

PMFY-P-VBM-E

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1. SPECIFICATIONS

R410A Data G8

Model			PMFY-P20VBM-E	PMFY-P25VBM-E	PMFY-P32VBM-E	PMFY-P40VBM-E				
Power source			1-phase 220-240V 50Hz, 1-phase 220V 60Hz							
Cooling capacity (Nominal)	*1	kW	2.2	2.8	3.6	4.5				
		kcal / h	1,900	2,400	3,100	3,900				
		Btu / h	7,500	9,600	12,300	15,400				
	*2	kcal / h	2,000	2,500	3,150	4,000				
		*4 Power input	kW	0.042	0.044	0.044	0.054			
	*4	Current input	A	0.20	0.21	0.21	0.26			
Heating capacity (Nominal)	*3	kW	2.5	3.2	4.0	5.0				
		kcal / h	2,200	2,800	3,400	4,300				
		Btu / h	8,500	10,900	13,600	17,100				
	*4	Power input	kW	0.042	0.044	0.044	0.054			
		Current input	A	0.20	0.21	0.21	0.26			
External finish			Galvanized, with grey insulation sheet							
External dimension H x W x D		mm	230 x 812 x 395							
		in.	9-1/16 x 32 x 15-9/16							
Net weight		kg (lb)	14 (31)							
Decoration panel	Model		PMP-40BM	PMP-40BM	PMP-40BM	PMP-40BM				
	External finish		MUNSELL (0.98Y 8.99/0.63)							
	Dimension	mm	30 x 1,000 x 470							
		in.	1-3/16 x 39-3/8 x 18-9/16							
	Net Weight		kg (lb)	3 (7)						
Heat exchanger			Cross fin (Aluminum fin and copper tube)							
FAN	Type x Quantity		Line flow fan x 1							
	External static press.	Pa	0							
		mmH ₂ O	0							
	Motor type		1-phase induction motor							
	Motor output		kW							
	Driving mechanism		Direct-driven by motor							
	Airflow rate (Low-Mid-High)	m ³ / min	6.5 - 7.2 - 8.0 - 8.7	7.3 - 8.0 - 8.6 - 9.3	7.3 - 8.0 - 8.6 - 9.3	7.7 - 8.7 - 9.7 - 10.7				
L / s		108 - 120 - 133 - 145	122 - 133 - 143 - 155	122 - 133 - 143 - 155	128 - 145 - 162 - 178					
	cfm	230 - 254 - 283 - 307	258 - 283 - 304 - 328	258 - 283 - 304 - 328	272 - 307 - 343 - 378					
Sound pressure level (Low-Mid-High) (measured in anechoic room) *4		dB <A>	27 - 30 - 33 - 35	32 - 34 - 36 - 37	32 - 34 - 36 - 37	33 - 35 - 37 - 39				
Insulation material			Polyester sheet							
Air filter			PP honeycomb fabric							
Protection device			Fuse							
Refrigerant control device			LEV							
Connectable outdoor unit			R410A CITY MULTI							
Diameter of refrigerant pipe	Liquid (R410A)	mm (in.)	ø6.35 (ø1/4) Flare	ø6.35 (ø1/4) Flare	ø6.35 (ø1/4) Flare	ø6.35 (ø1/4) Flare				
	Gas (R410A)	mm (in.)	ø12.7 (ø1/2) Flare	ø12.7 (ø1/2) Flare	ø12.7 (ø1/2) Flare	ø12.7 (ø1/2) Flare				
Field drain pipe size		mm (in.)	O.D. 26 (1)							
Drawing	External		IU-BH01-C184							
	Wiring		IU-RG79-A671							
	Refrigerant cycle									
Standard attachment	Document		Installation Manual, Instruction Book							
	Accessory		Drain hose I.D. 26 (1) (flexible joint)							
Remark	Optional parts									
	Decoration panel		PMP-40BM	PMP-40BM	PMP-40BM	PMP-40BM				
	*PMFY-P-VBM-E should be used together with PMP-40BM									
Installation		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.								
Note : <table border="0" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:25%; vertical-align: top;"> *1 Nominal cooling conditions Indoor : 27°CDB/19°CWB (81°FDB/66°FWB) Outdoor : 35°CDB (95°FDB) Pipe length : 7.5 m (24-9/16 ft) Level difference : 0 m (0 ft) </td> <td style="width:25%; vertical-align: top;"> *2 Nominal cooling conditions 27°CDB/19.5°CWB (81°FDB/67°FWB) 35°CDB (95°FDB) 5 m (16-3/8 ft) 0 m (0 ft) </td> <td style="width:25%; vertical-align: top;"> *3 Nominal heating conditions 20°CDB (68°FDB) 7°CDB/6°CWB (45°FDB/43°FWB) 7.5 m (24-9/16 ft) 0 m (0 ft) </td> <td style="width:25%; vertical-align: top;"> Unit converter kcal/h = kW x 860 Btu/h = kW x 3,412 cfm = m³/min x 35.31 lb = kg / 0.4536 </td> </tr> </table>							*1 Nominal cooling conditions Indoor : 27°CDB/19°CWB (81°FDB/66°FWB) Outdoor : 35°CDB (95°FDB) Pipe length : 7.5 m (24-9/16 ft) Level difference : 0 m (0 ft)	*2 Nominal cooling conditions 27°CDB/19.5°CWB (81°FDB/67°FWB) 35°CDB (95°FDB) 5 m (16-3/8 ft) 0 m (0 ft)	*3 Nominal heating conditions 20°CDB (68°FDB) 7°CDB/6°CWB (45°FDB/43°FWB) 7.5 m (24-9/16 ft) 0 m (0 ft)	Unit converter kcal/h = kW x 860 Btu/h = kW x 3,412 cfm = m ³ /min x 35.31 lb = kg / 0.4536
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* Nominal conditions *1, *3 are subject to JIS B8615-1. * Due to continuing improvement, above specification may be subject to change without notice. *4 The values are measured at the rated external static pressure.										
Ref.: Spec_PMFY-P20VBM-E										

