

Concealed ceiling unit
with high ESP
Air Conditioning
Technical Data
FDA200-250A



FDA200AXVEB
FDA250AXVEB

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FDA200-250A

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1 Features

1 - 1 FDA200-250A

- › High external static pressure up to 250Pa facilitates extensive duct and grille network
- › 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
- › Possibility to change ESP via wired remote control allows optimisation of the supply air volume
- › Discretely concealed in the ceiling: only the suction and discharge grilles are visible
- › Built-in drain pump (625mm) increases the flexibility and installation speed (standard for FDA125, optional for FDA200-250)
- › Standard supplied suction filter simplifies installation
- › Up to 26.4kW in heating mode



Home leave operation



Fan only



Auto cooling-heating changeover



Fan speed steps



Dry programme



Air filter



Weekly timer



Wired remote control



Centralised control



Infrared remote control (optional)



Auto-restart double twin application



Self diagnosis



Drain pump kit



Twin/triple/



Onecta app (optional)

2 Specifications

1 - 1 FDA200-250A

Technical specifications				FDA200A	FDA250A
Cooling capacity	Sensible capacity	Nom.	kW	14.60	16.60
	Latent capacity	Nom.	kW	4.40	5.40
	Total capacity	Nom.	kW	19.00	22.00
Heating capacity	Total capacity	Nom.	kW	22.4	24.0
Power input - 50Hz	Cooling	Nom.	kW	0.32	0.40
	Heating	Nom.	kW	0.32	0.40
Power input - 60Hz	Cooling	Nom.	kW	0.32	0.40
	Heating	Nom.	kW	0.32	0.40
Casing	Colour				Unpainted
	Material				Galvanised steel plate
Dimensions	Unit	Height	mm	470	
		Width	mm	1,490	
		Depth	mm	1,100	
	Packed unit	Height	mm	1,362	
		Width	mm	1,746	
		Depth	mm	519	
Weight	Unit		kg	104	115
	Packed unit		kg	124	135
Heat exchanger	Inside length		mm	1,260	
	Outside length		mm	1,260	
	Rows	Quantity		2	3
	Fin pitch		mm	1.40	
	Passes	Quantity		16	
	Face area		m ²	0.850	
	Stages	Quantity		32	
	Empty tubeplate hole	Quantity		0	
	Tube type				ø7 Hi-XU
	Fin Type				Raise Lance
Fan	Type				Sirocco fan
	Quantity				2
Air flow rate	Cooling	High	m ³ /min	64.0	69.0
		Medium	m ³ /min	50	56
		Low	m ³ /min	36.0	43.0
	Heating	High	m ³ /min	64.0	69.0
		Medium	m ³ /min	50.0	56.0
		Low	m ³ /min	36.0	43.0
Fan	External static pressure	High	Pa	250	
		Nom.	Pa	62	
Fan motor	Quantity				1
	Model				DMUD8C4DK
	Drive				Direct drive
	Speed	Steps		3	
	Output	Rated	W	648	750
	Full load amps (FLA)	Cooling	A	4.0	4.3
Sound power level	Cooling	High	dB(A)	69.0	71.0
		Medium	dB(A)	43.0	44.0
		Low	dB(A)	39.0	40.0
	Heating	High	dB(A)	36.0	37.0
		Medium	dB(A)	43.0	44.0
		Low	dB(A)	39.0	40.0
Refrigerant	Type				R-32 / R-410A
Piping connections	Liquid	Type		Flare connection	
		OD	mm	9.52	
	Gas	Type		Flange	
		OD	mm	19.1	22.2
	Drain				BSP1
	Heat insulation				Both liquid and gas pipes
Air filter	Type				Resin net
Safety devices	Item	01	Fuse		
		02	Fan driver overload protector		
Control systems	Wired remote control				BRC1H52W/S/K / BRC1E53A / BRC1E53B / BRC1E53C / BRC1D52
Packing	Material				Carton + OSB board + EPS

Standard accessories: Screws; Quantity: 2;

2 Specifications

1 - 1 FDA200-250A

Standard accessories: Washer; Quantity: 12;

Standard accessories: Operation manual; Quantity: 1;

Standard accessories: Installation manual; Quantity: 1;

Standard accessories: Gas connection pipe; Quantity: 1;

Standard accessories: Wire clamp material; Quantity: 1;

Standard accessories: Screw+Washer; Quantity: 45;

Electrical specifications			FDA200A	FDA250A
Power supply	Phase		1~	
	Frequency	Hz	50/60	
	Voltage	V	220-240/220	

3 Safety device settings

3 - 1 Safety Device Settings

FDA200-250A

Model		FDA200AXVEB	FDA250AXVEB
Safety devices	PCB fuse (fan driver)	250V 20A	250V 20A

