

Concealed ceiling unit with medium ESP Air Conditioning Technical Data FXSA-A



FXSA15A2VEB
FXSA20A2VEB
FXSA25A2VEB
FXSA32A2VEB
FXSA40A2VEB
FXSA50A2VEB
FXSA63A2VEB
FXSA80A2VEB
FXSA100A2VEB
FXSA125A2VEB
FXSA140A2VEB

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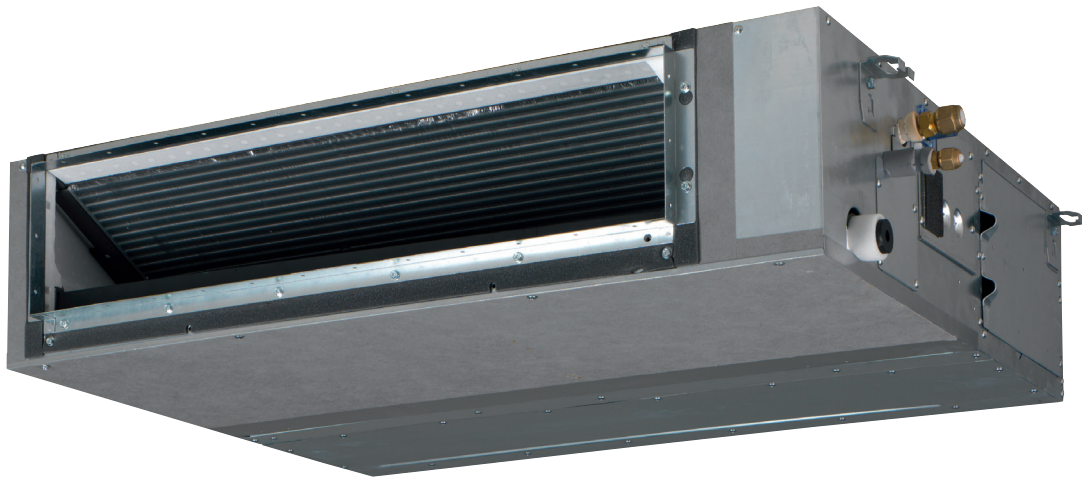
1 Features

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Slimmest yet most powerful medium static pressure unit on the market

- 1
 - › Optimised design for R-32 refrigerant
 - › Slimmest unit in class, only 245mm (300mm built-in height) and therefore narrow ceiling voids are no longer a challenge
 - › Quiet operation: down to 25dBA sound pressure level
 - › Medium external static pressure up to 150Pa facilitates using flexible ducts of varying lengths
 - › Possibility to change ESP via wired remote control allows optimisation of the supply air volume
 - › Discretely concealed in the wall: only the suction and discharge grilles are visible

- › 15 class unit especially developed for small or well-insulated rooms, such as hotel bedrooms, small offices, etc.
- › Optional fresh air intake
- › Flexible installation: air suction direction can be altered from rear to bottom suction and choice between free use or connection to optional suction grilles
- › Standard built-in drain pump with 625mm lift increases flexibility and installation speed



Onecta app
(optional)
(optional)



Home leave
operation



Fan only



Auto cooling-
heating
changeover
(heat pump)



Whisper quiet



Fan speed
steps
(3 steps +
auto)



Dry
programme



Air filter
(pre filter)



Weekly timer



Infrared
remote control
(optional
- must be
combined
with Madoka
wired remote
controller)



Wired remote
control
(required
option)



Centralised
control
(optional)



Auto-restart



Self diagnosis



Multi tenant



Drain pump
kit
(standard)

2 Specifications

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Technical specifications				FXSA15A	FXSA20A	FXSA25A	FXSA32A	FXSA40A	FXSA50A	
Cooling capacity	Sensible capacity	At high fan speed	kW	1.20	1.60	2.00	2.60	3.30	4.00	
		At medium fan speed	kW	1.00	1.30	1.70	2.20	2.80	3.30	
		At low fan speed	kW	0.90	1.10	1.50	1.80	2.30	2.70	
	Latent capacity	At high fan speed	kW	0.50	0.60	0.80	1.00	1.20	1.60	
		At medium fan speed	kW	0.50	0.60	0.80	0.90	1.10	1.40	
		At low fan speed	kW	0.50	0.60	0.70	0.90	1.10	1.30	
	Total capacity	At high fan speed	kW	1.70	2.20	2.80	3.60	4.50	5.60	
		At medium fan speed	kW	1.50	1.90	2.50	3.10	3.90	4.70	
		At low fan speed	kW	1.40	1.70	2.20	2.70	3.40	4.00	
Heating capacity	Total capacity	At high fan speed	kW	1.90	2.50	3.20	4.00	5.00	6.30	
		At medium fan speed	kW	1.60	2.10	2.70	3.40	4.20	5.10	
		At low fan speed	kW	1.50	1.80	2.30	2.90	3.60	4.10	
Power input - 50Hz	Cooling	At high fan speed	kW	0.046 (1)			0.049 (1)	0.094 (1)	0.096 (1)	
		At medium fan speed	kW	0.032 (1)			0.035 (1)	0.062 (1)	0.067 (1)	
		At low fan speed	kW	0.026 (1)			0.028 (1)	0.044 (1)	0.047 (1)	
	Heating	At high fan speed	kW	0.046 (1)			0.049 (1)	0.094 (1)	0.096 (1)	
		At medium fan speed	kW	0.032 (1)			0.035 (1)	0.062 (1)	0.067 (1)	
		At low fan speed	kW	0.026 (1)			0.028 (1)	0.044 (1)	0.047 (1)	
Power input - 60Hz	Cooling	At high fan speed	kW	0.046 (1)			0.049 (1)	0.094 (1)	0.096 (1)	
	Heating	At high fan speed	kW	0.046 (1)			0.049 (1)	0.094 (1)	0.096 (1)	
Dimensions	Unit	Height	mm	245						
		Width	mm	550				700		
		Depth	mm	800						
	Packed unit	Height	mm	890						
		Width	mm	750				900		
		Depth	mm	295						
Weight	Unit	kg	23.5				24.0	28.5	29.0	
	Packed unit	kg	26.0				27.0	31.0	31.5	
Casing	Colour	Not painted (galvanised)								
	Material	Galvanised steel plate								
Heat exchanger	Inside length		mm	342				492		
	Rows	Quantity	3							
	Fin pitch		mm	1.40						
	Passes	Quantity	4					6		
	Face area		m²	0.124				0.178		
	Stages	Quantity	26							
	Heat exchanger	Empty tubeplate hole	Quantity	26				-	26	-
Fin		Type	Cross fin coil (Multi slit fins with hydrophilic treatment and Ø5Hi-XA tubes)							
Fan		Type	Sirocco fan							
Sound power level Sound pressure level	Quantity		1							
	Air flow rate - 50Hz	Cooling	At high fan speed	m³/min	8.7	9.0		9.5	15.0	15.2
			At medium fan speed	m³/min	7.5		8.0	12.5		
			At low fan speed	m³/min	6.5		7.0	11.0		
		Heating	At high fan speed	m³/min	8.7	9.0		9.5	15.0	15.2
			At medium fan speed	m³/min	7.5		8.0	12.5		
			At low fan speed	m³/min	6.5		7.0	11.0		
	Air flow rate - 60Hz	Cooling	At high fan speed	cfm	307	318		335	530	537
			At medium fan speed	cfm	265		283	441		
			At low fan speed	cfm	230		247	388		
		Heating	At high fan speed	cfm	307	318		335	530	537
			At medium fan speed	cfm	265		283	441		
			At low fan speed	cfm	230		247	388		
	External static pressure - 50Hz	Factory set	Pa	30						
		High	Pa	150						
	Sound power level	Cooling	At high fan speed	dB(A)	54				55	60
Sound pressure level	Cooling	At high fan speed	dB(A)	29.5	30.0		31.0	35.0		
		At medium fan speed	dB(A)	28.0		29.0	32.0			
		At low fan speed	dB(A)	25.0		26.0	29.0			
	Heating	At high fan speed	dB(A)	31.5	32.0		33.0	37.0		
		At medium fan speed	dB(A)	29.0		30.0	34.0			
		At low fan speed	dB(A)	26.0		27.0	29.0			

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Technical specifications					FXSA15A	FXSA20A	FXSA25A	FXSA32A	FXSA40A	FXSA50A
Fan motor	Quantity					1				
	Model					Brushless DC motor				
	Speed	Steps					3			
		Cooling	High	rpm	1,124			1,158	1,249	1,259
		Heating	High	rpm	1,124			1,158	1,249	1,259
	Output	Max	W	78				130		
Refrigerant	Type					R-32				
	GWP					675.0				
Piping connections	Liquid	Type				Flare connection				
		OD	mm			6				
	Gas	Type				Flare connection				
		OD	mm			9.52			12.70	
Piping connections	Drain					VP20 (I.D. 20/O.D. 26), drain height 625 mm				
	Heat insulation					Foamed polystyrene / Foamed polyethylene				
	Sound absorbing insulation					Butyl Rubber				
Drain-up height			mm			625				
Air filter	Type					Resin net				
Safety devices	Item	01					PC board fuse			
		02					Fan motor overcurrent protector			
Control systems	Infrared remote control					BRC4C65 / BRC4C66				
	Wired remote control					BRC1H52W/S/K				

Technical specifications				FXSA63A	FXSA80A	FXSA100A	FXSA125A	FXSA140A
Cooling capacity	Sensible capacity	At high fan speed	kW	5.10	6.40	8.10	10.10	11.50
		At medium fan speed	kW	4.10	5.30	6.20	8.10	9.30
		At low fan speed	kW	3.20	3.70	3.90	6.20	6.90
	Latent capacity	At high fan speed	kW	2.00	2.60	3.10	3.90	4.50
		At medium fan speed	kW	1.70	2.20	2.50	3.30	3.80
		At low fan speed	kW	1.50	1.70	1.90	2.80	3.20
	Total capacity	At high fan speed	kW	7.10	9.00	11.20	14.00	16.00
		At medium fan speed	kW	5.80	7.50	8.70	11.40	13.10
		At low fan speed	kW	4.70	5.40	5.80	9.00	10.10
Heating capacity	Total capacity	At high fan speed	kW	8.00	10.00	12.50	16.00	18.00
		At medium fan speed	kW	6.30	8.30	9.30	12.80	14.00
		At low fan speed	kW	5.00	5.90	6.00	9.80	10.50
Power input - 50Hz	Cooling	At high fan speed	kW	0.106 (1)	0.143 (1)	0.176 (1)	0.216 (1)	0.272 (1)
		At medium fan speed	kW	0.070 (1)	0.093 (1)	0.111 (1)	0.158 (1)	0.179 (1)
		At low fan speed	kW	0.052 (1)	0.061 (1)	0.074 (1)	0.100 (1)	0.112 (1)
	Heating	At high fan speed	kW	0.106 (1)	0.143 (1)	0.176 (1)	0.216 (1)	0.272 (1)
		At medium fan speed	kW	0.070 (1)	0.093 (1)	0.111 (1)	0.158 (1)	0.179 (1)
		At low fan speed	kW	0.052 (1)	0.061 (1)	0.074 (1)	0.100 (1)	0.112 (1)
Power input - 60Hz	Cooling	At high fan speed	kW	0.106 (1)	0.143 (1)	0.176 (1)	0.216 (1)	0.272 (1)
	Heating	At high fan speed	kW	0.106 (1)	0.143 (1)	0.176 (1)	0.216 (1)	0.272 (1)
Dimensions	Unit	Height	mm	245				
		Width	mm	1,000		1,400		1,550
		Depth	mm	800				
	Packed unit	Height	mm	890				
		Width	mm	1,200		1,600		1,750
		Depth	mm	295				
Weight	Unit	kg	35.5	36.5	46.0	47.0	51.0	
	Packed unit	kg	38.0	39.0	49.0		54.0	
Casing	Colour	Not painted (galvanised)						
	Material	Galvanised steel plate						
Heat exchanger	Inside length		mm	792		1,192		1,342
	Rows	Quantity	3					
	Fin pitch		mm	1.40				
	Passes	Quantity	12				16	
	Face area		m²	0.288		0.433		0.488
	Stages	Quantity	26					
	Heat exchanger	Empty tubeplate hole	Quantity	26	-	26	-	
Fin		Type	Cross fin coil (Multi slit fins with hydrophilic treatment and Ø5Hi-XA tubes)					

2 Specifications

1 - 1 FXSA-A

Technical specifications					FXSA63A	FXSA80A	FXSA100A	FXSA125A	FXSA140A
Fan	Type				Sirocco fan				
	Quantity				2		3		
	Air flow rate - 50Hz	Cooling	At high fan speed	m³/min	21.0	23.0	32.0	36.0	39.0
			At medium fan speed	m³/min	18.0	19.5	27.0	31.5	34.0
			At low fan speed	m³/min	15.0	16.0	23.0	26.0	28.0
		Heating	At high fan speed	m³/min	21.0	23.0	32.0	36.0	42.5
			At medium fan speed	m³/min	18.0	19.5	27.0	31.5	34.0
			At low fan speed	m³/min	15.0	16.0	23.0	26.0	28.0
	Air flow rate - 60Hz	Cooling	At high fan speed	cfm	742	812	1,130	1,271	1,377
			At medium fan speed	cfm	636	689	953	1,112	1,201
			At low fan speed	cfm	530	565	812	918	989
		Heating	At high fan speed	cfm	742	812	1,130	1,271	1,501
			At medium fan speed	cfm	636	689	953	1,112	1,201
			At low fan speed	cfm	530	565	812	918	989
	External static pressure - 50Hz	Factory set	Pa	30	40		50		
		High	Pa	150					
Sound power level	Cooling	At high fan speed		dB(A)	59	61		64	
Sound pressure level	Cooling	At high fan speed		dB(A)	33.0	35.0	36.0	39.0	41.5
		At medium fan speed		dB(A)	30.0	32.0	34.0	36.0	38.0
		At low fan speed		dB(A)	27.0	29.0	31.0	33.0	34.0
	Heating	At high fan speed		dB(A)	35.0	37.0		40.0	42.0
		At medium fan speed		dB(A)	32.0	34.0		37.0	38.5
		At low fan speed		dB(A)	28.0	30.0	31.0	33.0	34.0
Fan motor	Quantity				1				
	Model				Brushless DC motor				
	Speed	Steps			3				
		Cooling	High	rpm	1,130	1,246	1,226	1,310	1,346
		Heating	High	rpm	1,130	1,246	1,226	1,310	1,346
Output	Max		W	230		300		350	
Refrigerant	Type				R-32				
	GWP				675.0				
Piping connections	Liquid	Type	Flare connection						
		OD	mm	6		10			
	Gas	Type	Flare connection						
		OD	mm	12.70		15.90			
Piping connections	Drain				VP20 (I.D. 20/O.D. 26), drain height 625 mm				
	Heat insulation				Foamed polystyrene / Foamed polyethylene				
	Sound absorbing insulation				Butyl Rubber				
Drain-up height					625				
Air filter	Type				Resin net				
Safety devices	Item	01			PC board fuse				
		02			Fan motor overcurrent protector				
Control systems	Infrared remote control				BRC4C65 / BRC4C66				
	Wired remote control				BRC1H52W/S/K				

Standard accessories: Installation and operation manual; Quantity: 1;

Standard accessories: Drain hose; Quantity: 1;

Standard accessories: Metal clamp for drain hose; Quantity: 1;

Standard accessories: Washer for hanger bracket; Quantity: 8;

Standard accessories: Screws; Quantity: 40;

Standard accessories: Insulation for fitting; Quantity: 2;

Standard accessories: Sealing pad; Quantity: 5;