2. EXTERNAL DIMENSIONS

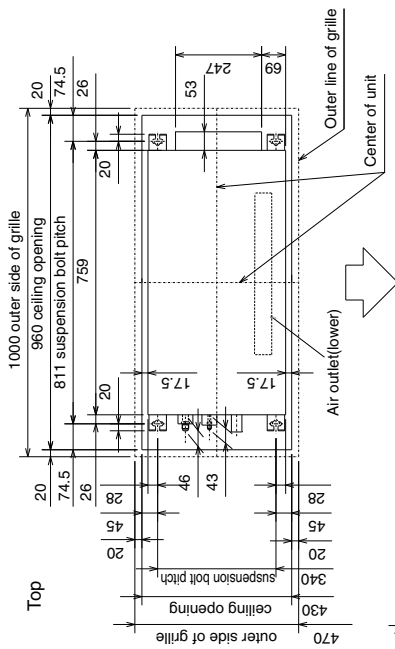
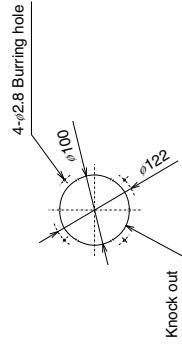
PMFY-P20,25,32,40VBM-E

Draw. : IU-BH01-C184
Unit : mm

Refrigerant piping	pipe cover	OD ϕ 43
	Liquid pipe	OD ϕ 6.35(1/4")
	Gas pipe	OD ϕ 12.7(1/2")
Drain pipe	PVC pipe	PVC pipe: O.D. 26 (1")

* Drain hose I.D. 26 (1") flexible joint Accessory 1pc.

