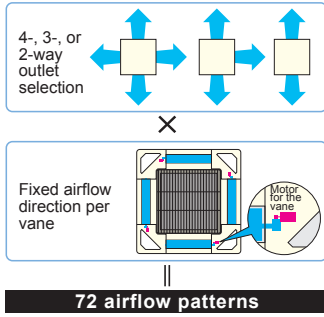


## PLFY-P-NCMU-ER4, -NBMU-E2

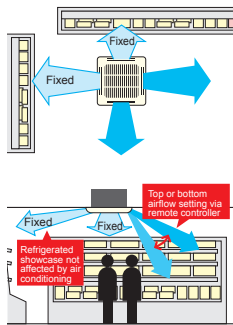
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# CEILING-RECESSED CASSETTE (FOUR-WAY AIRFLOW)

- Each vane is driven by its own motor, airflow pattern is precisely controlled. (on PLFY-P-NBMU-E2)

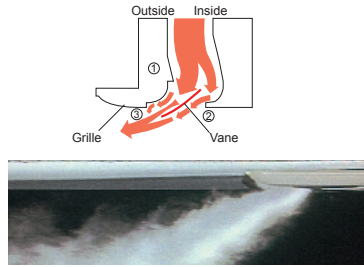


- Precise airflow pattern on PLFY-P-NBMU-E2  
Example (Convenient chain store)  
Airflow doesn't disturb the cooled air in show-case helps energy saving.

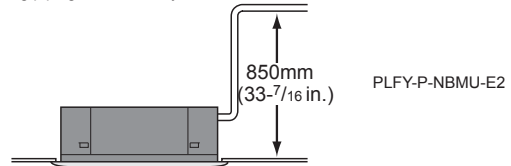


- Mitsubishi Electric's innovative design of the outlet and vane.

- ① Uniformly distribute the air onto the louver.
- ②③ Avoid airflow rising up.
- ②③ Avoid dust attachment.



- Drain water lifted to 33-7/16" (PLFY-P-NBMU-E2) or 19-11/16" (PLFY-P-NCMU-E2)  
Allowing long piping and versatility.



- Flexibility

The PLFY not only brings outside air into your space, but the PLFY-P-NBMU-E2 can also branch over to air-condition an adjacent room.

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
PLFY-P-NCMU-ER4		●	●	●									
PLFY-P-NBMU-E2		●	●	●	●	●		●	●				

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

# 1. SPECIFICATIONS

## PLFY-P08NCMU-ER4, PLY-P12NCMU-ER4, PLY-P15NCMU-ER4

Model		PLFY-P08NCMU-ER4	PLFY-P12NCMU-ER4	PLFY-P15NCMU-ER4	
Power source		1-phase 208-230 V 60Hz			
Cooling capacity *1 (Nominal)	Btu/h	8,000	12,000	15,000	
	kW	2.3	3.5	4.4	
	Power input	kW	0.05	0.06	
	Current input	A	0.23	0.28	
Heating capacity *2 (Nominal)	Btu/h	9,000	13,500	17,000	
	kW	2.6	4.0	5.0	
	Power input	kW	0.05	0.06	
	Current input	A	0.23	0.28	
External finish		Galvanized Steel Sheet			
External dimension H x W x D	in.	8-3/16 x 22-7/16 x 22-7/16	8-3/16 x 22-7/16 x 22-7/16	8-3/16 x 22-7/16 x 22-7/16	
	mm	208 x 570 x 570	208 x 570 x 570	208 x 570 x 570	
Net weight		34 (15.5)	37 (17)	37 (17)	
Decoration panel	Model	SLP-15AAUW	SLP-15AAUW	SLP-15AAUW	
	External finish	Munsell No. 6.4Y 8.9/0.4			
	Dimension	in.	25/32 x 25-19/32 x 25-19/32	25/32 x 25-19/32 x 25-19/32	25/32 x 25-19/32 x 25-19/32
	H x W x D	mm	20 x 650 x 650	20 x 650 x 650	20 x 650 x 650
	Net Weight	lbs (kg)	7(3)	7(3)	7(3)
Heat exchanger		Cross fin			
Fan	Type x Quantity		Turbo fan x 1	Turbo fan x 1	Turbo fan x 1
	External static pressure	in.WG	0.000 (208V)	0.000 (208V)	0.000 (208V)
		Pa	0	0	0
		in.WG	0.000 (230V)	0.000 (230V)	0.000 (230V)
		Pa	0	0	0
	Motor type		1-phase induction motor		
	Driving mechanism		Direct-driven		
	Airflow rate (Low-Mid-High)	CFM	280-320-350	320-350-390	320-350-390
m3 / min		8.0-9.0-10.0	9.0-10.0-11.0	9.0-10.0-11.0	
L / s		133-150-167	150-167-183	150-167-183	
Sound pressure level (Low-Mid-High) (measured in anechoic room)		dB <A>	29-32-38 (208-230V)	30-34-39 (208-230V)	31-35-40(208-230V)
Insulation material		Polyethylene foam			
Air filter		Polypropylene honeycomb fabric			
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	1/4 (6.35) Flare	1/4 (6.35) Flare
	Gas (R410A)	in. (mm)	1/2 (12.7) Flare	1/2 (12.7) Flare	1/2 (12.7) Flare
Field drain pipe size		in. (mm)	O.D. 1-1/4(32)	O.D. 1-1/4(32)	O.D. 1-1/4(32)
Drain Lift Mechanism		in. (mm)	19-11/16 (500)	19-11/16 (500)	19-11/16 (500)
Drawing	External	RG01N654			
	Wiring	RG79V389			
Refrigerant cycle		-			
Standard attachment	Document	Installation Manual,Installation Book			
	Accessory	Drain hose<1-1/4in.(32mm)>			
Optional parts	External heater adapter	CN24RELAY-KIT-CM3	CN24RELAY-KIT-CM3	CN24RELAY-KIT-CM3	
	Decoration panel	SLP-15AAUW	SLP-15AAUW	SLP-15AAUW	
Remark	*PLFY-P-NCMU-E should used together with SLP-15AAUW.				
	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
Outdoor:	95degF D.B. (35degC D.B.)	47degF D.B. / 43degF W.B. (8.3degC D.B. / 6.1degC W.B.)	BTU/h = kW x 3,412
			cfm = m3/min x 35.31
Pipe length:	25 ft. (7.6 m)	25 ft. (7.6 m)	lbs = kg / 0.4536
Level difference:	0 ft. (0 m)	0 ft. (0 m)	*Above specification data is subject to rounding variation.

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

# 1. SPECIFICATIONS

## PLFY-P08NBMU-E2, PLY-P12NBMU-E2, PLY-P15NBMU-E2, PLY-P18NBMU-E2

Model		PLFY-P08NBMU-E2 *3	PLFY-P12NBMU-E2	PLFY-P15NBMU-E2	PLFY-P18NBMU-E2	
Power source		1-phase 208-230 V 60Hz				
Cooling capacity *1 (Nominal)	Btu/h	8,000	12,000	15,000	18,000	
	kW	2.4	3.5	4.4	5.3	
	Power input	kW	0.03	0.03	0.03	0.04
	Current input	A	0.31	0.31	0.31	0.33
Heating capacity *2 (Nominal)	Btu/h	9,000	13,500	17,000	20,000	
	kW	2.7	4.0	5.0	5.9	
	Power input	kW	0.02	0.02	0.02	0.03
	Current input	A	0.24	0.24	0.24	0.26
External finish		Galvanized steel sheet				
External dimension H x W x D	in.	10-3/16 x 33-3/32 x 33-3/32				
	mm	258 x 840 x 840				
Net weight		lbs (kg)				
Decoration panel	Model	PLP-40BAU				
	External finish	Munsell No. (6.4Y 8.9/0.4)				
	Dimension H x W x D	in.	1-3/8 x 37-13/32 x 37-13/32			
	mm	35 x 950 x 950				
Net Weight		lbs (kg)				
		13 (6)				
Heat exchanger		Cross fin				
FAN	Type x Quantity		Turbo fan x 1			
	External static pressure	in.WG	0.000 (208V)			
		Pa	0			
		in.WG	0.000 (230V)			
		Pa	0			
	Motor type		DC motor			
	Driving mechanism		Direct-driven			
	Airflow rate (Low-Mid2-Mid1-High)	CFM	494 - 530 - 547 - 565	494 - 530 - 547 - 565	494 - 530 - 547 - 565	494 - 530 - 565 - 636
m3 / min		14.0 - 15.0 - 15.5 - 16.0	14.0 - 15.0 - 15.5 - 16.0	14.0 - 15.0 - 15.5 - 16.0	14.0 - 15.0 - 16.0 - 18.0	
L / s		233 - 250 - 259 - 267	233 - 250 - 259 - 267	233 - 250 - 259 - 267	233 - 250 - 267 - 300	
Sound pressure level (Low-Mid2-Mid1-High) (measured in anechoic room)		dB <A>	27 - 29 - 30 - 31(208-230V)	27 - 29 - 30 - 31(208-230V)	28 - 29 - 30 - 31(208-230V)	28 - 29 - 30- 32(208-230V)
Insulation material		PS				
Air filter		PP honeycomb (long life filter, anti-bacterial type)				
Protection device		Fuse				
Refrigerant control device		LEV				
Connectable outdoor unit		R410A CITY MULTI				
Diameter of refrigerant pipe (O.D.)	Liquid (R410A)	in. (mm)	1/4 (6.35) Flare			
	Gas (R410A)	in. (mm)	1/2 (12.7) Flare			
Field drain pipe size		in. (mm)	O.D. 1-1/4(32)			
Drain lift mechanism		in. (mm)	33-7/16 (850)			
Standard attachment	Document Accessory	Installation Manual, Instruction Book				
Optional parts	External heater adapter		CN24RELAY-KIT-CM3			
	Air outlet shutter plate		PAC-SH51SP-E			
	High efficiency filter element (MERV 10)		PAC-SH59KF-E			
	Multi-function casement		PAC-SH53TM-E			
	I-see sensor corner panel		PAC-SA1ME-E			
	Flange for fresh air intake		PAC-SH65OF-E			
Remark	Wireless 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
Outdoor:	95degF D.B. (35degC D.B.)	47degF D.B. / 43degF W.B. (8.3degC D.B. / 6.1degC W.B.)	BTU/h = kW x 3,412
Pipe length:	25 ft. (7.6 m)	25 ft. (7.6 m)	cfm = m3/min x 35.31
Level difference:	0 ft. (0 m)	0 ft. (0 m)	lbs = kg / 0.4536

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

\*3 PLY-P08NBMU-E2 is not compatible with PUMY-P\*\*NBMU/NKMU outdoor units.

# 1. SPECIFICATIONS

## PLFY-P24NBMU-E2, PLY-P30NBMU-E2, PLY-P36NBMU-E2

Model			PLFY-P24NBMU-E2	PLFY-P30NBMU-E2	PLFY-P36NBMU-E2
Power source			1-phase 208-230 V 60Hz		
Cooling capacity *1 (Nominal)	Btu/h		24,000	30,000	36,000
	kW		7.0	8.8	10.5
	Power input	kW	0.05	0.05	0.09
	Current input	A	0.47	0.50	0.87
Heating capacity *2 (Nominal)	Btu/h		27,000	34,000	40,000
	kW		7.9	10.0	11.7
	Power input	kW	0.04	0.04	0.08
	Current input	A	0.40	0.43	0.80
External finish			Galvanized steel sheet		
External dimension H x W x D		in.	11-3/4 x 33-3/32 x 33-3/32		
		mm	298 x 840 x 840		
Net weight		lbs (kg)	60 (27)		
Decoration panel	Model		PLP-40BAU		
	External finish		Munsell No. (6.4Y 8.9/0.4)		
	Dimension H x W x D	in.	1-3/8 x 37-13/32 x 37-13/32		
		mm	35 x 950 x 950		
	Net Weight		lbs (kg)	13 (6)	
Heat exchanger			Cross fin		
Fan	Type x Quantity		Turbo fan x 1		
	External static pressure	in.WG	0.000 (208V)		
		Pa	0		
		in.WG	0.000 (230V)		
		Pa	0		
	Motor type		DC motor		
	Driving mechanism		Direct-driven		
	Airflow rate (Low-Mid2-Mid1-High)	CFM	565 - 636 - 706 - 777	565 - 636 - 742 - 812	777 - 883 - 989 - 1,059
		m3 / min	16.0 - 18.0 - 20.0 - 22.0	16.0 - 18.0 - 21.0 - 23.0	22.0 - 25.0 - 28.0 - 30.0
		L / s	267 - 300 - 333 - 367	267 - 300 - 350 - 384	367 - 417 - 467 - 500
Sound pressure level (Low-Mid2-Mid1-High) (measured in anechoic room)		dB <A>	28 - 31 - 34 - 37(208-230V)	28 - 32 - 35 - 37(208-230V)	35 - 38 - 41 - 43(208-230V)
Insulation material			PS		
Air filter			PP honeycomb (long life filter, anti-bacterial type)		
Protection device			Fuse		
Refrigerant control device			LEV		
Connectable outdoor unit			R410A CITY MULTI		
Diameter of refrigerant pipe (O.D.)	Liquid (R410A)	in. (mm)	3/8 (9.52) Flare		
	Gas (R410A)	in. (mm)	5/8 (15.88) Flare		
Field drain pipe size		in. (mm)	O.D. 1-1/4(32)		
Drain lift mechanism		in. (mm)	33-7/16 (850)		
Standard attachment	Document		Installation Manual, Instruction Book		
	Accessory				
Optional parts	External heater adapter		CN24RELAY-KIT-CM3		
	Air outlet shutter plate		PAC-SH51SP-E		
	High efficiency filter element (MERV 10)		PAC-SH59KF-E		
	Multi-function casement		PAC-SH53TM-E		
	i-see sensor corner panel		PAC-SA1ME-E		
	Flange for fresh air intake		PAC-SH65OF-E		
	Wireless signal receiver		PAR-SA9FA-E		
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.		

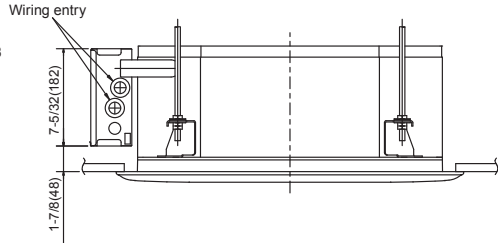
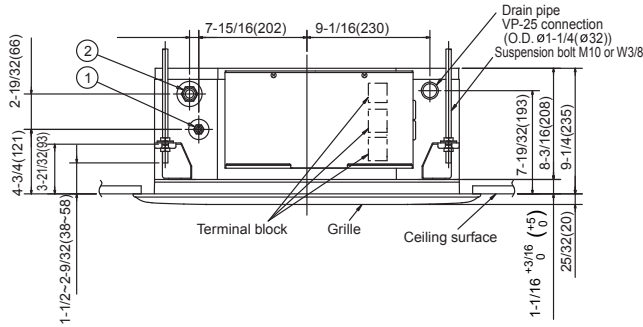
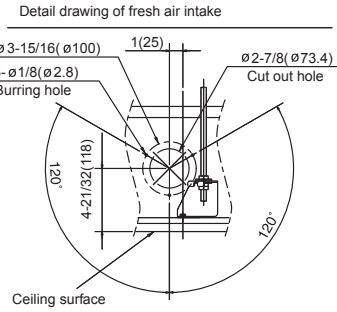
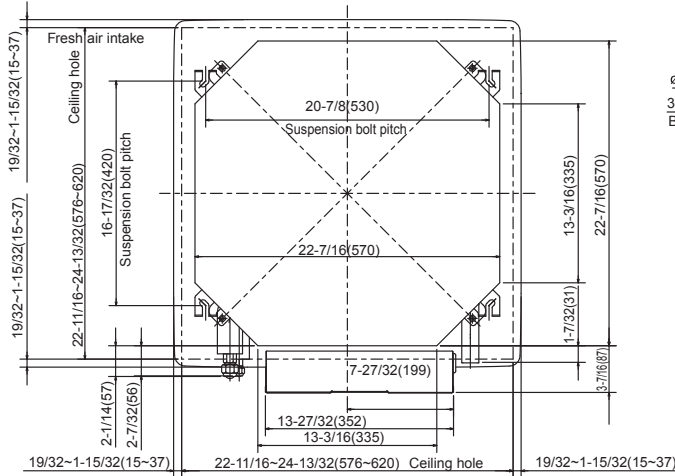
Note:	*1 Nominal cooling conditions	*2 Nominal heating conditions	Unit converter
Indoor:	80degF D.B. / 67degF W.B. (26.7degC D.B. / 19.4degC W.B.)	70degF D.B. (21.1degC D.B.)	kcal/h = kW x 860
			BTU/h = kW x 3,412
Outdoor:	95degF D.B. (35degC D.B.)	47degF D.B. / 43degF W.B. (8.3degC D.B. / 6.1degC W.B.)	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.

