DAIKIN

altherma

Heating

Technical Data

Heat pump convector

EEDEN12-727

FWXV-A

TABLE OF CONTENTS

FWXV-A

1 Features

- Vertical auto swing moves the discharge flaps up and down for efficient air and temperature distribution throughout the room
- Energy efficient heating and cooling system based on air source heat pump technology
- Optimum energy efficiency when connected to a Daikin Altherma low temperature system
- The indoor unit distributes air at the sound of a whisper. The noise produced amounts to barely 22dB(A) in cooling and 19dB(A) in radiant heat mode. In comparison, the ambient sound in a quiet room amounts to 40dB(A) on average.
- Reduced running costs
- Its low height enables the unit to fit perfectly beneath a window
- Weekly timer can be set to start heating or cooling anytime on a daily or weekly basis
- Indoor unit silent operation: "silent" button on the remote control lowers the operation sound of the indoor unit by 3dBA
- Can be installed against a wall or recessed
- Powerful mode can be selected for rapid cooling; after the powerful mode is turned off, the unit returns to the preset mode.
- Titanium apatite photocatalytic air purification filter removes airborne microscopic particles, powerfully decomposes odours and helps to prevent the propagation of bacteria, viruses, microbes to ensure a steady supply of clean air

5 steps

2 Specifications

2-1 Technical Specifications					FWXV15A	FWXV20A
Heating capacity	Total capacity	Nom.		kW	1.5	2.0
				Btu/h	5,100	6,800
Cooling capacity	Total capacity	Nom./Super high		kW/Btu/h	1.2/4,100/-	1.7/5,800/-
	Sensible capacity	Nom./Super high		kW/Btu/h	0.98/3,300/-	1.4/4,800/-
Power input	Heating	Nom.		kW	0.013	0.015
	Cooling	Nom.		kW	0.013	0.015
Casing	Colour				White	
Dimensions	Unit	HeightxWidthxDepth		mm	600x700x210	
	Packed unit	HeightxWidthxDepth		mm	696x786x280	
Weight	Unit			kg	15	
	Packed unit			kg	19	
Heat exchanger	Length			mm	510	
	Rows	Quantity			2	
	Stages	Quantity			22	
	Tube type				ø6.35 Smooth tube	
	Fin	Type			Multi slit fin	
	Fin pitch			mm	1.2	
Fan	Type				Turbo fan	
	Air flow rate	Heating	Medium/Low/Silent operation	m³/h/cfm	318/188/228/135/150/89/126/74	474/280/354/209/240/142/198/117
		Cooling	Medium/Low/Silent operation	m³/h/cfm	318/188/228/135/150/89/126/74	474/280/354/209/240/142/198/117
Fan motor	Speed	Heating	High/Medium/Low/Silent operation	rpm	400/310/230/210	560/440/320/280
		Cooling	High/Medium/Low/Silent operation	rpm	400/310/230/210	560/440/320/280
		Steps			5 + silent, + auto	
	Model				D48D-28	
Piping connections	Drain/OD/Inlet			mm/inch	18/G 1/2/G 1/2	
Sound power level	Heating	Nom.		dBA	35	45
	Cooling	Nom.		dBA	35	45
Sound pressure level	Heating	Nom.		dBA	19	29
	Cooling	Nom.		dBA	19	29
Temperature control					Microcomputer control	
Air direction control					Right, Left, Horizontal, Downward	
Water pressure drop	Heating			kPa	13	22
	Cooling			kPa	10	19
Water volume	Heating	Nom.		m³/h	0.26	0.34
				l/min	4.3	5.7
	Cooling	Nom.		m³/h	0.20	0.29
				l/min	3.4	4.9

