

**PCFY-P-NGMU-E**

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# 1. SPECIFICATIONS

DATA U4

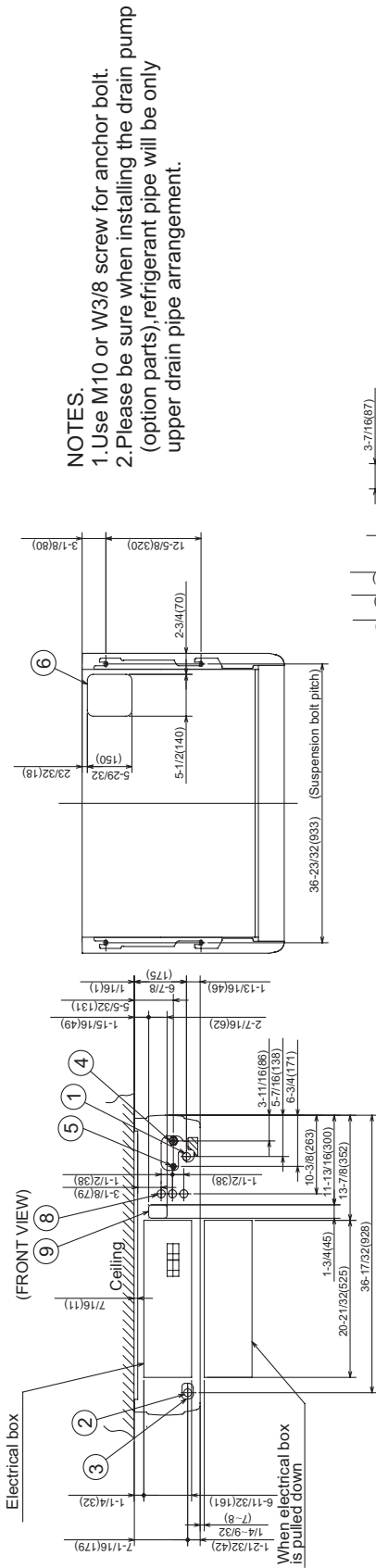
Model			PCFY-P15NGMU-E	PCFY-P24NGMU-E	PCFY-P30NGMU-E	PCFY-P36NGMU-E	
Power source			1-phase 208-230 V 60Hz				
Cooling capacity (Nominal)	*1	BTU / h	15,000	24,000	30,000	36,000	
	*1	kW	4.4	7.0	8.8	10.6	
		Power input	kW	0.08	0.09	0.23	0.27
		Current input	A	0.40	0.45	1.12	1.32
Heating capacity (Nominal)	*2	BTU / h	17,000	27,000	34,000	40,000	
	*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 static press	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		1-phase induction motor				
	Motor output		kW	0.054	0.070	0.090	0.150
	Driving mechanism		Direct-driven				
	Airflow rate (Low-Mid1-Mid2-High)	cfm	283-353-388-424	424-494-565-636	636-706-812-883	918-989-1,130-1,236	
		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) (measured in anechoic room)	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)	
	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) (R22)	in. (mm)	1/4 (6.35) Flare	3/8 (9.52) Flare	3/8 (9.52) Flare	3/8 (9.52) Flare	
		in. (mm)	1/4 (6.35) Flare	3/8 (9.52) Flare	3/8 (9.52) Flare	3/8 (9.52) Flare	
	Gas (R410A) (R22)	in. (mm)	1/2 (12.7) Flare	5/8 (15.88) Flare	5/8 (15.88) Flare	5/8 (15.88) Flare	
		in. (mm)	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 (26)	O.D. 1 (26)	O.D. 1 (26)	O.D. 1 (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	
	Medium efficiency filter		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.				

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 cfm = m3/min x 35.31 lbs = kg / 0.4536
	Outdoor : 95degF D.B. (35degC D.B.)	47degF D.B. / 43degF W.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.			*Above specification data is subject to rounding variation.

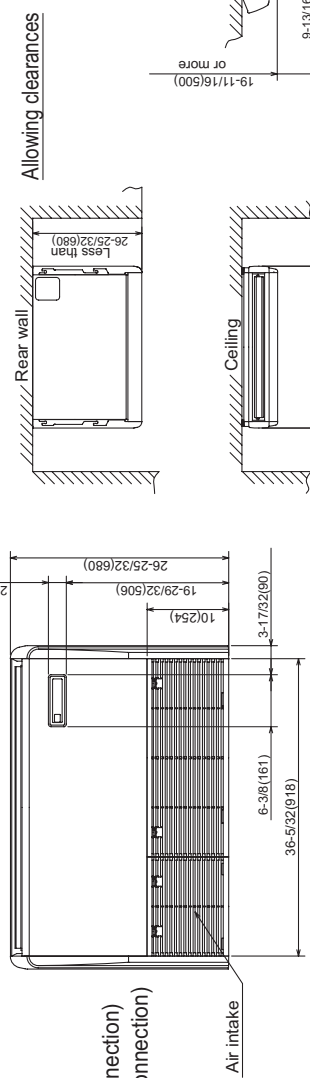
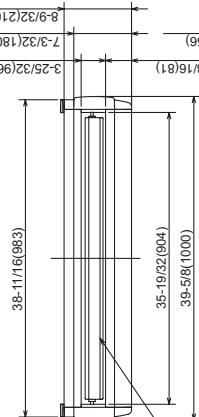
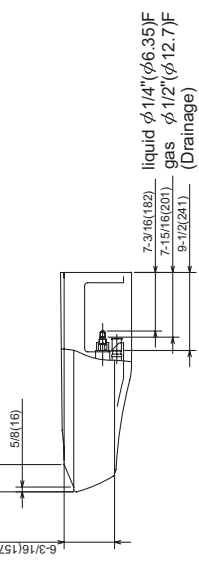
Ref.: Spec\_PCFY-P15-36NGMU-E

