

PCFY-P-NKMU-E

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1. SPECIFICATIONS

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Model			PCFY-P15NKMU-E	PCFY-P24NKMU-E	PCFY-P30NKMU-E	PCFY-P36NKMU-E	
Power source			1-phase 208/230V 60Hz	1-phase 208/230V 60Hz	1-phase 208/230V 60Hz	1-phase 208/230V 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	0.03	0.04	0.09	0.11
		Current input	A	0.35	0.41	0.83	0.97
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	0.03	0.04	0.09	0.11
		Current input	A	0.35	0.41	0.83	0.97
External finish			MUNSELL (6.4Y 8.9/0.4)	MUNSELL (6.4Y 8.9/0.4)	MUNSELL (6.4Y 8.9/0.4)	MUNSELL (6.4Y 8.9/0.4)	
External dimension HxWxD		in.	9-1/16 x 37-13/16 x 26-3/4	9-1/16 x 50-3/8 x 26-3/4	9-1/16 x 63 x 26-3/4	9-1/16 x 63 x 26-3/4	
		mm	230x960x680	230x1280x680	230x1600x680	230x1600x680	
Net weight		lbs(kg)	53(24)	71(32)	79(36)	84(38)	
Heat exchanger			Cross fin (Aluminum fin and copper tube)	Cross fin (Aluminum fin and copper tube)	Cross fin (Aluminum fin and copper tube)	Cross fin (Aluminum fin and copper tube)	
FAN	Type x Quantity		Sirocco fan x 2	Sirocco fan x 3	Sirocco fan x 4	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		DC motor	DC motor	DC motor	DC motor	
	Motor output		kW	0.090	0.095	0.160	0.160
	Driving mechanism		Direct-drive	Direct-drive	Direct-drive	Direct-drive	
	Airflow rate (Low-Mid2-Mid1-High)	cfm	353-388-424-459	494-530-565-636	703-777-883-989	742-847-953-1095	
		m3 / min	10-11-12-13	14-15-16-18	20-22-25-28	21-24-27-31	
L/s		167-183-200-217	233-250-267-300	333-367-417-467	350-400-450-517		
Sound pressure level (measured in anechoic room)		dB <A>	29-32-34-36	31-33-35-37	34-37-40-43	36-39-42-44	
Insulation material			Polyeter sheet	Polyeter sheet	Polyeter sheet	Polyeter sheet	
Air filter			PP honeycomb (long life)	PP honeycomb (long life)	PP honeycomb (long life)	PP honeycomb (long life)	
Protection device			Fuse	Fuse	Fuse	Fuse	
Refrigerant control device			LEV	LEV	LEV	LEV	
Connectable outdoor unit			R410A CITY MULTI	R410A CITY MULTI	R410A CITY MULTI	R410A CITY MULTI	
Diameter of refrigerant pipe	Liquid (R410A)	in.(mm)	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	
Field drain pipe size		in.(mm)	O.D. 1(26)	O.D. 1(26)	O.D. 1(26)	O.D. 1(26)	
Drawing	External		-	-	-	-	
	Wiring		-	-	-	-	
	Refrigerant cycle		-	-	-	-	
Standard attachment	Document		Installation Manual, Instruction Book	Installation Manual, Instruction Book	Installation Manual, Instruction Book	Installation Manual, Instruction Book	
	Accessory		-	-	-	-	
Optional parts	External heater adapter		PAC-YU25HT	PAC-YU25HT	PAC-YU25HT	PAC-YU25HT	
	Drain pump kit		PAC-SH83DM-E	PAC-SH84DM-E	PAC-SH84DM-E	PAC-SH84DM-E	
	i-see Sensor		PAC-SH91MK-E	PAC-SH91MK-E	PAC-SH91MK-E	PAC-SH91MK-E	
	Wireless remote controller kit with i-see Sensor		PAR-SA92MW-E	PAR-SA92MW-E	PAR-SA92MW-E	PAR-SA92MW-E	
	Wireless remote controller kit		PAR-SL93B-E	PAR-SL93B-E	PAR-SL93B-E	PAR-SL93B-E	
	High efficiency filter		PAC-SH88KF-E	PAC-SH89KF-E	PAC-SH90KF-E	PAC-SH90KF-E	
Remarks			* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. * Due to continuing improvement, above specification may be subject to change without notice.				