2 Specifications

Standard Accessories : Binding band; Quantity : 1;
Standard Accessories : Drain hose; Quantity : 1;
Standard Accessories : O ring; Quantity : 4;
Standard Accessories : Connection pipes; Quantity : 2;
Standard Accessories : Thermal insulation tube; Quantity : 2;
Standard Accessories : Thermal insulation tape; Quantity : 2;
Standard Accessories : Photocatalytic filter (apatite); Quantity : 2;
Standard Accessories : Remote control holder; Quantity : 1;
Standard Accessories : Batteries; Quantity : 2;
Standard Accessories : Wireless remote control; Quantity : 1;
Standard Accessories : Operation manual; Quantity : 1;
Standard Accessories : Installation manual; Quantity : 1;

2-2 Electrical Specifications			FWXV15A	FWXV20A
Power supply	Phase		1~	
	Frequency	Hz	50/60	
	Voltage	V	220-240/220	
Current input	Medium	A	0.08	0.10

Notes

(1) Cooling: indoor temp. 27°CDB, 19°CWB; entering water temp. 7°C, water temperature rise 5K.
(2) Heating: room temperature 20°CDB and entering water temperature 45°C, water temperature drop 5K.
(3) The range of usable water temperature is 6°C (Min.) to 60°C (Max.)
(4) Maximum allowable water pressure is 1.18MPa.
(5) Comply with drinking water directive 98/83/EC for chilled water, hot water and make up water
(6) The amount of water circulation should be 3L/min to 15L/min (0.18m³/hr to 0.9m³/hr).
(7) Allowable model of hydrobox interlinking is BA-series.
(8) Heat insulation: both inlet and outlet pipes

3 Capacity tables

3 - 1 Cooling Capacity Tables

FWXV15-20A

Cooling capacity tables

Air temperature (°CDB-°CWB)		27°CDB-19°CWB															
Water temperature (Entering °C - leaving °C)		6°C-11°C				7°C-12°C				8°C-13°C				9°C-14°C			
Model	Fan	Total cooling capacity	Sensible cooling capacity	Water flow	Water pressure drop	Total cooling capacity	Sensible cooling capacity	Water flow	Water pressure drop	Total cooling capacity	Sensible cooling capacity	Water flow	Water pressure drop	Total cooling capacity	Sensible cooling capacity	Water flow	Water pressure drop
		kW	kW	L/min	kPa	kW	kW	L/min	kPa	kW	kW	L/min	kPa	kW	kW	L/min	kPa
FWXV15AVEB	H	1.77	1.44	5.1	20	1.70	1.39	4.9	19	1.55	1.31	4.4	16	1.41	1.25	4.0	13
	M	1.25	1.00	3.6	10	1.20	0.98	3.4	10	1.09	0.92	3.1	8	1.00	0.88	2.9	7
	L	0.83	0.67	2.4	5	0.80	0.66	2.3	4	0.73	0.62	2.1	4	0.66	0.59	1.9	3
FWXV20AVEB	H	2.60	2.13	7.5	42	2.50	2.05	7.2	39	2.28	1.93	6.5	33	2.08	1.85	6.0	27
	M	1.77	1.46	5.1	20	1.70	1.40	4.9	19	1.55	1.32	4.4	16	1.41	1.26	4.0	13
	L	1.25	1.03	3.6	10	1.20	0.99	3.4	10	1.09	0.93	3.1	8	1.00	0.89	2.9	7

