DAIKIN

Sky Air

Air Conditioning Technical Data

FVA-A

> FVA71AMVEB
> FVA100AMVEB
> FVA125AMVEB
> FVA140AMVEB

TABLE OF CONTENTS

FVA-A

1 Features

For commercial spaces with high ceilings

- Decrease of temperature variation by automatic fan speed selection or freely selectable 3-step fan speed.
- Unified indoor unit range for R-32 and R-410A
- Combining with R-32 Bluevolution technology, reduces environmental impact with 68% compared to R-410A, leads directly to lower energy consumption thanks to its high energy efficiency and has up to lower 16% refrigerant charge
- Improved comfort as a result of better airflow distribution from the vertical out blow which allows manual adjustment of air outlet blades at the top of the unit.
- Selectable horizontal out blow to better suit the layout of the room (via wired remote controller BRC1E*)

Infrastructure cooling


Home leave operation


Fan only

Auto cooling-heating changeover


Vertical auto swing


Fan speed steps

Dry programme


Air filter

Weekly timer


Wired remote control


Centralised control

Auto-restart


Self diagnosis

2 Specifications

2-1 Technical Specifications					FVA71A	FAV100A	FVA125A	FVA140A
Casing	Colour				Fresh White			
Dimensions	Unit	Height/Width/Depth		mm	1,850/600/270	1,850/600/350		
	Packed unit	Height/Width/Depth		mm	1,996/732/389	1,996/732/469		
Weight	Unit			kg	42	50		
	Packed unit			kg	56	65		
Heat exchanger	Fin	Type			Cross fin coil (multi louver fins and Hi-XSS tubes)			
Air filter	Type				Resin net			
Fan	Type				Sirocco fan			
	Quantity				1			
	Air flow rate	Cooling	High	m³/min	18	28		30
			Medium	m³/min	16 (1)	25 (1)	26 (1)	28 (1)
			Low	m³/min	14	22	24	26
		Heating	High	m³/min	18	28		30
			Medium	m³/min	16 (1)	25 (1)	26 (1)	28 (1)
			Low	m³/min	14	22	24	26
Fan motor	Quantity				1			
	Model				QS33A1AM			
	Speed	Steps			3			
	Output	High		W	64	152		
	Phase x Voltage			V	DC280V	DC240-380		
Sound power level	Cooling			dBA	55	62	63	65
Sound pressure level	Cooling	High/Medium/Low		dBA	43/41 (1)/38	50/47 (1)/44	51/48 (1)/46	53/51 (1)/48
	Heating	High/Nom./Medium		dBA	43/41/38	50/47/44	51/48/46	53/51/48
Control systems	Wired remote control				BRC1D528 / BRC1E53A7 / BRC1E53B7 / BRC1E53C7			
Refrigerant	Type				R-32 / R-410A			
Piping connections	Liquid	Type/OD		mm	Flare connection/9,5			
	Gas	Type/OD		mm	Flare connection/15.9			
	Drain				I.D. 20/O.D. 26			
	Heat insulation				Foamed polystyrene / Foamed polyethylene			

Standard Accessories : Screws; Quantity : 5;
Standard Accessories : Installation manual; Quantity : 1;
Standard Accessories : Operation manual; Quantity : 1;
Standard Accessories : Bush; Quantity : 1;
Standard Accessories : Tie-wraps; Quantity : 5;
Standard Accessories : Insulation for fitting for gas pipe; Quantity : 1;
Standard Accessories : Insulation for fitting for liquid pipe; Quantity : 1;
Standard Accessories : Dew proof material; Quantity : 1;
Standard Accessories : Remote control wiring; Quantity : 1;
Standard Accessories : Bracket for installation; Quantity : 1;
Standard Accessories : Hole protection rubber; Quantity : 2;
Standard Accessories : Cover; Quantity : 1;
Standard Accessories : Installation pattern; Quantity : 1;

2-2 Electrical Specifications			FVA71A	FAV100A	FVA125A	FVA140A
Power supply	Phase		1~			
	Frequency	Hz	50/60			
	Voltage	V	220-240/220			

