

AIR CONDITIONING SYSTEMS

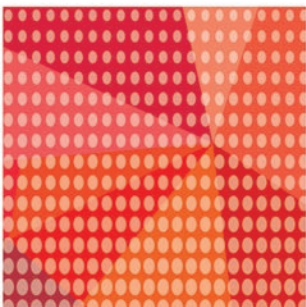
**HYBRID**  
CITY MULTI



# DATA BOOK

MODEL

**PLFY-WL-NFMU-E**



**PLFY-WL-NFMU-E**

1. SPECIFICATIONS .....	2
2. EXTERNAL DIMENSIONS .....	4
3. CENTER OF GRAVITY .....	5
4. ELECTRICAL WIRING DIAGRAMS .....	6
5. SOUND LEVELS .....	7
5-1. Sound levels .....	7
5-2. NC curves .....	7
6. TEMPERATURE/AIRFLOW DISTRIBUTIONS.....	8
6-1. Temperature distributions .....	8
6-2. Airflow distributions .....	9
7. OUTDOOR AIR INTAKE AMOUNT & STATIC PRESSURE .....	10
8. ELECTRICAL CHARACTERISTICS .....	11
9. OPTIONAL PARTS .....	12
9-1. Optional parts line up for the Indoor unit.....	12
9-2. 3D i-see Sensor corner panel .....	12
9-3. Wireless signal receiver .....	12

# 1. SPECIFICATIONS

Ceiling cassette (4-way flow type)

PLFY-WL-NFMU-E

Model		PLFY-WL04NFMU-E		PLFY-WL06NFMU-E		PLFY-WL08NFMU-E			
Power source		1-phase 208-230 V 60Hz							
Cooling capacity	*1	BTU/h	4,000	6,000	8,000				
	*1	kW	1.2	1.8	2.3				
		Power input	kW	0.02	0.02	0.03			
		Current input	A	0.23	0.26	0.29			
Heating capacity	*2	BTU/h	4,500	6,700	9,000				
	*2	kW	1.3	2.0	2.6				
		Power input	kW	0.02	0.02	0.03			
		Current input	A	0.17	0.20	0.23			
External finish		Galvanized steel plate							
External dimension H × W × D		inch	8-3/16 × 22-7/16 × 22-7/16	8-3/16 × 22-7/16 × 22-7/16	8-3/16 × 22-7/16 × 22-7/16				
		mm	208 × 570 × 570	208 × 570 × 570	208 × 570 × 570				
Net weight		lbs (kg)	29 (13)	31 (14)	31 (14)				
Decoration panel	Model		SLP-18FAU		SLP-18FAU		SLP-18FAU		
	External finish		MUNSELL (1.0Y 9.2/0.2)						
	Dimension		inch	13/32 × 24-19/32 × 24-19/32	13/32 × 24-19/32 × 24-19/32	13/32 × 24-19/32 × 24-19/32			
	H × W × D		mm	10 × 625 × 625	10 × 625 × 625	10 × 625 × 625			
	Net weight		lbs (kg)	7 (3)	7 (3)	7 (3)			
Heat exchanger		Cross fin (Aluminum fin and copper tube)							
Water Volume		L	0.5	0.9	0.9				
FAN	Type × Quantity		Turbo fan × 1		Turbo fan × 1		Turbo fan × 1		
	External static press.	in.WG	0	0	0				
		Pa	0	0	0				
	Motor Type		DC motor						
	Motor output	kW	0.05	0.05	0.05				
	Driving mechanism		Direct-driven						
	Air flow rate			(Low-Mid-High)		(Low-Mid-High)		(Low-Mid-High)	
				cfm	212-230-247	230-247-282	230-265-318		
		m <sup>3</sup> /min	6.0-6.5-7.0	6.5-7.0-8.0	6.5-7.5-9.0				
		L/s	100-108-117	108-117-133	108-125-150				
Sound pressure level (measured in anechoic room)				(Low-Mid-High)		(Low-Mid-High)			
		dB <A>		25-26-27	27-29-31	27-30-34			
Insulation material		PS							
Air filter		PP honeycomb fabric (long life type)							
Protection device		Fuse							
Refrigerant control device		-							
Connectable HBC controller		CMB-WP-NU-AA, CMB-WP-NU-AB		CMB-WP-NU-AA, CMB-WP-NU-AB		CMB-WP-NU-AA, CMB-WP-NU-AB			
Water piping diameter *3, 4	Connection size	Inlet	mm O.D.	22	22	22			
		Outlet	mm O.D.	22	22	22			
	Field pipe size	Inlet	mm I.D.	20	20	20			
		Outlet	mm I.D.	20	20	20			
Field drain pipe size		inch (mm)	O.D. 1-1/4 (32)	O.D. 1-1/4 (32)	O.D. 1-1/4 (32)				
Drawing	External		VK01B212		VK01B212		VK01B212		
	Wiring		VG79N319		VG79N319		VG79N319		
	Refrigerant cycle		-		-		-		
Standard attachment	Document		Installation Manual, Installation Book						
	Accessory		Insulation template, Washer, Drain socket, Tie band						
Optional parts	Decoration panel		SLP-18FAU		SLP-18FAU		SLP-18FAU		
	3D i-see Sensor panel		SLP-18FAEU		SLP-18FAEU		SLP-18FAEU		
	3D i-see Sensor corner panel		PAC-SF1ME-E		PAC-SF1ME-E		PAC-SF1ME-E		
	Wireless signal receiver		PAR-SF9FA-E		PAR-SF9FA-E		PAR-SF9FA-E		
Remarks		* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. * Due to continuing improvement, above specification may be subject to change without notice.							