Standard accessories: Clamps; Quantity: 4;

Electrical specifications			FXSA15A	FXSA20A	FXSA25A	FXSA32A	FXSA40A	FXSA50A
Power supply	Name		VE					
	Phase		1~					
	Frequency	Hz	50/60					
	Voltage	V	220-240/220					
Current - 50Hz	Minimum circuit amps (MCA)	A	0.8			0.9	1.4	
	Maximum fuse amps (MFA)	A	6					
	Full load amps (FLA) Total	A	0.7			0.8	1.3	
Current - 60Hz	Minimum circuit amps (MCA)	A	0.8			0.9	1.4	
	Maximum fuse amps (MFA)	A	6					
	Full load amps (FLA) Total	A	0.7			0.8	1.3	

2 Specifications

1 - 1 FXSA-A

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Electrical specifications			FXSA63A	FXSA80A	FXSA100A	FXSA125A	FXSA140A
Power supply	Name		VE				
	Phase		1~				
	Frequency	Hz	50/60				
	Voltage	V	220-240/220				
Current - 50Hz	Minimum circuit amps (MCA)	A	1.4	1.7	2.0	2.2	3.0
	Maximum fuse amps (MFA)	A	6				
	Full load amps (FLA) Total	A	1.3	1.5	1.8	2.0	2.7
Current - 60Hz	Minimum circuit amps (MCA)	A	1.4	1.7	2.0	2.2	3.0
	Maximum fuse amps (MFA)	A	6				
	Full load amps (FLA) Total	A	1.3	1.5	1.8	2.0	2.7

(1)Values are valid for the factory setting. |

Cooling: indoor temp. 27°CDB, 19°CWB; outdoor temp. 35°CDB; equivalent piping length: 5m; level difference: 0m |

Heating: indoor temp. 20°CDB; outdoor temp. 7°CDB, 6°CWB; equivalent refrigerant piping: 5m; level difference: 0m |

Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat. |

External static pressure is changeable to set by the remote control (from standard to high, see installation manual) |

Voltage range: units are suitable for use on electrical systems where voltage supplied to unit terminal is not below or above listed range limits. |

Maximum allowable voltage range variation between phases is 2%. |

MCA/MFA: MCA = 1.1 x FLA |

Instead of a fuse, use a circuit breaker |

Select wire size based on the value of MCA |

Contains fluorinated greenhouse gases

3 Electrical data

3 - 1 Electrical Data

FXSA-A

Model name	Unit			Power supply		IFM	Power input [W]	
	Hz	Voltage	Voltage range	MCA	MFA	FLA	Cooling	Heating
FXSA15A2VEB	50/60	220-240/220	MAX. 264/MAX. 242 MIN. 198/MIN. 198	0,8	6	0,7	86	86
FXSA20A2VEB				0,8	6	0,7	86	86
FXSA25A2VEB				0,8	6	0,7	86	86
FXSA32A2VEB				0,9	6	0,8	92	92
FXSA40A2VEB				1,4	6	1,3	147	147
FXSA50A2VEB				1,4	6	1,3	150	150
FXSA63A2VEB				1,4	6	1,3	183	183
FXSA80A2VEB				1,7	6	1,5	209	209
FXSA100A2VEB				2	6	1,8	285	285
FXSA125A2VEB				2,2	6	2	326	326
FXSA140A2VEB				3	6	2,7	382	382

Notes

- 1) Voltage range
The units are suitable for use with electrical systems in which the voltage supplied to the unit terminals is not below or above the listed range limits.
- 2) The maximum allowable voltage that is unbalanced between phases is ·2%.
- 3) MCA = 1.1 × FLA
- 4) Select the wire size according to the MCA.
- 5) Use a circuit breaker instead of a fuse.

Symbols

- MCA: Minimum Circuit Ampere [A]
MFA: Maximum Fuse Ampere [A]
FLA: Full Load Ampere [A]
IFM: Indoor fan motor

3D129442

4 Safety device settings

4 - 1 Safety Device Settings

FXSA-A

		15	20	25	32	40	50	63	80	100	125	140
FXSA	Safety devices											
	Printed circuit board (main)	250V, 3.15A	250V, 3.15A	250V, 3.15A	250V, 3.15A	250V, 3.15A	250V, 3.15A	250V, 3.15A	250V, 3.15A	250V, 3.15A	250V, 3.15A	250V, 3.15A
	Printed circuit board (fan)	250V, 6.3A	250V, 6.3A	250V, 6.3A	250V, 6.3A	250V, 6.3A	250V, 6.3A	250V, 6.3A	250V, 6.3A	250V, 6.3A	250V, 6.3A	250V, 6.3A
	Fan motor thermal protector	°C	---	---	---	---	---	---	---	---	---	---
	Drain pump fuse	°C	145	145	145	145	145	145	145	145	145	145

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5 Options

5 - 1 Options

FXSA-A

Option kit	Product name	Availability				
		FXSA15-32A2VEB	FXSA40-50A2VEB	FXSA63-80A2VEB	FXSA100-125A2VEB	FXSA140A2VEB
Air discharge adaptor for round ducts	KDAP25A36A	✓				
	KDAP25A56A		✓			
	KDAP25A71A			✓		
	KDAP25A140A				✓	
Wireless remote control	BRC4C65 (2)	✓	✓	✓	✓	✓
	BRC4C66 (2)	✓	✓	✓	✓	✓
Wired remote control	BRC1H52W/S/K	✓	✓	✓	✓	✓
	KRP4A52 (1)	✓	✓	✓	✓	✓
Wiring adaptor for electrical appendices	KRP4A51 (1)	✓	✓	✓	✓	✓
	EKRP1C14 (1)	✓	✓	✓	✓	✓
	KRCS01-8B	✓	✓	✓	✓	✓
Remote sensor	KRCS01-8B	✓	✓	✓	✓	✓
Installation box for adaptor PCB	KRP1BC101	✓	✓	✓	✓	✓
Central remote control	DCS302C51	✓	✓	✓	✓	✓
Unified ON/OFF controller	DCS301B51	✓	✓	✓	✓	✓
Electrical box with earth terminal (-2- blocks)	KJB212AA	✓	✓	✓	✓	✓
Electrical box with earth terminal (-3- blocks)	KJB311AA	✓	✓	✓	✓	✓
Electrical box with earth terminal	KJB411A	✓	✓	✓	✓	✓
Schedule timer	DST301BA51	✓	✓	✓	✓	✓
External adaptor for outdoor unit (installation on indoor unit)	DTA104A61 (1)	✓	✓	✓	✓	✓
iTouch Controller	DCS601C51	✓	✓	✓	✓	✓
Digital input adaptor	BRP7A51 (1)(2)	✓	✓	✓	✓	✓
Intelligent Touch Manager	DCM601A51	✓	✓	✓	✓	✓
Relay PCB	ERP01A50 (1)	✓	✓	✓	✓	✓
Wire harness for external wireless temperature sensor	EKEWTSC-1 (3)	✓	✓	✓	✓	✓
WLAN adaptor for smartphones	BRP069C51 (2)	✓	✓	✓	✓	✓

Notes

- ① Requires installation box for adaptor PCB -KRP1BC101-.
 - ② Only possible in combination with remote control -BRC1H52-.
 - ③ -EKEWTSC-1- is a wire harness for the connection of option -K.RSS-.
- K.RSS- is not an official option. Sales for this option are an SBU responsibility.

3D129478A

6 Capacity tables

6 - 1 Cooling Capacity Tables

FXSA-A

Unit size		Fan speed		Indoor air temperature											
				14,0 [°C WB]		16,0 [°C WB]		18,0 [°C WB]		19,0 [°C WB]		20,0 [°C WB]		22,0 [°C WB]	
				20,0 [°C DB]		23,0 [°C DB]		26,0 [°C DB]		27,0 [°C DB]		28,0 [°C DB]		30,0 [°C DB]	
				TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
15	H			1,0	0,8	1,2	1,0	1,5	1,2	1,7	1,2	1,9	1,3	2,2	1,4
	M			Correction factor -0.88 × H-											
	L			Correction factor -0.82 × H-											
20	H			1,2	1,1	1,6	1,3	2,0	1,5	2,2	1,6	2,4	1,6	2,8	1,8
	M			Correction factor -0.86 × H-											
	L			Correction factor -0.77 × H-											
25	H			1,6	1,4	2,1	1,6	2,6	1,9	2,8	2,0	3,1	2,1	3,6	2,3
	M			Correction factor -0.89 × H-											
	L			Correction factor -0.79 × H-											
32	H			2,1	1,8	2,7	2,1	3,3	2,5	3,6	2,6	3,9	2,7	4,6	2,8
	M			Correction factor -0.86 × H-											
	L			Correction factor -0.75 × H-											
40	H			2,5	2,2	3,3	2,7	4,1	3,1	4,5	3,3	4,9	3,4	5,8	3,7
	M			Correction factor -0.87 × H-											
	L			Correction factor -0.76 × H-											
50	H			3,2	2,8	4,2	3,4	5,1	3,9	5,6	4,0	6,1	4,2	7,1	4,4
	M			Correction factor -0.84 × H-											
	L			Correction factor -0.71 × H-											
63	H			3,9	3,4	5,2	4,2	6,4	4,9	7,1	5,1	7,8	5,3	9,2	5,8
	M			Correction factor -0.82 × H-											
	L			Correction factor -0.66 × H-											
80	H			5,1	4,3	6,6	5,2	8,2	6,1	9,0	6,4	9,8	6,7	11,6	7,1
	M			Correction factor -0.83 × H-											
	L			Correction factor -0.60 × H-											
100	H			6,4	5,5	8,3	6,7	10,2	7,8	11,2	8,1	12,2	8,4	14,4	9,0
	M			Correction factor -0.78 × H-											
	L			Correction factor -0.52 × H-											
125	H			8,7	6,9	10,8	8,2	12,9	9,4	14,0	9,7	15,1	10,0	17,5	10,5
	M			Correction factor -0.81 × H-											
	L			Correction factor -0.64 × H-											
140	H			9,3	7,9	11,9	9,5	14,6	11,1	16,0	11,5	17,4	11,9	20,4	12,6
	M			Correction factor -0.82 × H-											
	L			Correction factor -0.63 × H-											

Notes

- 1) TC: Total capacity [kW]
SHC: Sensible heat capacity [kW]
- 2) Outdoor temperature -35°C DB

3D129414

6 Capacity tables

6 - 2 Heating Capacity Tables

FXSA-A

Unit size	Fan speed	Indoor air temperature					
		16,0 [°C DB]	18,0 [°C DB]	20,0 [°C DB]	21,0 [°C DB]	22,0 [°C DB]	24,0 [°C DB]
		TC	TC	TC	TC	TC	TC
15	H	2,2	2,1	1,9	1,8	1,7	1,6
	M	Correction factor -0.84 × H-					
	L	Correction factor -0.79 × H-					
20	H	2,9	2,7	2,5	2,4	2,3	2,1
	M	Correction factor -0.84 × H-					
	L	Correction factor -0.72 × H-					
25	H	3,7	3,5	3,2	3,1	2,9	2,7
	M	Correction factor -0.84 × H-					
	L	Correction factor -0.72 × H-					
32	H	4,7	4,3	4,0	3,8	3,7	3,3
	M	Correction factor -0.85 × H-					
	L	Correction factor -0.73 × H-					
40	H	5,8	5,4	5,0	4,8	4,6	4,2
	M	Correction factor -0.84 × H-					
	L	Correction factor -0.72 × H-					
50	H	7,3	6,8	6,3	6,0	5,8	5,3
	M	Correction factor -0.81 × H-					
	L	Correction factor -0.65 × H-					
63	H	9,3	8,7	8,0	7,7	7,3	6,7
	M	Correction factor -0.79 × H-					
	L	Correction factor -0.63 × H-					
80	H	11,7	10,8	10,0	9,6	9,2	8,4
	M	Correction factor -0.83 × H-					
	L	Correction factor -0.59 × H-					
100	H	14,6	13,5	12,5	12,0	11,5	10,5
	M	Correction factor -0.74 × H-					
	L	Correction factor -0.48 × H-					
125	H	18,7	17,3	16,0	15,3	14,7	13,4
	M	Correction factor -0.80 × H-					
	L	Correction factor -0.61 × H-					
140	H	21,0	19,5	18,0	17,3	16,5	15,1
	M	Correction factor -0.78 × H-					
	L	Correction factor -0.58 × H-					

Notes

1) TC: Total capacity [kW]

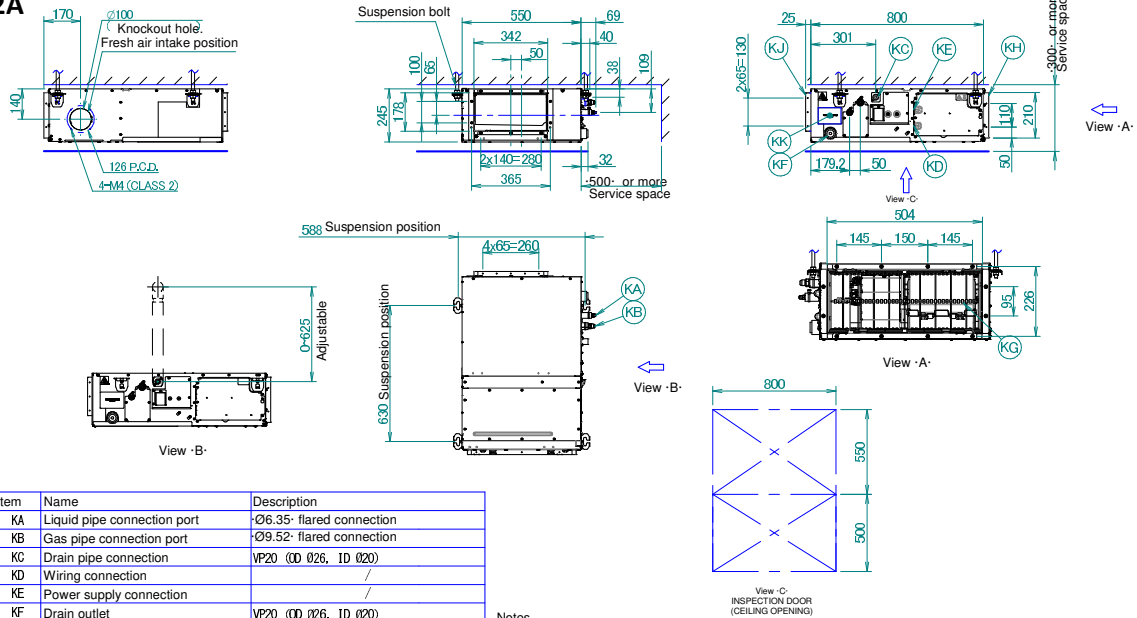
2) Outdoor temperature -7°C DB / -6°C WB

3D129415

7 Dimensional drawings

7 - 1 Dimensional Drawings

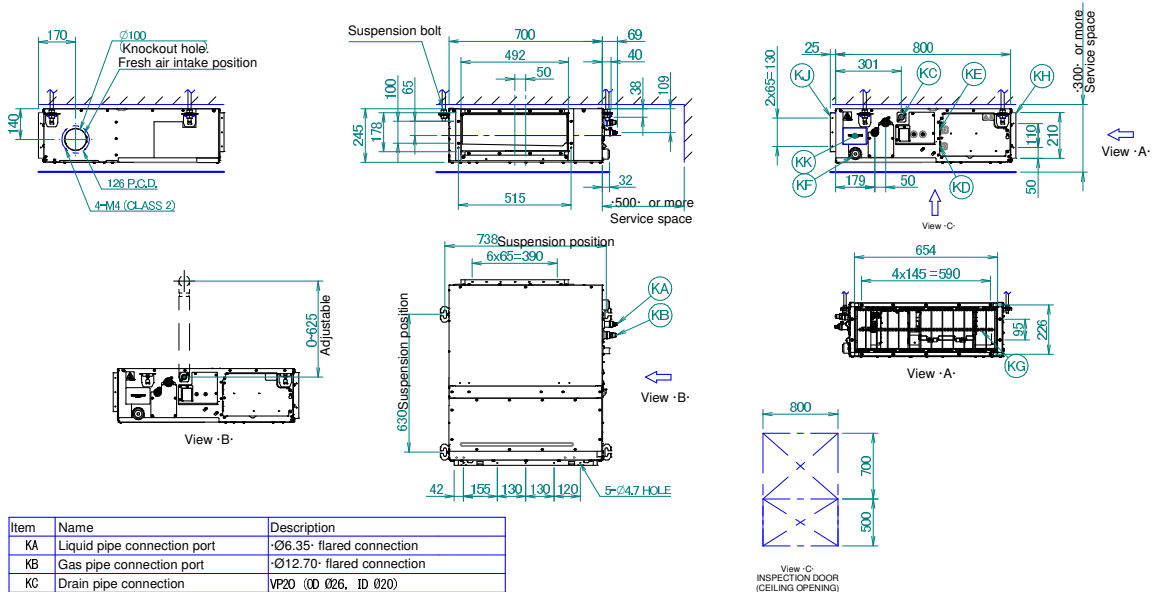
FXSA15A
FXSA20A
FXSA25A
FXSA32A



- Notes
1. When installing optional accessories, refer to their respective documentation.
 2. The ceiling depth varies according to the documentation of the specific system.
 3. In case of bottom suction, mount the chamber cover to the backside of the unit.
 4. In case of rear suction, mount the chamber cover to the bottom side of the unit.
- For more information, refer to the installation manual.