Notes :	*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.) Outdoor : 95degF D.B. (35degC D.B.) Pipe length : 25 ft. (7.6 m) Level difference : 0 ft. (0 m)	70degF D.B. (21degC D.B.) 47degF D.B. / 43degF W.B. (8.3degC D.B. / 6.1degC W.B.) 25 ft. (7.6 m) 0 ft. (0 m)	kcal/h = kW x 860 BTU/h = kW x 3,412 cfm = m3/min x 35.31 lbs = kg / 0.4536 *The specification data is subject to rounding variation.

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Unit : in(mm)



- 2.2. Please be sure when installing the drain lift up mechanism (option parts), refrigerant pipe will be only upward.

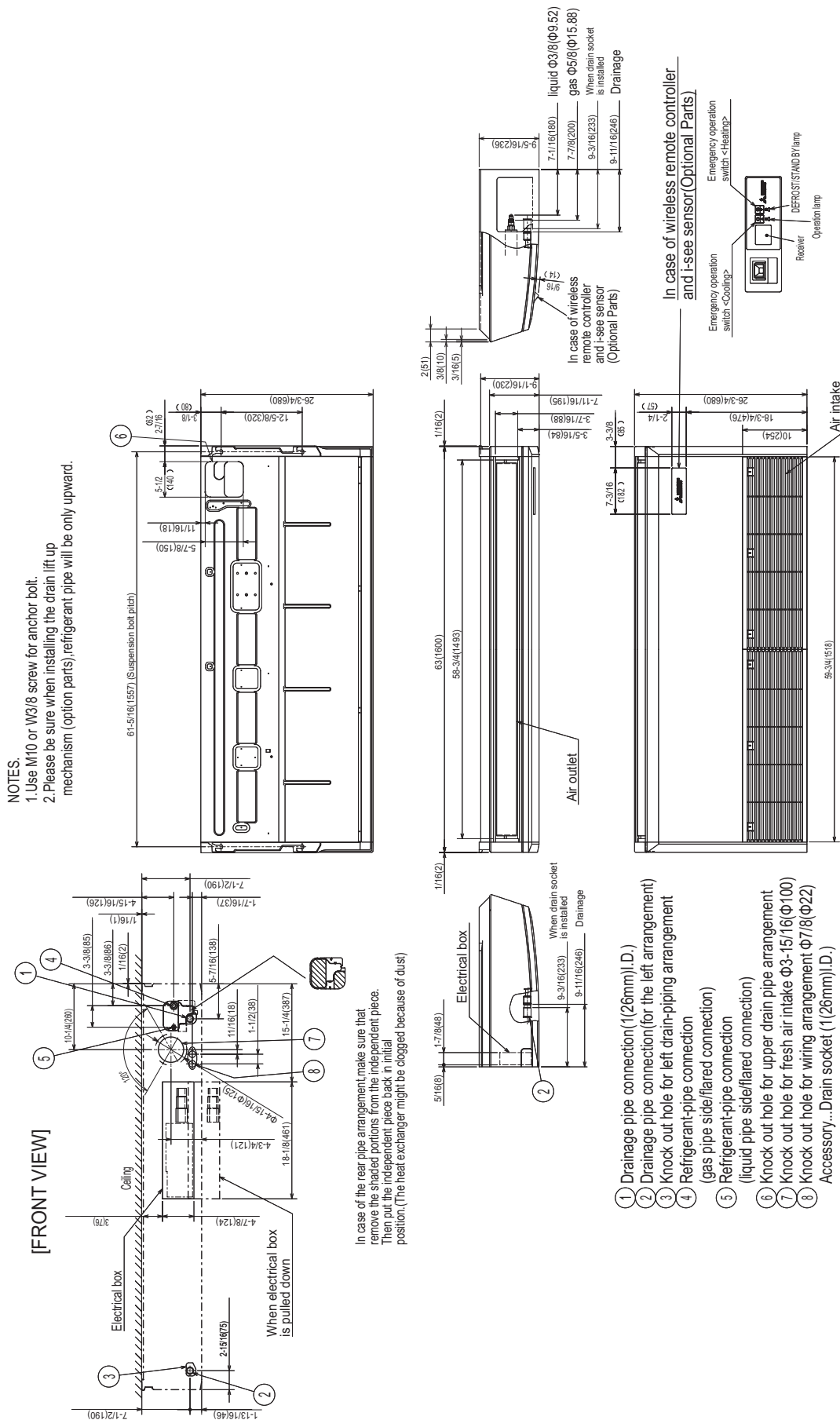
Unit : in(mm)