Notes:	Unit converter
1. Nominal cooling conditions Indoor: 80°F D.B./67°F W.B. (26.7°C D.B./19.4°C W.B.), Outdoor: 95°F D.B. (35°C D.B.) Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m)	BTU/h = kW × 3.412 cfm = m <sup>3</sup> /min × 35.31 lbs = kg/0.4536
2. Nominal heating conditions Indoor: 70°F D.B. (21.1°C D.B.), Outdoor: 47°F D.B./43°F W.B. (8.3°C D.B./6.1°C W.B.) Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m)	
3. Be sure to install a valve on the water inlet/outlet.	
4. Install a strainer (40 mesh or more) on the pipe next to the valve to remove the foreign matters.	*Above specification data is subject to rounding variation.

# 1. SPECIFICATIONS

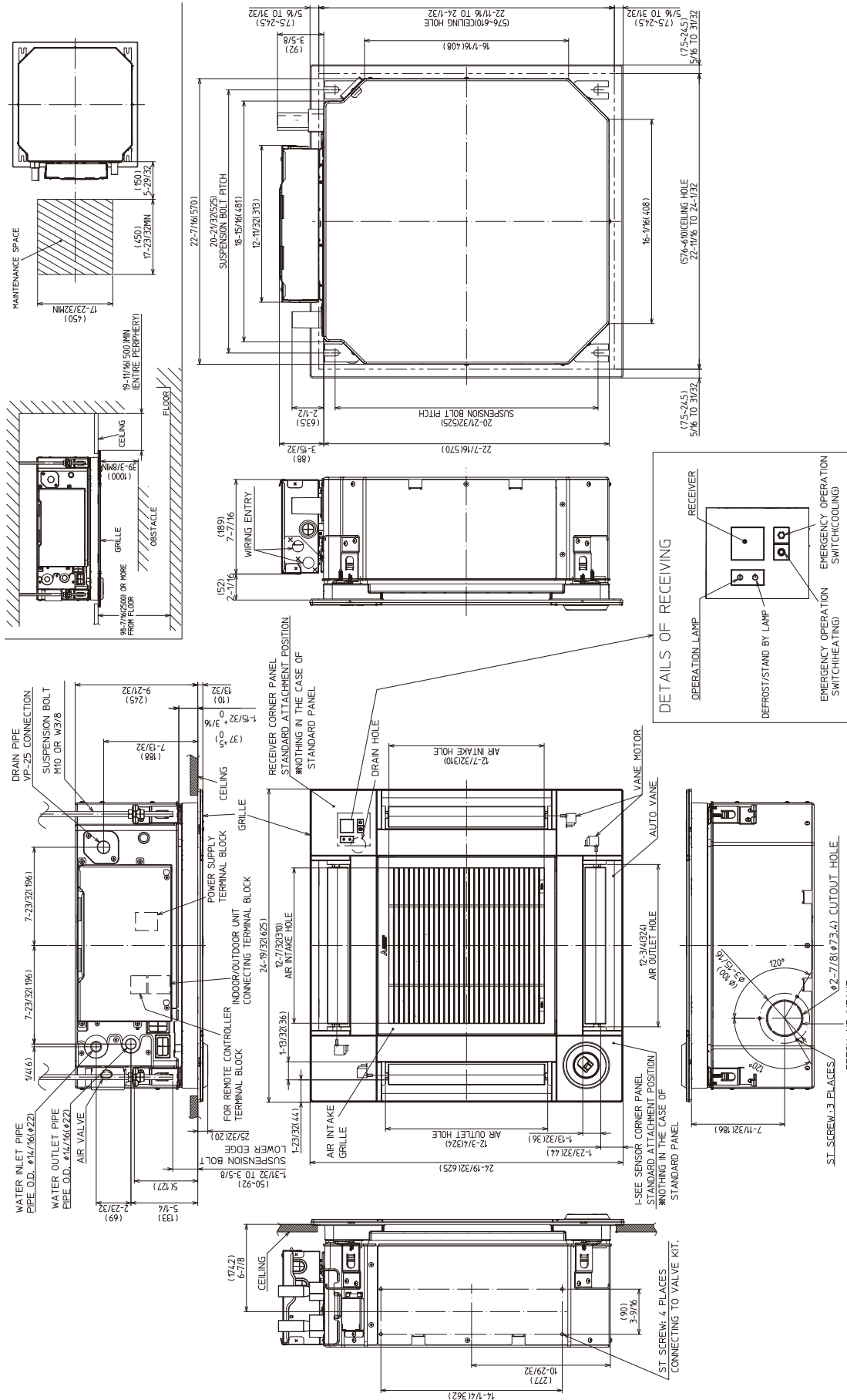
Ceiling cassette (4-way flow type)

