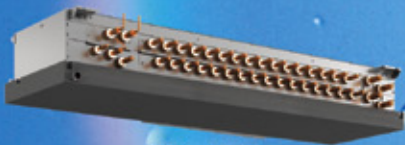


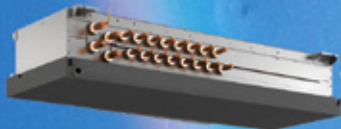
AIR CONDITIONING SYSTEMS

*AN3 for YLM series*

HBC CONTROLLER



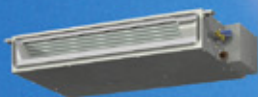
Main-HBC



Sub-HBC

**HYBRID**  
CITY MULTI

INDOOR UNIT



Slim ceiling-concealed type



Middle static pressure  
ceiling-concealed type



4-way flow  
ceiling cassette type



Floor standing  
concealed type

OUTDOOR UNIT



HEAT SOURCE UNIT



# Mitsubishi Electric's

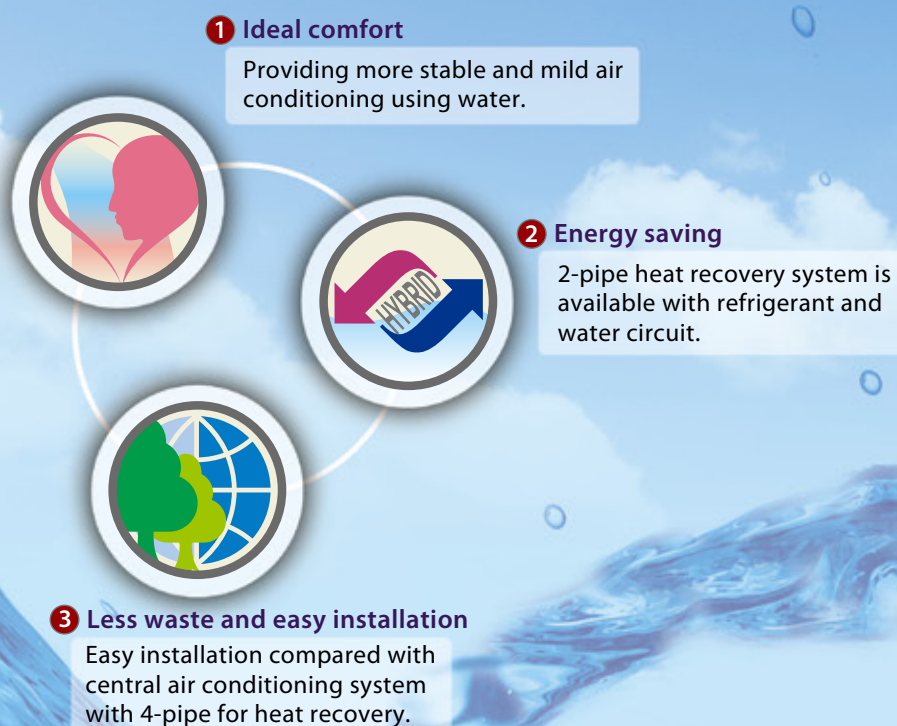


# HYBRID CITY MULTI

## -The industry's first and only technology-

As a leading company in the industry, Mitsubishi Electric has developed the HYBRID CITY MULTI as a top-of-the-line CITY MULTI system by using the industry's first and only technology.

The HYBRID CITY MULTI contains the following three elements of HYBRID.



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The HYBRID CITY MULTI is the industry's first system which uses refrigerant between the outdoor/heat source unit and the HBC (Hydro BC controller), and water between the "HBC" and the indoor units. "HBC" is the most unique part in this system and allows heat exchange between refrigerant and water.

The HYBRID CITY MULTI system uses Mitsubishi Electric's original technology and provides mild air-conditioning. This system is suitable for a wide variety of installations by allowing centralized control, individual operation, and simultaneous cooling and heating with heat recovery just like our existing systems do.

# The reason why HYBRID CITY MULTI is unbeatable

## - System Structure and Features -

HYBRID CITY MULTI is a system that uses both refrigerant and water, which was made a reality by the development of the "HBC". The refrigerant between the outdoor unit and the "HBC" produces comfortable air conditioning, and so does the water between the "HBC" and the indoor units.

