PLFY-P-NCMU-E/PLFY-P-NBMU-E

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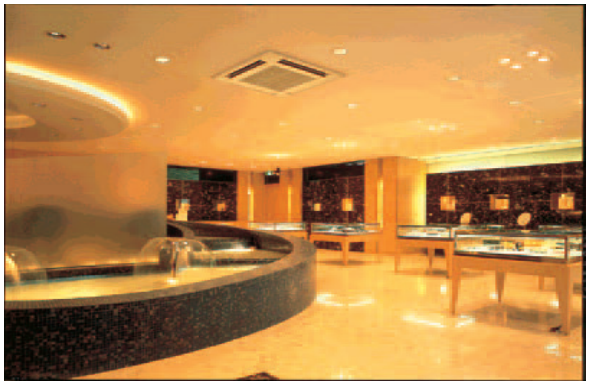
PLFY-P-NCMU-E



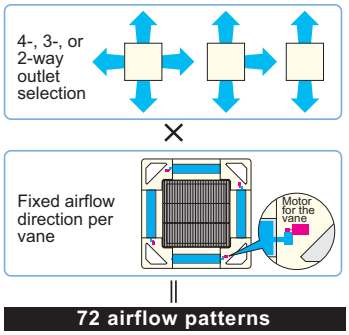
PLFY-P-NBMU-E

PLFY-P-NCMU-E
PLFY-P-NBMU-E

Various airflow pattern to meet your needs, strong airflow power, suitable for ceiling of max.13'-9" height

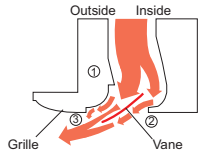


■ **Each vane is driven by its own motor, airflow pattern is precisely controlled.** **(on PLFY-P-NBMU-E)**



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

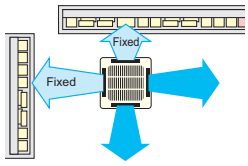
① Uniformly distribute the air onto the louver.
②③ Avoid airflow rising up.
②③ Avoid dust attachment.

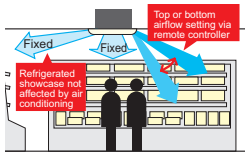




■ **Precise airflow pattern on PLFY-P-NBMU-E**

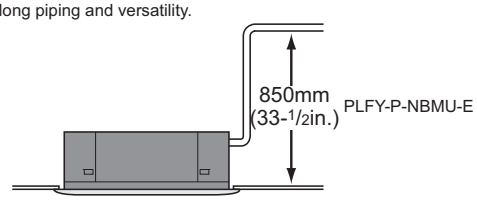
Example (Convenient chain store)
Airflow doesn't disturb the cooled air in show-case helps energy saving.





■ **Drain water lifted to 33" (PLFY-P-NBMU-E) or 19-7/16" (PLFY-P-NCMU-E)**

Allowing long piping and versatility.



■ **Flexibility**

The PLFY not only brings outside air into your space, but the PLFY-P-NBMU-E 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-E			●	●	●									
PLFY-P-NBMU-E				●	●	●	●		●	●				

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

1. SPECIFICATIONS

Model			PLFY-P08NCMU-E	PLFY-P12NCMU-E	PLFY-P15NCMU-E
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	0.06
	Current input	A	0.23	0.28	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	0.06
	Current input	A	0.23	0.28	0.28
External finish			Galvanized Steel Sheet		
External dimension H x W x D		in.	9-1/4 x 22-7/16 x 22-7/16	9-1/4 x 22-7/16 x 22-7/16	9-1/4 x 22-7/16 x 22-7/16
		mm	235 x 570 x 570	235 x 570 x 570	235 x 570 x 570
Net weight		lbs (kg)	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		
	Motor output	kW	0.015	0.020	0.020
	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) (R22)	in. (mm)	1/4 (6.35) Flare	1/4 (6.35) Flare	1/4 (6.35) Flare
			1/4 (6.35) Flare	1/4 (6.35) Flare	3/8 (9.52) Flare
	Gas (R410A) (R22)	in. (mm)	1/2 (12.7) Flare	1/2 (12.7) Flare	1/2 (12.7) Flare
			1/2 (12.7) Flare	1/2 (12.7) Flare	5/8 (15.88) 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 Accessory		Installation Manual,Installation Book Drain hose<1-1/4in.(32mm)>		
Optional parts	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
			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.			

1. SPECIFICATIONS

Model			PLFY-P12NBMU-E	PLFY-P15NBMU-E	PLFY-P18NBMU-E
Power source			1-phase 208-230 V 60Hz		
Cooling capacity *1 (Nominal)		BTU / h	12,000	15,000	18,000
		kW	3.5	4.4	5.3
	Power input	kW	0.03	0.04	0.05
	Current input	A	0.22	0.29	0.36
Heating capacity *2 (Nominal)		BTU / h	13,500	17,000	20,000
		kW	4.0	5.0	5.9
	Power input	kW	0.02	0.03	0.04
	Current input	A	0.14	0.22	0.29
External finish			Galvanized steel sheet		
External dimension H x W x D		in.	10-3/16 x 33-3/32 x 33-3/32	10-3/16 x 33-3/32 x 33-3/32	10-3/16 x 33-3/32 x 33-3/32
		mm	258 x 840 x 840	258 x 840 x 840	258 x 840 x 840
Net weight		lbs (kg)	49 (22)	49 (22)	51 (23)
Decoration panel	Model		PLP-40BAU	PLP-40BAU	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	1-3/8 x 37-13/32 x 37-13/32	1-3/8 x 37-13/32 x 37-13/32
		mm	35 x 950 x 950	35 x 950 x 950	35 x 950 x 950
	Net Weight	lbs (kg)	13 (6)	13 (6)	13 (6)
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		DC motor		
	Motor output	kW	0.050	0.050	0.050
	Driving mechanism		Direct-driven		
	Airflow rate (Low-Mid2-Mid1-High)	cfm	388 - 424 - 459 - 494	424 - 459 - 494 - 565	494 - 530 - 565 - 636
		m3 / min	11.0 - 12.0 - 13.0 - 14.0	12.0 - 13.0 - 14.0 - 16.0	14.0 - 15.0 - 16.0 - 18.0
		L / s	183 - 200 - 217 - 233	200 - 217 - 233 - 267	233 - 250 - 267 - 300
Sound pressure level (Low-Mid2-Mid1-High) (measured in anechoic room)		dB <A>	27 - 28 - 29 - 31(208-230V)	27 - 28 - 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,R22 CITY MULTI		
Diameter of refrigerant pipe (O.D.)	Liquid (R410A) (R22)	in. (mm)	1/4 (6.35) Flare	1/4 (6.35) Flare	1/4 (6.35) Flare
			1/4 (6.35) Flare	1/4 (6.35) Flare	3/8 (9.52) Flare
	Gas (R410A) (R22)	in. (mm)	1/2 (12.7) Flare	1/2 (12.7) Flare	1/2 (12.7) Flare
			1/2 (12.7) Flare	1/2 (12.7) Flare	5/8 (15.88) 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)	33-1/2 (851)	33-1/2 (851)	33-1/2 (851)
Standard attachment	Document Accessory		Installation Manual, Instruction Book		
Optional parts	Air outlet shutter plate		PAC-SH51SP-E	PAC-SH51SP-E	PAC-SH51SP-E
	High efficiency filter element (MERV 10)		PAC-SH59KF-E	PAC-SH59KF-E	PAC-SH59KF-E
	Multi-function casement		PAC-SH53TM-E	PAC-SH53TM-E	PAC-SH53TM-E
	i-see sensor corner panel		PAC-SA1ME-E	PAC-SA1ME-E	PAC-SA1ME-E
	Flange for fresh air intake		PAC-SH65OF-E	PAC-SH65OF-E	PAC-SH65OF-E
	Wireless signal receiver		PAR-SA9FA-E	PAR-SA9FA-E	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.			

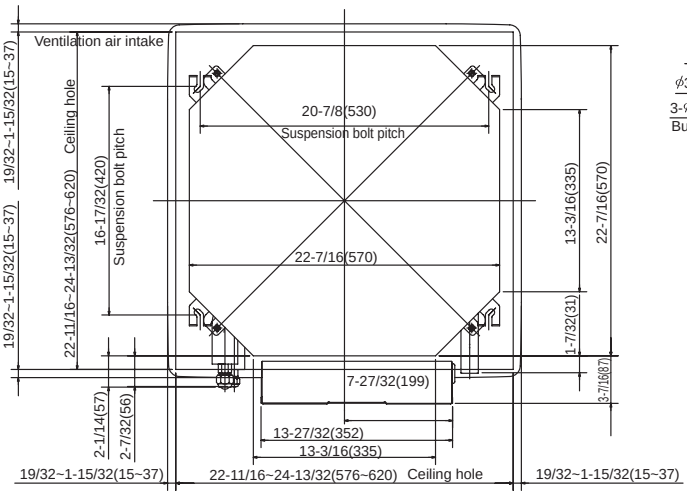
1. SPECIFICATIONS

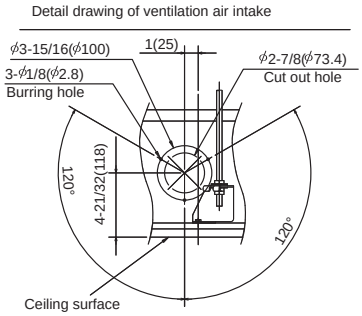
Model			PLFY-P24NBMU-E	PLFY-P30NBMU-E	PLFY-P36NBMU-E
Power source			1-phase 208-230 V 60Hz		
Cooling capacity *1 (Nominal)		BTU / h	24,000	30,000	36,000
		kW	7.0	8.8	10.5
	Power input	kW	0.06	0.07	0.16
	Current input	A	0.43	0.51	1.07
Heating capacity *2 (Nominal)		BTU / h	27,000	34,000	40,000
		kW	7.9	10.0	11.7
	Power input	kW	0.05	0.06	0.15
	Current input	A	0.36	0.43	1.00
External finish			Galvanized steel sheet		
External dimension H x W x D		in.	10-3/16 x 33-3/32 x 33-3/32	10-3/16 x 33-3/32 x 33-3/32	11-3/4 x 33-3/32 x 33-3/32
		mm	258 x 840 x 840	258 x 840 x 840	298 x 840 x 840
Net weight		lbs (kg)	51 (23)	51 (23)	60 (27)
Decoration panel	Model		PLP-40BAU	PLP-40BAU	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	1-3/8 x 37-13/32 x 37-13/32	1-3/8 x 37-13/32 x 37-13/32
		mm	35 x 950 x 950	35 x 950 x 950	35 x 950 x 950
	Net Weight	lbs (kg)	13 (6)	13 (6)	13 (6)
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		DC motor		
	Motor output	kW	0.050	0.050	0.120
	Driving mechanism		Direct-driven		
	Airflow rate (Low-Mid2-Mid1-High)	cfm	530 - 565 - 636 - 706	565 - 636 - 706 - 777	777 - 883 - 989 - 1,059
		m3 / min	15.0 - 16.0 - 18.0 -20.0	16.0 - 18.0 - 20.0 - 22.0	22.0 - 25.0 - 28.0 - 30.0
		L / s	250 - 267 - 300 - 333	267 - 300 - 333 - 367	367 - 417 - 467 - 500
Sound pressure level (Low-Mid2-Mid1-High) (measured in anechoic room)		dB <A>	28 - 30 - 32 - 34(208-230V)	30 - 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,R22 CITY MULTI		
Diameter of refrigerant pipe (O.D.)	Liquid (R410A)	in. (mm)	3/8 (9.52) Flare	3/8 (9.52) Flare	3/8 (9.52) Flare
	(R22)		3/8 (9.52) Flare	3/8 (9.52) Flare	3/8 (9.52) Flare
	Gas (R410A)	in. (mm)	5/8 (15.88) Flare	5/8 (15.88) Flare	5/8 (15.88) Flare
	(R22)		5/8 (15.88) Flare	5/8 (15.88) Flare	3/4 (19.05) Flare
Field drain pipe size		in. (mm)	O.D. 1-1/4(32)	O.D. 1-1/4(32)	O.D. 1-1/4(32)
Drain lift mechanism		in. (mm)	33-1/2 (851)	33-1/2 (851)	33-1/2 (851)
Standard attachment	Document Accessory		Installation Manual, Instruction Book		
Optional parts	Air outlet shutter plate		PAC-SH51SP-E	PAC-SH51SP-E	PAC-SH51SP-E
	High efficiency filter element (MERV 10)		PAC-SH59KF-E	PAC-SH59KF-E	PAC-SH59KF-E
	Multi-function casement		PAC-SH53TM-E	PAC-SH53TM-E	PAC-SH53TM-E
	i-see sensor corner panel		PAC-SA1ME-E	PAC-SA1ME-E	PAC-SA1ME-E
	Flange for fresh air intake		PAC-SH65OF-E	PAC-SH65OF-E	PAC-SH65OF-E
	Wireless signal receiver		PAR-SA9FA-E	PAR-SA9FA-E	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.		