Air temperature (°CDB-°CWB)		22°CDB-16°CWB															
Water temperature (Entering °C - leaving °C)		6°C-11°C				7°C-12°C				8°C-13°C				9°C-14°C			
Model	Fan	Total cooling capacity	Sensible cooling capacity	Water flow	Water pressure drop	Total cooling capacity	Sensible cooling capacity	Water flow	Water pressure drop	Total cooling capacity	Sensible cooling capacity	Water flow	Water pressure drop	Total cooling capacity	Sensible cooling capacity	Water flow	Water pressure drop
		kW	kW	L/min	kPa	kW	kW	L/min	kPa	kW	kW	L/min	kPa	kW	kW	L/min	kPa
FWXV15AVEB	H	1.31	1.09	3.8	11	1.19	1.03	3.4	9	1.05	0.99	3.0	7	0.93	0.93	2.7	6
	M	0.93	0.76	2.7	6	0.84	0.74	2.4	5	0.74	0.72	2.1	4	0.66	0.66	1.9	3
	L	0.61	0.51	1.7	3	0.56	0.50	1.6	2	0.50	0.49	1.4	2	0.44	0.44	1.3	1
FWXV20AVEB	H	1.92	1.62	5.5	23	1.75	1.52	5.0	20	1.55	1.41	4.4	16	1.37	1.37	3.9	12
	M	1.31	1.11	3.8	11	1.19	1.05	3.4	9	1.04	1.03	3.0	7	0.93	0.93	2.7	6
	L	0.93	0.78	2.7	6	0.84	0.75	2.4	5	0.74	0.73	2.1	4	0.66	0.66	1.9	3

Air temperature (°CDB-°CWB)		25°CDB-18°CWB															
Water temperature (Entering °C - leaving °C)		6°C-11°C				7°C-12°C				8°C-13°C				9°C-14°C			
Model	Fan	Total cooling capacity	Sensible cooling capacity	Water flow	Water pressure drop	Total cooling capacity	Sensible cooling capacity	Water flow	Water pressure drop	Total cooling capacity	Sensible cooling capacity	Water flow	Water pressure drop	Total cooling capacity	Sensible cooling capacity	Water flow	Water pressure drop
		kW	kW	L/min	kPa	kW	kW	L/min	kPa	kW	kW	L/min	kPa	kW	kW	L/min	kPa
FWXV15AVEB	H	1.58	1.28	4.5	16	1.51	1.24	4.3	15	1.35	1.15	3.9	12	1.24	1.11	3.6	10
	M	1.11	0.90	3.2	8	1.07	0.87	3.1	8	0.95	0.81	2.7	6	0.88	0.78	2.5	5
	L	0.74	0.60	2.1	4	0.71	0.58	2.0	3	0.64	0.55	1.8	3	0.58	0.53	1.7	2
FWXV20AVEB	H	2.31	1.90	6.6	33	2.23	1.82	6.4	31	1.98	1.70	5.7	25	1.83	1.65	5.2	21
	M	1.58	1.31	4.5	16	1.51	1.25	4.3	15	1.35	1.16	3.9	12	1.24	1.12	3.6	10
	L	1.11	0.93	3.2	8	1.07	0.88	3.1	8	0.95	0.82	2.7	6	0.88	0.79	2.5	5

Air temperature (°CDB-°CWB)		30°CDB-22°CWB															
Water temperature (Entering °C - leaving °C)		6°C-11°C				7°C-12°C				8°C-13°C				9°C-14°C			
Model	Fan	Total cooling capacity	Sensible cooling capacity	Water flow	Water pressure drop	Total cooling capacity	Sensible cooling capacity	Water flow	Water pressure drop	Total cooling capacity	Sensible cooling capacity	Water flow	Water pressure drop	Total cooling capacity	Sensible cooling capacity	Water flow	Water pressure drop
		kW	kW	L/min	kPa	kW	kW	L/min	kPa	kW	kW	L/min	kPa	kW	kW	L/min	kPa
FWXV15AVEB	H	2.32	1.57	6.7	34	2.23	1.50	6.4	31	2.00	1.40	5.7	25	1.80	1.33	5.2	21
	M	1.64	1.09	4.7	17	1.57	1.06	4.5	16	1.41	0.98	4.0	13	1.28	0.93	3.7	11
	L	1.09	0.73	3.1	8	1.05	0.71	3.0	7	0.94	0.66	2.7	6	0.84	0.63	2.4	5
FWXV20AVEB	H	3.41	2.32	9.8	70	3.28	2.21	9.4	65	2.94	2.07	8.4	53	2.66	1.96	7.6	44
	M	2.32	1.59	6.7	34	2.23	1.51	6.4	31	2.00	1.41	5.7	25	1.80	1.34	5.2	21
	L	1.64	1.12	4.7	17	1.57	1.07	4.5	16	1.41	1.00	4.0	13	1.28	0.94	3.7	11