### ■ Less refrigerant

The refrigerant is used only between the outdoor unit and the "HBC", contributing to the reduction of the refrigerant. The refrigerant does not flow from the "HBC" to the indoor units.

Patented technology

The system monitors high pressure, low pressure, and the operation to set an appropriate compressor frequency.

R2/WR2 only

NEW

New water heat source unit (WR2) expands the installation site in high rises, frigid climates, coastal area, etc.

Heat source unit

Outdoor unit

PQRY-P-YLM-A1

PURY-(E)P-YLM-A(1)

Refrigerant R410A

Refrigerant 2 pipes

High pressure gas-liquid 2-phase refrigerant

Cooling plate heat exchanger

HBC controller

### ■ "HBC": the first and only technology

The HYBRID CITY MULTI was developed by using our own technology with the "HBC".

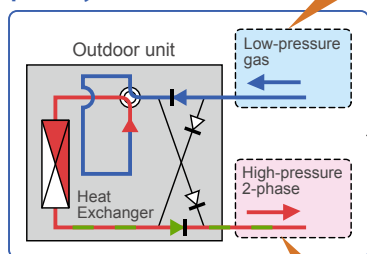
### ■ Heat exchange

The "HBC" is the most unique part in this system to exchange heat between refrigerant and water.

### ■ Simultaneous cooling/heating operation

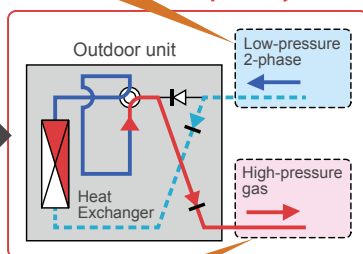
Provides air conditioning corresponding to various needs. With the 2-pipe system, the direction of refrigerant flow does not reverse when the cooling/heating priority mode switches. The compressor does not need to stop when the mode switches, and this allows comfortable air conditioning.

Cooling priority mode



The direction of flow is always constant.

Heating priority mode



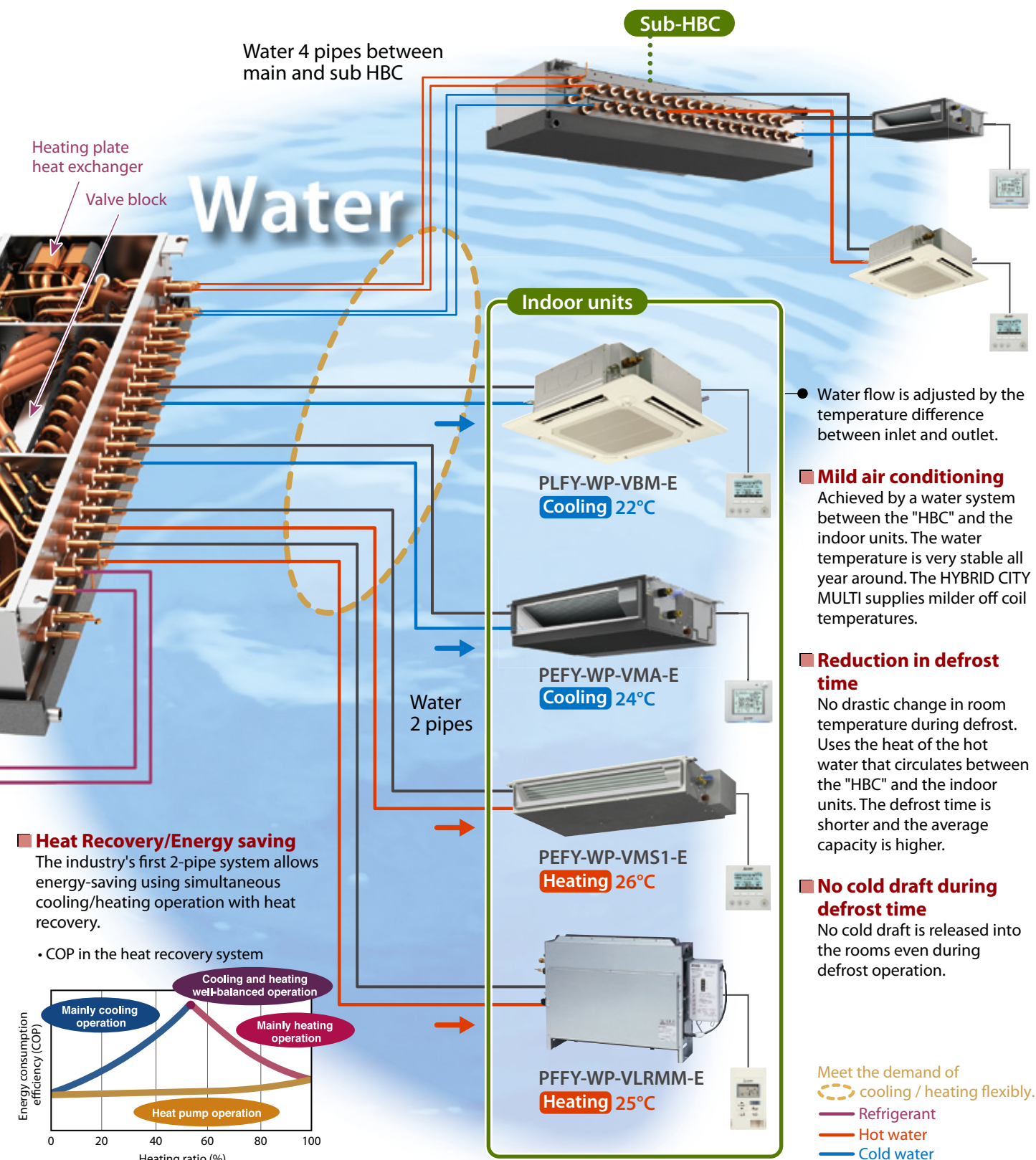
The direction of flow is always constant.