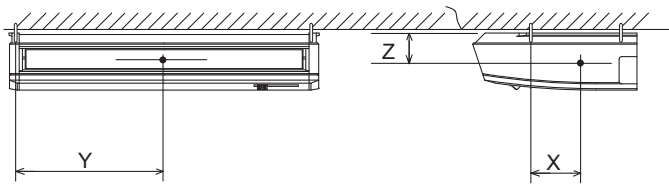
- NOTES:
1. Use M10 or W3/8 screw for anchor bolt.
2. Please be sure when installing the drain mechanism(option parts),refrigerant pipe

PCFY-P30, 36NKMU-E

Unit : in(mm)



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



in(mm)			
Model	X	Y	Z
PCFY-P15NKMU-E	4-3/8(110)	17-3/4(450)	4-9/16(115)
PCFY-P24NKMU-E	4-3/8(110)	24-1/16(610)	4-9/16(115)
PCFY-P30NKMU-E	4-3/8(110)	30-3/8(770)	4-9/16(115)
PCFY-P36NKMU-E	4-3/8(110)	30-3/8(770)	4-9/16(115)

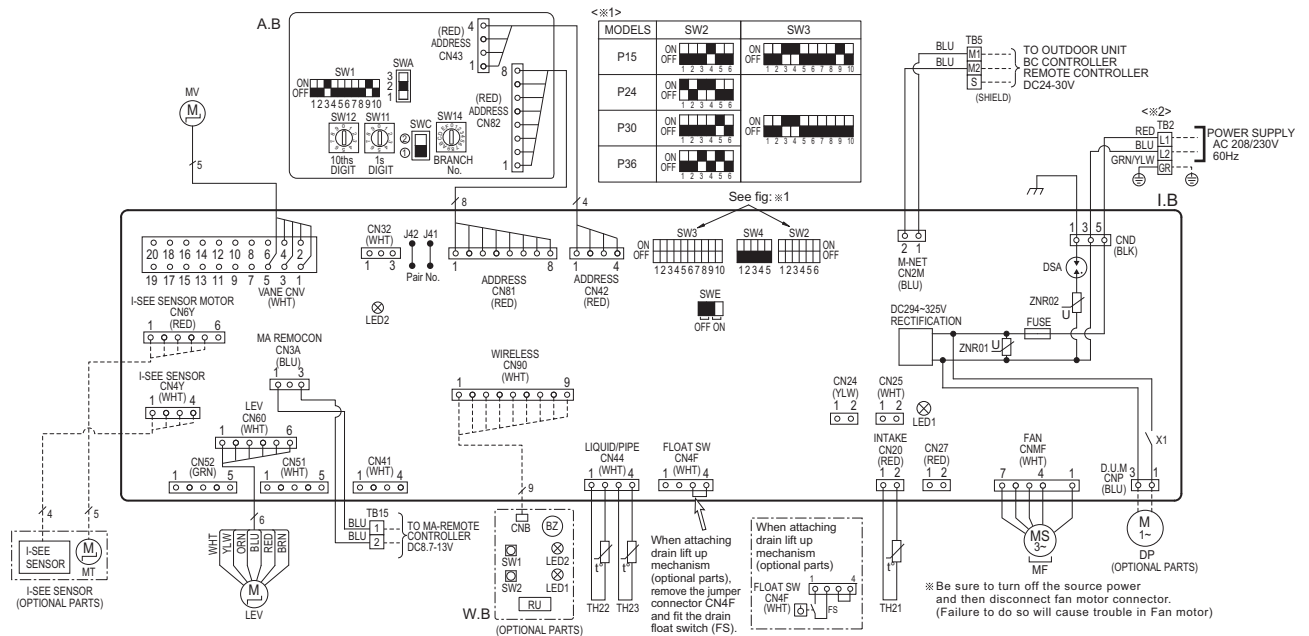
PCFY-P15, 24, 30, 36NKMU-E

[LEGEND]

