

# technical data



**FUQ-BVV1B**

**4-Way Blow Ceiling  
Suspended Cassette**

air conditioning systems

Split  
Sky Air

# TABLE OF CONTENTS

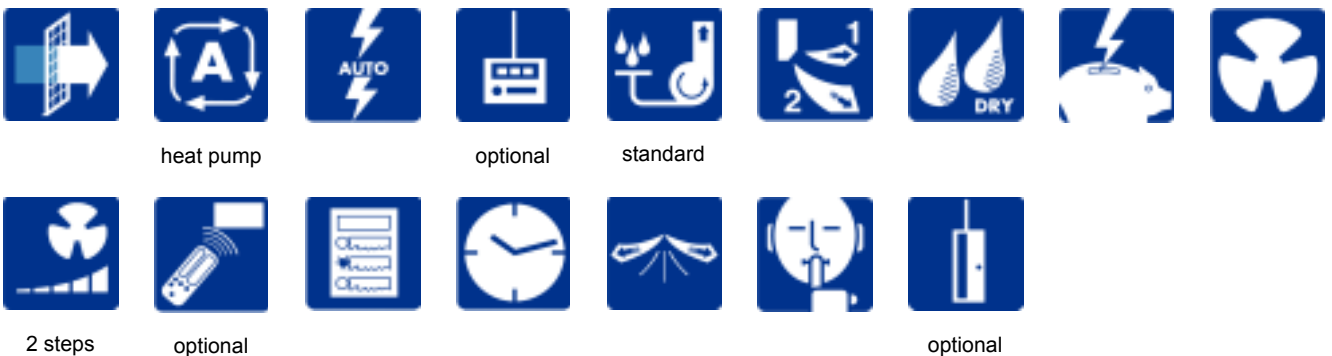
## FUQ-BVV1B

1	Features .....	2
2	Specifications .....	3
	For indoor units only .....	3
	Technical Specifications .....	3
	Electrical Specifications .....	4
3	Safety device settings .....	5
4	Options .....	6
5	Control systems .....	7
6	Dimensional drawing & centre of gravity .....	8
	Dimensional drawing .....	8
7	Piping diagram .....	9
8	Wiring diagram .....	10
	Wiring diagram .....	10
	External connection diagram .....	11
9	Sound data .....	12
	Sound level data .....	12
	Sound pressure spectrum .....	13
10	Air flow pattern .....	14
11	Installation .....	20
	Installation method .....	20

# 1 Features

1

- Compact&stylish
- Ideal for shops, restaurants or offices requiring maximum floor space for furniture, decorations and fittings
- Can be installed in both new and existing buildings.
- Flexible installation: can be installed in the middle of a room or in a corner.
- Air can be discharged in any of 4 directions
- Possibility to shut 1 or 2 flaps for easy installation in corners
- Air flow distribution for ceiling heights up to 3.5m without loss of capacity.
- Air filter, drain pan and heat exchanger fin are mildew proof and anti-bacterial treated.
- Drain-up pump with 500mm lift fitted as standard
- Extremely quiet in operation
- Easy to install
- 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.



## 2 Specifications

2-1 FOR INDOOR UNITS ONLY			FUQ71BVV1B	FUQ100BVV1B	FUQ125BVV1B
Nominal Input	Cooling	kW	0.180	0.289	0.289
	Heating	kW	0.160	0.269	0.269

2-2 TECHNICAL SPECIFICATIONS				FUQ71BVV1B	FUQ100BVV1B	FUQ125BVV1B	
Casing	Colour			White			
	Material			Resin			
Dimensions	Packing	Height	mm	230	295	295	
		Width	mm	960	960	960	
		Depth	mm	960	960	960	
	Unit	Height	mm	165	230	230	
		Width	mm	895	895	895	
		Depth	mm	895	895	895	
Weight	Unit		kg	25.0	31.0	31.0	
	Packed Unit		kg	31.0	38.0	38.0	
Heat Exchanger	Dimensions	Length	mm	2101	2101	2101	
		Nr of Rows			3	3	3
		Fin Pitch	mm	1.50	1.50	1.50	
		Nr of Passes			8	8	12
		Face Area	m <sup>2</sup>	0.265	0.353	0.353	
		Nr of Stages			6	8	8
		Empty Tubeplate Hole				4	
	Tube type		N-Hix				
Fin	Type		Cross fin coil (Multi louver fins and N-hix tubes)				
Fan	Type			Turbo fan			
	Quantity			1	1	1	
Air Flow Rate	Cooling	High	m <sup>3</sup> /min	19.0	29.0	32.0	
		Low	m <sup>3</sup> /min	14.0	21.0	23.0	
	Heating	High	m <sup>3</sup> /min	19.0	29.0	32.0	
		Low	m <sup>3</sup> /min	14.0	21.0	23.0	
Fan	Motor	Quantity		1	1	1	
		Model		QTS48A10M	QTS50B15M	QTS50B15M	
		Number of steps		2	2	2	
		Output (high)	W	45	90	90	
Cooling	Sound Power	High	dBA	56.0	59.0	60.0	
		Low	dBA	51.0	54.0	55.0	
	Sound Pressure	High	dBA	40.0	43.0	44.0	
		Low	dBA	35.0	38.0	39.0	
Heating	Sound Power	High	dBA	56.0	59.0	60.0	
		Low	dBA	51.0	54.0	55.0	
	Sound Pressure	High	dBA	40.0	43.0	44.0	
		Low	dBA	35.0	38.0	39.0	
Refrigerant	Type			R-410A			
Piping connections	Liquid (OD)	Type		Flare connection			
		Diameter (OD)	mm	9.5	9.5	9.5	
	Gas	Type		Flare connection			
		Diameter (OD)	mm	15.9	15.9	15.9	
	Drain	Diameter (OD)	mm	I.D. 20/O.D. 26			
	Heat Insulation			Heat resistant foamed polyethylene, regular foamed polyethylene			
Air Filter			Resin net with mold resistance				
Safety Devices			Fan motor thermal protector				

## 2 Specifications

2

2-2 TECHNICAL SPECIFICATIONS		FUQ71BVV1B	FUQ100BVV1B	FUQ125BVV1B
Standard Accessories	Item	Installation and operation manual		
	Quantity	1	1	1
	Item	Drain hose		
		Clamp metal		
		Insulation for fitting		
		Sealing pad		
		Clamps		
		Screws		
		Washer		
		Joint		
Holding plate				

2-3 ELECTRICAL SPECIFICATIONS			FUQ71BVV1B	FUQ100BVV1B	FUQ125BVV1B
Power Supply	Name		V1		
	Phase		1	1	1
	Frequency	Hz	50	50	50
	Voltage	V	220-240		
Power Supply Intake			Outdoor unit only		

### 3 Safety device settings

#### FUQ71-100-125B

Model	Safety devices	FUQ71B	FUQ100B	FUQ125B
FUQ-B	Fuse	—	—	—
	Fan motor thermal fuse (°C)	—	—	—
	Fan motor thermal protector (°C)	Off: 130±5	Off: 130±5	Off: 130±5

