PMFY-P-NBMU-E

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PMFY-P-NBMU-E



PMFY-P-NBMU-E

Compact and lightweight-perfect for limited ceiling space applications.





■ **Ideal for small spaces**

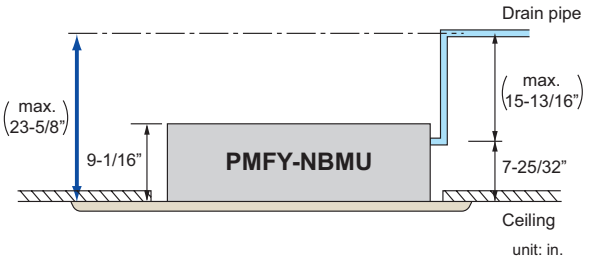
The PMFY models are one-way ceiling-recessed cassette units perfect for shallow ceiling spaces.

■ **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.**



unit: in.

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-E		●	●	●	●									

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

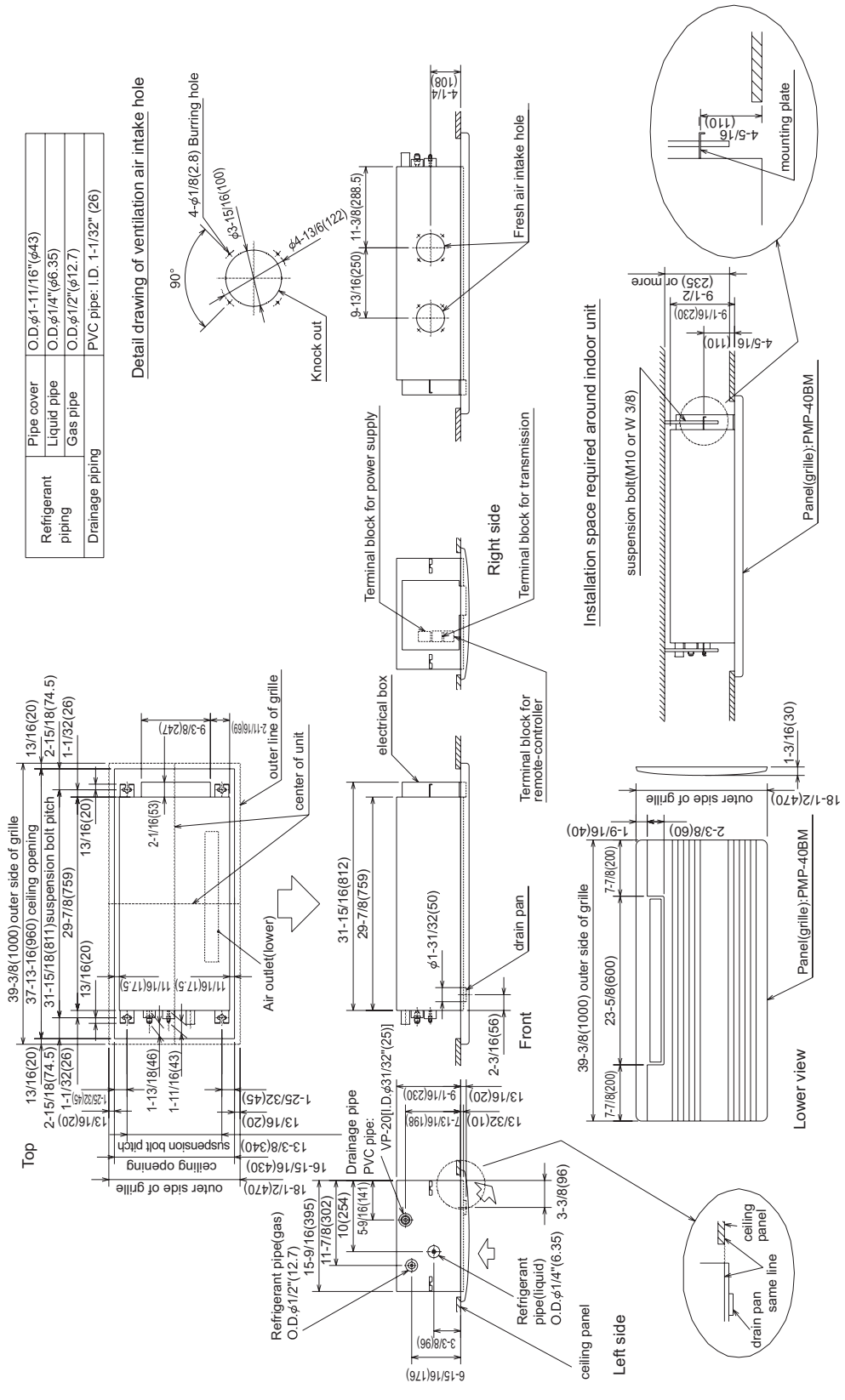
1. SPECIFICATIONS

Model			PMFY-P06NBMU-E	PMFY-P08NBMU-E	PMFY-P12NBMU-E	PMFY-P15NBMU-E
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			
	Motor output	kW	0.028	0.028	0.028	0.028
	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)
		dB <A>	-	-	-	-
		dB <A>	-	-	-	-
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	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	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			
	Refrigerant cycle		-			
Standard attachment	Document Accessory		Installation Manual,Installation Book			
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.			