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3 Capacity tables

3 - 2 Heating Capacity Tables

FWXV15-20A

Heating capacity tables

Air temperature (°C)		20°C														
Water temperature (Entering °C - leaving °C)		35°C-30°C			45°C-40°C			50°C-45°C			55°C-45°C			60°C-50°C		
Model	Fan	Heating capacity	Water flow	Water pressure drop	Heating capacity	Water flow	Water pressure drop	Heating capacity	Water flow	Water pressure drop	Heating capacity	Water flow	Water pressure drop	Heating capacity	Water flow	Water pressure drop
		kW	L/min	kPa	kW	L/min	kPa	kW	L/min	kPa	kW	L/min	kPa	kW	L/min	kPa
FWXV15AVEB	H	1.12	3.2	7	2.00	5.7	22	2.43	7.0	32	2.85	4.1	12	3.27	4.7	15
	M	0.83	2.4	4	1.50	4.3	13	1.82	5.2	19	2.13	3.1	7	2.44	3.5	9
	L	0.50	1.4	2	1.00	2.9	6	1.35	3.9	10	1.43	2.0	3	1.64	2.4	4
FWXV20AVEB	H	1.65	4.7	15	3.00	8.6	49	3.67	10.5	71	4.33	6.2	26	4.99	7.2	34
	M	1.12	3.2	7	2.00	5.7	22	2.43	7.0	32	2.86	4.1	12	3.29	4.7	15
	L	0.83	2.4	4	1.50	4.3	13	1.82	5.2	19	2.13	3.1	7	2.44	3.5	9

Air temperature (°CDB-°CWB)		22°CDB														
Water temperature (Entering °C - leaving °C)		35°C-30°C			45°C-40°C			50°C-45°C			55°C-45°C			60°C-50°C		
Model	Fan	Heating capacity	Water flow	Water pressure drop	Heating capacity	Water flow	Water pressure drop	Heating capacity	Water flow	Water pressure drop	Heating capacity	Water flow	Water pressure drop	Heating capacity	Water flow	Water pressure drop
		kW	L/min	kPa	kW	L/min	kPa	kW	L/min	kPa	kW	L/min	kPa	kW	L/min	kPa
FWXV15AVEB	H	1.01	2.9	6	1.84	5.3	19	2.27	6.5	28	2.69	3.9	10	3.11	4.5	14
	M	0.75	2.2	3	1.38	4.0	11	1.70	4.9	16	2.01	2.9	6	2.31	3.3	8
	L	0.45	1.3	1	0.92	2.6	5	1.26	3.6	9	1.35	1.9	3	1.55	2.2	4
FWXV20AVEB	H	1.48	4.2	13	2.76	7.9	41	3.42	9.8	62	4.08	5.8	23	4.74	6.8	31
	M	1.00	2.9	6	1.84	5.3	19	2.27	6.5	28	2.70	3.9	10	3.12	4.5	14
	L	0.75	2.2	3	1.38	4.0	11	1.70	4.9	16	2.01	2.9	6	2.31	3.3	8