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4 Options

4 - 1 Options

FDA200-250A

Option kit	Product name	Availability
		FDA200AXVEB FDA250AXVEB
Wired remote control	BRC1H519W/S/K	✓
Wireless remote control ·H/P·	BRC4C65	✓
Simplified remote control (with operation mode selector button)	BRC2E52C7 ①	✓
Simplified remote control (without operation mode selector button)	BRC3E52C7 ①	✓
Optional PCB for external electric heaters, humidifiers and/or hour meters	EKRP1C13	✓
Adaptor for wiring (interlock for fresh air intake fan)	KRP1C65	✓
Wiring adaptor for electrical appendices	KRP4A51 ②	✓
Wiring adaptor for electrical appendices	KRP2A51 ②	✓
Central remote control	DCS302C51	✓
Unified ON/OFF controller	DCS301B51	✓
Schedule timer	DST301B51	✓
Digital input adaptor	BRP7A54 ⑤	✓
External temperature sensor option kit	KRCS01-8B	✓
Long-life replacement filter	BAFL502A250 ④	✓
Filter chamber	BDD500B250	✓
Drain pump kit	BDU510B250VM	✓
Wi-Fi adaptor for smartphones	BRP069B82 ③	✓
Wire harness for external wireless temperature sensor	EKEWTSC-1 ⑥	✓

①: Included languages are:

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

With PC cable ·EKPCAB3· 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.

②: This option cannot be combined with ·BRP069B82·.

③: This option cannot be combined with ·KRP4A51, KRP2A51·.

④: Requires ·BDD500B250·.

⑤: Only possible in combination with remote control ·BRC2/3E52C7, BRC1H519W/S/K·.

⑥: ·EKEWTSC-1· is a wire harness for the connection of option ·K.RSS·.

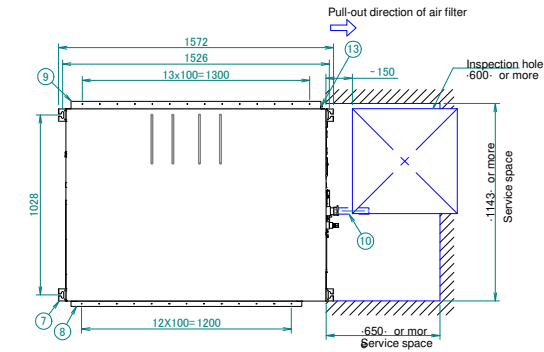
·K.RSS· is not an official option. Its sales is an SBU responsibility.

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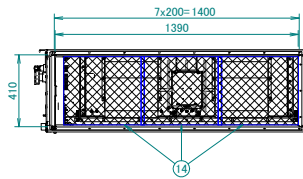
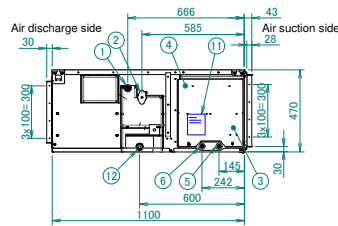
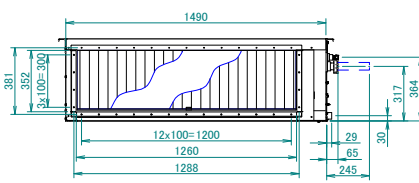
5 Dimensional drawings

5 - 1 Dimensional Drawings

FDA-A



Number	Part name	Description
1	Liquid pipe connection port	Flare connection
2	Gas pipe connection port	Brazed connection
3	Grounding terminal	Located inside of the unit
4	Control box	
5	Power supply wiring intake	
6	Control wiring intake	
7	Hook	M10
8	Air outlet flange	
9	Air inlet flange with air filter	
10	Accessory pipe	Standard accessory
11	Manufacturer label	
12	Drain pipe connection	-1 inch- BSP (female thread)
13	Maintenance cover	Air filter
14	Air filter	



Piping connections Ø		
Indoor unit	Gas pipe	Liquid pipe
FDA200AXVER	Φ19, 1 Accessory pipe	Φ9, 5
FDA250AXVER	Φ22, 2 Accessory pipe	Φ9, 5

Notes

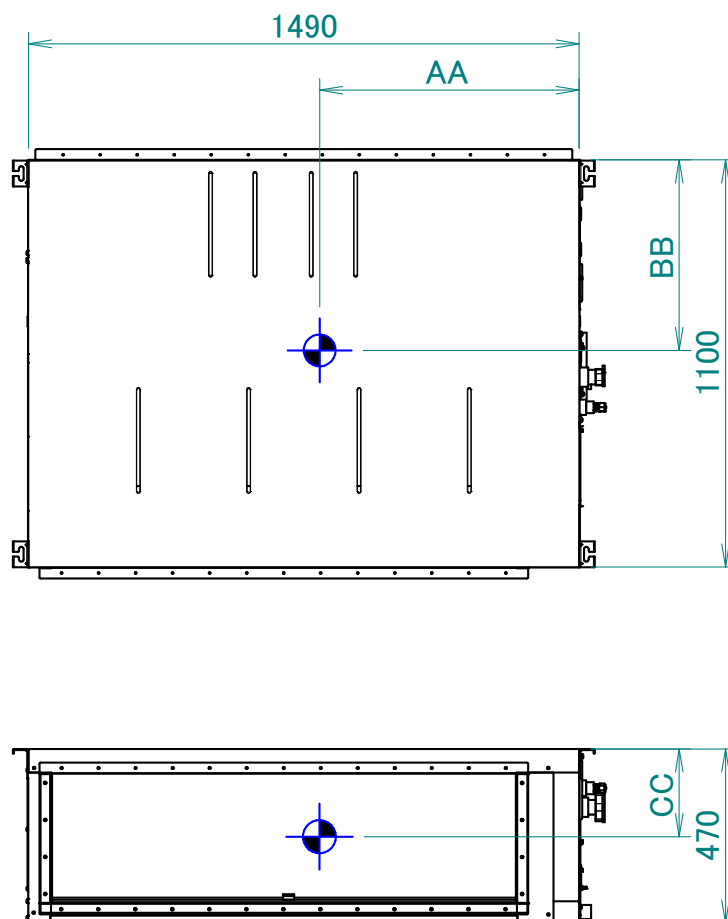
1. The unit nameplate is located on the control box cover.