### ■ Cooling Priority Mode

If the cooling load is larger than the heating load, the outdoor/heat source unit operates the cooling priority mode which is its heat exchangers work as condenser.

### ■ Heating Priority Mode

If the heating load is larger than the cooling load, the outdoor/heat source unit operates the heating priority mode which is its heat exchangers work as evaporator.



Water 4 pipes between main and sub HBC

Water

Heating plate heat exchanger  
Valve block

Sub-HBC

Indoor units

PLFY-WP-VBM-E  
Cooling 22°C

PEFY-WP-VMA-E  
Cooling 24°C

PEFY-WP-VMS1-E  
Heating 26°C

PFFY-WP-VLRMM-E  
Heating 25°C

Water 2 pipes

Water flow is adjusted by the temperature difference between inlet and outlet.

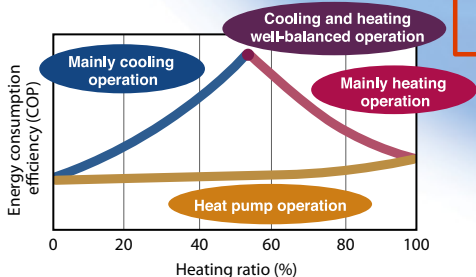
**Mild air conditioning**  
Achieved by a water system between the "HBC" and the indoor units. The water temperature is very stable all year around. The HYBRID CITY MULTI supplies milder off coil temperatures.

**Reduction in defrost time**  
No drastic change in room temperature during defrost. Uses the heat of the hot water that circulates between the "HBC" and the indoor units. The defrost time is shorter and the average capacity is higher.

**No cold draft during defrost time**  
No cold draft is released into the rooms even during defrost operation.

**Heat Recovery/Energy saving**  
The industry's first 2-pipe system allows energy-saving using simultaneous cooling/heating operation with heat recovery.

COP in the heat recovery system



Meet the demand of cooling / heating flexibly.  
 - Refrigerant  
 - Hot water  
 - Cold water

## - Features -



Energy saving

### ● Energy-saving

Save more energy by heat recovery operation if cooling and heating operations are required at the same time. The more frequently cooling and heating simultaneous operation occurs, the higher the energy-saving effect becomes. Even higher efficiency operation is now possible by utilizing the centralized control and the scheduled operation.