Notes

(1) See separate drawing for electrical data

3 Safety device settings

3 - 1 Safety Device Settings

FVA-A

Safety devices	FVA71AMVEB	FVA100-140AMVEB
Printed circuit board fuse (main)	---	---
Fuse (fan motor)	500V, 4A (on wire)	500V, 4A (on wire)
Fan motor overcurrent protection (nom.)	1.64A	0.79A
Fan motor overheat protection (max.)	125°C	135°C

Safety devices	AVA125AMVE
Printed circuit board fuse (main)	---
Fuse (fan motor)	500V, 4A (on wire)
Fan motor overcurrent protection (nom.)	0.79A
Fan motor overheat protection (max.)	135°C

4D110678A

4 Options

4 - 1 Options

FVA-A

Option kit	Product name	Availability				
		FVA71AMVEB	FVA100AMVEB	FVA125AMVEB	FVA140AMVEB	AVA125AMVE
Long-life replacement filter	KAFJ95L160	✓	✓	✓	✓	✓
Central remote control	DCS302CA51	✓	✓	✓	✓	✓
Unified ON/OFF controller	DCS301BA51	✓	✓	✓	✓	✓
Schedule timer	DST301BA51	✓	✓	✓	✓	✓
iTouch Controller	DCS601C51	✓	✓	✓	✓	✓
Wired remote control	BRC1D528 ②	✓	✓	✓	✓	✓
Wired remote control	BRC1E53A7 ⑥ / BRC1E53B7 ⑦ / BRC1E53C7 ⑧⑤	✓	✓	✓	✓	✓
Simplified remote control (with operation mode selector button)	BRC2E52C7 ④⑤	✓	✓	✓	✓	✓
Simplified remote control (without operation mode selector button)	BRC3E52C7 ④⑤	✓	✓	✓	✓	✓
Adaptor for wiring	KRP1BA57 ①	✓	✓	✓	✓	✓
Wiring adaptor for electrical appendices (2)	KRP4AA52 ①	✓	✓	✓	✓	✓
Installation box for adaptor PCB	KRP4AA95	✓	✓	✓	✓	✓
Digital input adaptor	BRP7A52 ③	✓	✓	✓	✓	✓

Notes

①: Requires installation box for adaptor PCB (KRP4AA95).

②: Not recommended because of its limited functionality.

③: Only possible in combination with remote control BRC2/3E52C, BRC1E53A/B/C7.

④: Included languages are:

Language pack 1: English, German, French, Dutch, Spanish, Italian, and Portuguese.

With PC cable EKPCCAB3 in combination with the Updater PC software, you can additionally change the language to:

Language pack 2: English, Bulgarian, Croatian, Czech, Hungarian, Romanian, and Slovenian.

Language pack 3: English, Greek, Polish, Russian, Serbian, Slovak, and Turkish.

⑤: Language pack 3 of controller BRC1E53C7 is different from that of controller BRC2/3E52C7.

⑥: Included languages are: English, German, French, Italian, Spanish, Portuguese, and Dutch.

⑦: Included languages are: English, Czech, Croatian, Hungarian, Slovenian, Romanian, and Bulgarian.

⑧: Included languages are: English, Russian, Greek, Turkish, Polish, Albanian, and Slovak.

