

technical data



FHQ-BVV1B
Wall Mounted Unit

air conditioning systems

Split
Sky Air

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FHQ-BVV1B

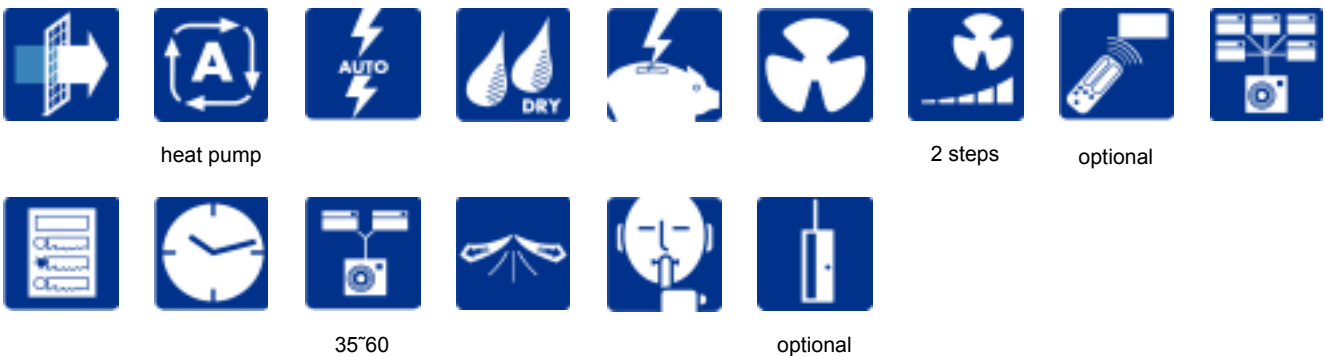
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1 Features

- Slim unit with super silent and greater air flow
- Ideal for shops, restaurants or offices requiring maximum floor space for furniture, decorations and fittings
- Can be installed in both new and existing buildings.
- Compact casing (only 960 to 1,590mm width).
- Extremely quiet in operation
- Auto-swing function ensures efficient air and temperature distribution.
- Air flow distribution for ceiling heights up to 3.8m without loss of capacity.
- Up to 4 indoor units can be connected to 1 Multi outdoor unit. All indoor units are individually controllable with remote control and do not need to be installed in the same room or at the same time. They operate simultaneously within the same cooling operation
- Daikin remote controls give you easy control at your fingertips.
- The wired remote control provides you with a schedule timer, enabling to program the air conditioning daily or weekly.
- The optional remote ON/OFF enables you to start/stop the air conditioning from a mobile phone via a telephone remote control (field supply).
- The optional forced OFF enables you to switch off the unit automatically. E.g. when a window is opened, the unit switches off.
- The 'home leave' operation button prevents large temperature differences by continuously operating at a minimum (heating mode) or maximum (cooling mode) preset level while you're out or sleeping. It also allows the indoor temperature to return quickly to your favourite comfort level.



1



2 Specifications

2-1 FOR INDOOR UNITS ONLY			FHQ35BVV1B	FHQ50BVV1B	FHQ60BVV1B	FHQ71BVV1B	FHQ100BVV1B	FHQ125BVV1B
Nominal Input	Cooling	kW	0.111	0.111	0.115	0.117	0.135	0.144

2-2 TECHNICAL SPECIFICATIONS				FHQ35BVV1B	FHQ50BVV1B	FHQ60BVV1B	FHQ71BVV1B	FHQ100BVV1B	FHQ125BVV1B	
Casing	Colour			White						
Dimensions	Packing	Height	mm	279	279	279	279	275	275	
		Width	mm	1046	1046	1246	1246	1486	1676	
		Depth	mm	818	818	818	818	818	818	
	Unit	Height	mm	195	195	195	195	195	195	
		Width	mm	960	960	1160	1160	1400	1590	
		Depth	mm	680	680	680	680	680	680	
Weight	Unit		kg	24.0	25.0	27.0	27.0	32.0	35.0	
	Packed Unit		kg	31.0	32.0	35.0	35.0	41.0	45.0	
Heat Exchanger	Dimensions	Length	mm	722	722	922	922	1162	1352	
		Nr of Rows			2	3	2	3	3	3
		Fin Pitch	mm	1.75	1.75	1.75	1.75	1.75	1.75	
		Nr of Passes			6	6	6	6	11	11
		Face Area	m ²	0.182	0.182	0.233	0.233	0.293	0.341	
		Nr of Stages			12	12	12	12	12	12
	Empty Tubeplate Hole				2					
	Tube type		N-Hix							
Fin		Type ML fin (Multi louver)								
Fan	Type			Sirocco fan						
	Quantity			3	3	4	4	3	4	
Air Flow Rate	Cooling	High	m ³ /min	13.0	13.0	17.0	17.0	24.0	30.0	
		Low	m ³ /min	10.0	10.0	13.0	14.0	20.0	25.0	
	Heating	High	m ³ /min	13.0	13.0	16.0	17.0	24.0	30.0	
		Low	m ³ /min	10.0	10.0	13.0	14.0	20.0	25.0	
Fan	Motor	Quantity		1	1	1	1	1	1	
		Model		3D12K1AA1	3D12K1AA1	4D12K1AA1	4D12K1AA1	3D12K2AA1	4D12K2AA1	
		Number of steps		2	2	2	2	2	2	
		Output (high)	W	62	62	62	62	130	130	
Cooling	Sound Power	High	dBA	53.0	54.0	55.0	55.0	58.0	60.0	
		Low	dBA	48.0	49.0	49.0	51.0	53.0	55.0	
	Sound Pressure	High	dBA	37.0	38.0	39.0	39.0	42.0	44.0	
		Low	dBA	32.0	33.0	33.0	35.0	37.0	39.0	
Heating	Sound Power	High	dBA	53.0	54.0	55.0	55.0	58.0	60.0	
		Low	dBA	48.0	49.0	49.0	51.0	53.0	55.0	
	Sound Pressure	High	dBA	37.0	38.0	39.0	39.0	42.0	44.0	
		Low	dBA	32.0	33.0	33.0	35.0	37.0	39.0	
Refrigerant	Type			R-410A						
Piping connections	Liquid (OD)	Type		Flare connection						
		Diameter (OD)	mm	6.4	6.4	6.4	9.5	9.5	9.5	
	Gas	Type		Flare connection						
		Diameter (OD)	mm	9.5	12.7	12.7	15.9	15.9	15.9	
	Drain	Diameter (OD)	mm	VP20 (I.D. 20/O.D. 26)						
Heat Insulation			Foamed polystyrene/polyethylene							
Safety Devices				Fuse	Fuse	Fuse				
				Fan motor thermal protector						

2 Specifications

2-2 TECHNICAL SPECIFICATIONS		FHQ35BVV1B	FHQ50BVV1B	FHQ60BVV1B	FHQ71BVV1B	FHQ100BVV1B	FHQ125BVV1B
Standard Accessories	Item	Installation and operation manual					
	Quantity	1	1	1	1	1	1
	Item	Paper pattern for installation					
		Drain hose					
		Clamp metal					
		Insulation for fitting					
		Sealing pad					
		Clamps					
Washer for hanger bracket							

2-3 ELECTRICAL SPECIFICATIONS		FHQ35BVV1B	FHQ50BVV1B	FHQ60BVV1B	FHQ71BVV1B	FHQ100BVV1B	FHQ125BVV1B
Power Supply	Name	V1					
	Phase	1	1	1	1	1	1
	Frequency	Hz	50	50	50	50	50
	Voltage	V	220-240				
Power Supply Intake		Outdoor unit only					

3 Safety device settings

FHQ35~60B				
Model	Safety devices	35	50	60
FHQ-B	Fuse	250V 5A	250V 5A	250V 5A
	Fan motor thermal protector (°C)	Off: 130 ±5 On: 83 ±20	Off: 130 ±5 On: 83 ±20	Off: 130 ±5 On: 83 ±20
				3D006611M

4 Options

FHQ35~60B

Name of option		FHQ~B		
		35	50	60
Replacement long-life filter		KAFJ501DA56		KAFJ501DA80
Drain up kit		KDU50N60VE		
L-type piping kit (for upward direction)		KHFP5MA35	KHFP5MA63	
Remote control	Wired type	BRC1D528		
	Infrared type	Heat pump	BRC7EA63W	
		Cooling only	BRC7EA66	
Central remote control		DCS302CA51		
Unified ON/OFF control		DCS301BA51		
Schedule timer		DST301BA51		
Adapter for wiring		KRP1BA54		
Wiring adapter (hour meter)		EKR1B2A		
Adaptor for external ON/OFF and monitoring ※1		KRP4AA52		
Interface adapter for Sky Air series		DTA112BA51		
Installation box for adapter PCB		KRP1CA93		
Remote ON/OFF, forced OFF		EKROROA		

3D038056

Note ※1: Installation box for adapter PCB (KRP1CA93) is necessary.

4 Options

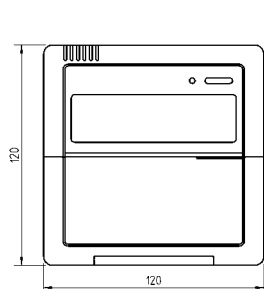
Name of option	Remark		FHQ-B		
			71	100	125
Replacement long-life filter			KAF501DA80	KAF501DA112	KAF501DA160
Drain up kit			KDU50N125VE		
L-type piping kit (for upward direction)			KHP5MA160		
Remote control	Wired type		BRC1D528		
	Infrared type	For Heat pump	BRC7EA63W		
		For cooling only	BRC7EA66		
Central remote control			DCS302CA51		
Unified ON/OFF control			DCS301BA51		
Schedule timer			DST301BA51		
Adapter for wiring			KRP1BA54		
Wiring adapter for electrical appendices *1			KRP4AA52		
Interface adapter for Sky Air series			DTA112BA51		
Installation box for adapter PCB			KRP1CA93		
Remote sensor			KRCS01-1A		
Connector for forced on, forced off			EKROROA		
Electrical box with earth terminal (3 blocks)			KJB311AA		
Electrical box with earth terminal (2 blocks)			KJB212AA		

NOTE: *1: Installation box for adapter PCB (KRP1CA93) is necessary

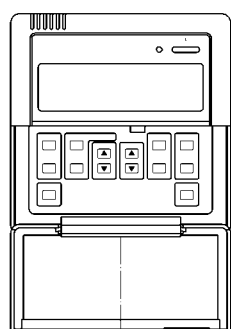
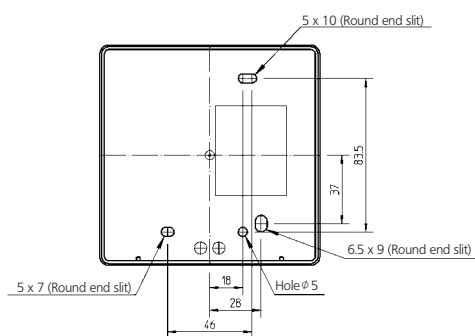
3D044485B