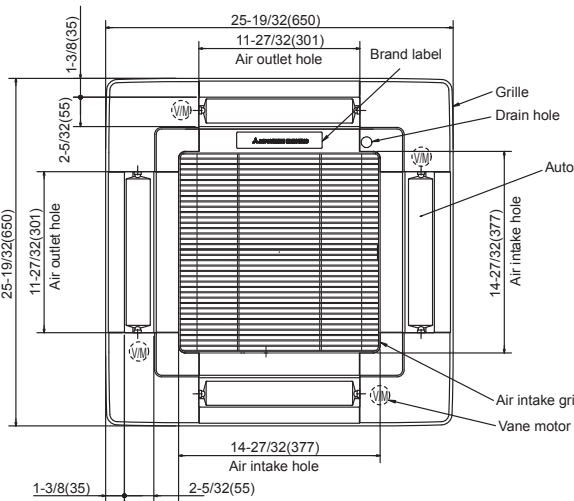
## 2. EXTERNAL DIMENSIONS

PLFY-P08, 12, 15 NCMU-ER4

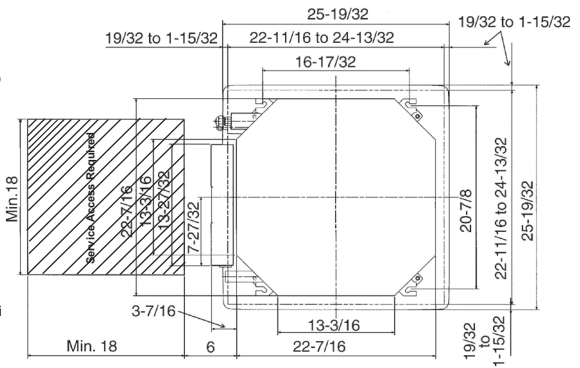
Ref.: PLY-NCMU-E\_EXD\_USDB\_P08-15  
Unit: in.(mm)



Suspension bolt lower edge



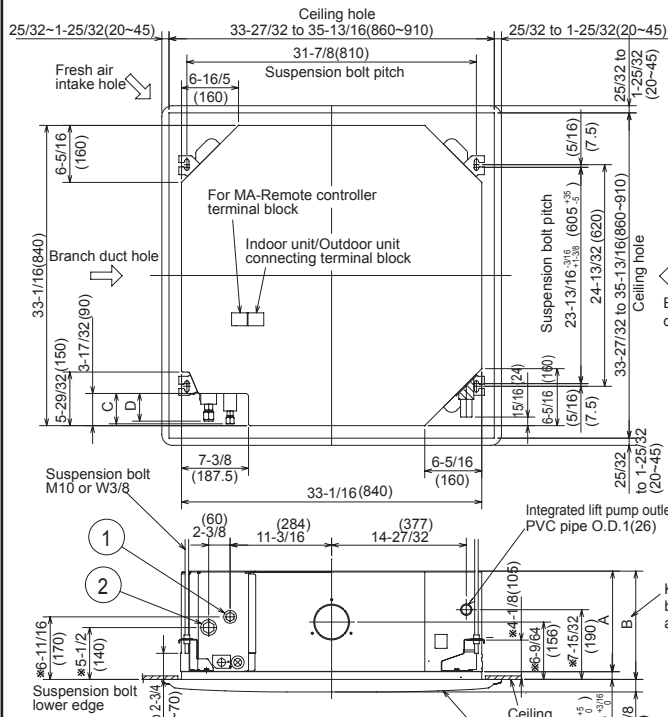
Models	Unit: in.(mm)	
	①	②
PLFY-P08NCMU-ER4	Refrigerant pipe (1/4 (6.35) dia.)	Refrigerant pipe (1/2 (12.7) dia.)
PLFY-P12NCMU-ER4	flared connection 1/4	flared connection 1/2
PLFY-P15NCMU-ER4		



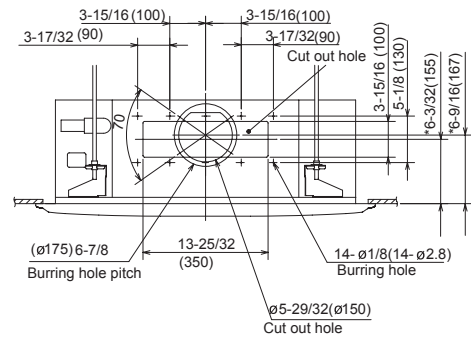
## 2. EXTERNAL DIMENSIONS

PLFY-P08, 12, 15, 18, 24, 30, 36 NBMU-E2

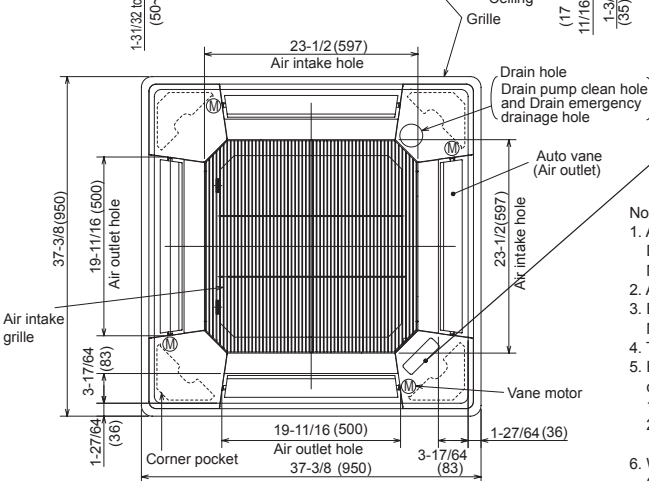
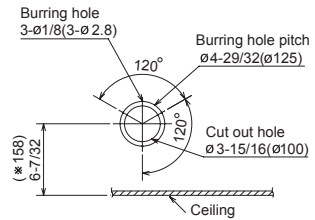
Unit : in. (mm)



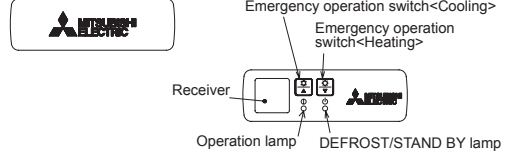
Detail connecting of branch duct (Both aspects)



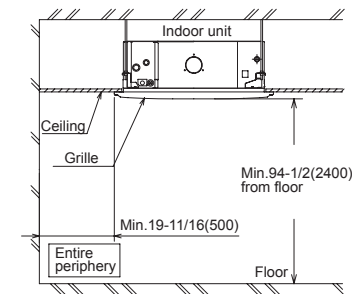
Detail drawing of fresh air intake hole



In case of standard grille In case of wireless remote controller



- Note:
- As for drain pipe, please use VP-25 O.D. 1-1/4(32) PVC TUBE. Drain pump is included. Max. lifting height is 33-7/16 (850mm) from the ceiling.
  - As for suspension bolt, please use M10 or W3/8. (Procured at local site)
  - Electrical box may be removed for the service purpose. Make sure to slack the electrical wire little bit for control/power wires connection.
  - The height of the indoor unit is able to be adjusted with the grille attached.
  - For the installation of the optional high efficiency filter or optional multi-functional casement.
    - Add 5-5/16"(135mm) to the dimensions \* marked on the figure.
    - The optional high efficiency filter becomes optional multi-functional casement and concomitant use.
  - When installing the branch ducts, be sure to insulate adequately. Otherwise condensation and dripping may occur. (It becomes the cause of dew drops/water dew.)  
As for necessary installation / service space, please refer to the left figure.
- Accessory...Drain socket(I.D.1-1/4(32))  
Flare nut 3/8 (For P18)  
Flare nut 5/8 (For P18)  
Flare nut 3/4 (For P36)

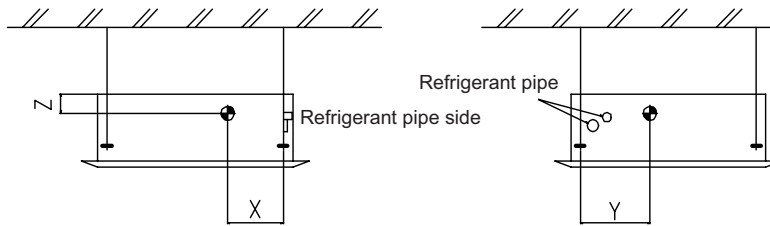


Models	1	2	A	B	C	D
PLFY-P08NBMU-E2 PLFY-P12NBMU-E2 PLFY-P15NBMU-E2	Refrigerant pipe ... ø 6.35 Flared connection ...1/4	Refrigerant pipe ... ø 12.7 Flared connection ...1/2				
PLFY-P18NBMU-E2	Refrigerant pipe ø6.35 Flared connection 1/4 (compatible)	Refrigerant pipe ø12.7 Flared connection 1/2 (compatible)	9-1/2 (241)	10-3/16 (258)	3-5/32 (80)	2-29/32 (74)
PLFY-P24NBMU-E2 PLFY-P30NBMU-E2 PLFY-P36NBMU-E2	Refrigerant pipe ... ø 9.52 Flared connection ...3/8	Refrigerant pipe ... ø15.88 Flared connection ...5/8 Refrigerant pipe ø15.88 Flared connection 5/8 (compatible)	11-1/16 (281)	11-3/4 (298)	3-11/32 (85)	3-1/32 (77)

### 3. CENTER OF GRAVITY

PLFY-P08,12,15NCMU-ER4

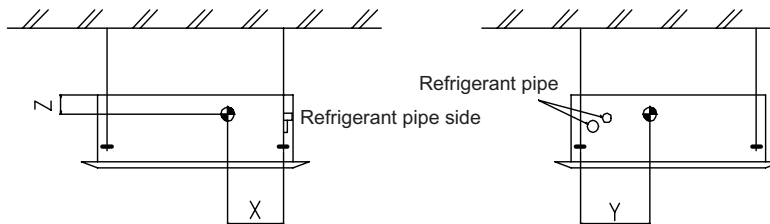
Ref.: PLFY\_NCMU\_COG\_USDB\_ALL



(mm)[in]

Model name	X	Y	Z
PLFY-P08NCMU-ER4	150 [5-29/32]	260 [10-1/4]	105 [4-5/32]
PLFY-P12NCMU-ER4	150 [5-29/32]	260 [10-1/4]	105 [4-5/32]
PLFY-P15NCMU-ER4	150 [5-29/32]	260 [10-1/4]	105 [4-5/32]

PLFY-P08, 12, 15, 18, 24, 30, 36NBMU-E2



(mm)[in]

Model name	X	Y	Z
PLFY-P08NBMU-E2	280 [11-1/32]	400 [15-3/4]	105 [4-5/32]
PLFY-P12NBMU-E2	280 [11-1/32]	400 [15-3/4]	105 [4-5/32]
PLFY-P15NBMU-E2	280 [11-1/32]	400 [15-3/4]	105 [4-5/32]
PLFY-P18NBMU-E2	280 [11-1/32]	400 [15-3/4]	105 [4-5/32]
PLFY-P24NBMU-E2	280 [11-1/32]	400 [15-3/4]	125 [4-15/16]
PLFY-P30NBMU-E2	280 [11-1/32]	400 [15-3/4]	125 [4-15/16]
PLFY-P36NBMU-E2	280 [11-1/32]	400 [15-3/4]	125 [4-15/16]

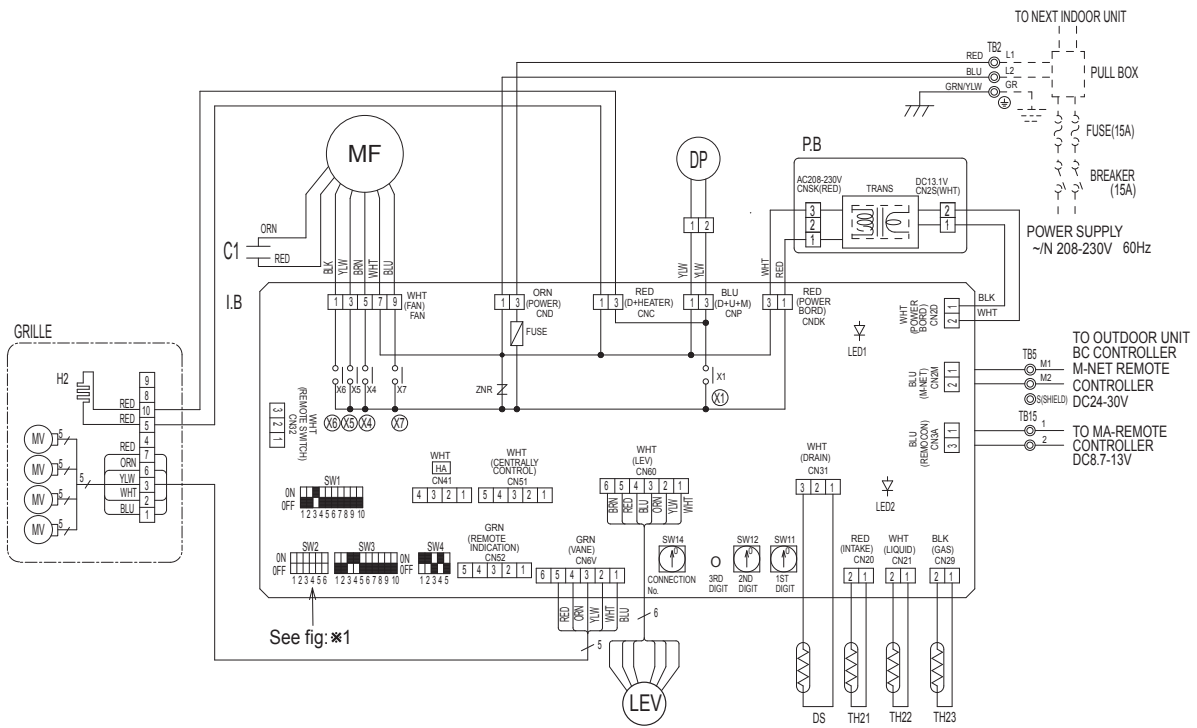


# 4. ELECTRICAL WIRING DIAGRAMS

PLFY-P08,12,15 NCMU-ER4

Ref. : PLY-NCMU-E\_EWD\_USDB\_P08-15

[LEGEND]		SYMBOL	NAME	SYMBOL	NAME
I.B	INDOOR CONTROLLER BOARD	C1	CAPACITOR (FAN MOTOR)	DP	DRAIN PUMP
CN32	CONNECTOR	RE	REMOTE SWITCH	DS	DRAIN SENSOR
CN41		HA	TERMINAL-A	H2	DEW PREVENTION HEATER
CN51		CC	CENTRALLY CONTROL	LEV	LINEAR EXPANSION VALVE
CN52		RI	REMOTE INDICATION	MF	FAN MOTOR (WITH THERMAL FUSE)
FUSE	FUSE (6.3A/250V)	MF	FAN MOTOR (WITH THERMAL FUSE)	MV	VANE MOTOR
SW1	SWITCH	MV	VANE MOTOR	TB2	TERMINAL POWER SUPPLY
SW2		TB2	TERMINAL CAPACITY CODE	TB5	BLOCK TRANSMISSION
SW3		TB5	BLOCK MODE SELECTION	TB15	MA-REMOTE CONTROLLER
SW4		TH21	THERMISTOR ROOM TEMPERATURE DETECTION		
SW11					
SW12					
SW14					
X1	AUX. RELAY	TH22	PIPE TEMPERATURE DETECTION/LIQUID		
X4		TH23	PIPE TEMPERATURE DETECTION/GAS		
X5					
X6					
X7					
ZNR	VARISTOR	PB	INDOOR POWER BOARD		



LED on indoor controller 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.