3D128686A

FXSA40A
FXSA50A



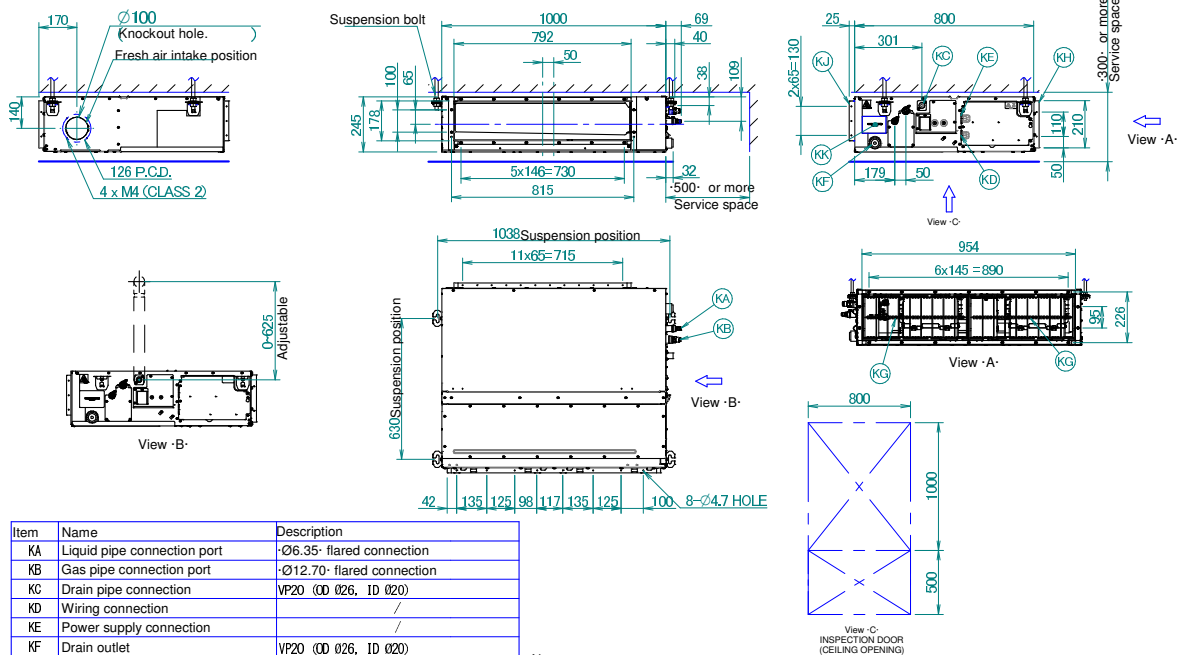
- Notes
1. When installing optional accessories, refer to their respective documentation.
 2. The ceiling depth varies according to the documentation of the specific system.
 3. In case of bottom suction, mount the chamber cover to the backside of the unit.
 4. In case of rear suction, mount the chamber cover to the bottom side of the unit.
- For more information, refer to the installation manual.

3D128715A

7 Dimensional drawings

7 - 1 Dimensional Drawings

FXSA63A FXSA80A

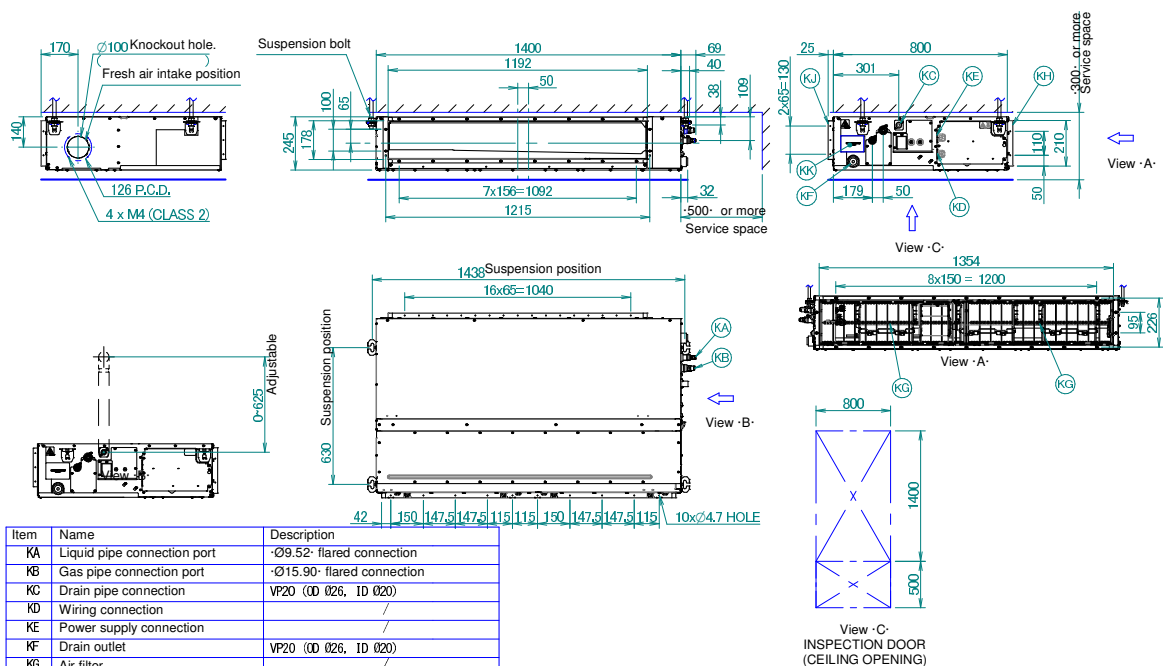


Item	Name	Description
KA	Liquid pipe connection port	Ø6.35" flared connection
KB	Gas pipe connection port	Ø12.70" flared connection
KC	Drain pipe connection	VP20 (OD Ø26, ID Ø20)
KD	Wiring connection	/
KE	Power supply connection	/
KF	Drain outlet	VP20 (OD Ø26, ID Ø20)
KG	Air filter	/
KH	Air suction side	/
KJ	Air discharge side	/
KK	Nameplate	/

- Notes
1. When installing optional accessories, refer to their respective documentation.
 2. The ceiling depth varies according to the documentation of the specific system.
 3. In case of bottom suction, mount the chamber cover to the backside of the unit. For more information, refer to the installation manual.
 4. In case of rear suction, mount the chamber cover to the bottom side of the unit. For more information, refer to the installation manual.

3D128716A

FXSA100A FXSA125A



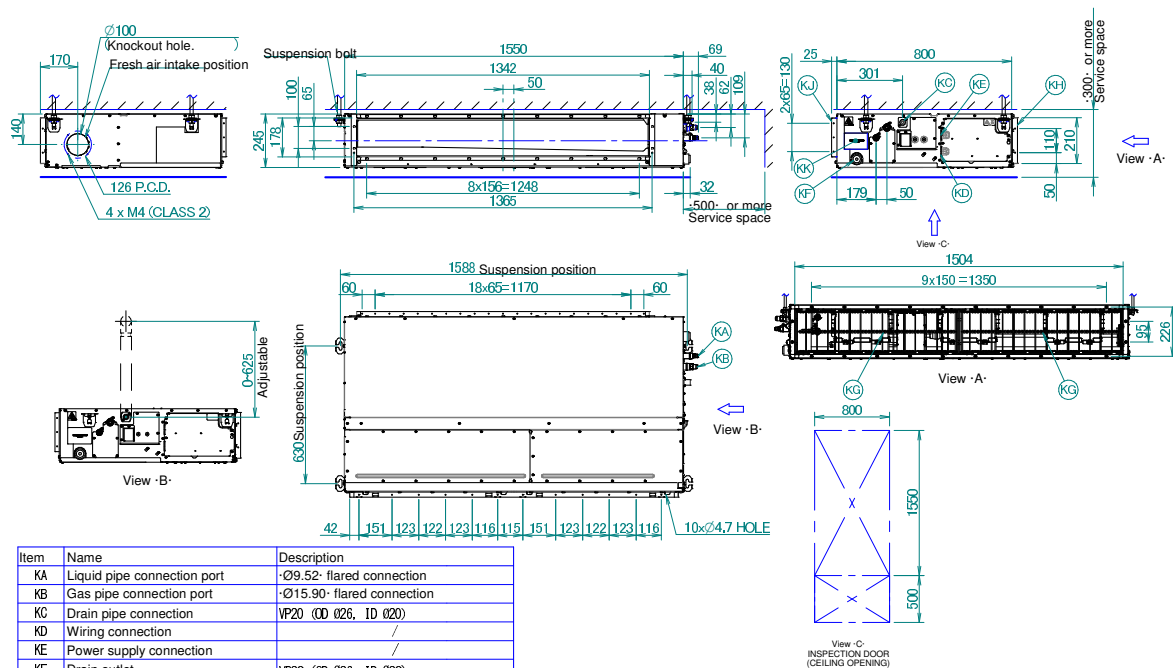
Item	Name	Description
KA	Liquid pipe connection port	Ø9.52" flared connection
KB	Gas pipe connection port	Ø15.90" flared connection
KC	Drain pipe connection	VP20 (OD Ø26, ID Ø20)
KD	Wiring connection	/
KE	Power supply connection	/
KF	Drain outlet	VP20 (OD Ø26, ID Ø20)
KG	Air filter	/
KH	Air suction side	/
KJ	Air discharge side	/
KK	Nameplate	/

- Notes
1. When installing optional accessories, refer to their respective documentation.
 2. The ceiling depth varies according to the documentation of the specific system.
 3. In case of bottom suction, mount the chamber cover to the backside of the unit. For more information, refer to the installation manual.
 4. In case of rear suction, mount the chamber cover to the bottom side of the unit. For more information, refer to the installation manual.

3D128719A

7 - 1 Dimensional Drawings

7



Item	Name	Description
KA	Liquid pipe connection port	Ø9.52" flared connection
KB	Gas pipe connection port	Ø15.90" flared connection
KC	Drain pipe connection	VP20 (OD Ø26, ID Ø20)
KD	Wiring connection	/
KE	Power supply connection	/
KF	Drain outlet	VP20 (OD Ø26, ID Ø20)
KG	Air filter	/
KH	Air suction side	/
KJ	Air discharge side	/
KK	Nameplate	/

Notes

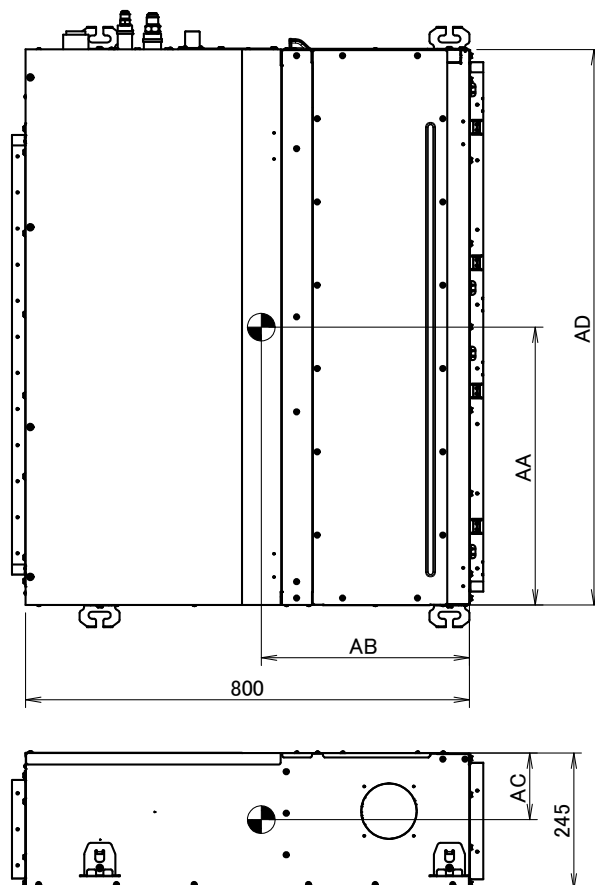
1. When installing optional accessories, refer to their respective documentation.
2. The ceiling depth varies according to the documentation of the specific system.
3. In case of bottom suction, mount the chamber cover to the backside of the unit.
For more information, refer to the installation manual.
4. In case of rear suction, mount the chamber cover to the bottom side of the unit.
For more information, refer to the installation manual.