5 Control systems

BRC1D52



Cover closed



Cover open

3TW23651-2

6 Dimensional drawing & centre of gravity

6 - 1 Dimensional drawing

FHQ35B

For height installation
780 From the floor side 2500 or more

Obstacle
Floor side

30 or more (Service space)

Hanging bolt
2-M8-M10

(Hanging position)

View from the front

30 or more (Service space)

Drain pipe connection
VP20
(For left piping)

Brand name plate
(Note 2)

Position slit hole for taking out in piping back
(View from the front)

Position: hole of wall for taking out in piping back
(View from the front)

- 1 Air discharge grille
- 2 Air suction grille
- 3 Air filter
- 4 Gas pipe connection ϕ 9.5 flare
- 5 Liquid pipe connection ϕ 6.4 flare
- 6 Drain pipe connection VP20
- 7 Earth terminal (inside the electric components box) M4
- 8 Suspension bracket
- 9 Backward piping and wiring connection opening lid
- 10 Upward piping and wiring connection opening lid
- 11 Right side pipe connection - slit hole
- 12 Left back drain pipe connection - slit hole
- 13 Right side drain pipe connection - slit hole
- 14 Right side drain piping connection hole - slit hole
- 15 Hole of wall for taking out in piping back ϕ 100
- 16 Upward drain pipe connection ϕ 60
- 17 Upward gas pipe connection ϕ 36
- 18 Upward liquid pipe connection ϕ 26

Note:

1. Location of unit's name plate: bottom of fan housing inside the suction grille.
2. In case of using infrared remote control, this position will be a signal receiver. Refer to the drawing of infrared remote control in detail.
3. The remote control code is the standard (about 3m outside the machine) attached, (0.5 mm x 2 Wicks x O.D. ϕ 5.4)

3D037996A

FHQ50B

For height installation
780 From the floor side 2500 or more

Obstacle
Floor side

30 or more (Service space)

Hanging bolt
2-M8-M10

(Hanging position)

View from the front

30 or more (Service space)

Drain pipe connection
VP20
(For left piping)

Brand name plate
(Note 2)

Position slit hole for taking out in piping back
(View from the front)

Position: hole of wall for taking out in piping back
(View from the front)

- 1 Air discharge grille
- 2 Air suction grille
- 3 Air filter
- 4 Gas pipe connection ϕ 12.7 flare
- 5 Liquid pipe connection ϕ 6.4 flare
- 6 Drain pipe connection VP20
- 7 Earth terminal (inside the electric components box) M4
- 8 Suspension bracket
- 9 Backward piping and wiring connection opening lid
- 10 Upward piping and wiring connection opening lid
- 11 Right side pipe connection - slit hole
- 12 Left back drain pipe connection - slit hole
- 13 Right side drain pipe connection - slit hole
- 14 Right side drain piping connection hole - slit hole
- 15 Hole of wall for taking out in piping back ϕ 100
- 16 Upward drain pipe connection ϕ 60
- 17 Upward gas pipe connection ϕ 36
- 18 Upward liquid pipe connection ϕ 26

Note:

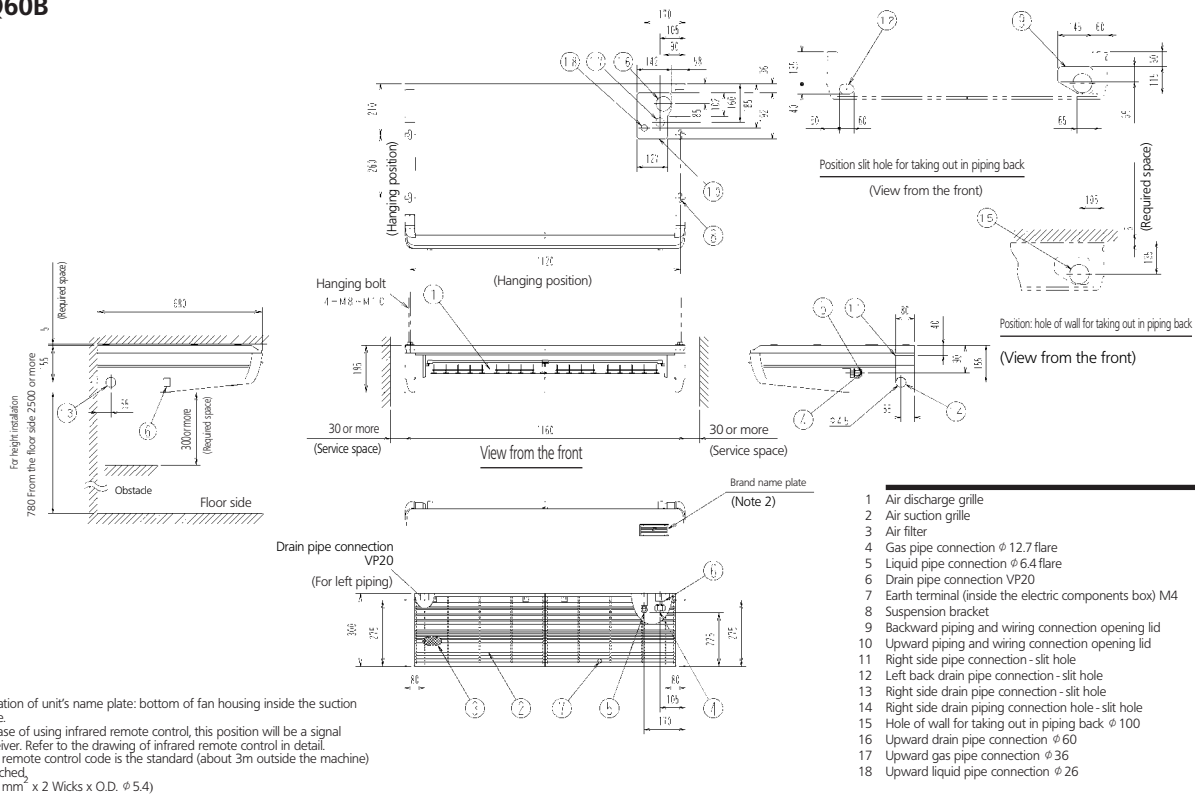
1. Location of unit's name plate: bottom of fan housing inside the suction grille.
2. In case of using infrared remote control, this position will be a signal receiver. Refer to the drawing of infrared remote control in detail.
3. The remote control code is the standard (about 3m outside the machine) attached, (0.5 mm x 2 Wicks x O.D. ϕ 5.4)

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6 Dimensional drawing & centre of gravity

