operation mode, Temperature setting, Airflow rate, Airflow direction)



## Easy setting via smartphone application using Bluetooth® wireless technology (for Installer/Facility manager)

#### Keep hotel room comfortable

• Improved setback function by setting the lower temperature limit in cooling mode.



#### Shorter installation time

- Easy to create multiple remote control and field setting via App
- Prepare a setting in advance at the office and immediately send it to the on-site remote controller
- Save and reuse settings

#### Navigation remote controller (Wired remote controller) (Option)

A series of user friendly

functions that can be

individually selected



BRC1E63



(Only for FXDSQ series)

#### **Energy saving**

#### Setpoint range set

- Avoids excessive cooling by limiting the min. and max. set temperature.
- Convenient for use at a place where any number of people may operate it.

#### Setpoint auto reset

- Even if the set temperature is changed, the new set temperature returns to the previous preset value after a preset duration of time.
- Period selectable from 30, 60, 90, or 120 min.

#### **Off timer**

• Period can be preset from 30 to 180 minutes in 10-minute increments.

#### Convenience

#### Setback (default: OFF)

• Maintains the room temperature in a specific range during unoccupied period by temporarily starting air conditioner that was turned OFF.

#### Weekly schedule

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

#### Auto display off

• Period can be preset from 10, 30, 60 minutes, and OFF. Initial setting is 30 minutes.

#### Comfort

#### Individual airflow Direction

• Airflow direction can be individually adjusted for each air discharge outlet.

#### 5-step airflow control

• Airflow rate can be selected from 5-step control.

#### Auto airflow rate

Airflow rate is automatically controlled.



Setpoint A	uto Heset	_
thest	Set temp.: Set time:	27 °C 30 min
nea1	Set temp.: Set time:	20 °C 90 min
CReturn	Setting	{\$}

**Control Systems** 



#### Individual control systems for VRV systems

#### Simplified remote controller (Option)



BRC2E61



#### Easy operation with new intuitive design Simple operation

### Using only six buttons, users have direct access to basic functions.

- This enables them to easily set comfort to their preference.
- ON/OFF
- Operation mode
- Temperature setting
- Airflow rate (5-step & Auto)\*
- Up and Down airflow direction (5-step & Swing)\*
- ON/OFF timer

\* The number of airflow steps and availability of auto airflow rate and swing mode depend on the type of indoor unit.

#### Intuitive design

• By using pictograms, the user-friendly interface enables convenient and easy operation.

#### **Compact size**

• Measuring only 85 x 85 mm, the new remote controller is extremely compact and complements any interior design.

#### Wireless remote controller (Option)





- The wireless remote controller is supplied in a set with a signal receiver.
- Signal receiver unit of installed type is contained inside decoration panel or indoor unit.
- Shape of signal receiver unit differs according to the indoor unit.

Note: The signal receiver unit shown in the photograph is for mounting inside the decoration panel of FXF(S)Q series.

• Backlight LCD of new wireless remote controller





Signal receiver unit (Separate type)



Pressing the backlight button helps operating in dark rooms.

• A compact signal receiver unit (separate type) to be mounted into a wall or ceiling is included.

\* Wireless remote controller and signal receiver unit are sold as a set.

MODEL	FXFSQ	FXFQ	FXZQ	FXCQ	FXKQ	FXDSQ	FXDBQ	FXDQ	FXSQ	FXMQ	FXUQ	FXHQ	FXAQ	FXL(N)Q	FXVQ	FXB(P)Q
Stylish remote controller (BRC1H63W / BRC1H63K)																
Navigation remote controller (BRC1E63)																
Navigation remote controller (BRC1F61)																
Simplified remote controller (BRC2E61)																
Wireless remote controller* (Installed type signal receiver unit)																
Wireless remote controller* (Separate type signal receiver unit)																

#### Wide variation of remote controllers for VRV indoor units

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



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

1

The wiring of remote controller can be extended to max. 500 m and it is possible to install the remote controllers for different indoor units in one place. The operation of Heat Reclaim Ventilator can be controlled by the remote controller of the indoor unit. Of course, the remote controller can display the time to clean the filter. The system can be expanded to add several controllers, such as

BMS, Forced OFF input and etc.

#### Individual control systems for VRV systems

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



BACnet®/Ethernet or LONWORKS® Network Communication Line — — - Contact Signal Line

RS485 Modbus® Line

#### The DIII-NET system provides for:

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



VRV

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

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

#### Individual control systems for VRV systems



Intelligent Manager

DCM601B51

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

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

#### Individual air-conditioning control .....

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





#### Lighting control DALI-compatible

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





#### Air-conditioning control for large spaces

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







#### Building equipment control

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



Fan

#### For energy saving & comfort

#### intelligent Touch Manager maximises the advantages of VRV features

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

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

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

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



#### External contact demand control function

This function automatically controls outdoor and indoor unit capacity based on contact signals sent from demand controller (field supply) etc. to save power consumption during peak hours.

- You may set 3 levels that can be switched by ON/OFF signal of 3 contacts
- Control settings are pre-set for each level
- Outdoor unit: I-demand function for peak power cut-off
  Indoor unit: Set temperature shift, Forced thermostat OFF



telligent Manager DCM601B51

#### Individual control systems for VRV systems

#### Lighting control (Option)

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

Connection to DALI-compatible lighting control system

DALI-compatible

Please contact your local sales office for details.

Simple wiring (daisy chain) enables management of LED lighting by the *intelligent Touch Manager*. Various air conditioning and lighting control is enabled through the interlock with occupancy sensors and illuminance sensors. Air conditioning and lighting for which power consumption is high can be

Lighting control achieved by the intelligent Touch Manager

#### [Operation]

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

#### [Monitoring]

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



#### **Overview of control**

- Up to 5 DALI modules can be connected to a single  $BACnet^{(0)}$  controller.
- Up to 64 DALI LED drivers (64 addresses) can be connected to a single DALI module.
- 64 DALI addresses can be freely assigned to up to 16 groups using a single DALI module. (Each group corresponds to a management point of the *intelligent Touch Manager*.)
- Up to 16 scenes can be set to a single DALI module.
- Up to 12 sensors (occupancy, illuminance) can be connected to a single DALI module.
- DALI BUS simplifies wiring and setting work by daisy chain wiring and automatic address setting.

#### Easy maintenance and energy saving by lighting control

#### Case 1

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



Case 2

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



Case 3

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



#### Tenant management

#### Reporting the power consumption of VRV system for each tenant (PPD\* Option)

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

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

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

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

It is easy to output PPD data.

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



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

#### Air conditioning bills can be issued by one click (PPD\* Option)

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

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

#### Main functions

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



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

#### Effective service functions offered to tenants

Smartphone will be a remote controller of VRV system (Option)

#### For buildings **VRV** Smartphone Remote Controller



be controlled. VRV Indoor unit VRV Indoor unit

anywhere through WiFi

#### intelligent Touch Manager system overview



#### Air conditioning network service system

#### **Preventive maintenance**

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

#### Enhanced convenience with link to the Air Conditioning Network Service System

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



\*Because of restrictions in applicable areas and release times, please consult a Daikin representative separately for details.

#### Daikin offers a variety of control systems

#### Convenient controllers that offer more freedom to administrators

#### Ease of use and expanded control functions

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

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

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

Dedicated interfaces make Daikin air conditioners freely compatible with open networks



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

DMS502B51 (Interface for use in BACnet®)

## DCS601C51

Intelligent Controller

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

DMS504B51 (Interface for use in LONWORKS®)

Notes: 1. BACnet<sup>®</sup> is a registered trademark of American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE)

2. LONWORKS® is a trademark of Echelon Corporation registered in the United States and other countries.

#### New Specialised solution for office, home and hotel with *Reiri* Series

#### Catering to different applications, ranging from 10 indoor units to 2048 indoor units



#### Home automation interface adaptor

#### The **VRV** system can be operated from the home automation system.



It may not be installed inside some outdoor unit models.

