

PMFY-P-NBMU-ER5

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CEILING-RECESSED CASSETTE (ONE-WAY AIRFLOW)

■ **Ideal for small spaces**

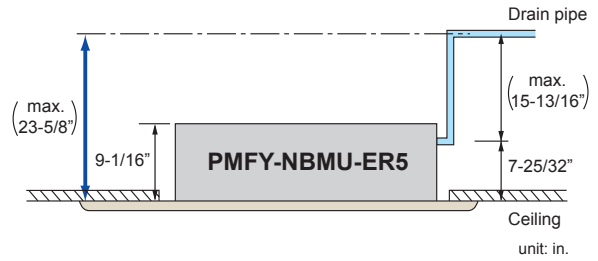
The PMFY models are one-way ceiling-recessed cassette units perfect for shallow ceiling spaces.

■ **The PMFY unit moves air in one direction and can bring in fresh ventilation.**

It is designed especially for use in areas like hotel rooms that cannot support ductwork or lack sufficient space to allow for wall-mounted units.

Unit body size has been standardized for all models at 33-5/8" for easier installation. This profile is the smallest of all CITY MULTI™ ceiling models with a depth of only 9-1/16"-ideal for tight location.

■ **Embedded drain pump kit, having a 23-5/8" lift.**



Cassette ceiling		P06	P08	P12	P15	P18	P24	P27	P30	P36	P48	P54	P72	P96
		0.8HP	1.0HP	1.3HP	1.6HP	2.0HP	2.5HP	2.8HP	3.2HP	4.0HP	5.0HP	5.6HP	8.0HP	10.0HP
Nominal cooling cap.*1	Btu/h	6,000	8,000	12,000	15,000	18,000	24,000	27,000	30,000	36,000	48,000	54,000	72,000	96,000
Nominal heating cap.*2	Btu/h	6,700	9,000	13,500	17,000	20,000	27,000	30,000	34,000	40,000	54,000	60,000	80,000	108,000
PMFY-P-NBMU-ER5		●	●	●	●									

* Nominal conditions *1, *2 are referred to in the Specification sheet.

