PCFY-P-NGMU-E

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PCFY-P-NGMU-E



PCFY-P-NGMU-E

Ceiling-suspended type's compact dimensions ideal for restaurants and stores.

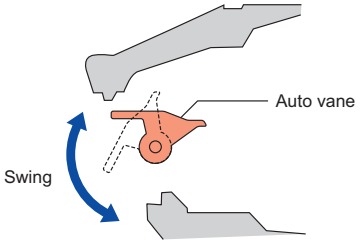


■ **Wide-range outlet, strong air-flow make uniform air temperature and extremely quiet.**

	Outlet	Max. airflow	Sound pressure level at low air flow
PCFY-P15NGMU-E	35-5/8 in.	424cfm	29 dBA
PCFY-P24NGMU-E	47-13/16 in.	636cfm	32 dBA
PCFY-P30NGMU-E	47-13-16 in.	883cfm	36 dBA
PCFY-P36NGMU-E	60 in.	1236cfm	37 dBA

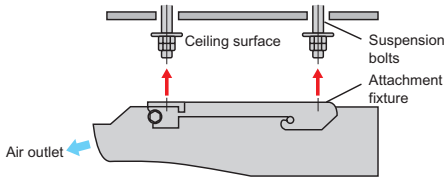
■ **Strong air flow could even be used at a ceiling of 11'-5" height.**

The PCFY's auto-vane swings the conditioned air and distributes it uniformly to corners of the room.



■ **Install by direct-suspending, easy job.**

①Suspend the bolts;
②Suspend the unit;
③Tight the nuts.



Ceiling suspended		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
PCFY-P-NGMU-E					●		●		●	●				

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

1. SPECIFICATIONS

Model			PCFY-P15NGMU-E	PCFY-P24NGMU-E	PCFY-P30NGMU-E	PCFY-P36NGMU-E
Power source			1-phase 208-230 V 60Hz			
Cooling capacity	*1	BTU / h	15,000	24,000	30,000	36,000
(Nominal)	*1	kW	4.4	7.0	8.8	10.6
Power input		kW	0.08	0.09	0.23	0.27
Current input		A	0.40	0.45	1.12	1.32
Heating capacity	*2	BTU / h	17,000	27,000	34,000	40,000
(Nominal)	*2	kW	5.0	7.9	10.0	11.7
Power input		kW	0.08	0.09	0.23	0.27
Current input		A	0.40	0.45	1.12	1.32
External finish			Polyester painted steel sheet, Plastic 0.70Y 8.59/0.97			
External dimension H x W x D		in.	8-9/32 x 39-3/8 x 26-25/32	8-9/32 x 51-19/32 x 26-25/32	10-21/32 x 51-19/32 x 26-25/32	10-21/32 x 63-25/32 x 26-25/32
		mm	210 x 1,000 x 680	210 x 1,310 x 680	270 x 1,310 x 680	270 x 1,620 x 680
Net weight		lbs (kg)	60 (27)	75 (34)	82 (37)	95 (43)
Heat exchanger			Cross fin			
FAN	Type x Quantity		Sirocco fan x 2	Sirocco fan x 3	Sirocco fan x 3	Sirocco fan x 4
	External	in.WG	0.000 (208V)	0.000 (208V)	0.000 (208V)	0.000 (208V)
	static pressure	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		1-phase induction motor			
	Motor output	kW	0.054	0.070	0.090	0.150
	Driving mechanism		Direct-driven			
	Airflow rate	cfm	283-353-388-424	424-494-565-636	636-706-812-883	918-989-1,130-1,236
	(Low-Mid1-Mid2-High)	m3 / min	8.0-10.0-11.0-12.0	12.0-14.0-16.0-18.0	18.0-20.0-23.0-25.0	26.0-28.0-32.0-35.0
		L / s	133-167-183-200	200-233-267-300	300-333-383-417	433-467-533-583
Sound pressure level (Low-Mid1-Mid2-High)		dB <A>	29-33-36-38 (208-230V)	32-34-37-39 (208-230V)	36-38-41-43 (208-230V)	37-39-42-44 (208-230V)
(measured in anechoic room)		dB <A>	-	-	-	-
		dB <A>	-	-	-	-
Insulation material			PS foam, Polyethylene foam			
Air filter			PP honeycomb (anti-virus type)			
Protection device			Fuse			
Refrigerant control device			LEV			
Connectable outdoor unit			R410A,R22 CITY MULTI			
Diameter of refrigerant pipe (O.D.)	Liquid (R410A)	in. (mm)	1/4 (6.35) Flare	3/8 (9.52) Flare	3/8 (9.52) Flare	3/8 (9.52) Flare
	(R22)		1/4 (6.35) Flare	3/8 (9.52) Flare	3/8 (9.52) Flare	3/8 (9.52) Flare
	Gas (R410A)	in. (mm)	1/2 (12.7) Flare	5/8 (15.88) Flare	5/8 (15.88) Flare	5/8 (15.88) Flare
	(R22)		1/2 (12.7) Flare	5/8 (15.88) Flare	5/8 (15.88) Flare	3/4 (19.05) Flare
Field drain pipe size		in. (mm)	O.D. 1-1/32 (26)	O.D. 1-1/32 (26)	O.D. 1-1/32 (26)	O.D. 1-1/32 (26)
Drawing	External		RG01N982-01	RG01N982-02	RG01N982-03	RG01N982-04
	Wiring		RG79Y106	RG79Y106	RG79Y106	RG79Y106
	Refrigerant cycle		-	-	-	-
Standard attachment	Document		Installation Manual,Installation Book			
	Accessory					
Optional parts	External Heater Adaptor		PAC-YU24HT-F	PAC-YU24HT-F	PAC-YU24HT-F	PAC-YU24HT-F
	High Efficiency Filter (MERV 8)		PAC-SE80KF-E	PAC-SE81KF-E	PAC-SE81KF-E	PAC-SE82KF-E
Remark						
	Installation		Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.			