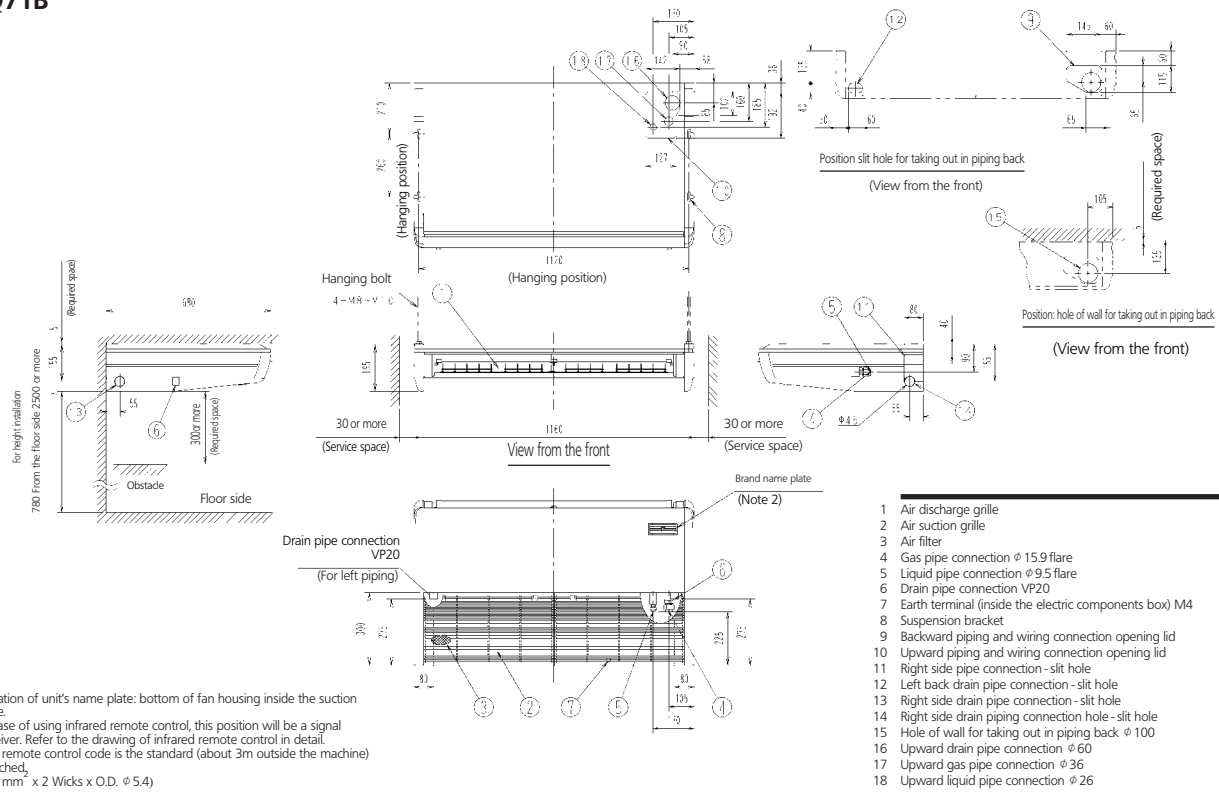
6 - 1 Dimensional drawing

FHQ60B



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FHQ71B

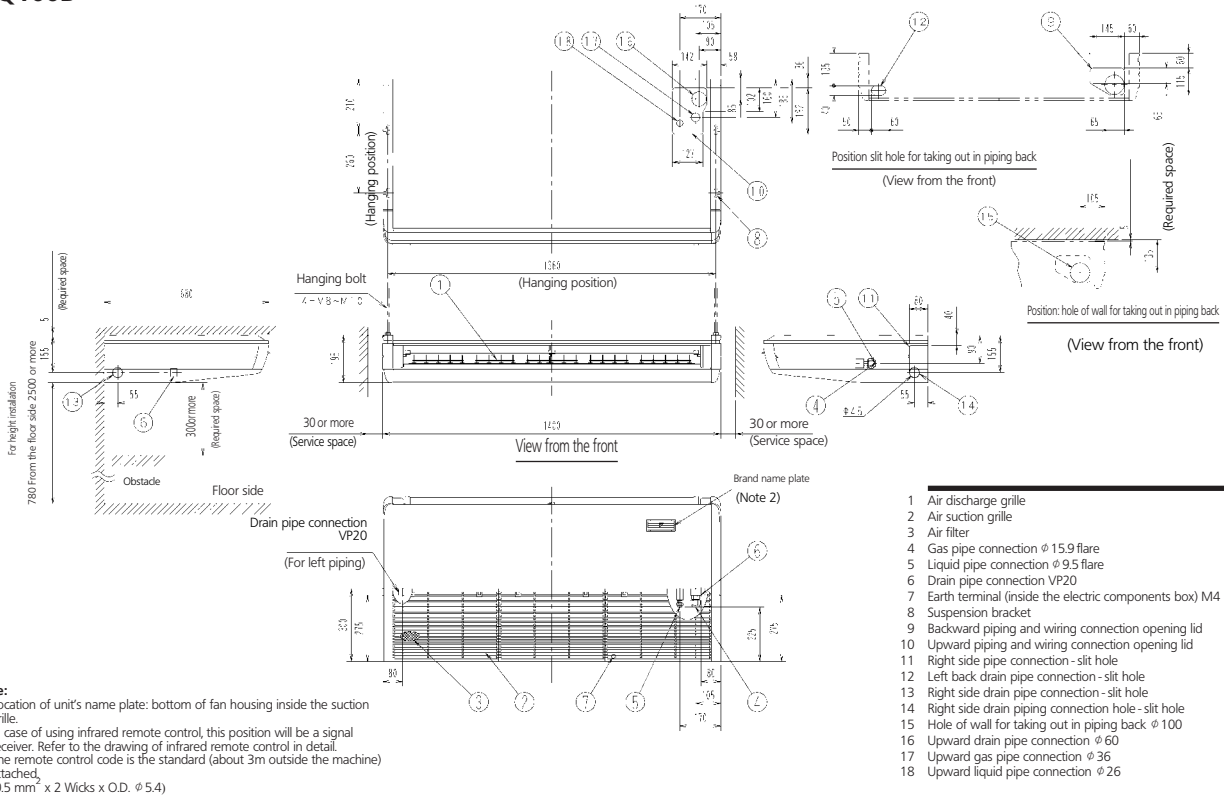


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6 Dimensional drawing & centre of gravity

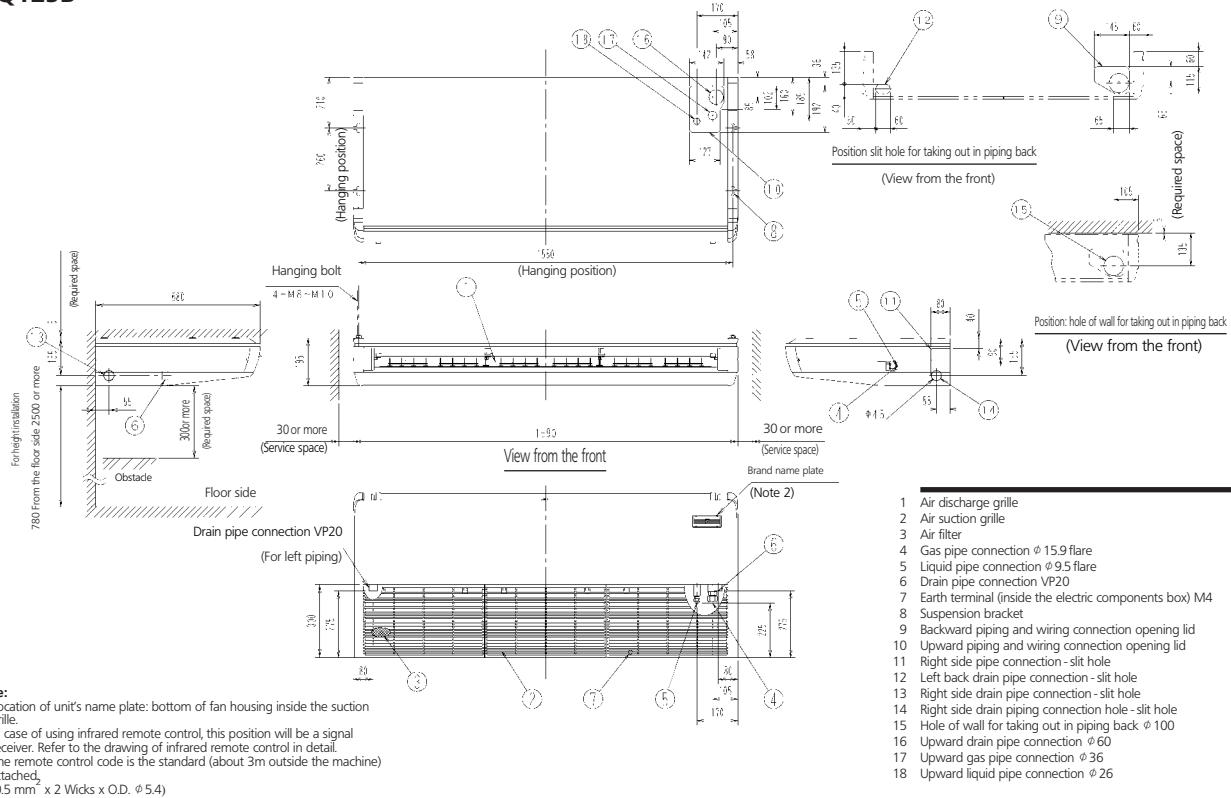
6 - 1 Dimensional drawing

FHQ100B



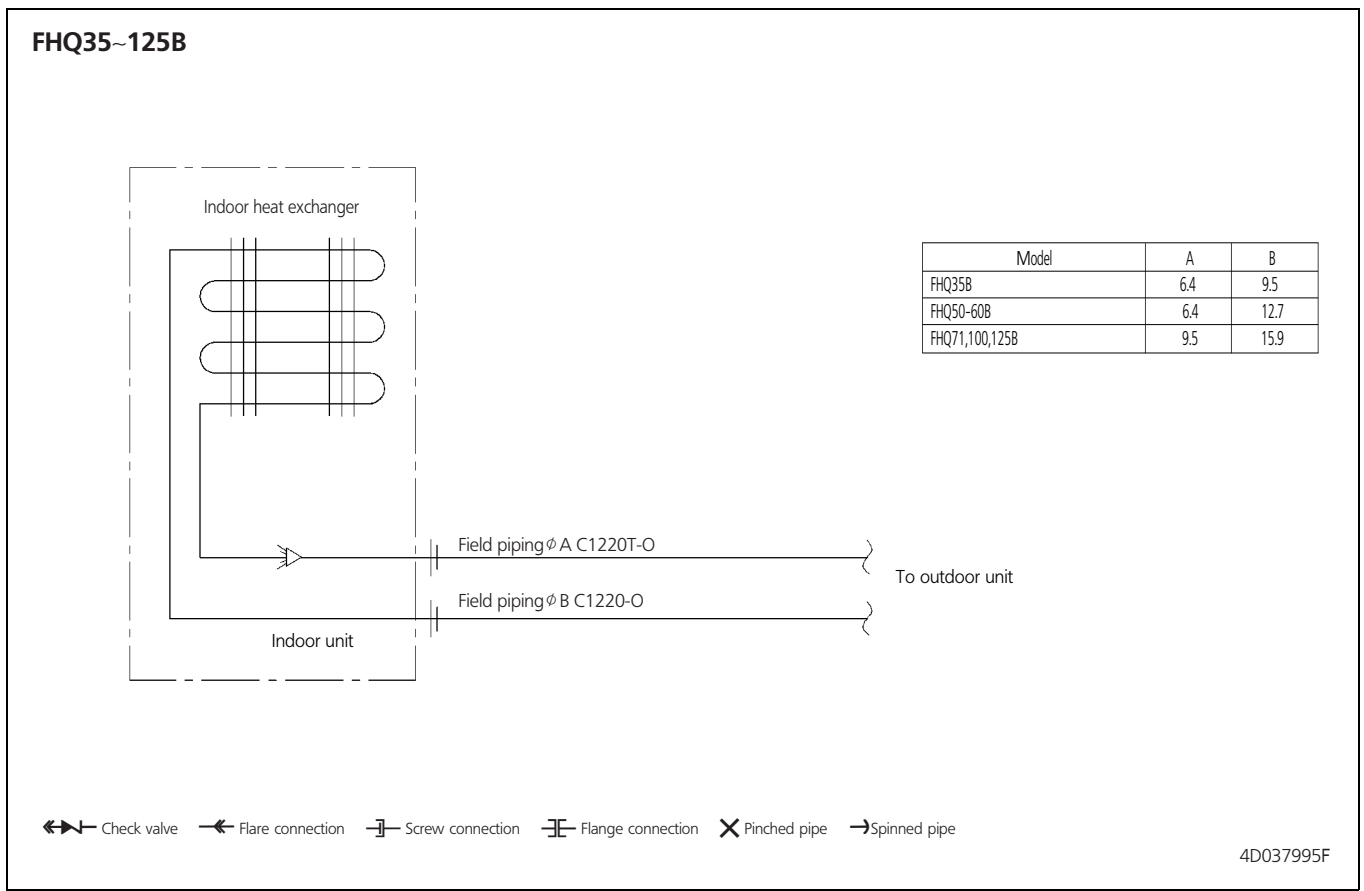
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FHQ125B



3D0448963B

7 Piping diagram



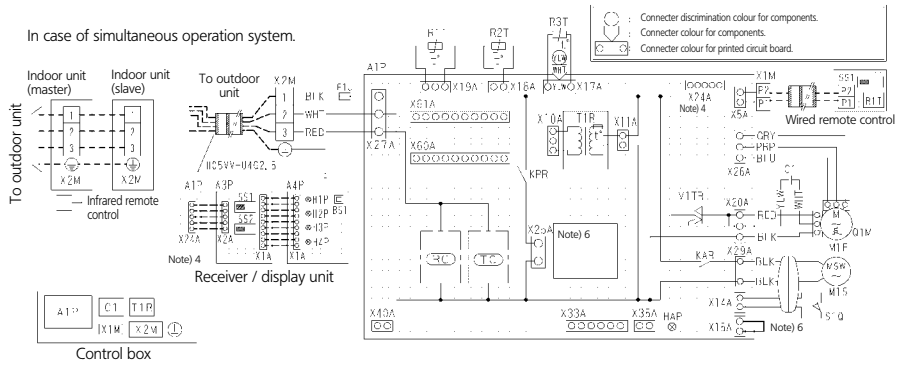
8 Wiring diagram

8 - 1 Wiring diagram

FHQ35~60B

Notes

- Terminal symbol: : Terminal : Connector
- : Protective earth (screw)
- : Field wiring
- In case using central remote control, connect it to the unit in accordance with the attached instruction manual.
- X24A is connected when the infrared remote control kit is being used.
- Remote control model varies according to the combination system, confirm technical materials and catalogs, etc. before connecting.
- In case installing the drain pump (M1P), remove the jumper connector of X15A and execute the additional wiring for float switch and drain pump.
- Symbols show as follows Red:red, Blk:black, Ylw:yellow, Org:orange, Gry:gray, Prp:purple, Blu:blue