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6 Centre of gravity

6 - 1 Centre of Gravity

FDA-A



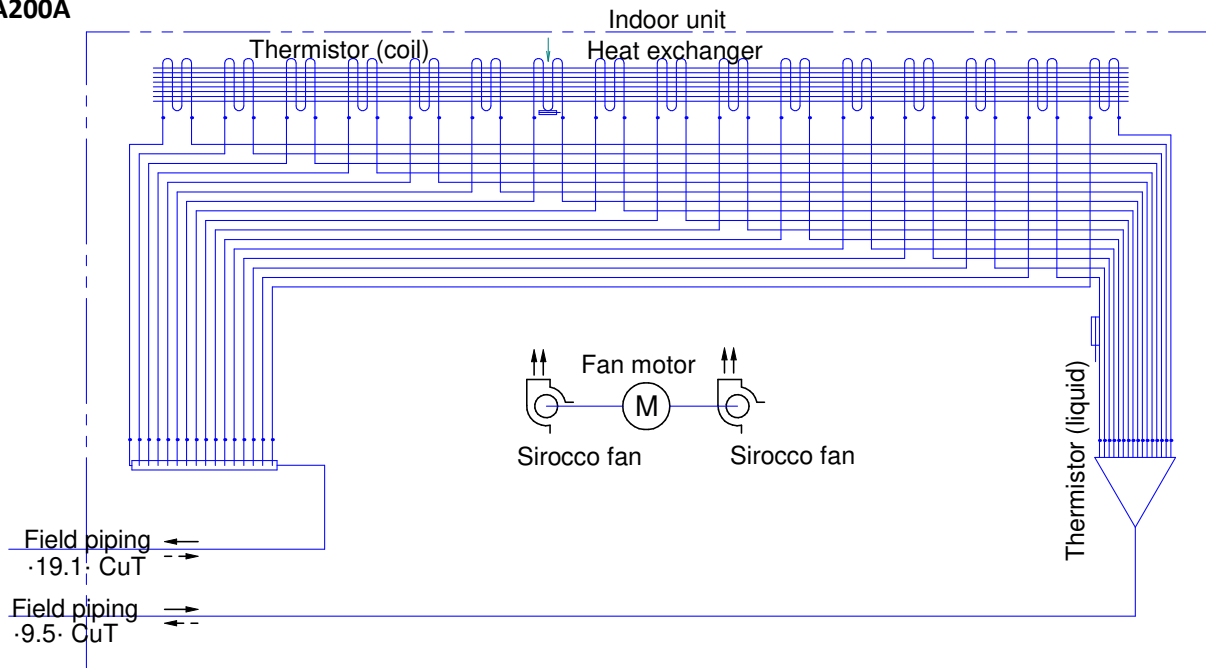
Model	AA	BB	CC
FDA200AXVEB	680	500	235
FDA250AXVEB	700	510	255