SYMBOL	NAME	SYMBOL	NAME
I. B	INDOOR CONTROLLER BOARD	TH22	THERMISTOR
CN24	CONNECTOR	TH23	THERMISTOR
CN32	DAMPER		
CN51	REMOTE SWITCH		
CN52	CENTRALLY CONTROL	A. B	ADDRESS BOARD
DSA	REMOTE INDICATION	SWA	SWITCH
DSR	SURGE ABSORBER	SWC	CEILING HEIGHT SELECTOR
FUSE	FUSE (T6.3A/250V)	SW1	OPTION SELECTOR
SW2	SWITCH	SW11	MODE SELECTION
SW3	CAPACITY CODE	SW12	ADDRESS SETTING 1s DIGIT
SW4	MODE SELECTION	SW14	ADDRESS SETTING 10ths DIGIT
SWE	MODEL SELECTION		BRANCH No.
X1	DRAIN LIFT UP MECHANISM (TEST MODE)	OPTIONAL PARTS	
ZNR01,02	AUX. RELAY	W.B	PCB FOR WIRELESS REMOTE CONTROLLER
LEV	DRAIN LIFT UP MECHANISM (OPTIONAL PARTS)	BZ	BUZZER
MF	LINEAR EXPANSION VALVE	LED1	LED (OPERATION INDICATION : GREEN)
MV	FAN MOTOR	LED2	LED (PREPARATION FOR HEATING : ORANGE)
MT	VANE MOTOR	RU	RECEIVING UNIT
MT	I-SEE SENSOR MOTOR(OPTIONAL PARTS)	SW1	EMERGENCY OPERATION (HEAT / DOWN)
TB2	TERMINAL	SW2	EMERGENCY OPERATION (COOL / UP)
TB5	BLOCK	DP	DRAIN LIFT UP MECHANISM
TB15	TRANSMISSION	FS	DRAIN FLOAT SWITCH
TH21	MA-REMOTE CONTROLLER		
	ROOM TEMP DETECTION		
	(32°F/15KΩ, 77°F/5.4KΩ Detect)		

LED on indoor board for service

Mark	Meaning	Function
LED1	Main power supply	Main Power supply (Indoor unit:220-240V) power on → lamp is lit
LED2	Power supply for MA-Remote controller	Power supply for MA-Remote controller on → lamp is lit



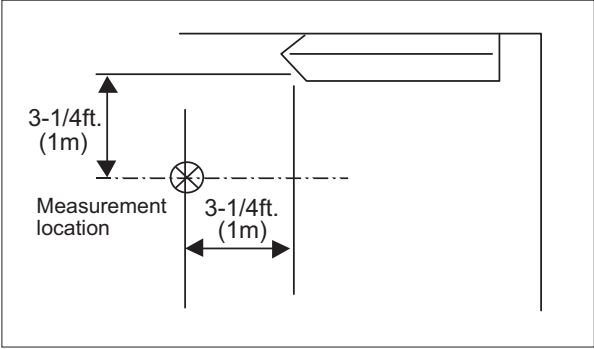
NOTES:

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 dip switches differs in the capacity. For the detail, refer to fig<※1>.

<※2>Use copper supply wires.

5-1. Sound levels

Ceiling suspended



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

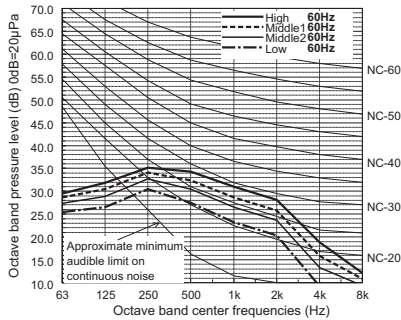
Model	Sound level dB (A)
PCFY-P15NKMU-E	29-32-34-36
PCFY-P24NKMU-E	31-33-35-37
PCFY-P30NKMU-E	34-37-40-43
PCFY-P36NKMU-E	36-39-42-44

* Measured in anechoic room.