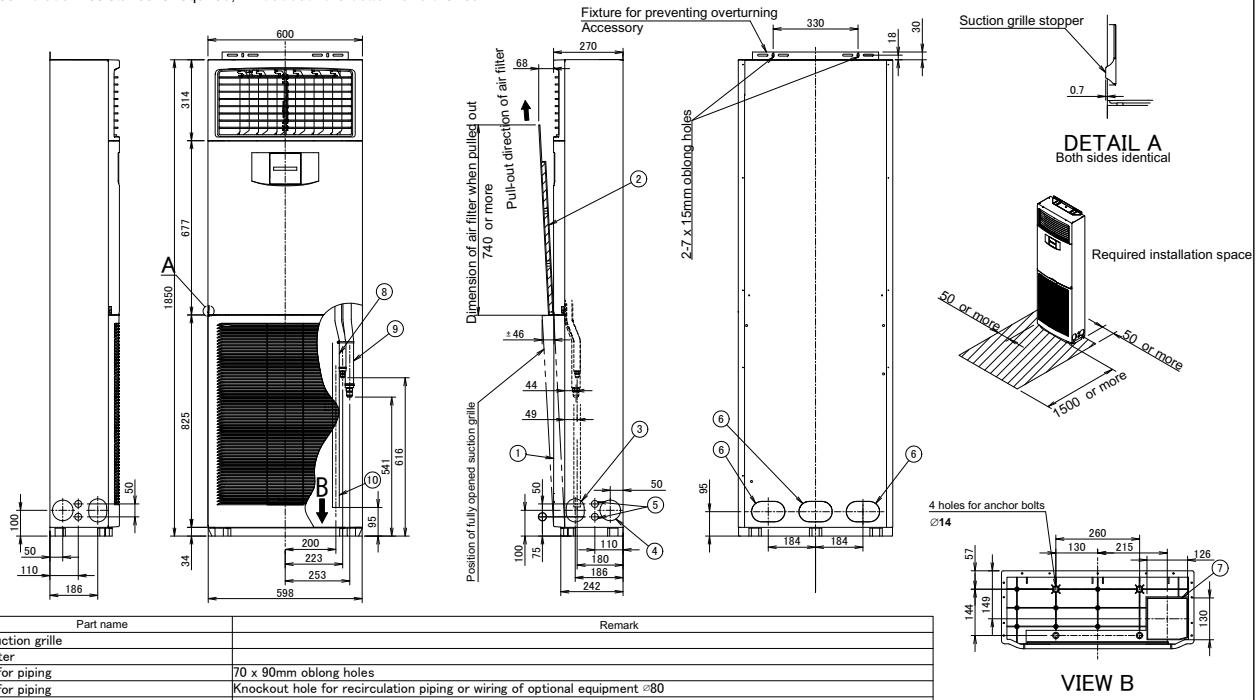
3D110718

5 Dimensional drawings

5 - 1 Dimensional Drawings

FVA71A

This unit has to be fixed with fixing screws as shown below.
In case of fixing it at the bottom
In case vibration resistance is required, fix it at both the bottom and the rear.



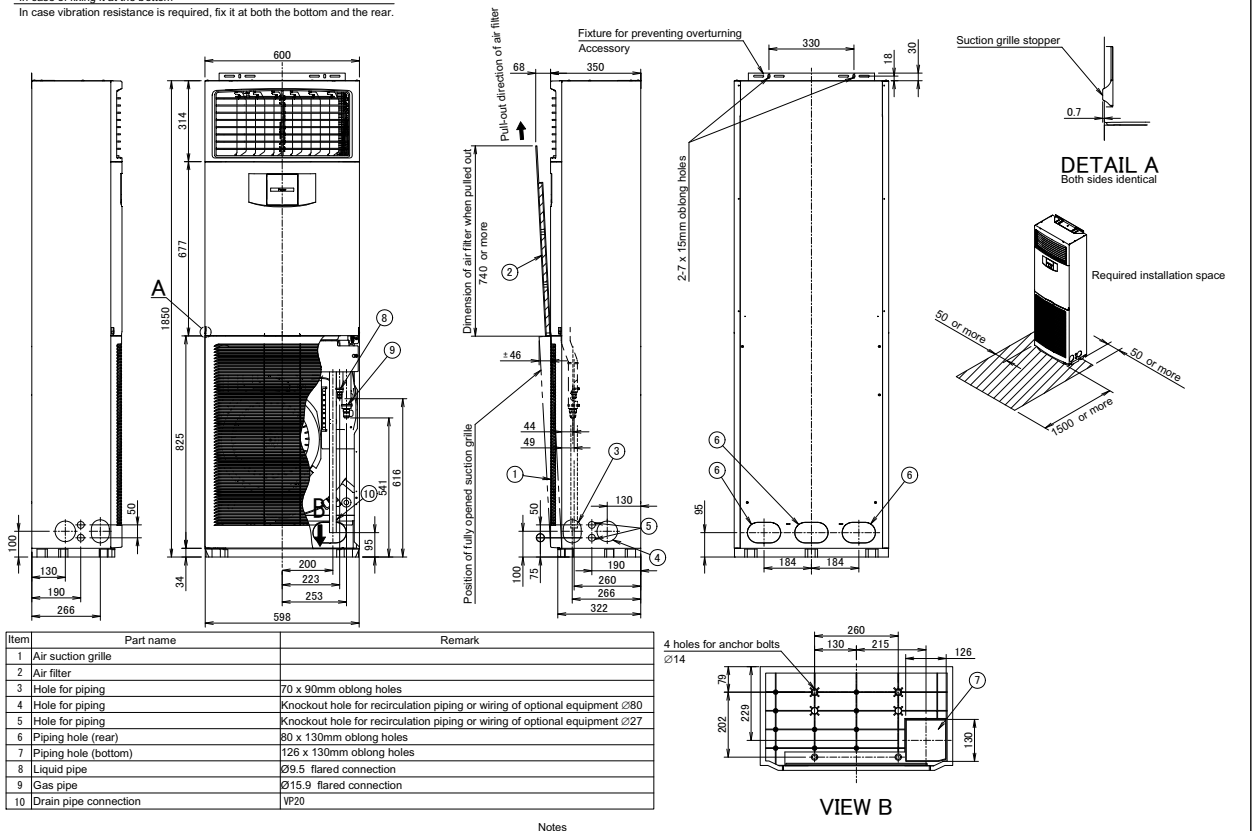
Item	Part name	Remark
1	Air suction grille	
2	Air filter	
3	Hole for piping	70 x 90mm oblong holes
4	Hole for piping	Knockout hole for recirculation piping or wiring of optional equipment ∅80
5	Hole for piping	Knockout hole for recirculation piping or wiring of optional equipment ∅27
6	Piping hole (rear)	80 x 130mm oblong holes
7	Piping hole (bottom)	126 x 130mm oblong holes
8	Liquid pipe	Ø9.5 flared connection
9	Gas pipe	Ø15.9 flared connection
10	Drain pipe connection	**VP20**