Notes:

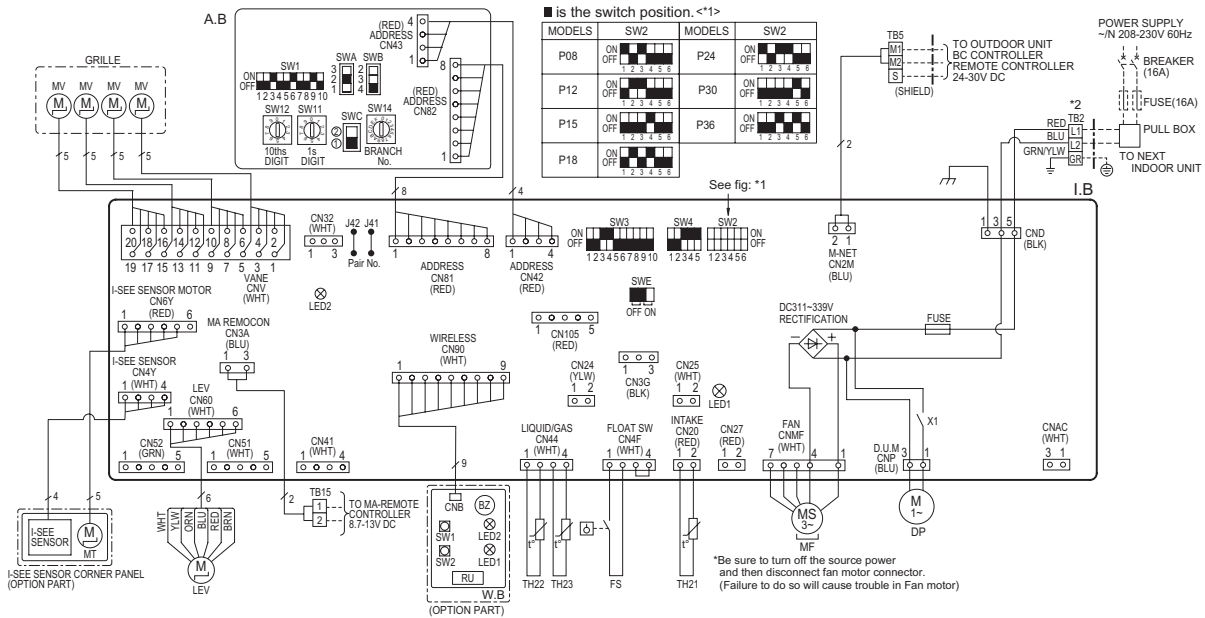
- At servicing for outdoor unit, always follow the wiring diagram of outdoor unit.
- In case of using MA-Remote controller, please connect to TB15. (Remote controller wire is non-polar.)
- In case of using M-NET, please connect to TB5. (Transmission line is non-polar.)
- Symbol[S] of TB5 is the shield wire connection.
- Symbols used in wiring diagram above are, ⊙:terminal block, □:connector.
- The setting of the SW2 dip switches differs in the capacity for the detail, refer to the fig:1.
- Use copper supply wire.

<fig: \*1>

MODELS	SW2
P08	ON OFF 123456
P12	ON OFF 123456
P15	ON OFF 123456

# 4. ELECTRICAL WIRING DIAGRAMS

## PLFY-P08, 12, 15, 18, 24, 30, 36NBMU-E2



### NOTES:

- At servicing for outdoor unit, always follow the wiring diagram of outdoor unit.
- In case of using MA-Remote controller, please connect to TB15. (Remote controller wire is non-polar.)
- 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.
- The setting of the SW2 dip switches differs in the capacity. For the detail, refer to fig <\*1>.
- \*2. Use copper supply wires.
- \*2. Utilisez des fils d'alimentation en cuivre.

### [LEGEND]

SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
I. B	INDOOR CONTROLLER BOARD	DP	DRAIN PUMP	A. B	ADDRESS BOARD
CN24	CONNECTOR	FS	DRAIN FLOAT SWITCH	SWA	SWITCH
CN27	DAMPER	LEV	LINEAR EXPANSION VALVE	SWB	DISCHARGE OUTLET NUMBER SELECTOR
CN32	REMOTE SWITCH	MF	FAN MOTOR	SWC	OPTION SELECTOR
CN51	CENTRALLY CONTROL	MV	VANE MOTOR	SWI1	MODE SELECTION
CN52	REMOTE INDICATION	TB2	TERMINAL BLOCK	SWI11	ADDRESS SETTING 1s DIGIT
CN105	TT TERMINAL	TB5	TERMINAL BLOCK	SWI12	ADDRESS SETTING 10ths DIGIT
FUSE	FUSE (T6.3AL250V)	TB15	TERMINAL BLOCK	SWI14	BRANCH NO.
LED1	POWER SUPPLY (I. B)	TH21	THERMISTOR		
LED2	POWER SUPPLY (I. B)			OPTION PART	
SW2	SWITCH	TH22		W.B	PCB FOR WIRELESS REMOTE CONTROLLER
SW3	MODE SELECTION	TH23		BZ	BUZZER
SW4	MODEL SELECTION			LED1	LED (OPERATION INDICATION : GREEN)
SWE	DRAIN PUMP (TEST MODE)			LED2	LED (PREPARATION FOR HEATING : ORANGE)
X1	AUX. RELAY			RU	RECEIVING UNIT
				SW1	EMERGENCY OPERATION (HEAT / DOWN)
				SW2	EMERGENCY OPERATION (COOL / UP)
				MT	I-SEE SENSOR MOTOR

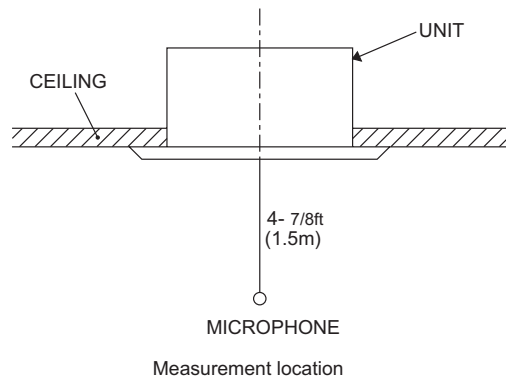
### LED on indoor board for service

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

# 5. SOUND PRESSURE LEVELS

## 5-1. Sound Pressure Levels

Cassette ceiling series

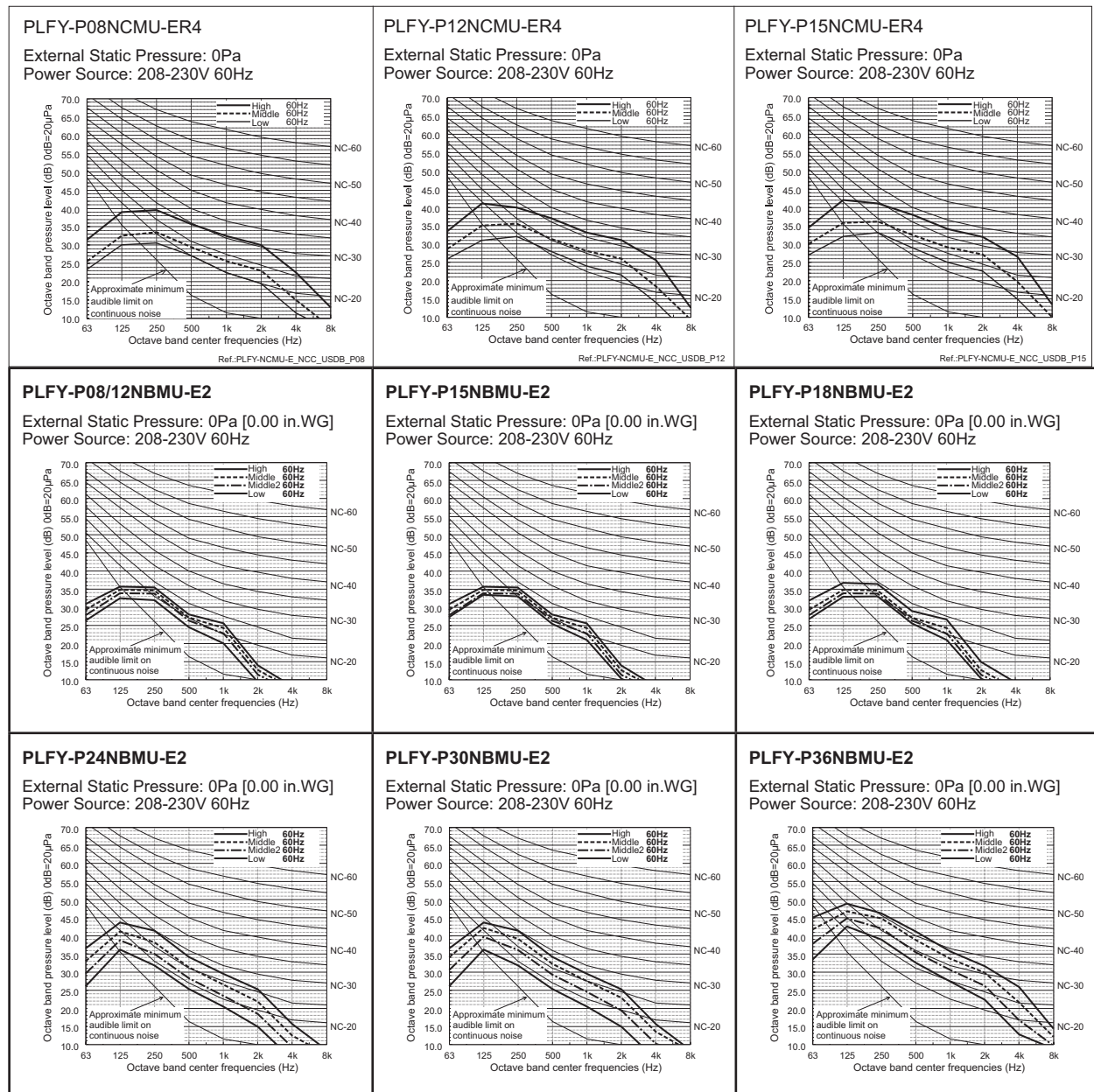


Operating sound levels  
(Low-Middle2-Middle1-High)

Unit : dB(A)

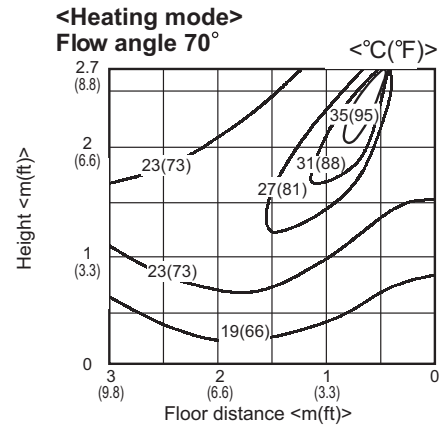
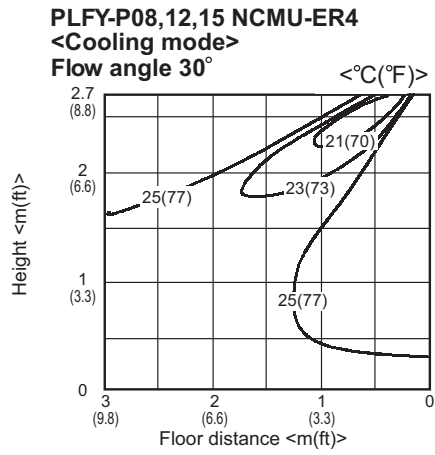
Model	Sound level A (weighted)
PLFY-P08NCMU-ER4	29-32-38
PLFY-P12NCMU-ER4	30-34-39
PLFY-P15NCMU-ER4	31-35-40
PLFY-P12NBMU-ER2	27-28-29-31
PLFY-P15NBMU-ER2	27-28-30-31
PLFY-P18NBMU-ER2	28-29-30-32
PLFY-P24NBMU-ER2	28-30-32-34
PLFY-P30NBMU-ER2	30-32-35-37
PLFY-P36NBMU-ER2	35-38-41-43

## 5-2. NC Curves



# 6. TEMPERATURE/AIRFLOW DISTRIBUTIONS

## 6-1. Temperature Distributions

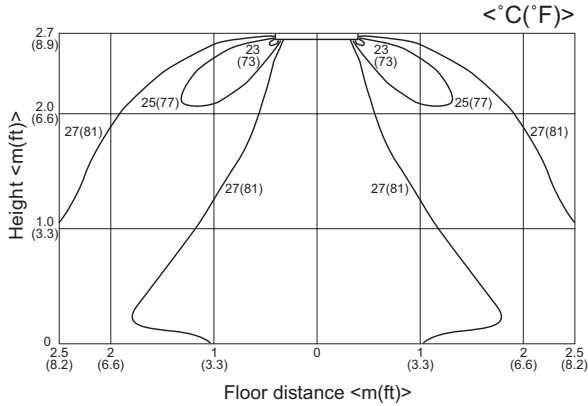


Ref.:PLFY-NCMU-E\_TPD\_USDB\_70

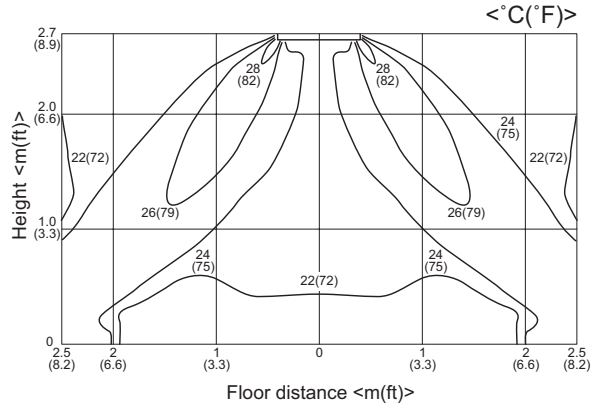
# 6. TEMPERATURE/AIRFLOW DISTRIBUTIONS

## PLFY-P08NBMU-E2

<Cooling mode> Standard  
 Flow angle : 30° 4-way flow  
 ceiling height : 2.7 m(8.9ft)

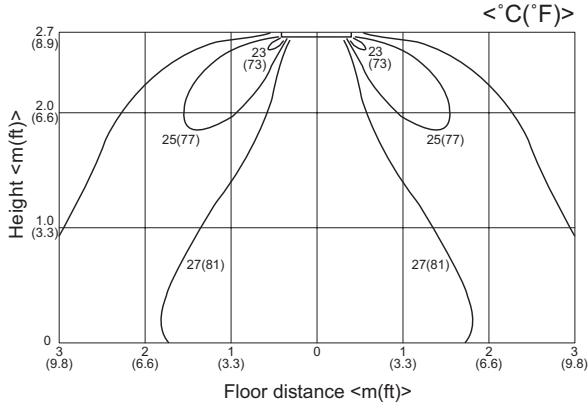


<Heating mode> Standard  
 Flow angle : 60° 4-way flow  
 ceiling height : 2.7 m(8.9ft)