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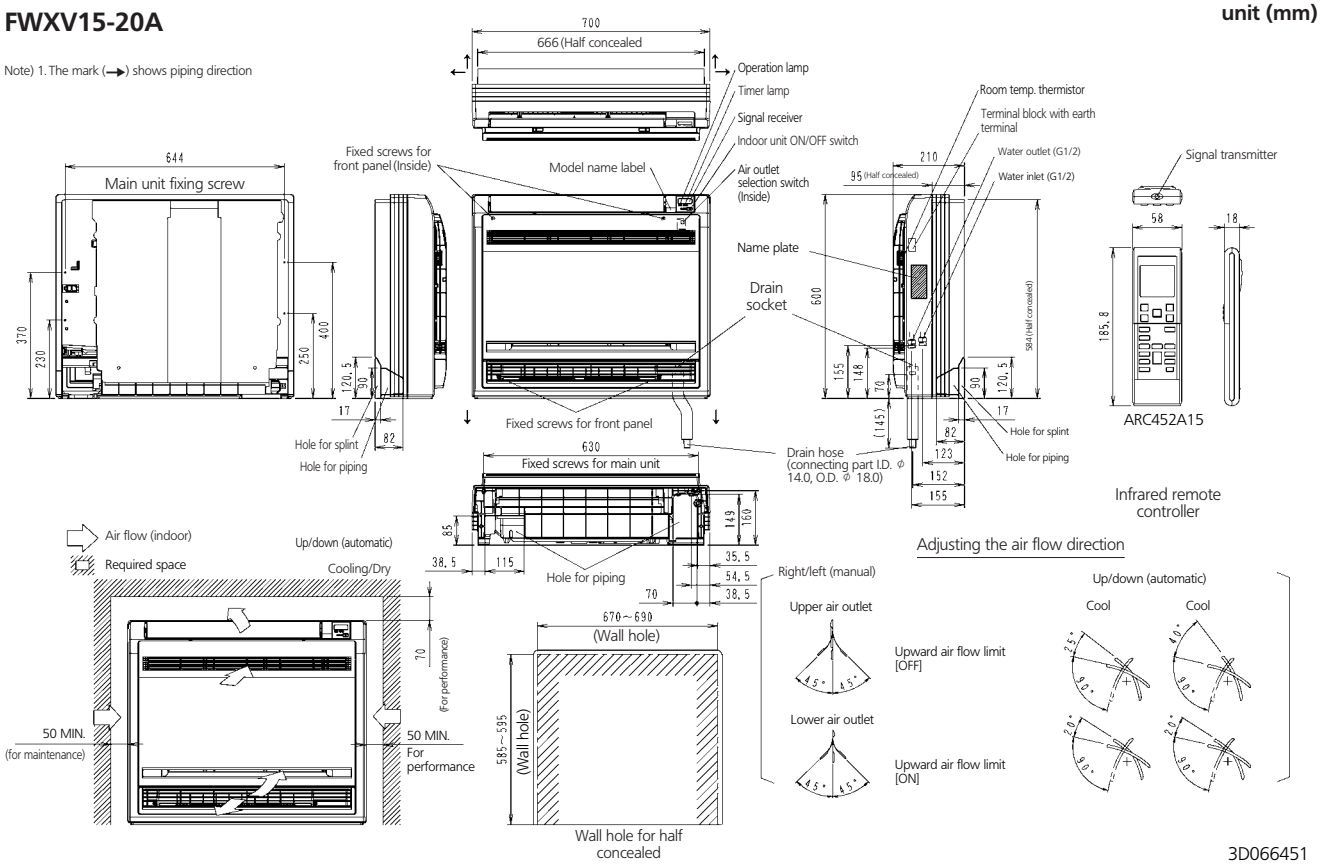
4 Dimensional drawings