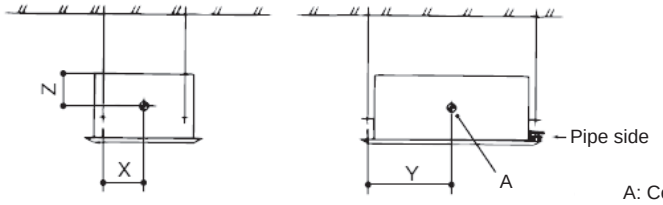
PMFY-P06,08,12,15NBMU-E

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



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

Ref.: PMFY_NBMU_COG_USDB_ALL



A: Center of gravity

(mm)[in]

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

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

Drw. : IU-BH79C630

[Legend]

Symbol	Name	Symbol	Name	Symbol	Name
I.B	Indoor controller board	X1	Aux.relay	Drain pump	TH21	Thermistor	Room temp. detection (32°F/15kΩ, 77°F/5.4kΩ)
CN25	Connector	Humidifier	T	Transformer			
CN27		Damper	LED1	Power supply (I.B)	TH22		Pipe temp. detection / Liquid (32°F/15kΩ, 77°F/5.4kΩ)
CN32		Remote switch	LED2	Power supply (I.B)			
CN51		Centrally control	MF	Fan motor (with inner thermo)	TH23		Pipe temp. detection / Gas (32°F/15kΩ, 77°F/5.4kΩ)
CN52		Remote Indication	MV	Vane motor			
SW2	Switch	Capacity code	DP	Drain pump kit	A.B	Address board	
SW3		Mode selection	DS	Drain sensor	SW1	Switch	Mode selection
SW4		Model selection	LEV	Linear expansion valve	SW5		Voltage selection
ZNR	Varistor		TB2	Terminal	SW11		Address setting 1st digit
FUSE	Fuse (6A / 250V)		TB5	block	SW12		Address setting 2nd digit
			TB15		SW14		Connection No.