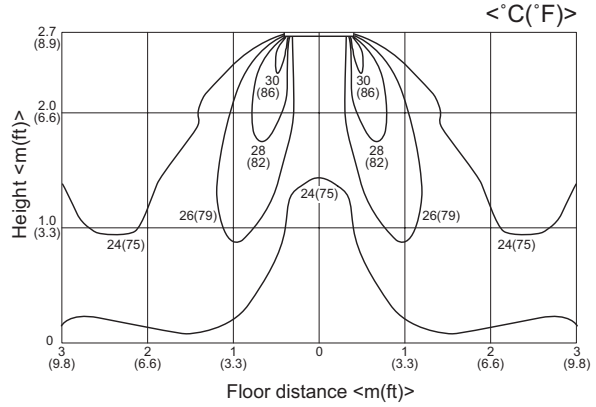


## PLFY-P12, 15NBMU-E2

<Cooling mode> Standard  
 Flow angle : 30° 4-way flow  
 ceiling height : 2.7 m(8.9ft)

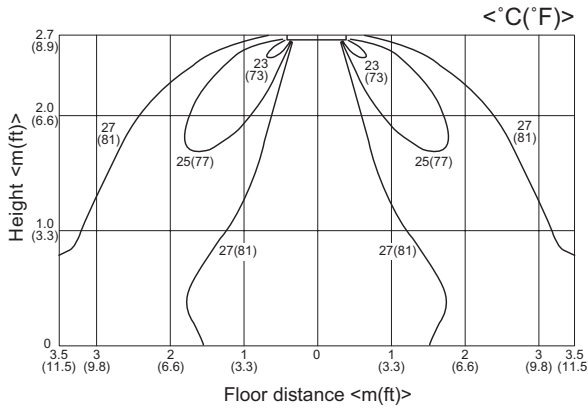


<Heating mode> Standard  
 Flow angle : 60° 4-way flow  
 ceiling height : 2.7 m(8.9ft)

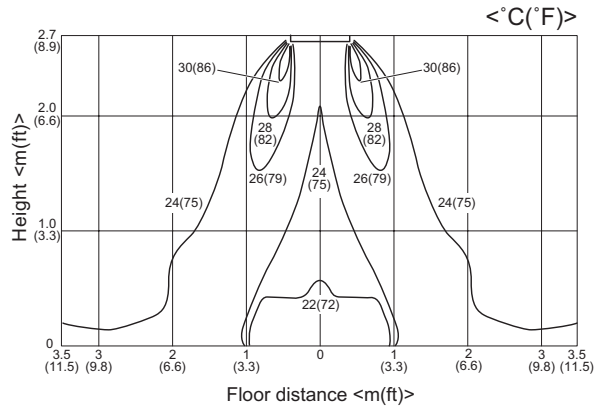


## PLFY-P18NBMU-E2

<Cooling mode> Standard  
 Flow angle : 30° 4-way flow  
 ceiling height : 2.7 m(8.9ft)



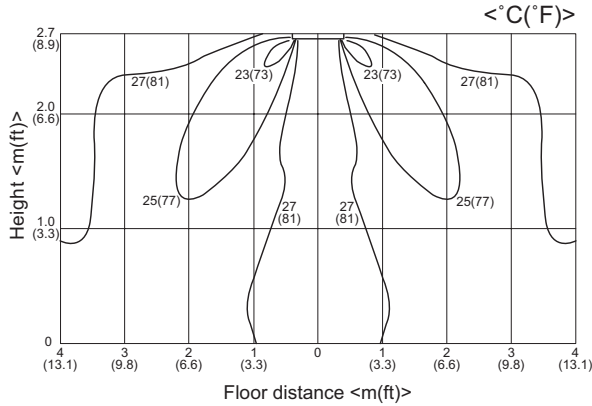
<Heating mode> Standard  
 Flow angle : 60° 4-way flow  
 ceiling height : 2.7 m(8.9ft)



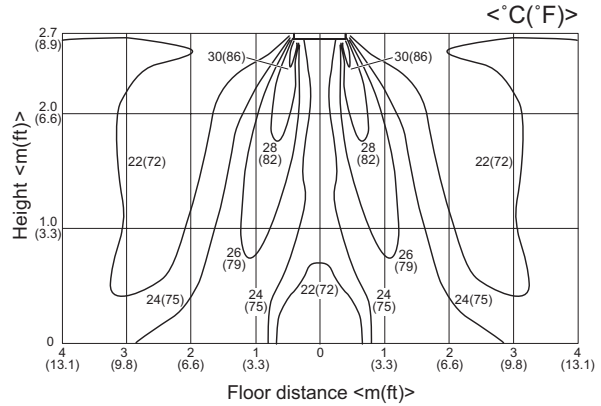
Note : These figures show typical temperature distributions in the conditions above. In the actual installation, they may differ from these figures under the influence of air temperature conditions, ceiling height, cooling/heating load, obstacles, etc.

# 6. TEMPERATURE/AIRFLOW DISTRIBUTIONS

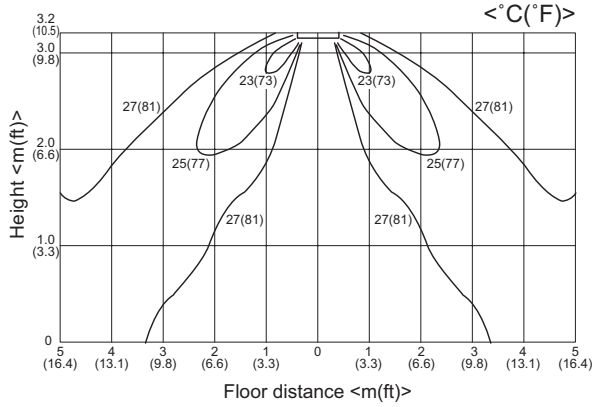
**PLFY-P24, 30NBMU-E2**  
**<Cooling mode> Standard**  
**Flow angle : 30° 4-way flow**  
**ceiling height : 2.7 m(8.9ft)**



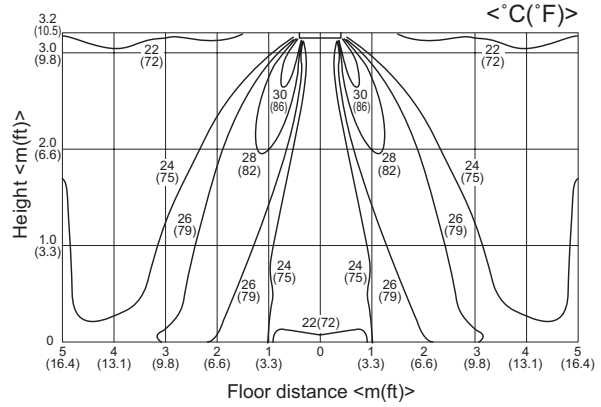
**<Heating mode> Standard**  
**Flow angle : 60° 4-way flow**  
**ceiling height : 2.7 m(8.9ft)**



**PLFY-P36NBMU-E2**  
**<Cooling mode> Standard**  
**Flow angle : 30° 4-way flow**  
**ceiling height : 3.2 m(10.4ft)**



**<Heating mode> Standard**  
**Flow angle : 60° 4-way flow**  
**ceiling height : 3.2 m(10.4ft)**



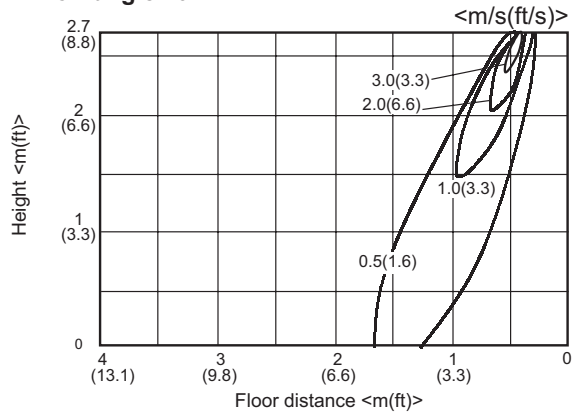
# 6. TEMPERATURE/AIRFLOW DISTRIBUTIONS

## 6-2. Airflow Distributions

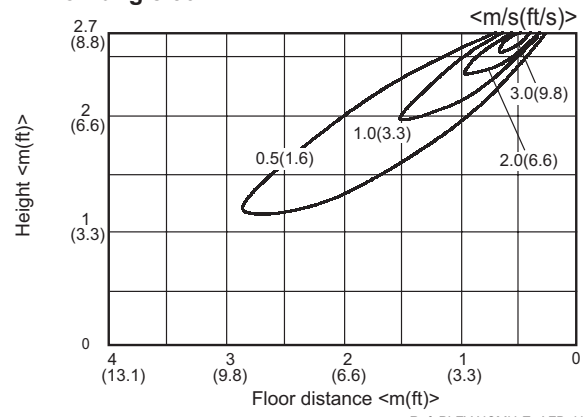
PLFY-P08,12,15 NCMU-ER4

<Fan mode>

Flow angle 70°



<Fan mode>  
Flow angle 30°



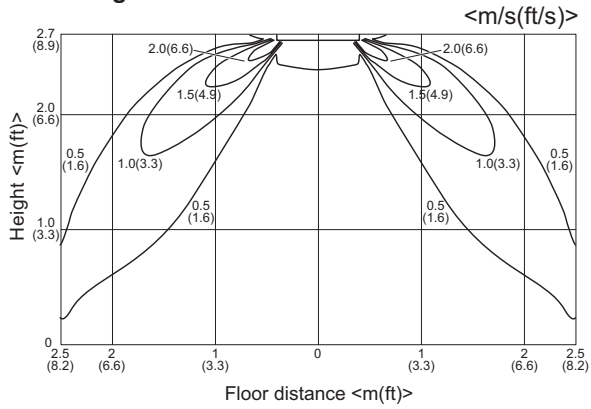
Ref.:PLFY-NCMU-E\_AFD\_USDB

# 6. TEMPERATURE/AIRFLOW DISTRIBUTIONS

## PLFY-P08NBMU-E2

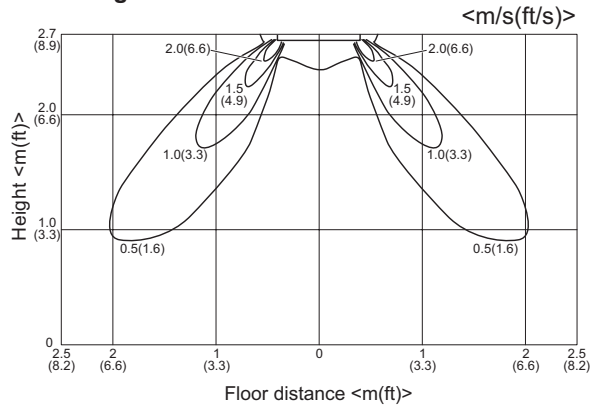
<Cooling mode>

Flow angle : 30°



<Heating mode>

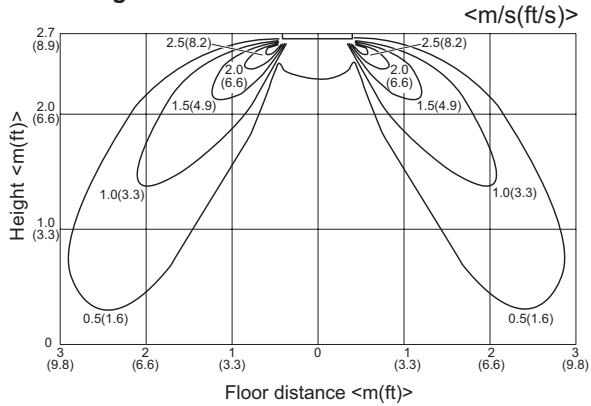
Flow angle : 60°



## PLFY-P12, 15NBMU-E2

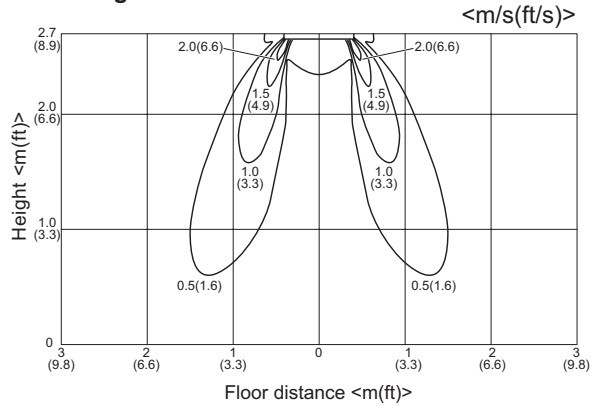
<Cooling mode>

Flow angle : 30°



<Heating mode>

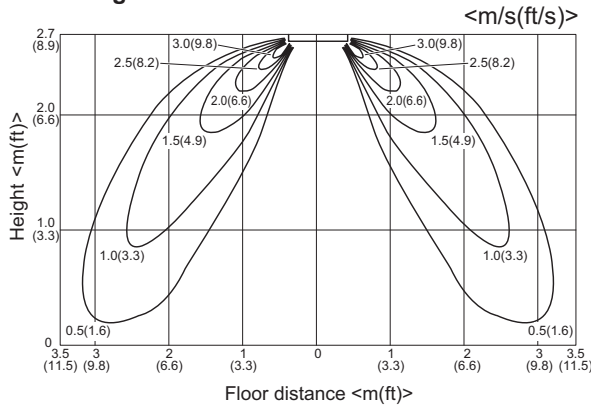
Flow angle : 60°



## PLFY-P18NBMU-E2

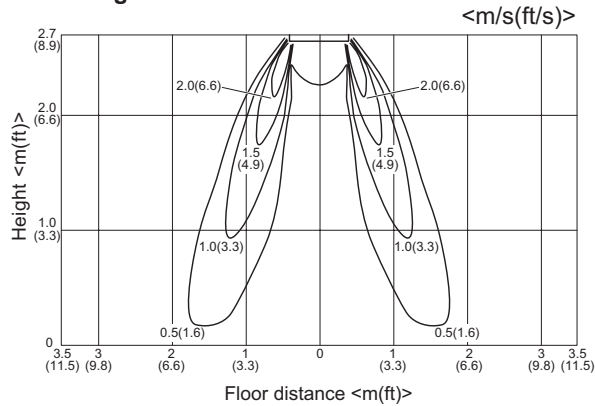
<Cooling mode>

Flow angle : 30°



<Heating mode>

Flow angle : 60°



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.