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7 Piping diagrams

7 - 1 Piping Diagrams

FDA200A



Refrigerant flow
 → Cooling
 ← Heating

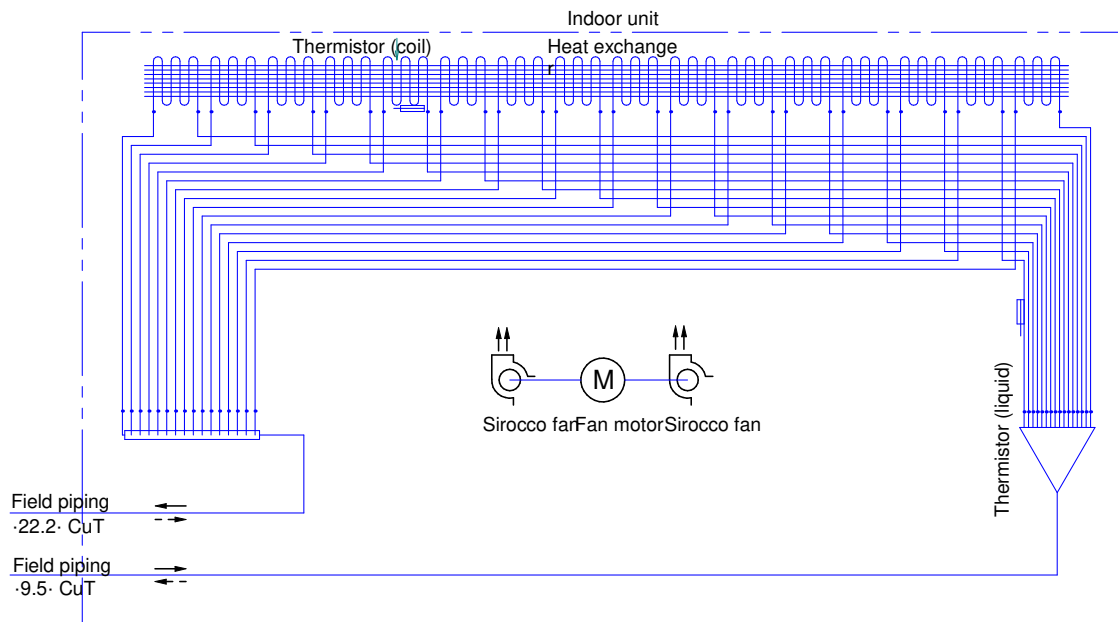
Gas header

Distributor

Thermistor

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FDA250A



Refrigerant flow
 → Cooling
 ← Heating

Gas header

Distributor

Thermistor

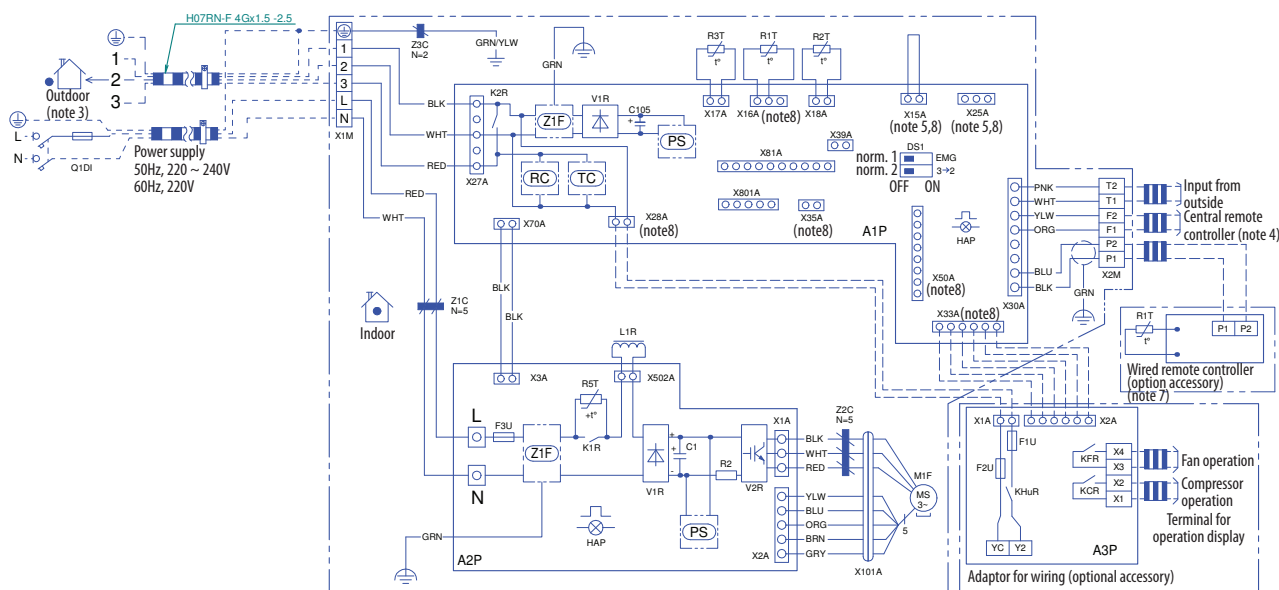
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8 Wiring diagrams

8 - 1 Wiring Diagrams - Three Phase

FDA200-250A

Wiring diagram

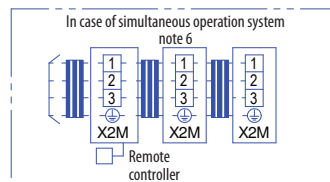
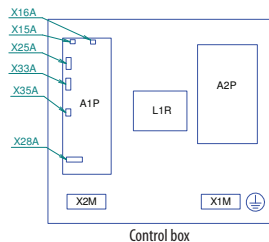


NOTES

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 using central remote controller, connect it to the unit in accordance with the attached installation manual.
5. X15A, X25A ARE connected when the drain pump kit is being used. Before installing of drain pump kit remove short circuit connector connected to X15A.
6. 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.
7. In case of main/sub changeover see the installation manual attached to remote controller
8. X15A, X16A, X25A, X28A, X33A, X35A, X50A are (re)connected when the optional accessories are being used.