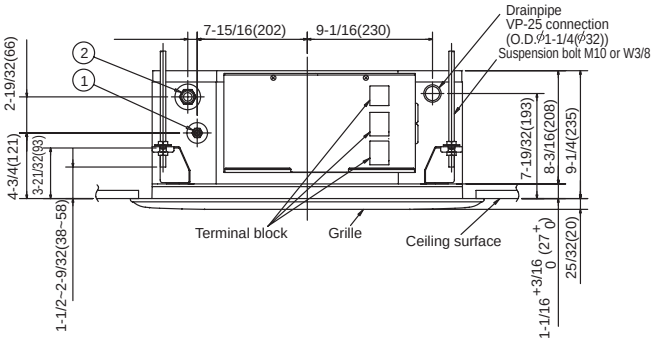
Note:	*1 Nominal cooling conditions	*2 Nominal heating conditions	Unit converter
Indoor:	80degF D.B. / 67degF W.B. (26.7degC D.B. / 19.4degC W.B.)	70degF D.B. (21.1degC D.B.)	kcal/h = kW x 860 BTU/h = kW x 3,412
Outdoor:	95degF D.B. (35degC D.B.)	47degF D.B. / 43degF W.B. (8.3degC D.B. / 6.1degC W.B.)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

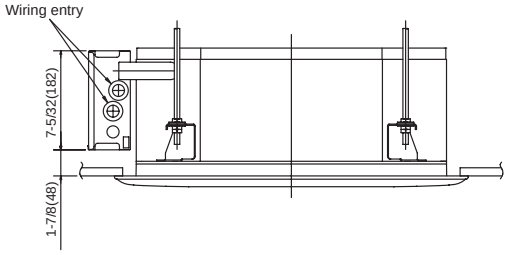
PLFY-P08,12,15 NCMU-E

Ref. : PLFY-NCMU-E_EXD_USDB_P08-15
Unit : in.(mm)



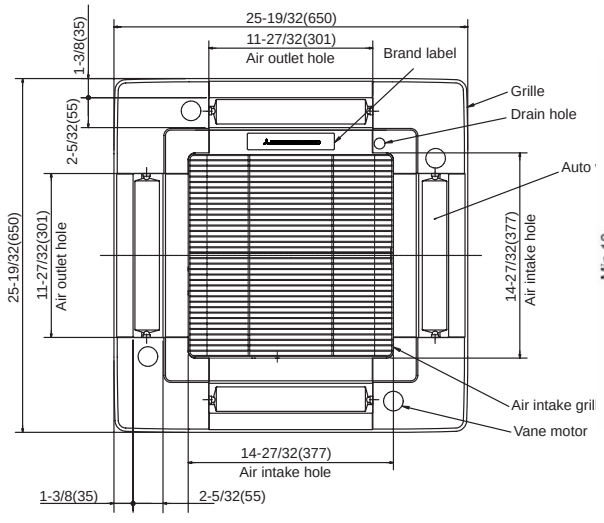


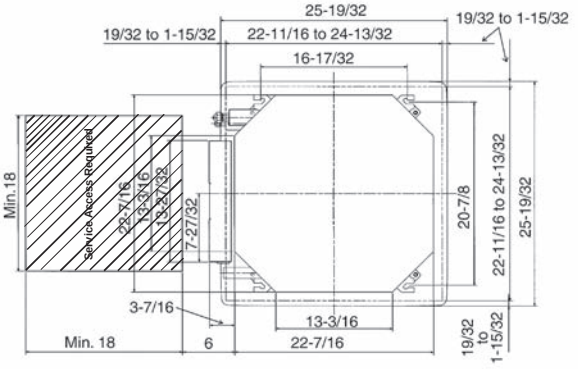




Unit : in.(mm)

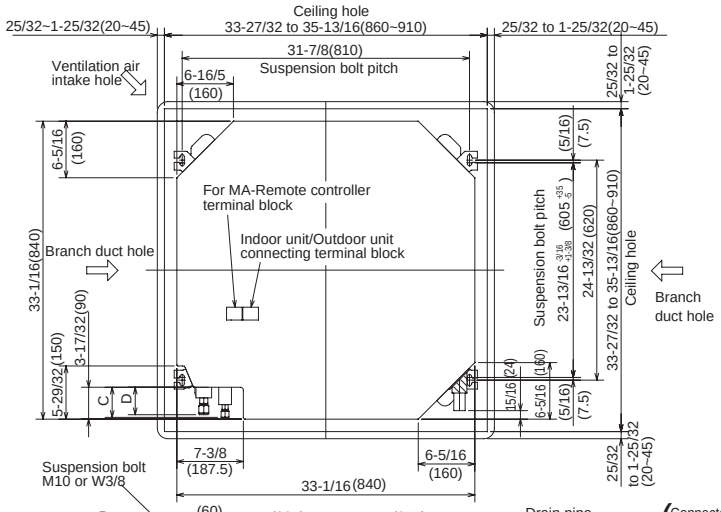
Models	①	②
PLFY-P08NCMU-E PLFY-P12NCMU-E PLFY-P15NCMU-E	Refrigerant pipe (1/4 (6.35) dia.) flared connection 1/4F	Refrigerant pipe (1/2 (12.7) dia.) flared connection 1/2F



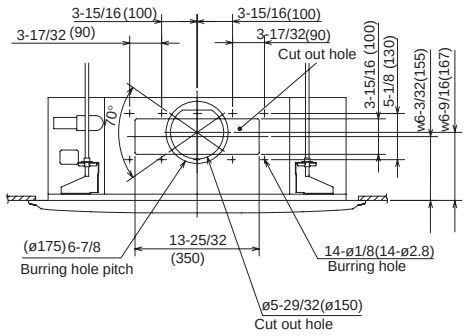


PLFY-P12,15,18,24,30,36 NBMU-E

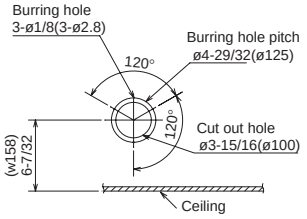
Unit : in. (mm)

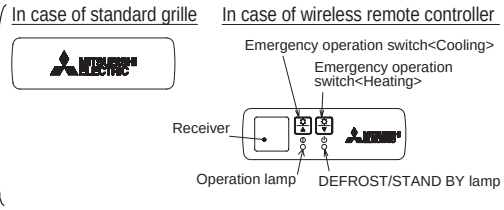


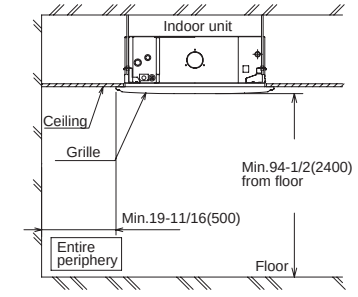
Detail connecting of branch duct(Both aspects)



Detail drawing of ventilation air intake hole







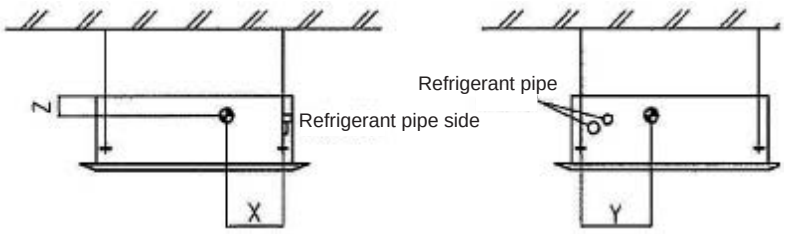
Note:
1. As for drain pipe, please use VP-25 O.D. 1-1/4(32) PVC TUBE.
   Drain pump is included.
   Max. lifting height is 33-1/2 (850mm) from the ceiling.
2. As for suspension bolt, please use M10 or W3/8. (Procured at local site)
3. Electrical box may be removed for the service purpose.
   Make sure to slack the electrical wire little bit for control/power wires connection.
4. The height of the indoor unit is able to be adjusted with the grille attached.
5. For the installation of the optional high efficiency filter or optional multi-functional casement.
   1 Add 5-5/16"(135mm) to the dimensions Wmarked on the figure.
   2 The optional high efficiency filter becomes optional multi-functional casement and concomitant use.
6. 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)
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-P12NBMU-E PLFY-P15NBMU-E	Refrigerant pipe ···ø6.35 Flared connection ···1/4	Refrigerant pipe ···ø12.7 Flared connection ···1/2	9-1/2 (241)	10-3/16 (258)	3-5/32 (80)	2-29/32 (74)
PLFY-P18NBMU-E	Refrigerant pipe ø6.35 / ø9.52 Flared connection 1/4 / 3/8 (compatible)	Refrigerant pipe ø12.7 / ø15.88 Flared connection 1/2 / 5/8 (compatible)				
PLFY-P24NBMU-E PLFY-P30NBMU-E	Refrigerant pipe ···ø9.52 Flared connection ···3/8	Refrigerant pipe ···ø15.88 Flared connection ···5/8				
PLFY-P36NBMU-E		Refrigerant pipe ø15.88 / ø19.05 Flared connection 5/8 / 3/4 (compatible)	11-1/16 (281)	11-3/4 (298)	3-11/32 (85)	3-1/32 (77)

PLFY-P08,12,15NCMU-E

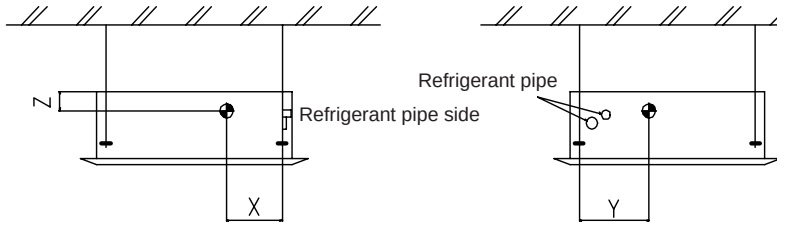
Ref.: PLFY_NCMU_COG_USDB_ALL



(mm)[in]

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

PLFY-P12,15,18,24,30,36NBMU-E



(mm)[in]