### ● R410A refrigerant

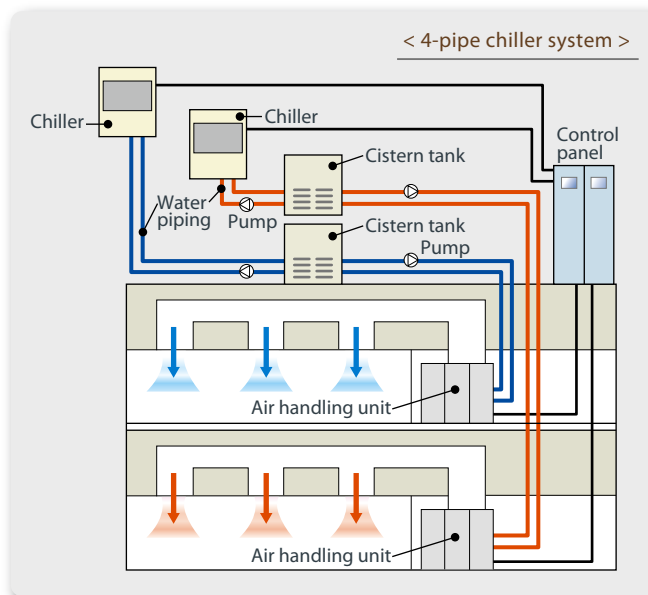
R410A refrigerant allows higher heat transfer than R22. The environmentally-friendly system has been made a reality by the significantly higher COP and the reduction of CO<sub>2</sub> emissions.

Comparison of COP in cooling/heating average (COP for outdoor unit only, not for the whole system)	8HP	10HP
R22 system PURY-Y(S)MF-B model	2.80	2.78
CITY MULTI PURY-EP-YLM-A1 model	3.59	3.20
Comparison	<b>128%</b>	<b>115%</b>

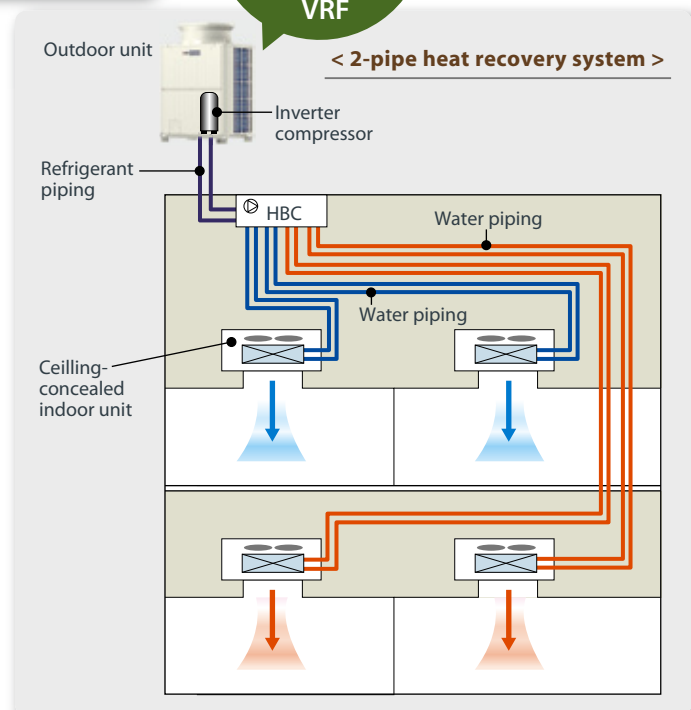


## ● Less material/equipment

This is Mitsubishi Electric's unique 2-pipe heat recovery system, which requires less pipes than a 4-pipe chiller system. Also, this system does not need the external pump, tank, and control panel that are usually necessary for chillers. A saving of natural resources in the entire system has been accomplished.