1. SPECIFICATIONS

Model		PMFY-P06NBMU-ER5	PMFY-P08NBMU-ER5	PMFY-P12NBMU-ER5	PMFY-P15NBMU-ER5	
Power source		1-phase 208-230 V 60Hz				
Cooling capacity *1 (Nominal)	Btu/h	6,000	8,000	12,000	15,000	
	kW	1.8	2.3	3.5	4.4	
	Power input kW	0.04	0.04	0.04	0.05	
	Current input A	0.20	0.20	0.21	0.26	
Heating capacity *2 (Nominal)	Btu/h	6,700	9,000	13,500	17,000	
	kW	2.0	2.6	4.0	5.0	
	Power input kW	0.04	0.04	0.04	0.05	
	Current input A	0.20	0.20	0.21	0.26	
External finish						
External dimension H x W x D	in.	9-1/16 x 31-31/32 x 15-9/16	9-1/16 x 31-31/32 x 15-9/16	9-1/16 x 31-31/32 x 15-9/16	9-1/16 x 31-31/32 x 15-9/16	
	mm	230 x 812 x 395	230 x 812 x 395	230 x 812 x 395	230 x 812 x 395	
Net weight	lbs (kg)	31 (14)	31 (14)	31 (14)	31 (14)	
Decoration panel	Model	PMP-16BMUW	PMP-16BMUW	PMP-16BMUW	PMP-16BMUW	
	External finish	6.4Y 8.9/0.4				
	Dimension	in.	1-3/16 x 39-3/8 x 18-17/32	1-3/16 x 39-3/8 x 18-17/32	1-3/16 x 39-3/8 x 18-17/32	1-3/16 x 39-3/8 x 18-17/32
	H x W x D	mm	30 x 1,000 x 470	30 x 1,000 x 470	30 x 1,000 x 470	30 x 1,000 x 470
	Net Weight	lbs (kg)	7(3)	7(3)	7(3)	7(3)
Heat exchanger		Cross fin				
FAN	Type x Quantity		Line flow fan x 1	Line flow fan x 1	Line flow fan x 1	Line flow fan x 1
	External static pressure	in.WG	0.000 (208V)	0.000 (208V)	0.000 (208V)	0.000 (208V)
		Pa	0	0	0	0
		in.WG	0.000 (230V)	0.000 (230V)	0.000 (230V)	0.000 (230V)
		Pa	0	0	0	0
	Motor type	DC Brushless				
	Driving mechanism	Direct-driven				
	Airflow rate (Low-Mid1-Mid2-High)	CFM	230-254-283-307	258-283-304-328	258-283-304-328	272-307-343-378
		m3 / 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
Sound pressure level (Low-Mid1-Mid2-High) (measured in anechoic room)	dB <A>	27-30-33-35 (208-230V)	32-34-36-37 (208-230V)	32-34-36-37 (208-230V)	33-35-37-39 (208-230V)	
Insulation material		PS foam, Polyethylene foam				
Air filter		PP honeycomb				
Protection device		Fuse				
Refrigerant control device		LEV				
Connectable outdoor unit		R410A CITY MULTI	R410A CITY MULTI	R410A,R22 CITY MULTI	R410A,R22 CITY MULTI	
Diameter of refrigerant pipe (O.D.)	Liquid (R410A) (R22)	in. (mm)	1/4 (6.35) Flare -	1/4 (6.35) Flare -	1/4 (6.35) Flare 1/4 (6.35) Flare	
	Gas (R410A) (R22)	in. (mm)	1/2 (12.7) Flare -	1/2 (12.7) Flare -	1/2 (12.7) Flare 1/2 (12.7) Flare	
Field drain pipe size	in. (mm)	O.D. 1 (26)	O.D. 1 (26)	O.D. 1 (26)	O.D. 1 (26)	
Drain lift mechanism	in. (mm)	23-5/8 (600)	23-5/8 (600)	23-5/8 (600)	23-5/8 (600)	
Drawing	External	BH01C848				
	Wiring	BH79C630				
Standard attachment	Document Accessory	Installation Manual, Installation Book				
Optional parts	External heater adapter	CN24RELAY-KIT-CM3	CN24RELAY-KIT-CM3	CN24RELAY-KIT-CM3	CN24RELAY-KIT-CM3	
Remark	Ventilation Air: Providing sufficient ventilation air is an important part of every building design. ASHRAE standard 62 provides the minimum ventilation air requirements. Also check local codes.					
	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:	*1 Nominal cooling conditions	*2 Nominal heating conditions	Unit converter
Indoor:	80degF D.B. / 67degF W.B. (26.7degC D.B. / 19.4degC W.B.)	70degF D.B. (21.1degC D.B.)	kcal/h = kW x 860
			BTU/h = kW x 3,412
Outdoor:	95degF D.B. (35degC D.B.)	47degF D.B. / 43degF W.B. (8.3degC D.B. / 6.1degC W.B.)	cfm = m3/min x 35.31
			lbs = kg / 0.4536
Pipe length:	25 ft. (7.6 m)	25 ft. (7.6 m)	*Above specification data is subject to rounding variation.
Level difference:	0 ft. (0 m)	0 ft. (0 m)	

*Due to continuing improvement, above specification may be subject to change without notice.