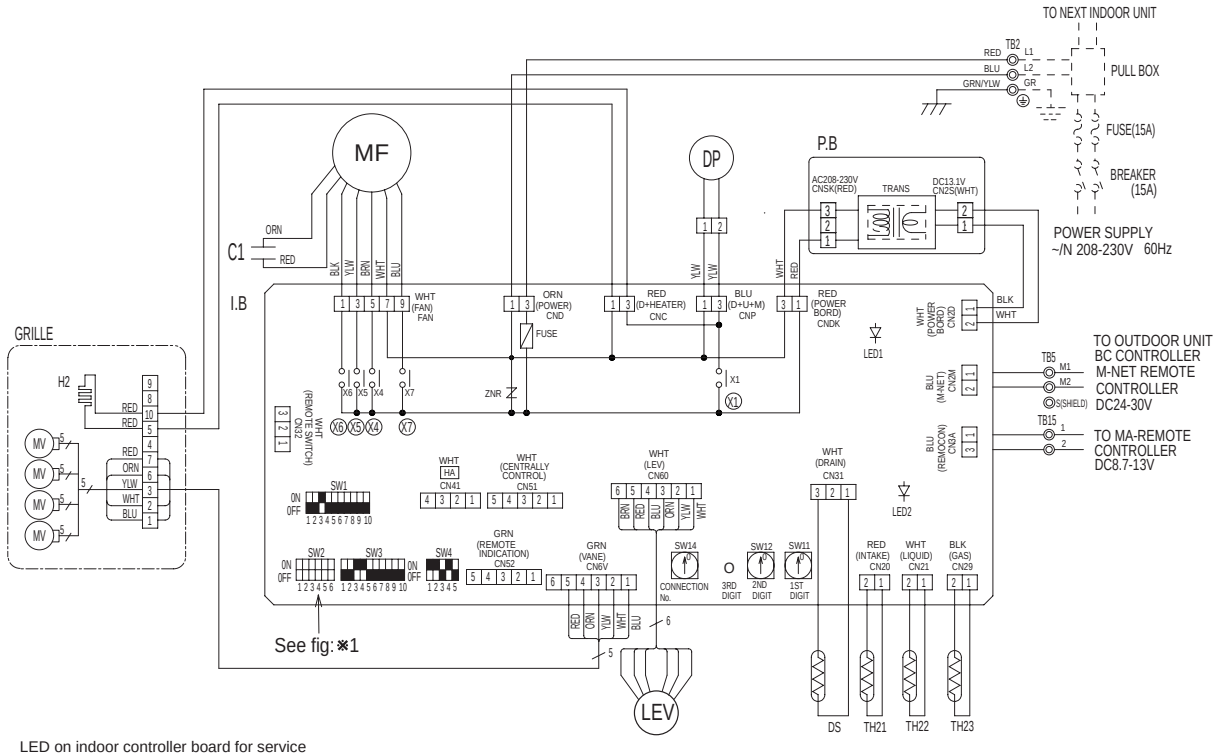
Model name	X	Y	Z
PLFY-P12NBMU-E	280 [11-1/32]	400 [15-3/4]	105 [4-5/32]
PLFY-P15NBMU-E	280 [11-1/32]	400 [15-3/4]	105 [4-5/32]
PLFY-P18NBMU-E	280 [11-1/32]	400 [15-3/4]	105 [4-5/32]
PLFY-P24NBMU-E	280 [11-1/32]	400 [15-3/4]	105 [4-5/32]
PLFY-P30NBMU-E	280 [11-1/32]	400 [15-3/4]	105 [4-5/32]
PLFY-P36NBMU-E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

PLFY-P08,12,15 NCMU-E

Ref. : PLFY-NCMU-E_EWD_USDB_P08-15

[LEGEND]

SYMBOL	NAME		SYMBOL	NAME	
I.B	INDOOR CONTROLLER BOARD		C1	CAPACITOR (FAN MOTOR)	
CN32	CONNECTOR	REMOTE SWITCH	DP	DRAIN PUMP	
CN41		HA TERMINAL-A	DS	DRAIN SENSOR	
CN51		CENTRALLY CONTROL	H2	DEW PREVENTION HEATER	
CN52		REMOTE INDICATION	LEV	LINEAR EXPANSION VALVE	
FUSE	FUSE (6.3A/250V)		MF	FAN MOTOR (WITH THERMAL FUSE)	
SW1	SWITCH	MODE SELECTION	MV	VANE MOTOR	
SW2		CAPACITY CODE	TB2	TERMINAL BLOCK	POWER SUPPLY
SW3		MODE SELECTION	TB5		TRANSMISSION
SW4		MODEL SELECTION	TB15		MA-REMOTE CONTROLLER
SW11		ADDRESS SETTING 1ST DIGIT	TH21	THERMISTOR	ROOM TEMPERATURE DETECTION (32°F/15kΩ 77°F/5.4kΩ)
SW12		ADDRESS SETTING 2ND DIGIT	TH22		PIPE TEMPERATURE DETECTION/LIQUID (32°F/15kΩ 77°F/5.4kΩ)
SW14		CONNECTION No.	TH23		PIPE TEMPERATURE DETECTION/GAS (32°F/15kΩ 77°F/5.4kΩ)
X1	AUX. RELAY	DRAIN PUMP/DEW PREVENTION HEATER	P.B	INDOOR POWER BOARD	
X4		FAN MOTOR (LL)			
X5		FAN MOTOR (Lo)			
X6		FAN MOTOR (Hi)			
X7		FAN MOTOR (Me)			
ZNR	VARISTOR				



LED on indoor controller board for service

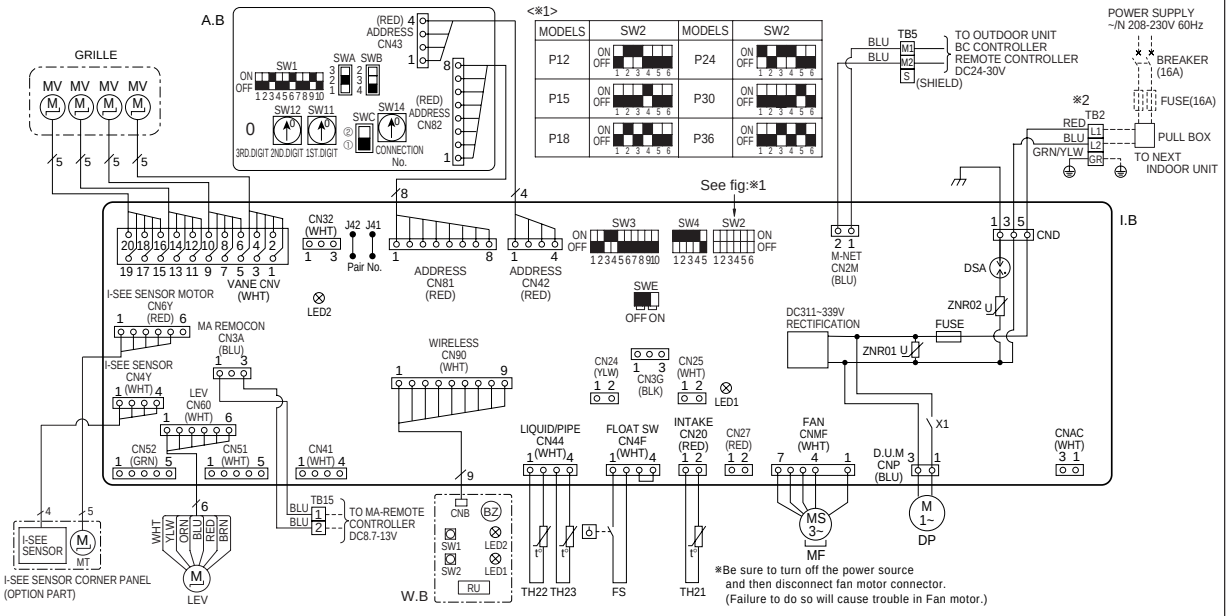
Mark	Meaning	Function
LED1	Main power supply	Main power supply(Indoor unit:208-230V) power on ➛ lamp is lit
LED2	Power supply for MA-Remote controller	Power supply for MA-Remote controller on ➛ lamp is lit

<fig:※1>

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

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. (Transmisson line is non-polar.)
4.Symbol[S] of TB5 is the shield wire connection.
5.Symbols used in wiring diagram above are, ◎ :terminal block, □□□ :connecter.
6.The setting of the SW2 dip switches differs in the capacity for the detail,refer to the fig:※1.
7.Use copper supply wire.

PLFY-P12,15,18,24,30,36 NBMU-E



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, ○○○: connecter.
6.The setting of the SW2 dip switches differs in the capacity. For the detail, refer to fig<※1>.
※2.Use copper supply wires.

[LEGEND]

SYMBOL		NAME		SYMBOL	NAME	
I. B		INDOOR CONTROLLER BOARD		DP	DRAIN-UP MACHINE	
	CN27	CONNECTOR	DAMPER	FS	DRAIN FLOAT SWITCH	
	CN32		REMOTE SWITCH	LEV	LINEAR EXPANSION VALVE	
	CN51		CENTRALLY CONTROL	MF	FAN MOTOR	
	CN52		REMOTE INDICATION	MV	VANE MOTOR	
	DSA	SURGE ABSORBER		TB2	TERMINAL BLOCK	POWER SUPPLY
	FUSE	FUSE (T6.3AL250V)		TB5		TRANSMISSION
	LED1	POWER SUPPLY (I. B)		TB15		MA-REMOTE CONTROLLER
	LED2	POWER SUPPLY (I. B)		TH21	THERMISTOR	ROOM TEMP. DETECTION (0℃ / 15kΩ, 25℃/ 5.4kΩ)
	SW2	SWITCH	CAPACITY CODE			
	SW3		MODE SELECTION	TH22		PIPE TEMP. DETECTION / LIQUID (0℃ / 15kΩ, 25℃ / 5.4kΩ)
	SW4		MODEL SELECTION			
	SWE		DRAIN-UP MACHINE (TEST MODE)	TH23		PIPE TEMP. DETECTION / GAS (0℃/ 15kΩ, 25℃/ 5.4kΩ)
	X1	AUX. RELAY	DRAIN WATER LIFTING-UP MACH.			
	ZNR01,02	VARISTOR				

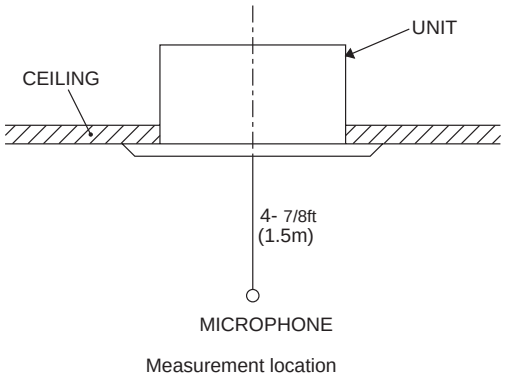
SYMBOL		NAME	
A. B		ADDRESS BOARD	
	SWA	SWITCH	CEILING HEIGHT SELECTOR
	SWB		DISCHARGE OUTLET NUMBER SELECTOR
	SWC		OPTION SELECTOR
	SW1		MODE SELECTION
	SW11		ADDRESS SETTING 1ST DIGIT
	SW12		ADDRESS SETTING 2ND DIGIT
	SW14		CONNECTION NO.
OPTION PART			
	W.B	PCB FOR WIRELESS REMOTE CONTROLLER	
	BZ	BUZZER	
	LED1	LED (OPERATION INDICATION : GREEN)	
	LED2	LED (PREPARATION FOR HEATING : ORANGE)	
	RU	RECEIVING UNIT	
	SW1	EMERGENCY OPERATION (HEAT / DOWN)	
	SW2	EMERGENCY OPERATION (COOL / UP)	

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.

5-1. Sound Pressure Levels

Cassette ceiling series



Measurement location

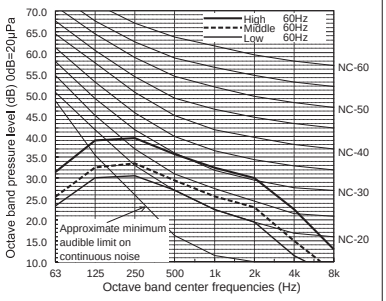
Operating sound levels
(Low-Middle2-Middle1-High) Unit : dB(A)

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

5-2. NC Curves

PLFY-P08NCMU-E

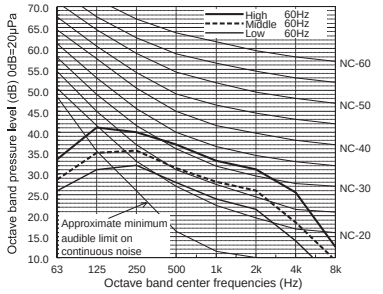
External Static Pressure: 0Pa
Power Source: 208-230V 60Hz



Ref.:PLFY-NCMU-E_NCC_USDB_P08

PLFY-P12NCMU-E

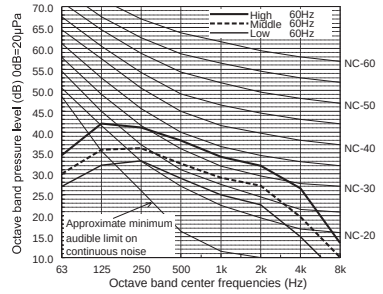
External Static Pressure: 0Pa
Power Source: 208-230V 60Hz