Model				PLFY-WL12NFMU-E	PLFY-WL15NFMU-E	
Power source				1-phase 208-230 V 60Hz		
Cooling capacity	*1	BTU/h	12,000	15,000		
		*1 kW	3.5	4.4		
	Power input	kW	0.04	0.05		
		Current input	A	0.38	0.46	
Heating capacity	*2	BTU/h	13,500	17,000		
		*2 kW	4.0	5.0		
	Power input	kW	0.04	0.05		
		Current input	A	0.32	0.40	
External finish				Galvanized steel plate		
External dimension H × W × D		inch	8-3/16 × 22-7/16 × 22-7/16	8-3/16 × 22-7/16 × 22-7/16		
		mm	208 × 570 × 570	208 × 570 × 570		
Net weight		lbs (kg)	31 (14)	31 (14)		
Decoration panel	Model		SLP-18FAU	SLP-18FAU		
	External finish		MUNSELL (1.0Y 9.2/0.2)			
	Dimension	inch	13/32 × 24-19/32 × 24-19/32	13/32 × 24-19/32 × 24-19/32		
		mm	10 × 625 × 625	10 × 625 × 625		
	H × W × D					
Net weight		lbs (kg)	7 (3)	7 (3)		
Heat exchanger		Cross fin (Aluminum fin and copper tube)				
Water Volume		L	0.9	0.9		
FAN	Type × Quantity		Turbo fan × 1	Turbo fan × 1		
	External static press.	in.WG	0	0		
		Pa	0	0		
	Motor Type		DC motor			
	Motor output	kW	0.05	0.05		
	Driving mechanism		Direct-driven			
	Air flow rate	(Low-Mid-High)		(Low-Mid-High)		
		cfm	230-318-424	230-406-459		
m <sup>3</sup> /min		6.5-9.0-12.0	6.5-11.5-13.0			
	L/s	108-150-200	108-192-217			
Sound pressure level (measured in anechoic room)		(Low-Mid-High)		(Low-Mid-High)		
		dB <A>	27-33-41	27-40-43		
Insulation material		PS				
Air filter		PP honeycomb fabric (long life type)				
Protection device		Fuse				
Refrigerant control device		-				
Connectable HBC controller		CMB-WP-NU-AA, CMB-WP-NU-AB		CMB-WP-NU-AA, CMB-WP-NU-AB		
Water piping diameter *3, 4	Connection size	Inlet	mm O.D.	22	22	
		Outlet	mm O.D.	22	22	
	Field pipe size	Inlet	mm I.D.	20	20	
		Outlet	mm I.D.	20	20	
Field drain pipe size		inch (mm)	O.D. 1-1/4 (32)	O.D. 1-1/4 (32)		
Drawing	External		VK01B212	VK01B212		
	Wiring		VG79N319	VG79N319		
	Refrigerant cycle		-	-		
Standard attachment	Document		Installation Manual, Installation Book			
	Accessory		Insulation template, Washer, Drain socket, Tie band			
Optional parts	Decoration panel		SLP-18FAU	SLP-18FAU		
	3D i-see Sensor panel		SLP-18FAEU	SLP-18FAEU		
	3D i-see Sensor corner panel		PAC-SF1ME-E	PAC-SF1ME-E		
	Wireless signal receiver		PAR-SF9FA-E	PAR-SF9FA-E		
Remarks		* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual. * Due to continuing improvement, above specification may be subject to change without notice.				

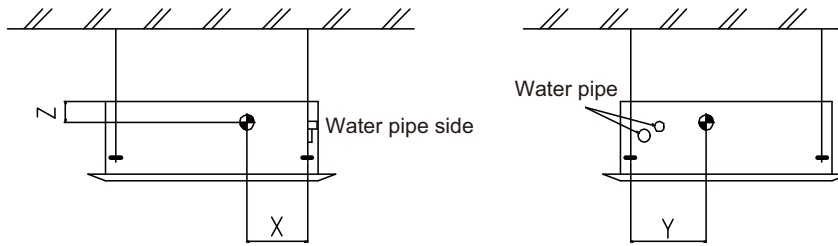
Notes:	Unit converter
1.Nominal cooling conditions Indoor: 80°F D.B./67°F W.B. (26.7°C D.B./19.4°C W.B.), Outdoor: 95°F D.B. (35°C D.B.) Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m)	BTU/h = kW × 3.412 cfm = m <sup>3</sup> /min × 35.31 lbs = kg/0.4536
2.Nominal heating conditions Indoor: 70°F D.B. (21.1°C D.B.), Outdoor: 47°F D.B./43°F W.B. (8.3°C D.B./6.1°C W.B.) Pipe length: 25 ft. (7.6 m), Level difference: 0 ft. (0 m)	
3.Be sure to install a valve on the water inlet/outlet.	
4.Install a strainer (40 mesh or more) on the pipe next to the valve to remove the foreign matters.	
	*Above specification data is subject to rounding variation.