4 - 1 Dimensional Drawings

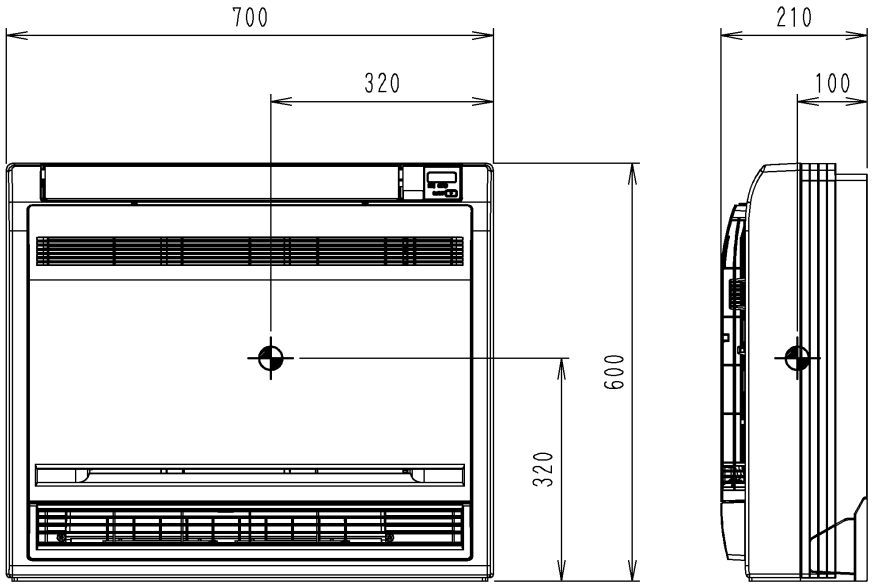
FWXV15-20A unit (mm)



5 Centre of gravity

5 - 1 Centre of Gravity

FWXV15-20A



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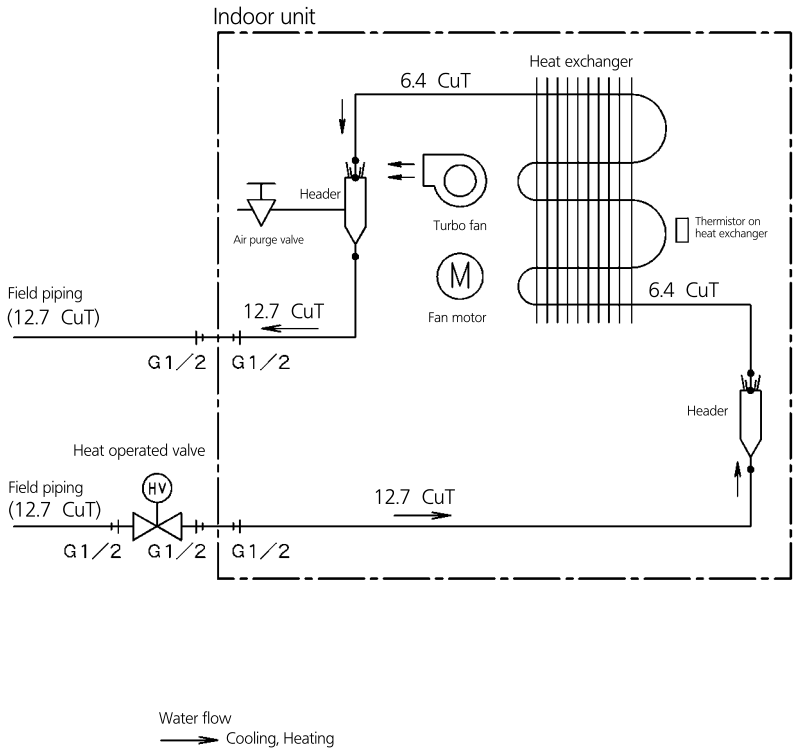
6 Piping diagrams