Ref.:PLFY-NCMU-E_NCC_USDB_P12

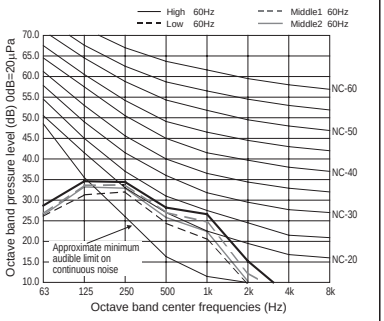
PLFY-P15NCMU-E

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

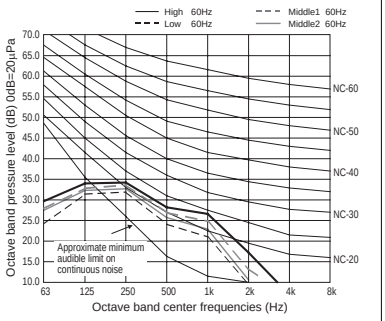


Ref.:PLFY-NCMU-E_NCC_USDB_P15

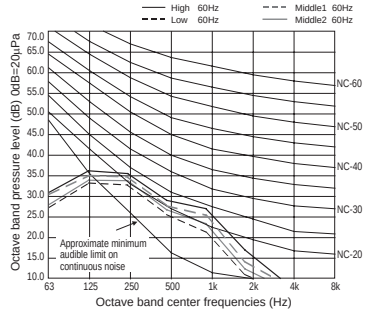
PLFY-P12NBMU-E
External static pressure : 0Pa
Power source : 208,230V, 60Hz



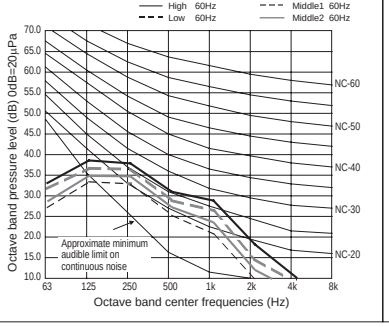
PLFY-P15NBMU-E
External static pressure : 0Pa
Power source : 208,230V, 60Hz



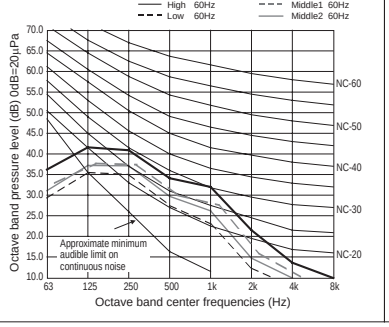
PLFY-P18NBMU-E
External static pressure : 0Pa
Power source : 208,230V, 60Hz



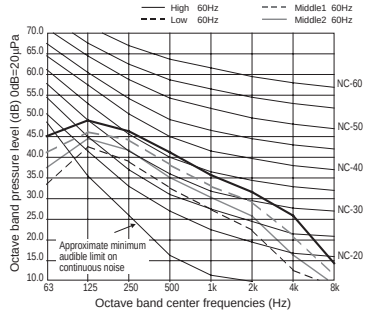
PLFY-P24NBMU-E
External static pressure : 0Pa
Power source : 208,230V, 60Hz



PLFY-P30NBMU-E
External static pressure : 0Pa
Power source : 208,230V, 60Hz



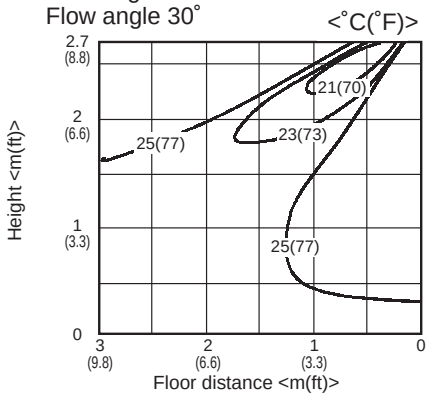
PLFY-P36NBMU-E
External static pressure : 0Pa
Power source : 208,230V, 60Hz



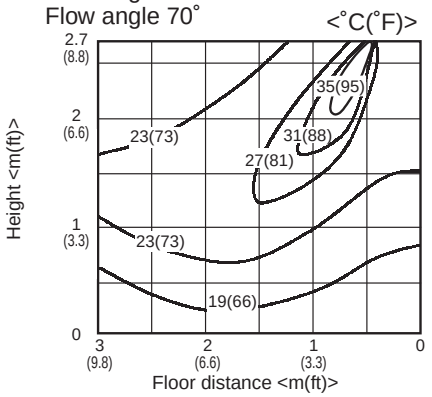
6. TEMPERATURE/AIRFLOW DISTRIBUTIONS

6-1. Temperature Distributions

PLFY-P08,12,15 NCMU-E
<Cooling mode>
Flow angle 30˚

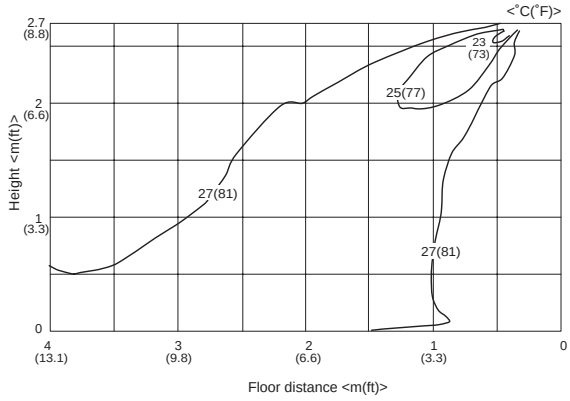


<Heating mode>
Flow angle 70˚

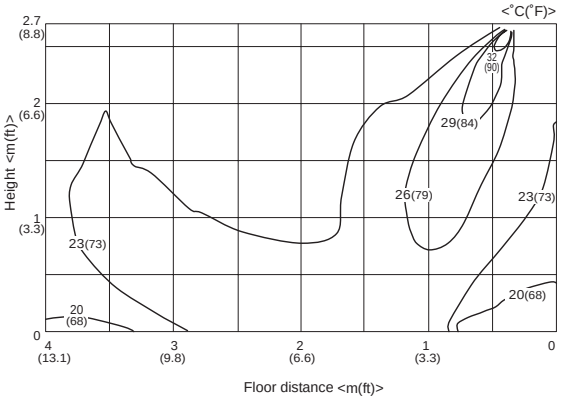


PLFY-P-NBMU-E

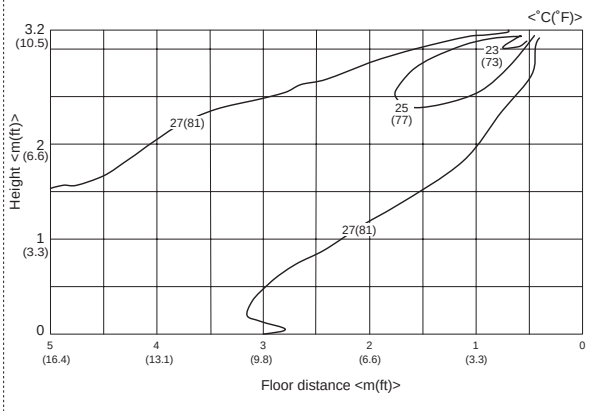
• PLFY-P12,15,18,24,30NBMU-E
<Cooling mode> Standard
Flow angle : 30° 4-way flow
ceiling height : 2.7 m(8.8ft)



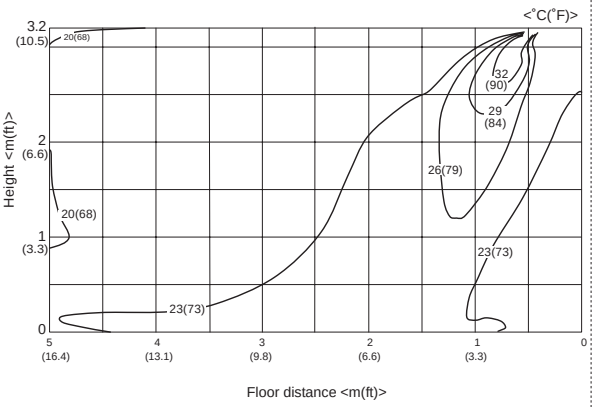
• PLFY-P12,15,18,24,30NBMU-E
<Heating mode> Standard
Flow angle : 60° 4-way flow
ceiling height : 2.7 m(8.8ft)



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



• PLFY-P36NBMU-E
<Heating mode> Standard
Flow angle : 60° 4-way flow
ceiling height : 3.2 m(10.4ft)



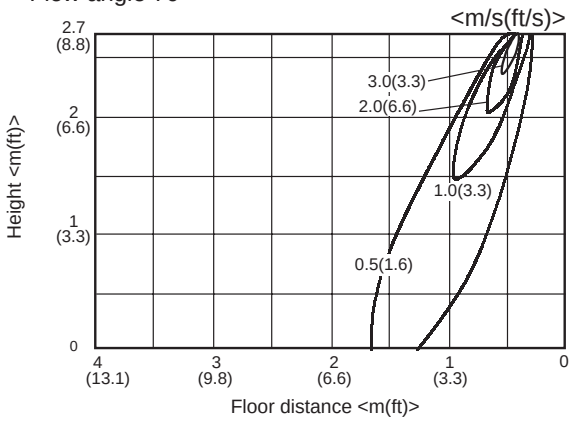
Note : These figures show typical temperature distributions in the conditions above. In the actual installation, they may differ from these figures under the influence of air temperature conditions, ceiling height, cooling/heating load,obstacles,etc.

6-2. Airflow Distributions

PLFY-P08,12,15 NCMU-E

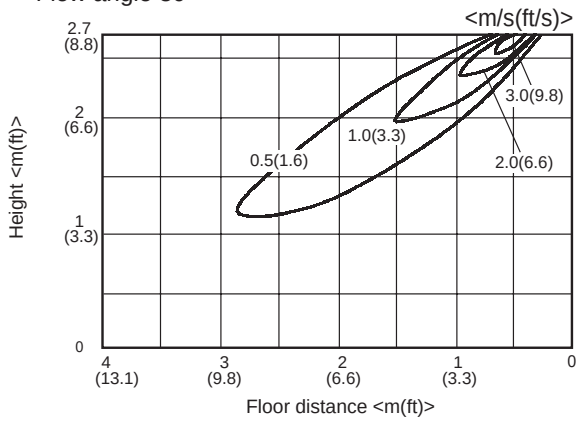
<Fan mode>

Flow angle 70˚



<Fan mode>

Flow angle 30˚

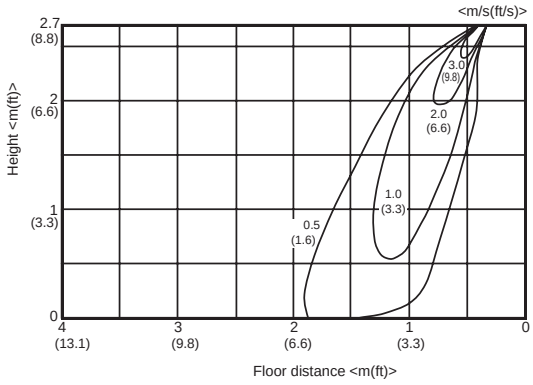


PLFY-P-NCMU-E
PLFY-P-NBMU-E

PLFY-P12,15,18,24,30NBMU-E

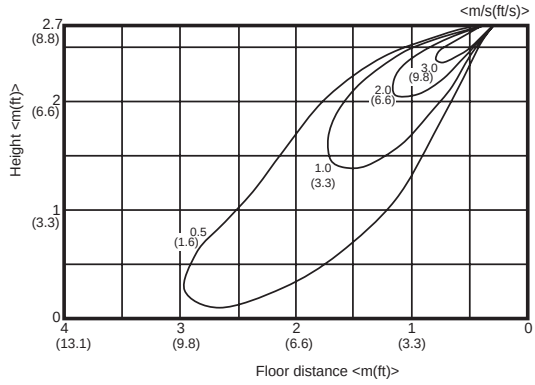
<Heating mode>

Flow angle 60˚



<Cooling mode>

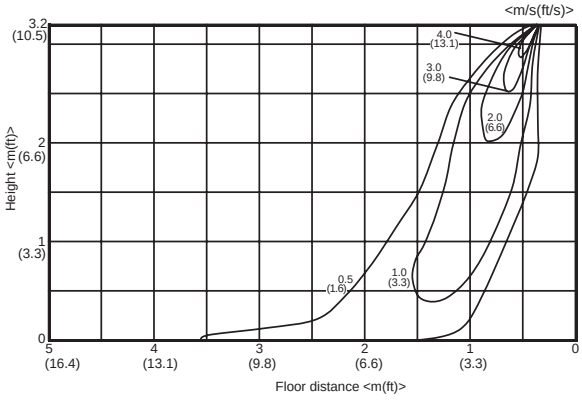
Flow angle 30˚



PLFY-P36NBMU-E

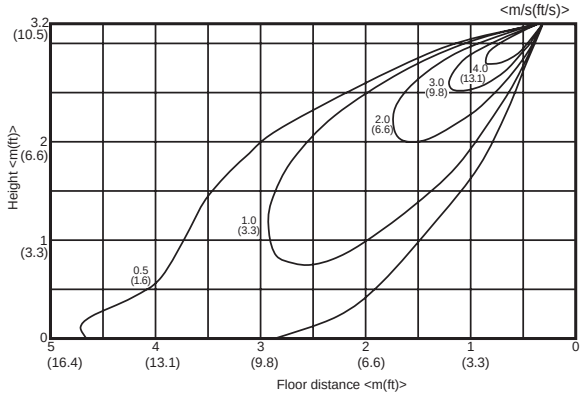
<Heating mode>

Flow angle 60˚



<Cooling mode>

Flow angle 30˚

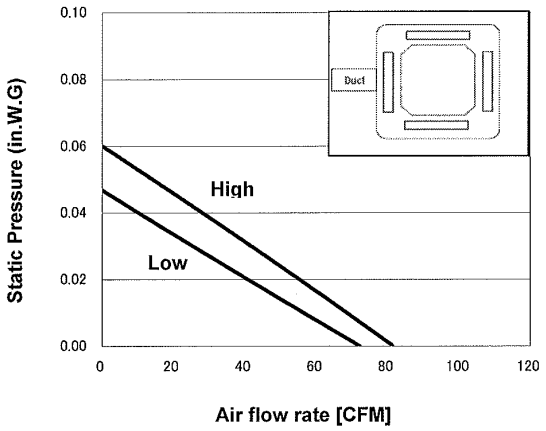


Note : These figures show typical airflow distributions in the conditions above. In the actual installation, they may differ from these figures under the influence of air temperature conditions, ceiling height, cooling/heating load,obstacles,etc.