5-2. NC curves

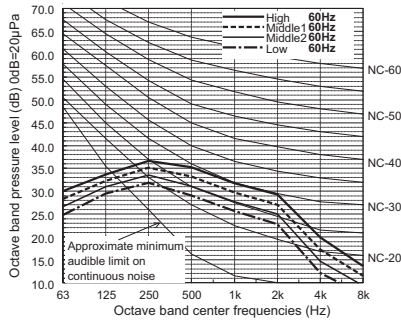
PCFY-P15NKMU-E

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



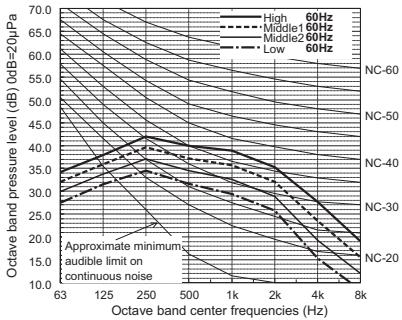
PCFY-P24NKMU-E

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



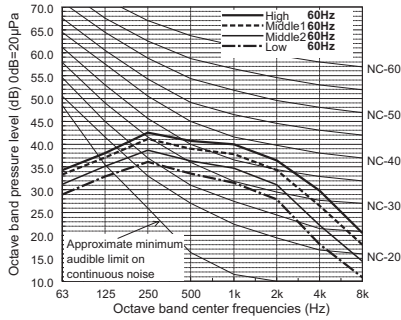
PCFY-P30NKMU-E

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



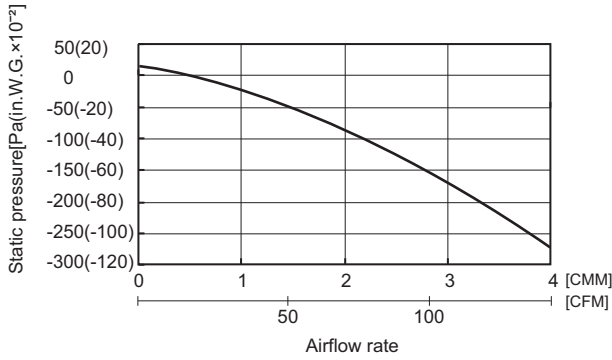
PCFY-P36NKMU-E

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

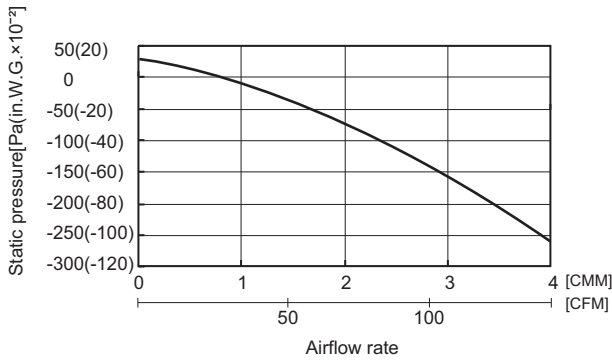


PCFY

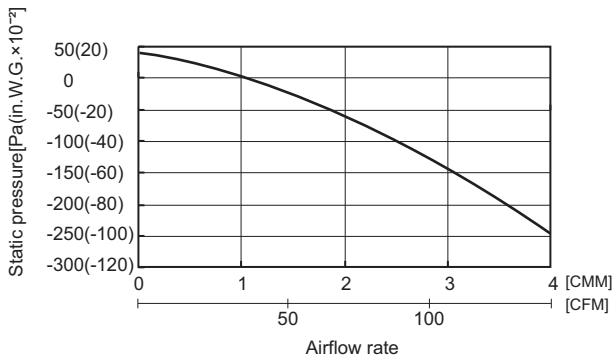
■ PCFY-P15NKMU-E



■ PCFY-P24NKMU-E



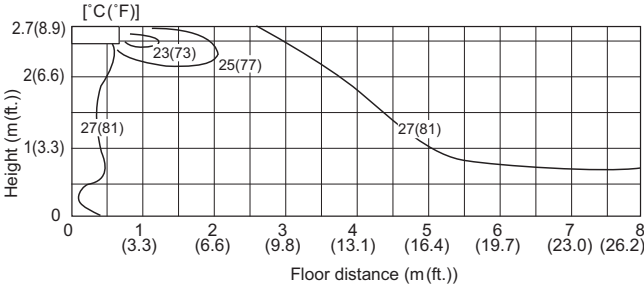
■ PCFY-P30, 36NKMU-E



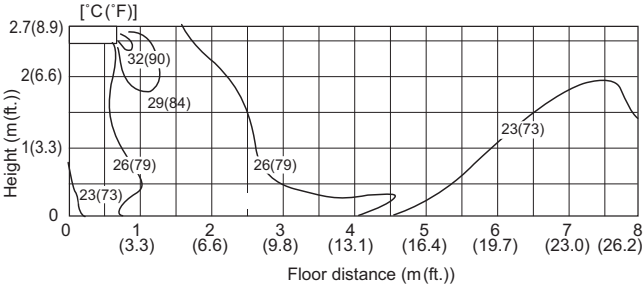
7-1. Temperature distributions

PCFY-P15-24NKMU-E

<Cooling mode>
Flow angle : 10°
Temperature setting : 27°C (81°F)
High notch