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.

Note :	*1 Nominal cooling conditions	*2 Nominal heating conditions
Indoor :	80degF D.B. / 67degF W.B.	70degF D.B.
	(26.7degC D.B. / 19.4degC W.B.)	(21.1degC D.B.)
Outdoor :	95degF D.B.	47degF D.B. / 43degF W.B.
	(35degC D.B.)	(8.3degC D.B. / 6.1degC W.B.)
Pipe length :	25 ft. (7.6 m)	25 ft. (7.6 m)
Level difference :	0 ft. (0 m)	0 ft. (0 m)

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

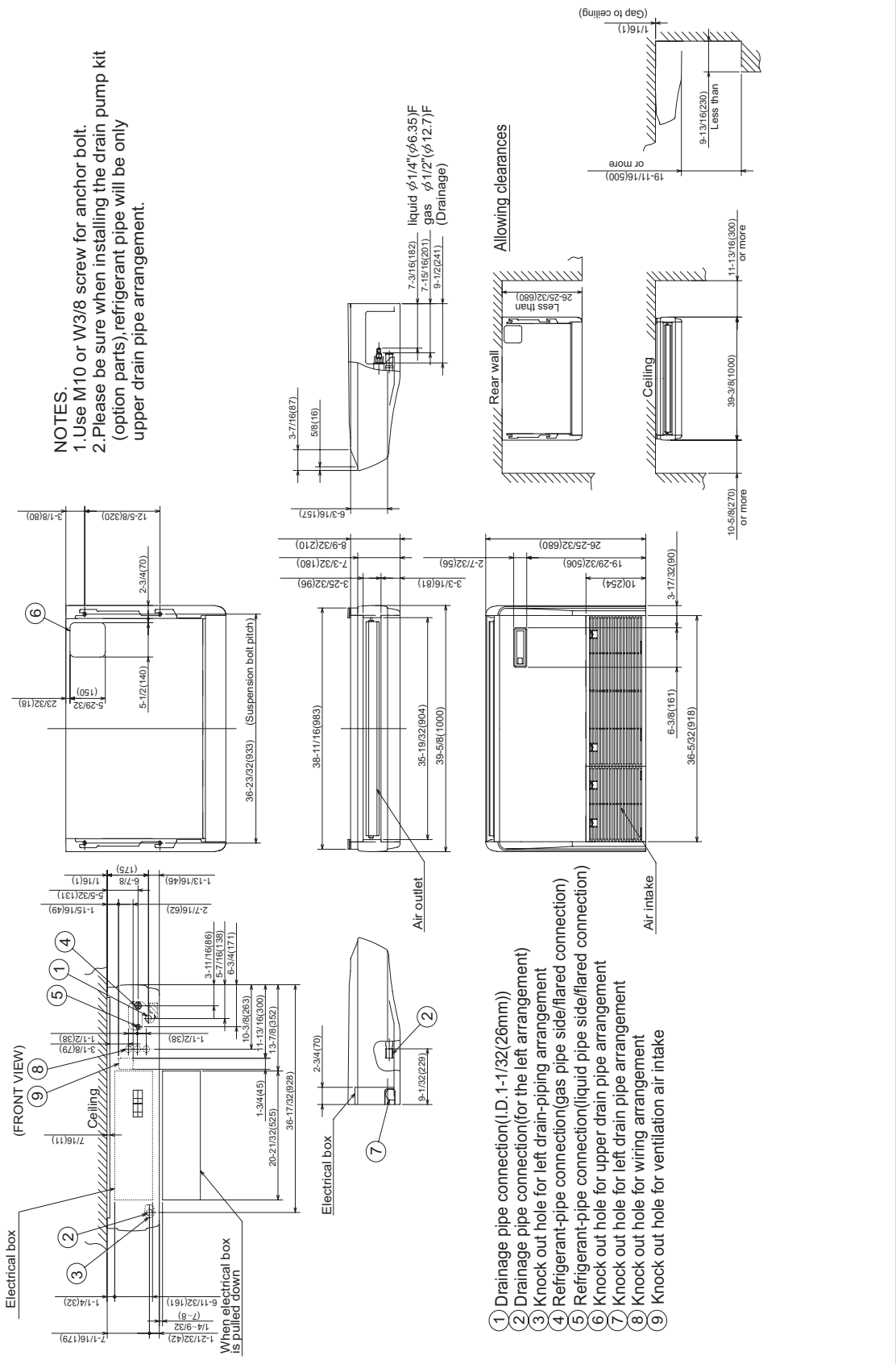
Unit converter
kcal/h = kW x 860
BTU/h = kW x 3,412
cfm = m3/min x 35.31
lbs = kg / 0.4536
*Above specification data is subject to rounding variation.