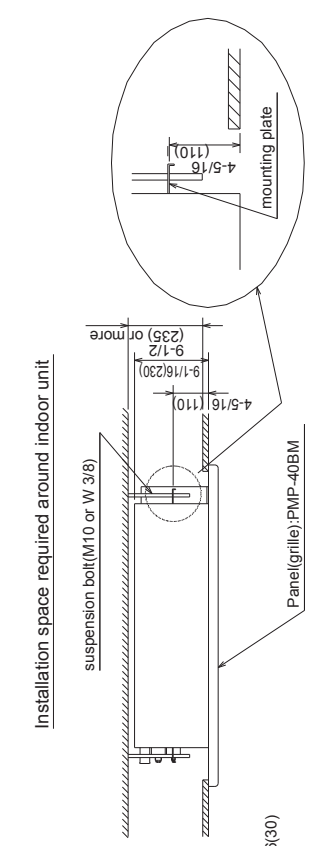
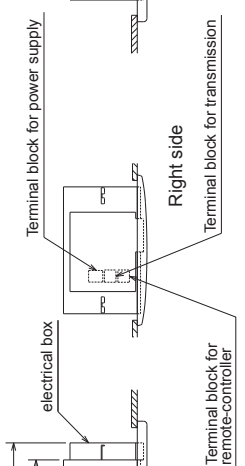
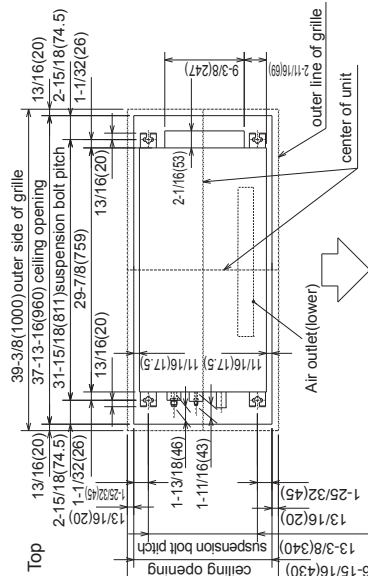
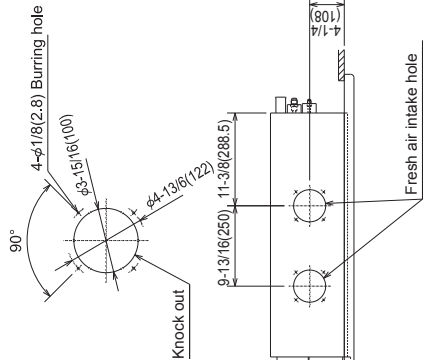
2. EXTERNAL DIMENSIONS

PMFY-P06,08,12,15NBMU-ER5

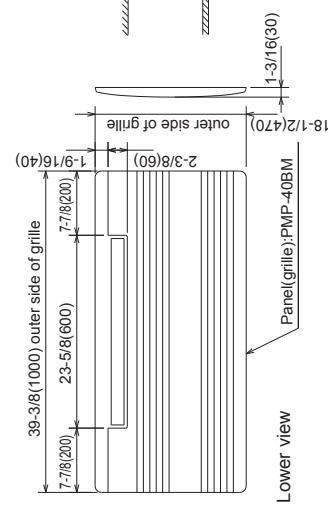
Drw. : IU-BH01C848
Unit : in(mm)

Refrigerant piping	Pipe cover O.D. ϕ 1-11/16" (443)
Drainage piping	Liquid pipe O.D. ϕ 1 1/4" (46.35)
	Gas pipe O.D. ϕ 1 1/2" (412.7)
	PVC pipe: I.D. 1-1/32" (26)

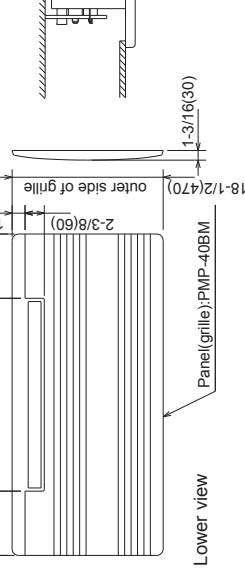
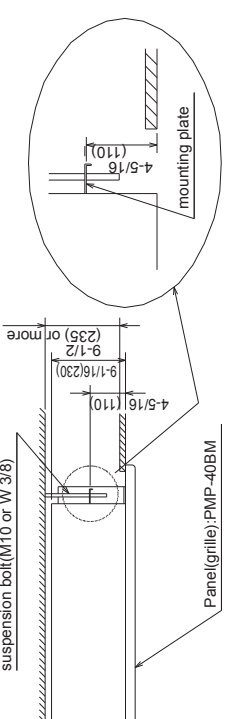
Detail drawing of fresh air intake hole