#### **Functions** Monitor

On/Off	On/Off status of indoor units		
Operation mode	Cooling, Heating, Fan, Dry, Auto		
operation mode	(depend on indoor unit capability)		
Setpoint	Setpoint of indoor units		
Room temperature	Suction temperature of indoor units		
Ean direction	Swing, Flap direction		
r an unection	(depend on indoor unit capability)		
Fan volume	L, M, H (depend on indoor unit capability)		
Forced off status	Forced off status of indoor units		
Error	Malfunction, Warning with Error code		
Filter sign	Filter sign of indoor units		
Communication status Communication normal/error of indoor units			

#### Control

On/Off	On/Off control of indoor units			
Operation mode	Cooling, Heating, Fan, Dry, Auto			
operation mode	(depend on indoor unit capability)			
Setpoint	Cooling/Heating setpoint			
Fon direction	Swing, Stop, Flap direction			
Fall ullection	(depend on indoor unit capability)			
Fan volume	L, M, H (depend on indoor unit capability)			
Filter sign reset	Reset filter sign of indoor units			

#### **Retrieve system information**

Connected indeer units	DⅢ-NET address of connected indoor units
connected indoor units	can be retrieved.
Indeer unit conshilities	Indoor unit capabilities such as operation mode,
inuoor unit capabilities	fan control, setpoint HV can be retrieved.

#### **VRV** Smartphone Control System

**VRV** Smartphone Control System can be realized by **Reiri** which is a new product to utilize DTA116A51.



\* Modbus® is a registered trademark of Schneider Electric S.A.

#### Complete control system for VRV systems



#### **Office Air Conditioning Sulution** (Reiri for Office: DCPF01 / Reiri for Office (Touchscreen Controller): DCPF04 )

a simple office buildings air conditioning solutions with secured, cloud enabled platform, allowing greater ease of control and control while being energy-efficient. The flagship model DCPF04 offers the smart control system with a dedicated touch panel.



Category	Function	Description
	Status monitoring	On/Off, setpoint, operation mode, fan step, flap, error, error code, Room temperature
Monitoring &	g & Manual Operation	On/off, setpoint, operation mode, fan step, flap, scene control <sup>1</sup>
Control	Remote control prohibition	Individually prohibit operation of each local remote-control function
	Setpoint range limitation	To limit setpoint range for each indoor unit management point
	Automatic changeover <sup>1</sup>	Number of changeover groups: 100
Automatio	Off timer	Off timer duration can set from 5min to 120min with every 5min interval
Control	Setback <sup>1</sup>	Setback setpoint can selected within 24-35°C in cooling mode and 5-20°C in heating mode.
functions	Schedule	Number of programmes: 100; Up to 20 actions can be registered per pattern.
	Interlock <sup>1</sup>	Interlock operation depending on equipment status
Data	History, Report <sup>1</sup>	Operation data (latest information and operation report) and error report on daily/monthly basis.
Data Managem	Trend graph <sup>1</sup> , energy graph <sup>1</sup>	Chart on environmental changes and energy (and other meter) values.
Managem	Real time energy display <sup>1,2</sup>	Daily/ Monthly real time energy consumption status on screen.
P.P.D Billir	1,2 g <sup>1,2</sup>	Generate Bill with Power Proportional Distribution data retrieved from the system.
System Set	ting	Language, Password setting, Account setting, Notification, Email Notification

<sup>1</sup> Optional software for *Reiri* for Office, DCPF01 <sup>2</sup> Optional software for *Reiri* for Office (Touchscreen Controller), DCPF04

#### Office Expanded Solution (Reiri for Office (Controller Extension) :DCPF05)

A dedicated control solution for large scale office buildings through centralised control of multiple Reiri for office controller on a single secured and cloud-enabled platform.

Note: P.P.D. & Tenant Billing Management and Real-Time Energy Monitoring (R.E.M.) are offered as optional software.



#### Multi Site Management Solution (Reiri for Office (Multisite Extension): DCPF10)

Centralised control and remote access for all devices in multiple buildings across different locations conveniently located on one secured platform.



Note: Multi-site Branch Expansion is offered as optional software.

#### Smart Home Solution (Reiri for Home: DCPH01)

The complete smart home air conditioning solution for every homeowners with integration capabilities to allow ease and convenience of control for almost every smart devices

#### Complete Smart Home Solution • Supports Zwave, WAGO, Modbus, LAN communication • Convenience & Lifestyle IAQ Management Energy Management Home Security Solution Google Home Enabled Note: Residential automatic control and system report is offered as optional software. Up to 64 indoor units can be controlled **Modbus Devices Reiri** for Home Adaptor for Reiri VRV DCPH01 DCPA01 3 H 🛱 Smart Meter IAQ Sensor for Reiri Compatible with: Google Home J U WAVE ტ 6 Wi-Fi Router 8 cb Smartphone / Tablet **IP** Camera WAGO I/O System Up to 5 nodes Smart Home devices **Roller** Curtain Smoke Smart Plug Light Detector Lighting Pump Fan Sensor . Motion Flood Sensor Door Sensor Sensor Door Lock \*Z-WAVE

#### VRV Smart Centralised Control Solution (Reiri for Home (Lite Version) :DCPH02)



Smartphone / Tablet Wi-Fi Router

#### Hotel Air Conditioning Solution (Reiri for Hotel :DCPL01)

The smart hotel air conditioning solution for effective air conditioning operation that maximize guest comfort and minimize energy consumption in a hotel

#### Air Conditioning Guestroom Interlocking Management

Automatic air conditioning control based on check in/out signal, key card signal and window open/close signal
Guest comfort

Note: The Reiri for Hotel controller has to be used with Reiri for Office / Reiri for Office (Touchscreen Controller) / Reiri for Office (Contoroller Extension) controller as building controller.



#### Villa Air Conditioning Solution (Reiri for Resort :DCPR01)

Designed to enhance the comfort and convenience for each villa according to use by guests





#### Non-brazing / Save installation time

Pipes can be joined easily & quickly without brazing and any special tools.



## **Tightfit** Fire free connection for piping

#### A smarter way to connect refrigerant piping



#### Daikin Gas Tight Joint

- ✓ Safe connection without a flame (in brazing work)
- $\checkmark$  Time saver with easy fitting installation
- ✓ Less labour intensive

#### Innovative problem solving for **VRV** refrigerant piping installation

Reliability improvement

Easy piping installation that anyone can do Installation improvement

Faster work with simplified installation using basic tools Safety improvement

Flameless installation without welding for safe, worry-free work

HEADER PACK Simple & Quick!

#### Suitable luxions residence

Easy piping connection / Easy installation



Reduction of connection points by elimination of refnet joints



- Installation time saving  $\Rightarrow$ 1/3 of conventional
- Easy to install  $\Rightarrow$  No brazing work
- Safety  $\Rightarrow$  No fire in the building
- Space saving  $\Rightarrow$  Low silhouette only 14 cm height





#### **HEADER PACK Lineup**

Tight Joint or flare

HP	Madalmanaa	Outdoor unit side		Indoor	unit side (Flare)	Indoor unit total	Dim	ension (I	mm)
(VRV System)	woder name	Liquid / Gas (mm)		Port	Liquid / Gas (mm)	capacity index	Н	D	W
6	9.5 / 15.9		4	Large ×1	¢9.5/¢15.9	< 1E0	125	142	EEO
6	DHFORHFOL	(Flare)	4	Small ×3	¢6.4/¢12.7		155	143	559
6		9.5 / 15.9	9.5 / 15.9 L		¢9.5/¢15.9	< 1E0	125	142	622
6	DHI OANTI OZ	(Flare)	0	Small ×4	¢6.4/¢12.7	< 150	155	145	025
6.0		9.5 / 19.1	9.5 / 19.1 E	Large ×3	¢9.5/¢15.9	- <200	135	143	623
6.8	DELEGITIE	(Daikin Gas Tight Joint)	0	Small ×3	¢6.4/¢12.7				
10		9.5 / 22.2	6	Large ×3	¢9.5/¢15.9	< 200	125	1/12	622
10 BHF	DI IL TOIXI IF OZ	(Daikin Gas Tight Joint)	0	Small ×3	¢6.4/¢12.7	< 290	155	145	025
12 14 16	BHE16BHP67	12.7 / 28.6	6	Large ×3	¢9.5/¢15.9	< 120	135	1.4.2	622
12 · 14 · 16	BHFIOKHPOZ	(Daikin Gas Tight Joint)		Small ×3	¢6.4/¢12.7	×420		145	025

#### Dimensions (Top view)



#### BHF6ARHP6Z,BHF8/10/16RHP6Z



## Daikin Gas Tight Joint

#### Evolutionally advanced feature

#### Easy installation

No need for brazing tools or installation skills Quick piping anyone can do with two spanners



#### Authorised standards

#### ISO 14903

Certification of international standards Proof of safety and reliability

#### Matching for various piping sizes

Standard joints (Connecting the same pipes)