Ref.: Spec_PCFY-P15-36NGMU-E

PCFY-P-NGMU-E

PCFY-P15NGMU-E

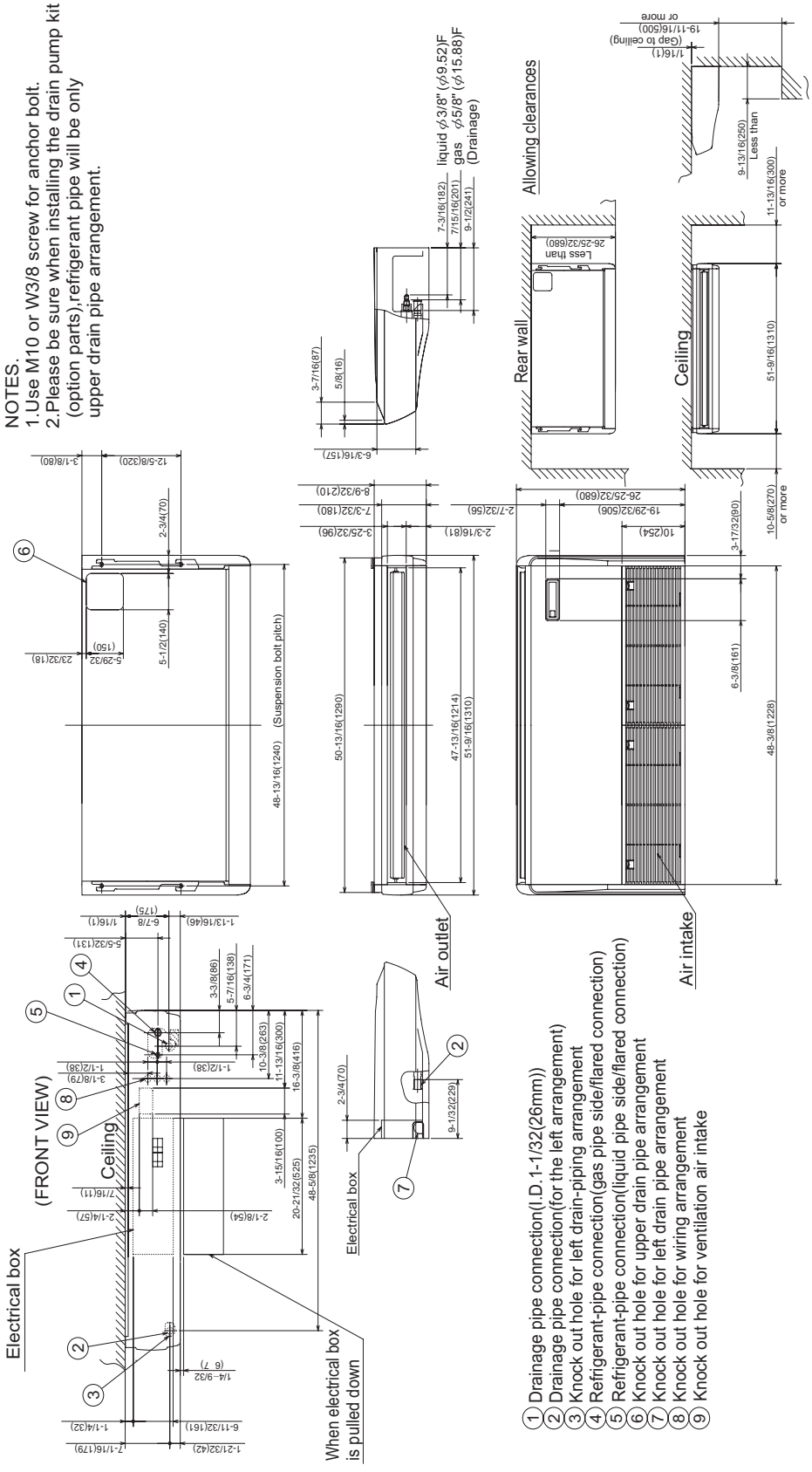
Drw. : IU-RG01N982-01
Unit : in(mm)