## PCFY-P15NGMU-E

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



**NOTES.**  
 1. Use M10 or W3/8 screw for anchor bolt.  
 2. Please be sure when installing the drain pump (option parts), refrigerant pipe will be only upper drain pipe arrangement.

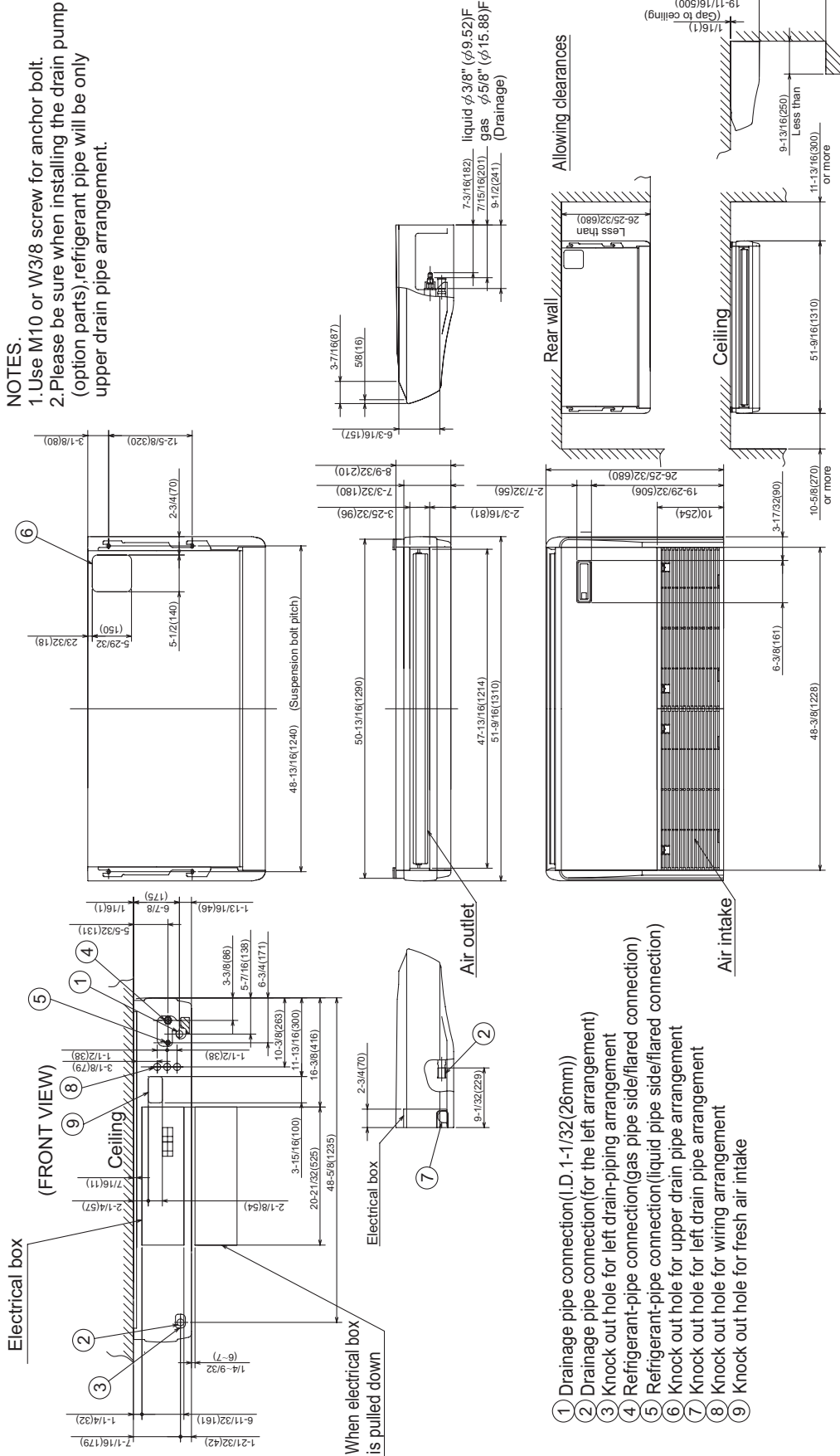


- ① Drainage pipe connection(I.D. 1-1/32(26mm))
- ② Drainage pipe connection(for the left arrangement)
- ③ Knock out hole for left drain-piping arrangement
- ④ Refrigerant-pipe connection(gas pipe side/flared connection)
- ⑤ Refrigerant-pipe connection(liquid pipe side/flared connection)
- ⑥ Knock out hole for upper drain pipe arrangement
- ⑦ Knock out hole for left drain pipe arrangement
- ⑧ Knock out hole for wiring arrangement
- ⑨ Knock out hole for fresh air intake