#### Excellent sealing mechanism



Leverage method The pull-out resistance is more than 4 times (17.2 MPa)

**SGBP** (Singapore Green Building Council)

- Certificate Number SGBP 2019-2405
- Green Mark compatible products



Figure	MODEL		Weight/PC		
Figure	MODEL	ND	AF	L	(g)
	BDGTA06	¢6.4	19.0	46.2	106
	BDGTA09	¢9.5	22.0	51.4	139
	BDGTA12	¢ 12.7	23.8	82.3	170
	BDGTA15	¢ 15.9	29.7	82.8	236
	BDGTA19	¢ 19.1	35.0	85.5	327
AF AF	BDGTA22	¢ 22.2	38.0	93.5	401
	BDGTA28	¢ 28.6	45.0	99.5	546
	BDGTA34	¢ 34.9	51.1	101.5	686
	BDGTA41	¢ 41.3	58.3	103.5	881

#### Asymmetry joints (Connecting different size pipes)

E	MODEL			Weight/PC			
Figure	IVIODEL	ND1	ND2	AF1	AF2	L	(g)
L black	BDGTA1209	¢12.7	¢9.5	24.0	22.0	62.4	158
	BDGTA1512	¢15.9	¢ 12.7	29.7	23.8	83.2	220
AF3	BDGTA2219	¢22.2	¢ 19.1	38.0	35.0	87.4	362
	BDGTA2825	¢28.6	¢ 25.4	45.0	41.8	94.4	510

## What Daikin created was an ultimately new type of air conditioning.

#### Today, it has become one of the two types of air conditioning systems, ducted and ductless, in the world.

Daikin will always be the pioneer of air conditioning and continue to expand this new standard, from building to building, around the world.



#### VRV indoor units

#### **Round Flow Cassette with Sensing Type**

No.	Type Item			Туре	FXFSQ25A FXFSQ32A FXFSQ40A	FXFSQ50A FXFSQ63A FXFSQ80A	FXFSQ100A FXFSQ125A FXFSQ140A				
		Standard panel with	Fresh whi	te		BYCQ125EEF					
	sensing Black				BYCQ125EEK						
1	Decoration	Standard papel	Fresh whi	te		BYCQ125EAF *					
1	panel	Stanuaru paner	Black			BYCQ125EAK *					
		Designer panel 1	Fresh whi	te		BYCQ125EAPF *					
		Auto grille panel <sup>2, 3</sup>	Fresh whi	te		BYCQ125EASF *					
2	Soaling matori	al of air discharge outlet 4	For usage	of 3-, 4-way flow		KDBH551C160					
Z	For usage of 2-way flow			KDBH552C160							
3	Panel spacer				KDB55J160F						
	Chamber         Without T-duct joint           Fresh air intake kit         type 5.6         With T-duct joint		KDDP55C160 (Co	mponents: KDDP55C160-1,	KDDP55C160-2) <sup>8</sup>						
4			With T-duct joint	KDDP55C160K (Co	KDDP55C160K (Components: KDDP55C160-1, KDDP55C160K2) 8						
			Direct inst	tallation type 7	KDDP55X160A						
5	High-efficienc	y filter unit <sup>9</sup>	(Colorime	tric method 65%)	KAF55	6D80	KAF556D160				
5	(Including filte	er chamber)	(Colorime	tric method 90%)	KAF55	7D80	KAF557D160				
6	Roplacomont	high officional filter 9,10	(Colorime	tric method 65%)	KAF55	2D80	KAF552D160				
0	Replacement	nigh-enrelency niter	(Colorime	tric method 90%)	KAF55	3D80	KAF553D160				
7	Filter chamber	ŕ				KDDFP55C160					
8	Replacement	long-life filter				KAF5511D160					
9	Replacement	long-life filter (Auto grille	panel)			KAF5512D160					
10	Ultra long-life	filter unit (Including filter	chamber) <sup>9</sup>			KAF555D160					
11	Replacement	ultra long-life filter 9, 10			KAF550D160						
12	Branch duct c	hamber <sup>4</sup>			KDJP5	5C80	KDJP55C160				
13	Insulation kit	for high humidity <sup>9, 11</sup>			KDTP5	5K80A	KDTP55K160A				

#### **Round Flow Cassette Type**

No.	Item			Туре	FXFQ25A FXFQ32A FXFQ40A	FXFQ25A         FXFQ50A         FXFQ100A           FXFQ32A         FXFQ63A         FXFQ125A           FXFQ40A         FXFQ80A         FXFQ140A				
		Ctore dowel work of	Fresh whit	ie		BYCQ125EAF *				
1	Decoration	Standard panel	Black			BYCQ125EAK *				
	panel	Designer panel 1	Fresh whit	e	BYCQ125EAPF *					
		Auto grille panel <sup>2, 3</sup> Fresh white		e	BYCQ125EASF *					
2	Scaling material of air discharge outlet 4 For usage of 3-, 4-way flow		of 3-, 4-way flow		KDBH551C160					
2	Sealing material of air discharge outlet 4 For usage of 2-way flow		of 2-way flow		KDBH552C160					
3	Panel spacer				KDB55J160F					
	Chamber Without T-duct joint		KDDP55C160 (Co	KDDP55C160 (Components: KDDP55C160-1, KDDP55C160-2) <sup>8</sup>						
4	Fresh air intake kit type <sup>5,6</sup> With T-d		With T-duct joint	KDDP55C160K (Co	mponents: KDDP55C160-1,	KDDP55C160K2) 8				
	Direct installation type 7		allation type 7		KDDP55X160A					
5	High-efficienc	y filter unit <sup>9</sup>	(Colorime	tric method 65%)	KAF55	KAF556D80				
	(Including filte	r chamber)	(Colorime	tric method 90%)	KAF55	KAF557D80 KAF557D1				
6	Roplacomont	aigh officiancy filter <sup>9,10</sup>	(Colorime	tric method 65%)	KAF55	F552D80 KAF552D				
0	Replacement	light-efficiency linter	(Colorime	tric method 90%)	KAF55	KAF553D80 KAF553D16				
7	Filter chamber				KDDFP55C160					
8	Replacement l	ong-life filter			KAF5511D160					
9	Replacement long-life filter (Auto grille panel)			KAF5512D160						
10	Ultra long-life filter unit (Including filter chamber) <sup>9</sup>			KAF555D160						
11	Replacement u	ultra long-life filter <sup>9, 10</sup>				KAF550D160				
12	Branch duct c	hamber <sup>4</sup>			KDJP5	55C80	KDJP55C160			
13	Insulation kit f	or high humidity <sup>9, 11</sup>			KDTP5	5K80A	KDTP55K160A			

Notes: 1. When installing designer panel, body height (ceiling required dimension) is 42 mm higher than standard panel. Designer panel cannot operate 2 and 3 way flow.
2. A dedicated wireless remote controller (BRC16A2) for the auto grille panel is included for lowering and raising the suction grille.
3. When installing auto grille panel, body height (ceiling required dimension) is 55 mm higher than standard panel.
4. Circulation airflow is not available with this option.
5. When installing a fresh air intake kit (chamber type), two air outlet corners are closed.
6. It is recommended that the volume of outdoor air introduced through the kit is limited to 10% of the maximum airflow rate of the indoor unit. Introducing higher quantities will increase the operating sound and may also influence temperature sensing.
7. The volume of fresh air for direct installation type is approximately 1% of the indoor unit airflow. The chamber type is recommended when more fresh air is necessary.
8. Please order using the names of both components instead of set name.
9. This option cannot be installed to designer panel and auto arille panel.

9. This option cannot be installed to designer panel and auto grille panel. 10. Filter chamber is required.

\*These panels do not contain the sensing function.

#### **Option List**

#### VRV indoor units

Options of Round Flow Cassette with Sensing & Round Flow Cassette

#### Options required for specific operating environments

#### Ultra long-life filter unit

Even in dusty environments where the air conditioning is constantly operating, the ultra long-life filter only has to be cleaned once a year.



Dusty area: annual filter change

\*For dust concentration of 0.3 mg/m<sup>3</sup> (Requires separately sold Air purifier.) 1 year (Approx. 5,000 hr): About 15 hr/day x 28 day/month x 12 month/year Ordinary store or office: filter change every 4 years

\*For dust concentration of 0.15 mg/m<sup>3</sup>

4 years (Approx. 10,000 hr): About 8 hr/day x 25 day/month x 12 month/years x 4 years

#### **High-efficiency filter unit**

Available in two types: 65% and 90% colorimetry.