Detail drawing of fresh air intake hole



Refrigerant pipe(gas)
OD ϕ 12.7

Refrigerant pipe(liquid)
OD ϕ 6.35

Drain pipe
PVC pipe: O.D. 26 (1")

Electrical box

Drain pan

Front

Right side

Terminal block for power supply

Terminal block for transmission

Fresh air intake hole

Knock out

4- ϕ 2.8 Burring hole

108

250

288.5

108

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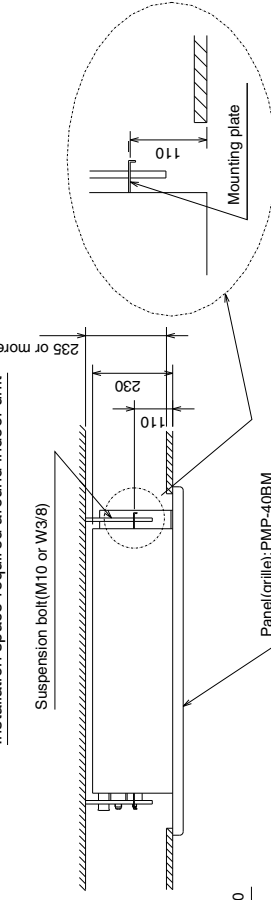
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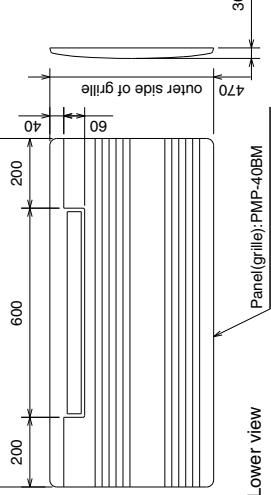
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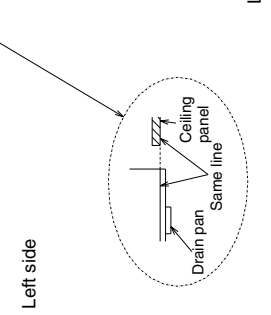
Installation space required around indoor unit