3D128720A

8 Centre of gravity

8 - 1 Centre of Gravity

FXSA-A



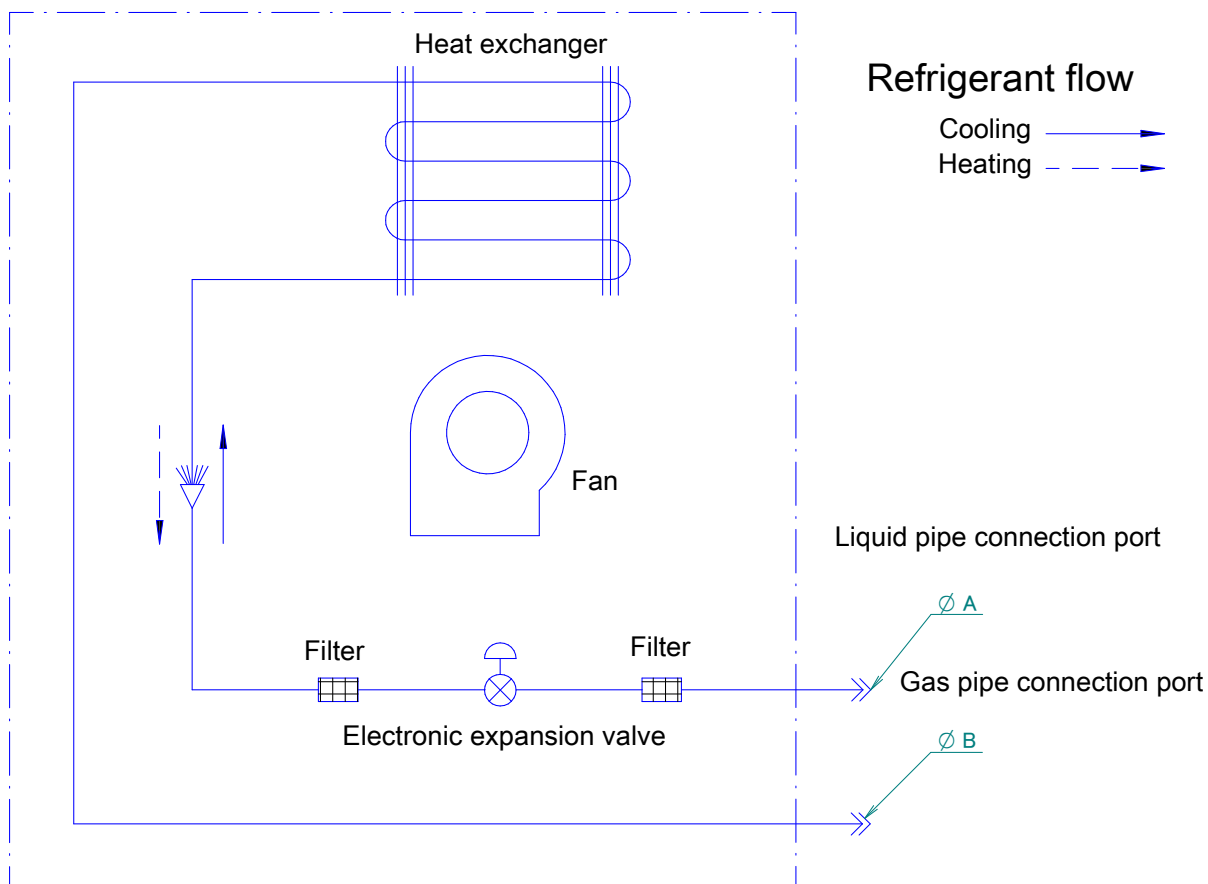
Applicable models	AA	AB	AC	AB
FXSQ15/20/25/32	305	365	145	550
FXSQ40/50	410	375	125	700
FXSQ63/80	525	380	125	100
FXSQ100/125	760	390	115	1400
FXSQ140	870	385	120	1550

4D096407A

9 Piping diagrams

9 - 1 Piping Diagrams

FXSA-A



Model	A	B
FXSA15A2VEB	6.35	9.52
FXSA20A2VEB		
FXSA25A2VEB		
FXSA32A2VEB		
FXSA40A2VEB		
FXSA50A2VEB		
FXSA63A2VEB		
FXSA80A2VEB		
FXSA100A2VEB	9.52	15.9
FXSA125A2VEB		
FXSA140A2VEB		

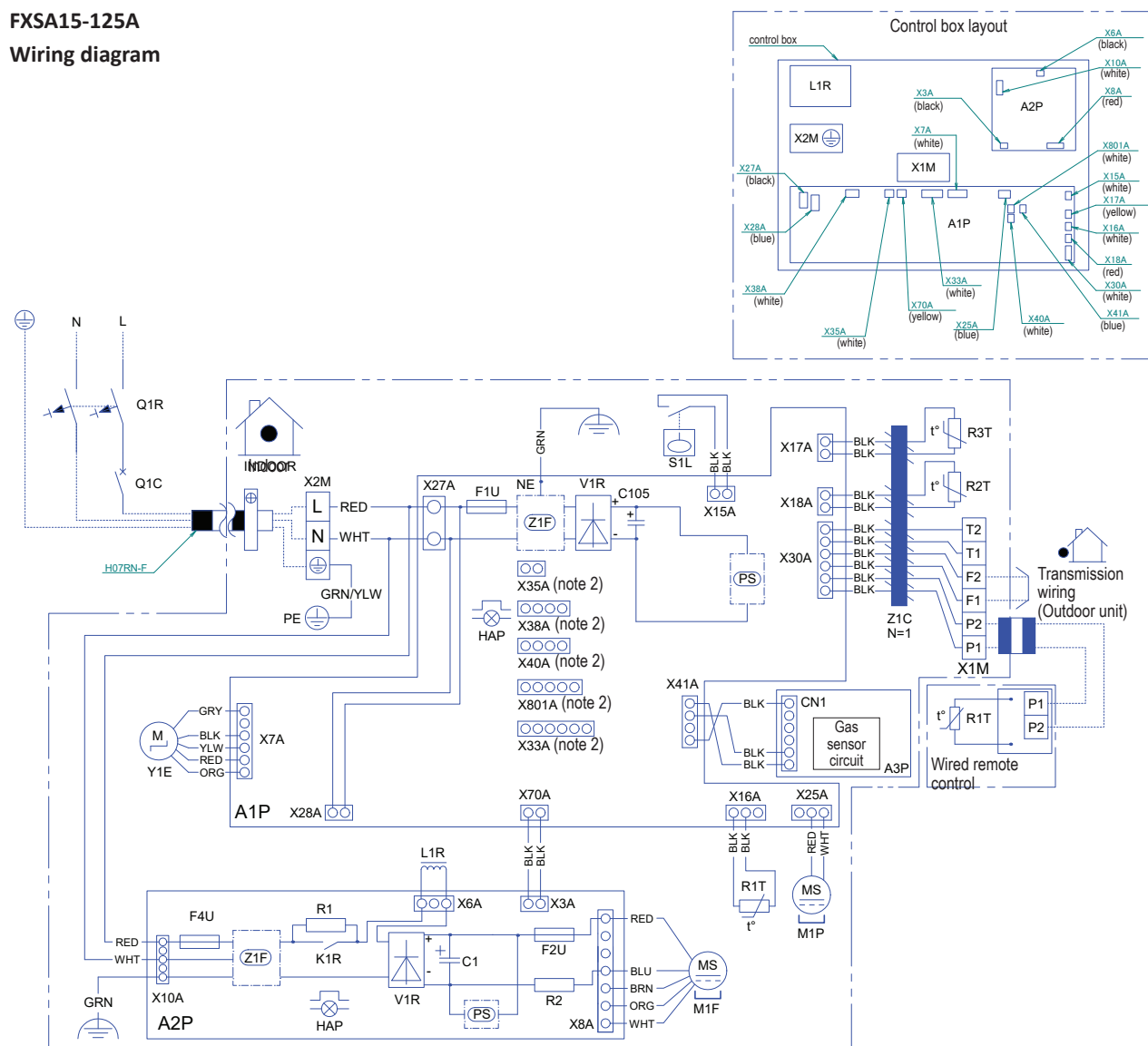
4D126216

10 Wiring diagrams

10 - 1 Wiring Diagrams - Single Phase

FXSA15-125A

Wiring diagram



Indoor unit	
A1P	Printed circuit board (main)
A2P	Printed circuit board (fan)
C1	Capacitor
C105	Capacitor
CN1	Gas sensor connector
A3P	Printed circuit board (gas sensor)
F1U	Fuse (T, 3.15A, 250V)
F2U	Fuse (T, 5A, 250V)
F4U	Fuse (T, 6.3A, 250V)
HAP	Indication lamp
K1R	Magnetic relay
L1R	Reactor
M1F	Motor (indoor fan)
M1P	Motor (drain pump)
NE	Noiseless earth
Q1R	Residual current device
Q1C	Circuit breaker
R1	Resistor
R2	Resistor (current sensor)
R1T	Thermistor (air)
R2T	Thermistor (liquid)
R3T	Thermistor (coil)
S1L	Float switch

Indoor unit	
V1R	Diode bridge
PS	Switching power supply
X1M	Terminal strip (Remote controller)
X2M	Terminal strip (power supply)
X3A-X801A	Connector
Y1E	Electronic expansion valve
Z1C	Ferrite core
Z1F	Noise filter
Wired remote control	
R1T	Thermistor (air)

NOTES

1. : terminal block, : connector, : field wiring
2. X33A, X35A, X38A, X40A, X801A are connected when optional accessories are being used, see wiring diagram of this accessory.

WIRE COLOURS

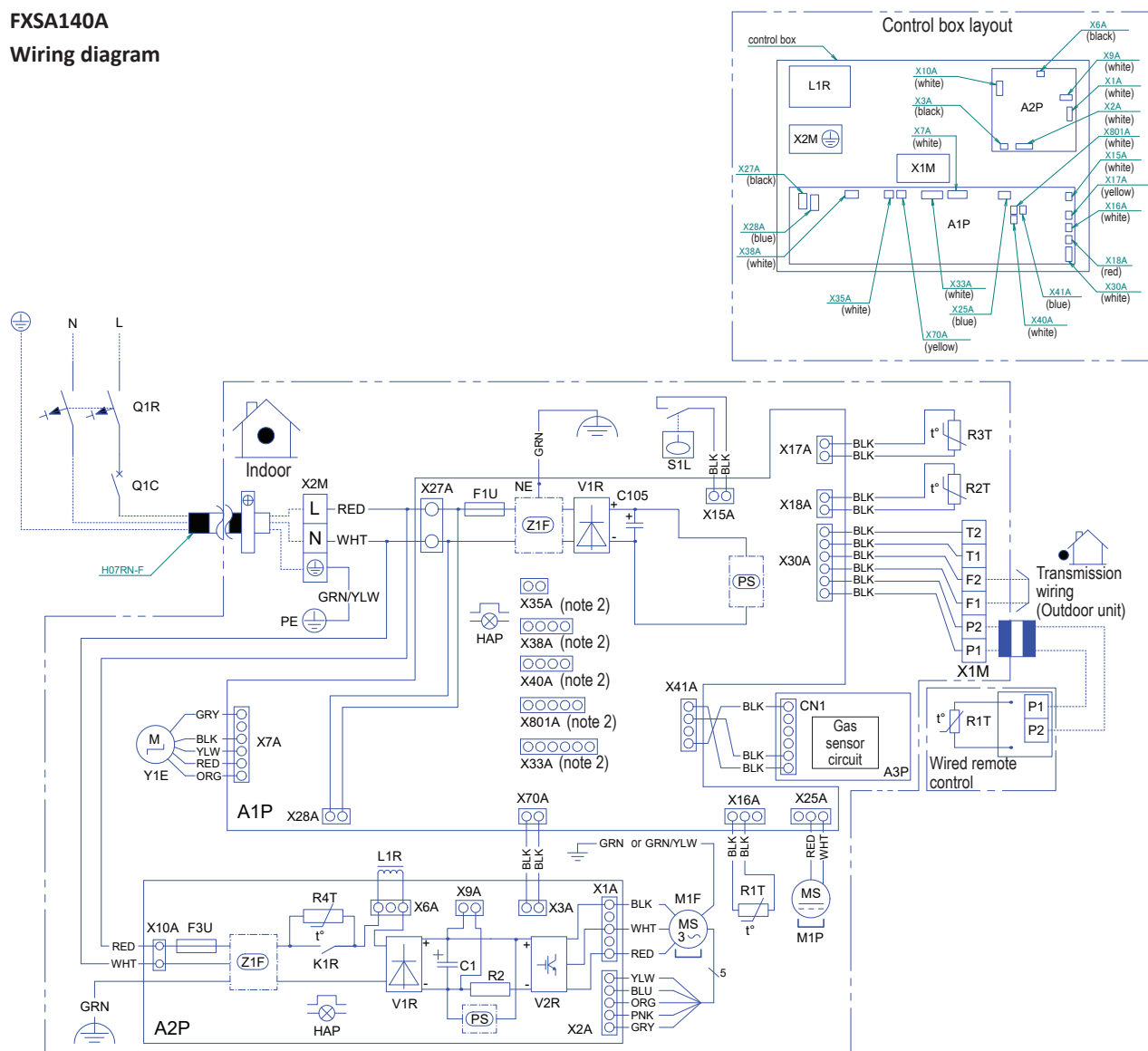
BLK: black, RED: red, BLU: blue, WHT: white,
YLW: yellow, GRN: green, BRN: brown, PNK: pink,
ORG: orange, GRY: grey

3D128710A

10 - 1 Wiring Diagrams - Single Phase

FXSA140A

Wiring diagram



Indoor unit		Indoor unit	
A1P	Printed circuit board (main)	V2R	Power module
A2P	Printed circuit board (fan)	PS	Switching power supply
C1	Capacitor	X1M	Terminal strip (control)
C105	Capacitor	X2M	Terminal strip (power supply)
CN1	Gas sensor connector	X7A-X801A	Connector
A3P	Printed circuit board (gas sensor)	Y1E	Electronic expansion valve
F1U	Fuse (T, 3.15A, 250V)	Z1F	Noise filter
F3U	Fuse (T, 6.3A, 250V)		Wired remote control
HAP	Indication lamp	R1T	Thermistor (air)
K1R	Magnetic relay		
L1R	Reactor		
M1F	Motor (indoor fan)		
M1P	Motor (drain pump)		
NE	Noiseless earth		
Q1R	Residual current device		
Q1C	Circuit breaker		
R2	Resistor (current sensor)		
R1T	Thermistor (air)		
R2T	Thermistor (liquid)		
R3T	Thermistor (coil)		
R4T	Thermistor NTC (current limiting)		
S1L	Float switch		
V1R	Diode bridge		

NOTES

1. : terminal block, : connector, : field wiring
2. X33A, X35A, X38A, X40A, X801A are connected when optional accessories are being used, see wiring diagram of this accessory.