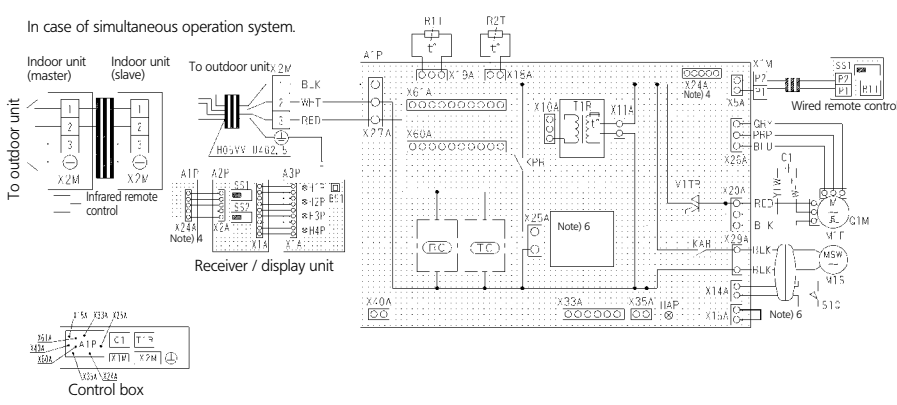
1-RED, 2-WHITE, 3-BLACK	S1Q Limit switch (swing flap)	Infrared remote control Receiver / display unit	Connector for optional parts
A1P Printed circuit board	T1R Transformer(220-240V/22V)	A3P Printed circuit board	X15A Connector (float switch)
C1R Capacitor (M1F)	V1TR Phase control circuit	A3P Printed circuit board	X25A Connector (drain pump)
F1U Fuse(F5A 250V)	X1M Terminal block	A4P Printed circuit board	X33A Connector (adapter for wiring)
HAP Light emitting diode (service monitor green)	X2M Terminal block	B51 Push button (on/off)	X35A Connector (group control adapter)
KAR Magnetic relay (M1S)	RC Signal receiver circuit	H1P Light emitting diode (service monitor red)	X40A Connector
KPR Magnetic relay (M1P)	TC Signal transmission circuit	H2P Light emitting diode (service monitor green)	X60A Connector (ON/OFF input from outside)
M1S Motor (swing flap)	Wired remote control	H3P Light emitting diode (service monitor red)	X61A Connector (interface adapter for sky air series)
M1F Motor (indoor fan)	RIT Thermistor (air)	H3P Light emitting diode (service monitor red)	
Q1M Thermo switch (MTF embedded)	SS1 Selector switch (main/sub)	H4P Light emitting diode (service monitor orange)	
R1T Thermistor (coil1)	SS2 Selector switch (wireless address set)		
R2T Thermistor (coil2)			

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FHQ71,100,125B

Notes

- Terminal symbol: : Terminal : Connector
- : Protective earth (screw)
- : Field wiring
- In case using central remote control, connect it to the unit in accordance with the attached instruction manual.
- X24A is connected when the infrared remote control kit is being used.
- Remote control model varies according to the combination system, confirm technical materials and catalogs, etc. before connecting.
- In case installing the drain pump (M1P), remove the jumper connector of X15A and execute the additional wiring for float switch and drain pump.
- Symbols show as follows Red:red, Blk:black, Ylw:yellow, Org:orange, Gry:gray, Prp:purple, Blu:blue





1-RED, 2-WHITE, 3-BLACK	S1Q Limit switch (swing flap)	Infrared remote control Receiver / display unit	Connector for optional parts
A1P Printed circuit board	T1R Transformer(220-240V/22V)	A2P Printed circuit board	X15A Connector (float switch)
C1R Capacitor (M1F)	V1TR Phase control circuit	A3P Printed circuit board	X25A Connector (drain pump)
HAP Light emitting diode (service monitor green)	X1M Terminal block	A3P Printed circuit board	X33A Connector (adapter for wiring)
KAR Magnetic relay (M1S)	X2M Terminal block	B51 Push button (on/off)	X35A Connector (group control adapter)
KPR Magnetic relay (M1P)	RC Signal receiver circuit	H1P Light emitting diode (service monitor red)	X40A Connector
M1S Motor (swing flap)	TC Signal transmission circuit	H2P Light emitting diode (service monitor green)	X60A Connector (ON/OFF input from outside)
M1F Motor (indoor fan)	Wired remote control	H3P Light emitting diode (service monitor red)	X61A Connector (interface adapter for sky air series)
Q1M Thermo switch (MTF embedded)	RIT Thermistor (air)	H3P Light emitting diode (service monitor red)	
R1T Thermistor (coil1)	SS1 Selector switch (main/sub)	H4P Light emitting diode (service monitor orange)	
R2T Thermistor (coil2)	SS2 Selector switch (wireless address set)		

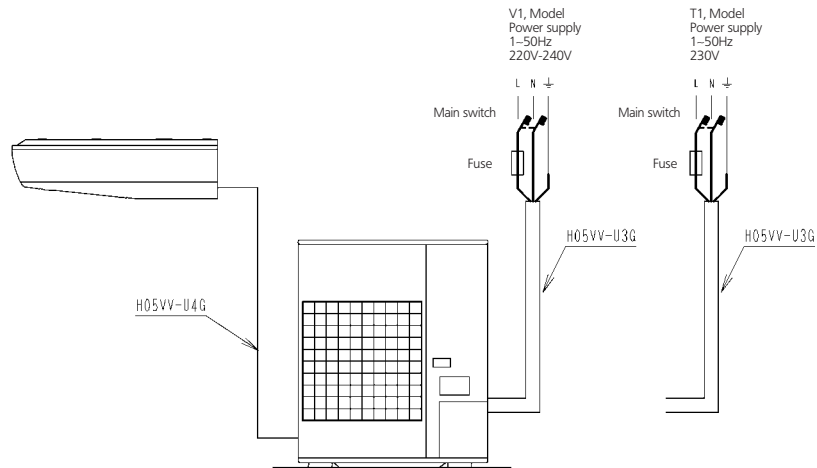
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8 Wiring diagram

8 - 2 External connection diagram

NOTES

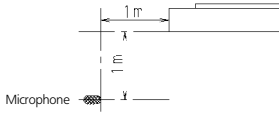
- 1  Line voltage wiring
 Control circuit wiring
- 2 All wiring, components and materials to be produced on the site must comply with the applicable local and national codes.
- 3 Use copper conductors only.
- 4 See wiring diagrams for details.
- 5 Install fuse and mainswitch for safety.
- 6 All field wiring and components must be provided by a licensed electrician.
- 7 The unit shall be grounded in compliance with the applicable local and national codes.
- 8 Wiring shown are general points-of-connection guides only and are not intended for or to include all details for a specific installation.
- 9 Never share a common power supply with other equipment.



4D044483

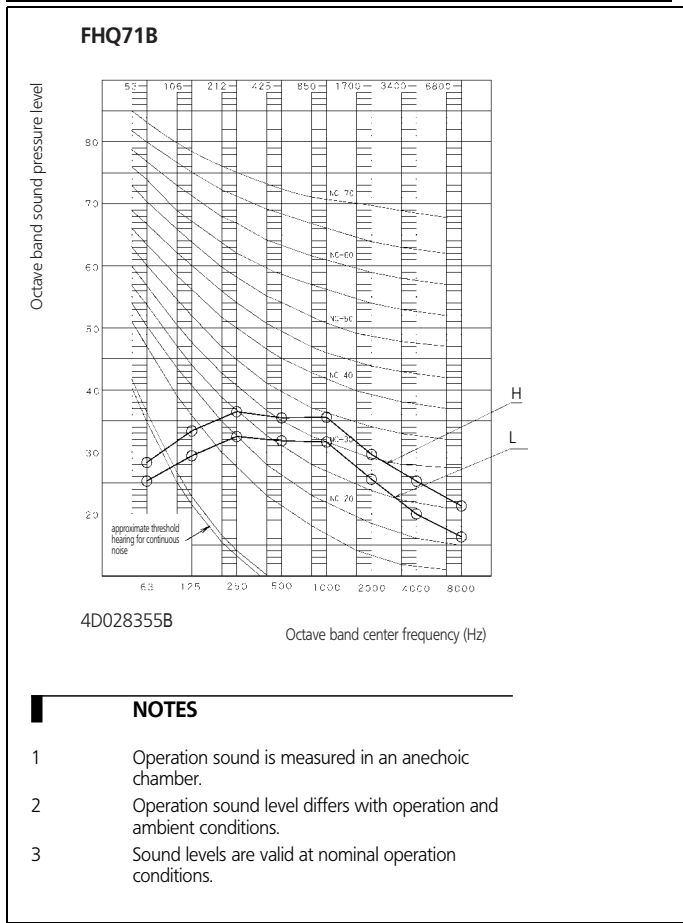
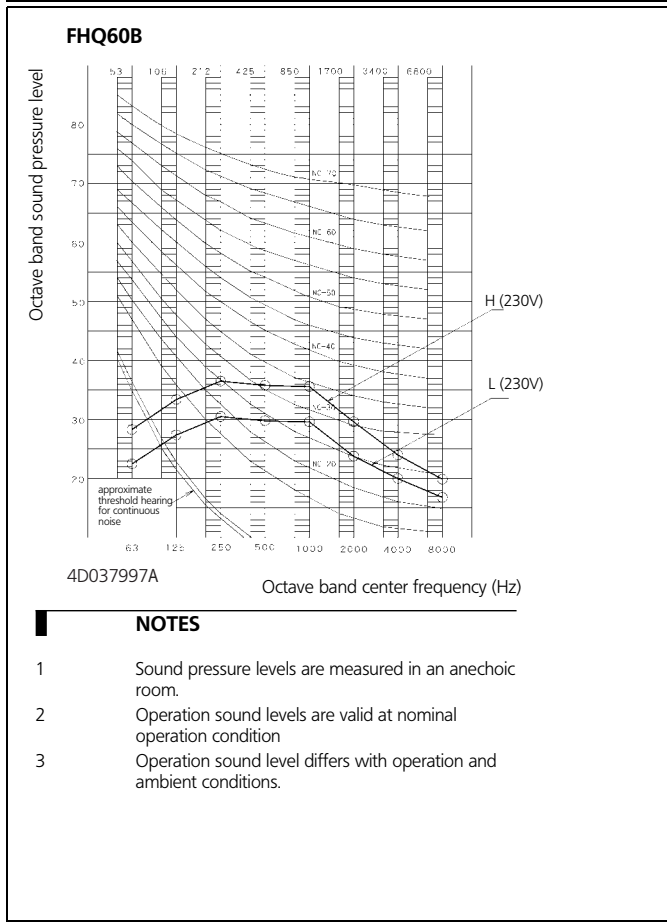
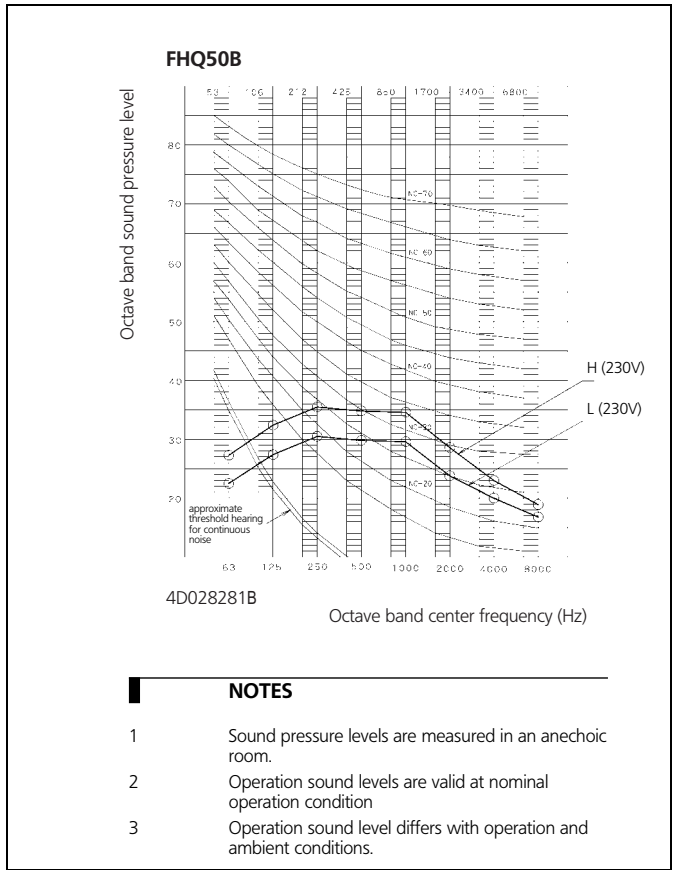
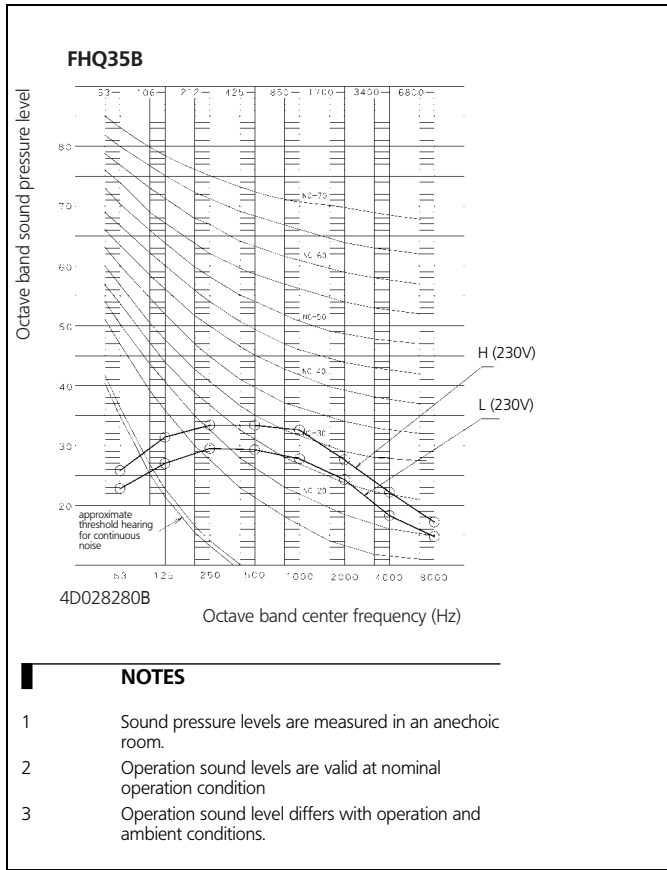
9 Sound data