Using an equally small number of materials and equipment as VRF



# - Features -



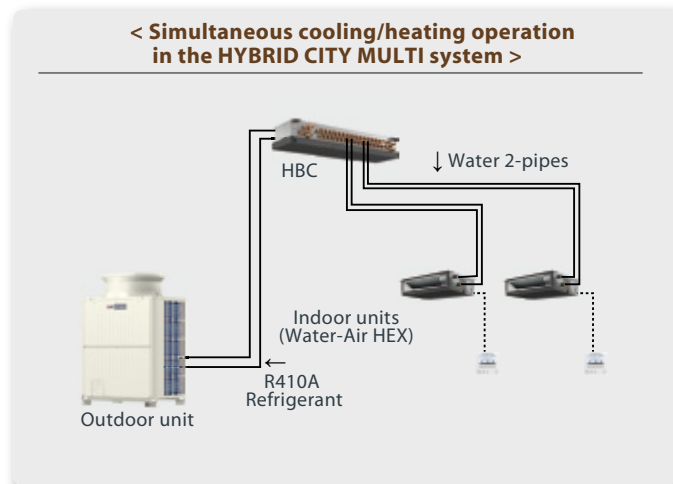
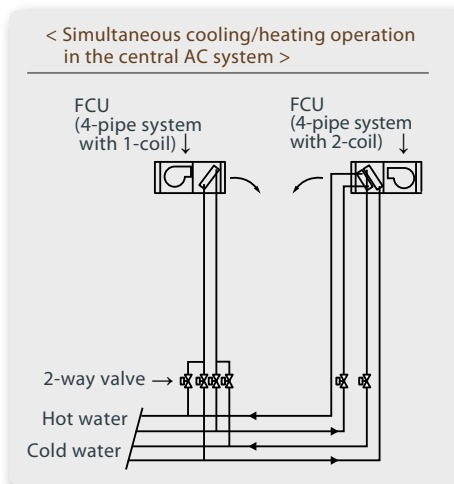
Less waste and easy installation

## ● Less installation work

Achieved by the world's first and only 2-pipe system that allows easier installation than a central Air Conditioning system. A central AC system requires 2 heat source pipes and 4-pipes.

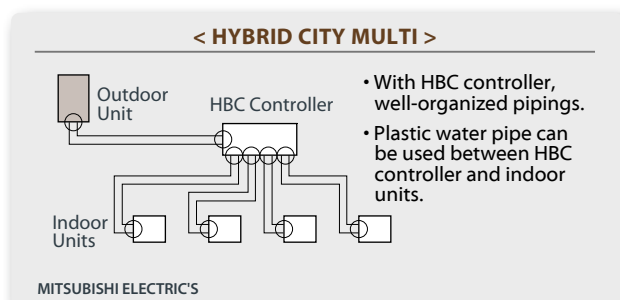
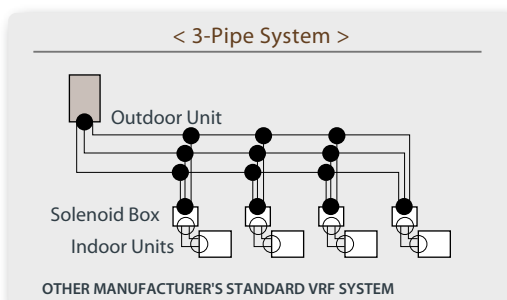
With this 2-pipe system, we have drastically reduced the number of piping connections compared to a standard VRF 3-pipe system. A smaller number of piping connections lead to an improvement in reliability and simpler piping installation. Also, brazing is not necessary if plastic water pipe is used between the "HBC" and the indoor units.

Comparison example of Central AC system and HYBRID CITY MULTI



Comparison example of piping connections

○ = 2 sites ● = 3 sites







## - Application example -

The HYBRID CITY MULTI is suitable for various places that require individual settings (e.g., offices/hotels/hospitals/nursing homes) by using a centralized control. Easy Installation as well as VRF system allows flexible layout.

### for HOTELS

Individual settings and simultaneous cooling/heating operation allow free selection of the operation mode. Moreover, mild air-conditioning provides a comfortable environment throughout the stay.



### for OFFICES

The requirement for simultaneous cooling and heating operation all year round is increasing along with the increase of electronic office equipment and diversification in use of space. This system can provide solutions for this demand with heat recovery technology.

### for HOSPITALS

The system can provide the appropriate levels of comforts simultaneously for the different air conditioning load requirements, such as medical offices, wards, rehabilitation rooms, and staff rooms.



# Lineup

## - OUTDOOR UNIT -

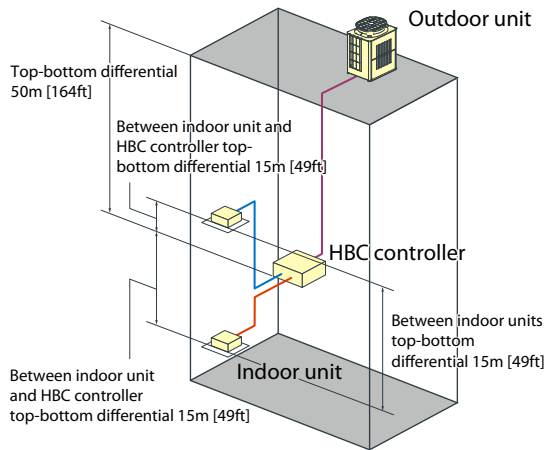
CITY MULTI is a heat recovery unit with an inverter driven compressor and can provide cooling and heating simultaneously.