Notes
The unit nameplate is located on the switch box cover, inside the suction grille.

3D110397

FVA100-140A

This unit has to be fixed with fixing screws as shown below.
In case of fixing it at the bottom
In case vibration resistance is required, fix it at both the bottom and the rear.



Item	Part name	Remark
1	Air suction grille	
2	Air filter	
3	Hole for piping	70 x 90mm oblong holes
4	Hole for piping	Knockout hole for recirculation piping or wiring of optional equipment ∅80
5	Hole for piping	Knockout hole for recirculation piping or wiring of optional equipment ∅27
6	Piping hole (rear)	80 x 130mm oblong holes
7	Piping hole (bottom)	126 x 130mm oblong holes
8	Liquid pipe	Ø9.5 flared connection
9	Gas pipe	Ø15.9 flared connection
10	Drain pipe connection	VP20

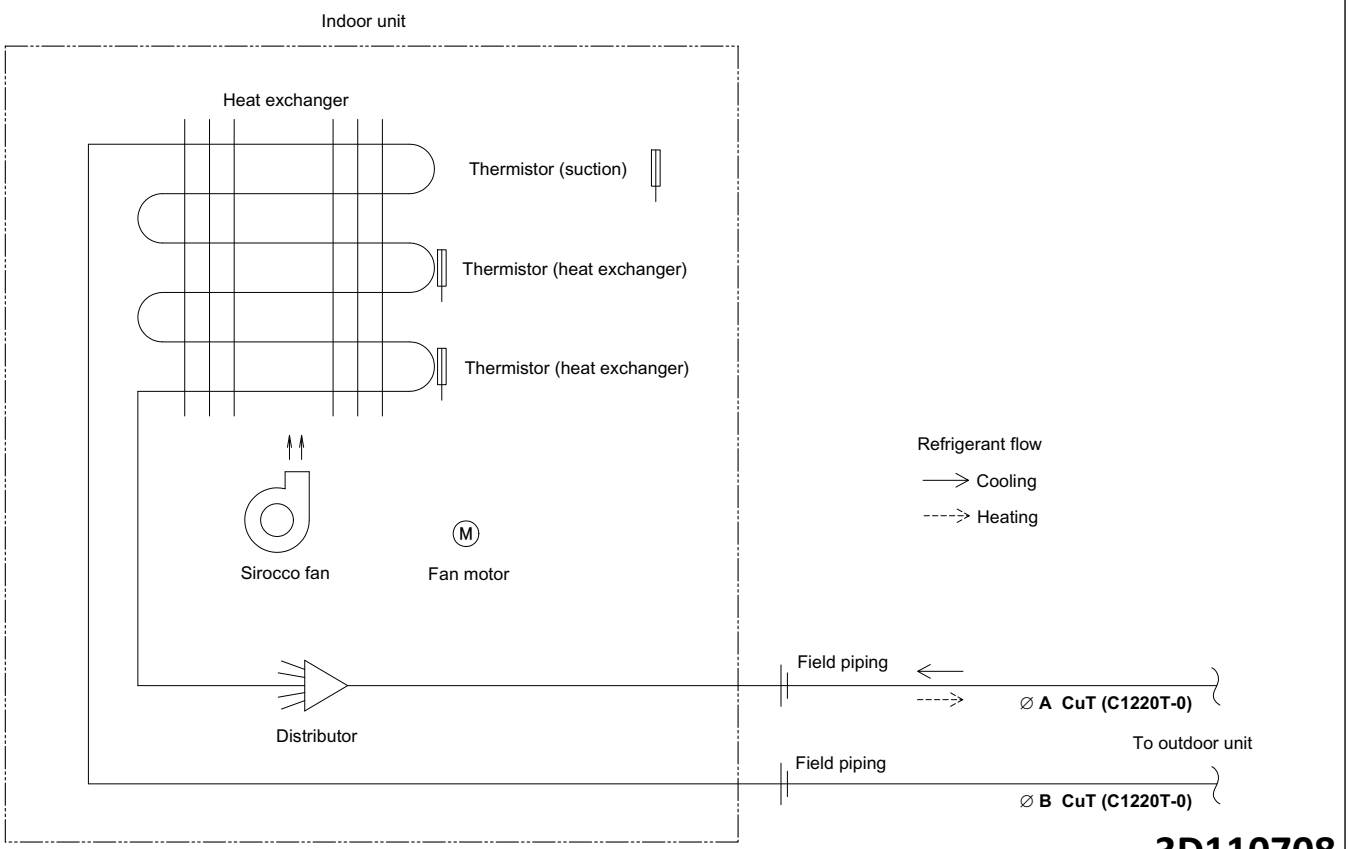
Notes
The unit nameplate is located on the switch box cover, inside the suction grille.