PCFY-P24NGMU-E

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

**NOTES.**  
1. Use M10 or W3/8 screw for anchor bolt.  
2. Please be sure when installing the drain pump (option parts), refrigerant pipe will be only upper drain pipe arrangement.



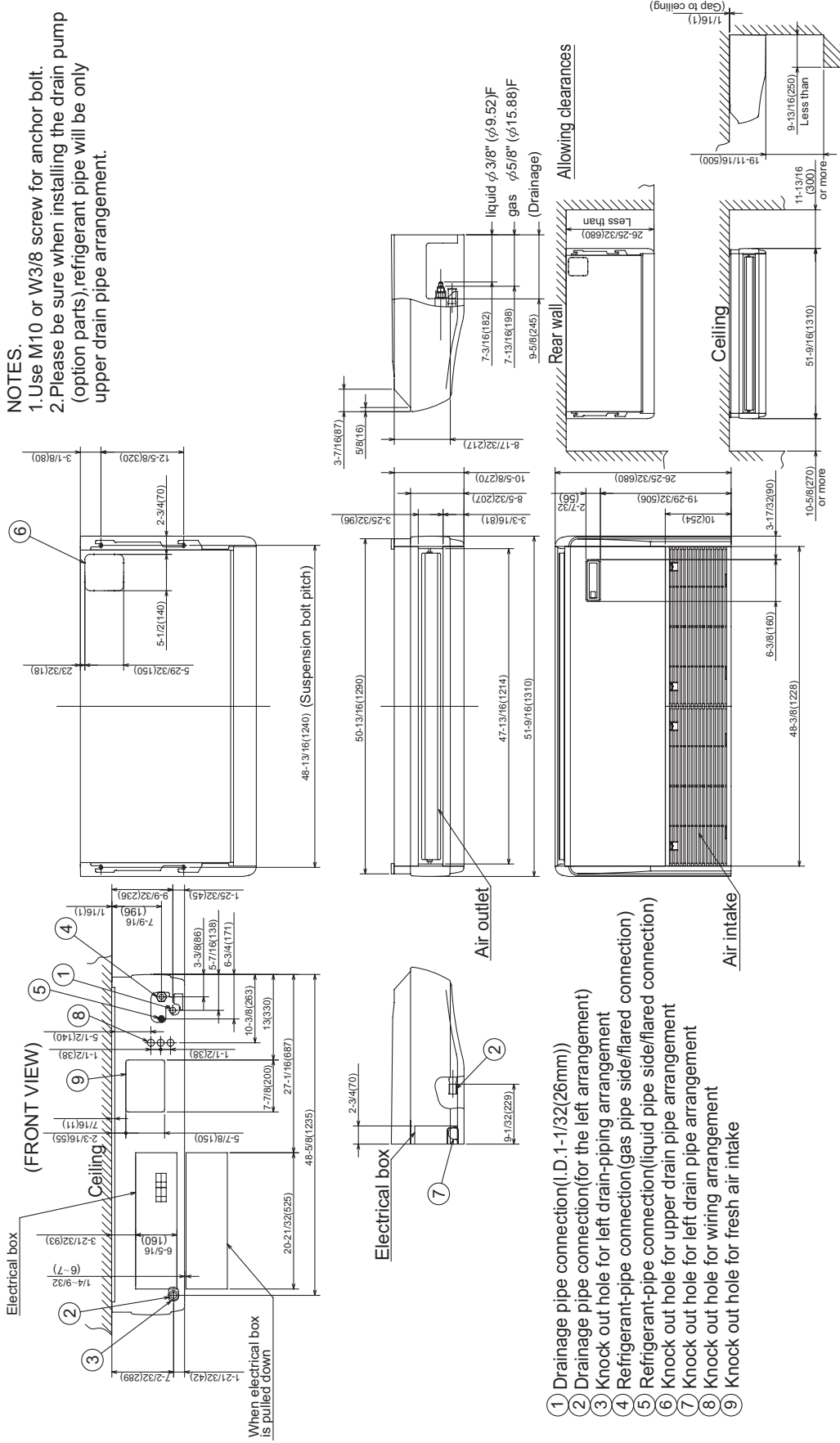
- ① Drainage pipe connection(I.D. 1-1/32(26mm))
- ② Drainage pipe connection(for the left arrangement)
- ③ Knock out hole for left drain-piping arrangement
- ④ Refrigerant-pipe connection(gas pipe side/flared connection)
- ⑤ Refrigerant-pipe connection(liquid pipe side/flared connection)
- ⑥ Knock out hole for upper drain pipe arrangement
- ⑦ Knock out hole for left drain pipe arrangement
- ⑧ Knock out hole for wiring arrangement
- ⑨ Knock out hole for fresh air intake

PCFY

PCFY-P30NGMU-E

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

- NOTES.**  
1. Use M10 or W3/8 screw for anchor bolt.  
2. Please be sure when installing the drain pump (option parts), refrigerant pipe will be only upper drain pipe arrangement.