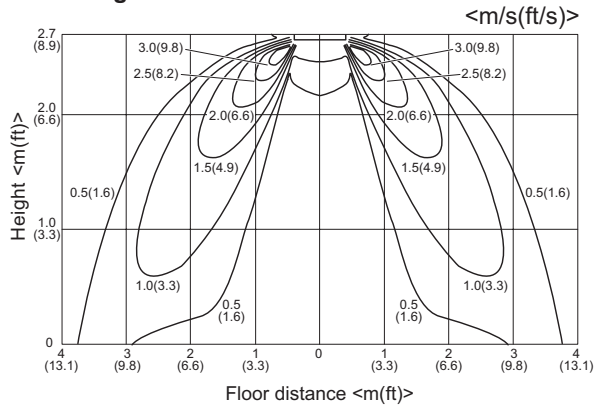


# 6. TEMPERATURE/AIRFLOW DISTRIBUTIONS

## PLFY-P24, 30NBMU-E2

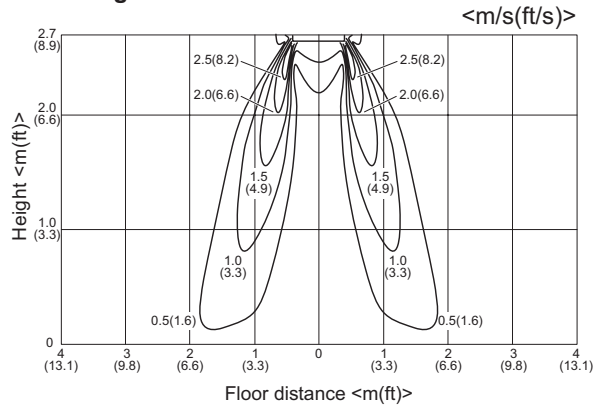
<Cooling mode>

Flow angle : 30°



<Heating mode>

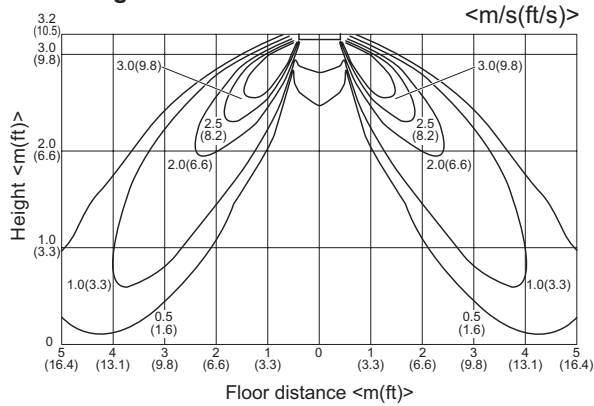
Flow angle : 60°



## PLFY-P36NBMU-E2

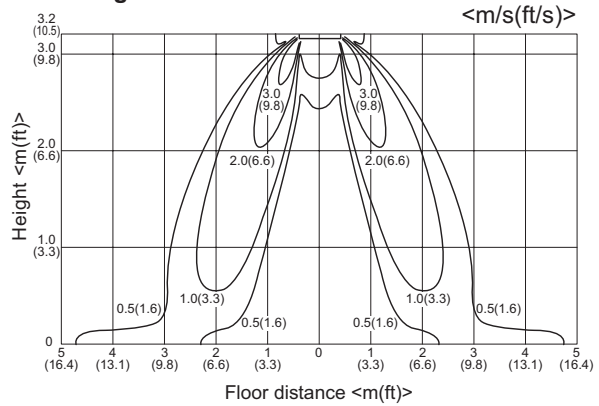
<Cooling mode>

Flow angle : 30°



<Heating mode>

Flow angle : 60°

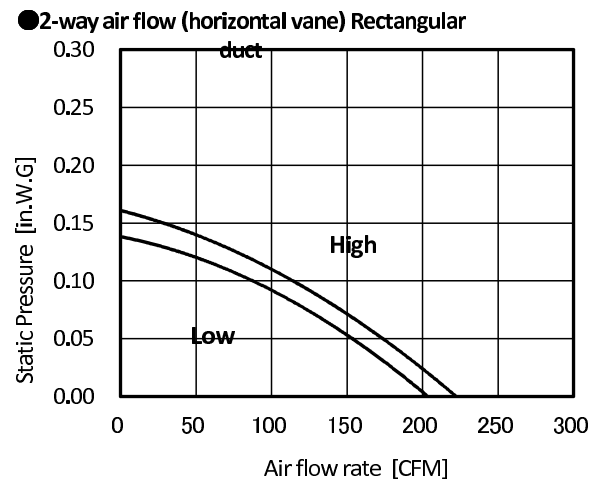
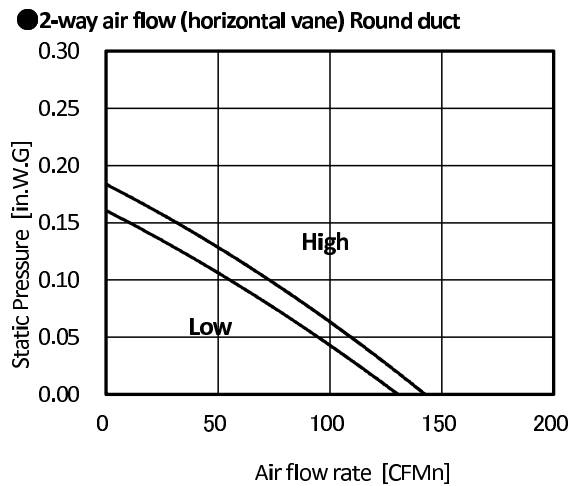
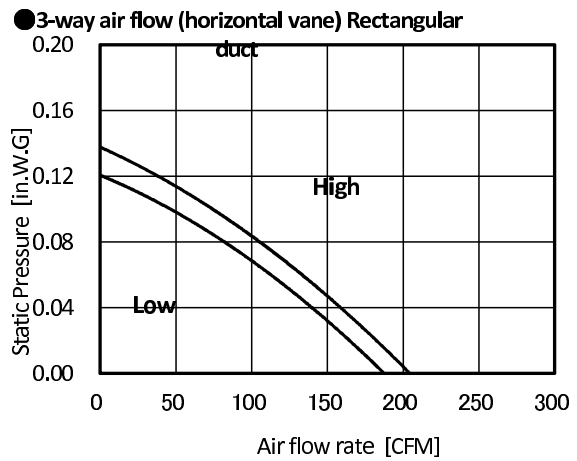
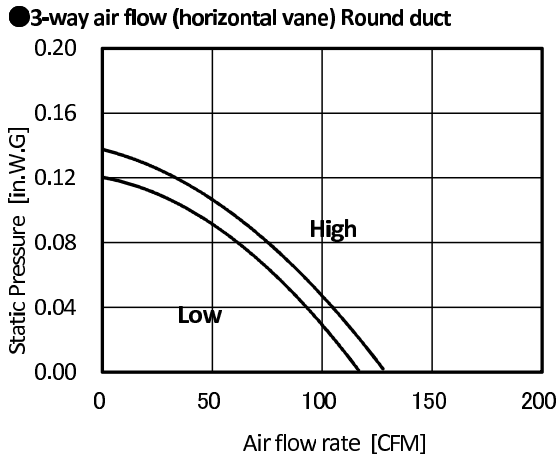
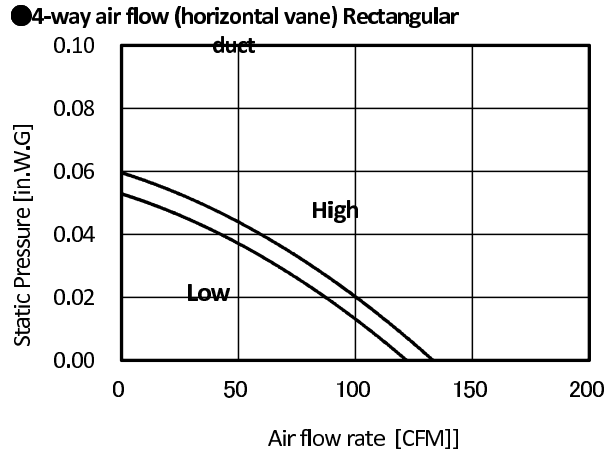
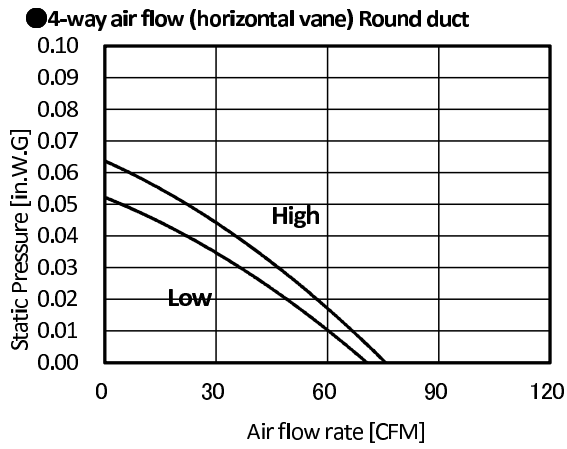


Note : These figures show typical airflow distributions in the conditions above. In the actual installation, they may differ from these figures under the influence of air temperature conditions, ceiling height, cooling/heating load, obstacles, etc.

# 6. TEMPERATURE/AIRFLOW DISTRIBUTIONS

## 6-3. Branch Duct Capacities

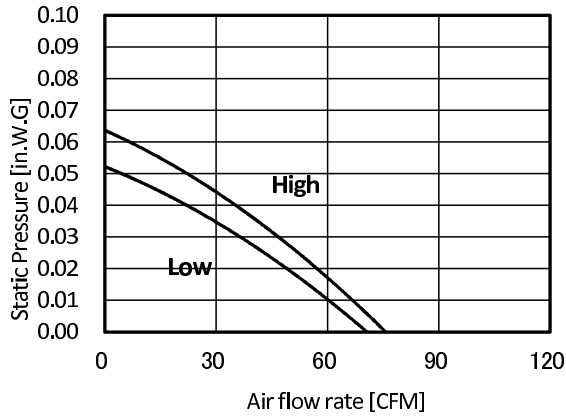
PLFY-P08NBMU-E2



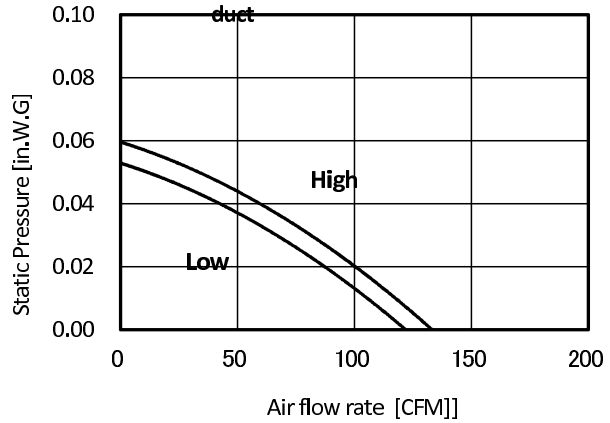
# 6. TEMPERATURE/AIRFLOW DISTRIBUTIONS

## PLFY-P12NBMU-E2

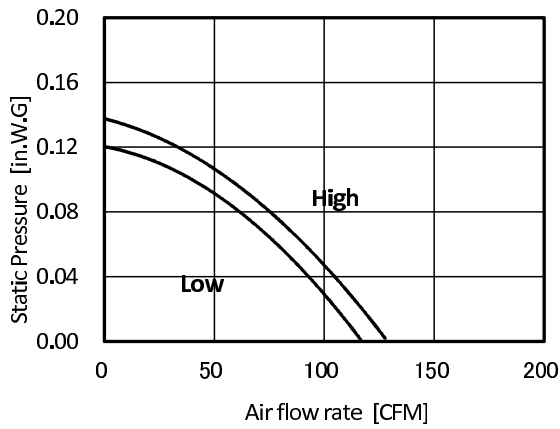
● 4-way air flow (horizontal vane) Round duct



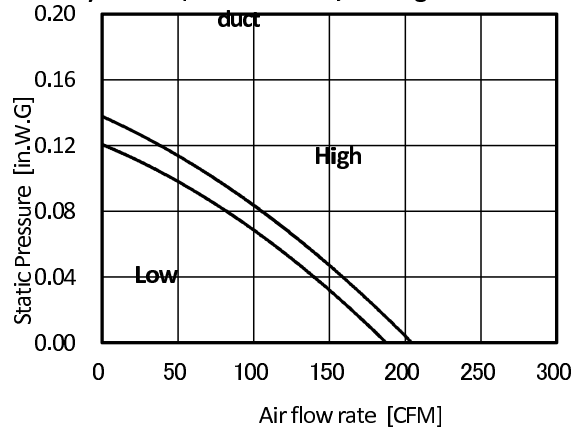
● 4-way air flow (horizontal vane) Rectangular



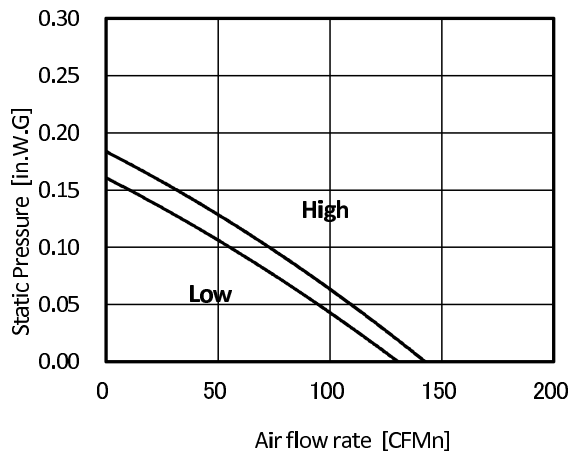
● 3-way air flow (horizontal vane) Round duct



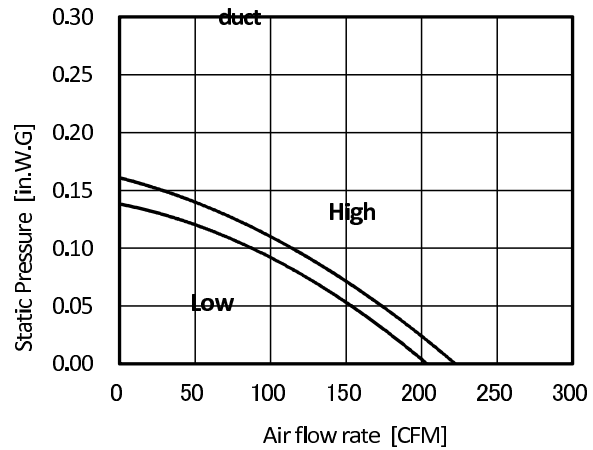
● 3-way air flow (horizontal vane) Rectangular



● 2-way air flow (horizontal vane) Round duct



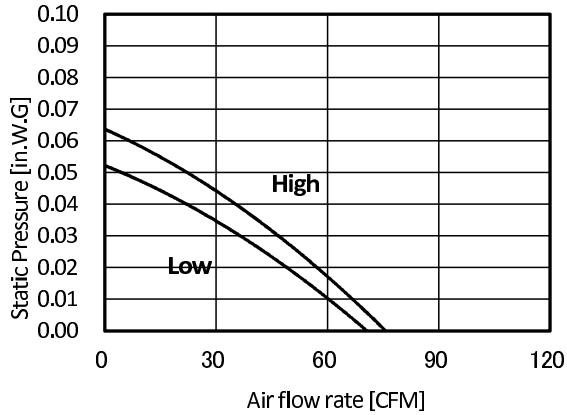
● 2-way air flow (horizontal vane) Rectangular



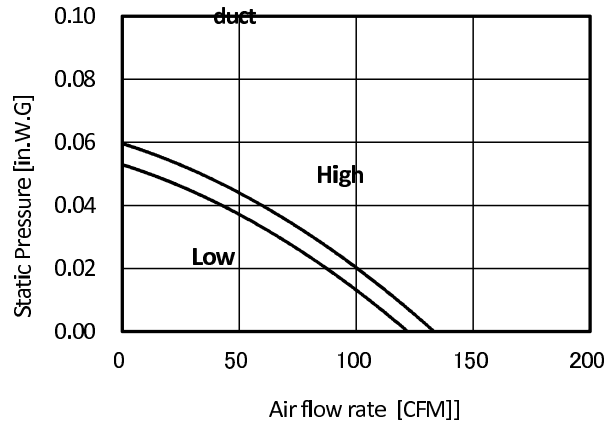
## 6. TEMPERATURE/AIRFLOW DISTRIBUTIONS

### PLFY-P15NBMU-E2

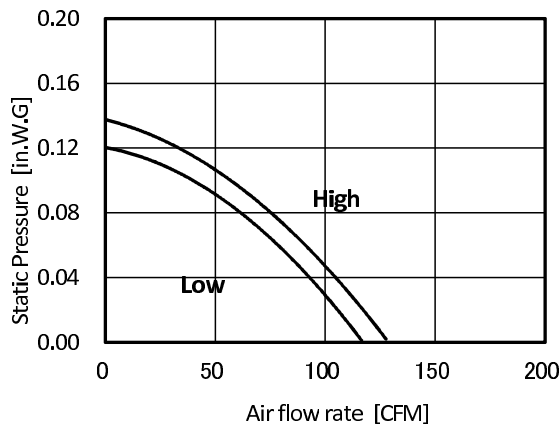
● 4-way air flow (horizontal vane) Round duct