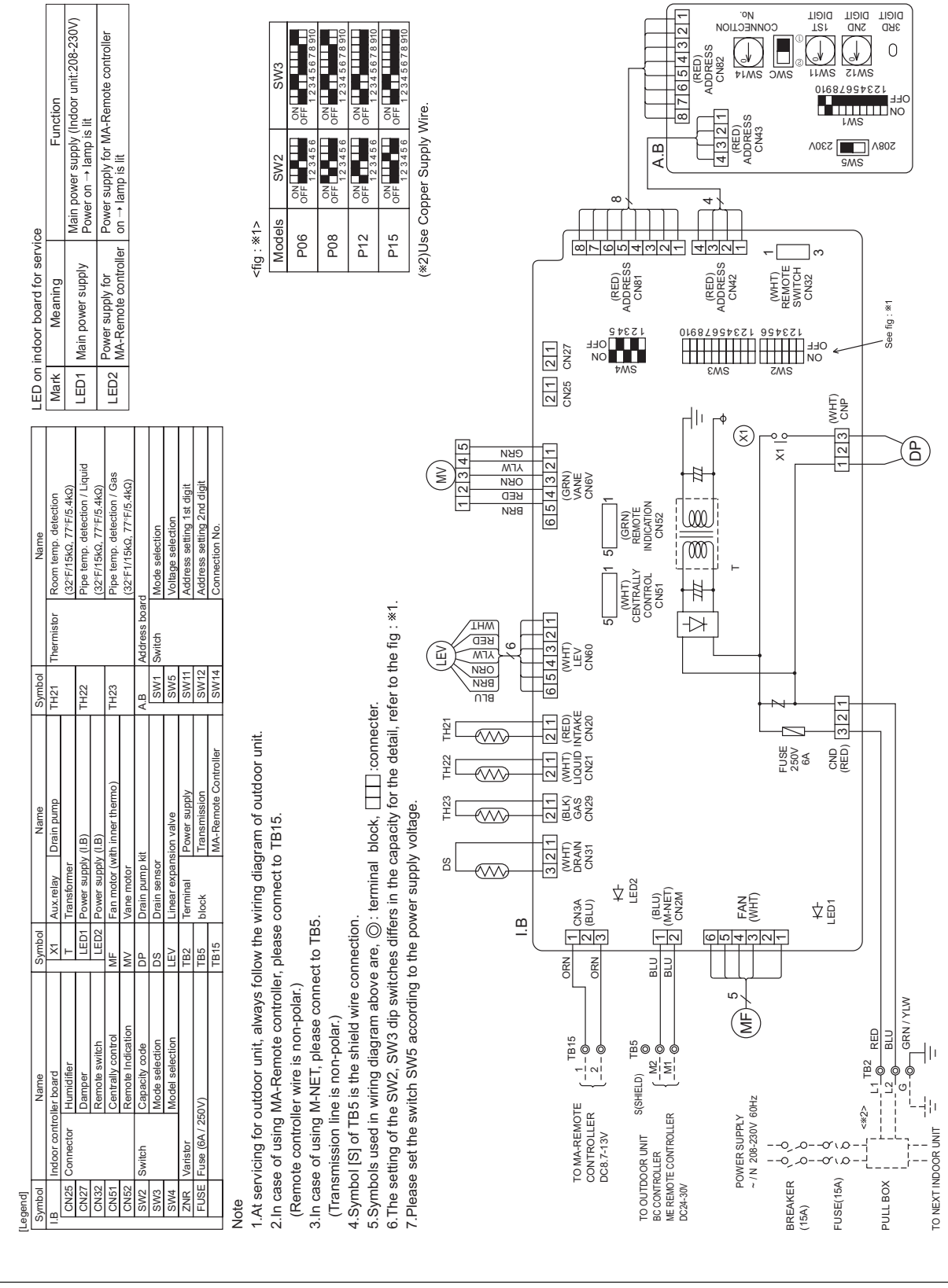
LED on indoor board for service

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

<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.

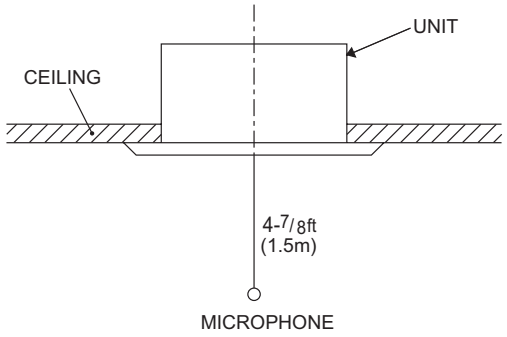


Note

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.
5. Symbols used in wiring diagram above are, ◎: terminal block, □□:connecter.
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.