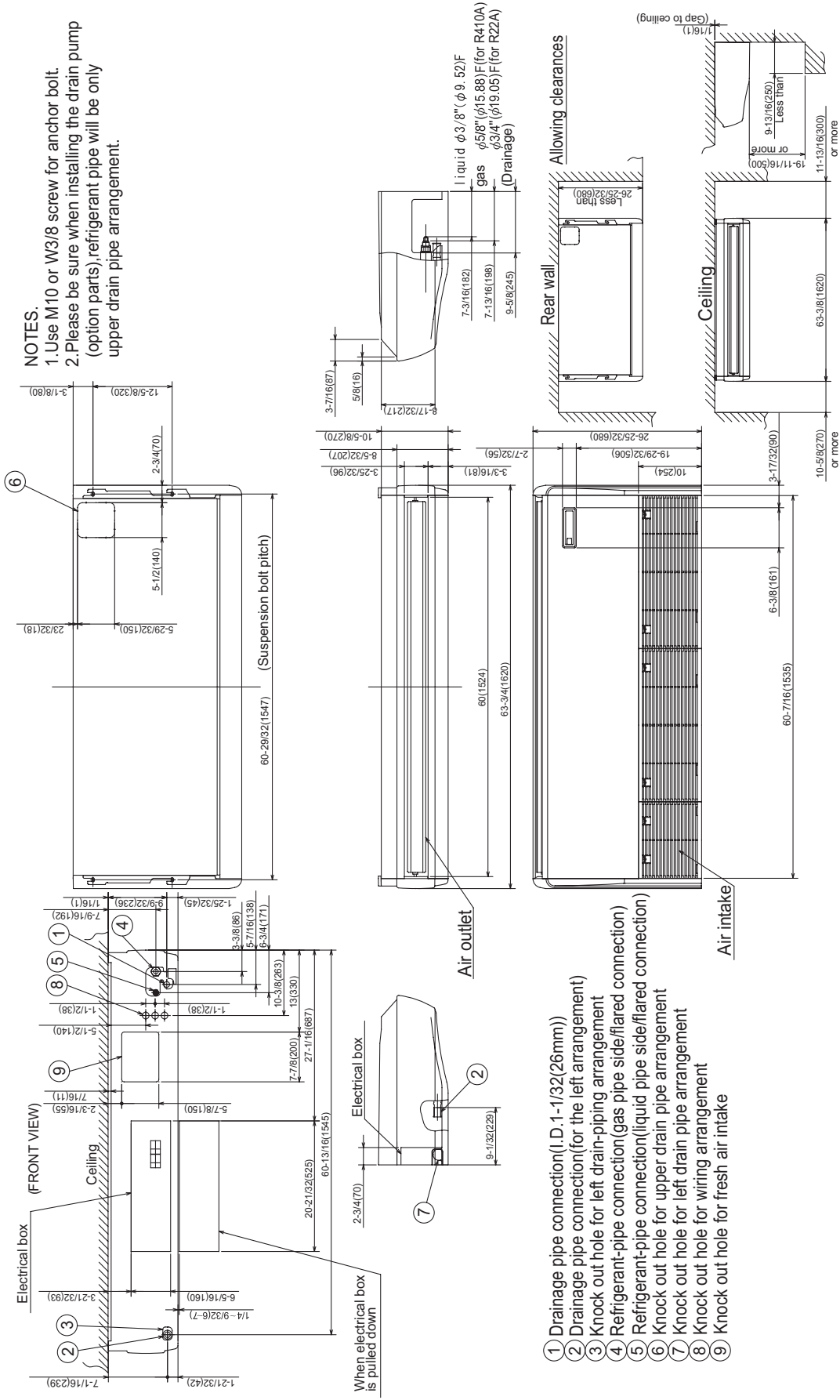


PCFY

PCFY-P36NGMU-E

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

- NOTES.**  
 1. Use M10 or W3/8 screw for anchor bolt.  
 2. Please be sure when installing the drain pump (option parts), refrigerant pipe will be only upper drain pipe arrangement.