PCFY-P-NGMU-E

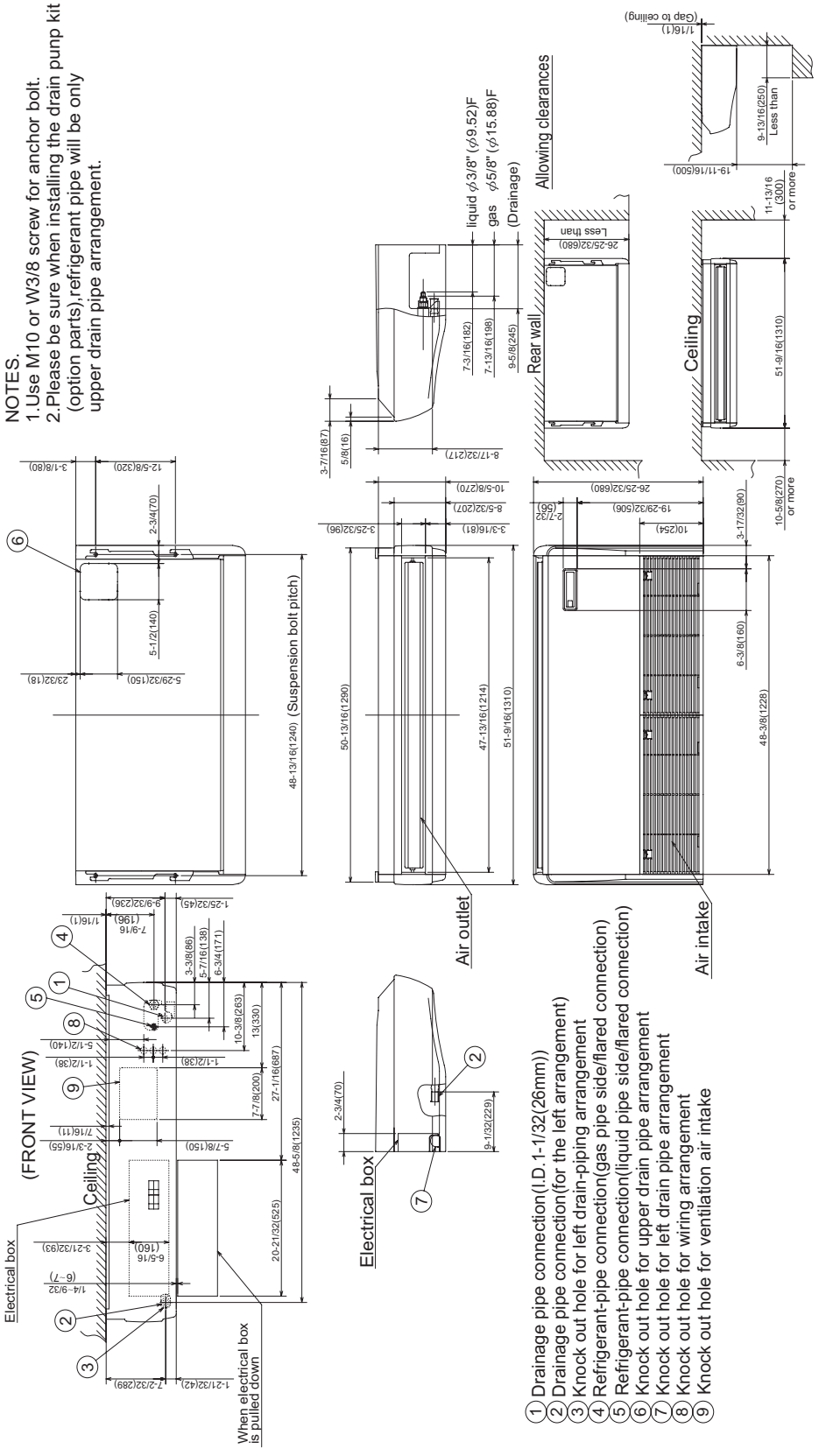
PCFY-P24NGMU-E

Drw. : IU-RG01N982-02
Unit : in(mm)