Lower view

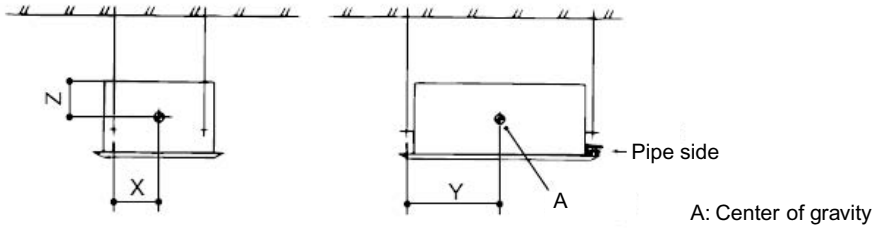


Left side



PMFY

PMFY-P20,25,32,40VBM-E

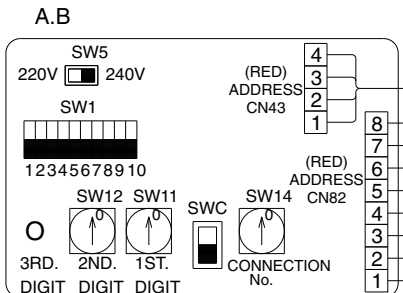
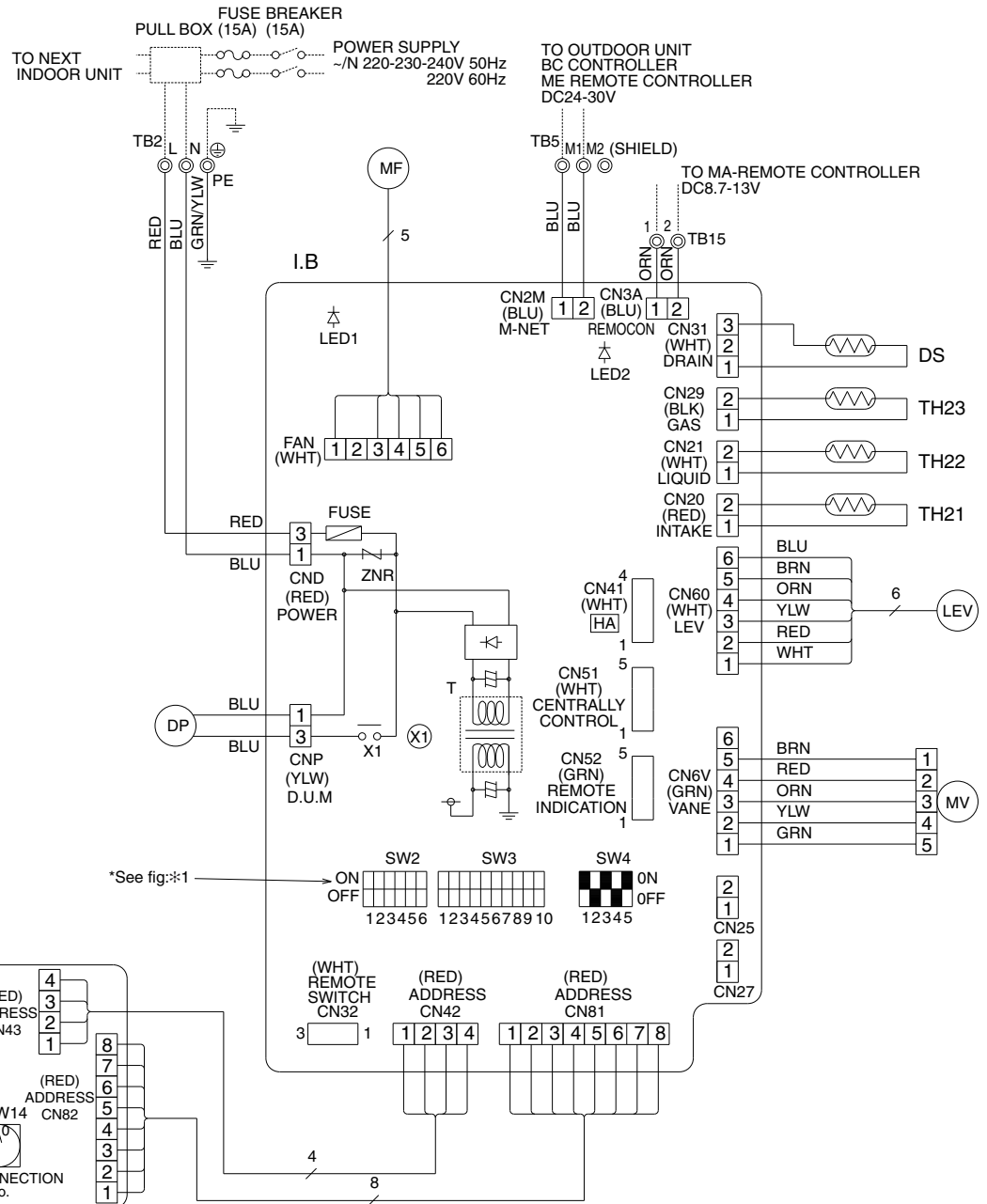


(mm)[in]

Model name	X	Y	Z
PMFY-P20VBM-E	165 [6-1/2]	390 [15-3/8]	130 [5-1/8]
PMFY-P25VBM-E	165 [6-1/2]	390 [15-3/8]	130 [5-1/8]
PMFY-P32VBM-E	165 [6-1/2]	390 [15-3/8]	130 [5-1/8]
PMFY-P40VBM-E	165 [6-1/2]	390 [15-3/8]	130 [5-1/8]

PMFY-P20,25,32,40VBM-E

Drw. : IU-RG79-A671



<SYMBOL EXPLANATION>

SYMBOL	NAME	SYMBOL	NAME
I.B	INDOOR CONTROLLER BOARD	MF	FAN MOTOR
CN25	HUMIDIFIER	MV	VANE MOTOR
CN27	DAMPER	DP	DRAIN WATER LIFTING-UP MACH.
CN32	CONNECTOR	DS	DRAIN SENSOR
CN41	CONNECTOR	TB2	POWER SUPPLY TERMINAL
CN51	CONNECTOR	TB5	TRANSMISSION TERMINAL
CN52	CONNECTOR	TB15	MA-REMOTE CONTROLLER TERMINAL
SW2	SWITCH	TH21	ROOM TEMPERATURE DETECTION (0°C/15kΩ, 25°C/5.4kΩ)
SW3	SWITCH	TH22	PIPE TEMPERATURE DETECTION/LIQUID (0°C/15kΩ, 25°C/5.4kΩ)
SW4	SWITCH	TH23	PIPE TEMPERATURE DETECTION/GAS (0°C/15kΩ, 25°C/5.4kΩ)
ZNR	VARIATOR	LEV	LINEAR EXPANSION VALVE
FUSE	FUSE(6.3A/250V)		
X1	AUX.RELAY (DRAIN PUMP)		
T	TRANSFORMER		
LED1	POWER SUPPLY(L.B)		
LED2	POWER SUPPLY(L.B)		
A.B	CIRCUIT BOARD		
SW1	SWITCH		
SW5	SWITCH		
SW11	SWITCH		
SW12	SWITCH		
SW14	SWITCH		