Wire colors

BLK	: Black	YLW	: Yellow
WHT	: White	PNK	: Pink
BRN	: Brown	BLU	: Blue
GRY	: Grey	GRN	: Green
RED	: Red	ORG	: Orange



Indoor unit			
A1P	Printed circuit board (control)	X1M	Terminal strip (power supply)
A2P	Printed circuit board (fan)	X2M	Terminal strip (control)
C1	Capacitor	Z1C	Noise filter (ferrite core)
C105	Capacitor	Z2C	Noise filter (ferrite core)
DS1	Dip switch on PCB	Z3C	Noise filter (ferrite core)
F3U	Fuse (T, 20A, 250V)	Z1F	Noise filter (surge absorber)
HAP	Light emitting diode (Service monitor green)	Connectors for optional parts	
K1R, K2R	Magnetic relay	X25A	Connector (drain pump)
L1R	Reactor	X15A	Connector (float switch)
M1F	Motor (fan)	X16A	Connector (external wired temperature sensor)
PS	Switching power supply (A1P, A2P)	X28A	Connector (power supply of wiring)
Q1DI	Earth leakage breaker	X33A	Connector (adaptor for wiring)
R1T	Thermistor (suction)	X35A	Power supply (adaptor)
R2T	Thermistor (liquid)	X50A	Connector (wlan adaptor)
R3T	Thermistor (coil)	Adaptor for wiring	
R5T	PTC thermistor (current limited)	A3P	Adaptor PCB
RC	Receiving circuit	F1U, F2U	Fuse (5A, 250V)
TC	Transmitting circuit	KHuR	Magnetic relay
V1R	Diode bridge	KCR, KFR	Magnetic relay
V2R	Power module	X1~2A	Connector
X1~801A	Connector	Wired remote controller	
		R1T	Thermistor (air)

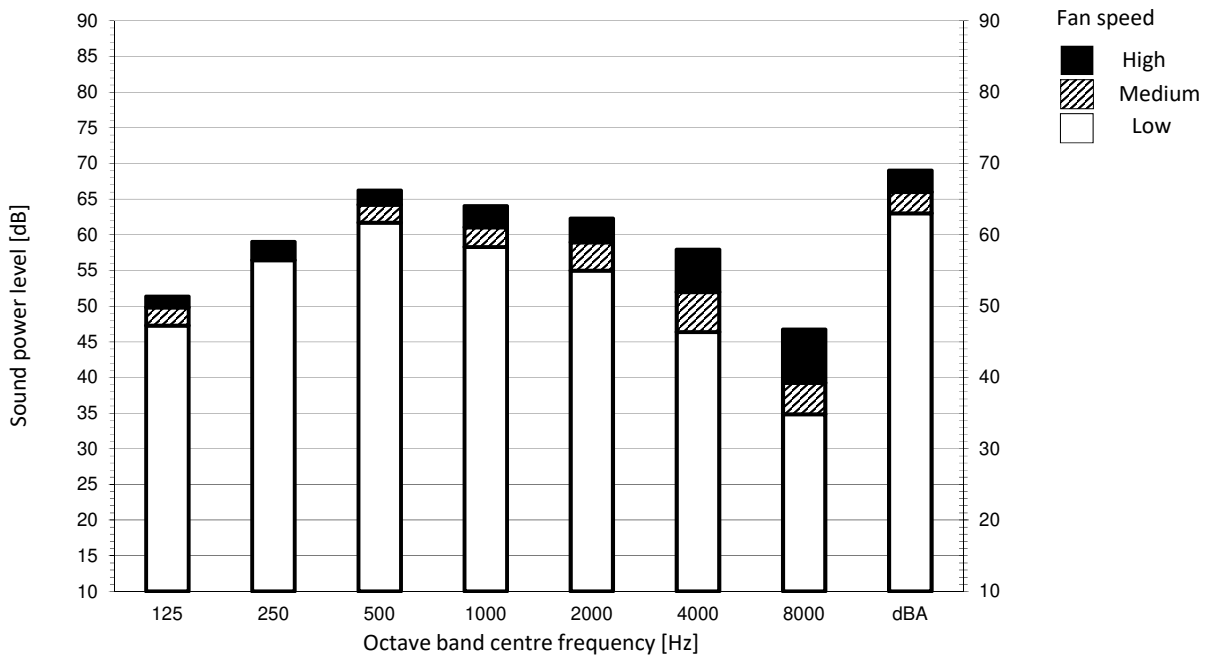
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9 Sound data