Filter chamber (Can be used with ultra long-life filter) High-efficiency filter

#### Insulation kit for high humidity

Please use if you think the temperature and humidity inside the ceiling exceeds 30°C and RH 80%, respectively.



Top panel insulation(1) Top panel insulation(2) Top panel insulation(3) • Insulation for decoration panel Side panel insulation •Suspension bracket insulation

#### Panel spacer

Use when only minimal space is available between drop ceilings and ceiling slabs.



Note: Some ceiling constructions may hinder installation. Contact your Daikin Dealer before installing vour unit.

#### Sealing material of air discharge outlet

By using this option, 2-way, 3-way, or 4-way flow can be selected.

#### Branch duct chamber

This chamber lets you connect a round flexible duct to the air discharge opening at any time after the original installation.

#### Fresh air intake kit <sup>1, 2</sup>

Using this kit, a duct can be connected to take in outdoor air. There are two chamber types that have intake in two places: with T-duct joint and without T-duct joint.



The units can be installed in the following different ways:

#### Chamber type (without T-duct joint) <sup>3, 4, 5</sup>



- Notes: 1. Use of options will increase operating sound. 2. Connecting ducts, fan, insect nets, fire dampers, air filters, and other parts should, as required, be obtained locally
  - When a local-obtained far is used, an interlock with air conditioner is necessary. Optional PCB (BRP11B62) is required for interlocking. When installing a fresh air intake kit (chamber type), two air outlet corners are closed.
  - 5. It is recommended that the volume of outdoor air introduced through the kit is limited to 10% of the maximum airflow rate of the indoor unit. Introducing higher quantities will increase the operating sound and may also influence temperature sensing.
  - 6. The volume of fresh air for direct installation type is approximately 1% of the indoor unit airflow.
  - The chamber type is recommended when more fresh air is necessary.

## High Performance Prefilter (MERV 8) New

#### Features and Benefits

#### **MERV 8 Rating**

This filter is a high performance prefilter that has achieved MERV 8 rating.

#### PM2.5 Filtration

This filter can catch fine particles that could not be removed by the existing prefilter, capturing 97% of 1.0-3.0 µm particle and 99% of 3.0-10 µm particles when air passes through filter 10 times

#### Filter Exchange Twice a Year

Replace the filter twice a year in order to maintain the filter's high performance.

#### BAF552A160





#### **Chamberless Filter**

Additional parts and difficult installation on works are unnecessary. Just replace the existing prefilter.

#### Retrofit t Existing Indoor Unit

Attachable to your current round flow cassette for IAQ improvement.

#### **Specifications**

Model Name		BAF552A160				
Brand	DAIKIN					
Production Base	AAF Malaysia					
Performance	MERV 8					
Dimensions	526 x 523 x 35					
Airflow rate	13.0 22.9 37.0					
Initial Pressure Drop* <sup>2</sup>	Ра	18.1 35.8 81.4				
Weight	520					
Lifetime * <sup>3</sup>	6 months (1,250 hours)					
Reuse			Non-reusable			

Note 1. It is necessary to set a high ceiling mode on site to prevent a decrease in air volume when installing the filter. The setting number differs according to each model. Please refer to the installation manual.

\*2. This result is based on the test of the filter only. The results may be different in the actual use environment where the filter is installed in the indoor unit.

\*3. Filter lifetime may vary depending on the condition of the operating environment. Certain instances such as high traffic areas, pets or smokers in a residence, or other situations may require more frequent changes.

#### Easy Replacement

The existing prefilter can be replace easily\*.

Since it's a chamberless filter, the installer will remove the existing prefilter and replace it with the high performance prefilter.



\* The filter should be fixed to the air conditioner with attached components, so consult your dealer when installing or replacing the filter.

#### VRV indoor units

Item

No.

#### **Compact Multi Flow Cassette Type**



1-1	Grid ceiling panel	BYFQ60CAW
1-2	Sensor kit for grid ceiling panel	BRYQ60AAW
2-1	Decoration panel *1	BYFQ60B3W1
2-2	Relay wire harness adaptor for decoration panel *1	BER01A1
2-3	Sealing material of air discharge outlet for decoration panel	KDBH44BA60
3	Replacement long life filter	KAF441C60
4	Fresh air intake kit	KDDQ44XA60
5	Streamer filter clean unit	BAPWS55A61 *2

Note: \*1. Option relay wire harness adaptor (BER01A1) is necessary when installing decoration panel (BYFQ60B3W1). \*2. Available only when stylish remote controller (BRC1H62W/K or BRC1H63W/K) is connected.

Туре

#### **Double Flow Cassette Type**

No.	Item	Туре	FXCQ20B	FXCQ25B	FXCQ32B	FXCQ40B	FXCQ50B	FXCQ63B	FXCQ80B	FXCQ125B	
1	Decoration panel			BYBCQ40CF				BYBCQ63CF		BYBCQ125CF	
2	High officional filter *1		KAF53	2C50		KAF532C80		KAF532C160			
2	High efficiency filter	90 %		KAF53	3C50		KAF5	33C80	KAF5	33C160	
3	Filter chamber for bottom suc	tion		KDDFP53B50		KDDFP53B80		KDDFP53B160			
4	Long life replacement filter	KAF531C50 KAF531C80						KAF5	31C160		
5	Streamer filter clean unit		BAPWS55A61 *2								

Note: \*1. If installing high efficiency filter, filter chamber is required. \*2. Available only when stylish remote controller (BRC1H62W/K or BRC1H63W/K) is connected.

#### Single Flow Cassette Type

No.	Type	FXEQ20A FXEQ25A	FXEQ32A FXEQ40A	FXEQ50A FXEQ63A
1	Decoration panel	BYEP4	40AW1	BYEP63AW1

#### **3D Airflow Duct with Sensing Type**

No.	Item Type	FXDSQ20A	FXDSQ25A	FXDSQ32A	FXDSQ40A	FXDSQ50A	FXDSQ63A
1	Flexible duct		BFD37	′B40		BFD37B50	BFD37B63

#### Slim Duct (Standard) Type

No.	Item Туре	FXDQ20PD	FXDQ25PD	FXDQ32PD	FXDQ40ND	FXDQ50ND	FXDQ63ND
1	Insulation kit for high humidity		KDT25N32		KDT2	25N50	KDT25N63

#### Middle Static Pressure Duct Type

No.	Item	Туре	FXSQ20PA FXSQ25PA FXSQ32PA	FXSQ40PA	FXSQ50PA FXSQ63PA FXSQ80PA	FXSQ100PA FXSQ125PA	FXSQ140PA
1	High efficiency filter *1	65%	KAF632C36	KAF632C56	KAF632C80	KAF632C160	KAF632B160B
		90%	KAF633C36	KAF633C56	KAF633C80	KAF633C160	KAF633B160B
2	Filter chamber (for rear suction) *1		KDDFP63B36	KDDFP63B56	KDDFP63B80	KDDFP63B160	KDDF63B160B
3	Long-life filter *1		KAF631C36	KAF631C56	KAF631C80	KAF631C160	KAF631B160B
4	Service panel (Fresh white)		KTBJ25K36F	KTBJ25K56F	KTBJ25K80F	KTBJ2	5K160F
5	Air discharge adaptor		KDAP25A36A	KDAP25A56A	KDAP25A71A	KDAP25A140A	KDAP25A160A *2
6	Shield plate for side plate		KDBD63A160			—	

Notes: \*1. If installing high efficiency filter and long-life filter to the unit, filter chamber is required. \*2. This option is a set of KDAP25A140A and KDBHP37A160.