### Lineup

Horse Power	8HP	10HP	12HP	14HP	16HP	18HP	20HP
Capacity	22.4kW	28.0kW	33.5kW	40.0kW	45.0kW	50.0kW	56.0kW

### Piping length



**R** : Refrigerant Pipe   **W** : Water Pipe

#### Refrigerant Piping Lengths      Maximum meters [Feet]

<b>R</b> Distance between outdoor and HBC	110 [360]
<b>W</b> Farthest indoor from HBC controller	60 [196]

#### Vertical differentials between units      Maximum meters [Feet]

<b>R</b> Outdoor/HBC controller	50 [164]
<b>R</b> HBC/outdoor (outdoor unit above HBC)	50 [164]
<b>R</b> HBC/outdoor (outdoor unit below HBC)	40 [131]
<b>W</b> Indoor/HBC controller	15 (10) [49 (32)]*1
<b>W</b> Indoor/indoor	15 (10) [49 (32)]*1
<b>R</b> HBC/HBC controller	15 (10) [49 (32)]*1

\*1. Values in ( ) are applied when indoor total capacity exceeds 130% of outdoor unit capacity.



## - HEAT SOURCE UNIT -

The CITY MULTI WR2 series provides all of the advantages of the R2 series with the added advantages of a water heat source system, making it suitable for wider range of applications in high rises, frigid climates, coastal areas, etc.

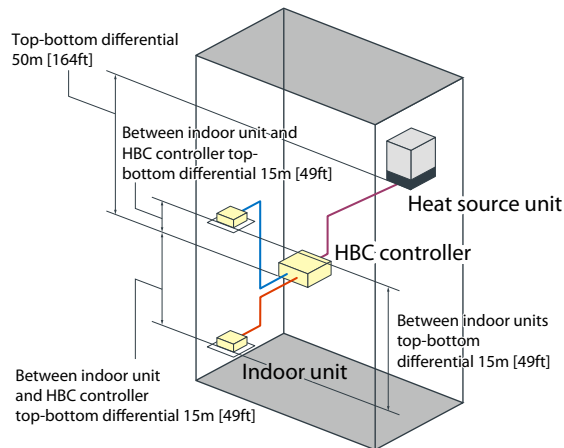
**NEW**



### Lineup

Horse Power	8HP	10HP	12HP	14HP	16HP	18HP	20HP
Capacity	22.4kW	28.0kW	33.5kW	40.0kW	45.0kW	50.0kW	56.0kW

### Piping length



**R** : Refrigerant Pipe   **W** : Water Pipe

#### Refrigerant Piping Lengths      Maximum meters [Feet]

- R** Distance between heat source and HBC      110 [360]
- W** Farthest indoor from HBC controller      60 [196]

#### Vertical differentials between units      Maximum meters [Feet]

- R** Heat source/HBC controller      50 [164]
- R** HBC/heat source (heat source unit above HBC)      50 [164]
- R** HBC/heat source (heat source unit below HBC)      40 [131]
- W** Indoor/HBC controller      15 (10) [49 (32)]\*1
- W** Indoor/indoor      15 (10) [49 (32)]\*1
- R** HBC/HBC controller      15 (10) [49 (32)]\*1

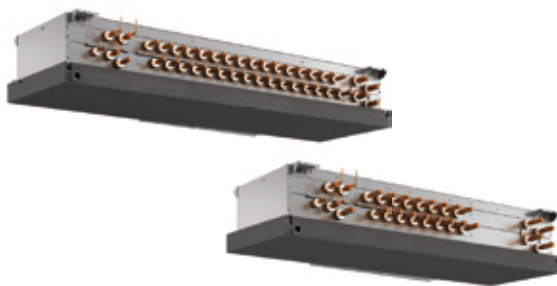
\*1. Values in ( ) are applied when indoor total capacity exceeds 130% of outdoor unit capacity.