9 - 1 Sound Power Spectrum

FDA200A

Cooling mode



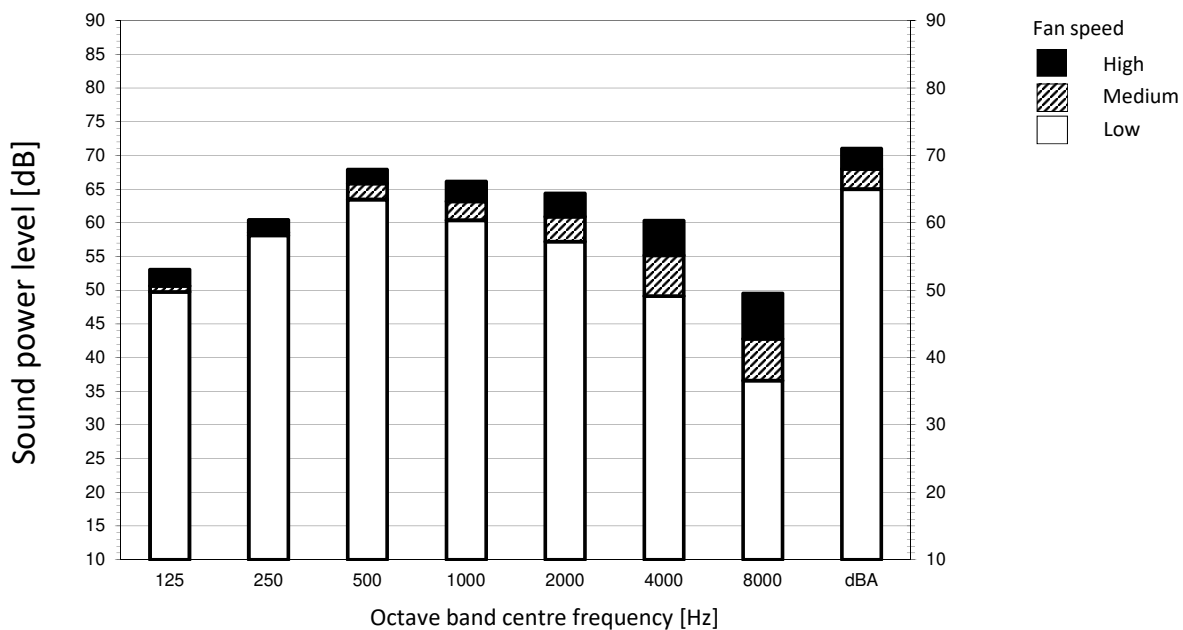
Notes

1. dBA = A-weighted sound power level (A scale according to IEC).
2. Reference acoustic pressure 0 dB = 20 μ Pa
3. Measured according to ISO 3744