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## 4 Options

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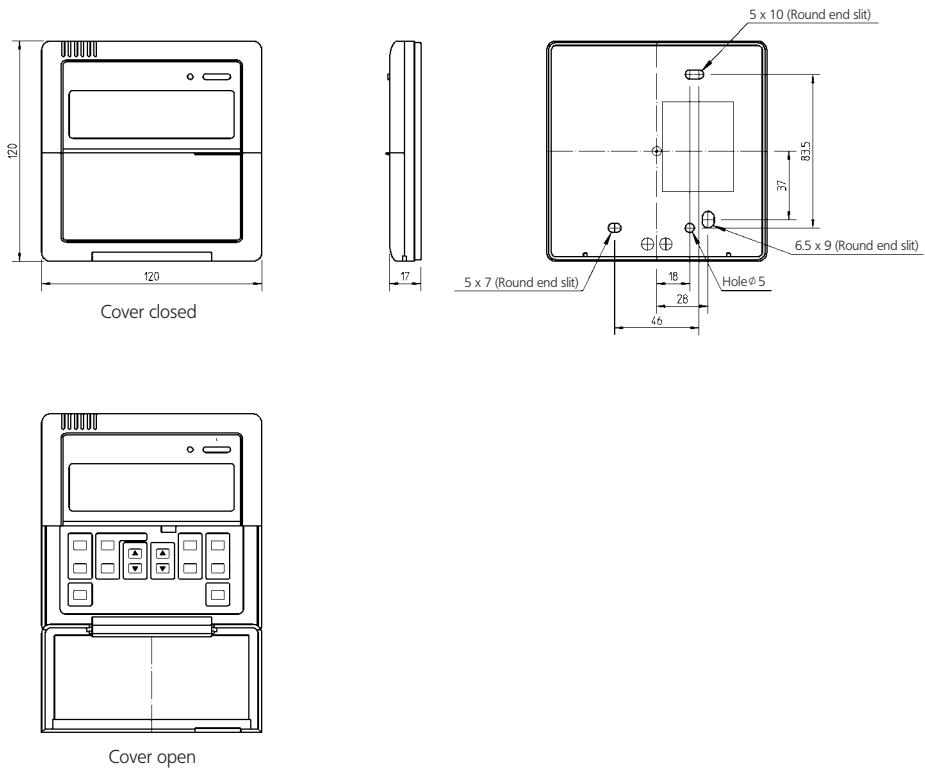
Name of option	Remark		FUQ-B		
			71	100	125
Sealing member of air discharge outlet			KDBH49FA80	KDBH49FA140	
Decoration panel for air discharge			KDBT49FA80	KDBT49FA140	
Vertical flap kit			KDGJ49FA80	KDGJ49FA140	
Replacement long-life filter			KAF495FA140		
L connection piping kit			KHFP49MA140		
Remote control	Wired type		BRC1D528		
	Infrared type	Heat pump	BRC7CA528W		
		Cooling only	BRC7CA529W		
Central remote control			DCS302CA51		
Unified ON/OFF control			DCS301BA51		
Schedule timer			DST301BA51		
Wiring adapter for electrical appendices			KRP4AA53 *1		
Interface adapter for Sky Air series			DTA112BA51		
Installation box for adapter PCB			KRP1BA97		
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 (KRP1BA97) is necessary

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# 5 Control systems

BRC1D52



3TW23651-2



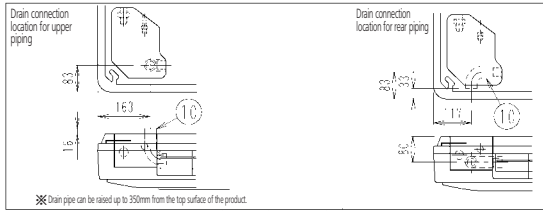
# 6 Dimensional drawing & centre of gravity

## 6 - 1 Dimensional drawing

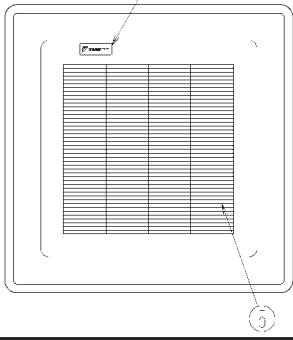
6

### FUQ71B

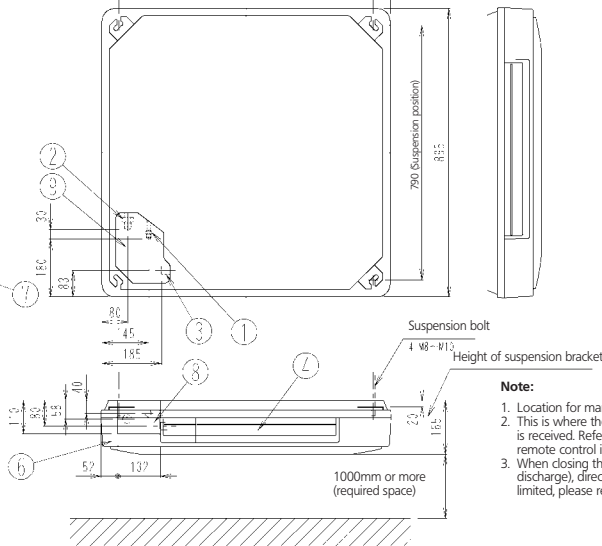
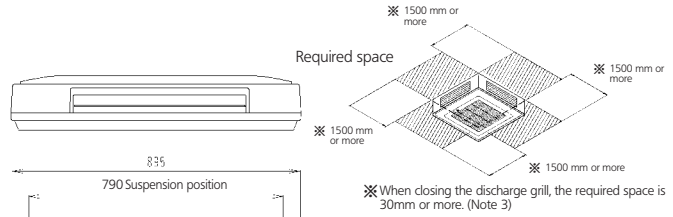
unit (mm)



Brand name plate (note 2)



- 1 Liquid pipe connection -  $\phi$  9.5 flare
- 2 Gas pipe connection  $\phi$  15.9 flare
- 3 Drain pipe connection V.P.20
- 4 Air outlet
- 5 Air suction grille
- 6 Corner decoration cover
- 7 Right pipe / wiring connection
- 8 Rear pipe / wiring connection
- 9 Pipe through cover
- 10 Accessory drain elbow

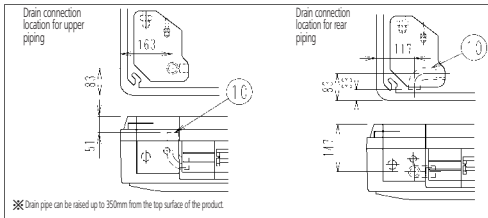


- Note:**
1. Location for manufacturer's label: on bell mouth.
  2. This is where the signal of infrared remote control is received. Refer to the drawing of infrared remote control in detail.
  3. When closing the discharge grill (2 or 3 way discharge), direction of pipe connection will be limited, please refer to installation manual.

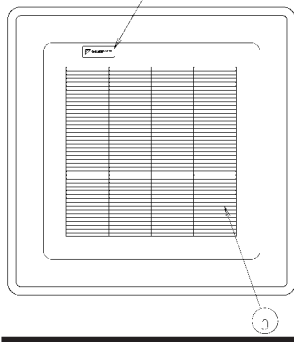
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### FUQ100-125B

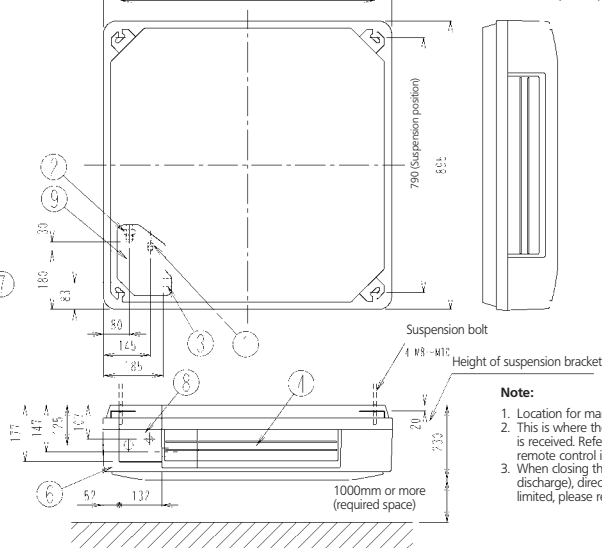
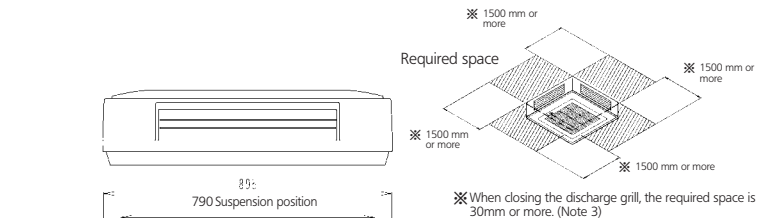
unit (mm)