3D110703

6 Piping diagrams

6 - 1 Piping Diagrams

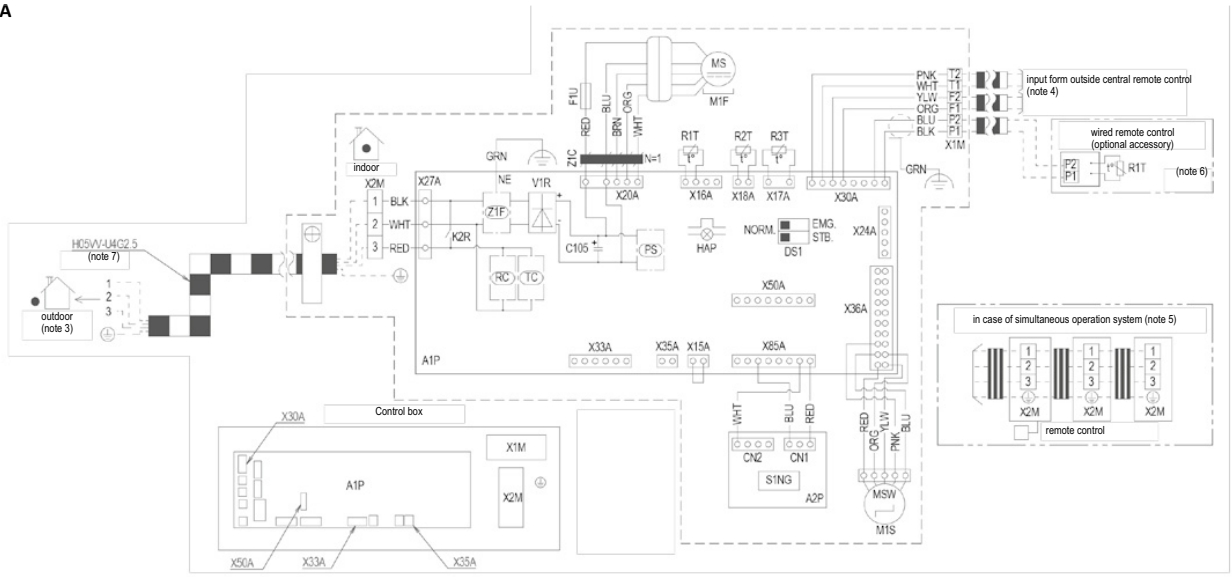
FVA-A



7 Wiring diagrams

7 - 1 Wiring Diagrams - Single Phase

FVA-A



LEGEND

Indoor unit	
A1P	Printed circuit board
A2P	Printed circuit board
C105	Capacitor (M1F)
DS1	DIP Switch on PCB
HAP	Flashing lamp (service monitor: green)
K2R	Magnetic relay
M1F	Motor (indoor fan)
M1~4S	Motor (swing blade)

R1T	Thermistor (Air)
R2T-R3T	Thermistor (coil)
V1R	Diode bridge
X1M	Terminal block
X2M	Terminal block
Z1F	Noise filter
Z1C	Ferrite core
PS	Power supply circuit
RC	Signal receiver circuit

S1NG	Gas sensor
TC	Signal tranmission circuit
X15A-X85	Connector
CN1, CN2	Connector
F1U	Fuse (F, 500V, 4A)
Connector for optional parts	
X24A	Connector (wireless remote control)
X35A	Conector (power supply for adapter)
X33A	Connector (adapter for wiring)

Wired remote control			
R1T	Thermistor (air)		
Wire colors			
BLK:	black	RED:	red
BLU:	blue	WHT:	white
YLW:	yellow	HRN:	green
BRN:	brown	PNK:	pink

NOTES

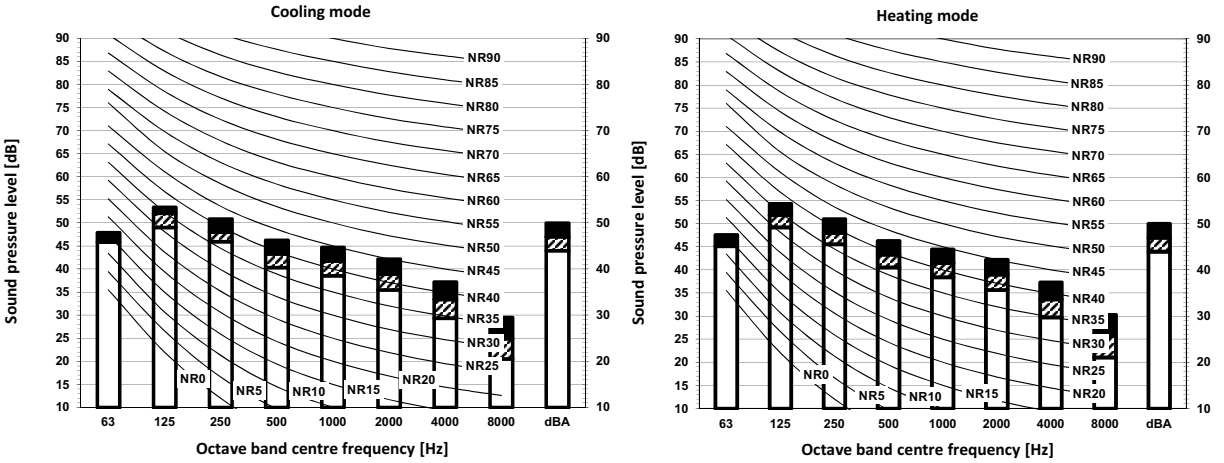
1. : Terminal block : connector : Field wiring : short circuit connector
2. In case of simultaneous operation indoor unit system, see the indoor unit wiring only.
3. For the detail, see wiring diagram attached to outdoor unit.
4. In case of using central remote control, connect it to the unit in accordance with the attached installation manual.
5. In case of simultaneous operation system, connected quantity of the indoor units varies according to the connection outdoor unit confirm technical guide and catalogue, etc. before connecting.
6. In case of main/sub changeover see the installation manual attached to remote control.
7. Shows only in case of protection piping, use H07RN-F in case of no protection.

3D109960

8 Sound data

8 - 1 Sound Pressure Spectrum

FVA71A

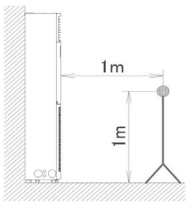


Legend

dBA = A-weighted sound pressure level (A scale according to IEC).