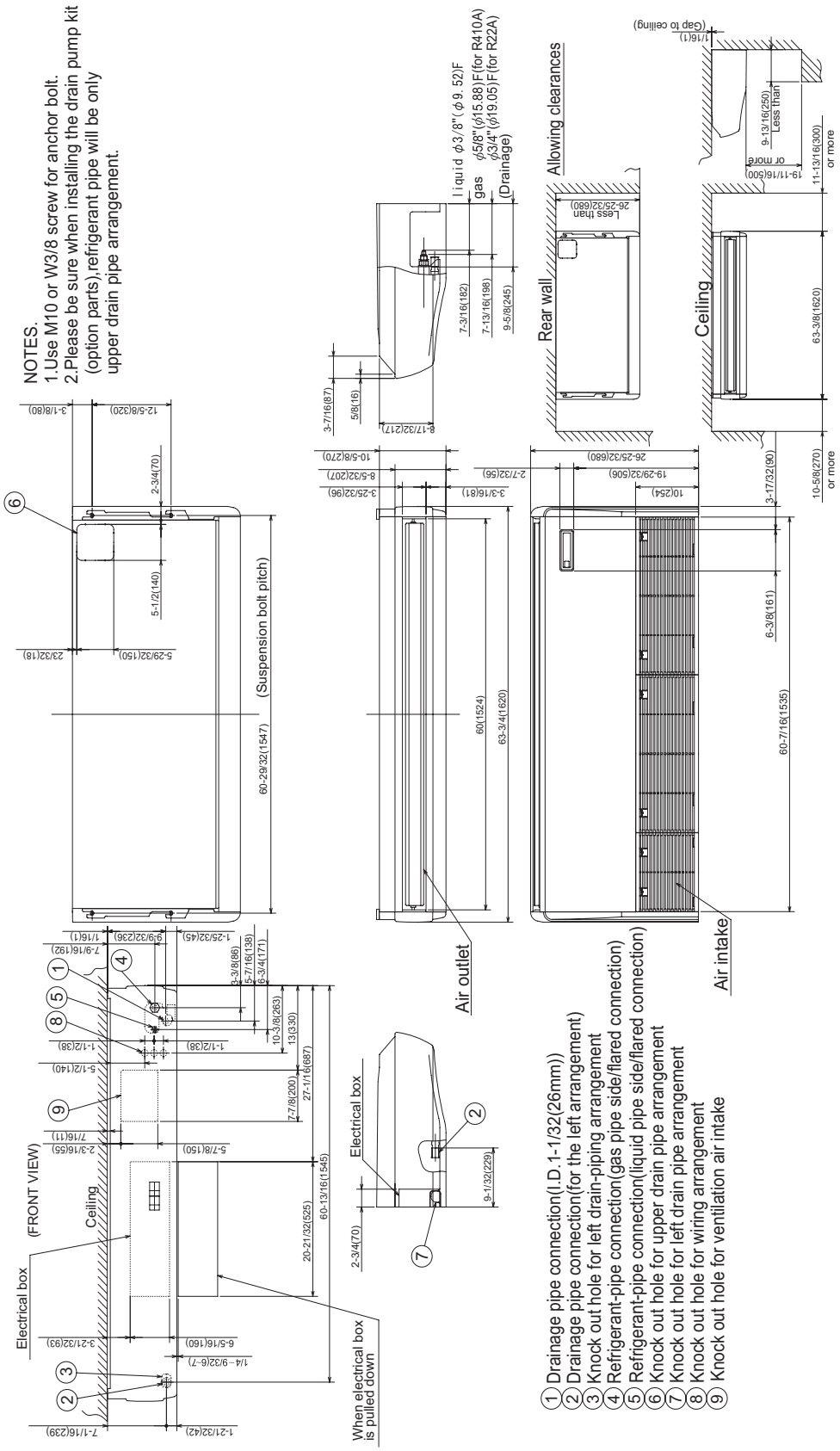
PCFY-P30NGMU-E

Drw. : IU-RG01N982-03
Unit : in(mm)



PCFY-P36NGMU-E

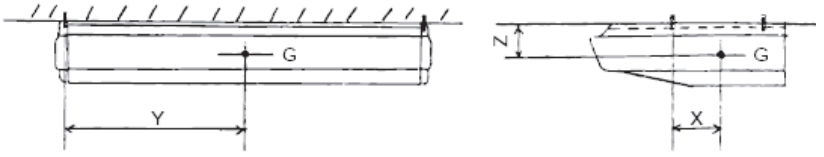
Drw. : IU-RG01N982-04
Unit : in(mm)



PCFY-P-NGMU-E

PCFY-P15,24,30,36NGMU-E

Ref.: PCFY_NGMU_COG_USDB_ALL



(mm)[in]

Model name	X	Y	Z
PCFY-P15NGMU-E	130 [5-1/8]	470 [18-17/32]	120 [4-3/4]
PCFY-P24NGMU-E	110 [4-11/32]	600 [23-5/8]	140 [5-17/32]
PCFY-P30NGMU-E	110 [4-11/32]	580 [22-27/32]	145 [5-23/32]
PCFY-P36NGMU-E	80 [3-5/32]	710 [27-31/32]	140 [5-17/32]

PCFY-P15,24,30,36NGMU-E

Drw. : IU-RG79Y106

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, □□ : 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.
   Set SW5 to 230V side when the power supply is 230 volts.
   When the power supply is 208 volts, set SW5 to 208V side.

Legend

Symbol	Name	Symbol	Name
I. B	Indoor controller board	P. B	INDOOR POWER BOARD
CN24	Connector	C1	Capacitor (fan motor)
CN32		LEV	Linear expansion valve
CN51		MF	Fan motor (with inner thermo)
CN52		MV	Vane motor
CNP		TH21	Thermistor (32°F/15kΩ, 77°F/5.4kΩ) Room temp. detection
F.C	Fan phase control		Pipe temp. detection/liquid (32°F/15kΩ, 77°F/5.4kΩ)
FUSE	FUSE (6A/250V)	TH22	Pipe temp. detection/Gas (32°F/15kΩ, 77°F/5.4kΩ)
SW2	Switch	TH23	Power supply
SW3	Capacity code	TB2	Terminal block
SW4	Mode selection	TB5	Transmission
X1	Model selection	TB15	MA-remote controller
X4	Aux.Relay		
ZNR	Drain-up machine		
	Fan motor		
	Varistor		

Symbol	Name	Symbol	Name
A. B	Circuit board Address		
SW1	Switch	Mode selection	
SW5		Voltage selection	
SW11		Address setting 1st digit	
SW12		Address setting 2nd digit	
SW14		Connection No.	
SWA	Ceiling height Selector		
SWC	Option Selector		