Installation space required around indoor unit



ceiling panel
drain pan
same line

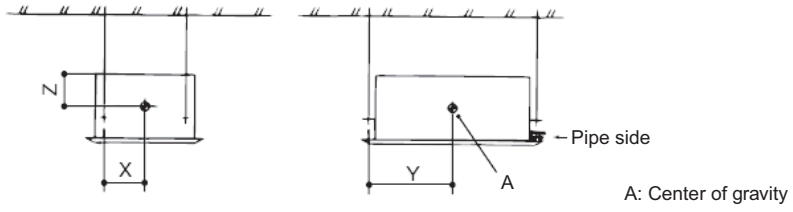


Lower view

3. CENTER OF GRAVITY

PMFY-P06,08,12,15NBMU-ER5

Ref.: PMFY_NBMU_COG_USDB_ALL



(mm)[in]

Model name	X	Y	Z
PMFY-P06NBMU-ER5	165 [6-1/2]	390 [15-3/8]	130 [5-1/8]
PMFY-P08NBMU-ER5	165 [6-1/2]	390 [15-3/8]	130 [5-1/8]
PMFY-P12NBMU-ER5	165 [6-1/2]	390 [15-3/8]	130 [5-1/8]
PMFY-P15NBMU-ER5	165 [6-1/2]	390 [15-3/8]	130 [5-1/8]

4. ELECTRICAL WIRING DIAGRAMS

PMFY-P06,08,12,15NBMU-ER5

Drw. : IU-BH79C630

LED on indoor board for service

Mark	Meaning	Function
LED1	Main power supply	Main power supply (Indoor unit:208-230V) Power on → lamp is lit
LED2	Power supply for MA-Remote controller	Power supply for MA-Remote controller on → lamp is lit

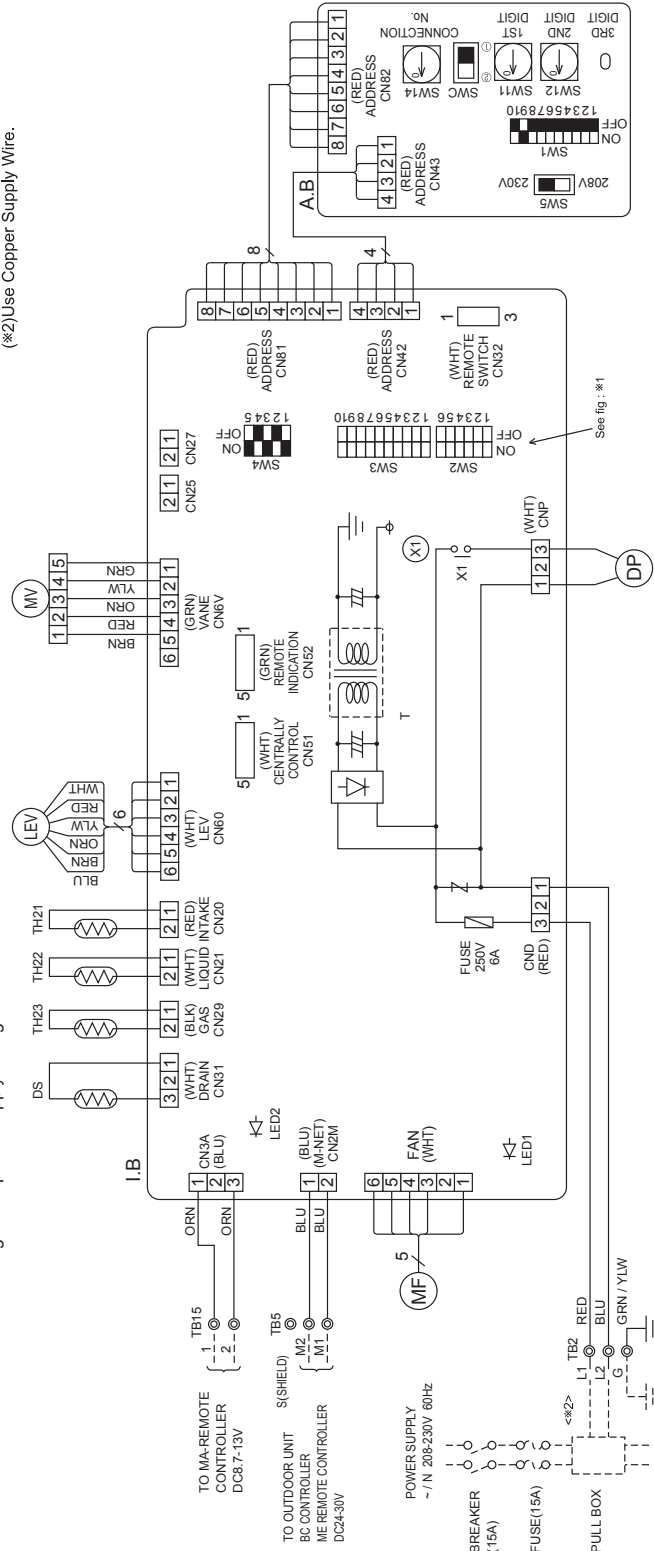
Symbol	Name	Symbol	Name
I.B	Indoor controller board	TH21	Thermistor
CN23	Connector	TH22	Thermistor
CN27	Connector	TH23	Thermistor
CN32	Connector	A.B	Address board
CN51	Connector	SW1	Switch
CN52	Connector	SW5	Switch
SW2	Switch	LEV	Linear expansion valve
SW3	Switch	TB2	Terminal
SW4	Switch	TB5	Terminal
ZNR	Varistor	TB15	Terminal block
FUSE	Fuse (6A / 250V)		