Brand name plate (note 2)



- 1 Liquid pipe connection -  $\phi$  9.5 flare
- 2 Gas pipe connection  $\phi$  15.9 flare
- 3 Drain pipe connection V.P.20
- 4 Air outlet
- 5 Air suction grille
- 6 Corner decoration cover
- 7 Right pipe / wiring connection
- 8 Rear pipe / wiring connection
- 9 Pipe through cover
- 10 Accessory drain elbow



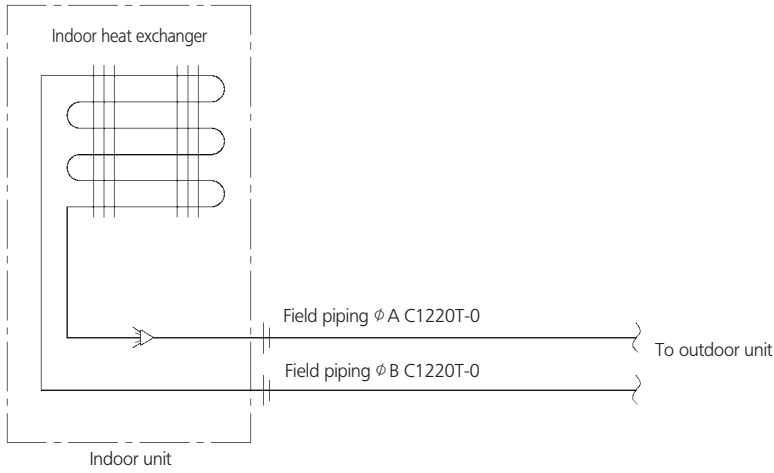
- Note:**
1. Location for manufacturer's label: on bell mouth.
  2. This is where the signal of infrared remote control is received. Refer to the drawing of infrared remote control in detail.
  3. When closing the discharge grill (2 or 3 way discharge), direction of pipe connection will be limited, please refer to installation manual.

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# 7 Piping diagram

FUQ71-100-125B



Refrigerant pipe connection port diameters

Model	A	B
FUQ71, 100, 125B	φ 9.5	φ 15.9

Check valve  
 Flare connection  
 Screw connection  
 Flange connection  
 Pinched pipe  
 Spinned pipe

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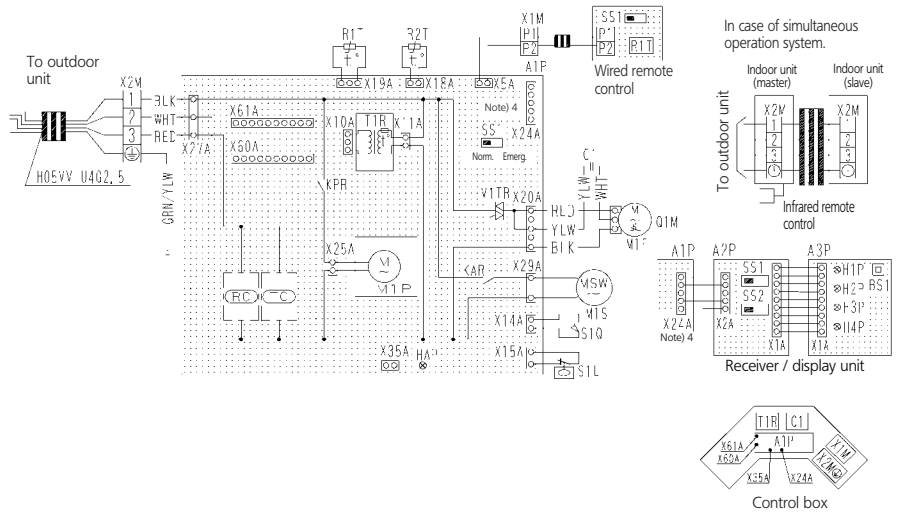
# 8 Wiring diagram

## 8 - 1 Wiring diagram

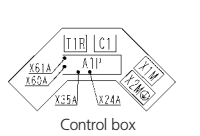
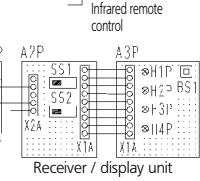
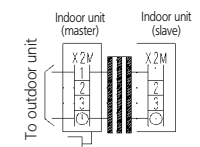
### FUQ71~125B

Notes

- 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.
- Symbols show as follows Red:red, Blk:black, Ylw:yellow, Org:orange, Gry:gray, Prp:purple, Blu:blue
- Confirm the method of setting the selector switch (SS1, SS2) by installation manual and engineering materials, etc.



In case of simultaneous operation system.



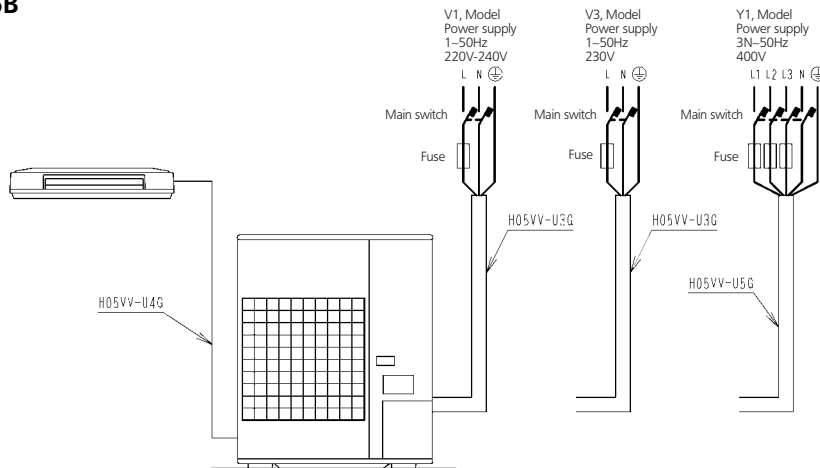
A1P	Printed circuit board	S1L	Float switch (M1A)	Receiver / display unit (attached to infrared remote controller)	Connector for optional parts
C1R	Capacitor (M1F)	S1Q	Limit switch (swing flap)	A2P	Printed circuit board
HAP	Light emitting diode (service monitor green)	SS1	Selector switch (emergency)	A3P	Printed circuit board
KAR	Magnetic relay (M1S)	T1R	Transformer (220-240V/22V)	BS1	Push button (on/off)
KPR	Magnetic relay (M1P)	V1TR	Phase control circuit	H1P	Light emitting diode (service monitor red)
M1F	Motor (indoor fan)	X1M	Terminal strip	H2P	Light emitting diode (service monitor green)
M1P	Motor (drain pump)	X2M	Terminal strip	H3P	Light emitting diode (service monitor red)
M1S	Motor (swing flap)	(RC)	Signal receiver circuit	H4P	Light emitting diode (service monitor orange)
Q1M	Thermo switch (M1F embedded)	(TC)	Signal transmission circuit	SS1	Selector switch (main/sub)
R1T	Thermistor (air)	Wired remote control		SS2	Selector switch (wireless address set)
R2T	Thermistor (coil)	R1T	Thermistor (air)		
		SS1	Selector switch (main/sub)		

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# 8 Wiring diagram

## 8 - 2 External connection diagram

FUQ71~125B



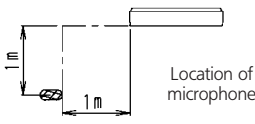
### NOTES

- 1 Line voltage wiring
- 1 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.