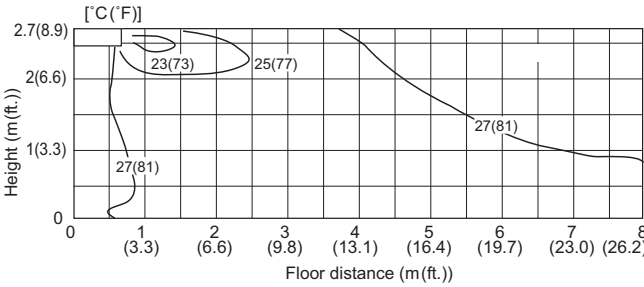


<Heating mode>
Flow angle : 60°
Temperature setting : 20°C (68°F)
High notch

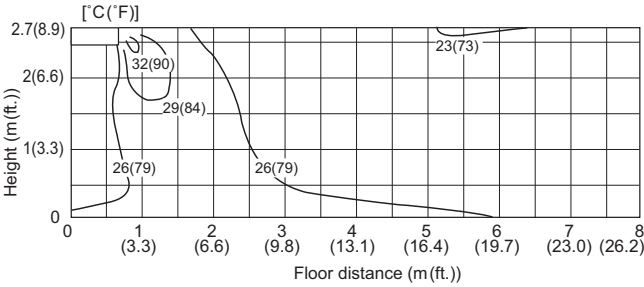


PCFY-P30-36NKMU-E

<Cooling mode>
Flow angle : 10°
Temperature setting : 27°C (81°F)
High notch



<Heating mode>
Flow angle : 60°
Temperature setting : 20°C (68°F)
High notch



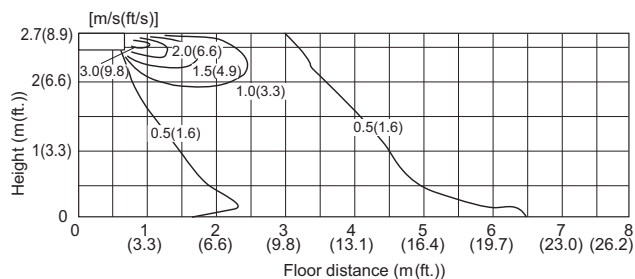
Note : These figures show typical airflow distributions in the conditions above. In the actual installation, they may differ from these figures under the influence of air temperature conditions, ceiling height, cooling/heating load, obstacles, etc.

7-2. Airflow distributions

PCFY-P15-24NKMU-E

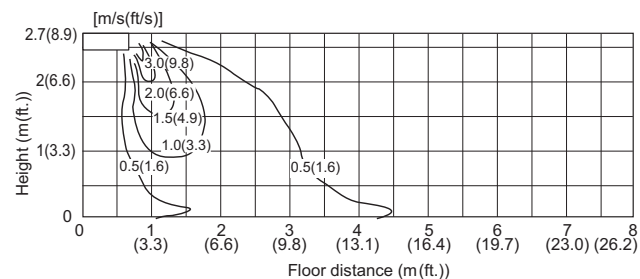
<Cooling mode>

Flow angle : 10°
 Temperature setting : 27°C (81°F)
 High notch
 Ceiling height : 2.7m (8.9ft.)