# Lineup

## - HBC CONTROLLER -

The "HBC" is used for the connection between the outdoor unit and the indoor units. The heat exchange for refrigerant and water is performed by using the industry's first and only technology.

**Main-HBC**



**Sub-HBC**



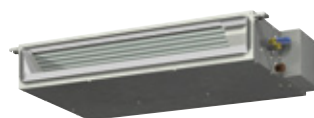
### Lineup

Type	Main		Sub	
Model	CMB-WP108V-GA1	CMB-WP1016V-GA1	CMB-WP108V-GB1	CMB-WP1016V-GB1
Number of branch	8	16	8	16

## - INDOOR UNIT -

- Slim ceiling-concealed type units (VMS1)
- Middle static pressure ceiling-concealed type units (VMA)
- 4-way flow ceiling cassette type units (VBM)
- Floor standing concealed type units (VLRMM)

These indoor units are exclusive for use with HYBRID CITY MULTI.



PEFY-WP-VMS1-E



PEFY-WP-VMA-E



PLFY-WP-VBM-E



PFFY-WP-VLRMM-E

### Lineup

Model size	<b>NEW</b> WP10	WP15	WP20	WP25	WP32	WP40	WP50	<b>NEW</b> WP63	<b>NEW</b> WP71	<b>NEW</b> WP80	<b>NEW</b> WP100	<b>NEW</b> WP125
PEFY-WP-VMS1-E	●	●	●	●	●	●	●					
PEFY-WP-VMA-E			●	●	●	●	●	●	●	●	●	●
PLFY-WP-VBM-E					●	●	●					
PFFY-WP-VLRMM-E			●	●	●	●	●					
Capacity	1.2kW	1.7kW	2.2kW	2.8kW	3.6kW	4.5kW	5.6kW	7.1kW	8.0kW	9.0kW	11.2kW	14.0kW

## - CONTROLLER -

### Remote Controller



PAR-U02MEDA



PAR-33MAA(G)



PAC-YT52CRA(MA)

[Advanced functions]

- Error information
- Timer
- Operation lock
- Temperature range restriction
- Language selection

### Centralized Controller

With the connection of three Expansion Controllers (AE-50E/EW-50E), a maximum of 200 units/groups can be connected to an AE-200E.



AE-200E

[Advanced functions]

- Operation setting
- Temperature setting
- Fan speed setting
- Local operation setting
- Language selection

This system also allows the use of other controllers such as AT-50B.



AT-50B

# Specifications



## - OUTDOOR UNIT -

Model		PURY-P200YLM-A (-BS)	PURY-P250YLM-A (-BS)	
Power source		3-phase 4-wire 380-400-415 V 50/60 Hz		
Cooling capacity (Nominal)	*1 kW	22.4	28.0	
	*1 BTU / h	76,400	95,500	
	Power input kW	7.00	9.92	
	Current input A	11.8-11.2-10.8	16.7-15.9-15.3	
	EER kW / kW	3.20	2.82	
Temp. range of cooling	*3 Indoor W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)	
	*3 Outdoor D.B.	-5.0~46.0°C (23~115°F)	-5.0~46.0°C (23~115°F)	
Heating capacity (Nominal)	*2 kW	25.0	31.5	
	*2 BTU / h	85,300	107,500	
	Power input kW	7.08	10.06	
	Current input A	11.9-11.3-10.9	16.9-16.1-15.5	
	COP kW / kW	3.53	3.13	
Temp. range of heating	*3 Indoor D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)	
	*3 Outdoor W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)	
Indoor unit connectable	Total capacity	50~150% of outdoor unit capacity	50~150% of outdoor unit capacity	
	Model / Quantity	WP10~WP125/1~30	WP10~WP125/1~37	
Sound pressure level (measured in anechoic room)	dB <A>	59	60	
Sound power level (measured in anechoic room)	dB <A>	82.5	83.5	
Refrigerant piping diameter	High pressure mm (in.)	15.88 (5/8) Brazed	19.05 (3/4) Brazed	
	Low pressure mm (in.)	19.05 (3/4) Brazed	22.2 (7/8) Brazed	
FAN	Type x Quantity	Propeller fan x 1	Propeller fan x 1	
	Air flow rate	m <sup>3</sup> /min	185	185
		L/s	3,083	3,083
		cfm	6,532	6,532
	Control, Driving mechanism	Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor	
Motor output kW	0.92 x 1	0.92 x 1		
*4 External static press.	0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)		
Compressor	Type	Inverter scroll hermetic compressor	Inverter scroll hermetic compressor	
	Starting method	Inverter	Inverter	
	Motor output kW	5.6	6.9	
	Case heater kW	-	-	
External finish		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	
External dimension HxWxD	mm	1,710 (1,650 without legs) x 920 x 740	1,710 (1,650 without legs) x 920 x 740	
	in.	67-3/8 (65 without legs) x 36-1/4 x 29-3/16	67-3/8 (65 without legs) x 36-1/4 x 29-3/16	
Protection devices	High pressure protection	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP/FAN)	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	
	Compressor	-	-	
	Fan motor	-	-	
Refrigerant	Type x original charge	R410A x 9.5 kg (21 lbs)	R410A x 9.5 kg (21 lbs)	
Net weight	kg (lbs)	205 (452)	205 (452)	
Heat exchanger		Salt-resistant cross fin & copper tube	Salt-resistant cross fin & copper tube	
Defrosting method		Auto-defrost mode (Reversed refrigerant cycle, Hot gas)	Auto-defrost mode (Reversed refrigerant cycle, Hot gas)	
Optional parts		Main HBC controller: CMB-WP108,1016V-GA1 Sub HBC controller: CMB-WP108,1016V-GB1	Main HBC controller: CMB-WP108,1016V-GA1 Sub HBC controller: CMB-WP108,1016V-GB1	