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## 9 Sound data

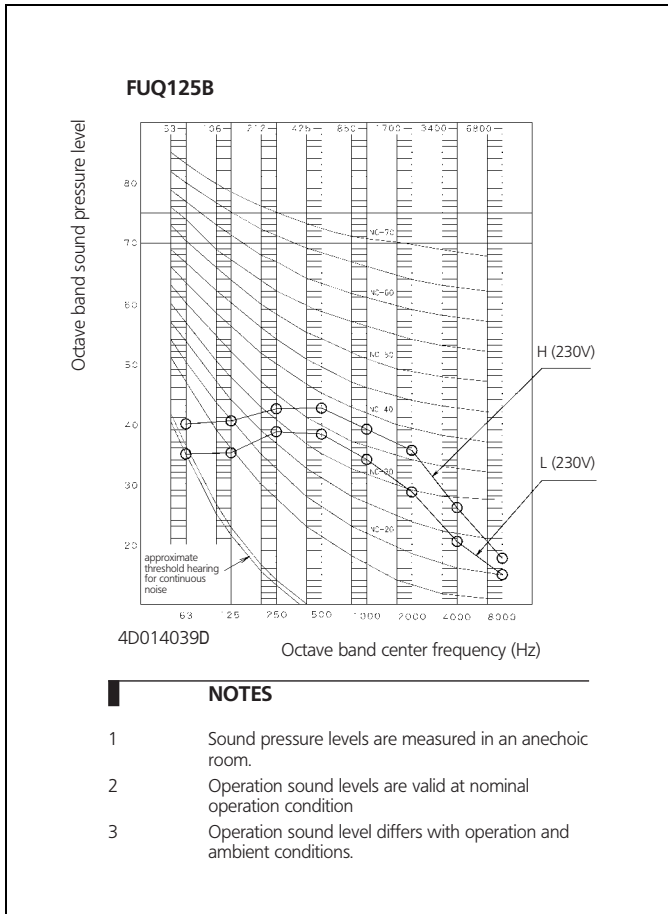
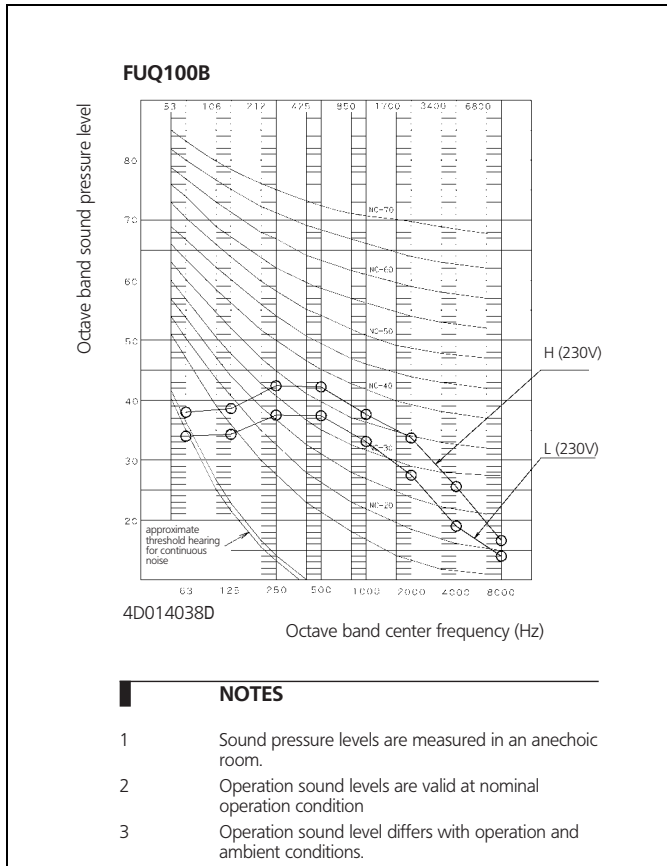
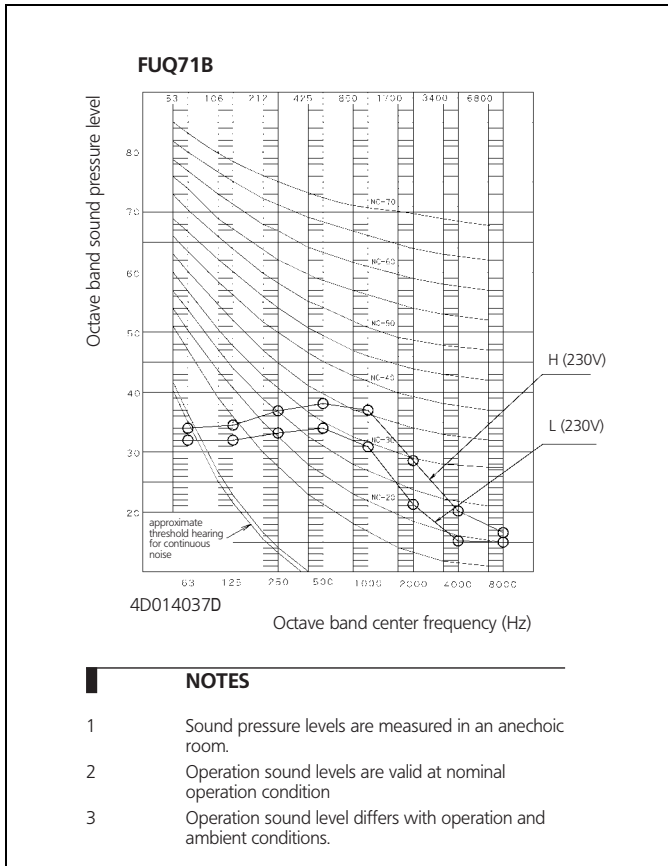
### 9 - 1 Sound level data

Model	Sound pressure level			Sound power level	
	230V				
	50Hz				
	Cooling (H/L)	Heating (H/L)	Measuring location	Cooling (H/L)	Heating (H/L)
FUQ71B	40/35	40/35		56/51	56/51
FUQ100B	43/38	43/38		59/54	59/54
FUQ125B	44/39	44/39		60/55	60/55