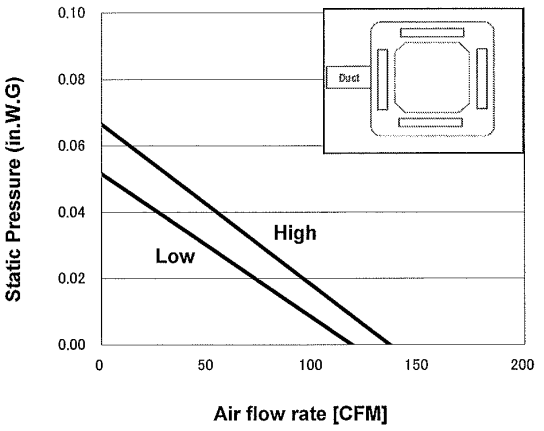
6-3. Branch Duct Capacities

PLFY-P12NBMU-E

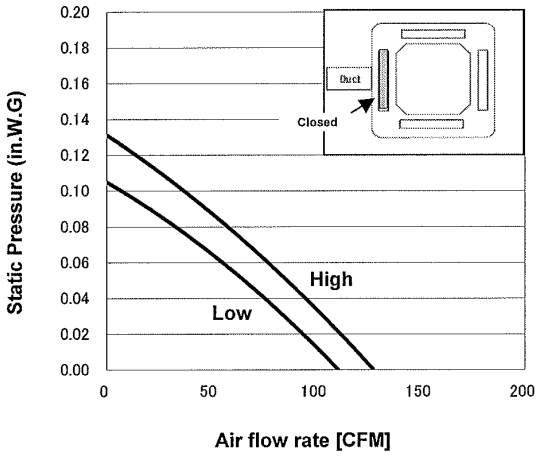
4-way air flow (horizontal vane) Round duct



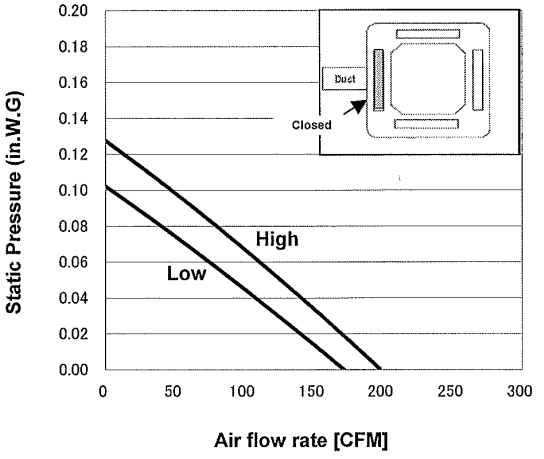
4-way air flow (horizontal vane) Rectangular duct



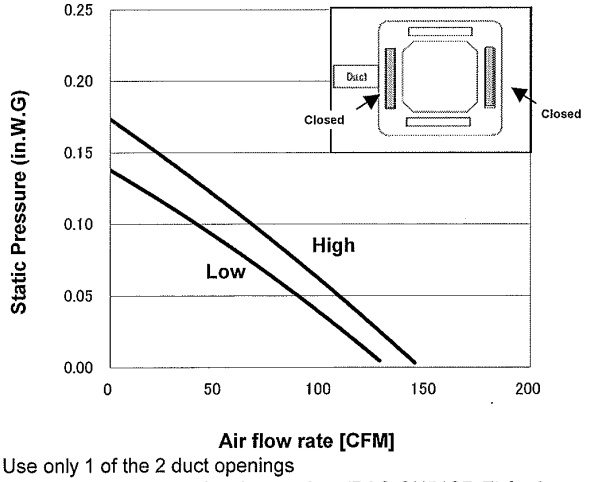
3-way air flow (horizontal vane) Round duct



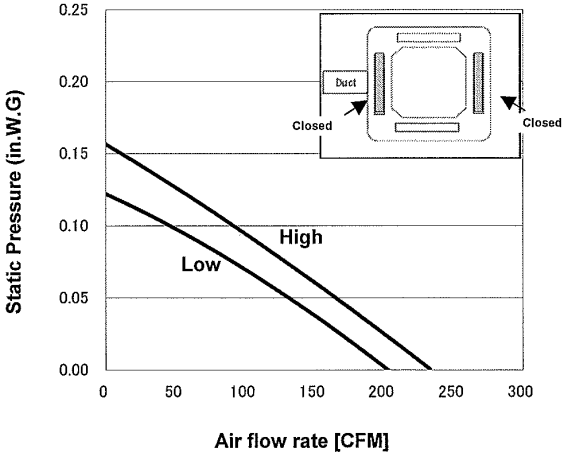
3-way air flow (horizontal vane) Rectangular duct



2-way air flow (horizontal vane) Round duct



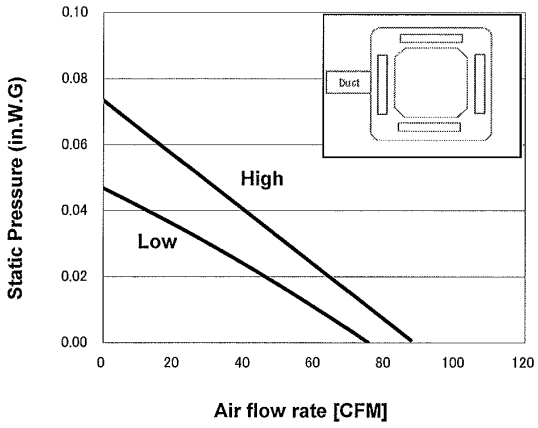
2-way air flow (horizontal vane) Rectangular duct



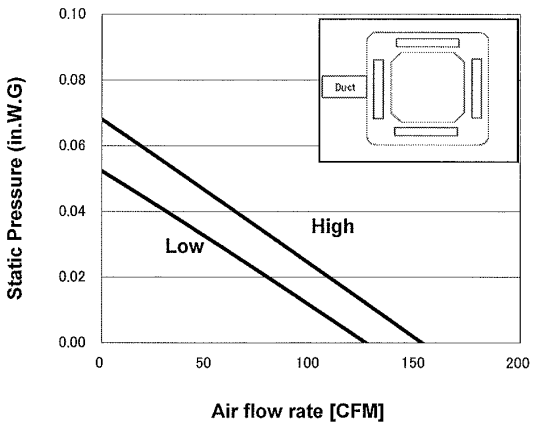
Use only 1 of the 2 duct openings
Use the optional air outlet shutter plate (PAC-SH51SP-E) for 3-way and 2-way air flow.

PLFY-P15NBMU-E

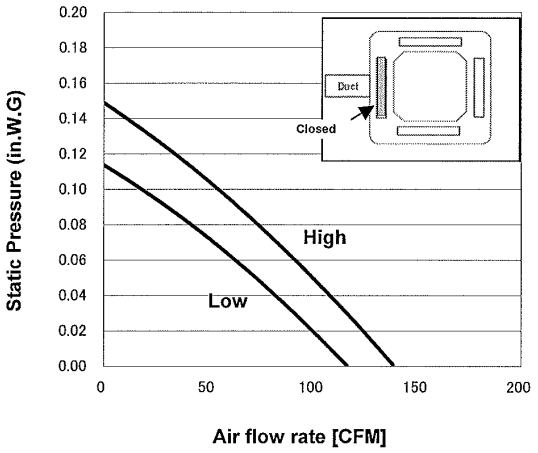
4-way air flow (horizontal vane) Round duct



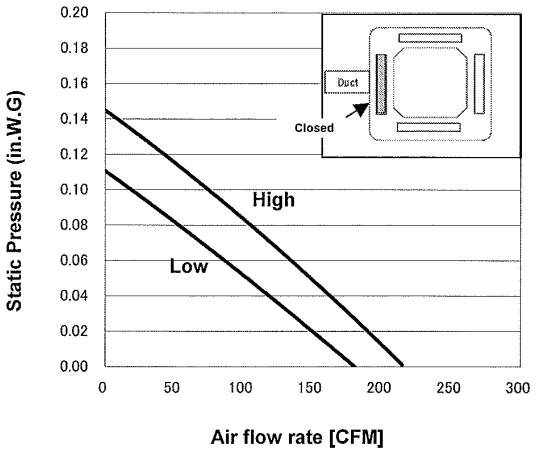
4-way air flow (horizontal vane) Rectangular duct



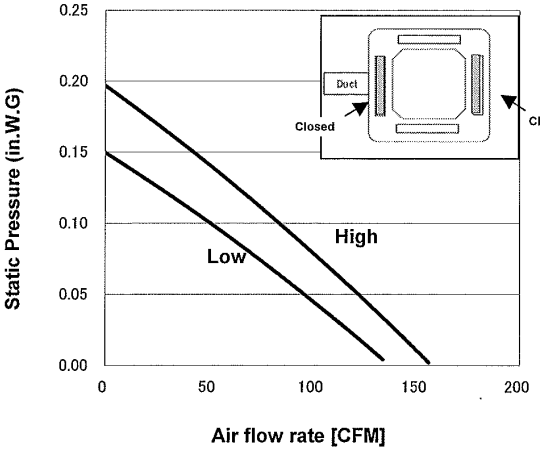
3-way air flow (horizontal vane) Round duct



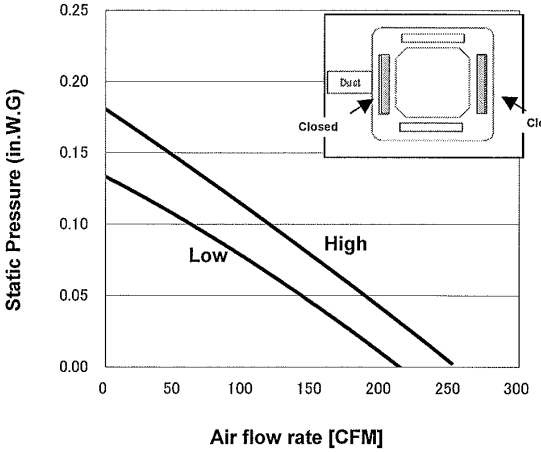
3-way air flow (horizontal vane) Rectangular duct



2-way air flow (horizontal vane) Round duct



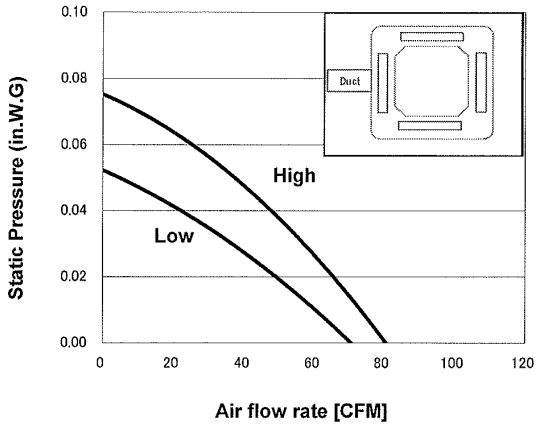
2-way air flow (horizontal vane) Rectangular duct



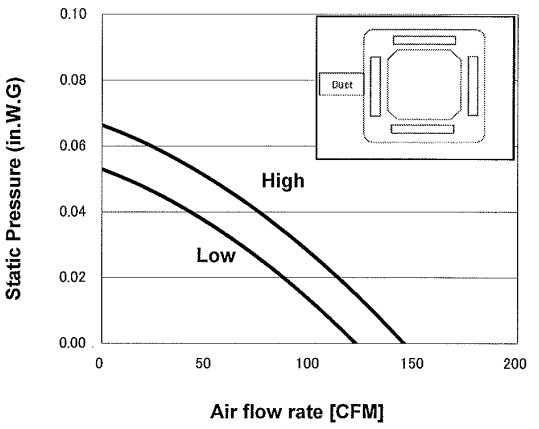
Use only 1 of the 2 duct openings
Use the optional air outlet shutter plate (PAC-SH51SP-E) for 3-way and 2-way air flow.