PLFY-WL04, 06, 08, 12, 15NFMU-E

Unit: in. (mm)



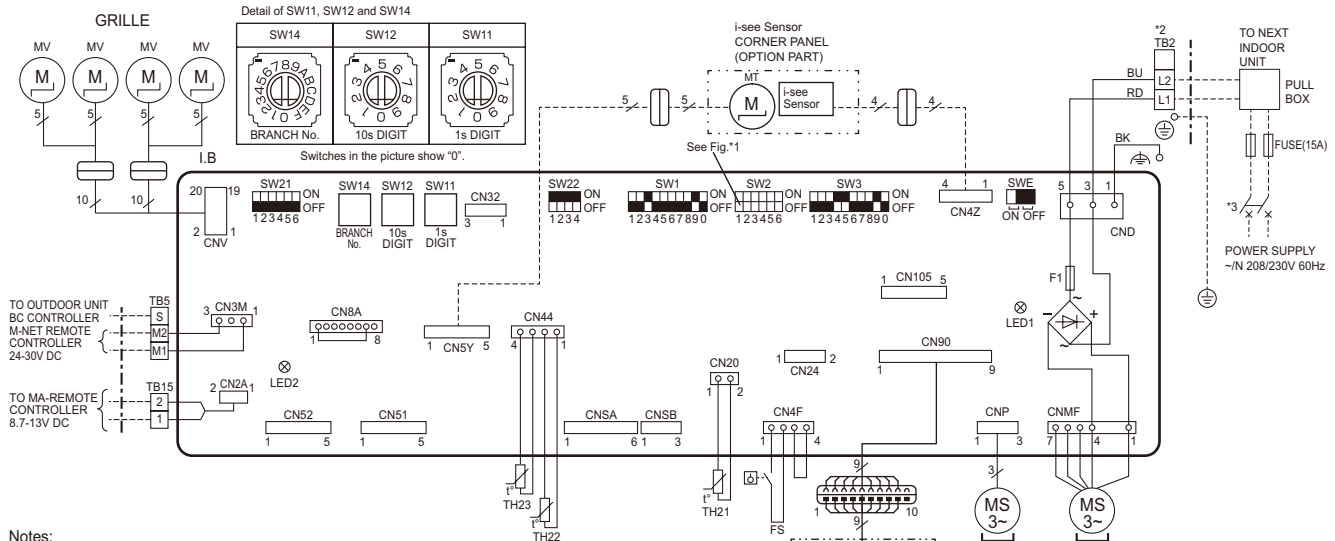
PLFY-WL04, 06, 08, 12, 15NFMU-E



(mm)[in]

Model name	X	Y	Z
PLFY-WL04NFMU-E	200 [7-7/8]	260 [10-1/4]	85 [3-3/8]
PLFY-WL06NFMU-E	200 [7-7/8]	260 [10-1/4]	85 [3-3/8]
PLFY-WL08NFMU-E	200 [7-7/8]	260 [10-1/4]	85 [3-3/8]
PLFY-WL12NFMU-E	200 [7-7/8]	260 [10-1/4]	85 [3-3/8]
PLFY-WL15NFMU-E	200 [7-7/8]	260 [10-1/4]	85 [3-3/8]

PLFY-WL04, 06, 08, 12, 15NFMU-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 ME-Remote controller, please connect to TB5. (Transmission line is non-polar.)
4. Symbol [S] of TB5 is the shield wire connection.
5. Symbols used in wiring diagram above are, [ ]: terminal block, [ ]: connector.
6. The setting of the SW2 differs in the capacity. For the detail, refer to the Fig.\*1.
7. Make sure to turn off the indoor and the outdoor units before replacing indoor controller board.
8. ■ is the switch position.

\*2 Use copper supply wires.  
Utilisez des fils d'alimentation en cuivre.

\*3 A disconnect should be required by local code.  
Se procurer un sectionneur conforme aux réglementations Locales.

<Fig.\*1> SW2 (CAPACITY CODE)

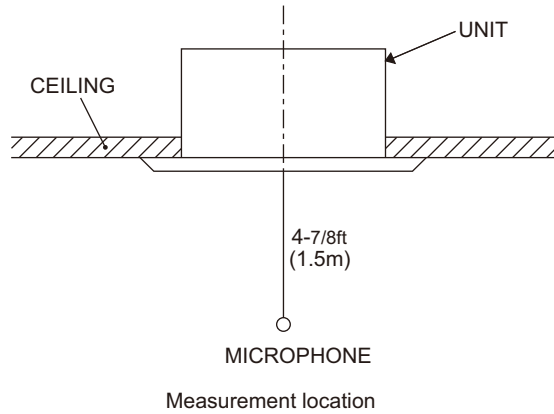
MODELS	SW2	MODELS	SW2
WL04	ON OFF 123456	WL12	ON OFF 123456
WL06	ON OFF 123456	WL15	ON OFF 123456
WL08	ON OFF 123456		

[LEGEND]