6 - 1 Piping Diagrams

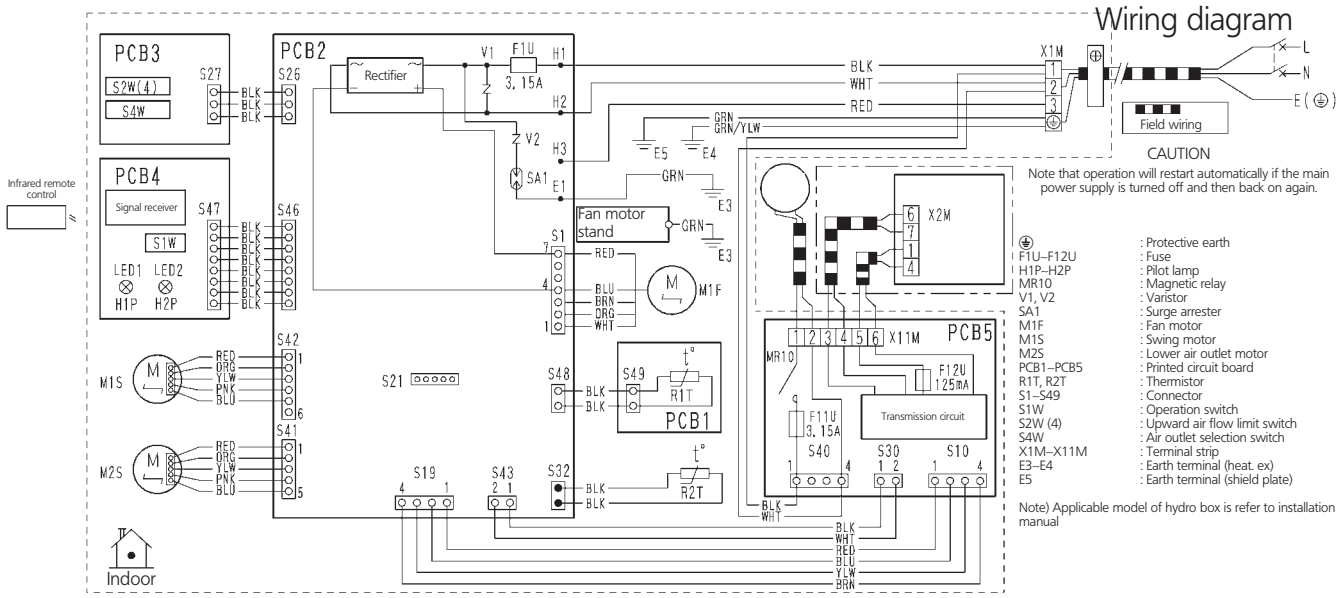
FWXV15-20A



7 Wiring diagrams

7 - 1 Wiring Diagrams - Single Phase

FWXV15-20A



NOTES:
1 Size: Length 70 X Width 155
2 Refer to purchasing specification AS303002, unless otherwise specified.
3 This drawing was drawn on CAD system.

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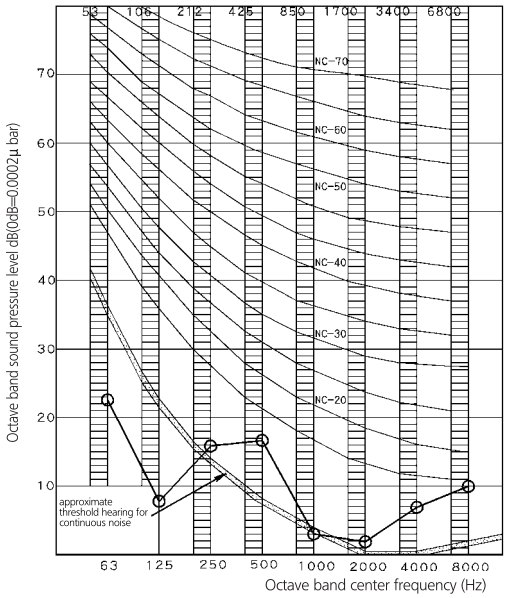
8 Sound data

8 - 1 Sound Pressure Spectrum

FWXV15A

Cooling, Heating



Overall (dB)

Scale A	19

(B,G,N is already rectified)

Measuring place

Measure in anechoic room

Note: Operation noise differs with operation and ambient conditions.

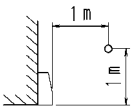
Operating conditions

Power source 220-240V 50Hz, 220V 60Hz

Cooling, Heating

Location of microphone

The operation sound measuring method is in accordance with JISC9612.