5-1. Sound Pressure Levels

Cassette ceiling series



Measurement location

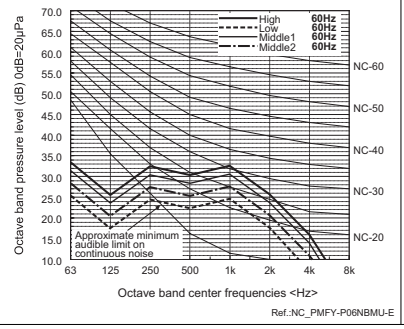
Operating sound pressure levels
(Low-Medium2-Medium1-High) Unit : dB(A)

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

5-2. NC Curves

PMFY-P06NBMU-E

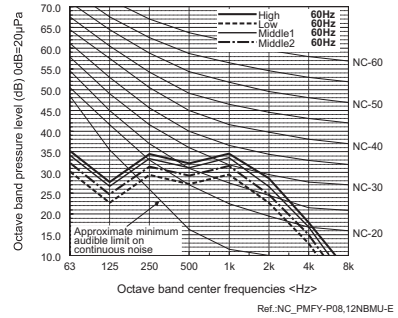
External Static Pressure: 0Pa
Power Source: 208-230V, 60Hz



Ref.:NC_PMFY-P06NBMU-E

PMFY-P08,12NBMU-E

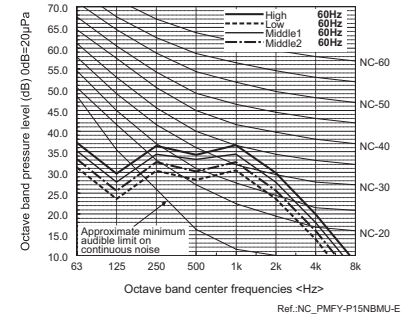
External Static Pressure: 0Pa
Power Source: 208-230V, 60Hz