SYMBOL	NAME
I.B	INDOOR CONTROLLER BOARD
CN24	EXTERNAL HEATER
CN32	REMOTE SWITCH
CN51	CENTRALLY CONTROL
CN52	REMOTE INDICATION
CN105	IT TERMINAL
F1	FUSE(T6.3AL 250V)
LED1	POWER SUPPLY (I.B)
LED2	POWER SUPPLY (MA-REMOTE CONTROLLER)
SW1	MODE SELECTION
SW2	CAPACITY CODE
SW3	MODE SELECTION
SW11	ADDRESS SETTING 1s DIGIT
SW12	ADDRESS SETTING 10s DIGIT
SW14	BRANCH No.
SW21	CEILING HEIGHT SELECTOR
SW22	PAIR NO. SETTING
SWE	DRAIN PUMP (TEST MODE)
DP	DRAIN PUMP
MF	FAN MOTOR
MV	VANE MOTOR
FS	FLOAT SWITCH
TB2	TERMINAL BLOCK
TB5	TRANSMISSION BLOCK
TB15	MA-REMOTE CONTROLLER
TH21	ROOM TEMP. THERMISTOR
TH22	PIPE TEMP. THERMISTOR (INLET)
TH23	PIPE TEMP. THERMISTOR (OUTLET)
OPTION PART	
W.B	WIRELESS REMOTE CONTROLLER BOARD
BZ	BUZZER
LED1	OPERATION (GREEN)
LED2	STAND BY (ORANGE)
RU	RECEIVING UNIT
SW1	EMERGENCY OPERATION(HEAT)
SW2	EMERGENCY OPERATION(COOL)
MT	i-see Sensor MOTOR

5-1. Sound levels

Ceiling cassette series

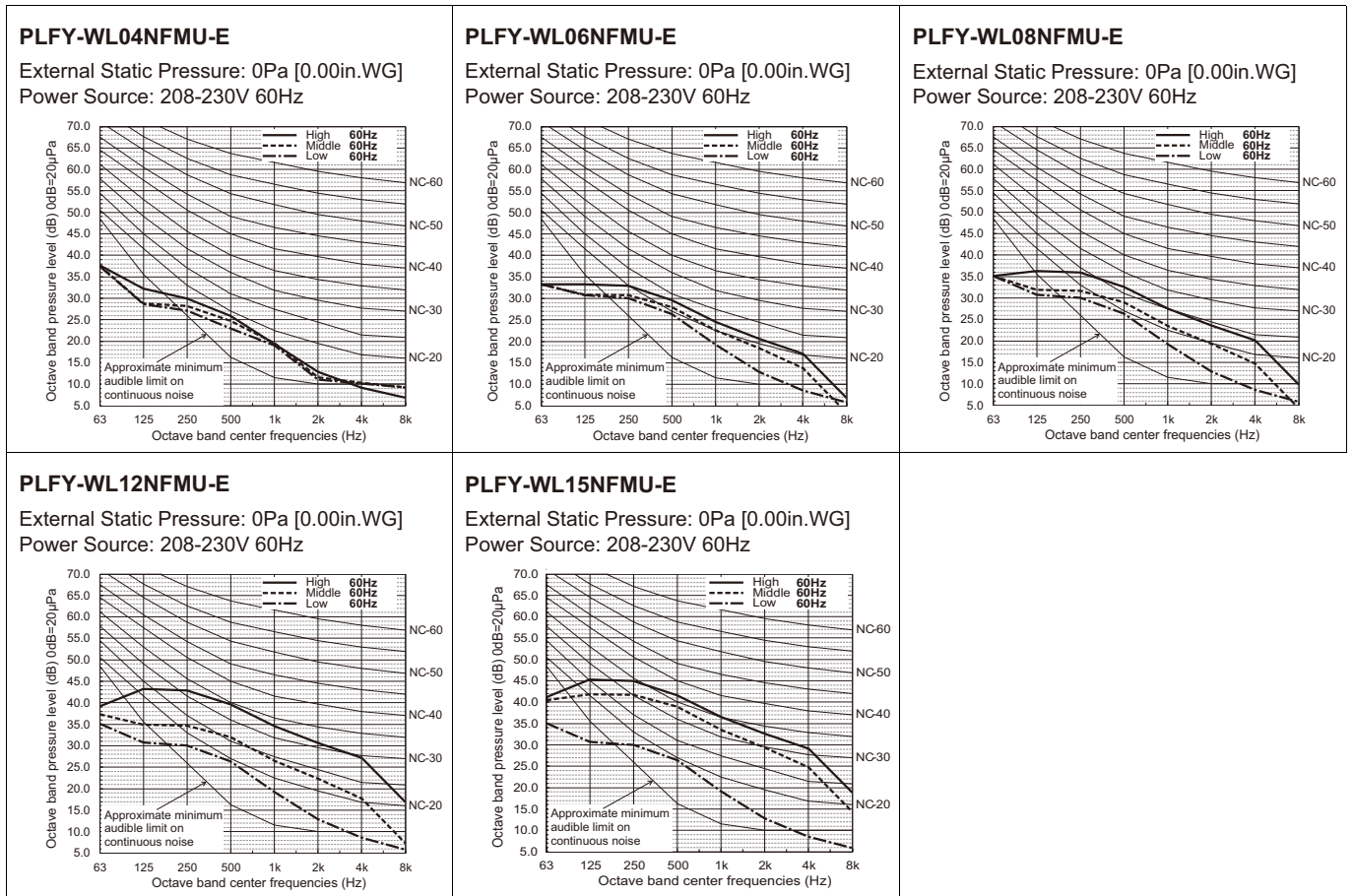


Operating sound levels (Low-Mid-High)