9 - 1 Sound level data

Model	Sound pressure level		Measuring location Location of microphone 	Sound power level	
	230V			H (cooling/heating)	L (cooling/heating)
	50Hz				
	H (cooling/heating)	L (cooling/heating)		H (cooling/heating)	L (cooling/heating)
FHQ35B	37/37	32/32	53/53	48/48	
FHQ50B	38/38	33/33	54/54	49/49	
FHQ60B	39/-	33/-	55/-	49/-	
FHQ71B	39/39	35/35	55/55	51/51	
FHQ100B	42/42	37/37	58/58	53/53	
FHQ125B	44/44	39/39	60/60	55/55	

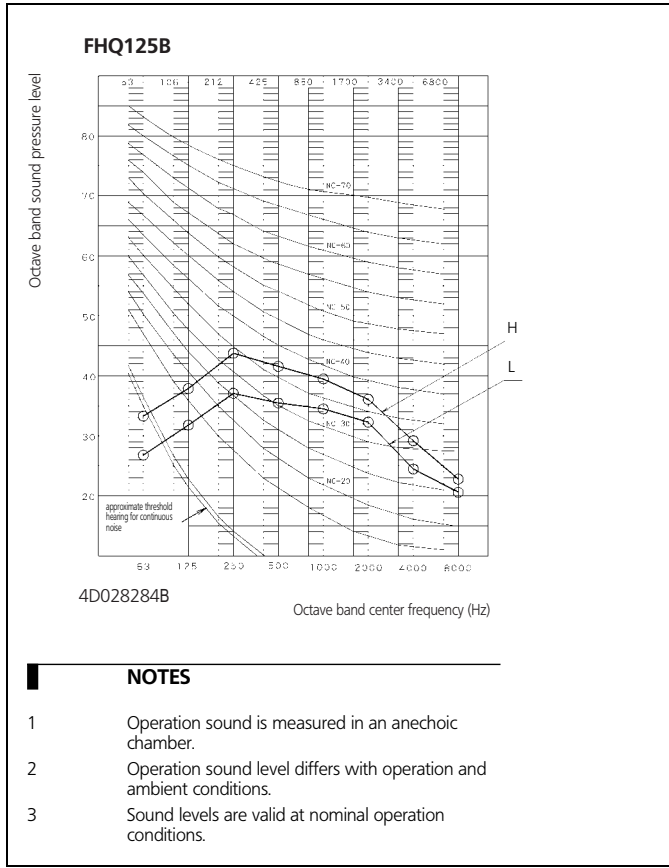
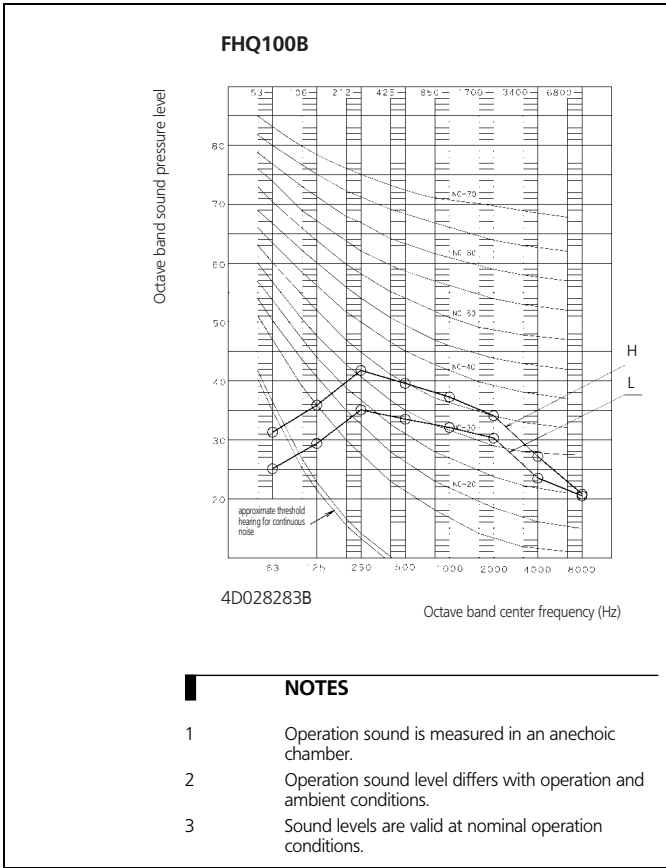
9 Sound data