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FDA250A

Cooling mode



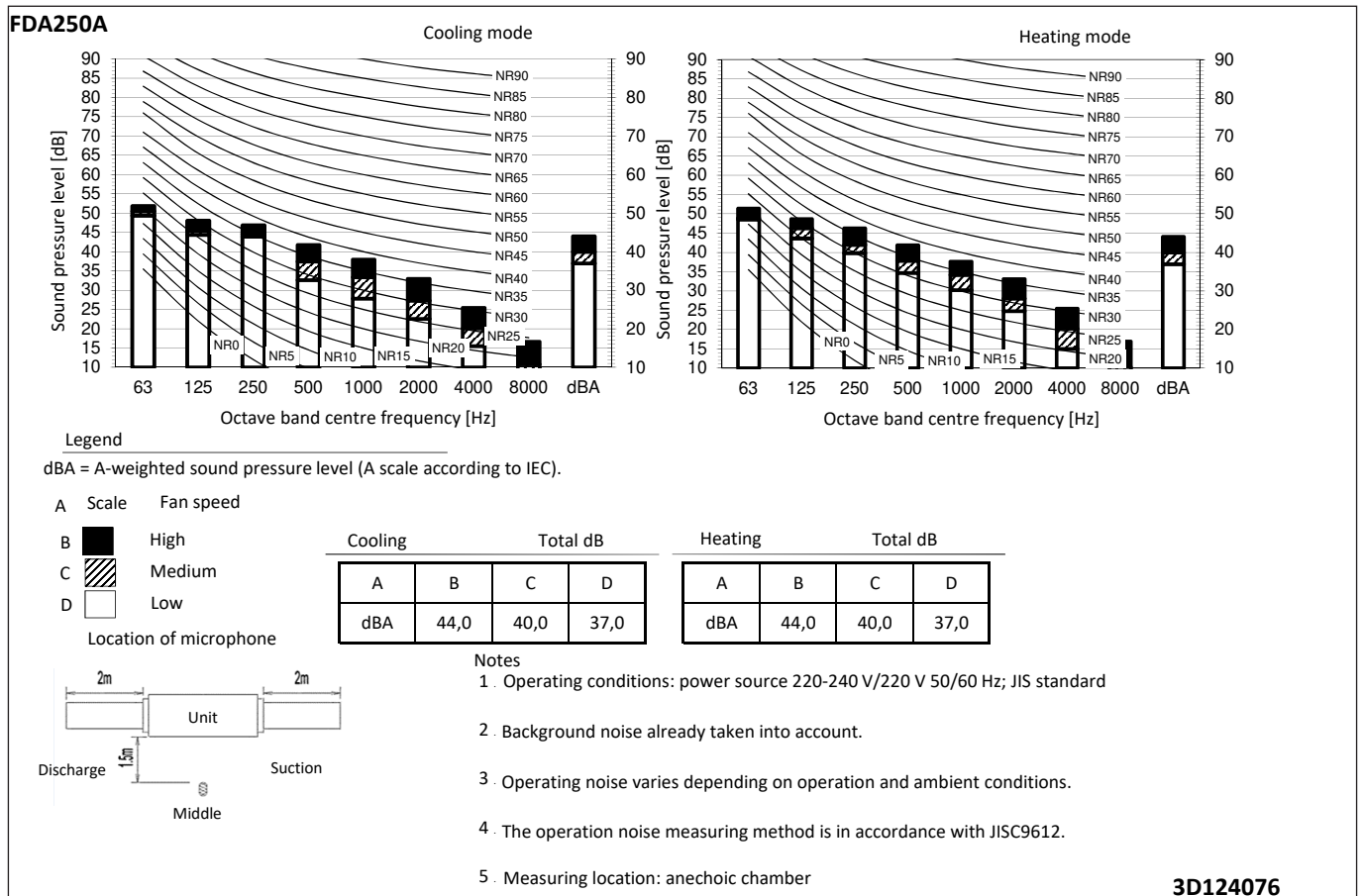
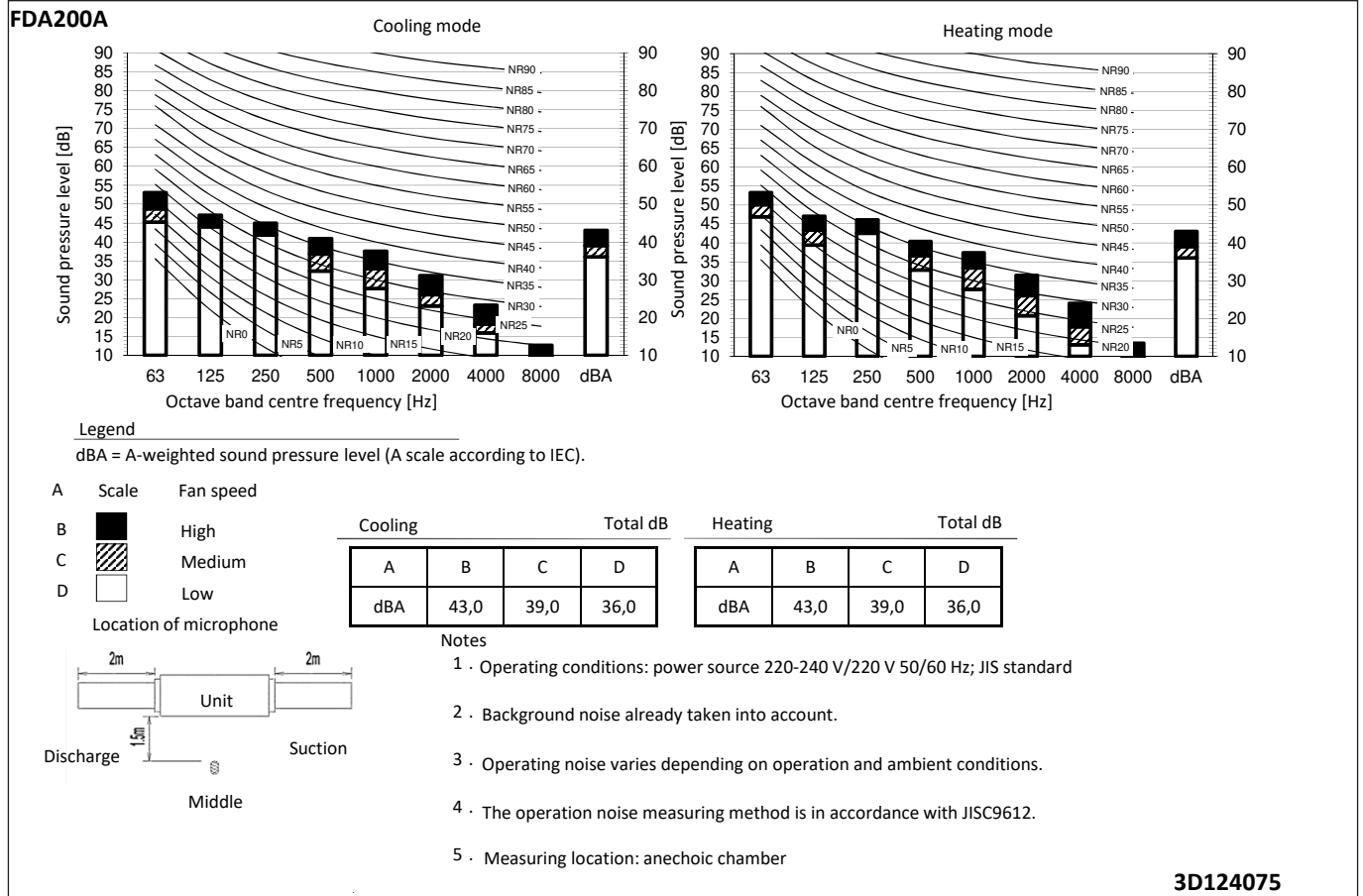
Notes

1. dBA = A-weighted sound power level (A scale according to IEC).
2. Reference acoustic pressure 0 dB = 20 μ Pa
3. Measured according to ISO 3744