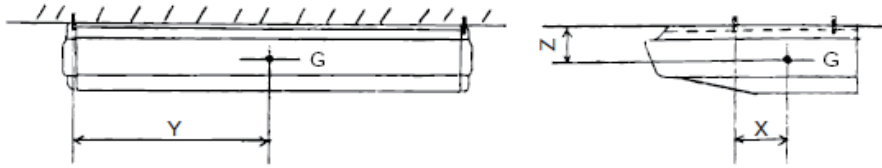


- ① Drainage pipe connection (I.D. 1-1/32(26mm))
- ② Drainage pipe connection (for the left arrangement)
- ③ Knock out hole for left drain-piping arrangement
- ④ Refrigerant-pipe connection (gas pipe side/flared connection)
- ⑤ Refrigerant-pipe connection (liquid pipe side/flared connection)
- ⑥ Knock out hole for upper drain pipe arrangement
- ⑦ Knock out hole for left drain pipe arrangement
- ⑧ Knock out hole for wiring arrangement
- ⑨ Knock out hole for fresh air intake

PCFY

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**

- At servicing for outdoor unit, always follow the wiring diagram of outdoor unit. (Remote controller wire is non-polar.)
- In case of using MA-Remote controller, please connect to TB15.
- In case of using M-NET, please connect to TB5. (Transmission line is non-polar.)
- Symbol [S] of TB5 is the shield wire connection.
- Symbols used in wiring diagram above are, (⊙) : terminal block, (□) : connector. For the detail, refer to the fig. \*1.
- The setting of the SW2/SW3 dip switches differs in the capacity.
- 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 POWER BOARD		
	CN24	Indoor controller board	P.B	INDOOR POWER BOARD
	CN25	Heater	C1	Capacitor (fan motor)
	CN32	Connector	LEV	Linear expansion valve
	CN51	Centrally control	MF	Fan motor (with inner thermo)
	CN52	Remote indication	MV	Vane motor
	CNP	Drain-up machine	TH21	Thermistor
	F.C	Fan phase control	TH22	Room temp. detection
	FUSE	FUSE (6A/250V)	TH23	Pipe temp. detection/liquid (32°F/15K, 77°F/5.4K)
	SW2	Switch	TH23	Pipe temp. detection/Gas (32°F/15K, 77°F/5.4K)
	SW3	Capacity code	TB2	Power supply
	SW4	Mode selection	TB5	Terminal block
	X1	Model selection	TB15	MA-remote controller
	X4	Aux. Relay		
	ZNR	Varistor		

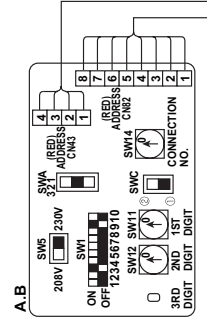
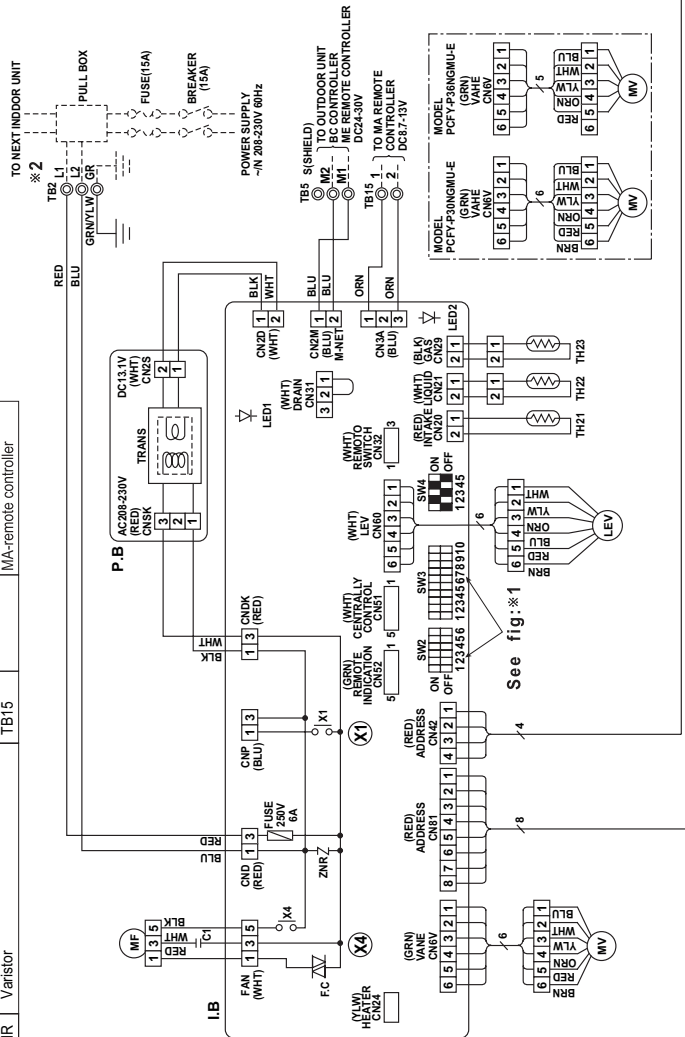
<\*1>

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
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	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.