9 - 2 Sound pressure spectrum



9 Sound data

9 - 2 Sound pressure spectrum

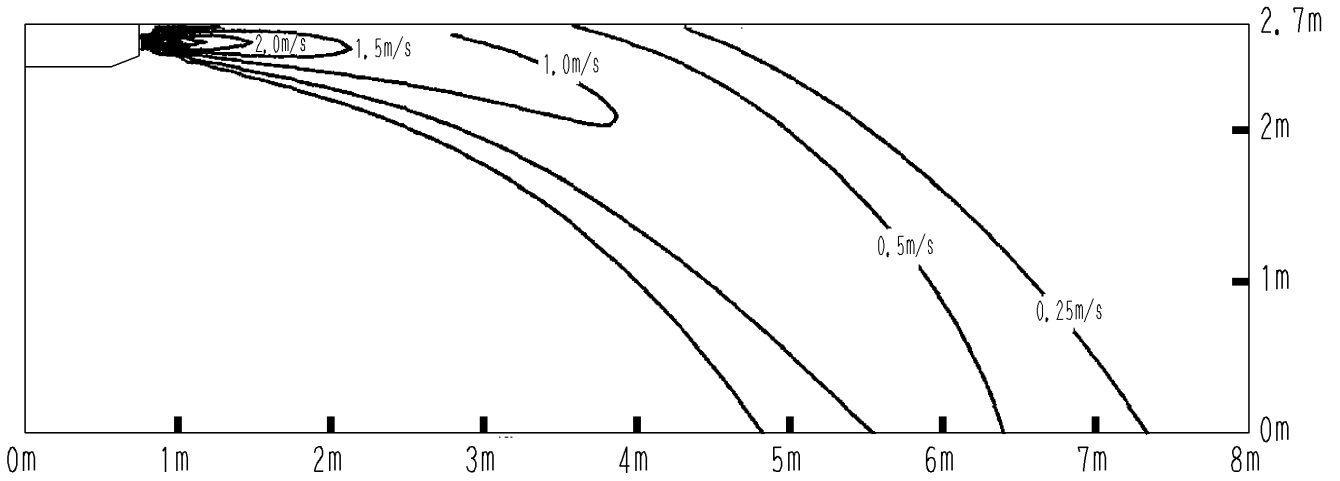


10 Air flow pattern

FHQ35-50B

Cooling - air velocity distribution

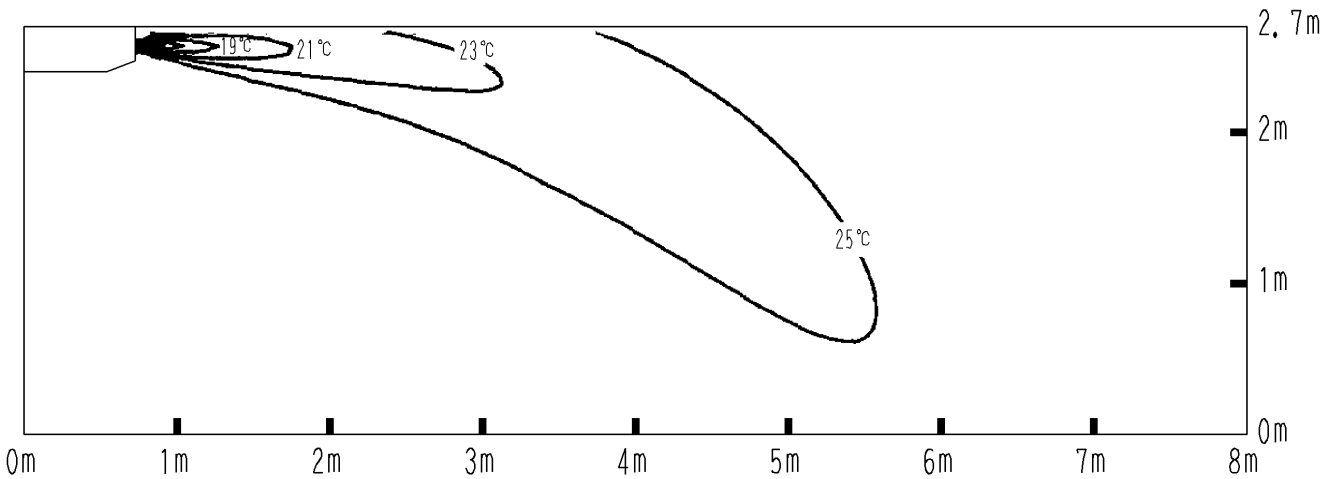
Air flow direction: horizontal



FHQ35-50B

Cooling - air temperature distribution

Air flow direction: horizontal



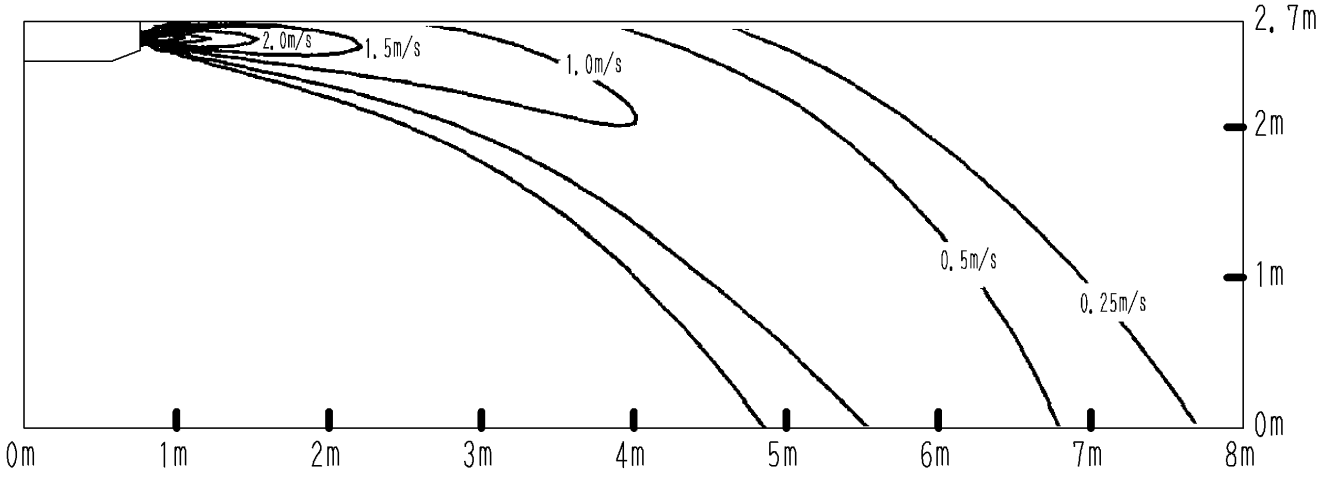
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10 Air flow pattern

FHQ60-71B

Cooling - air velocity distribution

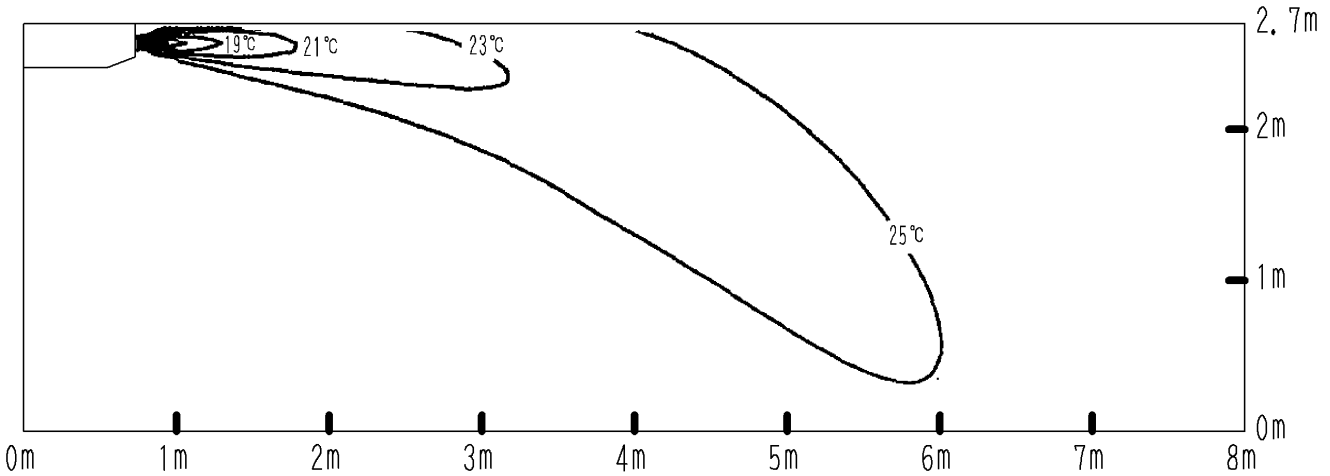
Air flow direction: horizontal



FHQ60-71B

Cooling - air temperature distribution

Air flow direction: horizontal



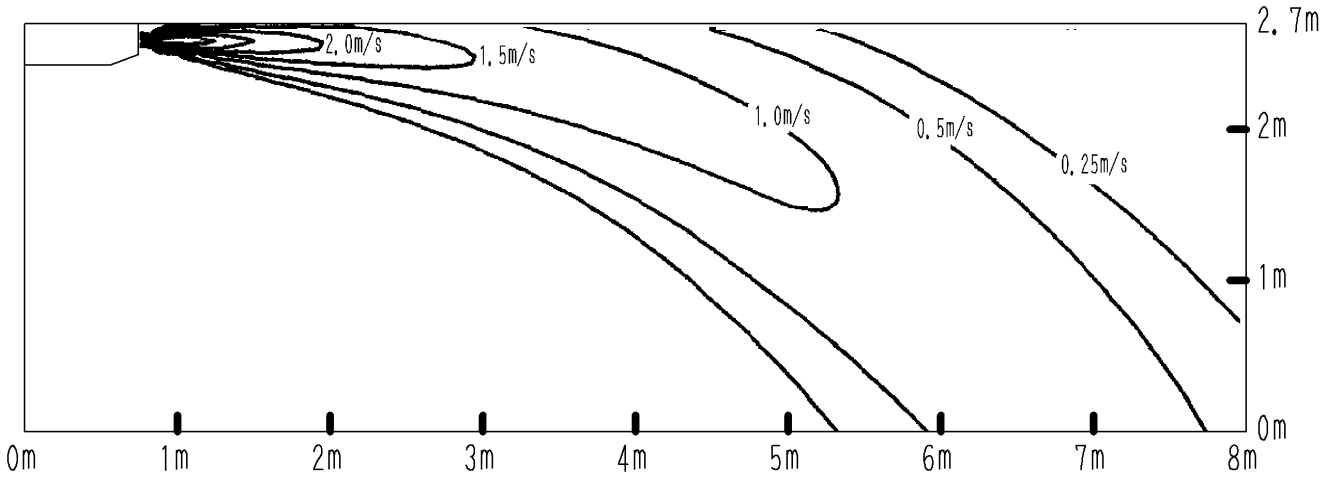
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10 Air flow pattern

FHQ100B

Cooling - air velocity distribution

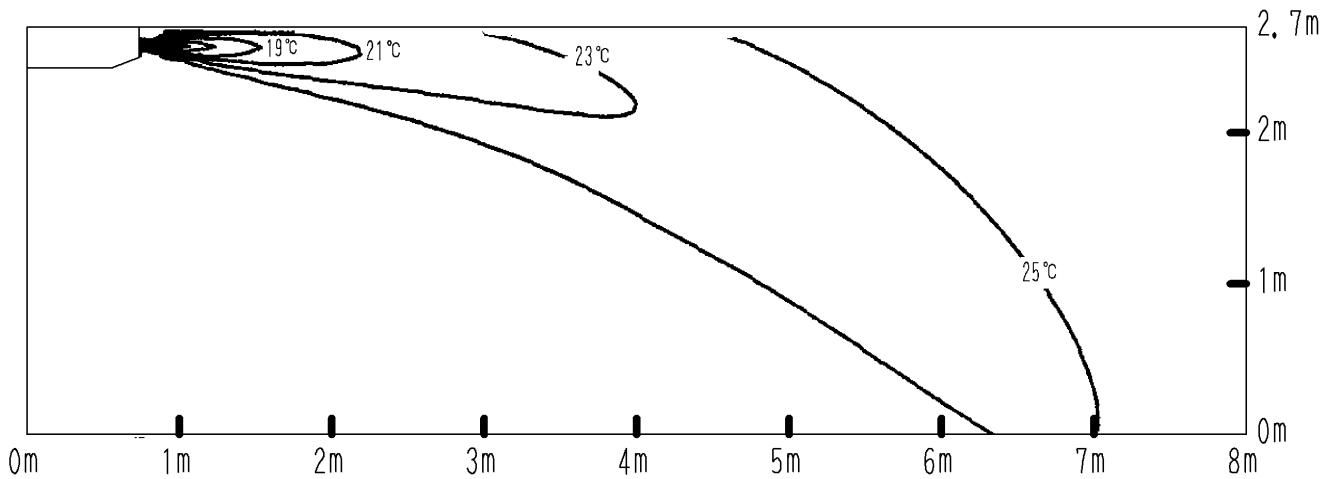
Air flow direction: horizontal



FHQ100B

Cooling - air temperature distribution

Air flow direction: horizontal



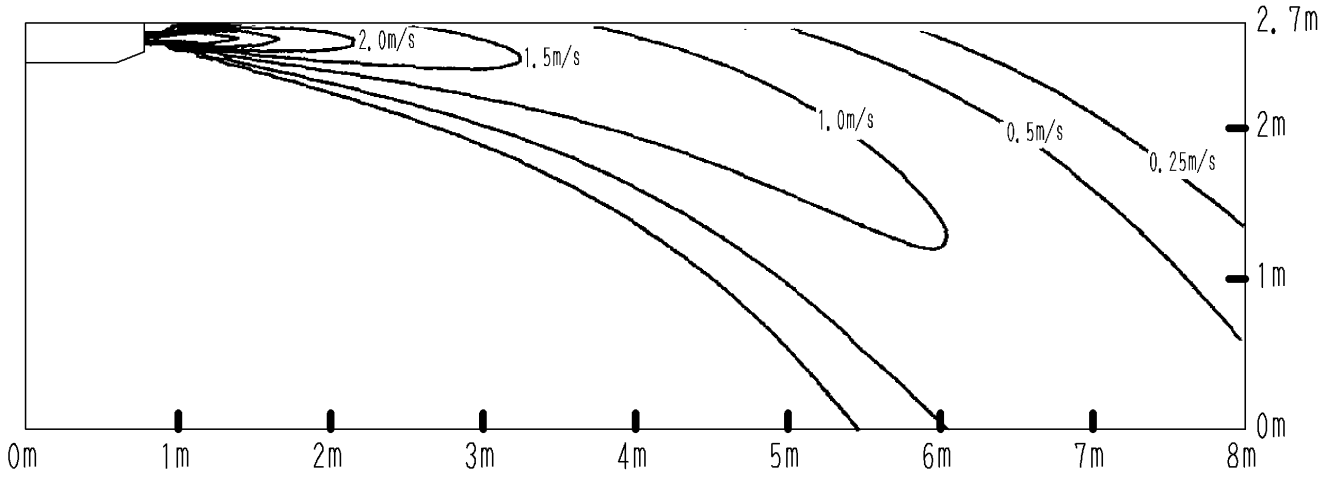
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10 Air flow pattern