WIRE COLOURS

BLK: black, RED: red, BLU: blue, WHT: white,
YLW: yellow, GRN: green, BRN: brown, PNK: pink,
ORG: orange, GRY: grey

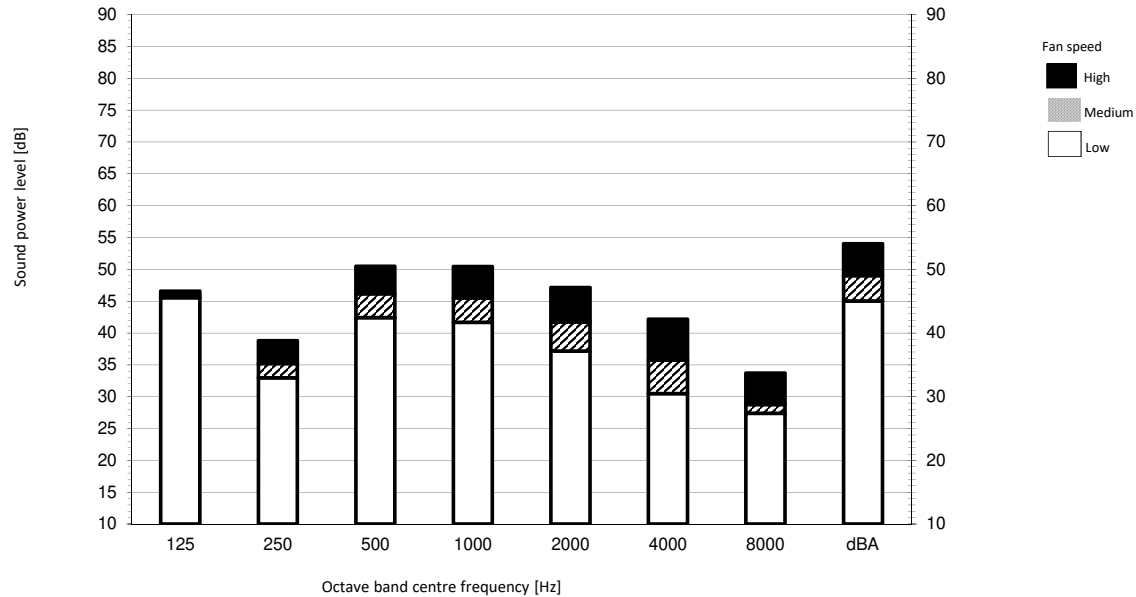
3D128748A

11 Sound data

11 - 1 Sound Power Spectrum - Cooling

FXSA15A

Cooling mode



Notes

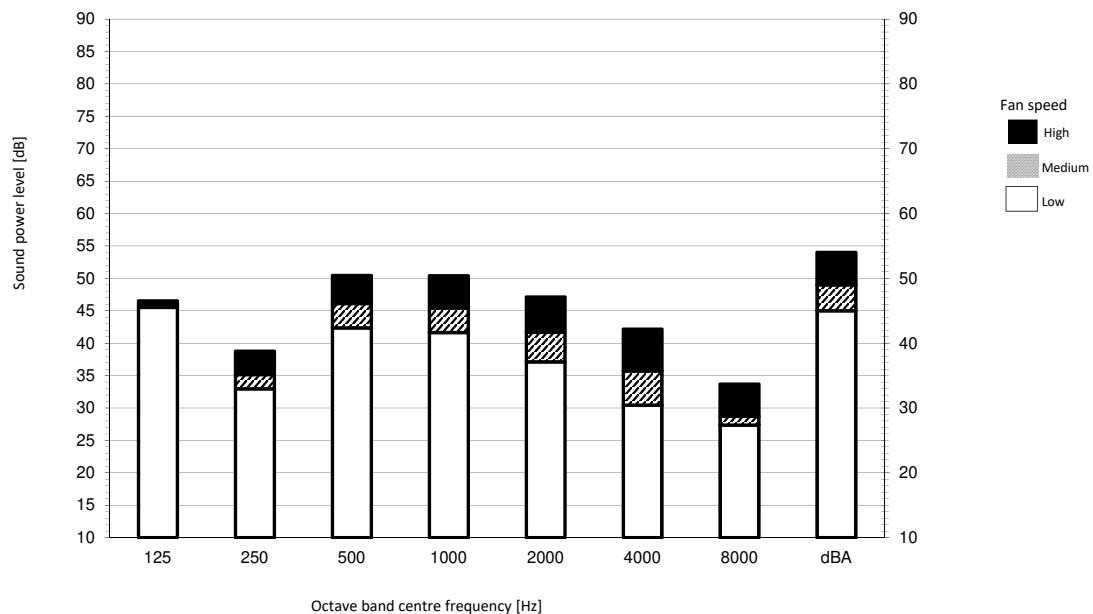
1. dBA = A-weighted sound power level (A scale according to IEC).
2. Reference acoustic intensity $0\text{dB} = -10\text{E-}6\mu\text{W/m}^2$.
3. Measured according to ISO 3744

3D095590C

FXSA20A

FXSA25A

Cooling mode



Notes

1. dBA = A-weighted sound power level (A scale according to IEC).
2. Reference acoustic intensity $0\text{dB} = -10\text{E-}6\mu\text{W/m}^2$.
3. Measured according to ISO 3744

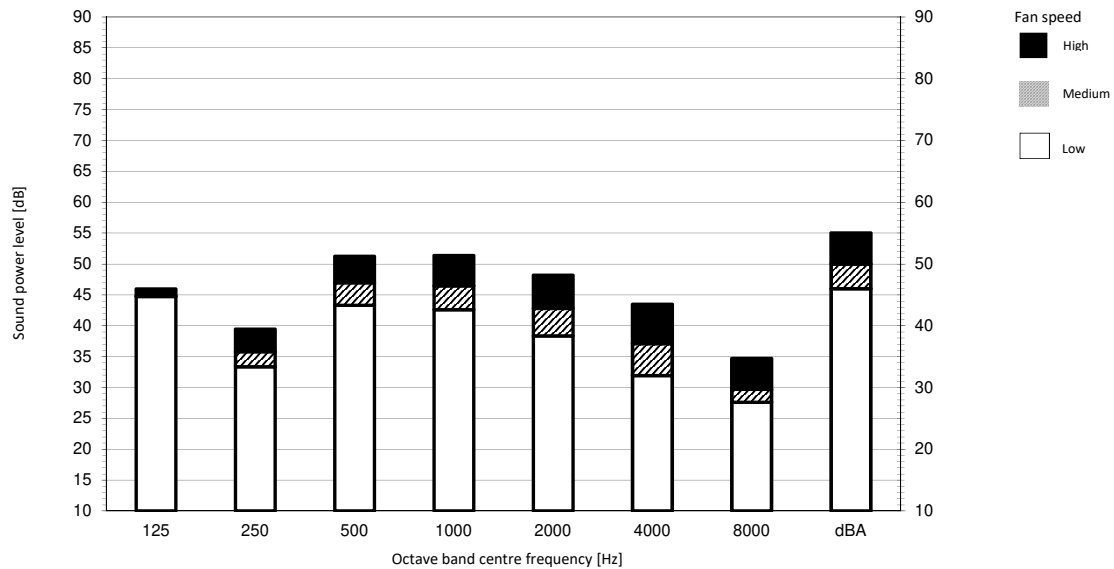
3D095591C

11 Sound data

11 - 1 Sound Power Spectrum - Cooling

FXSA32A

Cooling mode



Notes

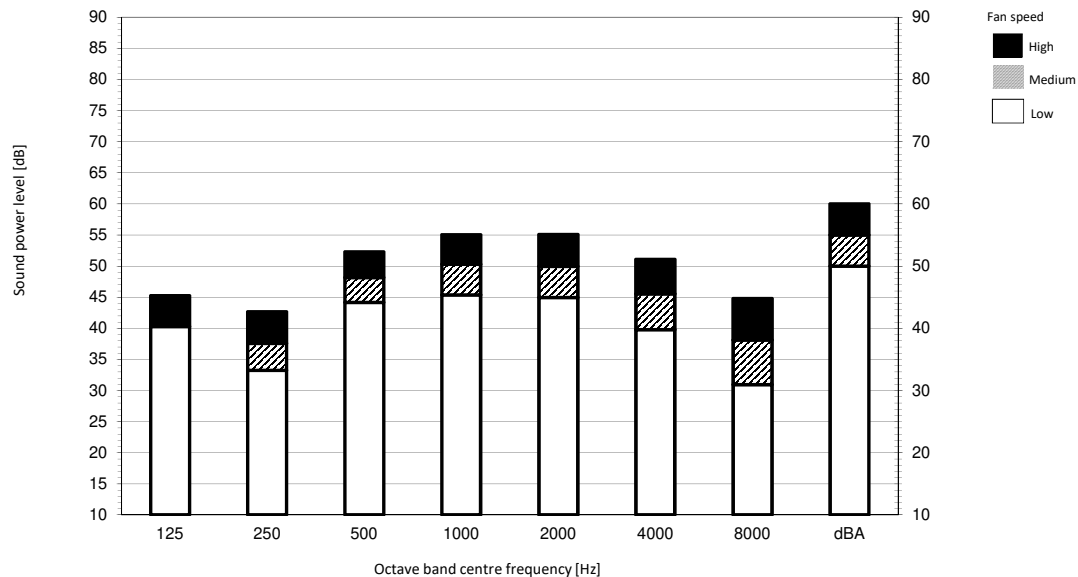
1. dBA = A-weighted sound power level (A scale according to IEC).
2. Reference acoustic intensity 0dB = $-10E-6\mu W/m^2$.
3. Measured according to ISO 3744

3D095592C

FXSA40A

FXSA50A

Cooling mode



Notes

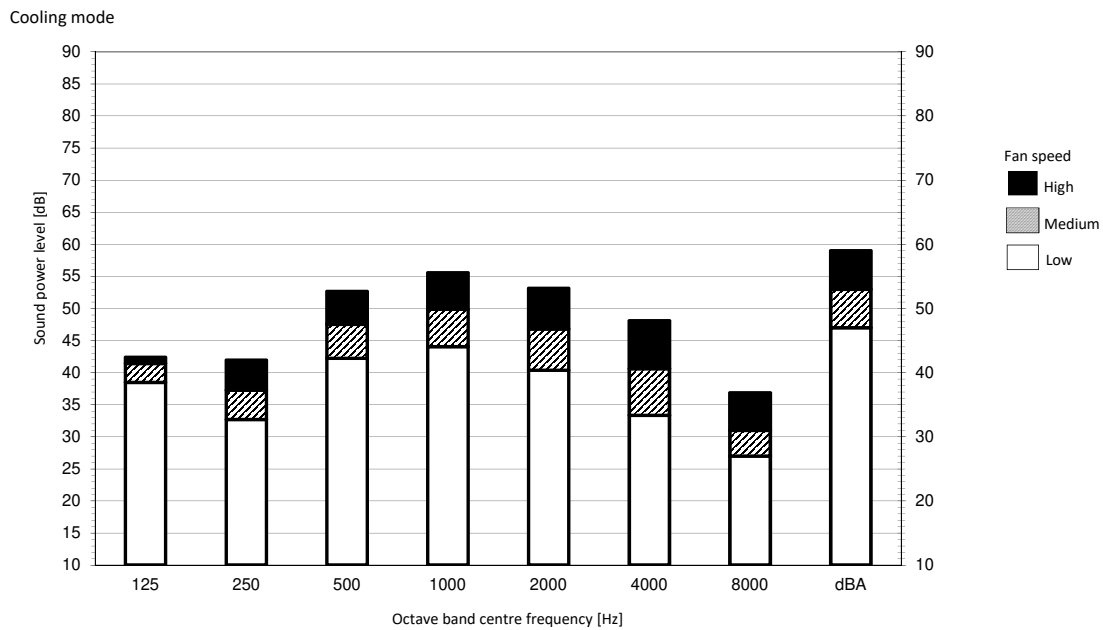
1. dBA = A-weighted sound power level (A scale according to IEC).
2. Reference acoustic intensity 0dB = $-10E-6\mu W/m^2$.
3. Measured according to ISO 3744

3D095579C

11 Sound data

11 - 1 Sound Power Spectrum - Cooling

FXSA63A

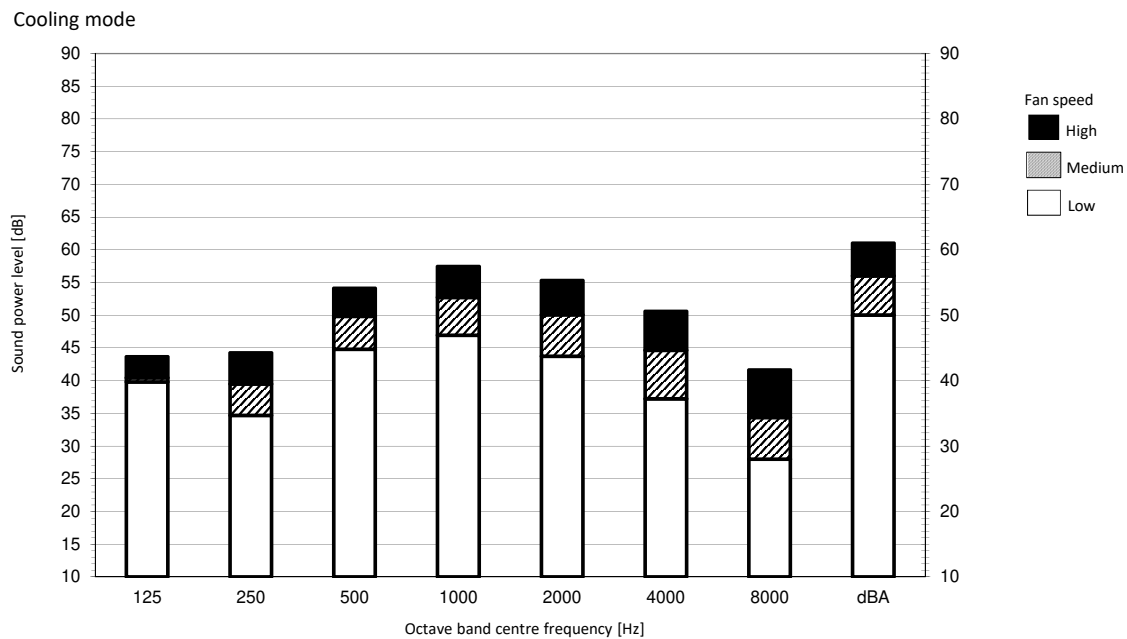


Notes

1. dBA = A-weighted sound power level (A scale according to IEC).
2. Reference acoustic intensity $0\text{dB} = -10\text{E-}6\mu\text{W/m}^2$.
3. Measured according to ISO 3744

3D095593C

FXSA80A



Notes

1. dBA = A-weighted sound power level (A scale according to IEC).
2. Reference acoustic intensity $0\text{dB} = -10\text{E-}6\mu\text{W/m}^2$.
3. Measured according to ISO 3744

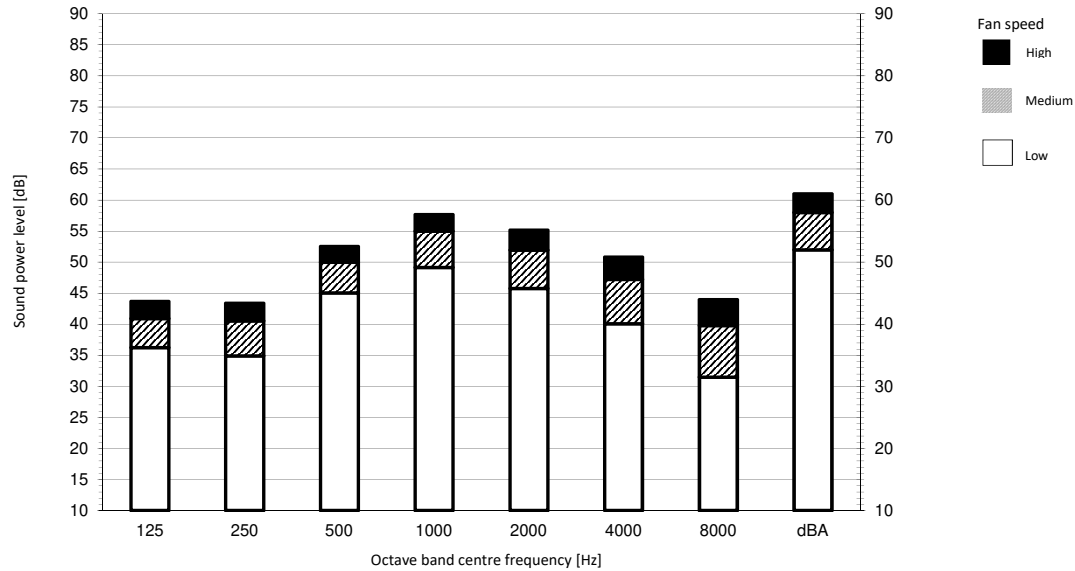
3D095594C

11 Sound data

11 - 1 Sound Power Spectrum - Cooling

FXSA100A

Cooling mode



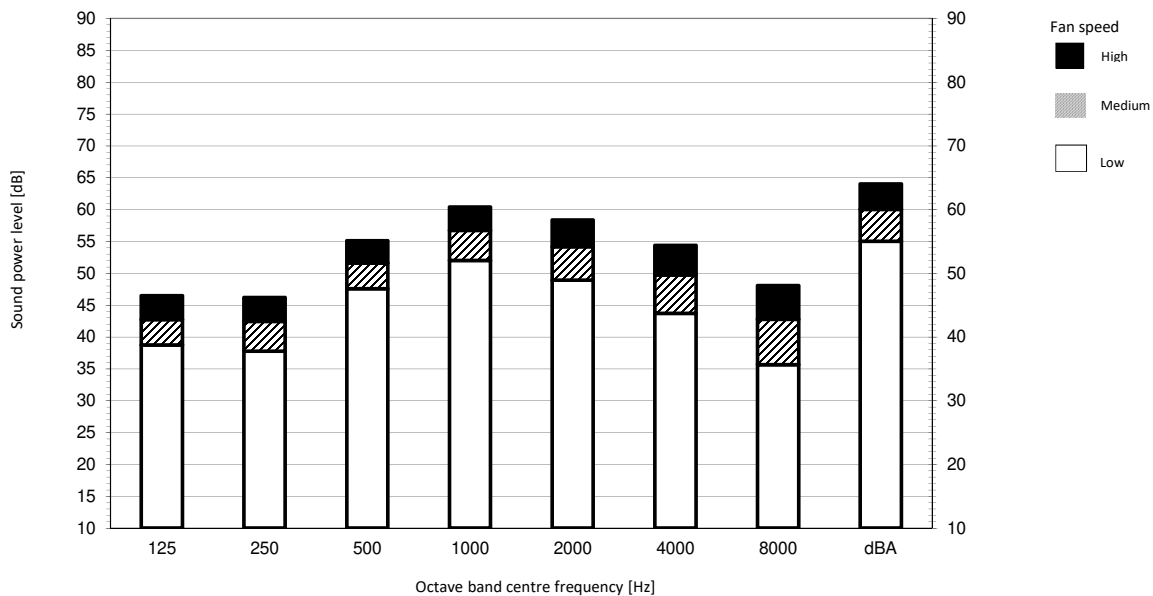
Notes

1. dBA = A-weighted sound power level (A scale according to IEC).
2. Reference acoustic intensity 0dB = $-10E-6\mu W/m^2$.
3. Measured according to ISO 3744