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# 9 Sound data

## 9 - 2 Sound pressure spectrum



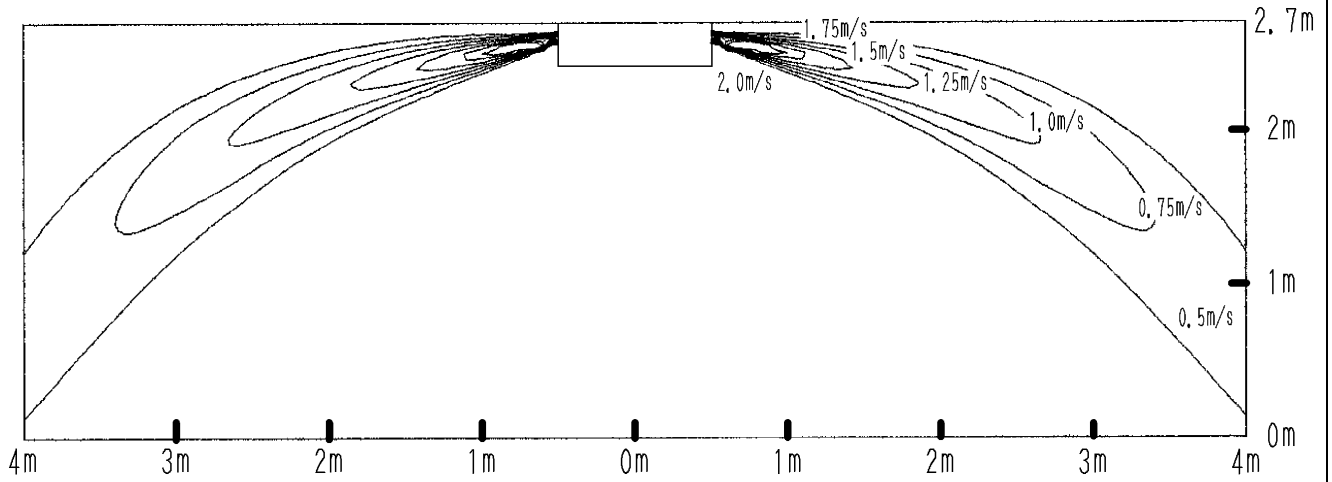
# 10 Air flow pattern

10

## FUQ71B

Cooling - air velocity distribution

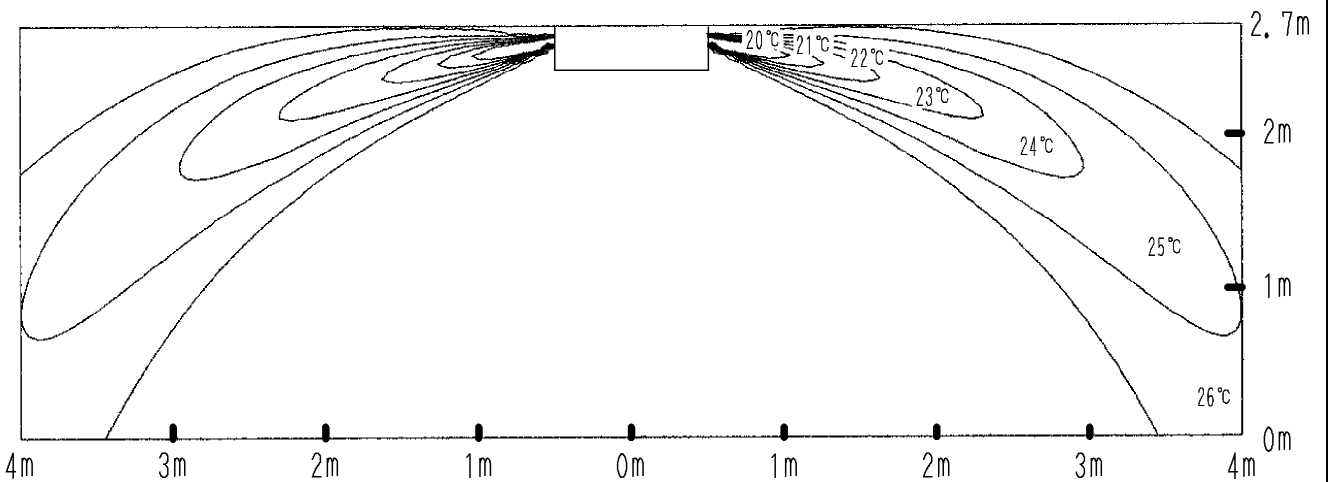
4-way discharge air flow direction: horizontal



## FUQ71B

Cooling - air temperature distribution

4-way discharge air flow direction: horizontal



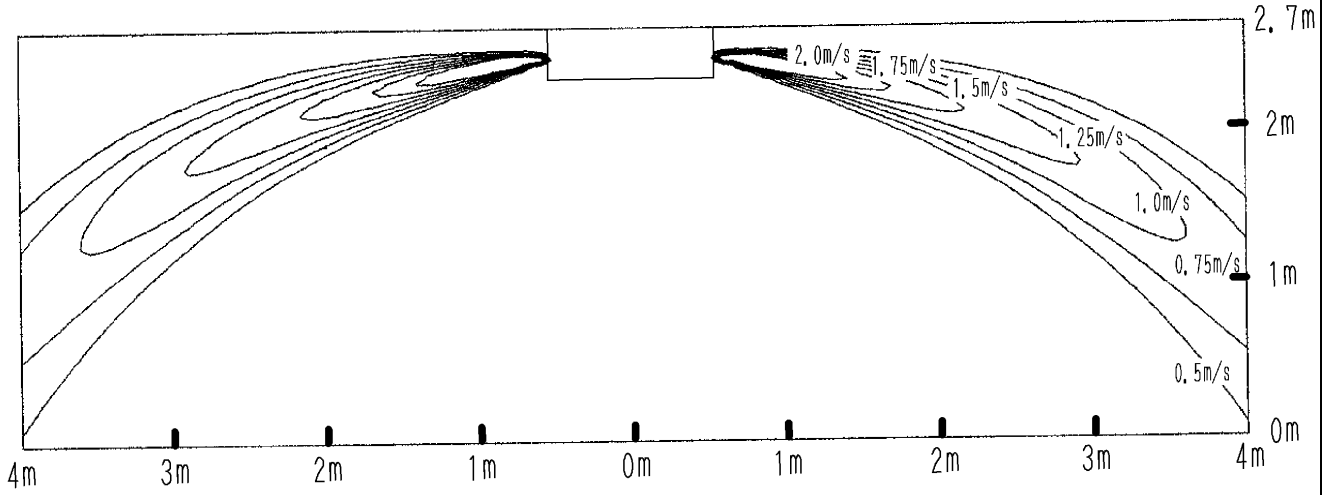
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# 10 Air flow pattern

## FUQ100B

Cooling - air velocity distribution

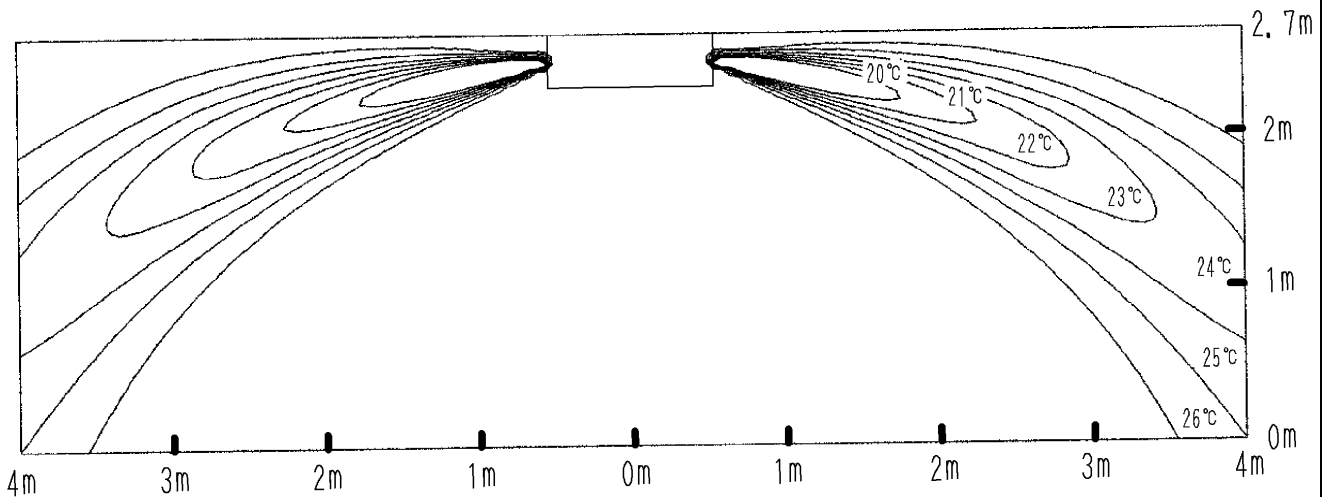
4-way discharge air flow direction: horizontal