PLFY-P18NBMU-E

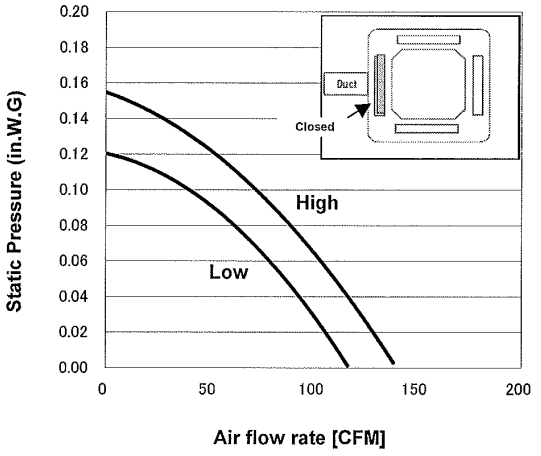
4-way air flow (horizontal vane) Round duct



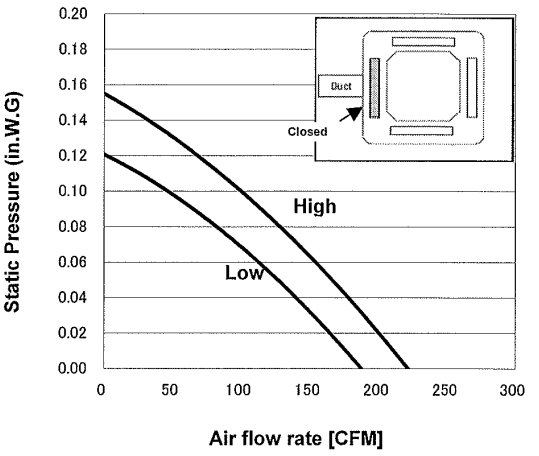
4-way air flow (horizontal vane) Rectangular duct



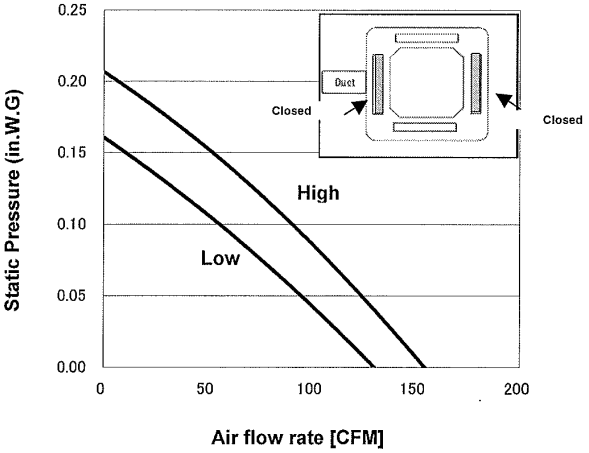
3-way air flow (horizontal vane) Round duct



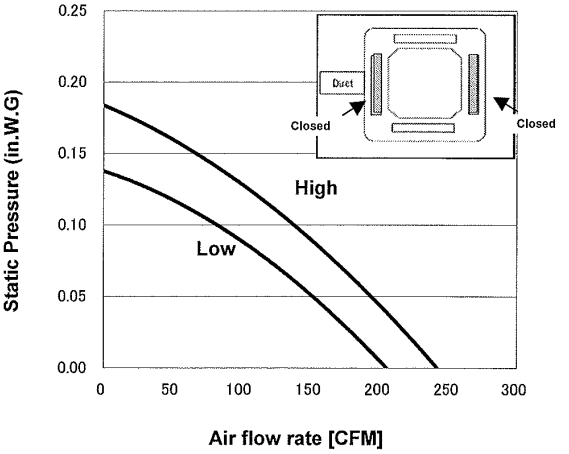
3-way air flow (horizontal vane) Rectangular duct



2-way air flow (horizontal vane) Round duct



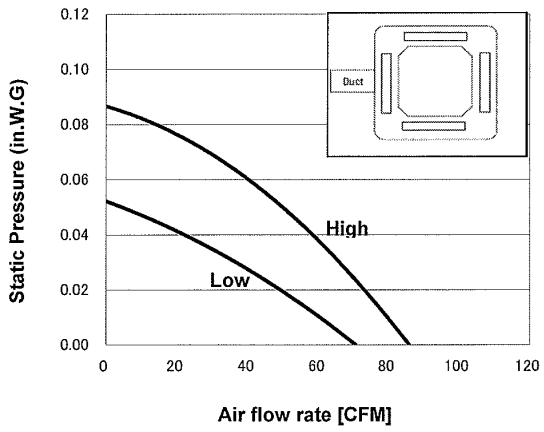
2-way air flow (horizontal vane) Rectangular duct



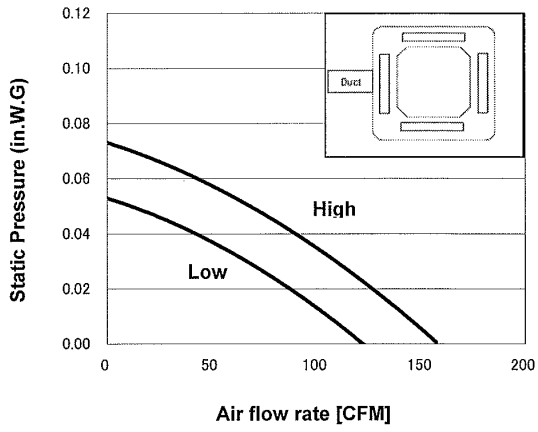
Use only 1 of the 2 duct openings
Use the optional air outlet shutter plate (PAC-SH51SP-E) for 3-way and 2-way air flow.

PLFY-P24NBMU-E

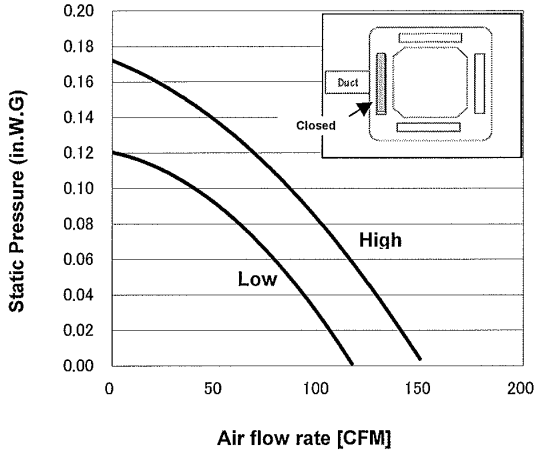
4-way air flow (horizontal vane) Round duct



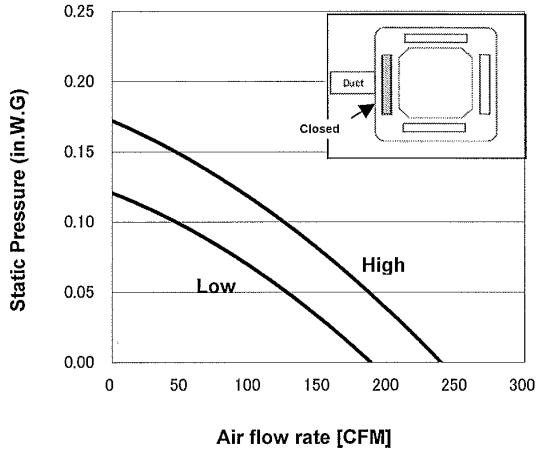
4-way air flow (horizontal vane) Rectangular duct



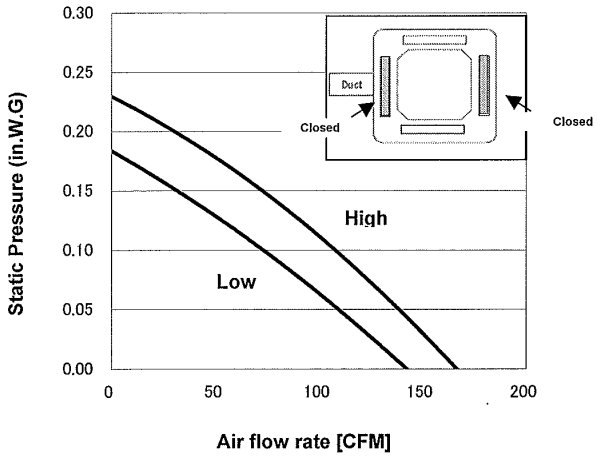
3-way air flow (horizontal vane) Round duct



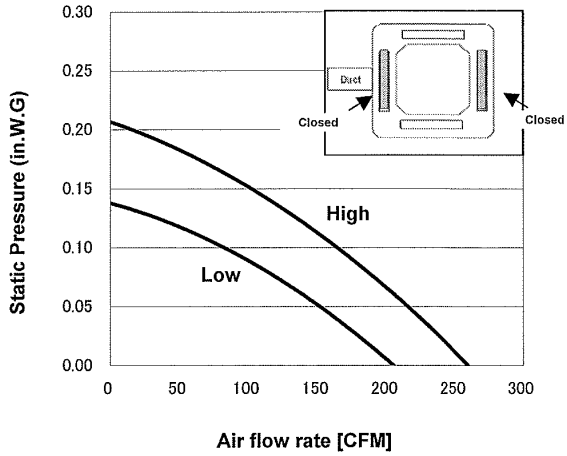
3-way air flow (horizontal vane) Rectangular duct



2-way air flow (horizontal vane) Round duct



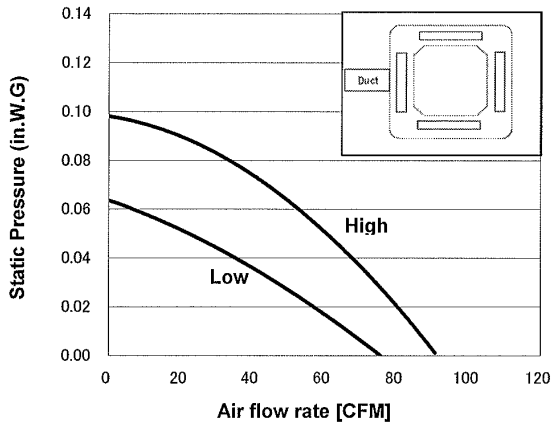
2-way air flow (horizontal vane) Rectangular duct



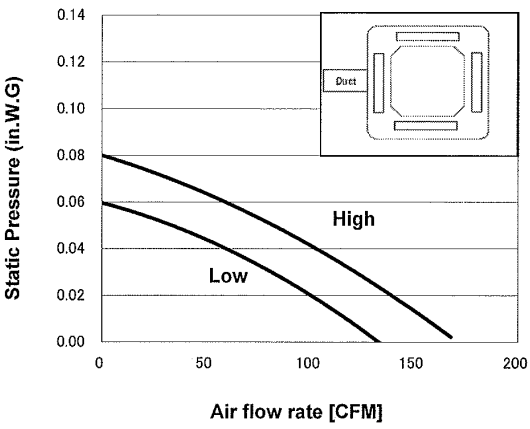
Use only 1 of the 2 duct openings
Use the optional air outlet shutter plate (PAC-SH51SP-E) for 3-way and 2-way air flow.