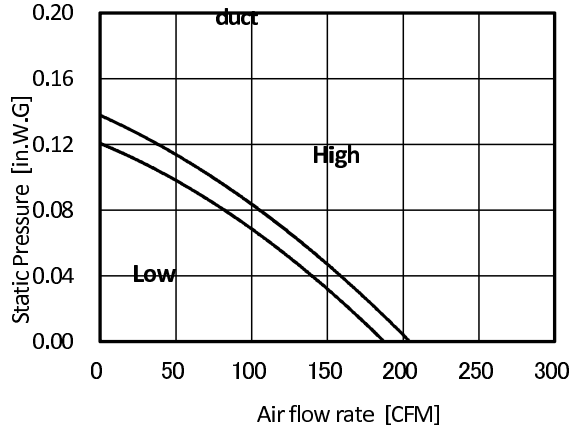
● 4-way air flow (horizontal vane) Rectangular duct



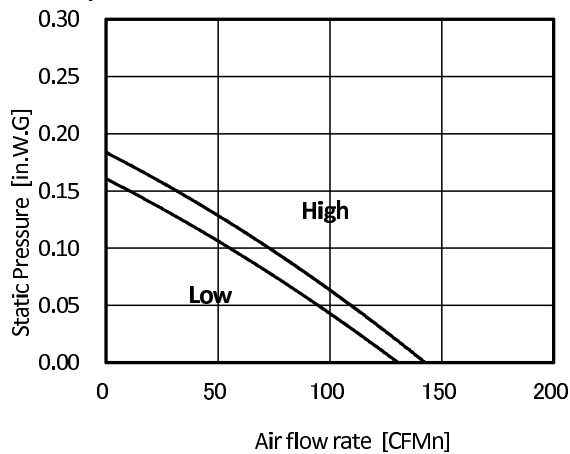
● 3-way air flow (horizontal vane) Round duct



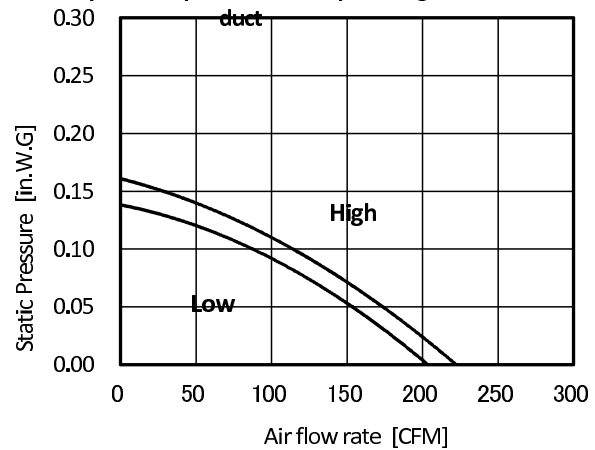
● 3-way air flow (horizontal vane) Rectangular



● 2-way air flow (horizontal vane) Round duct



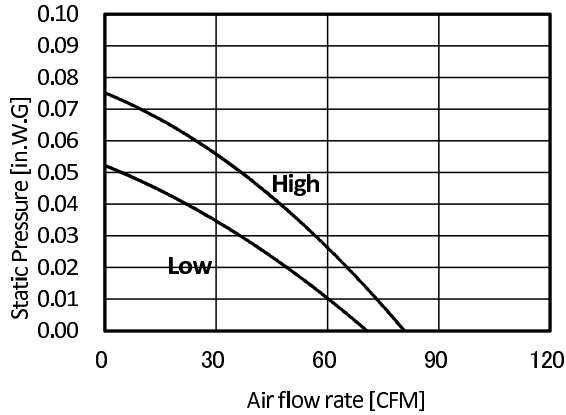
● 2-way air flow (horizontal vane) Rectangular



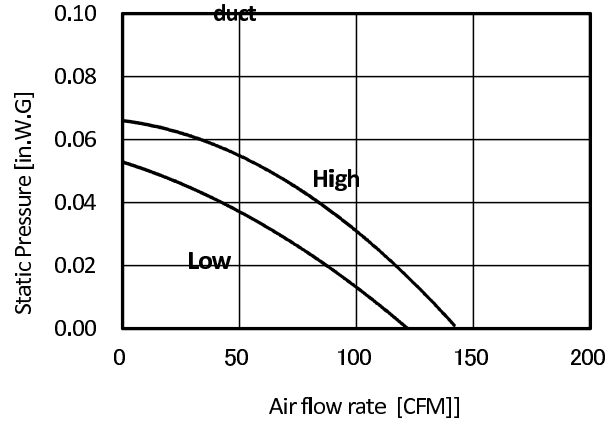
## 6. TEMPERATURE/AIRFLOW DISTRIBUTIONS

### PLFY-P18NBMU-E2

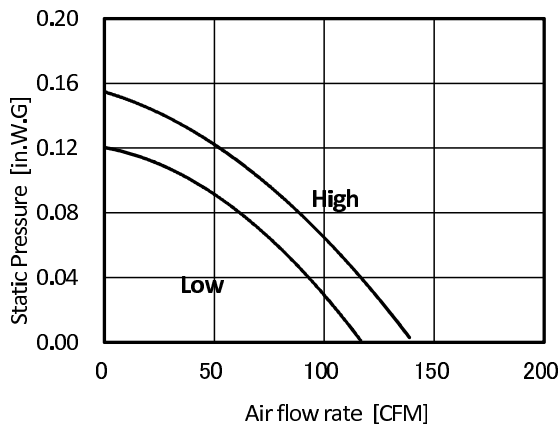
● 4-way air flow (horizontal vane) Round duct



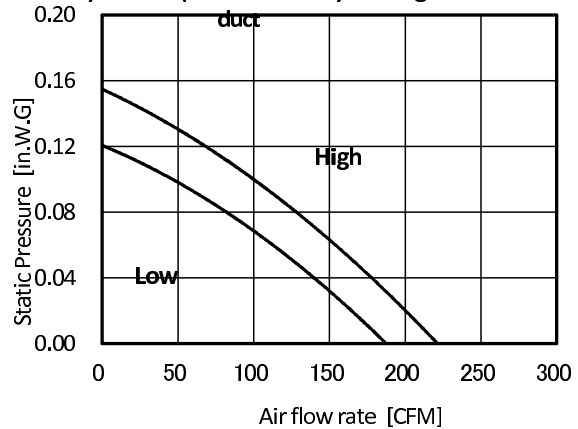
● 4-way air flow (horizontal vane) Rectangular



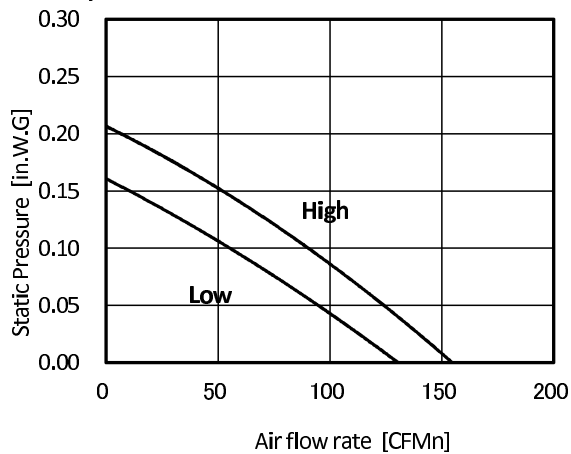
● 3-way air flow (horizontal vane) Round duct



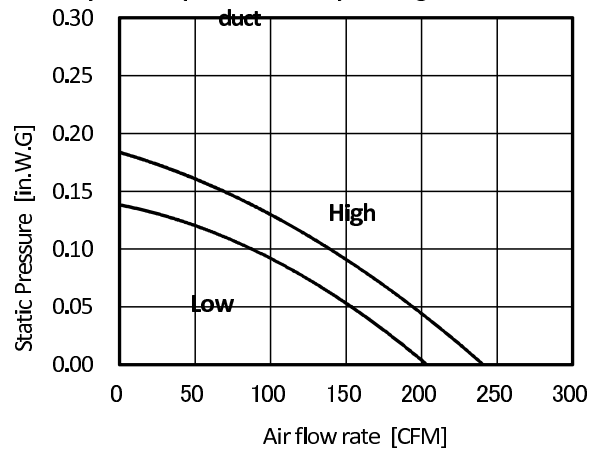
● 3-way air flow (horizontal vane) Rectangular



● 2-way air flow (horizontal vane) Round duct



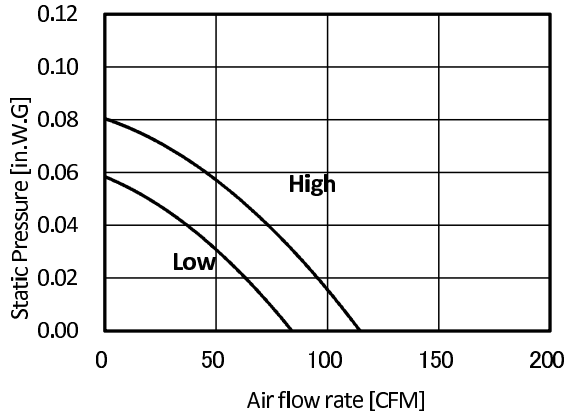
● 2-way air flow (horizontal vane) Rectangular



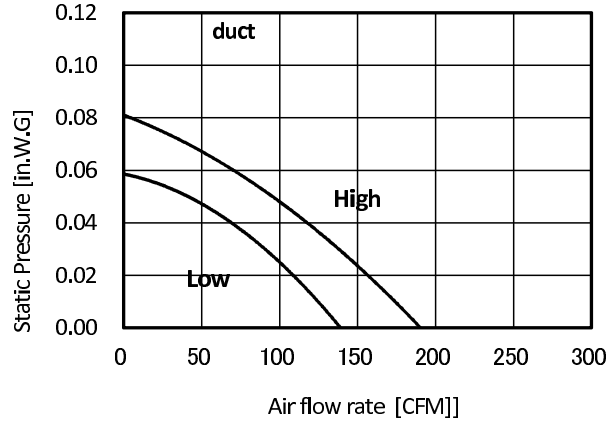
## 6. TEMPERATURE/AIRFLOW DISTRIBUTIONS

### PLFY-P24NBMU-E2

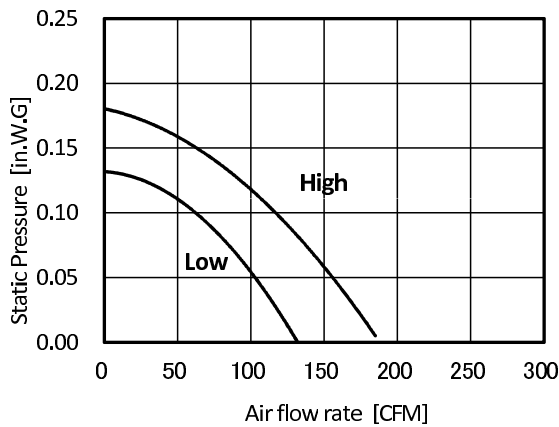
● 4-way air flow (horizontal vane) Round duct



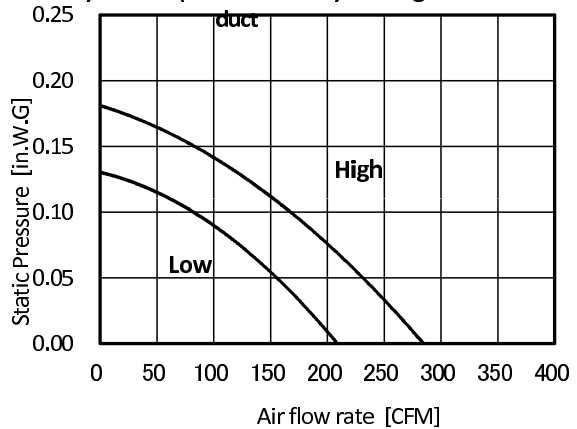
● 4-way air flow (horizontal vane) Rectangular



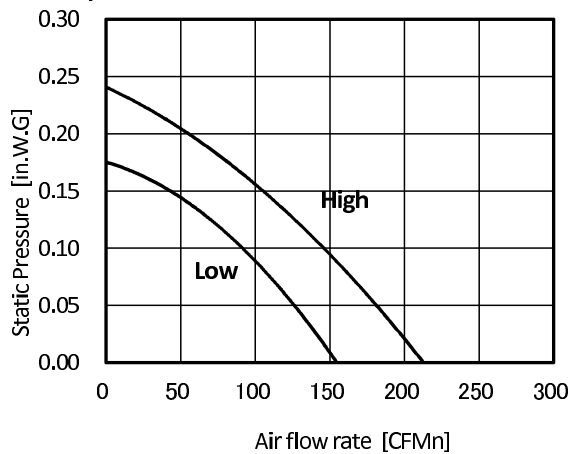
● 3-way air flow (horizontal vane) Round duct



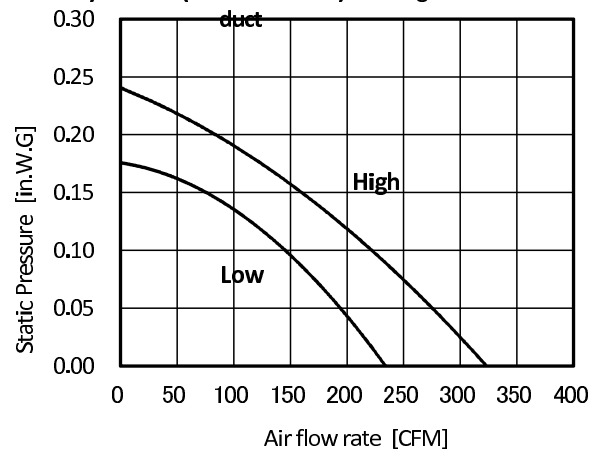
● 3-way air flow (horizontal vane) Rectangular



● 2-way air flow (horizontal vane) Round duct



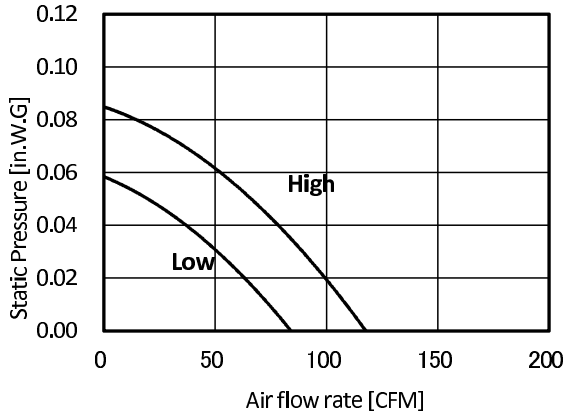
● 2-way air flow (horizontal vane) Rectangular