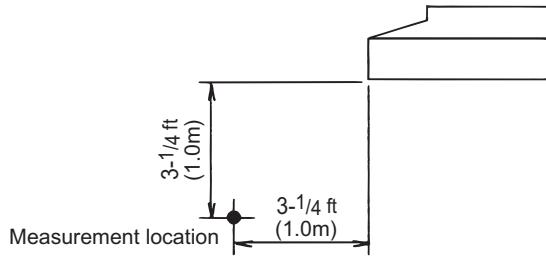
<\*2> Use Copper Supply Wire.





5-1. Sound levels

Ceiling suspended

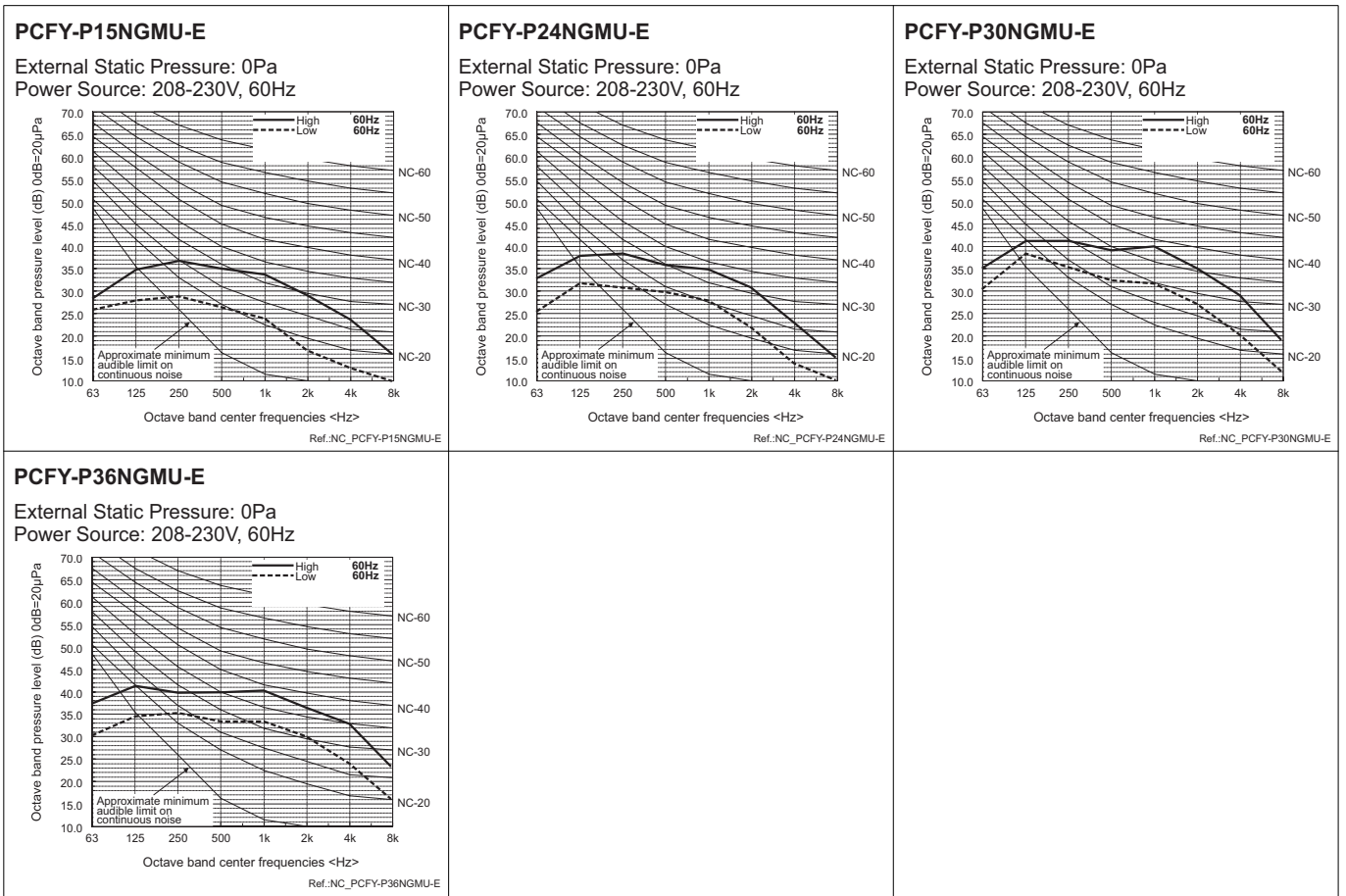


Sound level at anechoic room : Low-Middle2-Middle1-High

	Sound 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