3D095596C

FXSA125A

Cooling mode



Notes

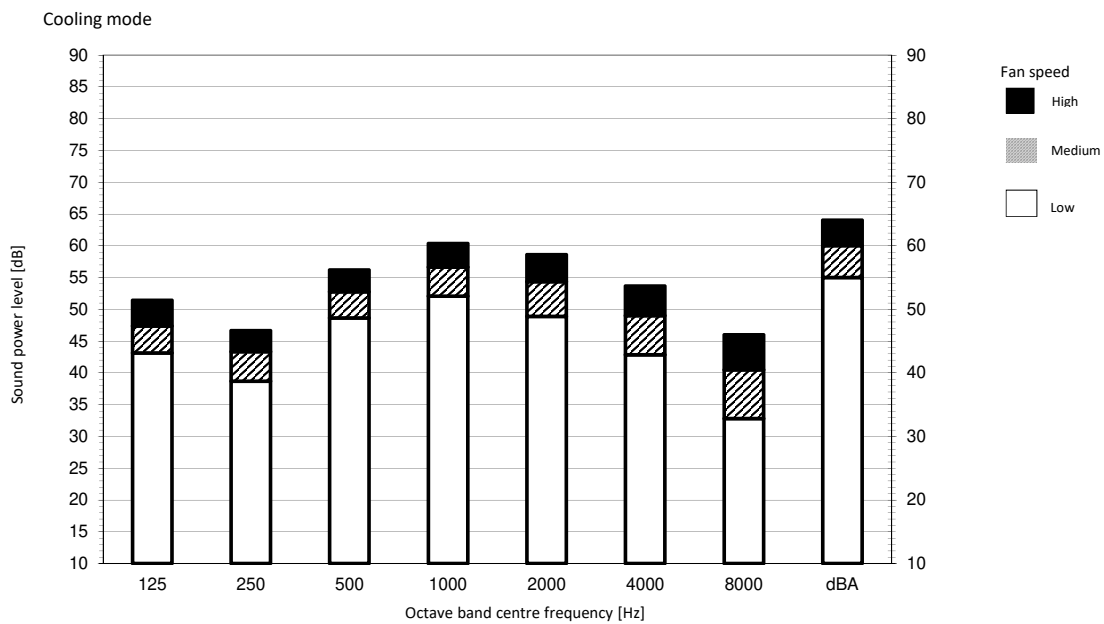
1. dBA = A-weighted sound power level (A scale according to IEC).
2. Reference acoustic intensity 0dB = $-10E-6\mu W/m^2$.
3. Measured according to ISO 3744

3D095597C

11 Sound data

11 - 1 Sound Power Spectrum - Cooling

FXSA140A



Notes

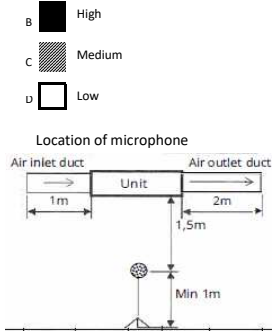
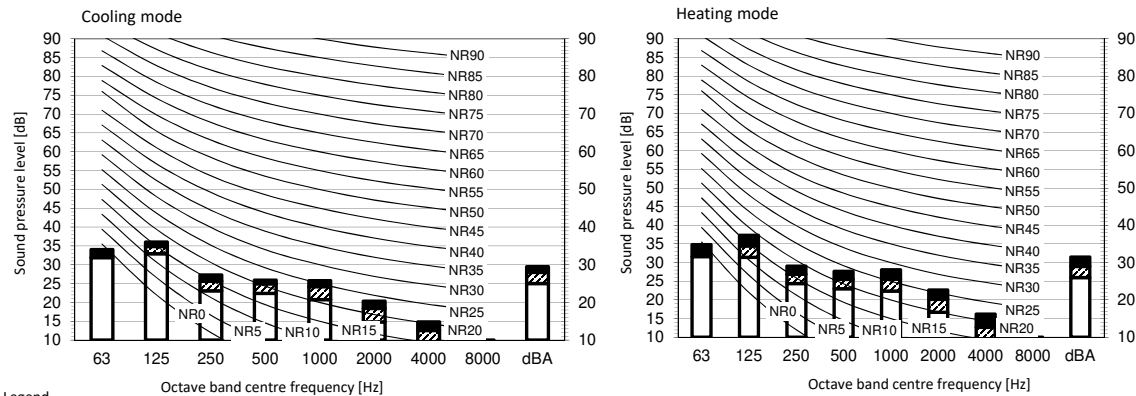
1. dBA = A-weighted sound power level (A scale according to IEC).
2. Reference acoustic intensity 0dB = 10^{-6} W/m².
3. Measured according to ISO 3744

3D100610B

11 Sound data

11 - 2 Sound Pressure Spectrum

FXSA15A



Cooling Total dB

A	B	C	D
dBA	29,5	28,0	25,0

Heating Total dB

A	B	C	D
dBA	31,5	29,0	26,0

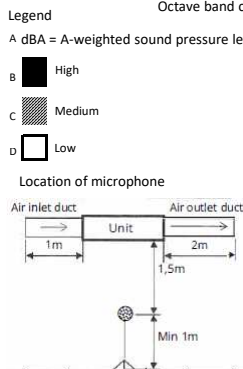
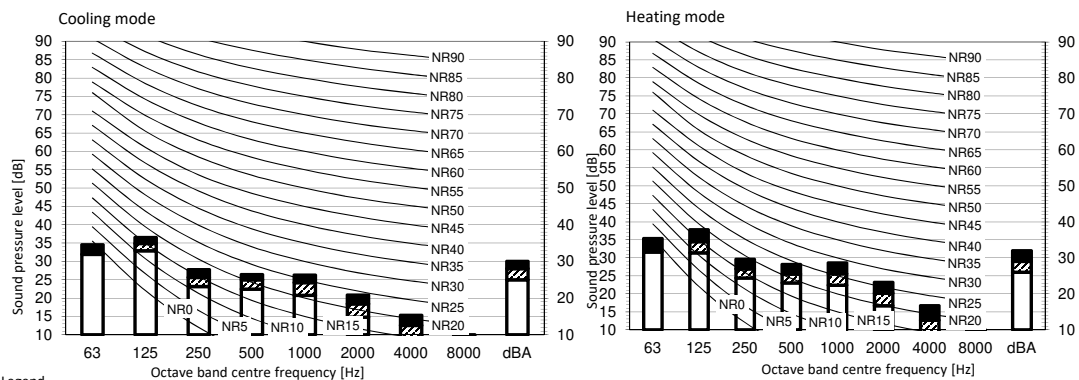
Notes

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

3D095568B

FXSA20A

FXSA25A



Cooling Total dB

A	B	C	D
dBA	30,0	28,0	25,0

Heating Total dB

A	B	C	D
dBA	32,0	29,0	26,0

Notes

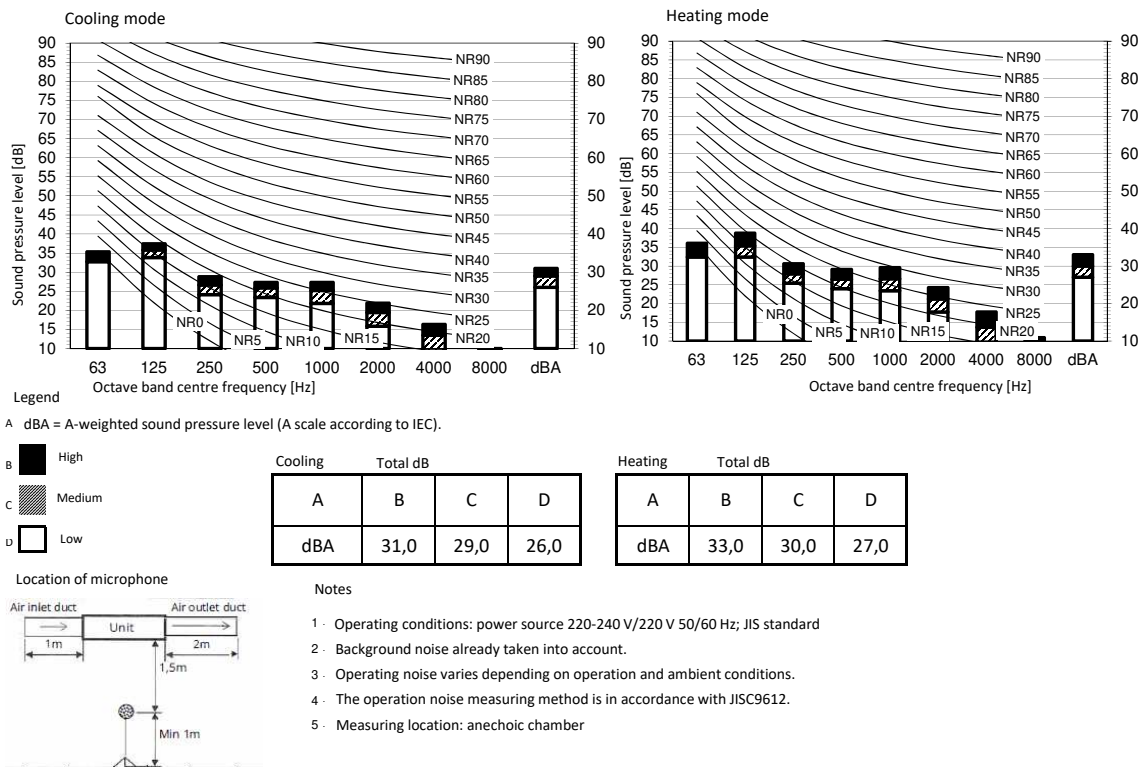
1. Operating conditions: power source 220-240 V/220 V 50/60 Hz; JIS standard
2. Background noise already taken into account.
3. Operating noise varies depending on operation and ambient conditions.
4. The operation noise measuring method is in accordance with JISC9612.
5. Measuring location: anechoic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