<Heating mode>

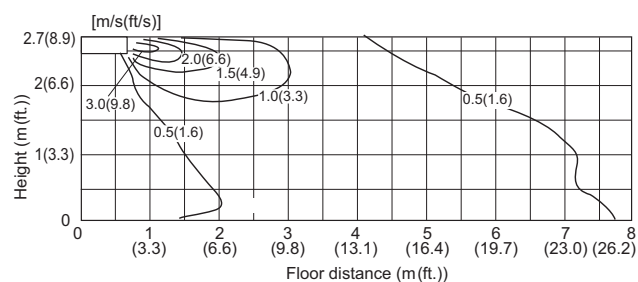
Flow angle : 60°
 Temperature setting : 27°C (81°F)
 High notch
 Ceiling height : 2.7m (8.9ft.)



PCFY-P30-36NKMU-E

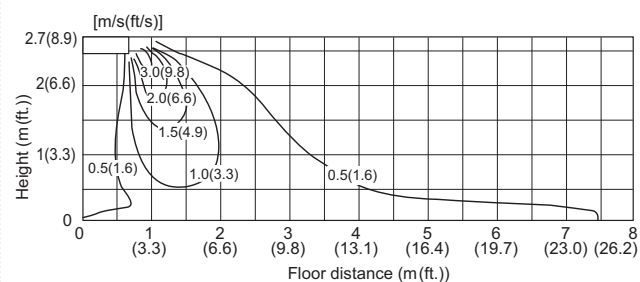
<Fan mode>

Flow angle : 10°
 Temperature setting : 27°C (81°F)
 High notch
 Ceiling height : 2.7m (8.9ft.)



<Fan mode>

Flow angle : 60°
 Temperature setting : 27°C (81°F)
 High notch
 Ceiling height : 2.7m (8.9ft.)



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.

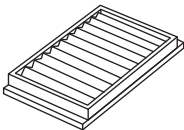
8. OPTIONAL PARTS

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8-1. Optional parts line up for the Indoor unit

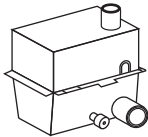
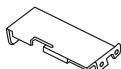
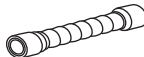
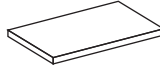
	High-efficiency filter	Wireless remote controller kit	Drain pump
PCFY-P15NKMU-E PCFY-P24NKMU-E PCFY-P30,36NKMU-E	PAC-SH88KF-E PAC-SH89KF-E PAC-SH90KF-E	PAR-SL93B-E PAR-SL93B-E PAR-SL93B-E	PAC-SH83DM-E PAC-SH84DM-E PAC-SH84DM-E
	i-see Sensor	Wireless remote controller with i-see Sensor	External heater adapter
PCFY-P-NKMU-E	PAC-SH91MK-E	PAR-SA92MW-E	PAC-YU25HT

8-2. High efficiency filter

Material: PP honeycomb Gravimetric method: 70%			
Item	PAC-SH88KF-E	PAC-SH89KF-E	PAC-SH90KF-E
Quantity	2 (Small)	1 (Small), 2 (Large)	2 (Large)
Shape			

8-3. Drain pump

If drain water can not flow out the Indoor unit by gravity and gradient, a Drain-pump for draining is needed.
Drain pump PAC-SH-DM-E can pump water up to 600 mm high from the ceiling.

Item	① Drain lift up mechanism	② Attachment	③ Screws (4×10)	④ VP-20 pipe	⑤ Pipe cover
Quantity	1	1	6	1	1
Shape		 1 Drain lift up mechanism fixture	 For the installation of drain lift up mechanism 1		 For insulation of VP20 pipe4
Item	⑥ Flexible hose	⑦ Fastener	⑧ L-shaped pipe (gas pipe)	⑨ L-shaped pipe (liquid pipe)	⑩ Insulator A
Quantity	1	1	1	1	2
Shape					 6t×220×80 (For internal insulation) For the insulation of L-shaped pipes ⑧ and ⑨ and the refrigerant pipes.
Item	⑪ Insulator B				
Quantity	2				
Shape	 3t×250×120 (For external insulation) For the insulation of L-shaped pipes ⑧ and ⑨ and the refrigerant pipes.				

Detailed installation information should be referred to its Installation Manual.