#### Middle-High Static Pressure Duct Type

No.	Item	Туре	FXMQ20PA FXMQ25PA FXMQ32PA	FXMQ40PA	FXMQ50PA FXMQ63PA FXMQ80PA	FXMQ100PA FXMQ125PA FXMQ140PA
1	Drain pump kit	_				
2	High efficiency filter	65%	KAF372AA36	KAF372B56	KAF372B80	KAF372B160
		90%	-	KAF373B56	KAF373B80	KAF373B160
3	Filter chamber	-	KDDF37AA56	KDDF37AA80	KDDF37AA160	
4	Long life replacement filter	-	KAF371B56	KAF371B80	KAF371B160	
5	Long life filter chamber kit		-	KAF375B56	KAF375B80	KAF375B160
6	Service panel (Fresh white)		KTBJ25K36F	KTBJ25K56F	KTBJ25K80F	KTBJ25K160F
7	Air discharge adaptor		KDAJ25K36A	KDAJ25K56A	KDAJ25K71A	KDAJ25K140A






#### **High Static Pressure Duct Type**

No.	Item	Туре	FXMQ200M FXMQ250M				
1	Drain pump kit		KDU30L250VE				
2	High officional filter	65%	KAF372M280				
2	High efficiency litter	90%	KAF373M280				
3	Filter chamber		KDJ3705L280				
4	Long life replacement filter		KAF371M280				

#### 4-Way Flow Ceiling Suspended Type

No.	Item Type	FXUQ71A FXUQ100A				
1	Sealing material of air discharge outlet	KDBHP49B140				
2	Decoration panel for air discharge	KDBTP49B140				
3	Replacement long-life filter	KAF5511D160				

#### **Ceiling Suspended Type**

No.	Item Туре	FXHQ32MA	FXHQ63MA	FXHQ100MA	FXHQ125B	FXHQ140B	
1	Drain pump kit	KDU50N60VE	KDU50	N125VE	KDUP50P160		
2	Replacement long-life filter	KAFJ501D56	KAFJ501D80	KAFJ501D112	1B160		
3	L-type piping kit (for upward direction)	KHFP5M63	KHFP5	5M160	KHFP5N160		
4	Fresh air intake kit		—			50A140	
5	Streamer filter clean unit	BAPWS55A61 *1,2					
6	Mounting unit for streamer option	BERPW50A61					

Note: \*1. Available only when stylish remote controller (BRC1H62W/K or BRC1H63W/K) is connected. \*2. Mounting kit for streamer option (BERPW50A61) is necessary.

#### Wall Mounted Type

No.	Item Type	FXAQ20A	FXAQ25A	FXAQ32A	FXAQ40A	FXAQ50A	FXAQ63A
1	Drain pump kit	K-KDU572EVE					

#### Floor Standing Type

		-		-		-	
No.	Item Type	FXLQ20MA	FXLQ25MA	FXLQ32MA	FXLQ40MA	FXLQ50MA	FXLQ63MA
1	Long life replacement filter	KAF361L28		KAF3	61L45	KAF361L71	

#### **Concealed Floor Standing Type**

No.	Item Type	FXNQ20MA	FXNQ25MA	FXNQ32MA	FXNQ40MA	FXNQ50MA	FXNQ63MA
1	Long life replacement filter	KAF361L28		KAF361L45		KAF361L71	

### Floor Standing Duct Type

		5						-		N.		
No.	lte	em			Туре	FXVQ125N	FXVQ200N	FXVQ250N	FXVQ400N	FXVQ500N		
1		Replacement lor	ng life filter			KAF261M140	KAF261M224	KAF261M280	KAF261N450	KAF261N560		
2	1	Ultra long-life fil	ter				_		KAFSJ9A400	KAFSJ9A560		
3	1	Front suc		suction base flange		KD-9A140	KD-9A200	KD-9A280	KD-9A400	KD-9A560		
4	1	Front suction	ion Suction grille			KDGF-9A140	KDGF-9A200	KDGF-9A280	KDGF-9A400	KDGF-9A560		
5	ion	filter chamber	Filter	ilter Replacement long-life filter * 1, 2, 3		KAF-91B140	KAF-91B200	KAF-91B280	KAF-91B400	KAF-91B560		
6	nd	for high	chamber	Replacement high	65% * <sup>1,3</sup>	KAF-92B140	KAF-92B200	KAF-92B280	KAF-92B400	KAF-92B560		
7	10	etticiency tilter	efficiency	efficiency filter	90% * <sup>2, 3</sup>	KAF-93B140	KAF-93B200	KAF-93B280	KAF-93B400	KAF-93B560		
8	e ar		filter * 1, 2	Filter chamber *1, 2		KDDF-9A140	KDDF-9A200	KDDF-9A280	KDDF-9A400	KDDF-9A560		
9	arg	Plenum chambe	r *4			KPCJ140A	KPC5J	KPC8J	KPCJ400A	KPC15JA		
10	sch	Pulley for plenur	m chamber	*4		KPP8JA	KPP9JA	KPP10JA	-			
11		Fresh air intake	kit				KD106D10		KDFJ90	)6A560		
12		Rear suction kit				KDFJ905B140	KDFJ905B200	KDFJ905B280	KDFJ905B400	KDFJ905B560		
13		Discharge grille	for plenum	side			KD101A10			KD101A20		
14	14 Wood base					KKWJ9A140	KWF1G5P	KWF1G8P	KKWJ9A400	KWF1G15		
15	Vik	pration isolating fi	rame			K-ABSG1406A	K-ABSG1407A	K-ABSG1408A	K-ABSG1409A	K-ABSG1410A		

Notes: \*1. When ordering a filter chamber for high efficiency filter (65%), please order with all the respective parts.
\*2. When ordering a filter chamber for high efficiency filter (90%), please order with all the respective parts.
\*3. When replacing with a new filter, please order the replacement filters with the corresponding filter model name.
\*4. Use the plenum chamber and pulley for plenum chamber in combination.



## VRV indoor units



### Clean Room Air Conditioner

No.	Item	Тур	e FXBQ40P	FXBQ50P	FXBQ63P	FXBPQ63P			
1	Outlet unit			— BAF82A6					
2	Filter HEPA filter		B	BAFH82A50		32A63			
3	Danal	Ceiling intake type	B	BYB82A50C		BYB82A63CP			
4	Panel	Floor-level intake type	B	(B82A50W	BYB82A63W	BYB82A63WP			
5	Outside air intake duct	flange		KDFJ82A80					

## Precision Piping Method

#### **HEADER PACK**

No.	Item HP	6	6	6–8	10	12–16
1	HEADER PACK	BHF6RHP6Z	BHF6ARHP6Z	BHF8RHP6Z	BHF10RHP6Z	BHF16RHP6Z

### Daikin Gas Tight Joint

No.	Item Type	Connecting the same pipes	Connecting different size pipes
1	Daikin Gas Tight Joint	BDGTA06, BDGTA09, BDGTA12 BDGTA15, BDGTA19, BDGTA22 BDGTA28, BDGTA34, BDGTA41	BDGTA1209, BDGTA1512 BDGTA2219, BDGTA2825

#### **Control systems**

### Operation control system optional accessories

#### For VRV indoor unit use



No.	Type	FXFTQ-A FXFSQ-A	FXFRQ-A FXFQ-A	FXZQ-B	FXCQ-B	FXEQ-A	FXDSQ-A	FXDQ-PD FXDQ-ND	FXDQ-SP	FXSQ-PA	
1	Stylish remote controller		BRC	1H63W (White) / BRC1H63K (Bl	ack)	ack) —			BRC1H63W (White) / BRC1H63K (Black)		
2	Navigation remote controller	BRC1	E63 *5	BRC1E63		BRC1F61	BRC1F61 *5	BRC1E63			
3	Simplified remote controller	_		BRC2E61			_	— BRC2E61			
4	Wireless remote controller	BRC7M635F BRC7M63	(Fresh White) I5K (Black)	BRC7M531W (for grid ceiling panel) BRC7E531W (for decoration panel)	BRC7M66	BRC4M63	BRC4M66		BRC4C66		
5-1	Adaptor for wiring (operation status output)	★BRP11B62				_			_	★BRP11B62	
5-2	Adaptor for wiring				★KRP1C14A		—				
6-1	Wiring adaptor for electrical appendices (1)		_	★KRP2A62	★KRP2A51	_		★KRP2A53	_	★KRP2A61	
6-2	Wiring adaptor for electrical appendices (2)		★KRP	4AA53	★KRP4AA51	-	— ★KRP4A54			★KRP4AA51	
7	Remote sensor (for indoor temperature)	BRC	S01A-5	BRCS01A-6		BRCS	01A-4	BRCS01A-1		BRCS01A-4	
8	Installation box for adaptor PCB 🛠	KRP1I	H98A *2, 3	KRP1BB101 *4	KRP1C96 *2,3	-	_	KRP1BB101 *4	—	KRP4A98 * <sup>2, 3</sup>	
9	External control adaptor for outdoor unit	★DTA104A62			★DTA104A61	— ★DTA104A53			_	★DTA104A61	
10	Multi tenant unit for Indoor (24 V free type)		★ BRP1	14A61							