<※1>

MODELS	SW2	SW3
P20	ON OFF 123456	ON OFF 12345678910
P25	ON OFF 123456	ON OFF 12345678910
P32	ON OFF 123456	ON OFF 12345678910
P40	ON OFF 123456	ON OFF 12345678910

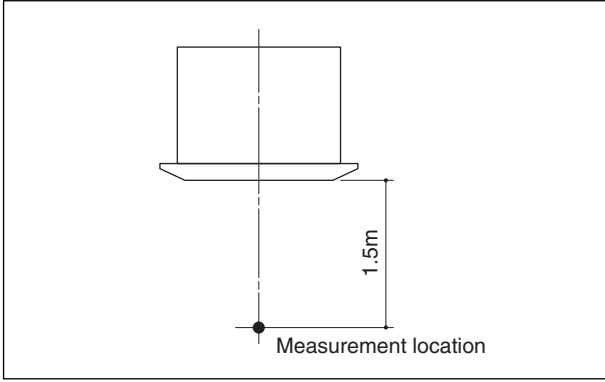
NOTES:

- At servicing for outdoor unit, always follow the wiring diagram of outdoor unit.
- Symbol [S] of TB5 is the shield wire connection.
- Symbols used in wiring diagram above are,
 ⊙ :terminal block, □ :connector.
- The setting of the SW2 dip switches differs in the capacity for the detail, see the table <※1>.
- Please set the switch SW5 according to the power supply voltage.
 Set SW5 to 240V side when the power supply is 230 and 240 volts.
 When the power supply is 220 volts, set SW5 to 220V side.

5. SOUND LEVELS

5-1. Sound levels

PMFY-P-VBM-E



Sound level at anechoic room : Low-Middle2-Middle1-High

	Sound level dB (A)
PMFY-P20VBM-E	27-30-33-35
PMFY-P25VBM-E	32-34-36-37
PMFY-P32VBM-E	33-35-37-39
PMFY-P40VBM-E	33-35-37-39

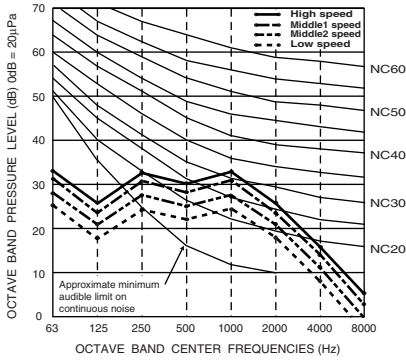
* Measured in anechoic room.