FHQ125B

Cooling - air velocity distribution

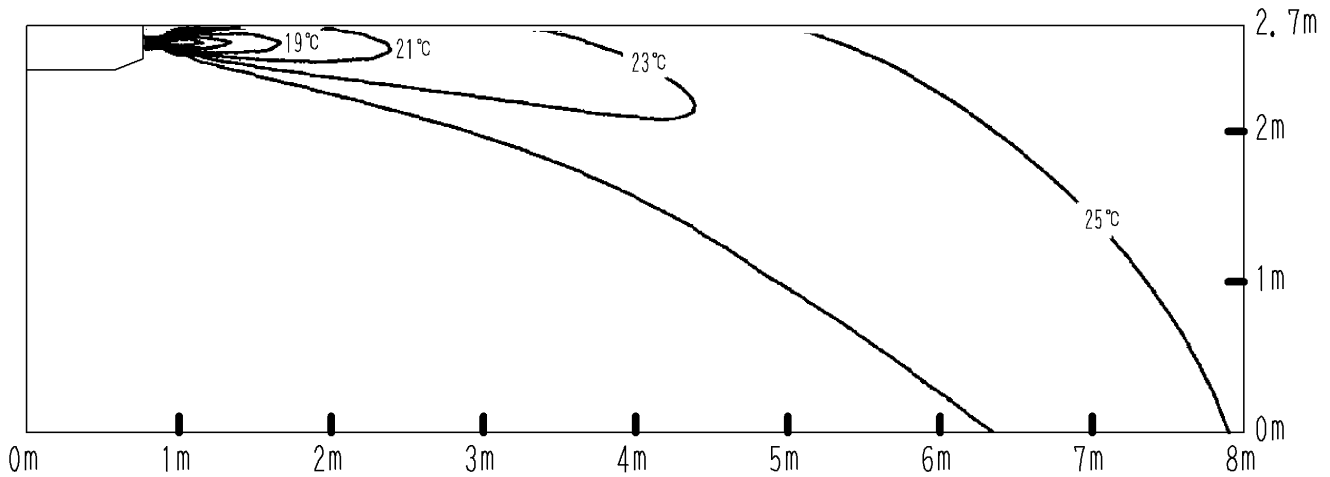
Air flow direction: horizontal



FHQ125B

Cooling - air temperature distribution

Air flow direction: horizontal



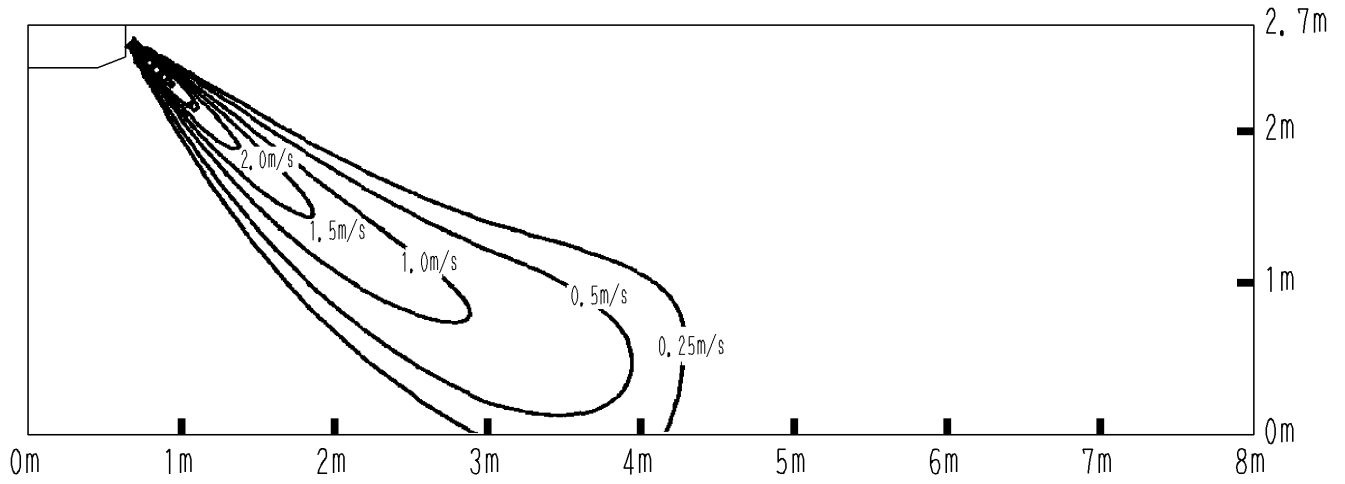
4D028553B

10 Air flow pattern

FHQ35-50B

Heating - air velocity distribution

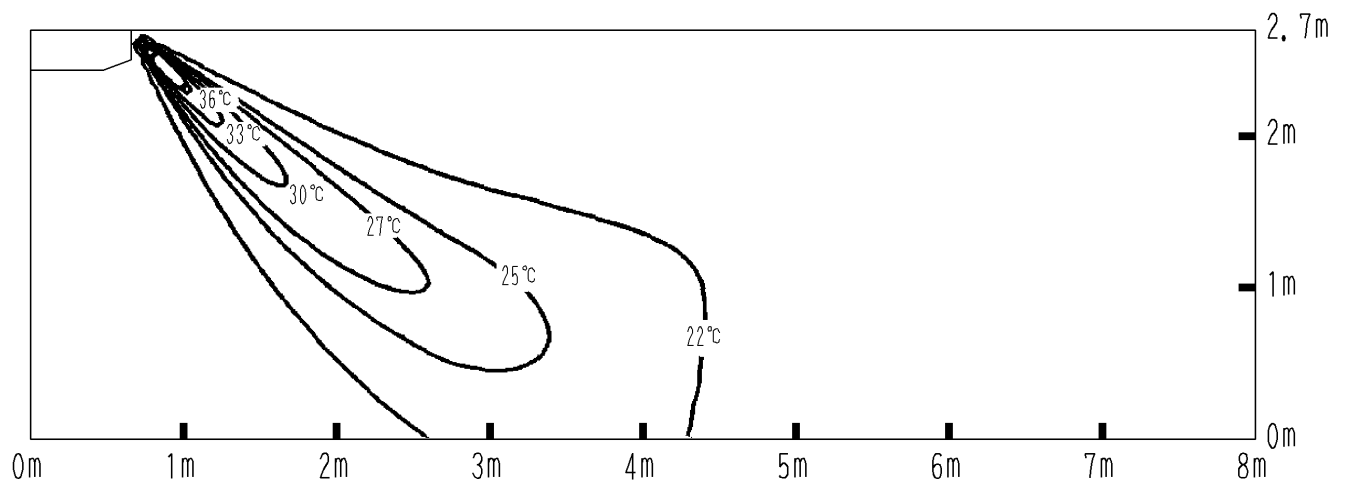
Air flow direction: 45° (downward)



FHQ35-50B

Heating - air temperature distribution

Air flow direction: 45° (downward)



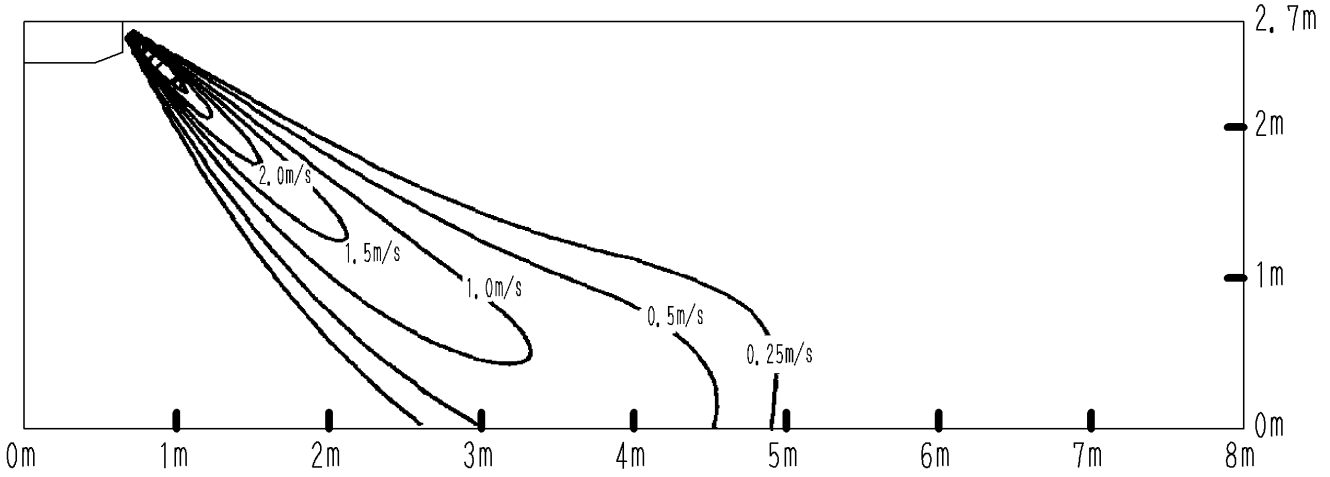
4D028554

10 Air flow pattern

FHQ60-71B

Heating - air velocity distribution

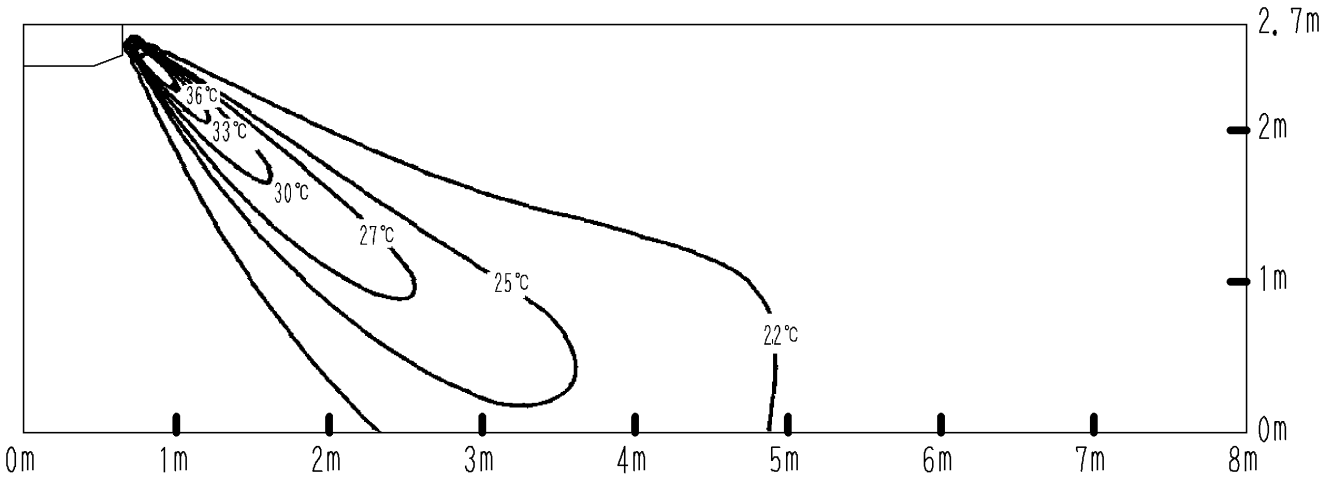
Air flow direction: 45° (downward)