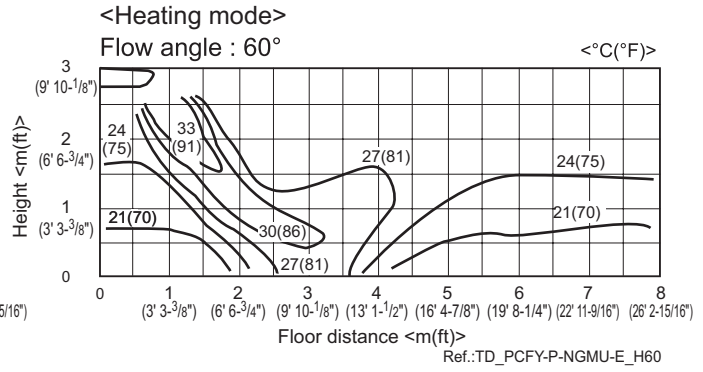
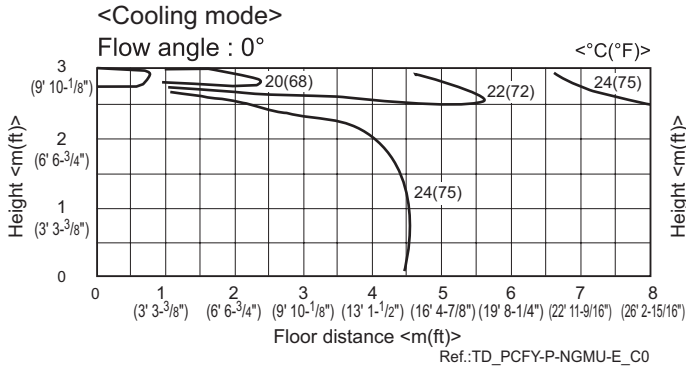
\* Measured in anechoic room.

5-2. NC curves



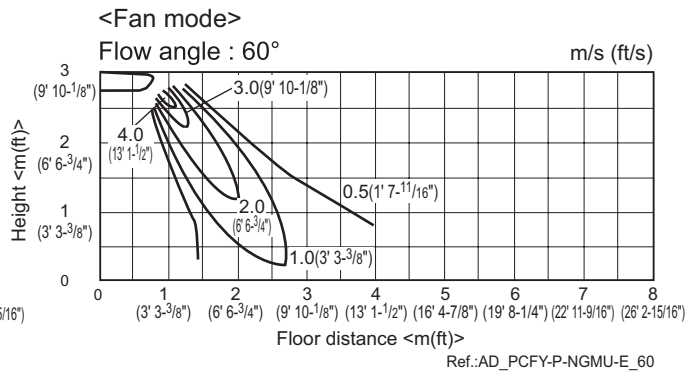
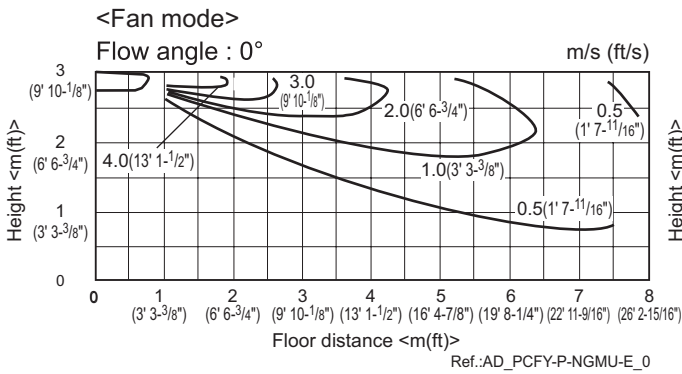
PCFY