3D095569B

11 Sound data

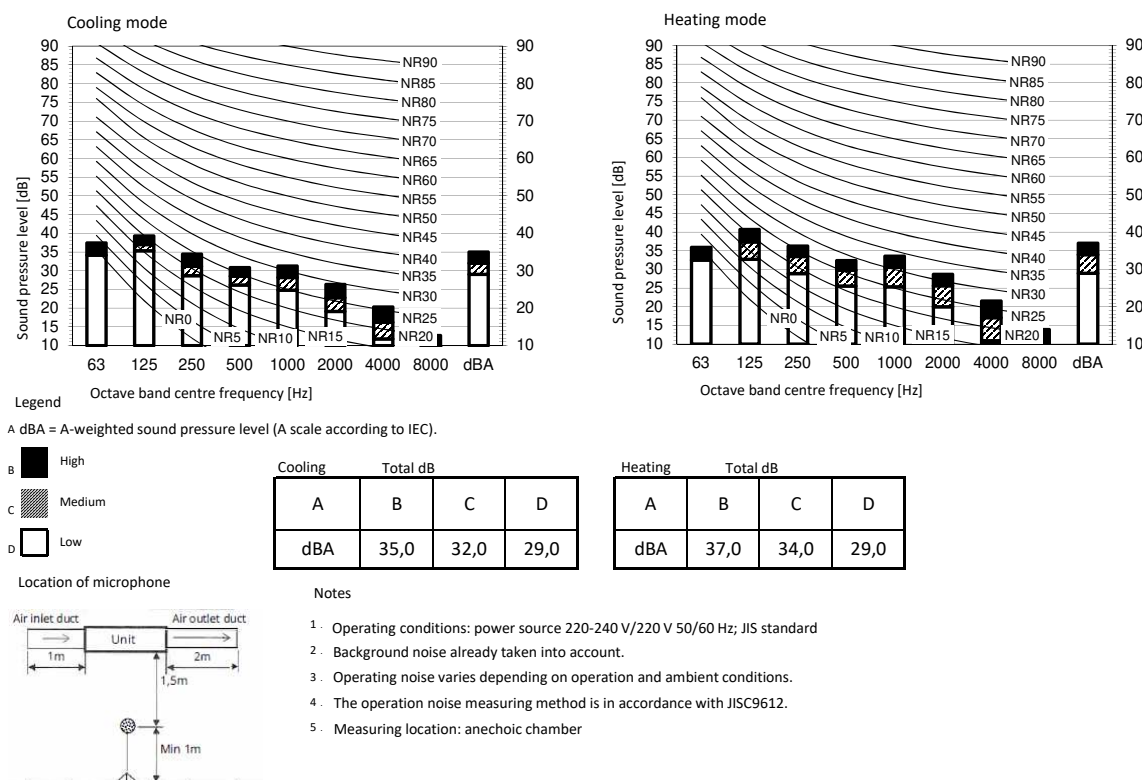
11 - 2 Sound Pressure Spectrum

FXSA32A



3D095570B

FXSA40A FXSA50A



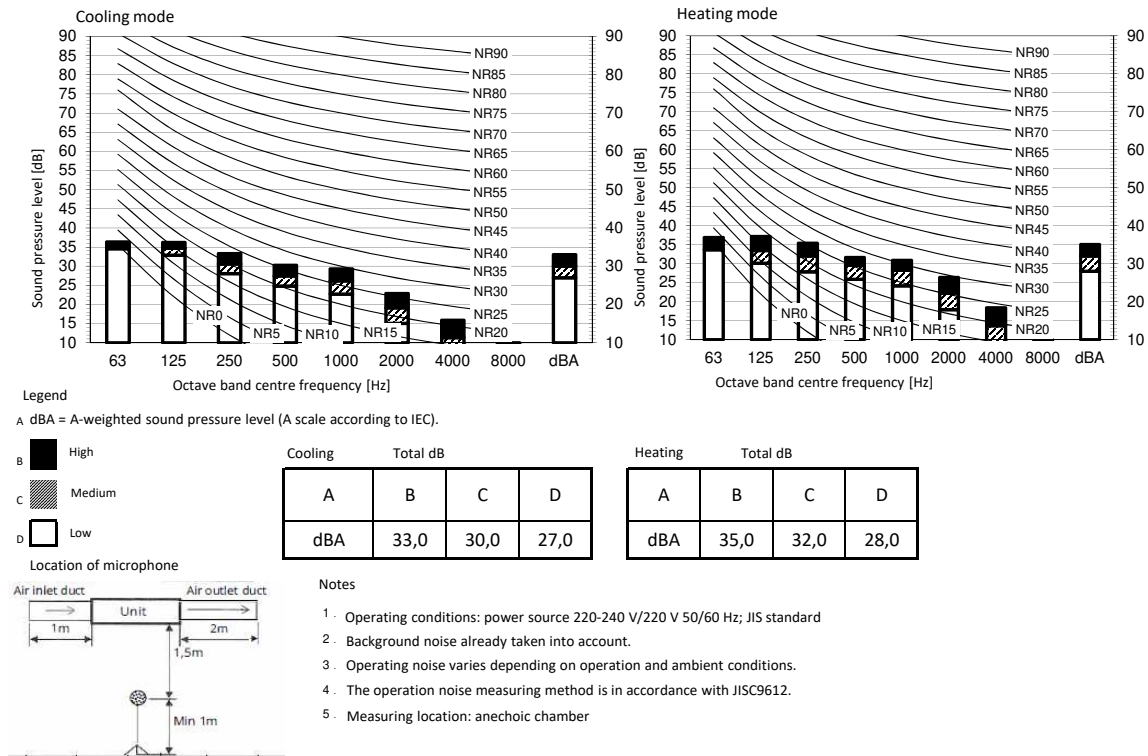
3D095575B

11 Sound data

11 - 2 Sound Pressure Spectrum

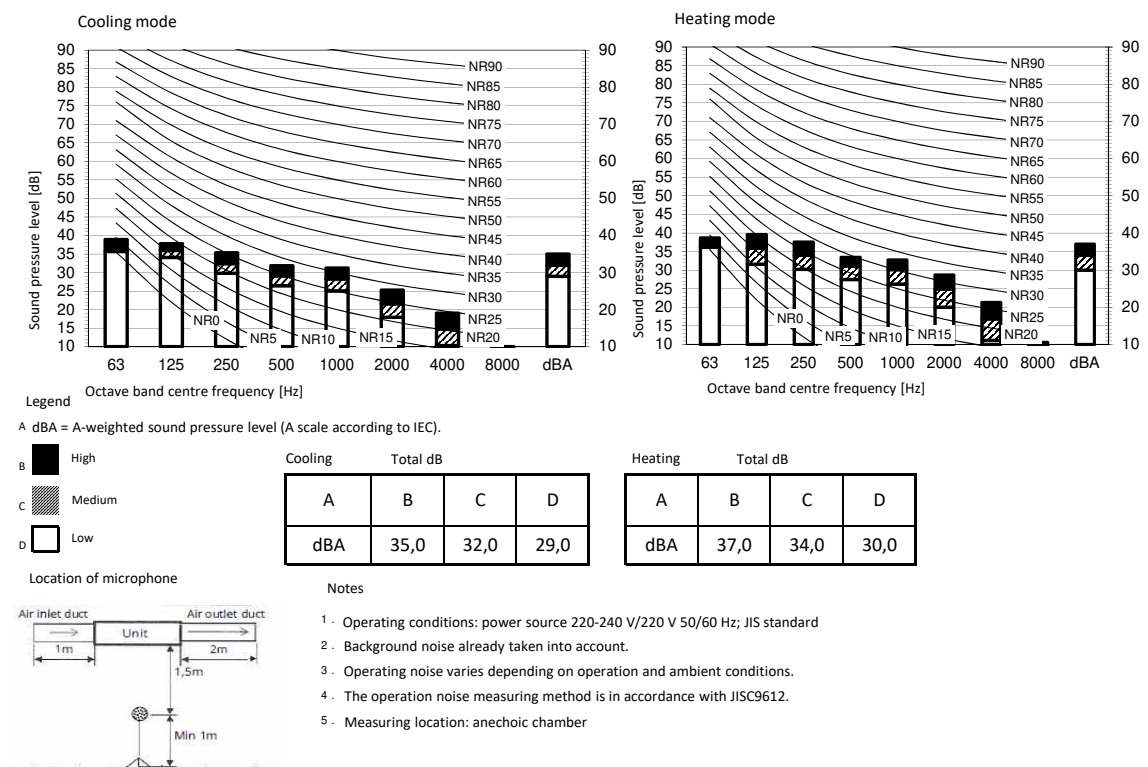
11

FXSA63A



3D095571B

FXSA80A

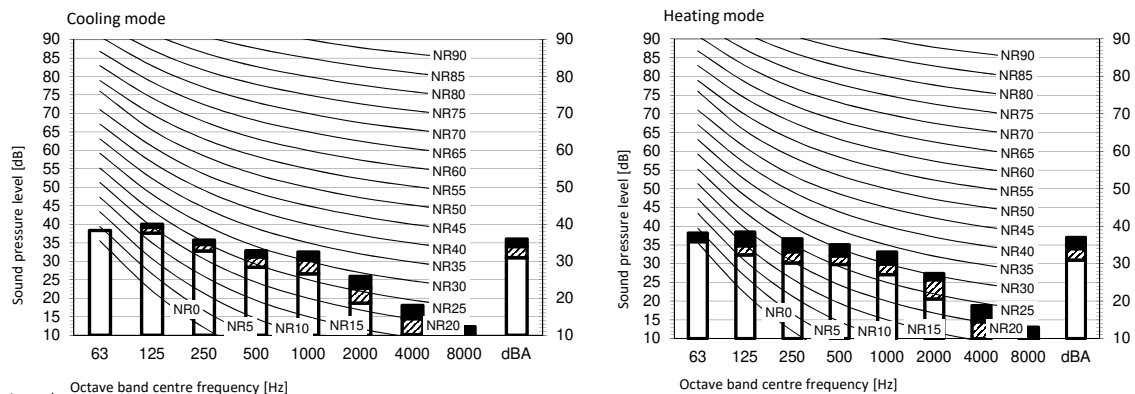


3D095572B

11 Sound data

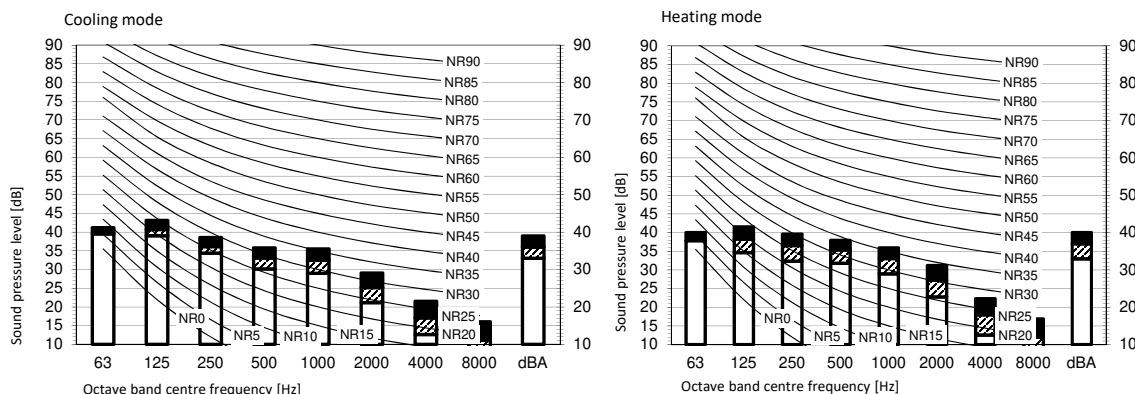
11 - 2 Sound Pressure Spectrum

FXSA100A



3D095573B

FXSA125A

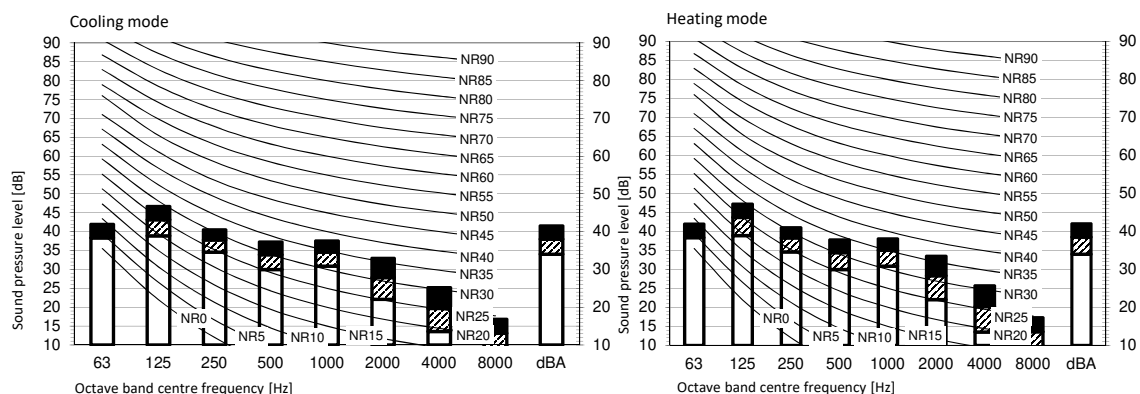


3D095574B

11 Sound data

11 - 2 Sound Pressure Spectrum

FXSA140A



Cooling Total dB			
A	B	C	D
dBA	41,5	38,0	34,0

Heating Total dB			
A	B	C	D
dBA	42,0	38,5	34,0

Notes

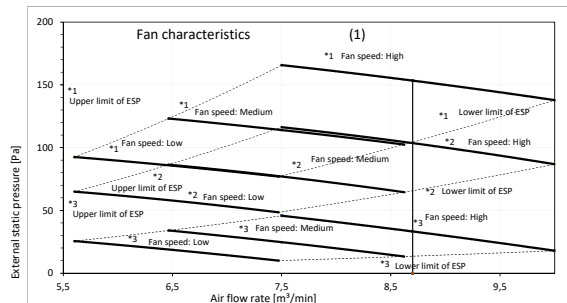
1. Operating conditions: power source 220-240 V/220 V 50/60 Hz; JIS standard
2. Background noise already taken into account.
3. Operating noise varies depending on operation and ambient conditions.
4. The operation noise measuring method is in accordance with JISC9612.
5. Measuring location: anechoic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

3D096622B

12 Fan characteristics

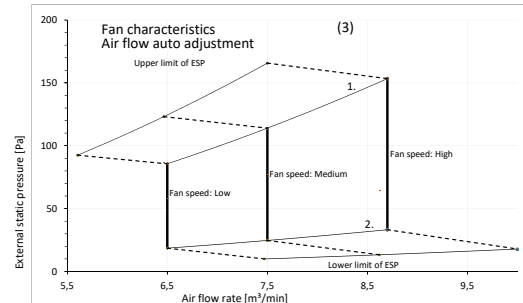
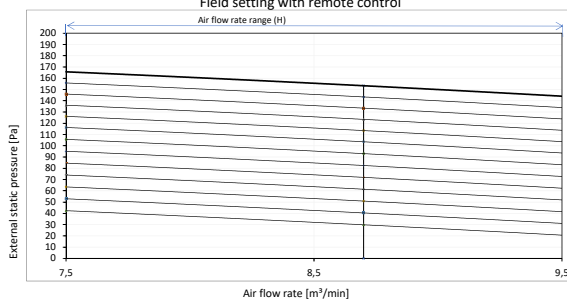
12 - 1 Fan Characteristics

FXSA15A



Mark	ESP [Pa]
*1	Maximum 150
*2	Standard 100
*3	Standard 30

Fan characteristics (2) Field setting with remote control



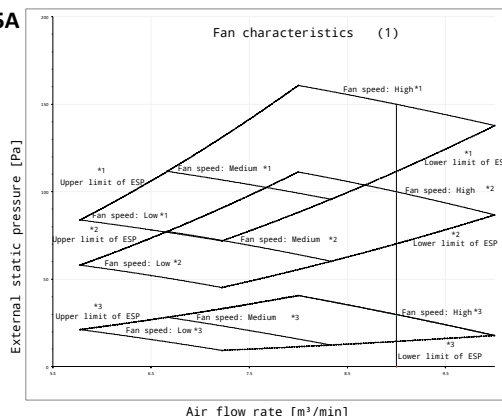
1. Upper limit of ESP by air flow auto adjustment
2. Lower limit of ESP by air flow auto adjustment

- Notes
1. The fan characteristics shown are in "fan only" mode.
 2. ESP: External Static Pressure

3D096999B

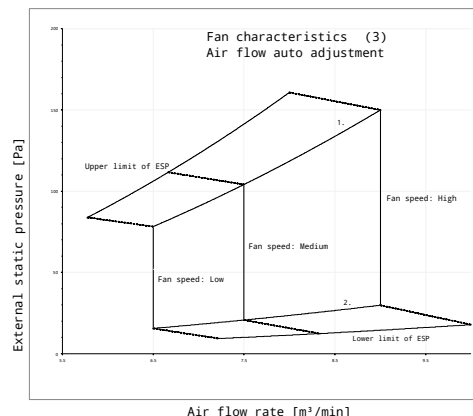
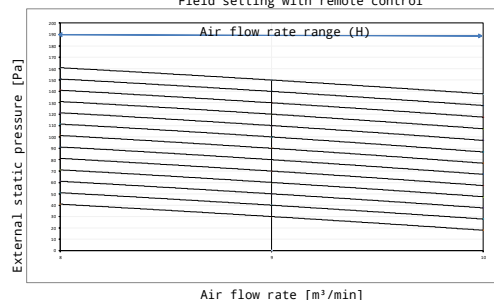
FXSA20A

FXSA25A



Mark	ESP [Pa]
*1	Maximum 150
*2	- 100
*3	Standard 30

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

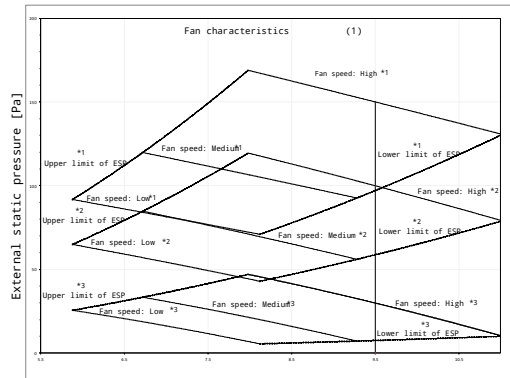
- Notes
1. The fan characteristics shown are in "fan only" mode.
 2. ESP: External Static Pressure

3D095680B

12 Fan characteristics

12 - 1 Fan Characteristics

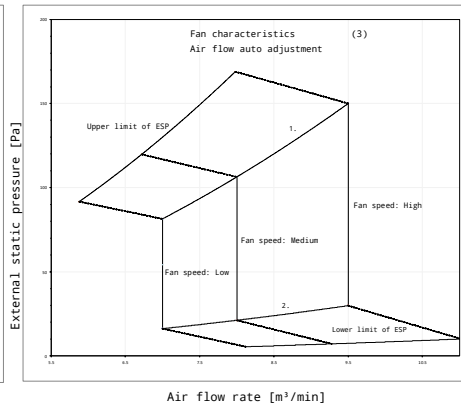
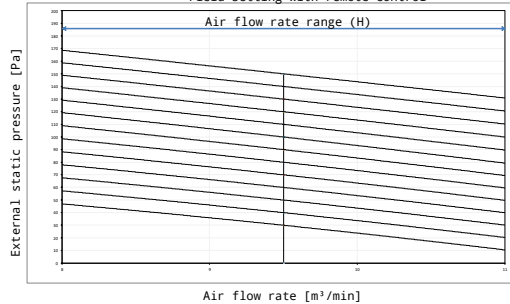
FXSA32A