- Note**
1. At servicing for outdoor unit, always follow the wiring diagram of outdoor unit.
 2. In case of using MA-Remote controller, please connect to TB15.
(Remote controller wire is non-polar.)
 3. In case of using M-NET, please connect to TB5.
(Transmission line is non-polar.)
 4. Symbol [S] of TB5 is the shield wire connection.
(Transmission line is non-polar.)
 5. Symbols used in wiring diagram above are, ⊙ : terminal block, □ : connector.
 6. The setting of the SW2, SW3 dip switches differs in the capacity for the detail, refer to the fig : *1.
 7. Please set the switch SW5 according to the power supply voltage.

<fig. : *1>

Models	SW2	SW3
P06	ON OFF 1 2 3 4 5 6	ON OFF 1 2 3 4 5 6 7 8 9 10
P08	ON OFF 1 2 3 4 5 6	ON OFF 1 2 3 4 5 6 7 8 9 10
P12	ON OFF 1 2 3 4 5 6	ON OFF 1 2 3 4 5 6 7 8 9 10
P15	ON OFF 1 2 3 4 5 6	ON OFF 1 2 3 4 5 6 7 8 9 10

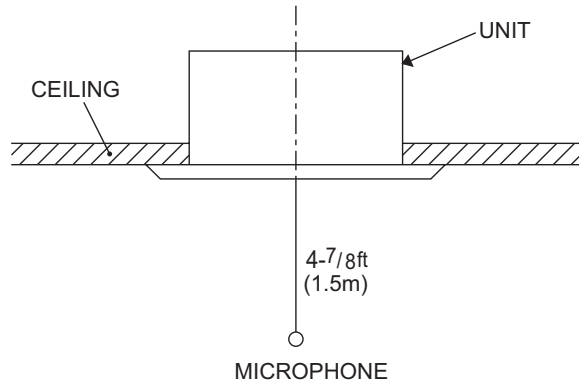
(*2) Use Copper Supply Wire.



5. SOUND PRESSURE LEVELS

5-1. Sound Pressure Levels

Ceiling cassette series



Operating sound pressure levels
(Low-Medium2-Medium1-High)

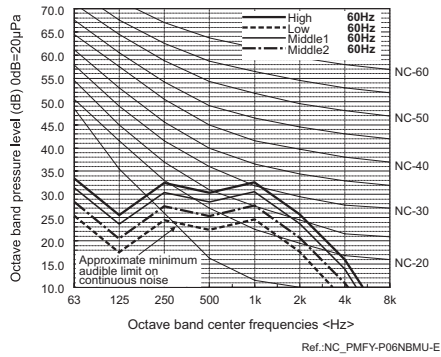
Unit : dB(A)

Model	Sound levels (A weighted)
PMFY-P06NBMU-ER5	27-30-33-35
PMFY-P08NBMU-ER5	32-34-36-37
PMFY-P12NBMU-ER5	32-34-36-37
PMFY-P15NBMU-ER5	33-35-37-39