FHQ60-71B

Heating - air temperature distribution

Air flow direction: 45° (downward)



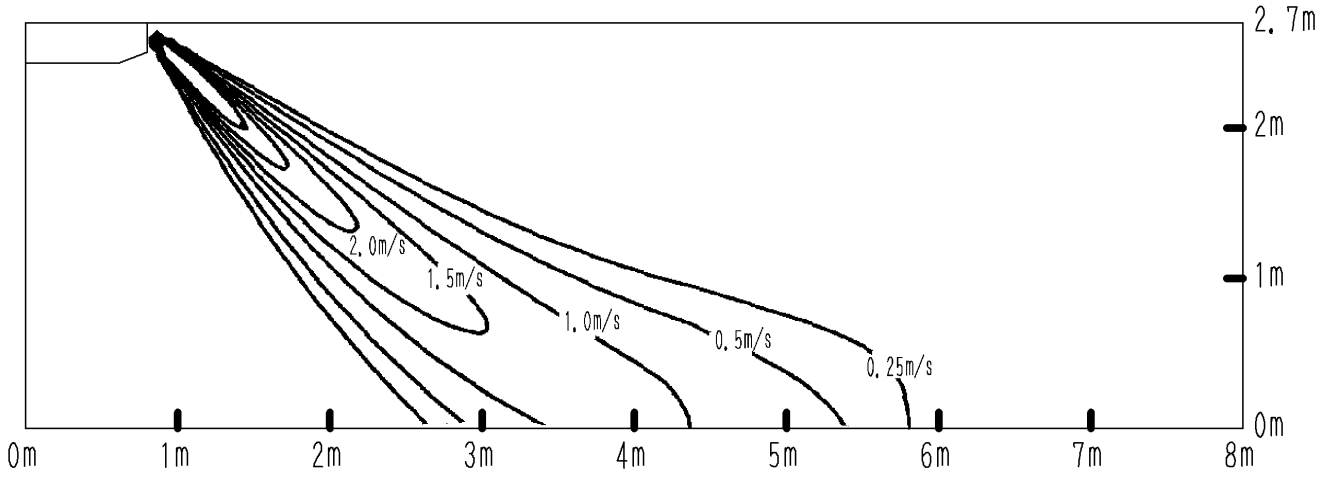
4D028555B

10 Air flow pattern

FHQ100B

Heating - air velocity distribution

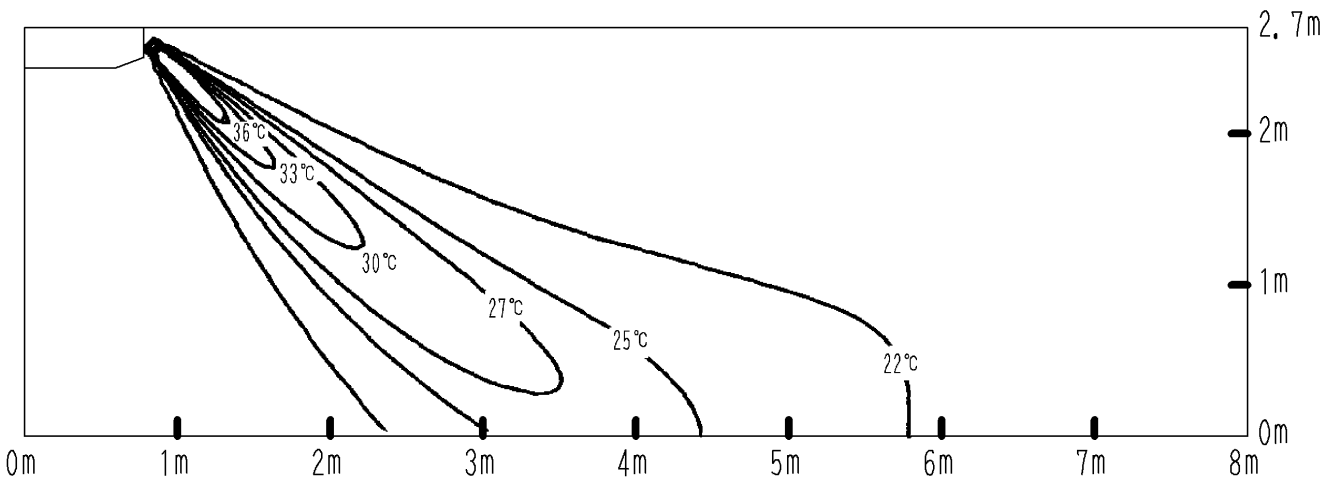
Air flow direction: 45° (downward)



FHQ100B

Heating - air temperature distribution

Air flow direction: 45° (downward)



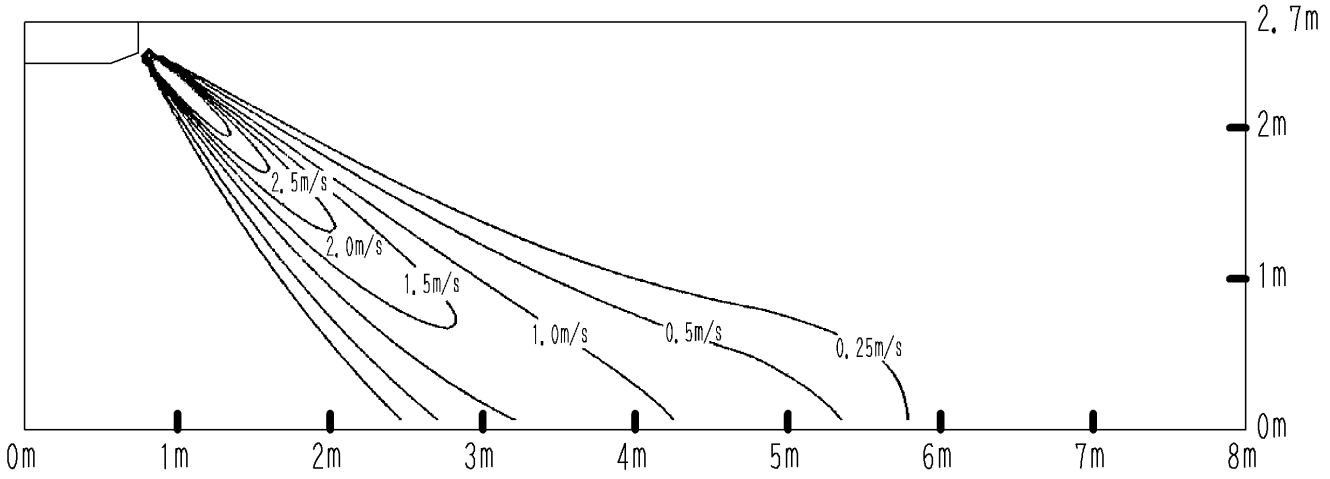
4D028556B

10 Air flow pattern

FHQ125B

Heating - air velocity distribution

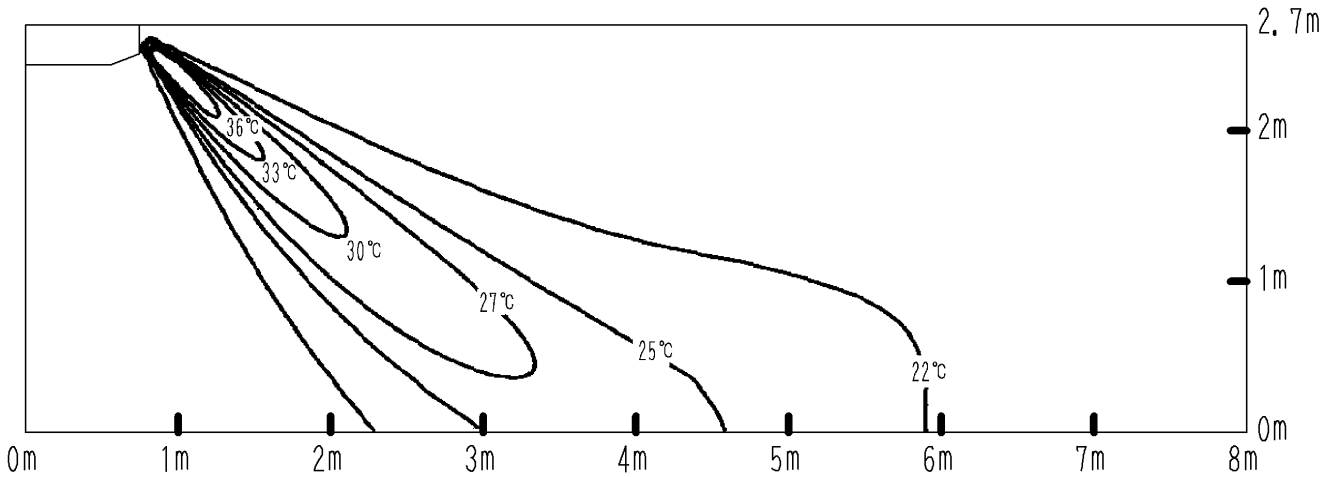
Air flow direction: 45° (downward)



FHQ125B

Heating - air temperature distribution

Air flow direction: 45° (downward)



4D028557B

Split - Sky Air

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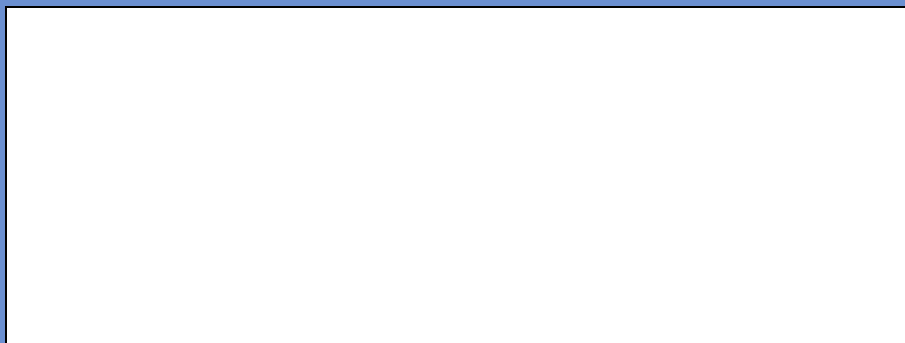
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