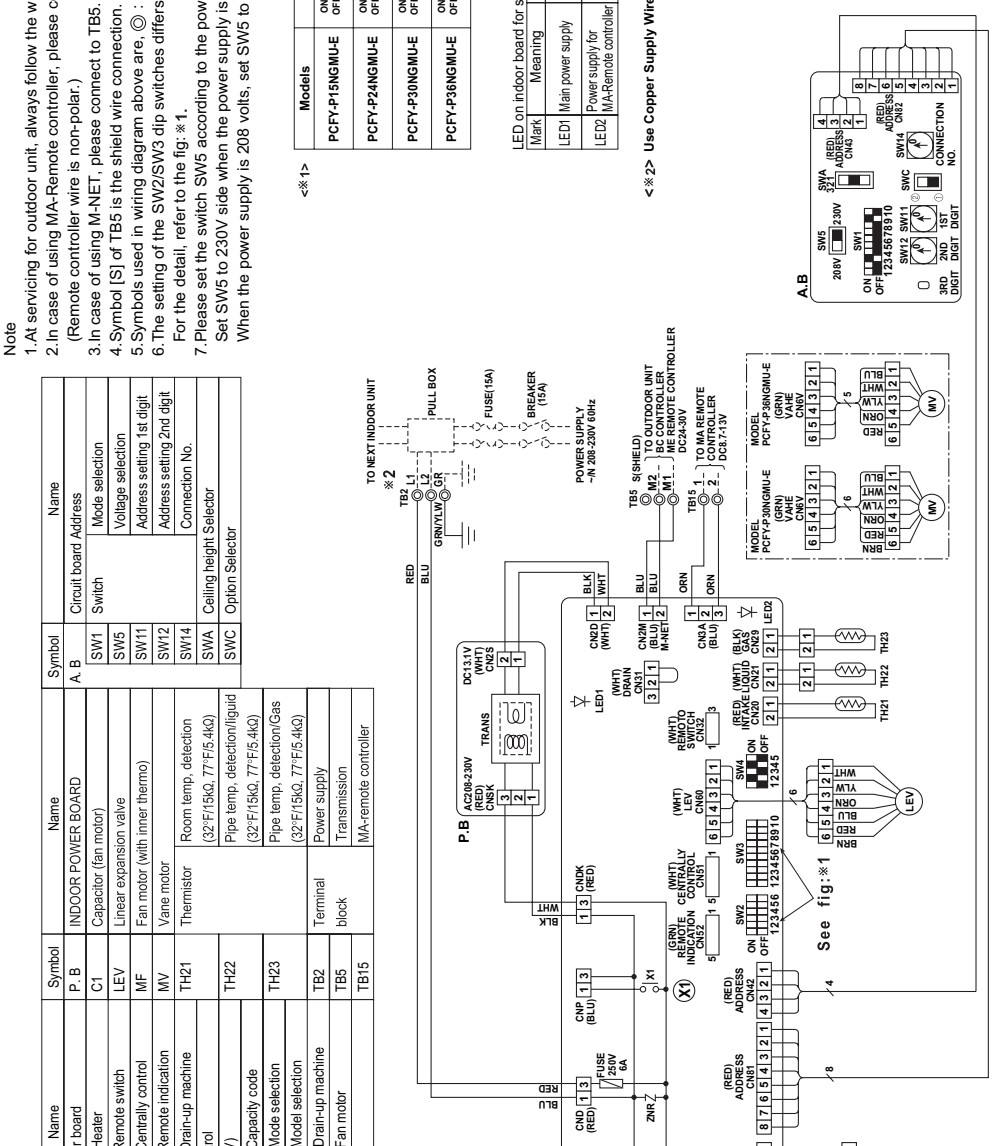
<※1>

Models	SW2	SW3
PCFY-P15NGMU-E	ON OFF 1 2 3 4 5 6	ON OFF 1 2 3 4 5 6 7 8 9 10
PCFY-P24NGMU-E	ON OFF 1 2 3 4 5 6	ON OFF 1 2 3 4 5 6 7 8 9 10
PCFY-P30NGMU-E	ON OFF 1 2 3 4 5 6	ON OFF 1 2 3 4 5 6 7 8 9 10
PCFY-P36NGMU-E	ON OFF 1 2 3 4 5 6	

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

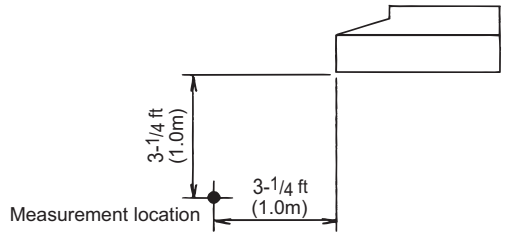
<※2> Use Copper Supply Wire.



PCFY-P-NGMU-E

5-1. Sound Pressure Levels

Ceiling suspended



Sound pressure level at anechoic room : Low-Mid1-Mid2-Hi

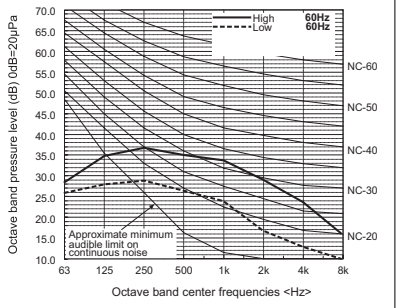
	Sound pressure level dB (A)
PCFY-P15NGMU-E	29-33-36-38
PCFY-P24NGMU-E	32-34-37-39
PCFY-P30NGMU-E	36-38-41-43
PCFY-P36NGMU-E	37-39-42-44

* Measured in anechoic room.