## FUQ100B

Cooling - air temperature distribution

4-way discharge air flow direction: horizontal



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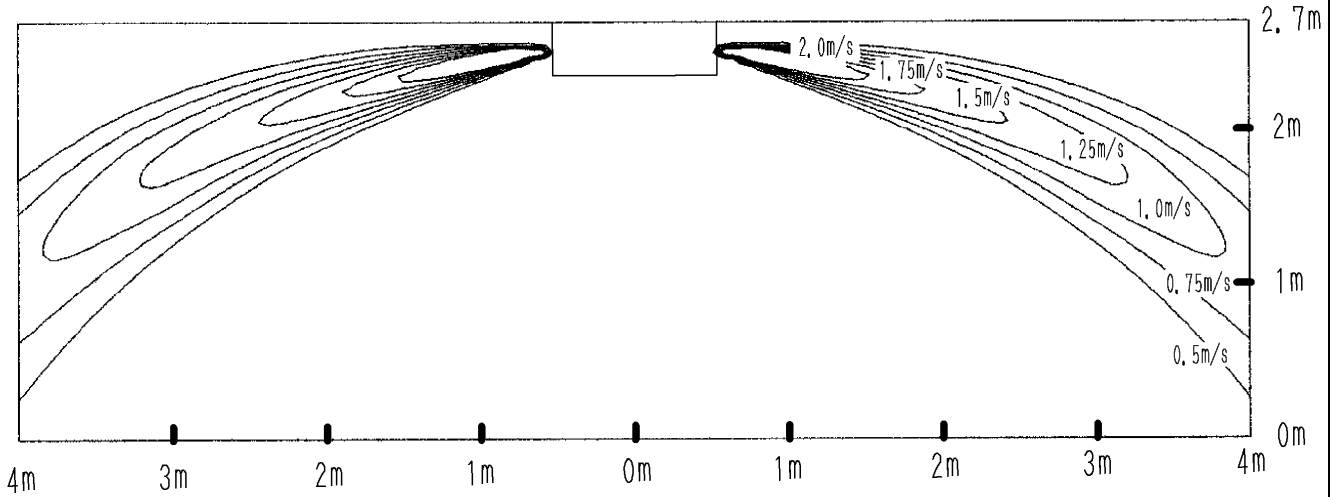
# 10 Air flow pattern

10

## FUQ125B

Cooling - air velocity distribution

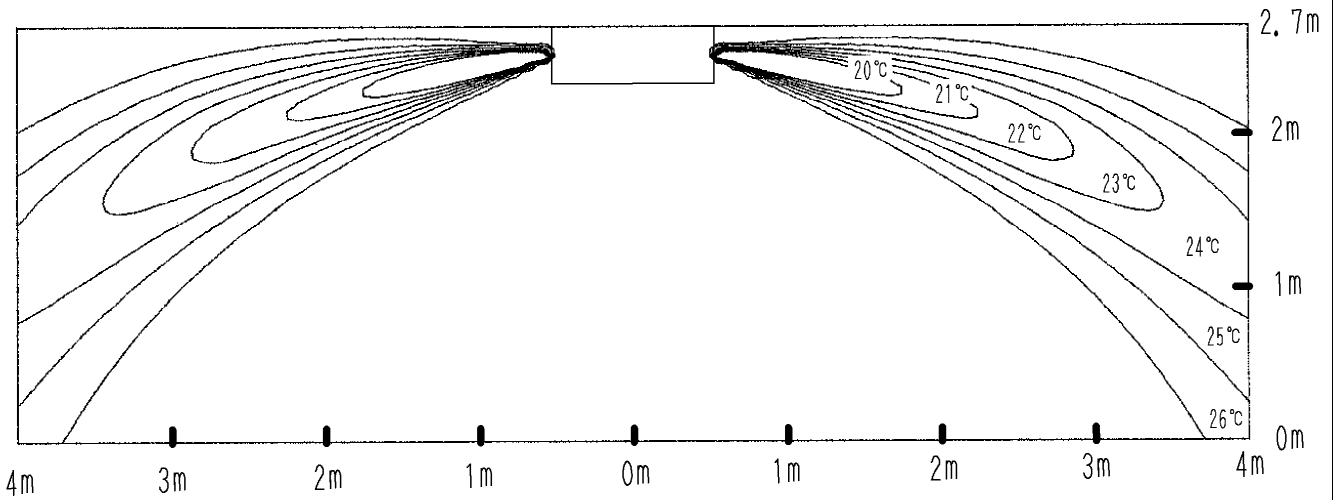
4-way discharge air flow direction: horizontal



## FUQ125B

Cooling - air temperature distribution

4-way discharge air flow direction: horizontal



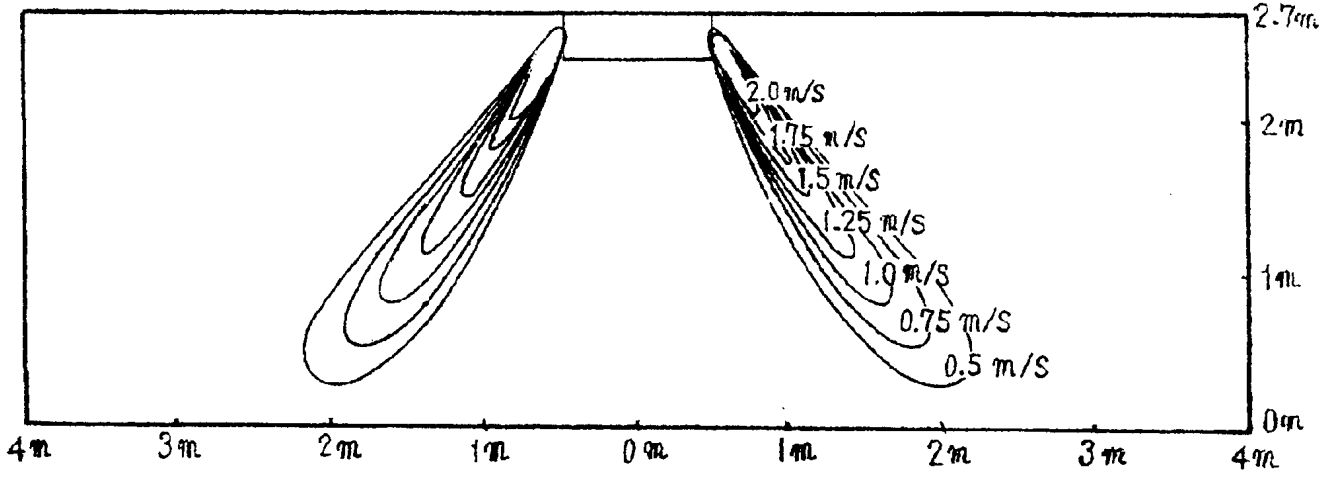
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# 10 Air flow pattern