No.	Type	FXMQ-PA	FXMQ-M	FXUQ-A	FXHQ-MA	FXHQ-B	FXAQ-A	FXLQ-MA FXNQ-MA	FXVQ-N *7	FXBQ-P FXBPQ-P		
1	Stylish remote controller				BRC1H63V	V (White) / BRC1H	63K (Black)					
2	Navigation remote controller	BRC	1E63	BRC1E63 *5		BRC	1E63		BRC1E63 *6	BRC1E63		
3	Simplified remote controller				BRC2E61					-		
4	Wireless remote controller	BRC4C66	BRC4C64	BRC7CB59	BRC7EA66	BRC7M56	BRC7M676	BRC4C64	_	BRC4C64		
5-1	Adaptor for wiring (operation status output)	★BRP11B62	BRP11B62	_	★ BRP11B61	BRP11B61-1	_	BRP11B62	_	BRP11B62		
5-2	Adaptor for wiring			_					KRP1C67	_		
6-1	Wiring adaptor for electrical appendices (1)	★KRP2A61	KRP2A61 KRP2A61 —			—	★KRP2A61	KRP2A61	KRP2A62	KRP2A61		
6-2	Wiring adaptor for electrical appendices (2)	★KRP4AA51	KRP4AA51	★KRP4AA53	★KRP4AA53 ★KRP4AA52			KRP4AA51	_	KRP4AA51		
7	Remote sensor (for indoor temperature)	BRCS01A-4	BRCS01A-1	BRCS01A-4	BRCS01A-1	BRCS01A-4	BRCS01A-6	BRCS	01A-1	BRCS01A-1		
8	Installation box for adaptor PCB 公	KRP4A97 * <sup>2, 3</sup>	_	KRP1BA97	KRP1CA93 *3	KRP1D93A *3	KRP4B93 * <sup>2, 3</sup>		—			
9	External control adaptor for outdoor unit	★DTA104A61	DTA104A61	—	★DTA	104A62	★DTA104A61	DTA104A61	DTA104A62*8	DTA104A61		
10	Multi tenant unit for Indoor (24 V free type)	★BRP114A61	★BRP114A61 — ★BRP114A61									
11	External control adaptor for cooling / heating				KRP6A1*8	_						
12	Remote controller with key				_				KRCB37-1	_		

Notes: 1. Installation box & is necessary for each adaptor marked \*

Up to 2 adaptors can be fixed for each installation box.
 Only one installation box can be installed for each indoor unit.

4. Up to 2 installation boxes can be installed for each indoor unit Some functions can be set only via the wired remote controller BRC1E63 or BRC1F61. They cannot be set via other remote controllers. Please refer

to each indoor unit and remote controller page for function details.

6. Since the control panel is equipped as standard, use the option of BRC1E63 for 2 remote control system. 7. When using BRC1H63W(K), BRC1E63 or BRC2E61, be sure to remove the control panel and

since BRC1H63W(K), BRC1E63 and BRC2E61 cannot be stored inside the indoor unit, please

place it separately. 8. Remove the group control adaptor which is a standard equipment before mounting KRP2A62, KRP6A1 and DTA104A62. KRP2A62, KRP6A1 and DTA104A62 cannot be mounted to the same indoor unit at the same time.



BRP11B61-1

#### Adaptor for wiring (operation status output)

By installing it in the indoor unit with a simple wire connection, this adaptor takes out the operating signals for the indoor unit fan and the compressor and enables the interlocking of equipment such as the ventilation fan.

#### Example:

Interlocking operation of the indoor unit and ventilation fan that takes in fresh air.

#### Wiring adaptor for electrical appendices



#### System configuration

No.	Item	Model No.	Function
1	Residential central remote controller	DCS303A51 *2	<ul> <li>Up to 16 groups of indoor units (128 units) can be easily controlled using the large LCD panel. ON/OFF, temperature settings and scheduling can be controlled individually for indoor units.</li> </ul>
2	Interface adaptor for residential indoor units	KRP928BB2S	Adaptors required to connect products other than those of the VRV System to
3	Interface adaptor for SkyAir-series	★DTA112BA51 *3	the high-speed DIII-NET communication system adopted for the <b>VRV</b> System.
4	Central control adaptor kit For UAT(Y)-K(A),FD-K	★DTA107A55	* To use any of the above optional controllers, an appropriate adaptor must be
5	Wiring adaptor for other air-conditioner	★DTA103A51	installed on the product unit to be controlled.
6	DIII-NET expander adaptor	DTA109A51	<ul> <li>Up to 1024 units can be centrally controlled in 64 different groups.</li> <li>Wiring restrictions (max. length: 1,000m, total wiring length: 2,000m, max. number of branches: 16) apply to each adaptor.</li> </ul>
6-1	External control adaptor	DTA104A61	<ul> <li>Demand control of individual or multiple systems.</li> <li>Low noise option for individual or multiple systems.</li> </ul>
6-2	Mounting plate	BKS26A	When installing DTA109A51, DTA104A61 into outdoor units of 10 HP (VRV X) / 14 HP (VRV A) or larger.
7-1	Multi tenant unit for Indoor (24 V free type)	BRP114A61 *4, 5	Use in multi tenant buildings where one tenant shuts off the breaker of the indoor unit.     Max, length from outdoor unit to last indoor unit per 1 outdoor adaptor is 200 m.
7-2	Multi tenant unit for Outdoor (24 V free type)	BRP114A62 *4	• 8 indoor units can be connected per 1 outdoor adaptor is 200 m.
7-3	Multi tenant unit Booster (24 V free type)	BRP114A63 *4	<ul> <li>Use when extending transmission length with the multi tenant option.</li> <li>Can add Max. 3 booster units to 1 system.</li> <li>Total transmission length is Max. 800 m.</li> <li>Total connectable indoor units is Max. 32 units.</li> </ul>

Notes: 1. Installation box for ★ adaptor must be obtained locally.
 2. For residential use only. Cannot be used with other centralised control equipment.

No adaptor is required for some indoor units.
 Because the maximum transmission length varies according to actual installation conditions and diameter of wiring used, please confirm by a dedicated simulator.
 Installation box is necessary for adaptor BRP114A61. Please refer to option list for each indoor unit.

**Building management system** 

No		1	tem		Model No	Function
				intelligent Touch	model no.	Air-Conditioning management system that can be controlled by a
1		Basic	Hardware	Controller	DCS601C51	compact all-in-one unit.
1-1	intelligent Touch Controller	Ontion	Hardware	DIII-NET plus adaptor	DCS601A52	Additional 64 groups (10 outdoor units) is possible.
1-2		option	Software	Web software	DCS004A51	• VRV system that is connected to intelligent Touch Controller can be operated from the user's PC via a web page.
1-3	Electrical box with e	earth termi	inal (4 blocks)		KJB411A	Wall embedded switch box.
2		Basic	Hardware	intelligent Touch Manager	DCM601B51	<ul> <li>Air-conditioning management system that can be controlled by touch screen.</li> </ul>
				iTM plus adaptor	DGE601A52	Additional 64 groups (10 outdoor units) is possible.
2-1			Hardware	iTM plus adaptor slot	DGE601A53	Max 6 iTM plus adaptor can be connect to iTM plus adaptor.
2-2	intelligent Touch Manager	Option		iTM power proportional distribution	DCM002A51	• Power consumption of indoor units are calculated based on operation status of the indoor unit and outdoor unit power consumption measured by kWh metre.
2-3			Software	iTM energy navigator	DCM008A51	Building energy consumption is visualised. Wasted air-conditioning energy can be found out.
2-4				BACnet <sup>®</sup> client	DCM009A51	BACnet <sup>®</sup> equipment can be managed by intelligent Touch Manager.
2-5				HTTP Interface	DCM007A51	<ul> <li>Interface for intelligent Touch Manager by HTTP</li> </ul>
2-6	Multi Site Manager	nent Syste	m by using S	/MPC1	MSMPN1	• MSM can control all <b>VRV</b> units via SVM system on multi site.
2-7	Di unit				DEC101A51	• 8 pairs based on a pair of ON/OFF input and abnormality input.
2-8	Dio unit				DEC102A51	• 4 pairs based on a pair of ON/OFF input and abnormality input.
3		Interface	for use in BA	Cnet <sup>®</sup> *²	DMS502B51	<ul> <li>Interface unit to allow communications between VRV and BMS. Operation and monitoring of air-conditioning systems through BACnet<sup>®</sup> communication.</li> </ul>
3-1		Optional	DIII board		DAM411B51	<ul> <li>Expansion kit, installed on DMS502B51, to provide 2 more DIII-NET communication ports. Not usable independently.</li> </ul>
3-2	Communication	Optional	Di board		DAM412B51	• Expansion kit, installed on DMS502B51, to provide 16 more wattmeter pulse input points. Not usable independently.
4	interface	Interface	for use in LO	NWORKS® *3	DMS504B51	<ul> <li>Interface unit to allow communications between VRV and BMS. Operation and monitoring of air-conditioning systems through LonWorks<sup>®</sup> communication.</li> </ul>
5		Home Au	tomation Inte	erface Adaptor	DTA116A51	<ul> <li>Use of the Modbus<sup>®</sup> protocol enables the connection of the VRV system with a variety of home automation systems from other manufacturers. *<sup>6</sup></li> </ul>
5-1		Mountin	g plate		BKS26A	When installing DTA116A51 into outdoor units of 10 HP ( <i>VRV</i> X) / 14 HP ( <i>VRV</i> A) or larger.
6	Contact/ analogue signal	Unification control	on adaptor fo	r computerised	★DCS302A52	• Interface between the central monitoring board and central control units.