Model	Sound level (A weighted)
PLFY-WL04NFMU-E	25-26-27
PLFY-WL06NFMU-E	27-29-31
PLFY-WL08NFMU-E	27-30-34
PLFY-WL12NFMU-E	27-33-41
PLFY-WL15NFMU-E	27-40-43

Unit: dB(A)

5-2. NC curves

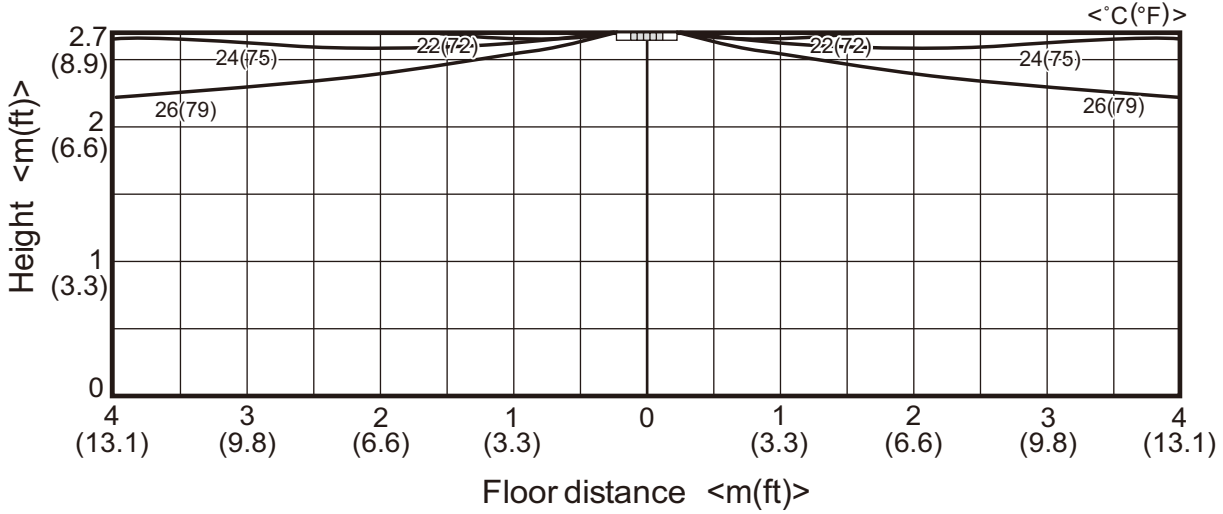




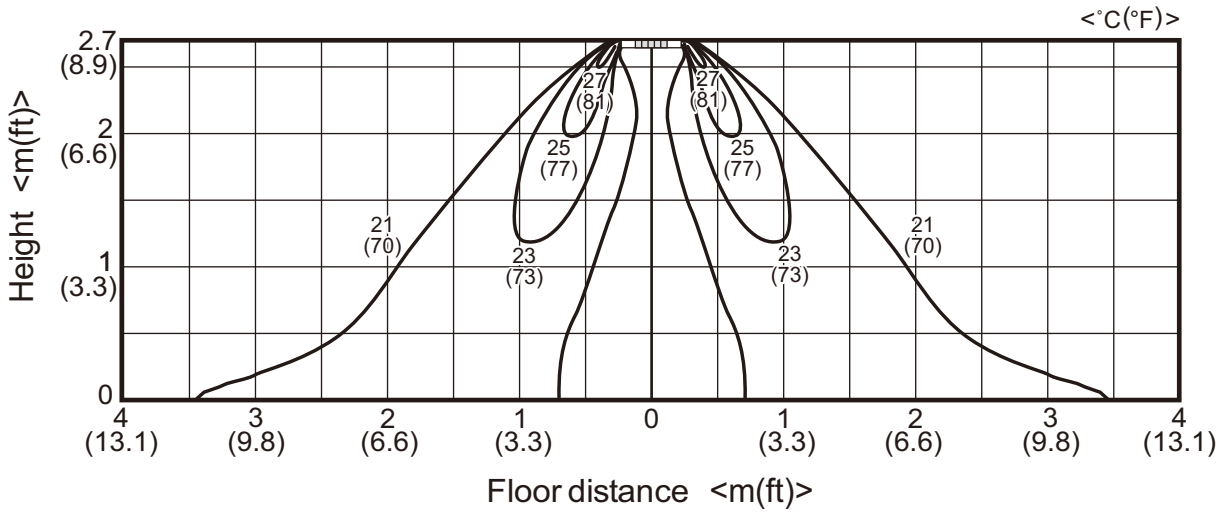
6-1. Temperature distributions

PLFY-WL12NFMU-E

<Cooling mode> Standard  
 Flow angle : 10° 4-way flow  
 Ceiling height : 2.7m (8.9ft)



<Heating mode> Standard  
 Flow angle : 60° 4-way flow  
 Ceiling height : 2.7m (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.