PMFY

5-2. NC curves

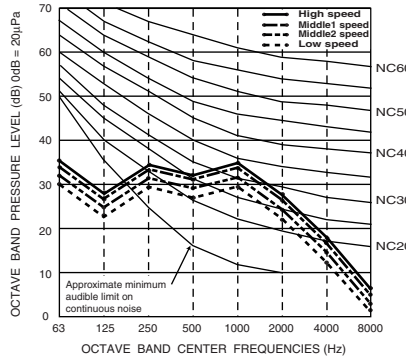
PMFY-P20VBM-E

External static pressure : 0Pa
Power source : 220,230,240V, 50Hz / 220V, 60Hz



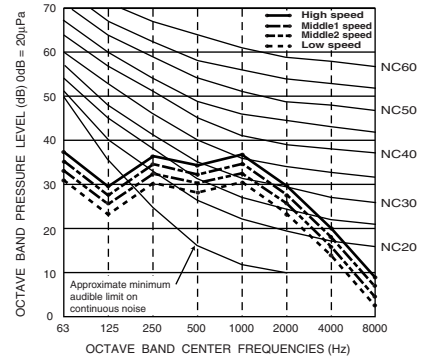
PMFY-P25,32VBM-E

External static pressure : 0Pa
Power source : 220,230,240V, 50Hz / 220V, 60Hz



PMFY-P40VBM-E

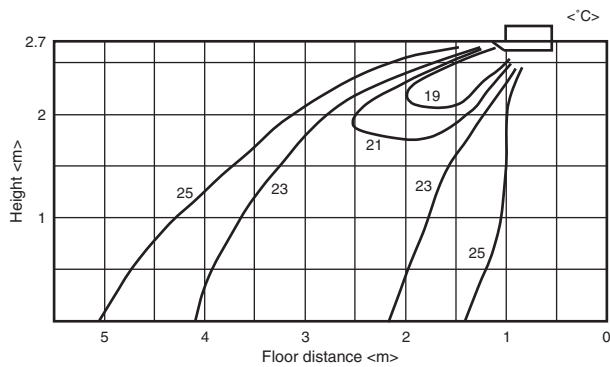
External static pressure : 0Pa
Power source : 220,230,240V, 50Hz / 220V, 60Hz



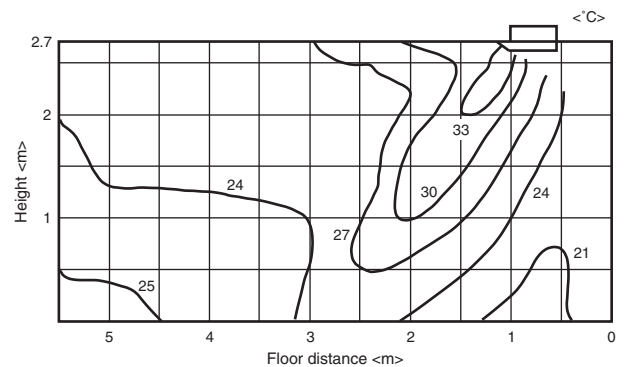
6-1. Temperature distributions

PMFY-P20-40VBM-E

<Cooling mode>
Flow angle 30°



<Heating mode>
Flow angle 70°

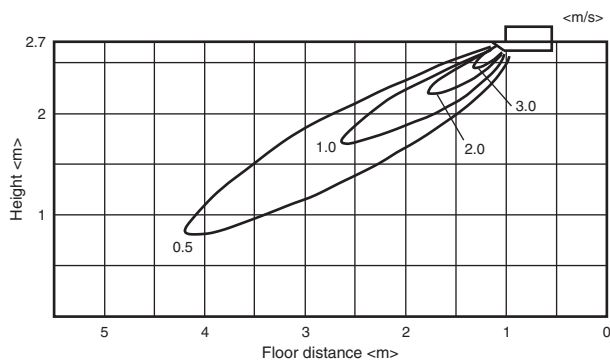


Note : These figures show typical temperature distributions in the conditions above. In the actual installation, they may differ from these figures under the influence of air temperature conditions, ceiling height, cooling/heating load, obstacles, etc.

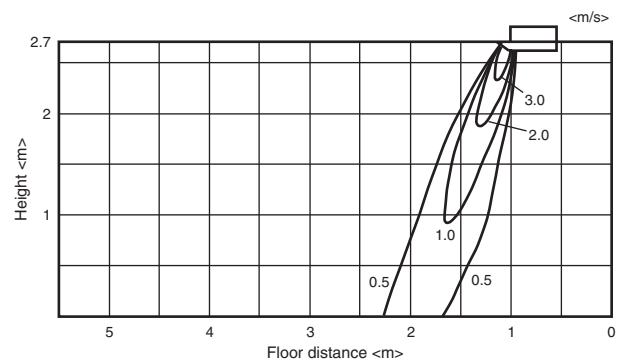
6-2. Airflow distributions

PMFY-P20-40VBM-E

<Fan mode>
Flow angle 30°



<Fan mode>
Flow angle 70°



Note : These figures show typical airflow distributions in the conditions above. In the actual installation, they may differ from these figures under the influence of air temperature conditions, ceiling height, cooling/heating load, obstacles, etc.