FUQ71B

Heating - air velocity distribution

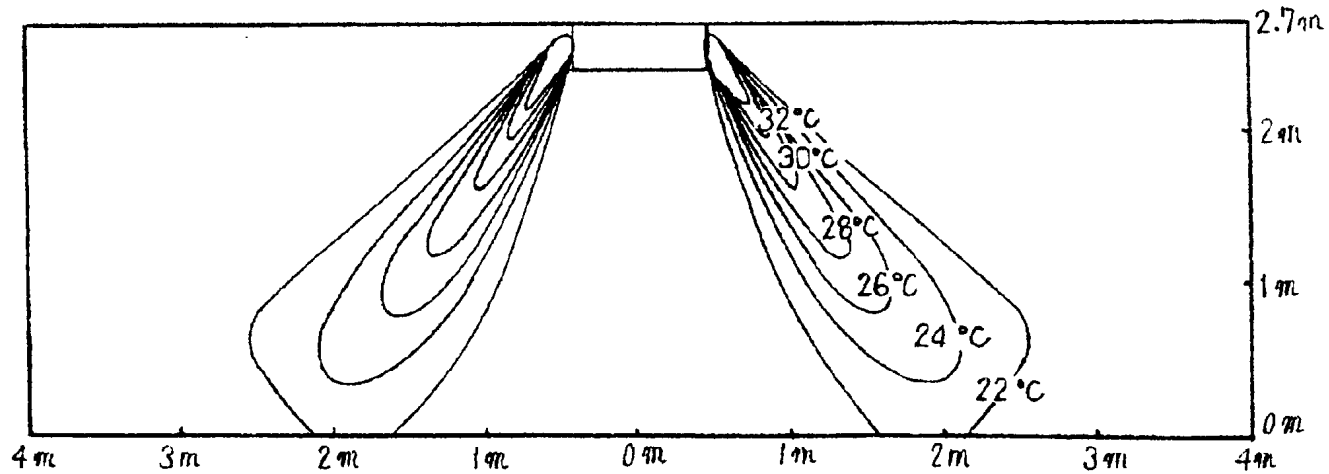
4-way discharge, air flow direction: down



FUQ71B

Heating - air temperature distribution

4-way discharge, air flow direction: down



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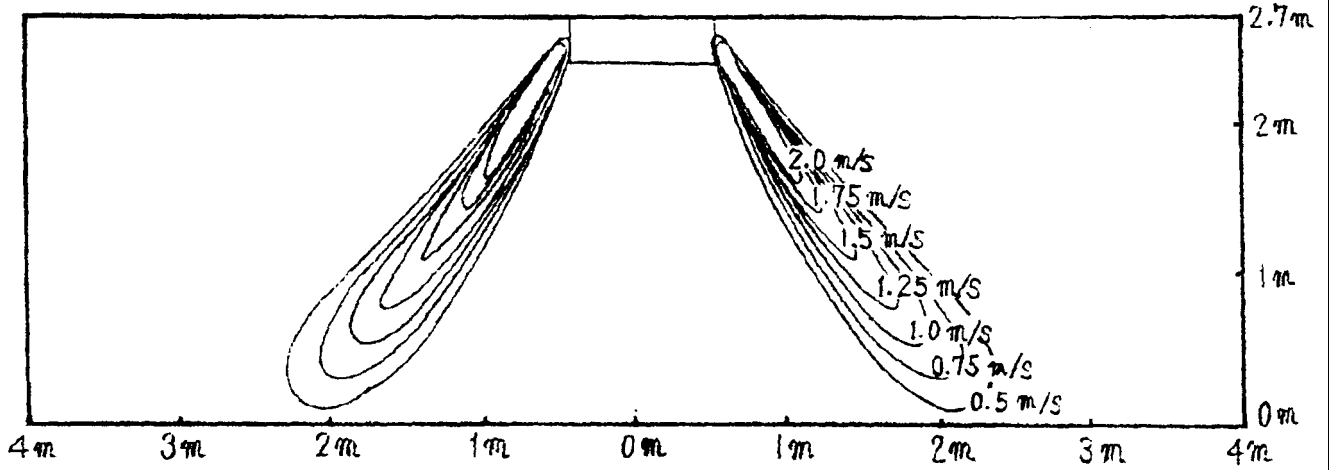
# 10 Air flow pattern

10

FUQ100B

Heating - air velocity distribution

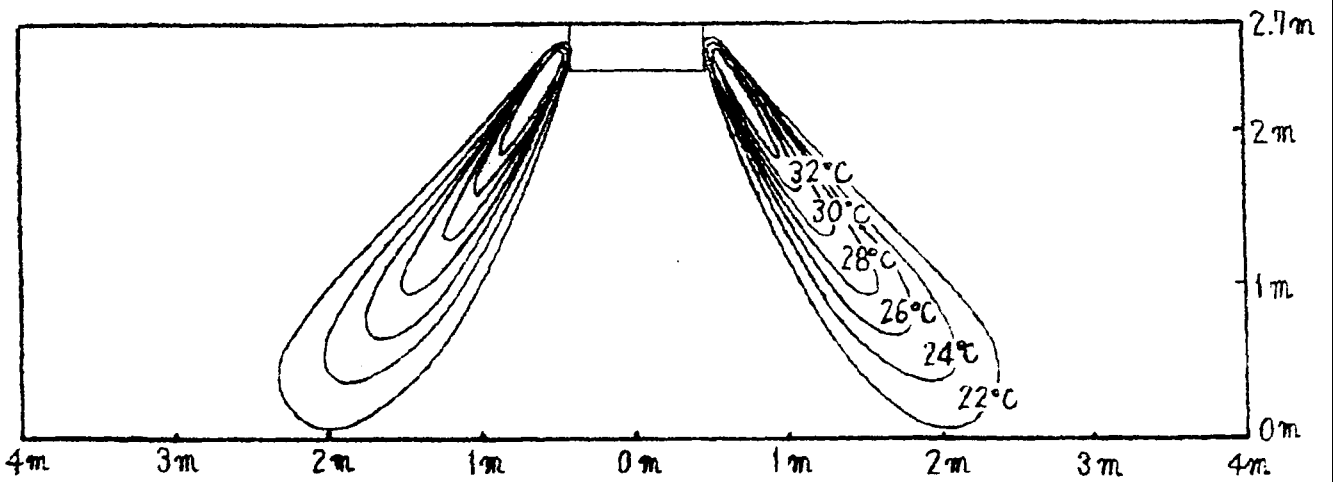
4-way discharge, air flow direction: down



FUQ100B

Heating - air temperature distribution

4-way discharge, air flow direction: down



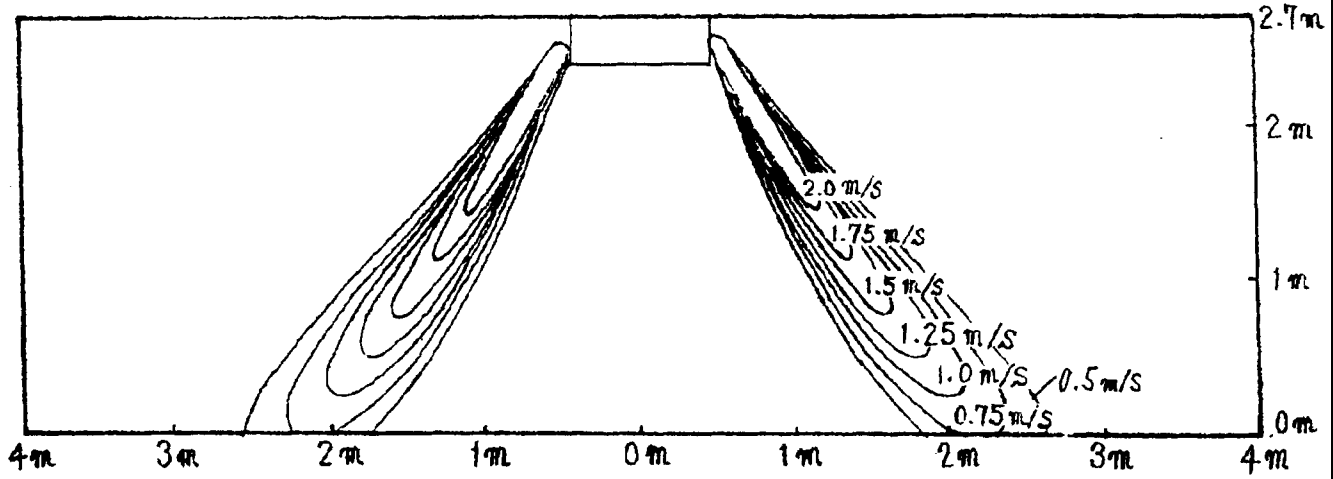
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# 10 Air flow pattern