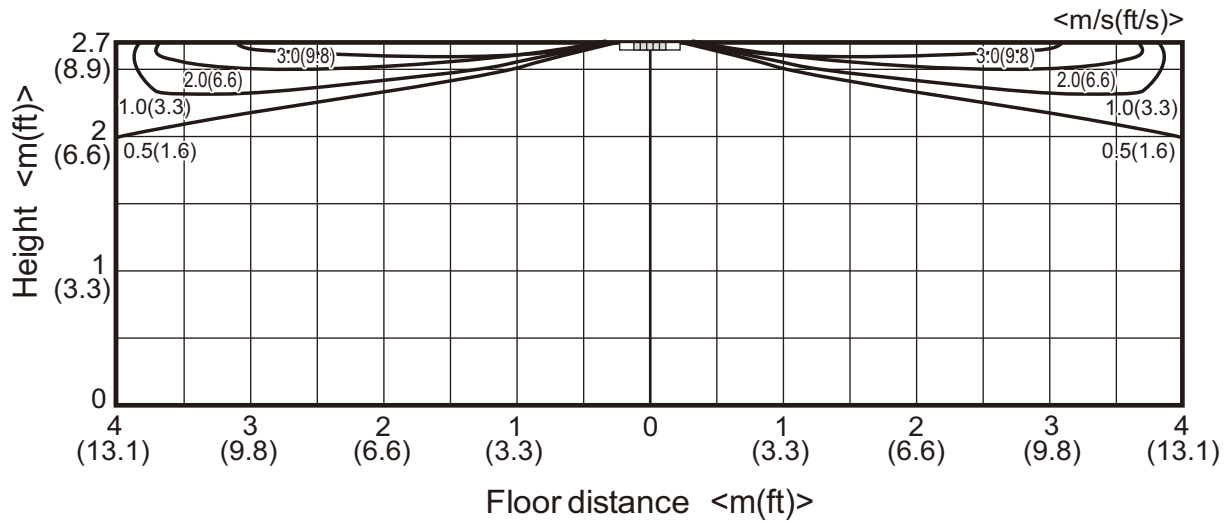
6-2. Airflow distributions

PLFY-WL04-15NFMU-E

<Cooling mode> Standard

Flow angle : 10° 4-way flow

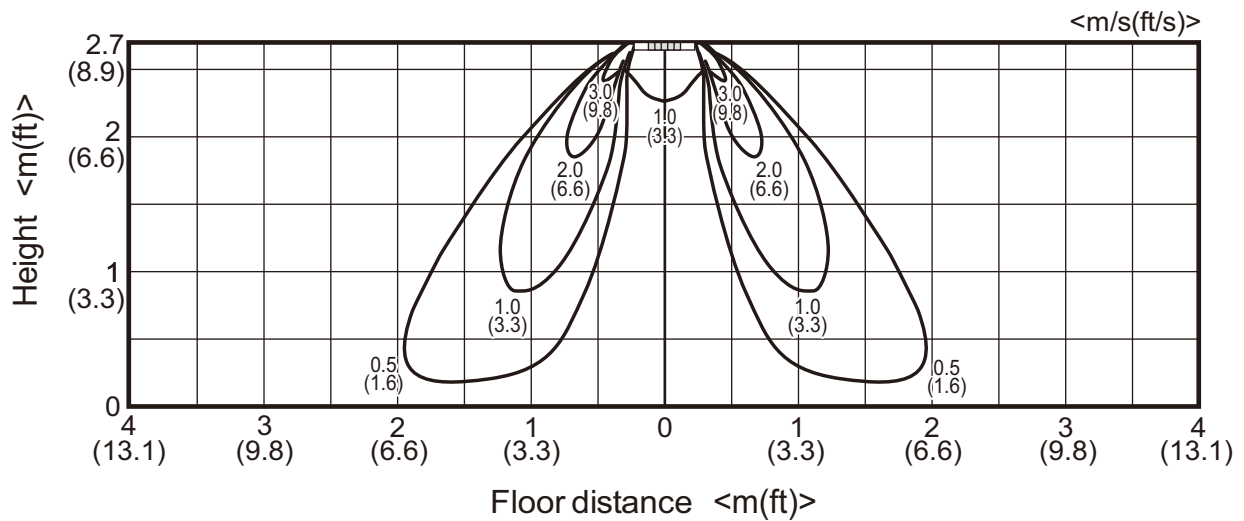
Ceiling height : 2.7m (8.9ft)



<Heating mode> Standard

Flow angle : 60° 4-way flow

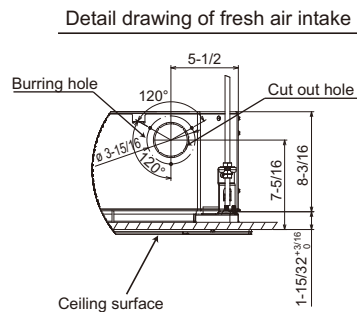
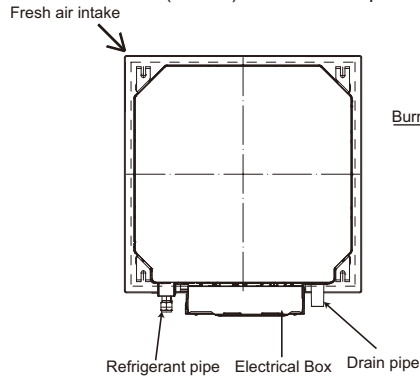
Ceiling height : 2.7m (8.9ft)