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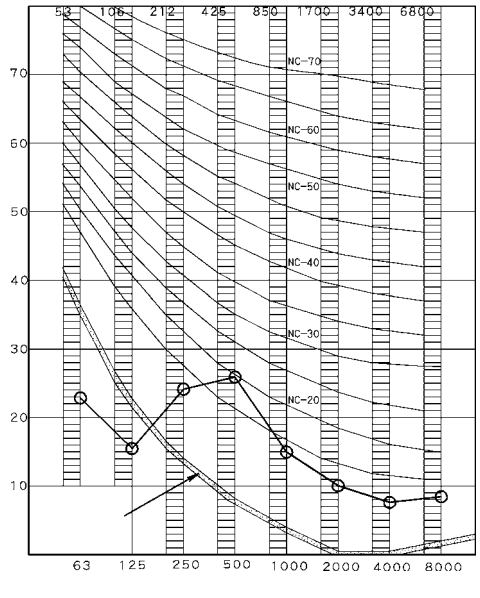
FWXV20A

Cooling Heating



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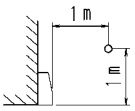
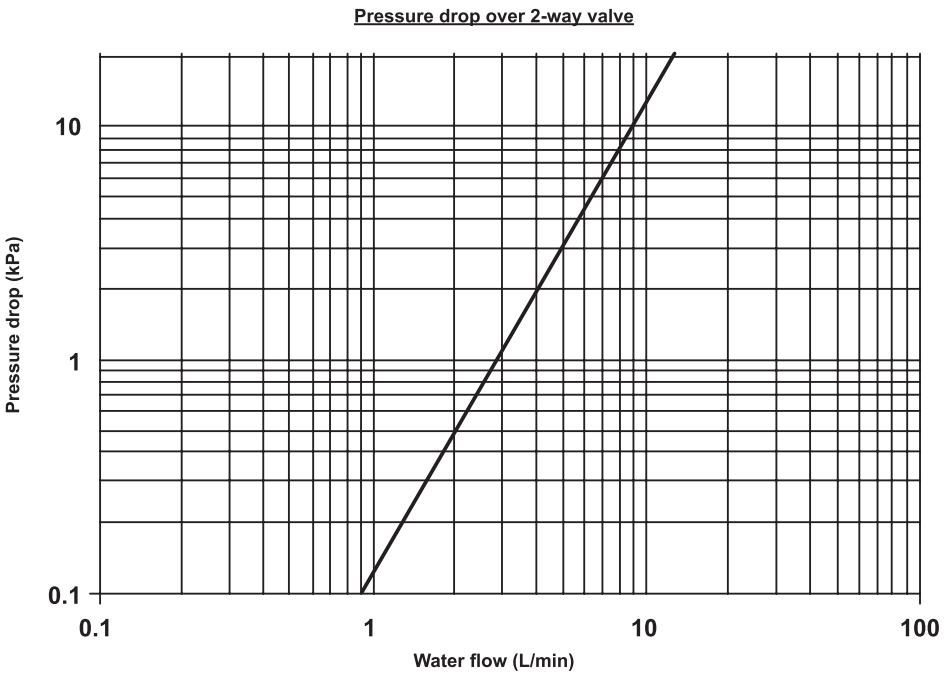


9 Hydraulic performance

9 - 1 Static Pressure Drop Unit

FWXV-A



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NOTE

1. This graph can be used to calculate the pressure drop over the 2-way valve.
   The pressure drop over the Heat Pump Convector is not included.

Daikin's unique position as a manufacturer of air conditioning equipment, compressors and refrigerants has led to its close involvement in environmental issues. For several years Daikin has had the intention to become a leader in the provision of products that have limited impact on the environment. This challenge demands the eco design and development of a wide range of products and an energy management system, resulting in energy conservation and a reduction of waste.

Daikin Europe N.V. participates in the Eurovent Certification programme for Air conditioners (AC), Liquid Chilling Packages (LCP) and Fan coil units (FCU). Check ongoing validity of certificate online: www.eurovent-certification.com or using: www.certiflash.com"

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