A	Scale	Fan speed
B		High
C		Medium
D		Low

Location of microphone



Cooling	Total dB		
A	B	C	D
dBA	43	41	38

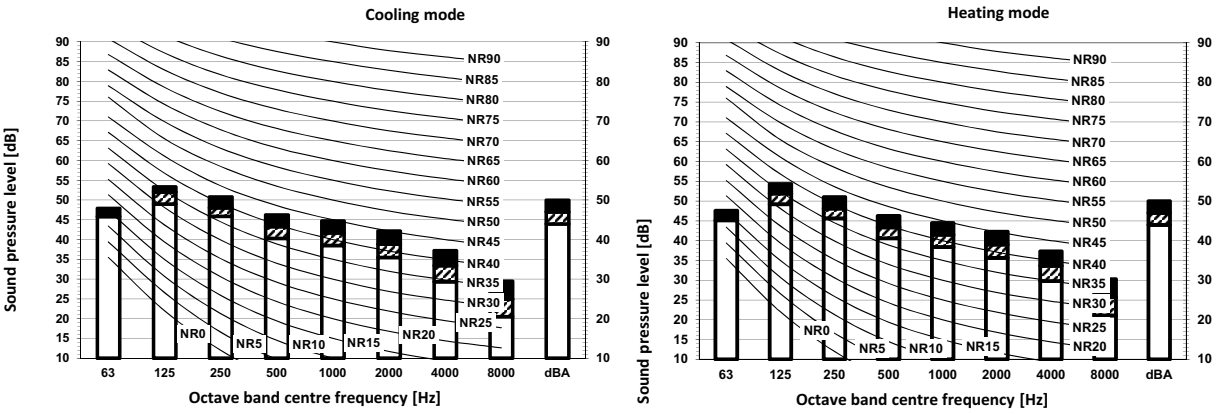
Heating	Total dB		
A	B	C	D
dBA	43	41	38

Notes

1. Operating conditions: power source 220-240 V/220 V 50/60 Hz; JIS standard
2. Background noise already taken into account.
3. Operating noise varies depending on operation and ambient conditions.
4. The operation noise measuring method is in accordance with JISC9612.
5. Measuring location: anechoic chamber

3D110714

FVA100A

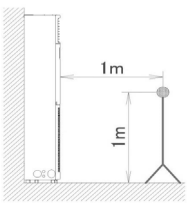


Legend

dBA = A-weighted sound pressure level (A scale according to IEC).

A	Scale	Fan speed
B		High
C		Medium
D		Low

Location of microphone



Cooling	Total dB		
A	B	C	D
dBA	50	47	44

Heating	Total dB		
A	B	C	D
dBA	50	47	44

Notes

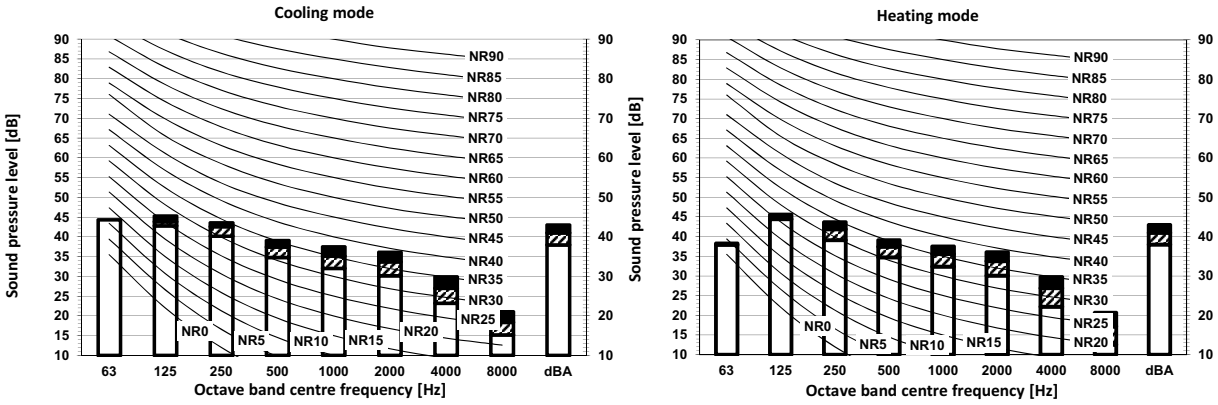
1. Operating conditions: power source 220-240 V/220 V 50/60 Hz; JIS standard
2. Background noise already taken into account.
3. Operating noise varies depending on operation and ambient conditions.
4. The operation noise measuring method is in accordance with JISC9612.
5. Measuring location: anechoic chamber