\*4. Installation box for adaptor must be obtained locally.
\*5. PPD option (DCM002A51) for iTM is also required.
\*6. Modbus<sup>®</sup> is a registered trademark of Schneider Electric S.A.

Notes: \*1. HTTP interface (DCM007A51) is also required.
 \*2. BACnet<sup>®</sup> is a registered trademark of American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE).
 \*3. LonWorks<sup>®</sup> is a trademark of Echelon Corporation registered in the United States and other countries.

#### Building management system

No.			Item		Model No.	Function
1		Basic	Hardware	intelligent Touch Controller	DCS601C51	<ul> <li>Air-Conditioning management system that can be controlled by a compact all-in-one unit.</li> </ul>
1-1	intelligent Touch		Hardware	DIII-NET plus adaptor	DCM601B51	Additional 64 groups (10 outdoor units) is possible.
1-2	Controller	Option	Software	Web software	DCS004A51	<ul> <li>VRV system that is connected to intelligent Touch Controller can be operated from the user's PC via a web page.</li> </ul>
1-3	Electrical box with	earth 1	terminal (4 k	plocks)	KJB411A	Wall embedded switch box.
2		Basic	Hardware	intelligent Touch Manager	DCM601B51	• Air-conditioning management system that can be controlled by touch screen.
2.4				iTM plus adaptor	DGE601A52	Additional 64 groups (10 outdoor units) is possible.
Z-1			Hardware	iTM plus adaptor slot	DGF601A53	• Max 6 iTM plus adaptor can be connect to iTM plus adaptor.
2-2	intelligent Touch	Ontion	Softwara	iTM power proportional distribution	DCM002A51	• Power consumption of indoor units are calculated based on operation status of the indoor unit and outdoor unit power consumption measured by kWh metre.
2-3	wanager	Option	Soltware	iTM energy navigator	DCM008A51	<ul> <li>Building energy consumption is visualised.</li> <li>Wasted air-conditioning energy can be found out.</li> </ul>
2-4				BACnet® client	DCM009A51	• BACnet <sup>®</sup> equipment can be managed by intelligent Touch Manager.
2-5				HTTP Interface	DCM007A51	Interface for intelligent Touch Manager by HTTP
2-6				Reiri for Office	DCPF01	<ul> <li>VRV smart controller (website or mobile app via smart phone or tablet) for small to medium scale building</li> </ul>
2-7		045		Reiri for Office (Touchscreen Controller)	DCPF04	<ul> <li>VRV smart controller with touch panel (website or mobile app via smartphone or tablet) for small to medium scale building</li> </ul>
2-8		Office		Reiri for Office (Controller Extension)	DCPF05	• VRV smart controller for large scale building
2-9	Smartphone/			Reiri for Office (Multisite Extension)	DCPF10	Control all VRV units via Reiri for Office on multisite
2-10				Reiri for Office	DCPH01	• VRV smart home automation and smart control solution
2-11		Home		Reiri for Home (Lite Version)	DCPH02	• VRV smart centralised controller
2-12		Listal		Reiri for Hotel	DCPL01	<ul> <li>Multiple hotel room air conditioner interlocking with occupancy signal, window open/close signal and check in/out signal</li> </ul>
2-13		Hotel		Reiri for Resort	DCPR01	<ul> <li>Individual villa air conditioner interlocking with occupancy signal, window open/close signal and check in/out signal</li> </ul>
2-14	Di unit				DEC101A51	<ul> <li>8 pairs based on a pair of ON/OFF input and abnormality input.</li> </ul>
2-15	Dio unit				DEC102A51	• 4 pairs based on a pair of ON/OFF input and abnormality input/output.
3		Inter	face for use	in BACnet® *1	DMS502B51	<ul> <li>Interface unit to allow communications between VRV and BMS. Operation and monitoring of air-conditioning systems through BACnet<sup>®</sup> communication.</li> </ul>
3-1		Opti	onal DIII boa	ard	DAM411B51	<ul> <li>Expansion kit, installed on DMS502B51, to provide 2 more DIII-NET communication ports. Not usable independently.</li> </ul>
3-2	Communication	Opti	onal Di boar	rd	DAM412B51	<ul> <li>Expansion kit, installed on DMS502B51, to provide 16 more wattmeter pulse input points. Not usable independently.</li> </ul>
4	interface	Hom	e Automati	on Interface Adaptor	DTA116A51	<ul> <li>Use of the Modbus<sup>®</sup> protocol enables the connection of the VRV system with a variety of home automation systems from other manufacturers.*4</li> </ul>
4-1		Mou	inting plate		BKS26A	When installing DTA116A51 into outdoor units of 10 HP (VRV X) / 14 HP (VRV A) or larger.
5	Contact/ analogue signal	Unif	ication adap rol	otor for computerised	★DCS302A52	Interface between the central monitoring board and central control units.

Notes: \*1. BACnet<sup>®</sup> is a registered trademark of American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE).
\*2. LonWorks<sup>®</sup> is a trademark of Echelon Corporation registered in the United States and other countries.
\*3. Installation box for★ adaptor must be obtained locally.
\*4. Modbus<sup>®</sup> is a registered trademark of Schneider Electric S.A.

# Wide Variety of Series Models to Supply Total Air Solutions



**RXUQ-A** 3-phase 4-wire system, 380-415 V, 50 Hz



**RXQ-A** 3-phase 4-wire system, 380-415 V, 50 Hz



**RSUQ-A** 4-6 HP: 1-phase, 220-240/ 220-230 V, 50/60 Hz 7-9 HP: 3-phase, 380-415 V, 50 Hz



**RXMQ-A/B** 4 HP: 1-phase, 220 V, 50 Hz 5-6 HP: 1-phase, 220-240 V/ 220-230 V, 50/60 Hz 8-9 HP: 3 phase, 380-415 V, 50 Hz

## **VRV** X series



#### New heights in energy efficiency during actual operation

The **VRV** X series features new models specially developed for higher efficiency. All compressors used in outdoor units are new scroll compressors designed to enhance energy efficiency.

Lineup									0.0		0.0	0.0	0.9	,				GITT		0	. 9	, .			,	·		
HP	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60
Single outdoor units																												
Double outdoor units																												
Triple outdoor units							٠	٠											٠	٠	٠	٠	٠	٠	٠	٠		

## **VRV** A series



## Saves space and delivers excellent performance

The **VRV** A series achieves high efficiency in a design that is more compact and lightweight. It also offers comfort, easy installation, and high reliability to meet the needs in various buildings.

			_	_	_	_			_	_		_		_		_	_	_	_						_			
HP	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60
Single outdoor units	•	٠			٠	•	•	٠																				
Double outdoor units								٠					٠															
Triple outdoor units																					٠	٠						

## **VRV S** High Seasonal Efficiency SERIES

## Especially designed for residential houses, small office and shops

New VRV S High Seasonal Efficiency series achieves higher energy efficiency with a variety of function for comfort and high performance. A wide range of options for installation location and application are easily achieved by the low height casing, long piping length and other features.