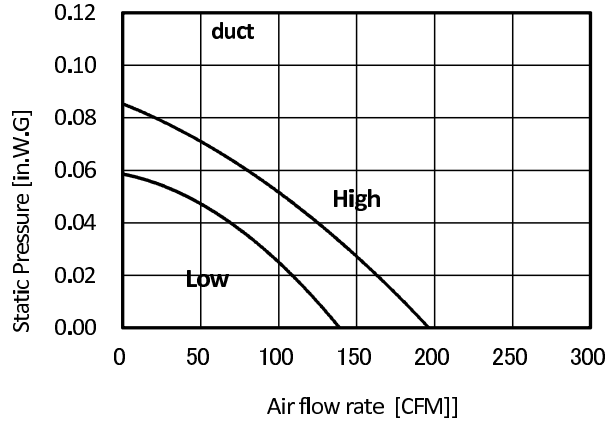
# 6. TEMPERATURE/AIRFLOW DISTRIBUTIONS

## PLFY-P30NBMU-E2

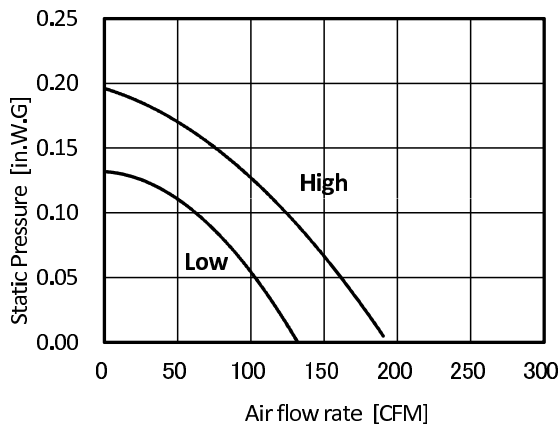
● 4-way air flow (horizontal vane) Round duct



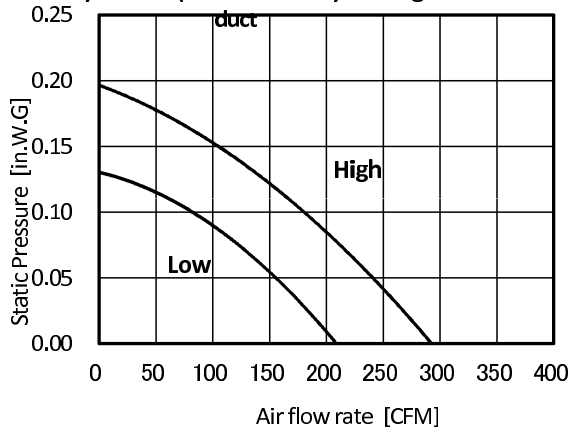
● 4-way air flow (horizontal vane) Rectangular



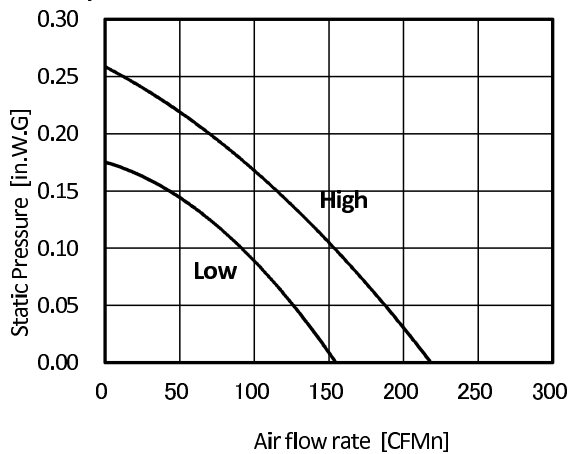
● 3-way air flow (horizontal vane) Round duct



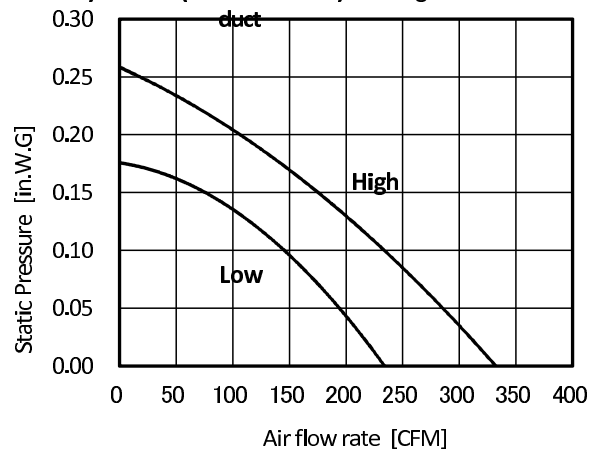
● 3-way air flow (horizontal vane) Rectangular



● 2-way air flow (horizontal vane) Round duct



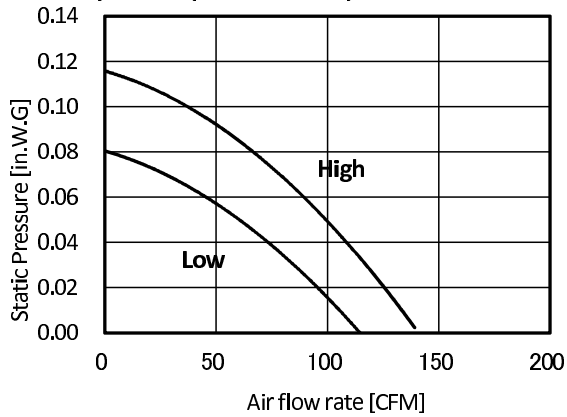
● 2-way air flow (horizontal vane) Rectangular



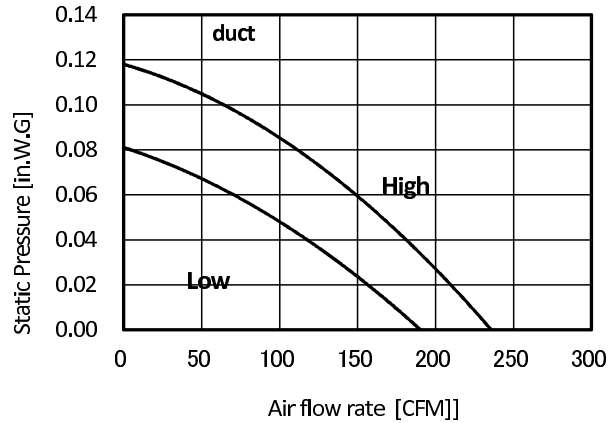
## 6. TEMPERATURE/AIRFLOW DISTRIBUTIONS

### PLFY-P36NBMU-E2

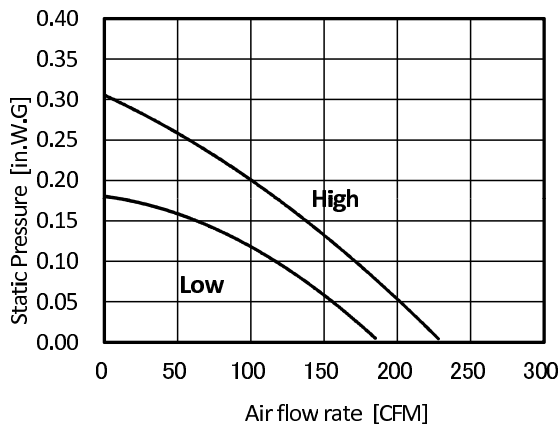
● 4-way air flow (horizontal vane) Round duct



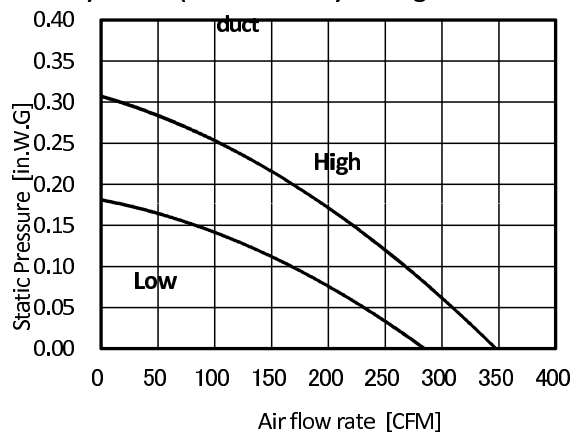
● 4-way air flow (horizontal vane) Rectangular



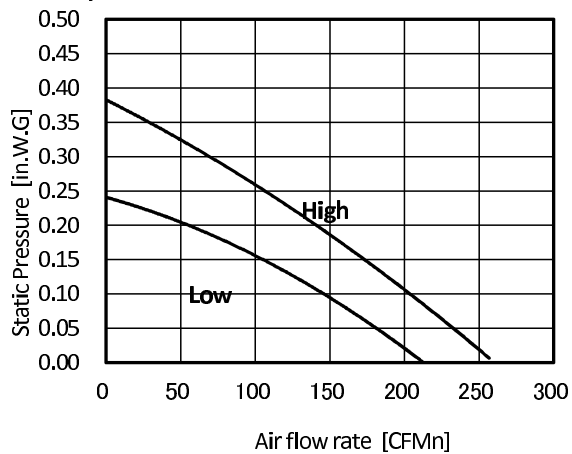
● 3-way air flow (horizontal vane) Round duct



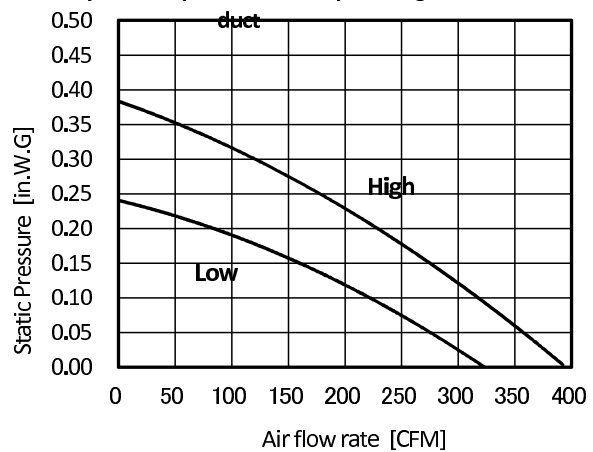
● 3-way air flow (horizontal vane) Rectangular



● 2-way air flow (horizontal vane) Round duct



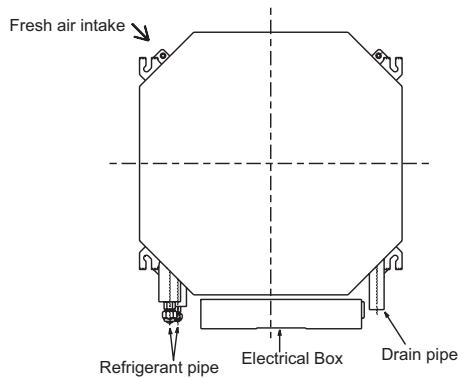
● 2-way air flow (horizontal vane) Rectangular



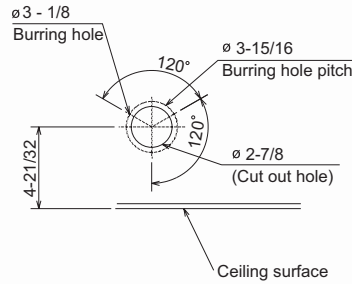


# 7. VENTILATION AIR INTAKE AMOUNT AND STATIC PRESSURE

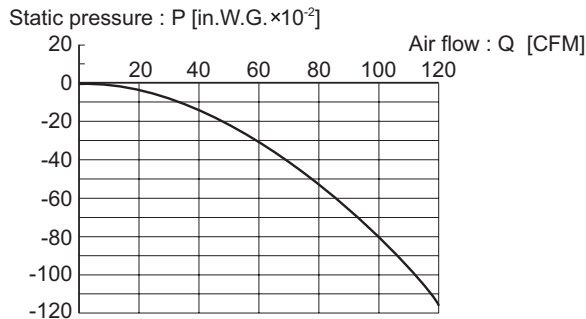
## 7-1. PLFY-P08, 12, 15NCMU-ER4



Fresh air intake hole diagram (Unit : inch)

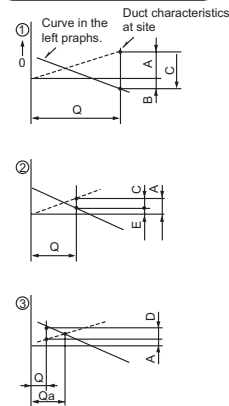


Taking air into the unit



NOTE: Fresh air intake amount should be 20% or less of whole air amount to prevent dew dripping.

### How to read curves

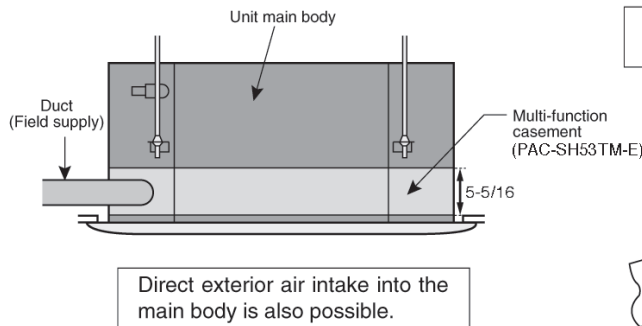


- Q...Planned amount of fresh air intake <CFM>
- A...Static pressure loss of fresh air intake duct system with air flow amount Q <in. W.G.  $\times 10^{-2}$ >
- B...Forced static pressure at air conditioner inlet with air flow amount Q <in. W.G.  $\times 10^{-2}$ >
- C...Static pressure of booster fan with air flow amount Q <in. W.G.  $\times 10^{-2}$ >
- D...Static pressure loss increase amount of fresh air intake dust system for air flow amount Q <in. W.G.  $\times 10^{-2}$ >
- E...Static pressure of indoor unit with air flow amount Q <in. W.G.  $\times 10^{-2}$ >
- Qa...Estimated amount of fresh air intake with out D <CFM>

Ref.:PLFY-NCMU-E\_OAI\_USDB

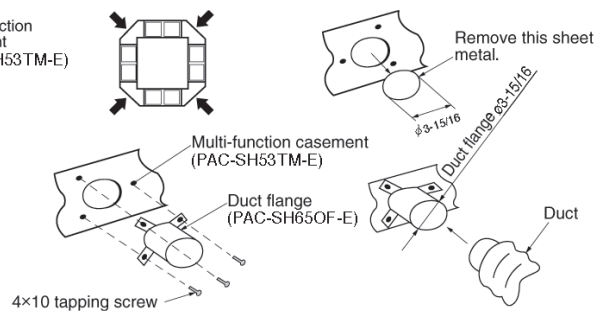
## 7-2. PLFY-P08, 12, 15, 18, 24, 30, 36NBMU-E2

By mounting the optional multi-function casement (PAC-SH53TM-E) to the indoor unit main body, and mounting the optional duct flange(PAC-SH65OF-E) onto it further, fresh exterior air intake can be accomplished. (The mounting of the multi-function casement increases the height of the ceiling plenum by 5-5/16(135mm).)