6-1. Temperature distributions



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

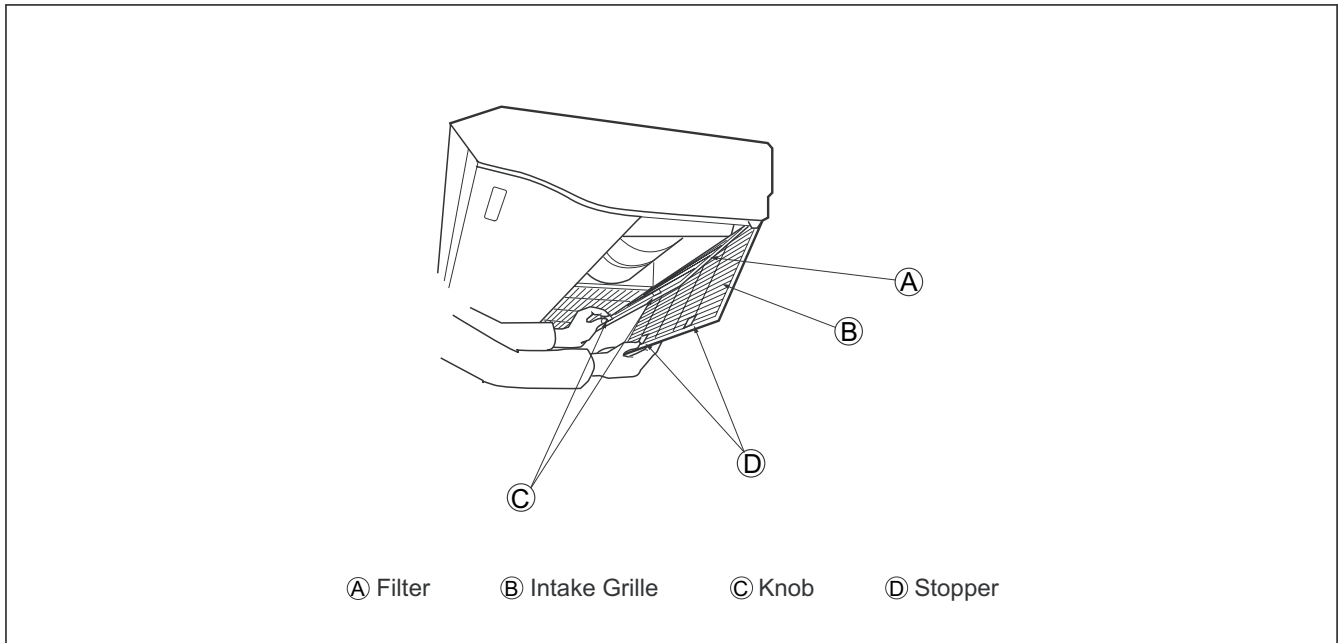


Note : These figures show typical temperature distributions in the conditions above. In the actual installation, they may differ from these figures under the influence of air temperature conditions, ceiling height, cooling/heating load,obstacles,etc.

PCFY

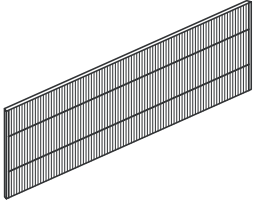
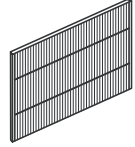
7-1. Optional parts line up for the Indoor unit

	High efficiency filter	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



7-2. High efficiency filter PAC-SE-KF-E for PCFY-P-NGMU-E

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

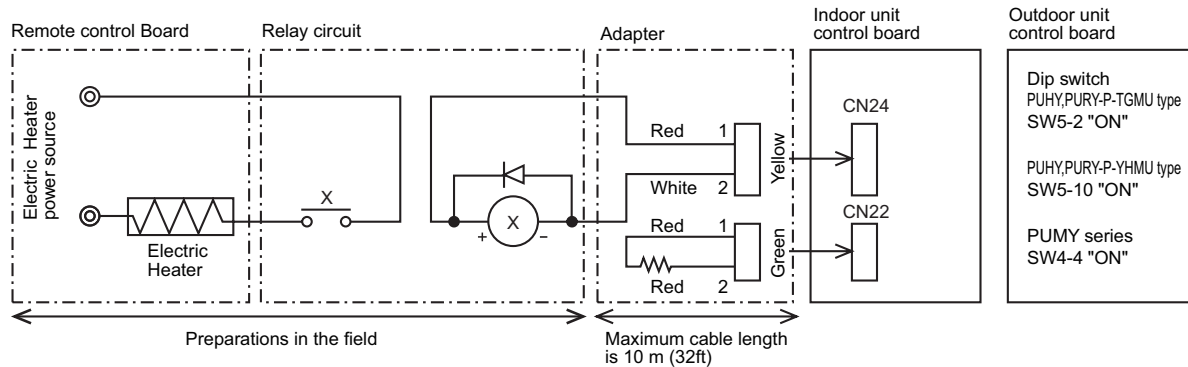
Item	① Filter (large)	② Filter (small)		
Quantity	1	1	PAC-SE80KF-E	① + ②
Shape	221x608x11mm 	221x301x11mm 	PAC-SE81KF-E	① + ①
			PAC-SE82KF-E	① + ① + ②

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

7-3. External heater adaptor 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)

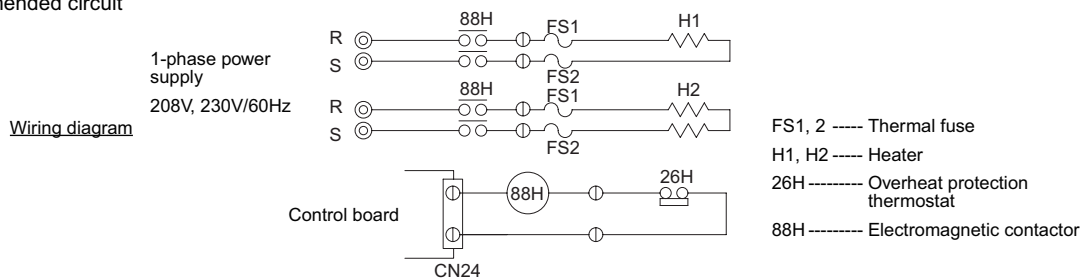
To extend this length, use sheathed 2-core cable.

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

Cable size : 0.5 mm<sup>2</sup> ~ 1.25 mm<sup>2</sup> (16 to 22 AWG)

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

Recommended circuit



FS1, 2 ----- Thermal fuse  
 H1, H2 ----- Heater  
 26H ----- Overheat protection thermostat  
 88H ----- Electromagnetic contactor

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

Wiring details and Installation details should be referred to its Installation Manual. (WT04645X02)