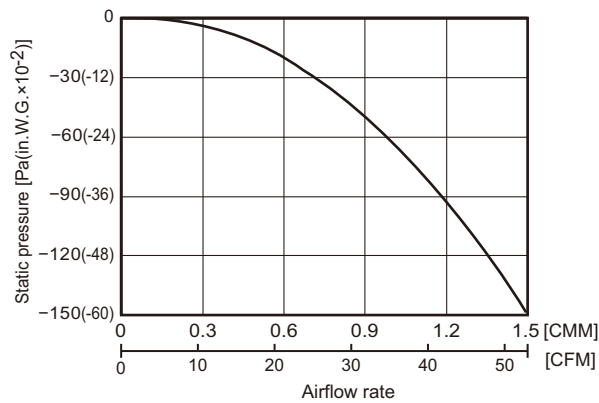
Note : These figures show typical airflow distributions in the conditions above. In the actual installation, they may differ from these figures under the influence of air temperature conditions, ceiling height, cooling/heating load, obstacles, etc.

● PLFY-WL04, 06, 08, 12, 15NFMU-E

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

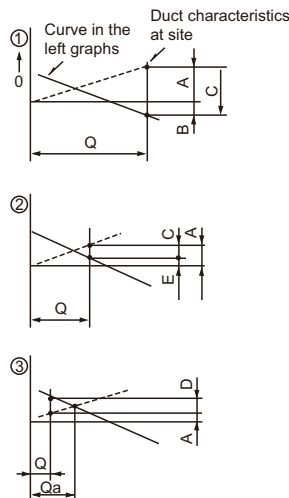


Taking air into the unit



NOTE: Fresh air intake amount should be 10% or less of whole air amount to prevent dew dripping.

How to read curves



- Q...Designed amount of fresh air intake <CMM (CFM)>
- A...Static pressure loss of fresh air intake duct system with air flow amount Q <Pa (in.W.G.×10<sup>-2</sup>)>
- B...Forced static pressure at air conditioner inlet with air flow amount Q <Pa (in.W.G.×10<sup>-2</sup>)>
- C...Static pressure of booster fan with air flow amount Q <Pa (in.W.G.×10<sup>-2</sup>)>
- D...Static pressure loss increase amount of fresh air intake duct system for air flow amount Q <Pa (in.W.G.×10<sup>-2</sup>)>
- E...Static pressure of indoor unit with air flow amount Q <Pa (in.W.G.×10<sup>-2</sup>)>
- Qa...Estimated amount of fresh air intake without D <CMM (CFM)>

## 8. ELECTRICAL CHARACTERISTICS

Ceiling cassette (4-way flow type)

Symbols: MCA: Minimum Circuit Ampacity (=1.25xFLA) FLA: Full Load Amps

IFM: Indoor Fan Motor Output: Fan motor rated output

Model	Indoor Unit				IFM	
	Hz	Volts	Voltage range	MCA(A)	Output (kW)	FLA(A)
PLFY-WL04NFMU-E	60Hz	208/230V	187 to 253V	0.36	0.05	0.29
PLFY-WL06NFMU-E				0.36	0.05	0.29
PLFY-WL08NFMU-E				0.36	0.05	0.29
PLFY-WL12NFMU-E				0.36	0.05	0.29
PLFY-WL15NFMU-E				0.36	0.05	0.29



PLFY-WL-NFMU-E

### 9-1. Optional parts line up for the Indoor unit

	Description	Model
PLFY-WL-NFMU-E	Decoration panel	SLP-18FAU
	3D i-see Sensor corner panel	PAC-SF1ME-E
	3D i-see Sensor panel	SLP-18FAEU
	Wireless signal receiver	PAR-SF9FA-E

### 9-2. 3D i-see Sensor corner panel


3D 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	3D i-see Sensor corner panel	Plastic fastener	
Quantity	1	2	
Shape			

Detailed installation information should be referred to its Installation Manual.

### 9-3. Wireless signal receiver

Wireless signal receiver PAR-SF9FA-E is necessary for using wireless remote controller  
 PAR-SF9FA-E is a corner panel with the signal receiver for wireless remote controller.

Item	Wireless signal receiver	
Quantity	1	
Shape		

Detailed installation information should be referred to its Installation Manual.

**⚠ Warning**

- Do not use refrigerant other than the type indicated in the manuals provided with the unit and on the nameplate.
  - Doing so may cause the unit or pipes to burst, or result in explosion or fire during use, repair, or at the time of disposal of the unit.
  - It may also be in violation of applicable laws.
  - MITSUBISHI ELECTRIC CORPORATION cannot be held responsible for malfunctions or accidents resulting from the use of the wrong type of refrigerant.
- Our air conditioning equipment and heat pumps contain a fluorinated greenhouse gas, R410A.

**MITSUBISHI ELECTRIC CORPORATION**

[www.MitsubishiElectric.com](http://www.MitsubishiElectric.com)