5-2. NC Curves

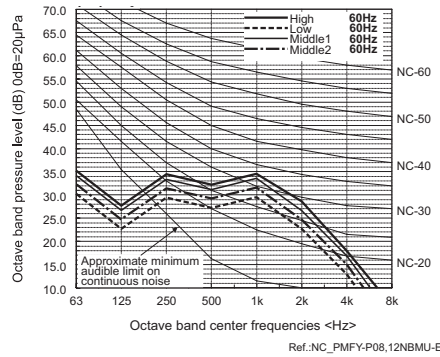
PMFY-P06NBMU-ER5

External Static Pressure: 0Pa [0.00 in.WG]
Power Source: 208-230V, 60Hz



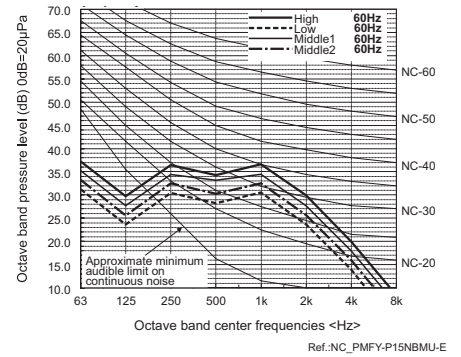
PMFY-P08,12NBMU-ER5

External Static Pressure: 0Pa [0.00 in.WG]
Power Source: 208-230V, 60Hz



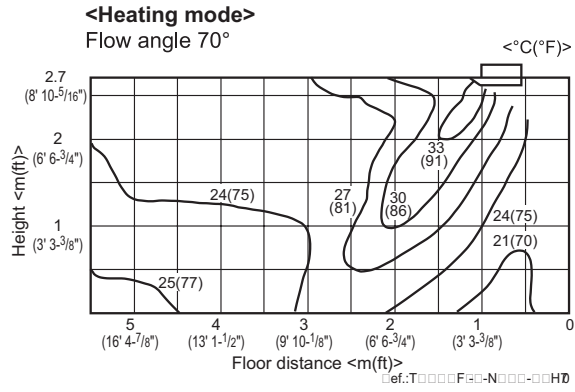
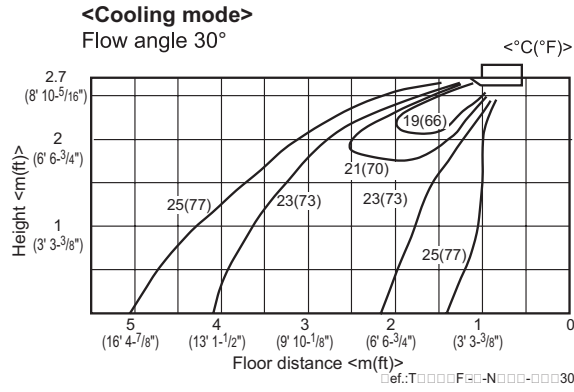
PMFY-P15NBMU-ER5

External Static Pressure: 0Pa [0.00 in.WG]
Power Source: 208-230V, 60Hz



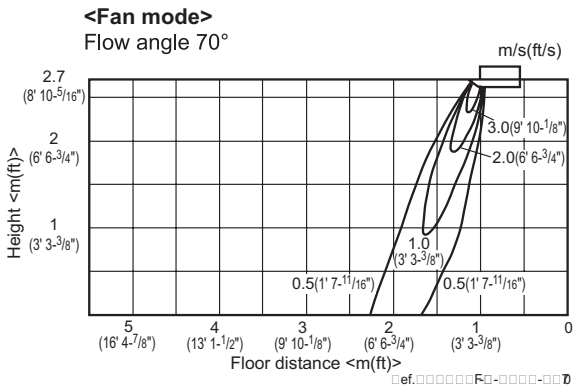
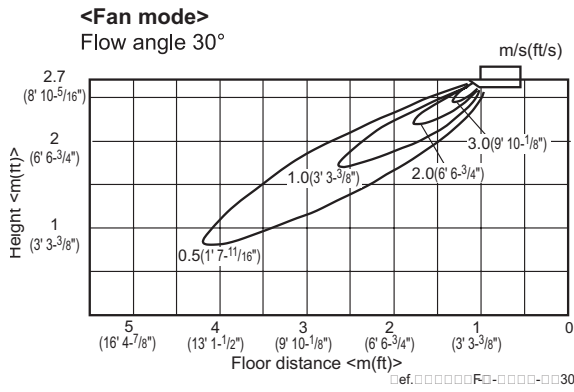
6. TEMPERATURE/AIRFLOW DISTRIBUTIONS