3D110715

8 Sound data

8 - 1 Sound Pressure Spectrum

FVA125A



Legend

dBA = A-weighted sound pressure level (A scale according to IEC).

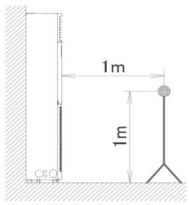
A Scale Fan speed

B High

C Medium

D Low

Location of microphone



Cooling	Total dB		
A	B	C	D
dBA	51	48	46

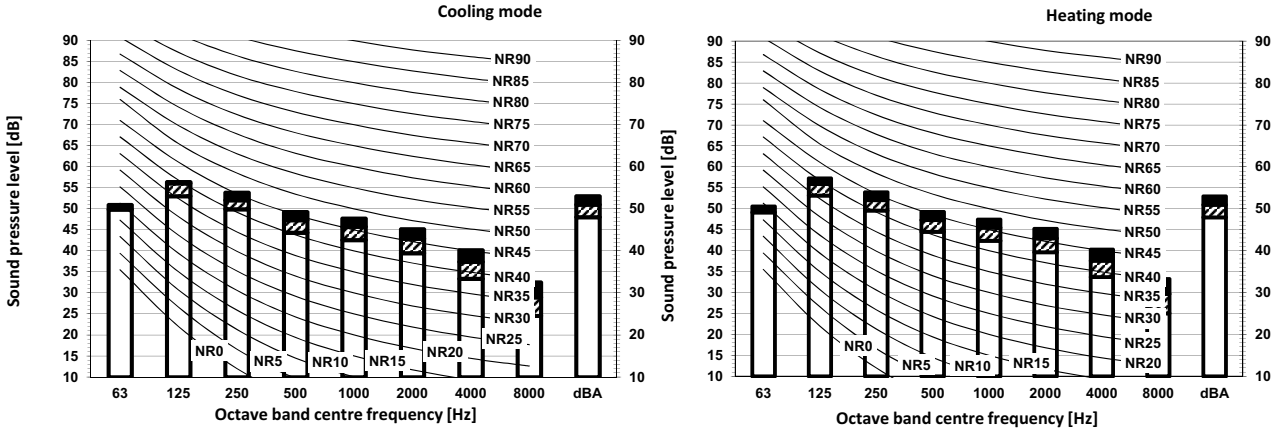
Heating	Total dB		
A	B	C	D
dBA	51	48	46

Notes

1. Operating conditions: power source 220-240 V/220 V 50/60 Hz; JIS standard
2. Background noise already taken into account.
3. Operating noise varies depending on operation and ambient conditions.
4. The operation noise measuring method is in accordance with JISC9612.
5. Measuring location: anechoic chamber

3D110716

FVA140A



Legend

dBA = A-weighted sound pressure level (A scale according to IEC).

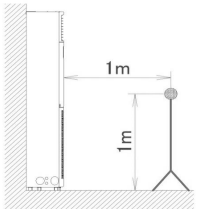
A Scale Fan speed

B High

C Medium

D Low

Location of microphone



Cooling	Total dB		
A	B	C	D
dBA	53	51	48

Heating	Total dB		
A	B	C	D
dBA	53	51	48

Notes

1. Operating conditions: power source 220-240 V/220 V 50/60 Hz; JIS standard
2. Background noise already taken into account.
3. Operating noise varies depending on operation and ambient conditions.
4. The operation noise measuring method is in accordance with JISC9612.
5. Measuring location: anechoic chamber

3D110717

Daikin Europe N.V. Naamloze Vennootschap - Zandvoordestraat 300, B-8400 Oostende - Belgium - www.daikin.eu - BE 0412 120 336 - RPR Oostende

EEDEN17 09/17