5-2. NC Curves

PCFY-P15NGMU-E

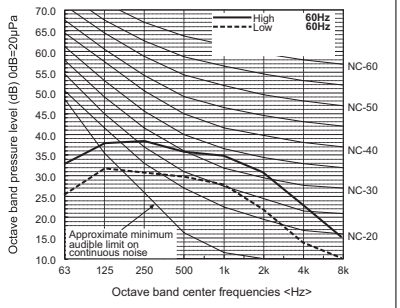
External Static Pressure: 0Pa
Power Source: 208-230V, 60Hz



Ref.:NC_PCFY-P15NGMU-E

PCFY-P24NGMU-E

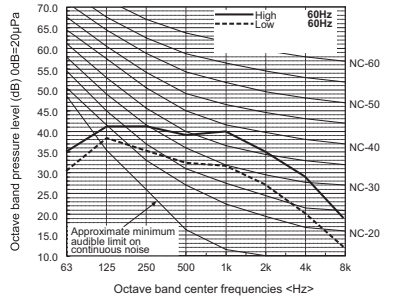
External Static Pressure: 0Pa
Power Source: 208-230V, 60Hz



Ref.:NC_PCFY-P24NGMU-E

PCFY-P30NGMU-E

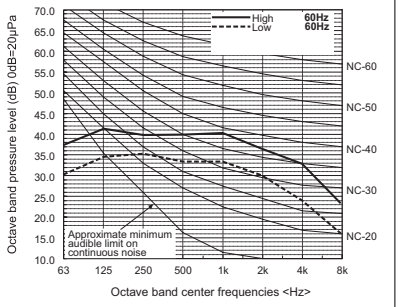
External Static Pressure: 0Pa
Power Source: 208-230V, 60Hz



Ref.:NC_PCFY-P30NGMU-E

PCFY-P36NGMU-E

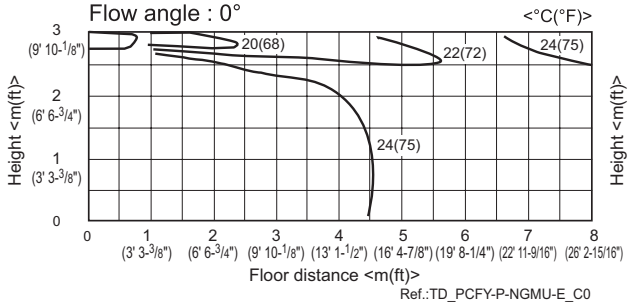
External Static Pressure: 0Pa
Power Source: 208-230V, 60Hz



Ref.:NC_PCFY-P36NGMU-E

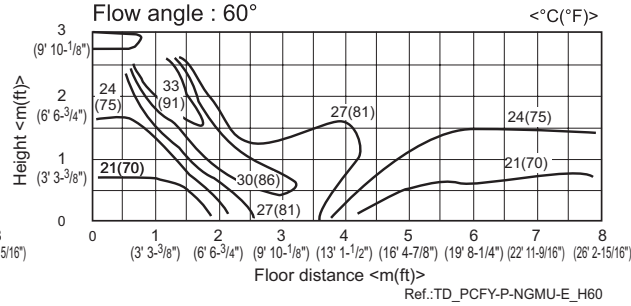
6-1. Temperature Distributions

<Cooling mode>
Flow angle : 0°



Ref.:TD_PCFY-P-NGMU-E_C0

<Heating mode>
Flow angle : 60°

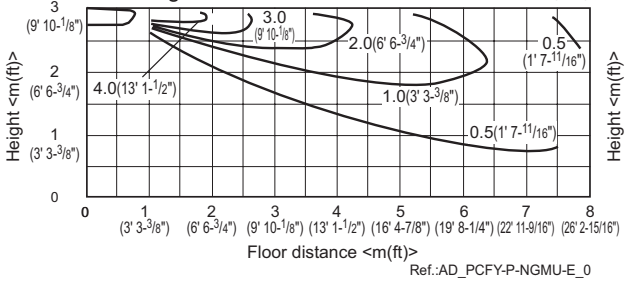


Ref.:TD_PCFY-P-NGMU-E_H60

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.

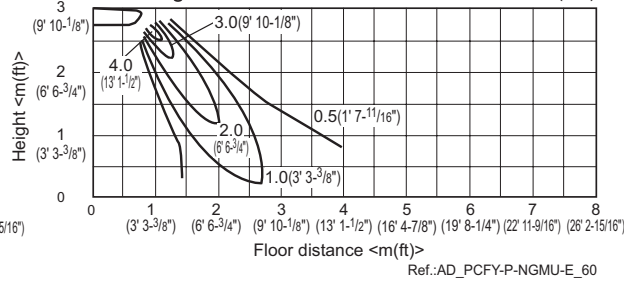
6-2. Airflow Distributions

<Fan mode>
Flow angle : 0°



Ref.:AD_PCFY-P-NGMU-E_0

<Fan mode>
Flow angle : 60°



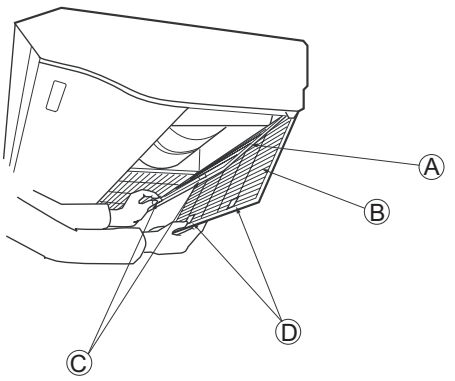
Ref.:AD_PCFY-P-NGMU-E_60

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.