Ref.:NC_PMFY-P08,12NBMU-E

PMFY-P15NBMU-E

External Static Pressure: 0Pa
Power Source: 208-230V, 60Hz

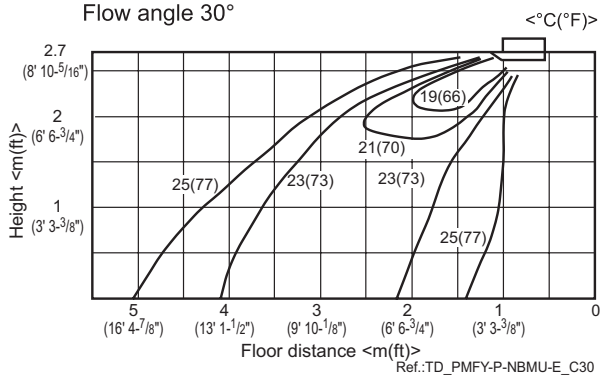


Ref.:NC_PMFY-P15NBMU-E

6. TEMPERATURE/AIRFLOW DISTRIBUTIONS

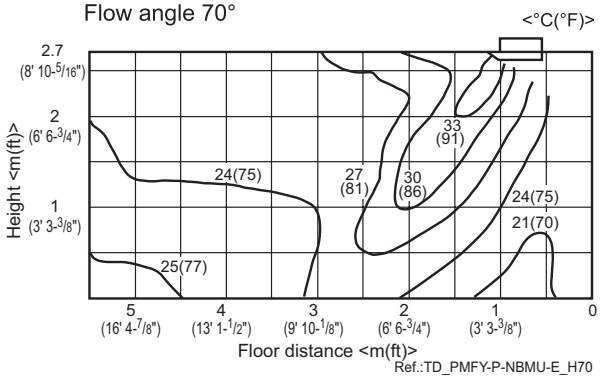
6-1. Temperature Distributions

<Cooling mode>
Flow angle 30°



Ref.:TD_PMFY-P-NBMU-E_C30

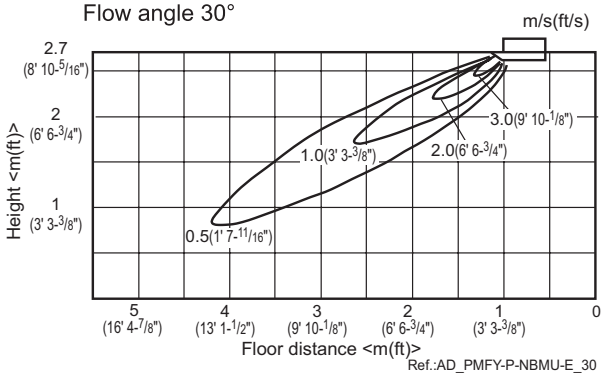
<Heating mode>
Flow angle 70°



Ref.:TD_PMFY-P-NBMU-E_H70

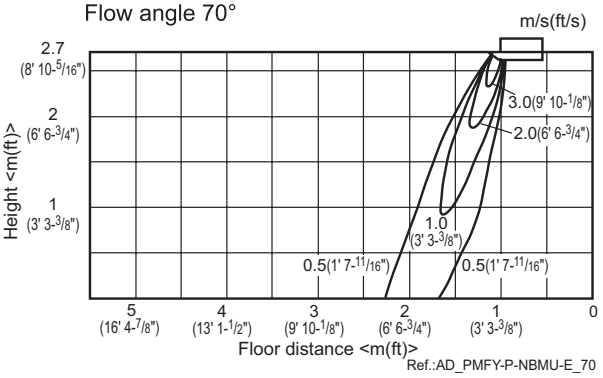
6-2. Airflow Distributions

<Fan mode>
Flow angle 30°



Ref.:AD_PMFY-P-NBMU-E_30

<Fan mode>
Flow angle 70°

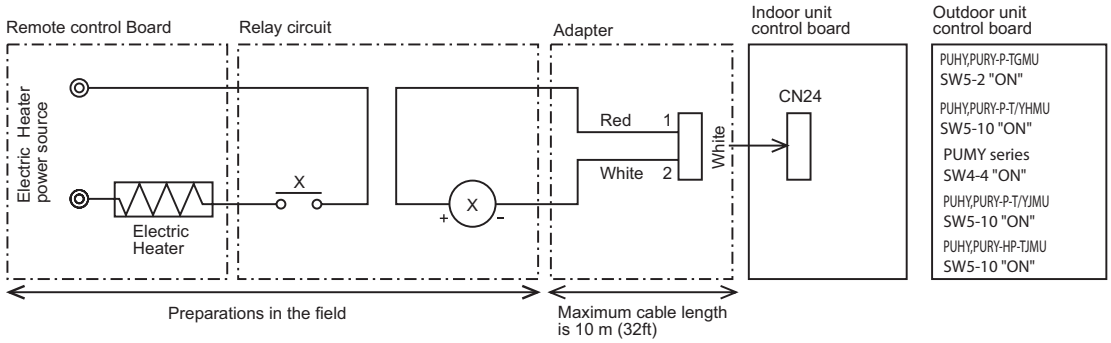


Ref.:AD_PMFY-P-NBMU-E_70

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.

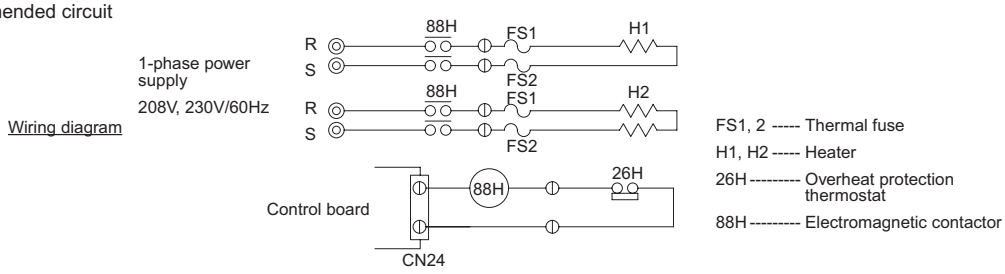
A basic connection method is shown as follows:(For details, refer to its Installation Manual.)



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 mm^2 ~ 1.25 mm^2 (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.