### Knockout hole for fresh air intake

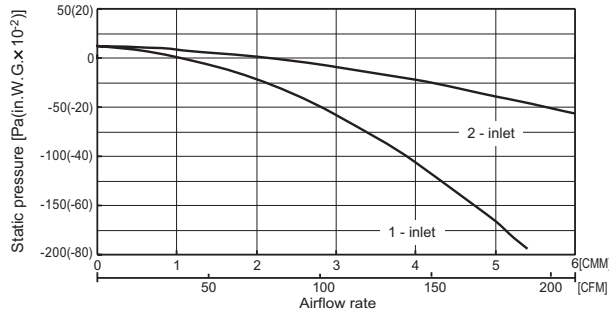
### Preparation of knockout hole



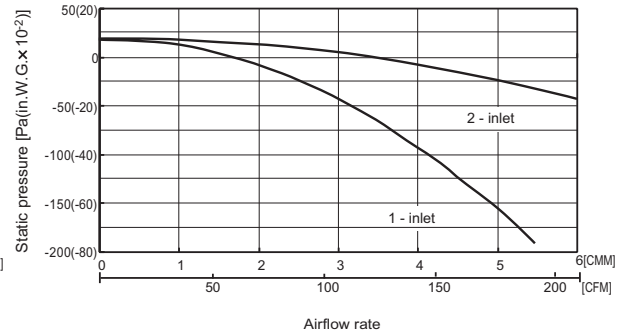
# 7. VENTILATION AIR INTAKE AMOUNT AND STATIC PRESSURE

## ● PLFY-P08, 12, 15, 18NBMU-E2

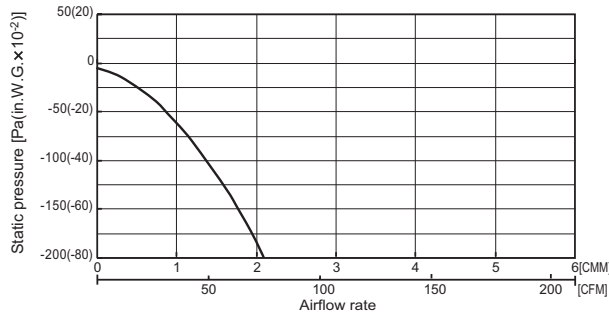
### Multifunction casement + High efficiency filter



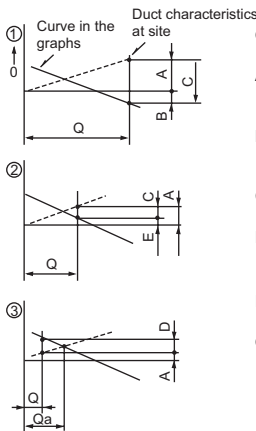
### Multifunction casement + Standard filter



### Taking air into the unit



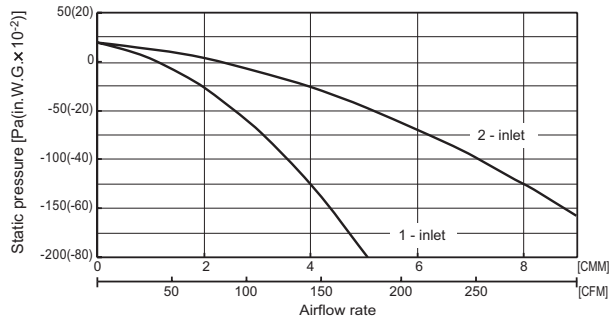
### How to read curves



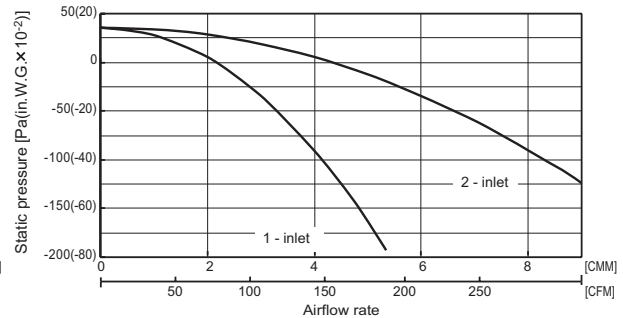
- Q...Designed amount of fresh air intake <CMM(CFM)>
- A...Static pressure loss of fresh air intake duct system with airflow amount Q <Pa(in.W.G.X10<sup>-2</sup>)>
- B...Forced static pressure at air conditioner inlet with air flow amount Q <Pa(in.W.G.X10<sup>-2</sup>)>
- C...Static pressure of booster fan with air flow amount Q <Pa(in.W.G.X10<sup>-2</sup>)>
- D...Static pressure loss increase amount of fresh air intake duct system for air-flow amount Q <Pa(in.W.G.X10<sup>-2</sup>)>
- E...Static pressure of indoor unit with air-flow amount Q <Pa(in.W.G.X10<sup>-2</sup>)>
- Qa...Estimated amount of fresh air intake without D <CMM(CFM)>

## ● PLFY-P24, 30, 36NBMU-E2

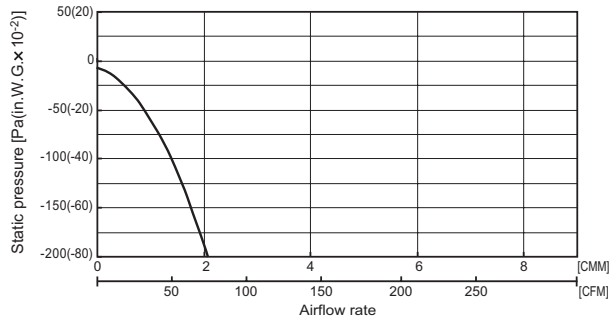
### Multifunction casement + Standard filter



### Multifunction casement + High efficiency filter



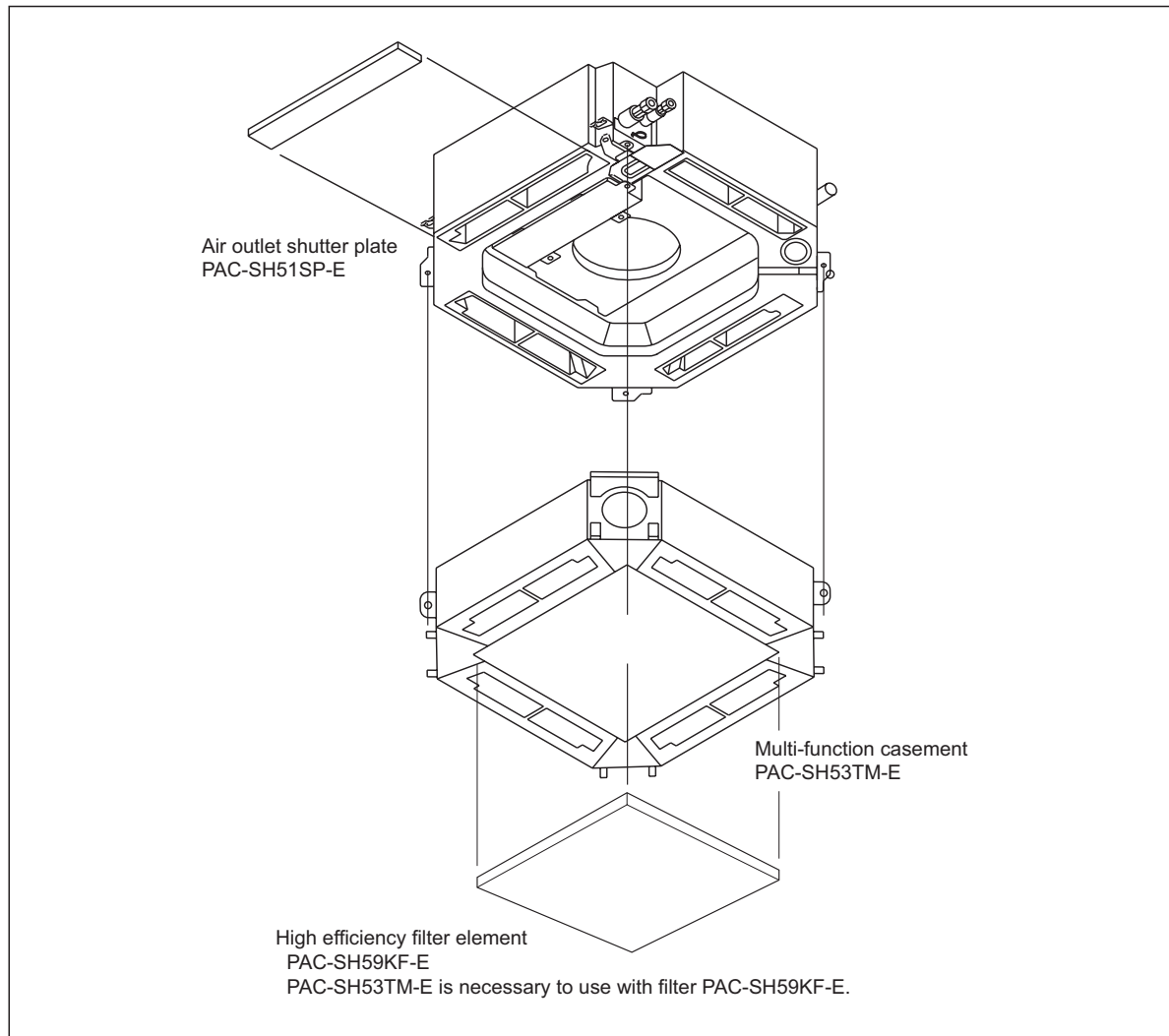
### Taking air into the unit



## 8. OPTIONAL PARTS

	<b>Air outlet shutter plate</b>	<b>Multi-function casement</b>	<b>High efficiency filter element</b>
PLFY-P-NBMU-E2	PAC-SH51SP-E	PAC-SH53TM-E	PAC-SH59KF-E
	<b>i-see sensor corner panel</b>	<b>Wireless signal receiver</b>	<b>Flange for fresh air intake</b>
PLFY-P-NBMU-E2	PAC-SA1ME-E	PAC-SA9FA-E	PAC-SH65OF-E
	<b>External heater adapter</b>		
PLFY-P-NBMU-E2	CN24RELAY-KIT-CM3		

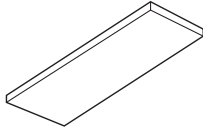
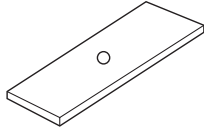
### PLFY-P-NBMU-E2



## 8. OPTIONAL PARTS

### 8-1. Air Outlet Shutter Plate PAC-SH51SP-E for PLFY-P-NBMU-E2

Using the air outlet shutter plate to block the air outlet to modify the air-way from 4 to 3 or 2.  
With 1 PAC-SH51SP-E, 4 air-ways can be changed to 3;  
With 2 PAC-SH51SP-E, 4 air-ways can be changed to 2;  
Changing to 1 way is not allowed.  
Material: Foamed polyethylene + foamed urethane, color: Black

Item	① Shutter plate	② Insulator
Quantity	2	1
Shape		

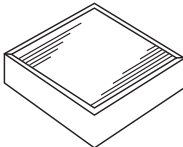
## 8. OPTIONAL PARTS

### 8-2. High Efficiency Filter Element PAC-SH59KF-E (MERV 10) for PLFY-P-NBMU-E2

Life span: 2,500 hr (Dust concentration 0.15mg/m<sup>3</sup>); Colorimetric method 65% (JIS 11 class); No re-production.  
 \* The actual dust situation affects the filter life span, which should be considered at the applying site.

Material: Electrostatic polyolefin fiber

High efficiency filter element PAC-SH59KF-E should be used together with the Multi-function casement PAC-SH53TM-E. When using PAC-SH59KF-E, switching on SWC of the Indoor unit address board is needed. Details should be referred to its Installation Manual.

Quantity	1
Shape	

Detailed installation information is referred in its Installation Manual.

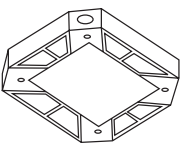


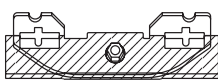

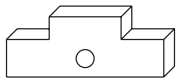
### 8-3. Multi-function Casement PAC-SH53TM-E for PLFY-P-NBMU-E2

Multi-function casement is used for High efficiency filter element and/or fresh air intake from outdoor.

It should be used with High efficiency filter element PAC-SH59KF-E (Colorimetric method 65%).

Fresh air intake on the Multi-function casement is possible from any 2 or less corners among the 4 ones.

But duct and flange on the casement should be prepare locally.

Item	① Multi-functional casement	② Screw with washer (black)	③ Screw
Quantity	1	4	8
Shape		M5X0.8X25 	M5X0.8X12 
Item	④ Decorative panel securing bracket	⑤ Insulator A for Decorative panel	⑥ Insulator B for Decorative panel
Quantity	4	1	1
Shape	With insulator 		

Detailed installation information should be referred to its Installation Manual.

## 8. OPTIONAL PARTS

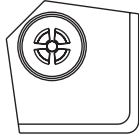

### 8-4. i-see Sensor Corner Panel PAC-SA1ME-E for PLFY-P-NBMU-E2

i-see sensor provides comfortable space as it detects the floor temperature to prevent spotty temperature. And that enables the unit to save energy.

Attention

Make sure that there are no gaps between the unit and the grille, and the grille and ceiling.

※ It may cause dew dripping.

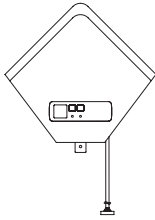
Item	① i-see sensor corner panel	② Plastic fastener
Quantity	1	2
Shape		

Detailed installation information should be referred to its Installation Manual.

### 8-5. Wireless Signal Receiver PAR-SA9FA-E for PLFY-P-NBMU-E2

Using the wireless signal receiver to use wireless remote controller.

The corner panel(the other side of refrigerant piping) is changed for the wireless signal receiver.

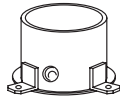


Item	① Wireless signal receiver
Quantity	1
Shape	

Detailed installation information should be referred to its Installation Manual.

## 8. OPTIONAL PARTS

### 8-6. Flange for fresh air intake PAC-SH65OF-E for PLFY-P-NBMU-E2

Using the flange for fresh air intake to connect to  $\varnothing 100$  ( $\varnothing 3-15/16$  inch) duct.  
The flange for fresh air intake is installed in the Multi-function casement(PAC-SH53TM-E) or indoor unit.

Item	① Duct flange	② Insulator	③ Screw
Quantity	1	1	3
Shape			 M4x10

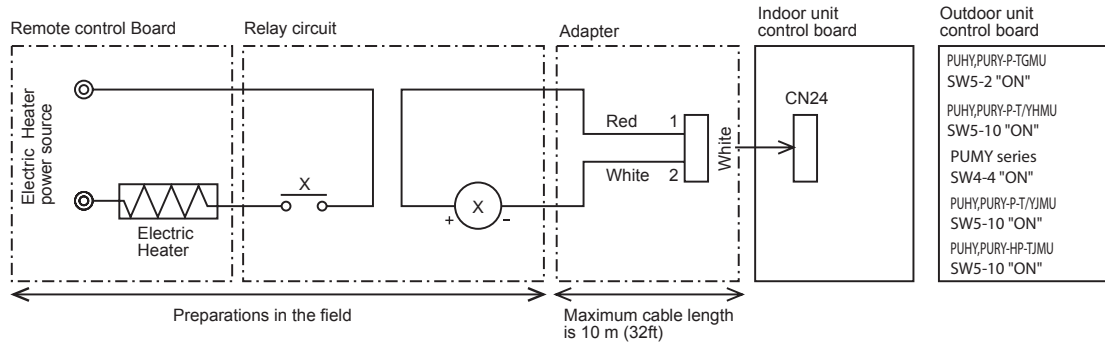
Detailed installation information should be referred to its Installation Manual.

## 8. OPTIONAL PARTS

### 8-7. 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)

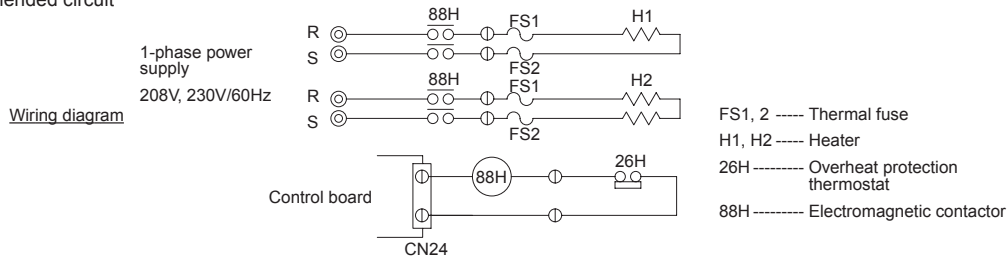
To extend this length, use sheathed 2-core cable.

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

Cable size : 0.5 mm<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



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.