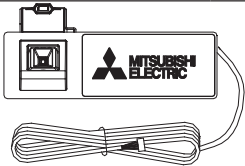
8-4. Wireless remote controller kit

Wireless remote controller receiver is built-in type.					
Item	① Wireless remote controller receiver	② Wireless remote controller	③ Remote control holder	④ "AAA" LR3 alkaline batterie	⑤ 4.1 x 16 wood screw
Quantity	1	1	1	2	2
Item	⑥ Cord retaining clips	⑦ Connection cord fixing seal (12x30 size)			
Quantity	2	1			

Detailed installation information should be referred to its Installation Manual.

8-5. i-see Sensor

Sensor sweeps from side-to-side automatically monitoring the floor temperature over a wide area spanning 160°. The “i-see Sensor” monitors floor-level temperature to ensure that optimum comfort is obtained throughout the room.

Item	① i-see Sensor	
Quantity	1	
Shape		

Detailed installation information should be referred to its Installation Manual.

8-6. Wireless remote controller kit with i-see Sensor

Wireless remote controller receiver is built-in type.

Item	① Wireless receiver with i-see sensor	② Wireless remote controller	③ Remote control holder	④ “AAA” LR3 alkaline batteries	⑤ 4.1 x 16 wood screw
Quantity	1	1	1	2	2
Item	⑥ Cord retaining clips	⑦ Connection cord fixing seal (12x30 size)			
Quantity	2	1			

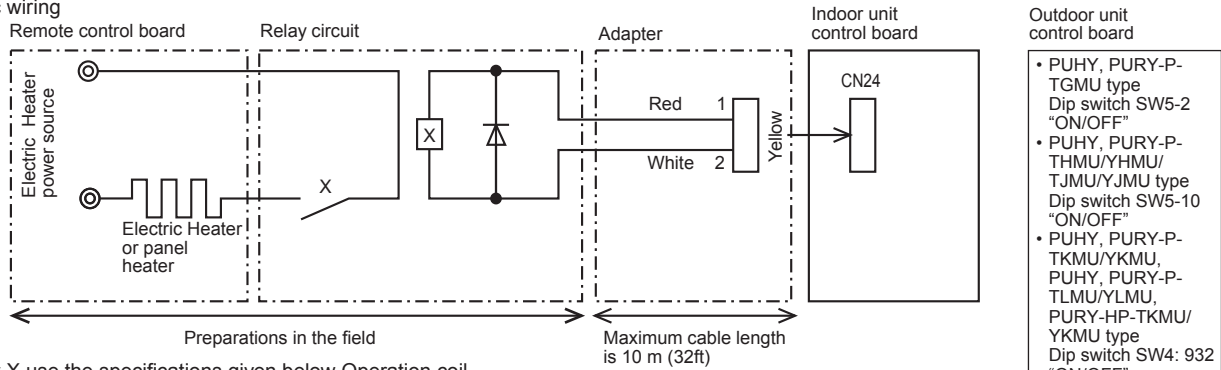
Detailed installation information should be referred to its Installation Manual.

8-7. External heater adapter

External heater adapter PAC-YU25HT 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.

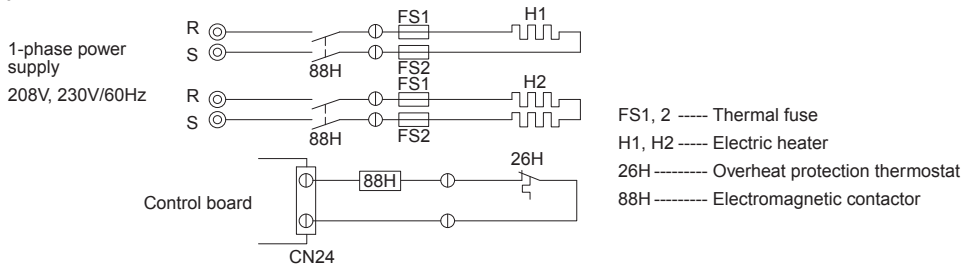
A basic connection method is shown as follows:(For details, refer to its Installation Manual.)

(1) Basic wiring



For relay X use the specifications given below Operation coil
Rated voltage : 12VDC
Power consumption : 1W 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-YU25HT 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).

(2) Recommended circuit



Item	① External output cable	② Connector (for use with the panel heater)	
Quantity	2	3	
Shape			

Wiring details and Installation details should be referred to its Installation Manual.