FUQ125B

Heating - air velocity distribution

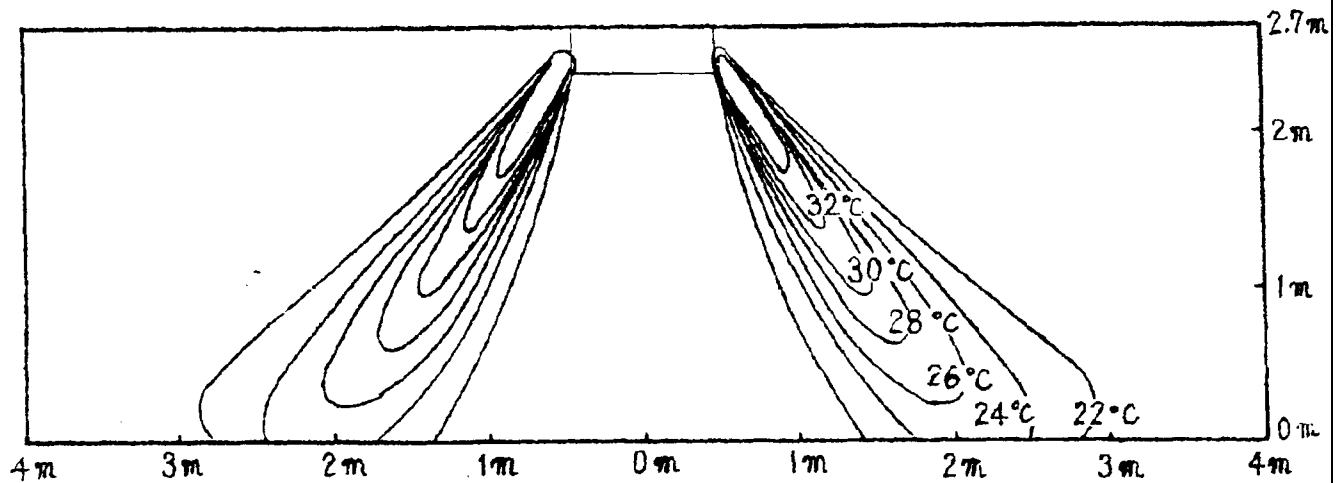
4-way discharge, air flow direction: down



FUQ125B

Heating - air temperature distribution

4-way discharge, air flow direction: down

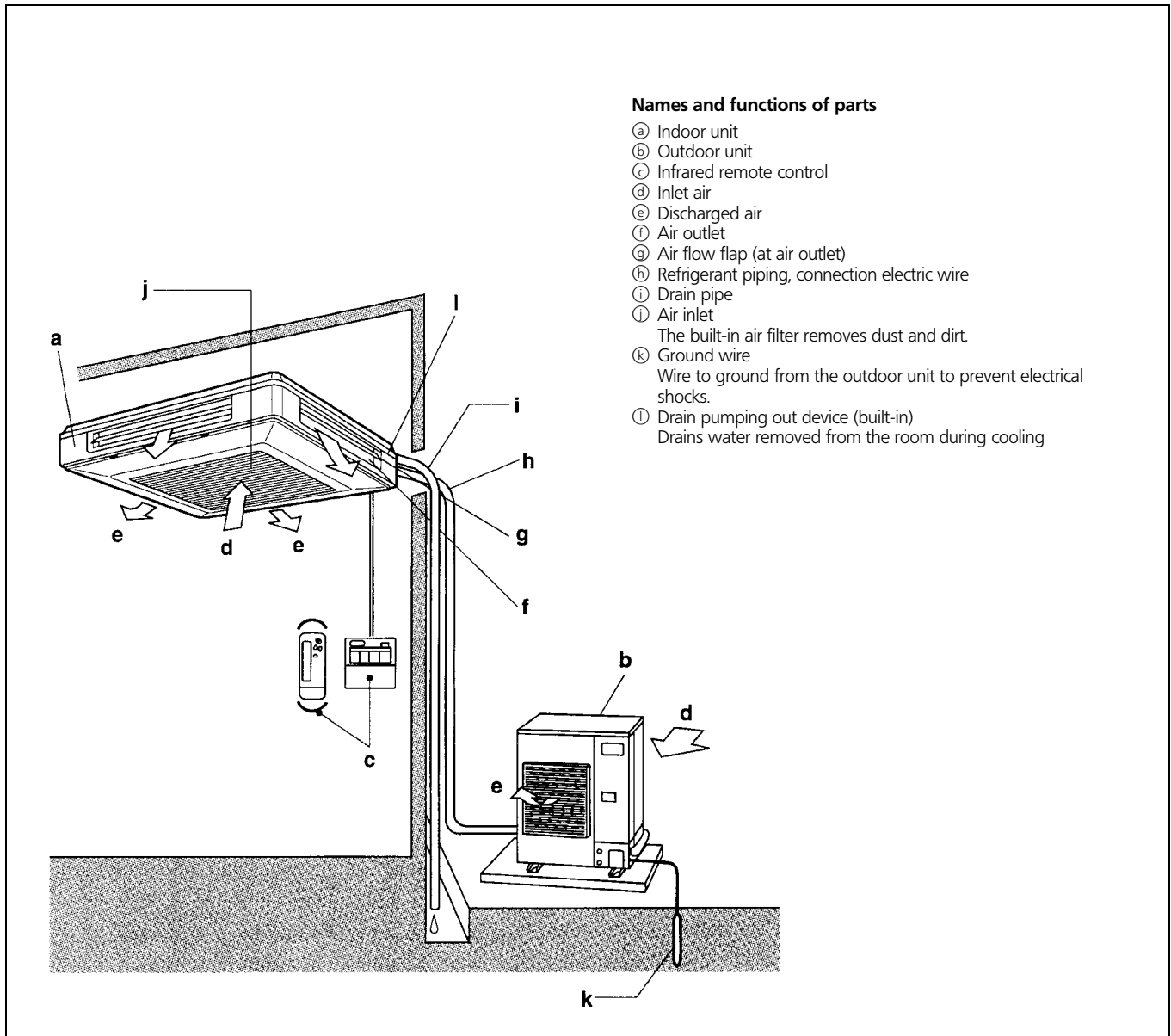


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# 11 Installation

## 11 - 1 Installation method

11



### Names and functions of parts

- Ⓐ Indoor unit
- Ⓑ Outdoor unit
- Ⓒ Infrared remote control
- Ⓓ Inlet air
- Ⓔ Discharged air
- Ⓕ Air outlet
- Ⓖ Air flow flap (at air outlet)
- Ⓗ Refrigerant piping, connection electric wire
- Ⓘ Drain pipe
- Ⓛ Air inlet
- Ⓜ The built-in air filter removes dust and dirt.
- Ⓚ Ground wire  
Wire to ground from the outdoor unit to prevent electrical shocks.
- Ⓛ Drain pumping out device (built-in)  
Drains water removed from the room during cooling

# Split - Sky Air

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