6-1. Temperature Distributions



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.

6-2. Airflow Distributions



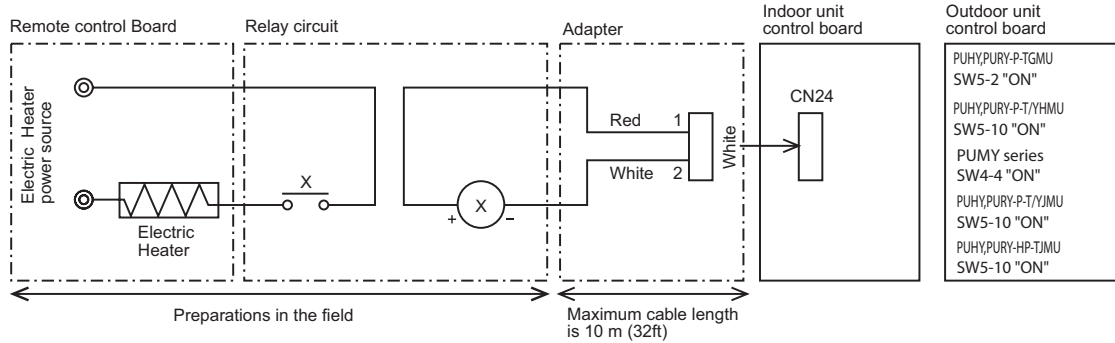
Note : These figures show typical airflow distributions in the conditions above. In the actual installation, they may differ from these figures under the influence of air temperature conditions, ceiling height, cooling/heating load, obstacles, etc.

7. OPTIONAL PARTS

7-1. External Heater Adapter CN24RELAY-KIT-CM3

External heater adaptor CN24RELAY-KIT-CM3 is a set of special wiring parts for controlling the electric heater* with the air conditioner system.
 *The electric heater should be designed and prepared at the site.

A basic connection method is shown as follows:(For details, refer to its Installation Manual.)



For relay X use the specifications given below Operation coil

Rated voltage : 12VDC

Power consumption : 0.9W or less

The length of the electrical wiring for the CN24RELAY-KIT-CM3 is 2 meters (6-1/2 ft)

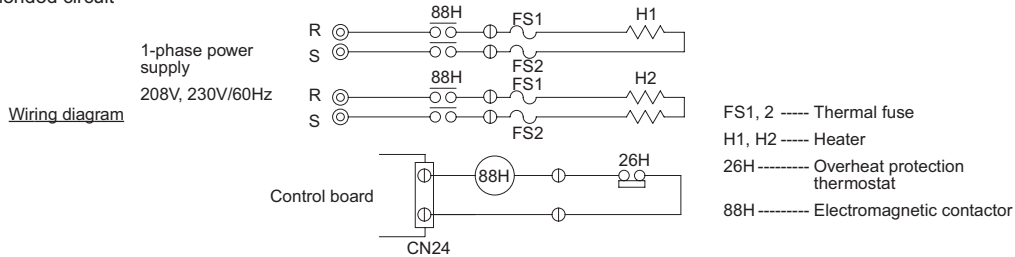
To extend this length, use sheathed 2-core cable.

Control cable type : CVV, CVS, CPEV or equivalent.

Cable size : 0.5 mm² ~ 1.25 mm² (16 to 22 AWG)

Don't extend the cable more than 10 meters (32ft)

Recommended circuit



Item	① External output cable	② Fan speed setting cable with resistance	
Quantity	2	2	
Shape			

Refer to the Installation Manual for wiring and installation details.