PCFY-P-NGMU-E

7-1. Optional Parts Line Up for the Indoor Unit

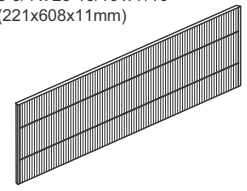
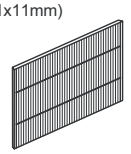
	High efficiency filter (MERV 8)	External heater adaptor
PCFY-P15NGMU-E	PAC-SE80KF-E	PAC-YU24HT-F
PCFY-P24,30NGMU-E	PAC-SE81KF-E	PAC-YU24HT-F
PCFY-P36NGMU-E	PAC-SE82KF-E	PAC-YU24HT-F



Ⓐ Filter Ⓑ Intake Grille Ⓒ Knob Ⓓ Stopper

7-2. High Efficiency Filter PAC-SE-KF-E (MERV 8) for PCFY-P-NGMU-E

Life span: 2,500hr
*. The actual dust situation affects the filter life span, which should be condsidered at the installation site.
Dust collection efficiency: 70% (weighing method)
Material: PP fiber (antibacterial + mildew-proof), honeycomb weave (Identification: gray yarn woven)

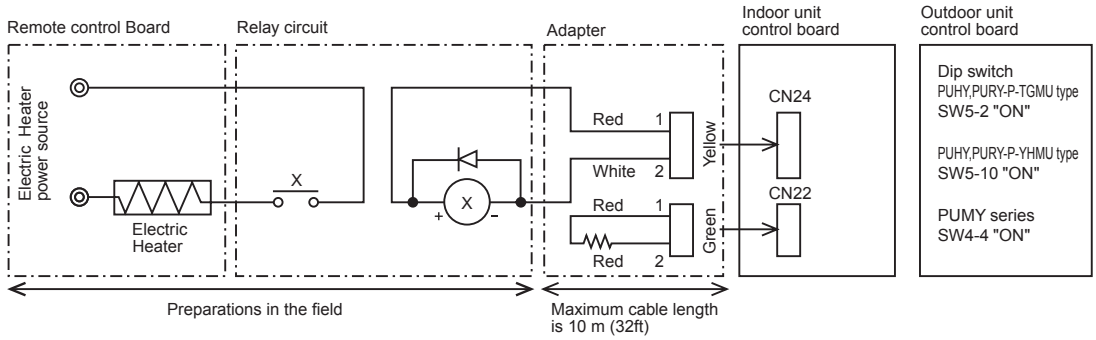
Item	① Filter (large)	② Filter (small)		
Quantity	1	1	PAC-SE80KF-E	① + ②
Shape	8-3/4 x 23-15/16 x 7/16" (221x608x11mm) 	8-3/4 x 11-7/8 x 7/16" (221x301x11mm) 	PAC-SE81KF-E	① + ①
			PAC-SE82KF-E	① + ① + ②

Detailed installation information should be referred to in the Technical and Service Manual (OC343)

7-3. External Heater Adapter PAC-YU24HT

External heater adaptor PAC-YU24HT 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.

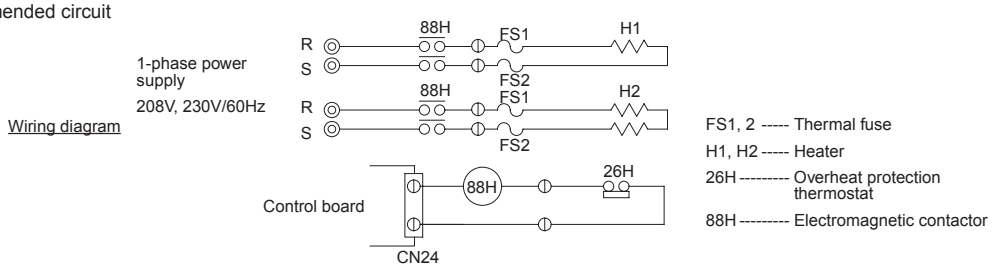
A basic connection method is shown as follows:(For details, refer to its Installation Manual.)

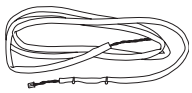


For relay X use the specifications given below Operation coil
- Rated voltage : 12VDC
- Power consumption : 0.9W or less
- * Use the diode that is recommended by the relay manufacturer at both ends of the relay coil.

The length of the electrical wiring for the PAC-YU24HT 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 (WT04645X02) wiring and installation details.

PCFY-P-NGMU-E