Lineup

Emeap						
HP	4	5	6	7	8	9
Cooling Only	٠	٠			٠	٠

## **VRV IV S** series

## Especially designed for residential houses, small offices and shops

**VRV** IV S series aims to provide sufficient capacity, along with the compact size required by residential houses, small offices and shops. Outdoor units are designed to be slim and space saving to suit your needs.

Lineup					
HP	4	5	6	8	9
Cooling Only			٠	٠	•

From residential houses to large buildings, and from newly constructed to renovated buildings, *VRV* system meets a wide range of air conditioning needs and supplies total air solutions.



**RQQ-T** 3-phase 4-wire system, 380-415 V, 50 Hz

## **VRV** IV Q series

For quick & high quality replacement use

**VRV** IV Q series, a replacement **VRV** unit, can be installed using existing refrigerant piping, so renovation of the air conditioning system can be carried out quickly and smoothly. This minimises inconveniences to activities and users in the building.

#### Lineup

HP	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48
Standard Type			٠					٠			٠			٠	٠		٠				٠	
Space Saving Type							٠	٠					٠	٠	٠	٠	٠	٠	٠		٠	



RWEYQ-T 3-phase 4-wire system, 380-415 V, 50 Hz



Water cooled system suitable for tall multi-storied buildings

Water cooled *VRV* IV W series utilises water as a heat source. The temperature of heat source water can be from 10°C to 45°C, and outdoor air temperature does not affect cooling capacity. The outside unit is compact and saves space in the machine room.

#### Lineup

 HP
 6
 8
 10
 12
 14
 16
 18
 20
 22
 24
 26
 28
 30
 32
 34
 36

 Cooling Only
 Image: C



**RWXQ-A** 1-phase, 220-240 V/220 V, 50/60 Hz



RWHQ-T / HWHQ30A 3-phase 4-wire system, 380-415 V, 50 Hz

## **VRV** WS series

Water cooled system suitable for residential houses

Water cooled **VRV** WS series outside units are designed to be compact and lightweight, and single phase power supply enables simplified installation in residential applications.

Lineup HP 4 5 6 Cooling Only • •

#### **URV** IN HEAT RECOVERY HOT WATER SYSTEM

## Comfortable air conditioning and energy-efficient hot water heating

This energy-efficient, multifunction system recovers waste heat generated by air conditioning, as energy to heat water. It is suitable for different business applications and provides flexible combination of **VRV** IV indoor units achieving comfort and aesthetic.

HP	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	52	54	56	58	60
High-COP Type				٠	•		٠	٠	٠	٠	•		٠	•				٠			٠							
Standard Type	٠	•	٠	٠	•		٠	٠	٠	٠	•		٠	•			٠	٠		٠	٠	٠	•	٠	٠	•	•	
Space Saving Type							٠	٠			•	•	٠	•	•		٠	٠		٠	٠	٠	•					

# **VRV User Benefits**

## For property **OWNERS**

### Energy saving & comfortable environment

- VRT Smart greatly reduces the energy by optimising the capacity according to heat load, especially during low-load operation.
- Comfortable indoor environment is maintained at the time.



## Efficient space utilisation

- When construct a large-scale air conditioning system on a single refrigerant system, space for air conditioning is drastically reduced.
- Even with a 20-storey building all of the outdoor units can be installed on the rooftop.

#### 

Refrigerant

piping



Print circuit

board

## High reliability

- **Refrigerant cooled PCB** Daikin's unique refrigerant cooling helps maintain high cooling capacity even during high outdoor temperatures.
- Double backup operation Unit backup & Compressor backup ensure continuous operation.



• Heavy anti-corrosion model The heavy anti-corrosion models can provide durable operation at humid and seaside areas. Also, outdoor unit can be installed from 0 m from coastline.





### Comfortable environment

• VRT Smart operation maintains the indoor temperature and ensures a comfortable environment.

For **USERS** 

### **Residential indoor units**

- Residential indoor units can be connected and it is possible to realise quiet operation.
- By remotely installing an BP unit, the noise of refrigerant passing though the piping can be reduced.





## For CONSULTANT and DESIGN OFFICES

### Varied lineup of models

• With various types of indoor units available, comfortable airflow is ensured in every space.

### Long piping provides more flexible system design

- Maximum equivalent piping length between indoor and outdoor unit is 190 m.
- Maximum height difference is 90 m.

### Compatible with engineering software

• Daikin provide the software, the simulation results, and drawing materials to support the building information modeling (BIM) currently entering the mainstream in construction industries.

### **Energy efficient**

• Achieves your green building solution by Daikin's innovative energy-saving technology.







## For INSTALLERS



### Automatic refrigerant charge function

• Automates the charging of proper refrigerant amount to contribute to optimised operation efficiency, higher quality and easier installation.

### Lightweight and compact large-capacity single units

• Easy to install and can be transported in elevators.

### Simple piping, easy wiring

• The REFNET piping system and DIII-NET system simplify refrigerant piping and control wiring installation.

# **Daikin Engineering Supports**

VRV design and sales proposal assistance

Daikin provides engineering supports for **VRV** systems. It consists of design supports that can assist consultants and architects, as well as sales proposal supports for air conditioning engineers and dealers. We at Daikin provide the software, the simulation results, and drawing materials to support the building information modeling (BIM) currently entering the mainstream in construction industries.







Heat load calculation

Model selection



### Model selection software

CADXpress is a flexible design software that optimises equipment selection and CAD drawing. It can empower consultants and air conditioning engineers so they can fully enhance their equipment selections to design the most effective, optimum systems possible. The software also allows the choice of outdoor units based on peak loads rather than the sum of required capacities for each indoor unit. This fine-tuning feature reduces **VRV** system sizes and increases efficiency.

Additionally, the CAD function enables automatic calculation of piping diameter and length without any need for CAD software.

### CFD simulation to optimise outdoor unit layouts

DT FLOW 2 is a simulation software that uses computational fluid dynamics (CFD), aiming to optimise outdoor unit layouts right at the design stage. When discharged air from the outdoor unit is drawn back into the suction vent, it can short circuit the system and lead to: decrease in efficiency of cooling operations, capacity shortages, operation cut-offs, and shorter lifetime for the outdoor unit. To avoid the need for expensive layout modifications once construction is complete, Daikin uses the CFD method at the early design stage. This can help consultants and architects optimise their outdoor unit arrangement.

New software for indoor airflow simulation will be coming soon. Indoor airflow simulation is a method for predicting temperature distribution and velocity distribution of indoor environment.

### Heat load calculation

DS-HL2 uses ASHRAE's Radiant Time Series method to compute heat load for a 24-hour period on summer and winter days. The Radiant Time Series considers the delay in heat load coming into the room through outer walls and the roof in the form of conduction and radiation. Airflow calculation for rooms can be performed. Detailed reports are available for different breakdown requirements. Additional monthly calculation is also available with an advanced license tier.

24-hour weather data for all major cities is based on data recorded from past years.

### Drawing supports

Users download CAD symbol drawing materials, including 2D CAD symbols and 3D Revit data, for **VRV** systems designing. The 3D Revit data contains specifications for Daikin products, including things like capacities and electric characteristics to support Building Information Modeling (BIM). CADXpress



#### DT FLOW 2



#### DS-HL2



#### CAD Symbols



- Warning
- Ask a qualified installer or contractor to install this product. Do not try to install the product yourself. Improper installation can result in water or refrigerant leakage, electrical shock, fire or explosion.
  - Use only those parts and accessories supplied or specified by Daikin. Ask a qualified installer or contractor to install those parts and accessories. Use of unauthorised parts and accessories or improper installation of parts and accessories can result in water or refrigerant leakage, electrical shock, fire or explosion.
  - Read the user's manual carefully before using this product. The user's manual provides important safety instructions and warnings. Be sure to follow these instructions and warnings.

If you have any enquiries, please contact your local importer, distributor and/or retailer.

Cautions on product corrosion

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

2. If the outdoor unit is to be installed close to the sea shore, direct exposure to the sea breeze should be avoided. If you need to install the outdoor unit close to the sea shore, contact your local distributor.



#### SIAM DAIKIN SALES CO.,LTD.

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This product complies with TIS1529-2561 and covers the air conditioner total cooling capacity up to 18000 W.

*VRV* is a trademark of Daikin Industries, Ltd. *VRV* Air Conditioning System is the world's first individual air conditioning system with variable refrigerant flow control and was commercialised by Daikin in 1982. *VRV* is the trademark of Daikin Industries, Ltd., which is derived from the technology we call "variable refrigerant volume."