PLFY-P30NBMU-E

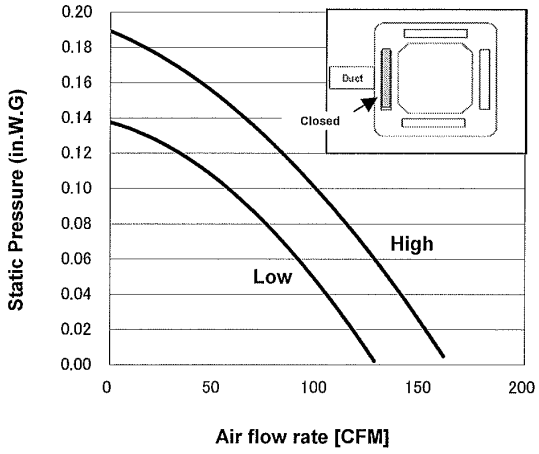
4-way air flow (horizontal vane) Round duct



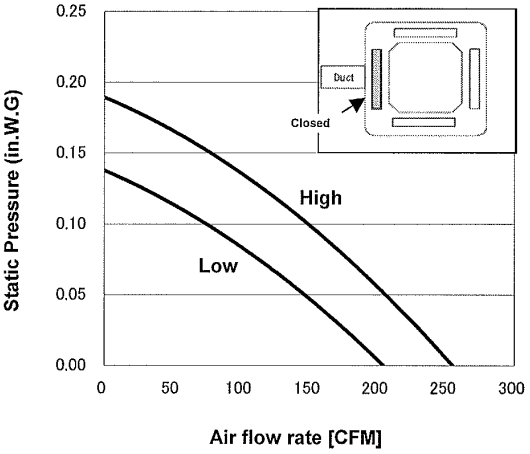
4-way air flow (horizontal vane) Rectangular duct



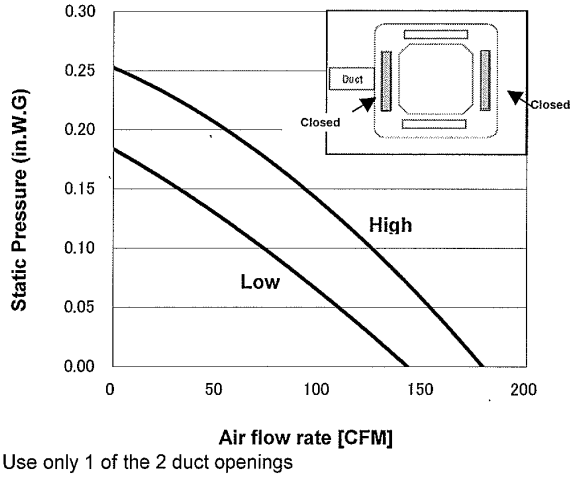
3-way air flow (horizontal vane) Round duct



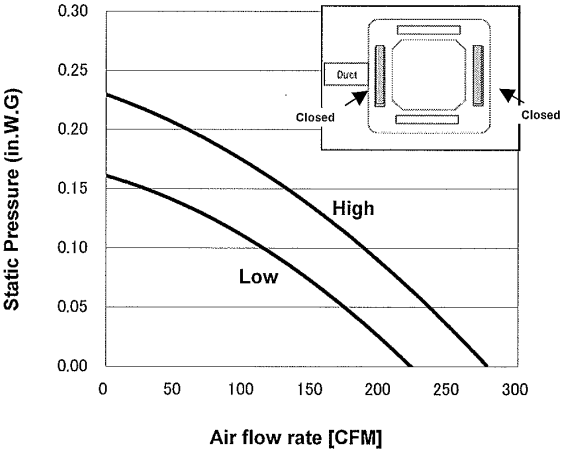
3-way air flow (horizontal vane) Rectangular duct



2-way air flow (horizontal vane) Round duct



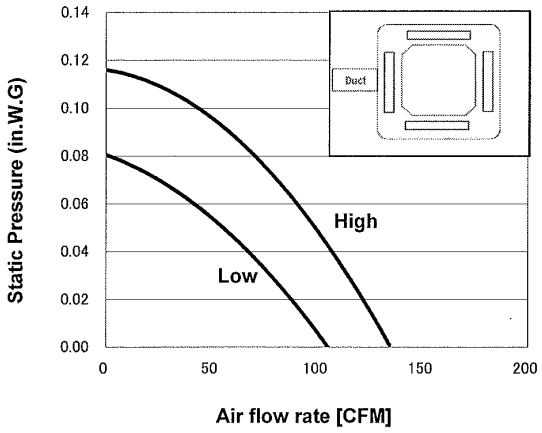
2-way air flow (horizontal vane) Rectangular duct



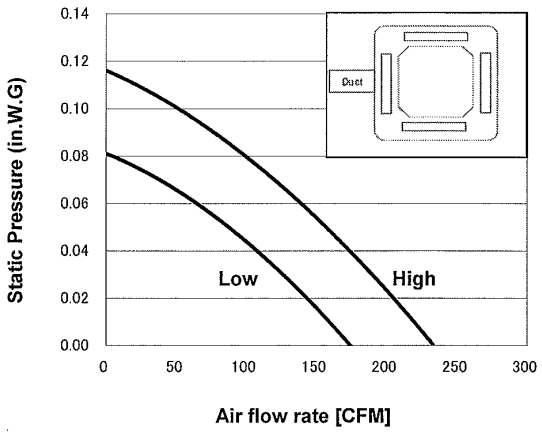
Use only 1 of the 2 duct openings
Use the optional air outlet shutter plate (PAC-SH51SP-E) for 3-way and 2-way air flow.

PLFY-P36NBMU-E

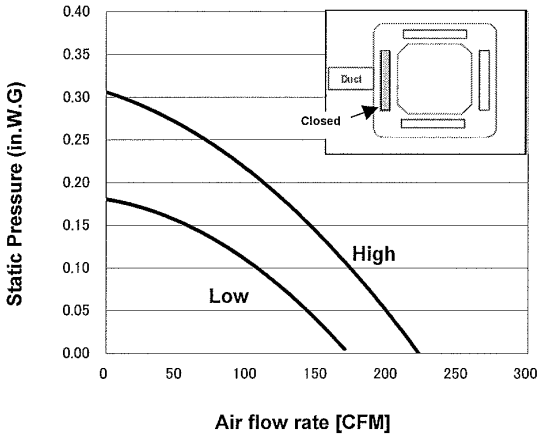
4-way air flow (horizontal vane) Round duct



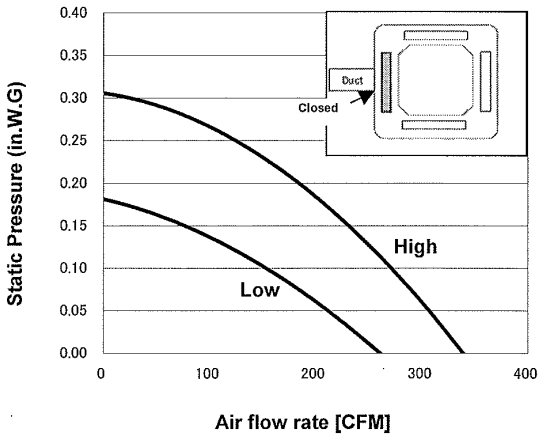
4-way air flow (horizontal vane) Rectangular duct



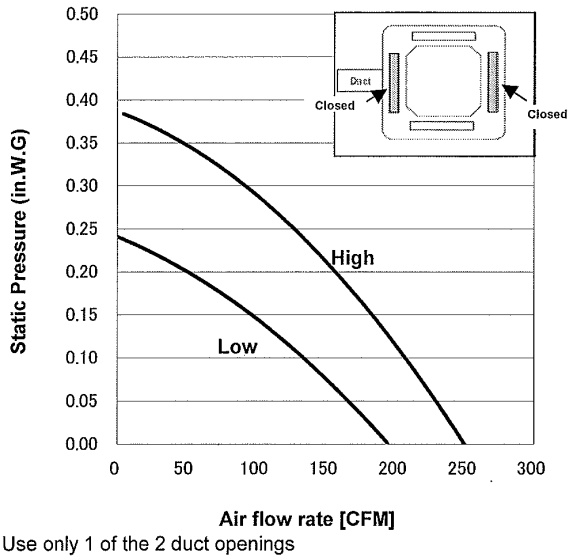
3-way air flow (horizontal vane) Round duct



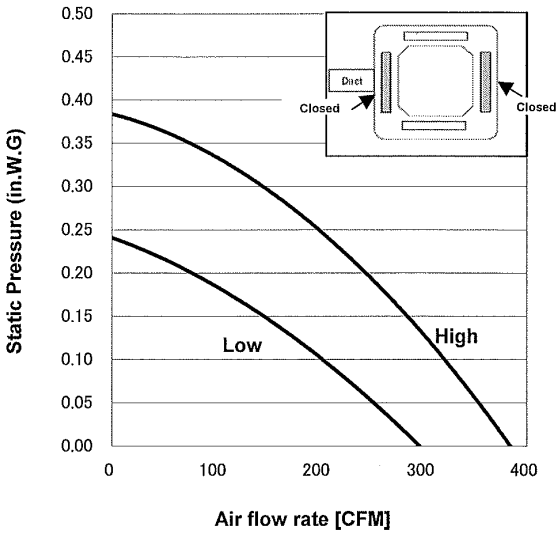
3-way air flow (horizontal vane) Rectangular duct



2-way air flow (horizontal vane) Round duct



2-way air flow (horizontal vane) Rectangular duct

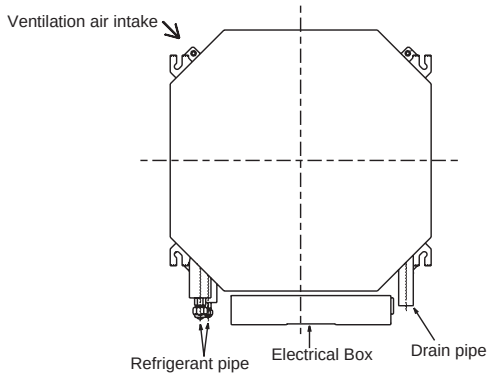


Use only 1 of the 2 duct openings
Use the optional air outlet shutter plate (PAC-SH51SP-E) for 3-way and 2-way air flow.

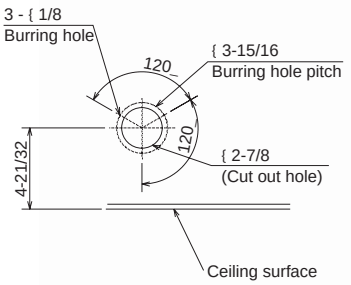
7. VENTILATION AIR INTAKE AMOUNT AND STATIC PRESSURE

7-1. PLFY-P08, 12, 15NCMU-E

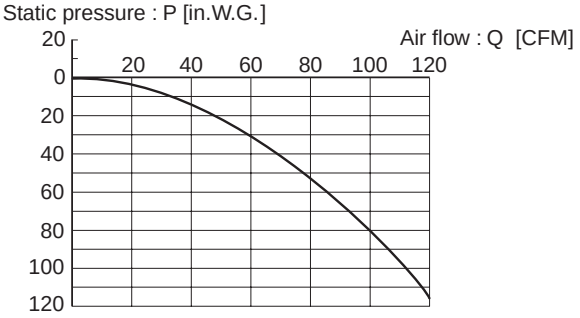
At the time of installation, use the duct holes (cut out) located at the positions shown in following diagram, as and when required.



Ventilation air intake hole diagram (Unit : inch)



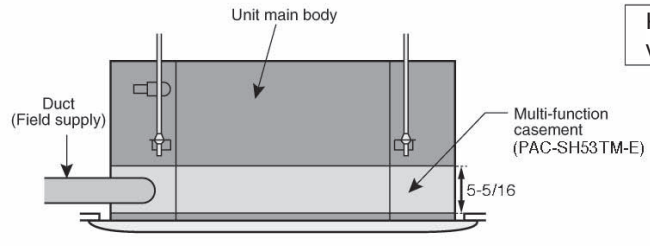
Taking air into the unit



NOTE: Ventilation air intake amount should be 20% or less of total air amount to prevent condensate dripping.