Mark	ESP [Pa]
*1 Maximum	150
*2 -	100
*3 Standard	30

Air flow rate [m³/min]

Fan characteristics (2)
Field setting with remote control



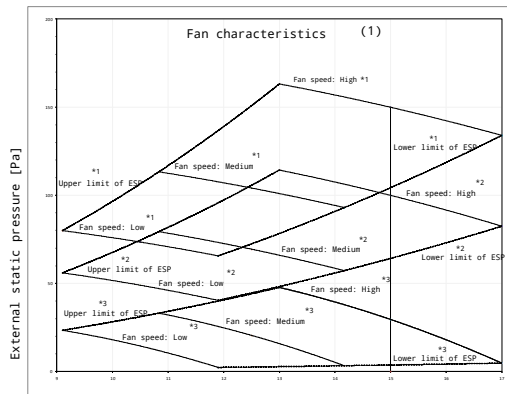
1. Upper limit of ESP by air flow auto adjustment
2. Lower limit of ESP by air flow auto adjustment

Notes

- 1.The fan characteristics shown are in "fan only" mode.
- 2.ESP: External Static Pressure

3D095681B

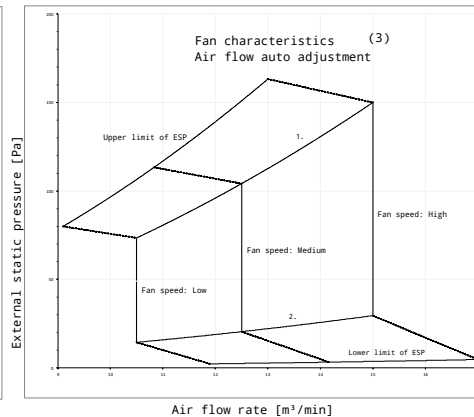
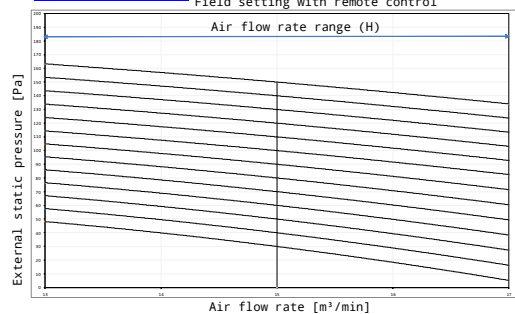
FXSA40A



Mark	ESP [Pa]
*1 Maximum	150
*2 -	100
*3 Standard	30

Air flow rate [m³/min]

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

Notes

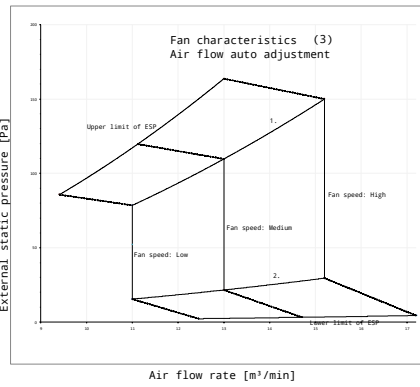
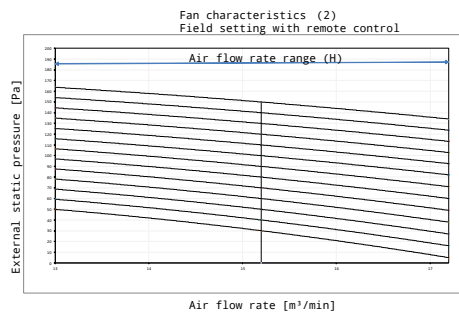
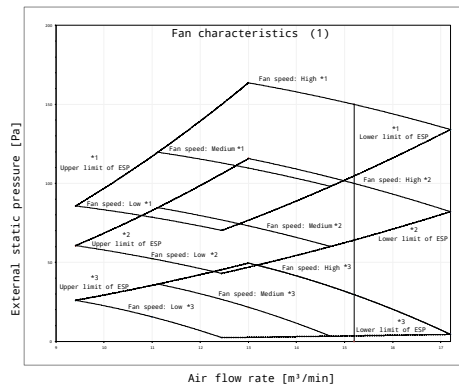
- 1.The fan characteristics shown are in "fan only" mode.
- 2.ESP: External Static Pressure

3D095682B

12 Fan characteristics

12 - 1 Fan Characteristics

FXSA50A



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

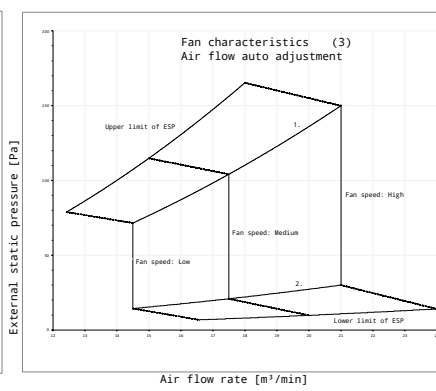
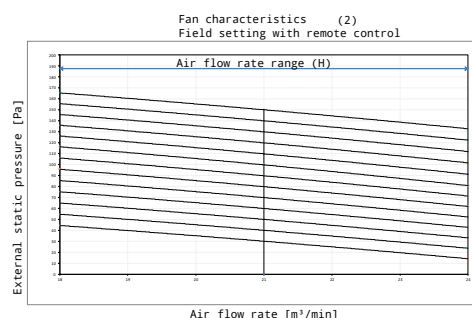
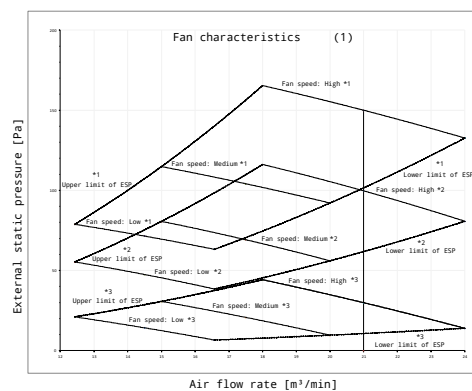
Mark		ESP [Pa]
*1	Maximum	150
*2	-	100
*3	Standard	30

Notes

- 1.The fan characteristics shown are in "fan only" mode.
- 2.ESP: External Static Pressure

3D095688B

FXSA63A



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

Mark		ESP [Pa]
*1	Maximum	150
*2	-	100
*3	Standard	30

Notes

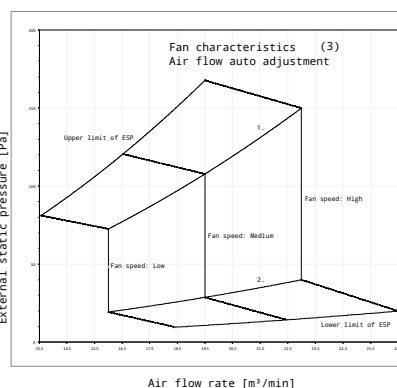
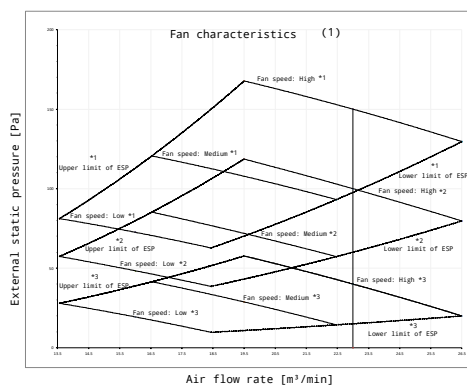
- 1.The fan characteristics shown are in "fan only" mode.
- 2.ESP: External Static Pressure

3D095690B

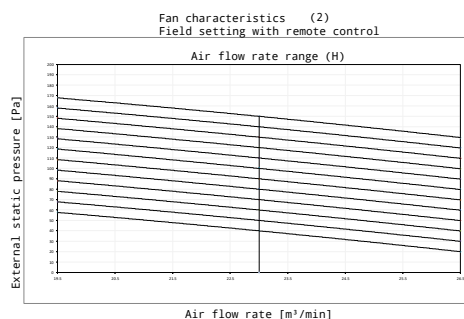
12 Fan characteristics

12 - 1 Fan Characteristics

FXSA80A



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



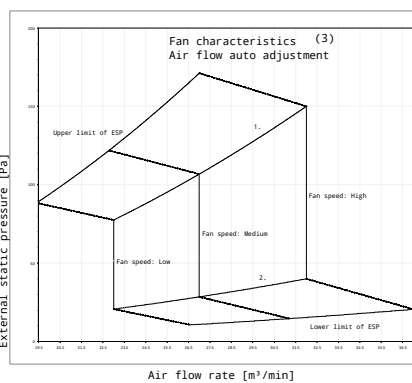
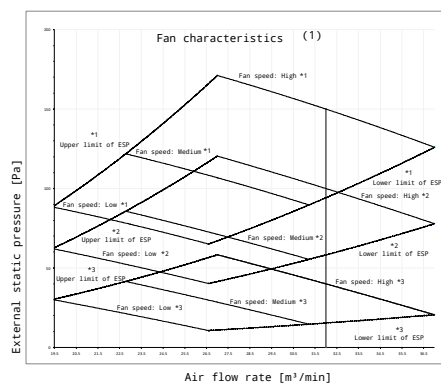
Mark		ESP [Pa]
*1	Maximum	150
*2	-	100
*3	Standard	40

Notes

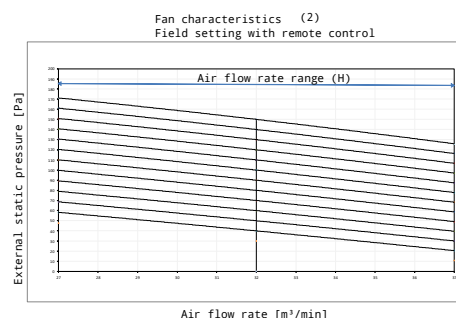
- 1.The fan characteristics shown are in "fan only" mode.
- 2.ESP: External Static Pressure

3D095692B

FXSA100A



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



Mark		ESP [Pa]
*1	Maximum	150
*2	-	100
*3	Standard	40

Notes

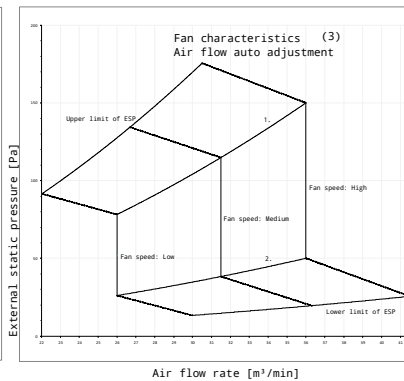
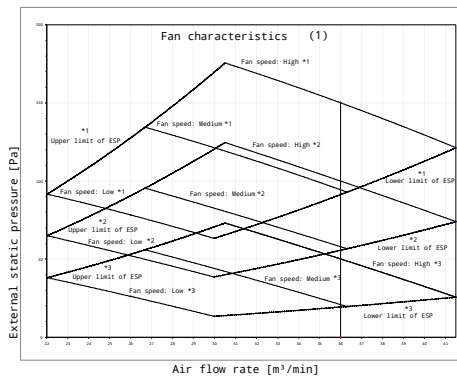
- 1.The fan characteristics shown are in "fan only" mode.
- 2.ESP: External Static Pressure

3D095696B

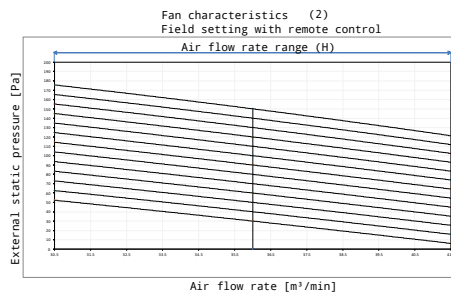
12 Fan characteristics

12 - 1 Fan Characteristics

FXSA125A



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



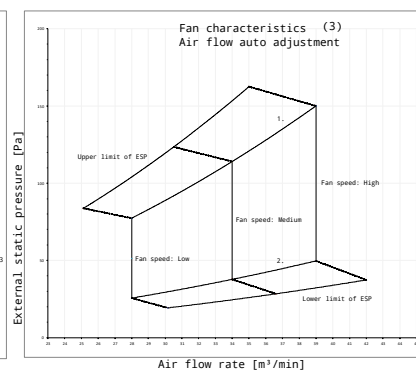
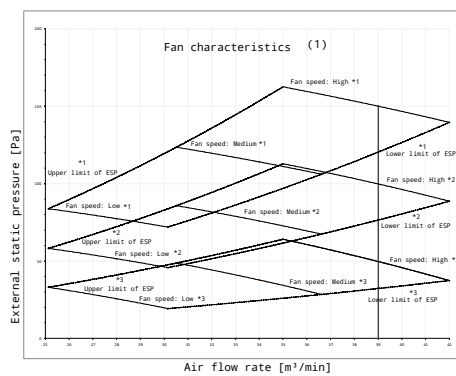
Mark		ESP [Pa]
*1	Maximum	150
*2	-	100
*3	Standard	50

Notes

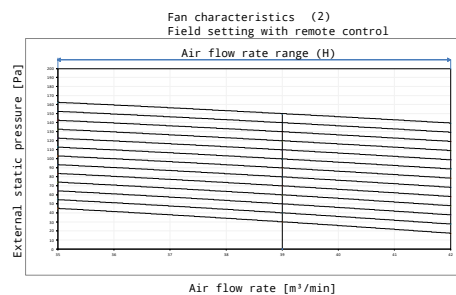
- 1.The fan characteristics shown are in "fan only" mode.
2.ESP: External Static Pressure

3D095697B

FXSA140A



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



Mark		ESP [Pa]
*1	Maximum	150
*2	-	100
*3	Standard	50

Notes

- 1.The fan characteristics shown are in "fan only" mode.
2.ESP: External Static Pressure

3D096688B

13 Installation

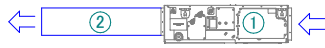
13 - 1 Installation Method

13

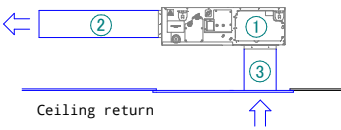
FXSA-A

Installation methods

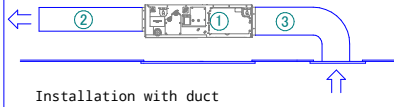
Rear suction



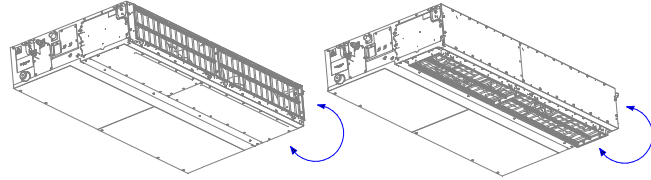
Bottom suction



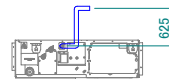
Rear suction



Installation with duct



Easy modification from rear suction to bottom suction



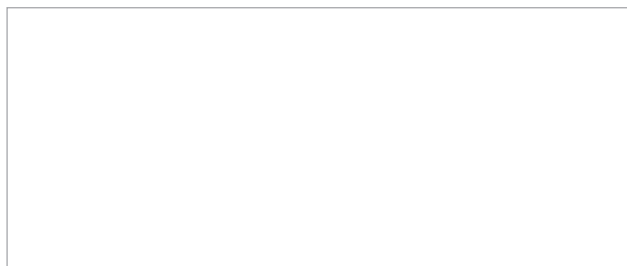
Height of drain pump outlet pipe

Number	Description	
①	Indoor unit	
②	Air outlet duct	Field supply
③	Air inlet duct	Field supply

Notes

1.For more information, refer to the installation manual.

3D129434



EEDEN22

02/2022



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