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9 Sound data

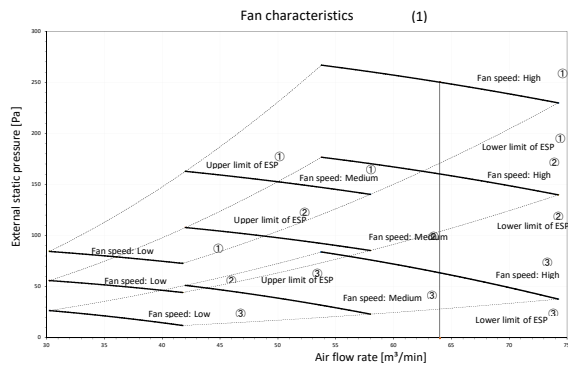
9 - 2 Sound Pressure Spectrum



10 Fan characteristics

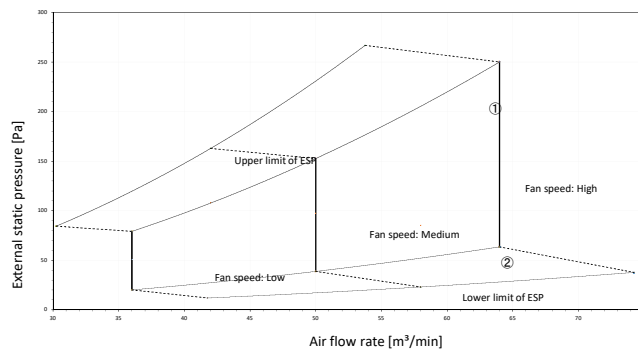
10 - 1 Fan Characteristics

FDA200A

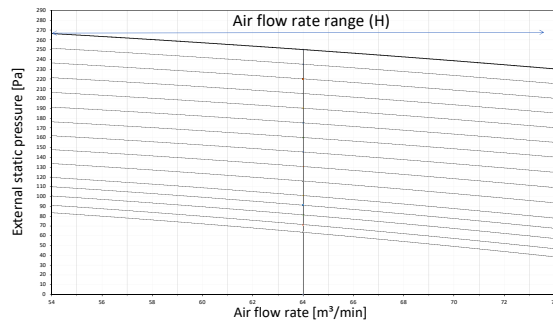


Mark	ESP [Pa]
①	Maximum 250
②	- 160
③	Standard 62

Fan characteristics (3)
Air flow auto adjustment



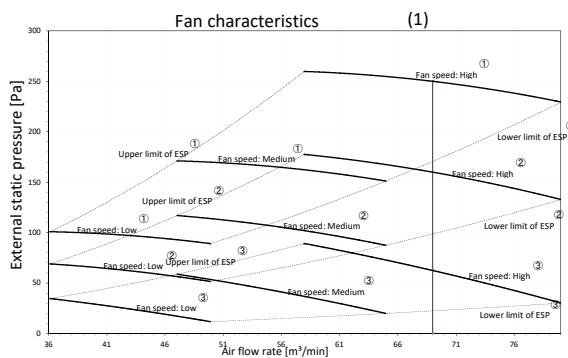
Fan characteristics (2)
Field setting with remote control



- ① Upper limit of ESP by air flow auto adjustment
- ② Lower limit of ESP by air flow auto adjustment

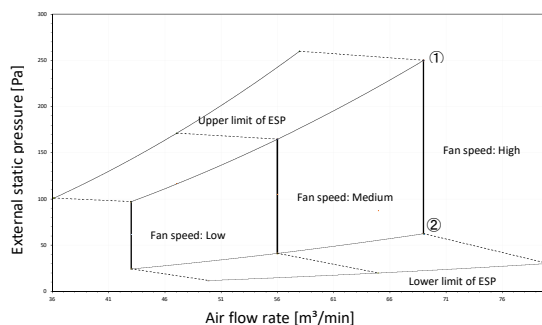
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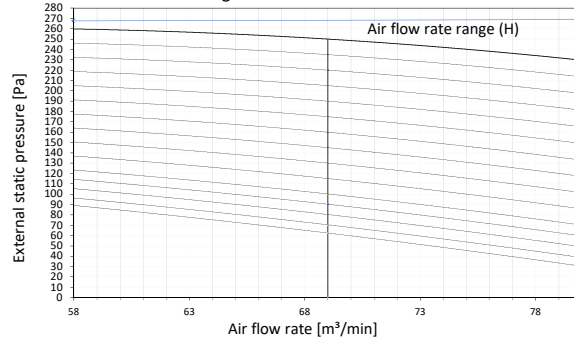


Mark	ESP [Pa]
①	Maximum 250
②	- 160
③	Standard 62

Fan characteristics (3)
Air flow auto adjustment

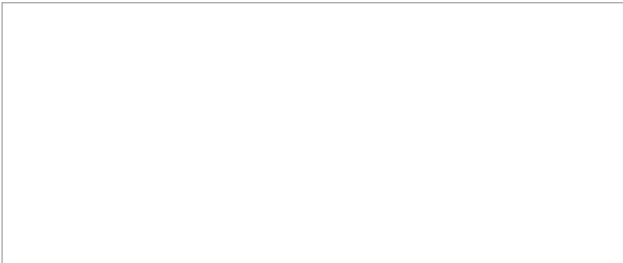


Fan characteristics (2)
Field setting with remote control



- ① Upper limit of ESP by air flow auto adjustment
- ② Lower limit of ESP by air flow auto adjustment

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