7-2. PLFY-P12, 15, 18, 24, 30, 36NBMU-E with Multi-function Casement and Filters

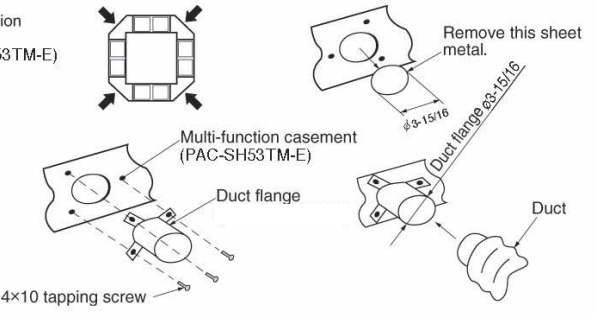
By mounting the optional multi-function casement (PAC-SH53TM-E) to the indoor unit main body, increased ventilation air intake can be accomplished. (The mounting of the multi-function casement increase the height of the ceiling plenum by 5-5/16 [135mm].)



Direct ventilation air intake into the main body is also possible.

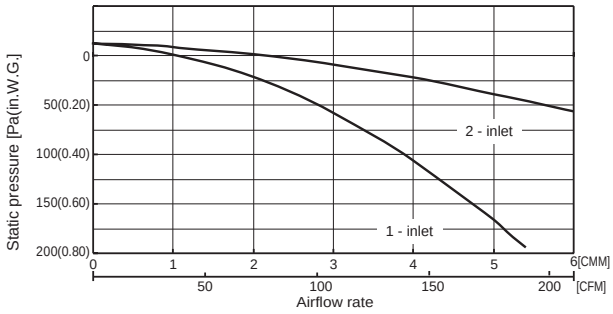
Knockout hole for ventilation air intake

Preparation of knockout hole

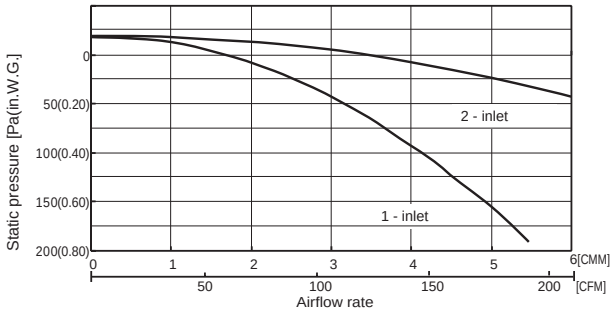


PLFY-P12·P15·P18·P24·P30NBMU-E

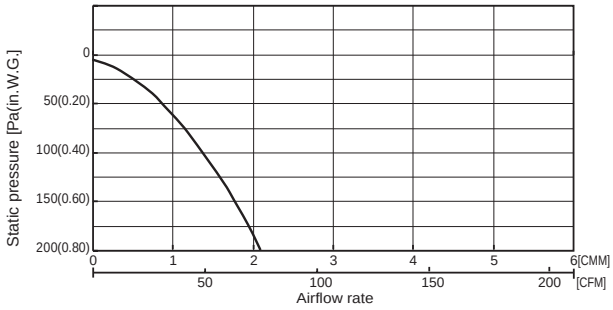
Multifunction casement + High efficiency filter



Multifunction casement + Standard filter



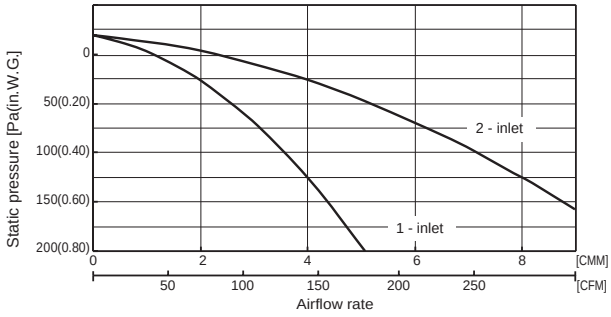
Taking air into the unit



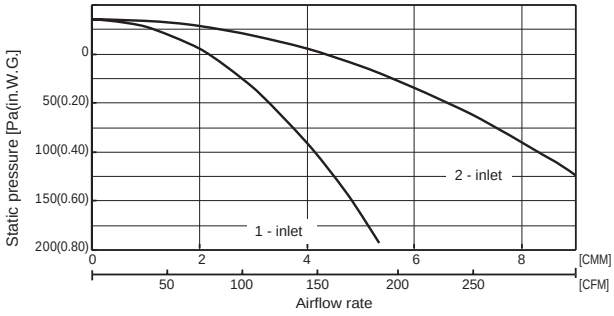
Note: An auxillary fan is required to bring outside air into the unit.

PLFY-P36NBMU-E

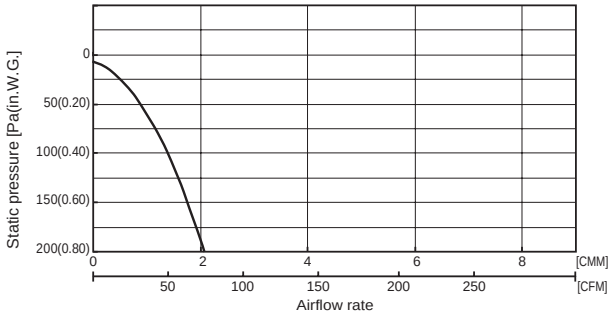
Multifunction casement + Standard filter



Multifunction casement + High efficiency filter



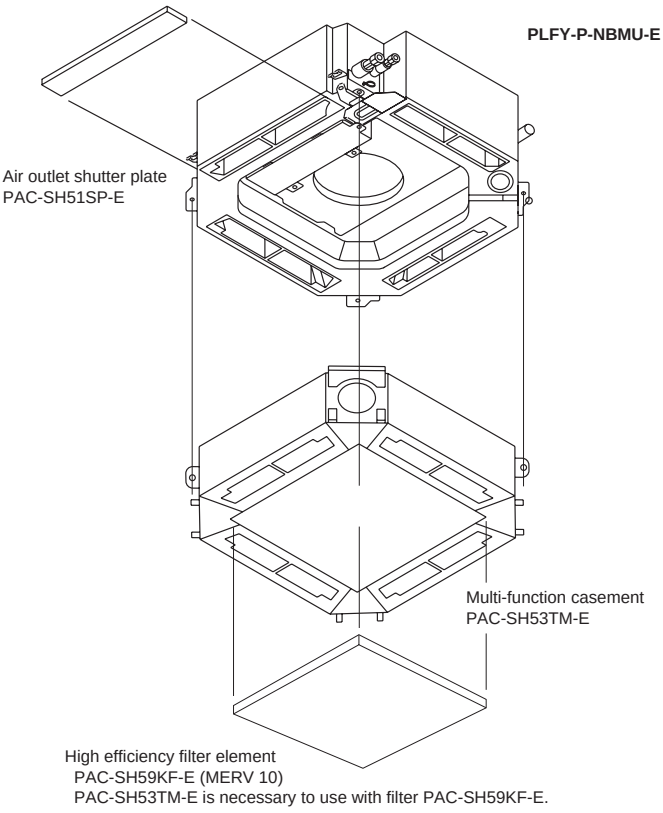
Taking air into the unit connection only



Note: An auxillary fan is required to bring outside air into the unit.

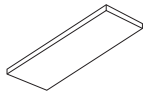
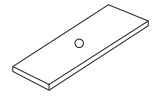
Note: To prevent sound issues, the airflow rate should be less than 75 CFM / inlet.

PLFY-P-NBMU-E



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

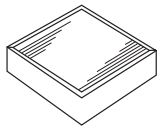
Using the air outlet shutter plate to block the air outlet to modify the air-way from 4 to 3 or 2.
With 1 PAC-SH51SP-E, 4 air-ways can be changed to 3;
With 2 PAC-SH51SP-E, 4 air-ways can be changed to 2;
Changing to 1 way is not allowed.
Material: Foamed polyethylene + foamed urethane, color: Black

Item	1. Shutter plate	2. Insulator	
Quantity	2	1	
Shape			

Detailed installation information should be referred to its Installation Manual.

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

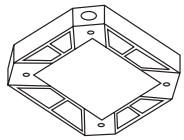
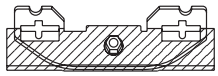
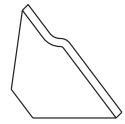
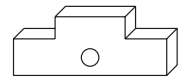
Life span: 2,500 hr (Dust concentration 0.15mg/m³); Colorimetric method 65% (JIS 11 class)); No re-production.
*.The actual dust situation affects the filter life span, which should be considered at the applying site.
Material: Electrostatic polyolefin fiber
High efficiency filter element PAC-SH59KF-E must 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-E

Multi-function casement is used for High efficiency filter element and/or ventilation air intake from outdoor.
It should be used with High efficiency filter element PAC-SH59KF-E (Colorimetric method 65%).
ventilation 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.

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

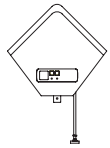
i-see sensor provides comfortable space as it detects the floor temperature to prevent spotty temperature.
It also enables the unit to save energy.
Attention
Make sure that there are no gaps between the unit and the grille, and the grille and ceiling.
It may cause condensate dripping.

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-E

Using the wireless signal receiver to use wireles remote controller.
The corner panel(the other side of refrigerant piping) is changed for the wireless signal receiver.

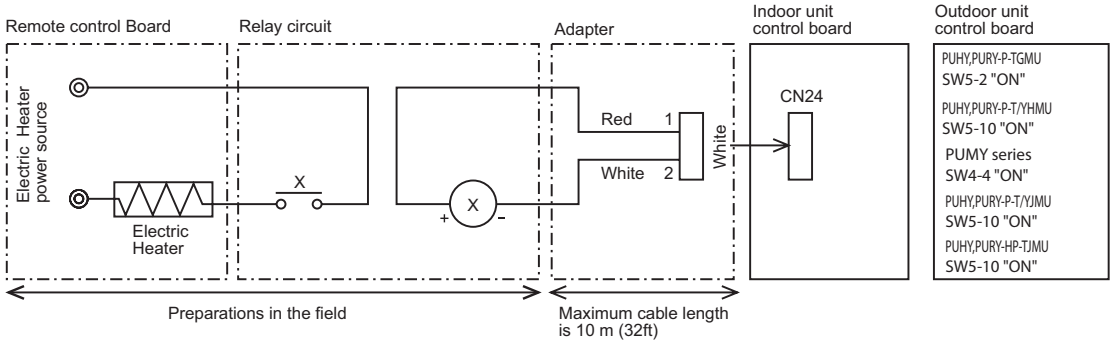
Item	1. Wireless signal receiver	
Quantity	1	
Shape		

Detailed installation information should be referred to its Installation Manual.

8-6. External Heater Adapter CN24RELAY-KIT-CM3

External heater adaptor CN24RELAY-KIT-CM3 is a set of special wiring parts for controlling the electric heater* with the air conditioner system.
*The electric heater should be designed and prepared at the site.

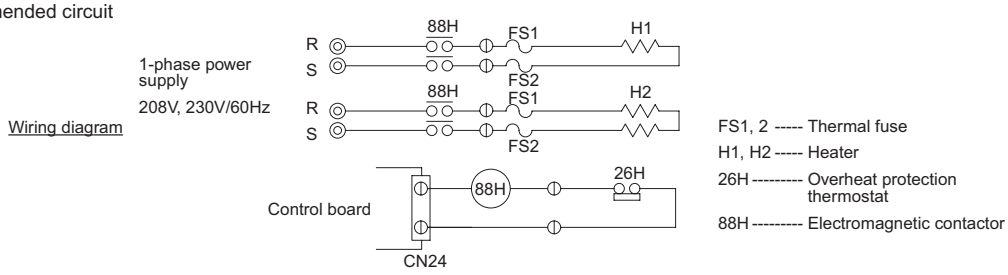
A basic connection method is shown as follows:(For details, refer to its Installation Manual.)

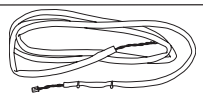
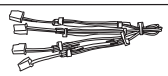


For relay X use the specifications given below Operation coil
- Rated voltage : 12VDC
- Power consumption : 0.9W or less

The length of the electrical wiring for the CN24RELAY-KIT-CM3 is 2 meters (6-1/2 ft)
To extend this length, use sheathed 2-core cable.
- Control cable type : CVV, CVS, CPEV or equivalent.
- Cable size : 0.5 mm^2 ~ 1.25 mm^2 (16 to 22 AWG)
- Don't extend the cable more than 10 meters (32ft)

Recommended circuit



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

Refer to the Installation Manual for wiring and installation details.