### Notes:

- Nominal cooling conditions (subject to JIS B8615-2)  
Indoor: 27°CDB./19°CWB. (81°FDB./66°FWB.), Outdoor: 35°CDB. (95°FDB.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
  - Nominal heating conditions (subject to JIS B8615-2)  
Indoor: 20°CDB. (68°FDB.), Outdoor: 7°CDB./6°CWB. (45°FDB./43°FWB.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
  - 5°CDB. (23°FDB.)/-6°CWB. (21°FWB.) to 21°CDB. (70°FDB.)/15.5°CWB. (60°FWB.)  
with cooling/heating mixed operation.
  - External static pressure option is available (30 Pa, 60 Pa/3.1 mmH<sub>2</sub>O, 6.1 mmH<sub>2</sub>O).
- \*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 specifications may be subject to change without notice.

### Unit converter

BTU / h =kW × 3,412  
cfm =m<sup>3</sup> / min × 35.31  
lbs =kg / 0.4536

\*Above specification data is subject to rounding variation.



Model			PURY-P300YLM-A (-BS)		PURY-P350YLM-A (-BS)	
Number of HBC controller			Single HBC	Double HBC	Single HBC	Double HBC
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz		3-phase 4-wire 380-400-415 V 50/60 Hz	
Cooling capacity (Nominal)	*1	kW	33.5		40.0	
	*1	BTU / h	114,300		136,500	
		Power input kW	13.34	11.31	17.93	14.59
		Current input A	22.5-21.3-20.6	19.0-18.1-17.4	30.2-28.7-27.7	24.6-23.3-22.5
	EER	kW / kW	2.51	2.96	2.23	2.74
Temp. range of cooling	*3	Indoor	W.B. 15.0~24.0°C (59~75°F)		15.0~24.0°C (59~75°F)	
		Outdoor	D.B. -5.0~46.0°C (23~115°F)		-5.0~46.0°C (23~115°F)	
Heating capacity (Nominal)	*2	kW	37.5		45.0	
	*2	BTU / h	128,000		153,500	
		Power input kW	12.71	11.94	15.51	14.35
		Current input A	21.4-20.3-19.6	20.1-19.1-18.4	26.1-24.8-23.9	24.2-23.0-22.1
	COP	kW / kW	2.95	3.14	2.90	3.13
Temp. range of heating	*3	Indoor	D.B. 15.0~27.0°C (59~81°F)		15.0~27.0°C (59~81°F)	
		Outdoor	W.B. -20.0~15.5°C (-4~60°F)		-20.0~15.5°C (-4~60°F)	
Indoor unit connectable	Total capacity		50~150% of outdoor unit capacity		50~150% of outdoor unit capacity	
	Model / Quantity		WP10~WP125/2~45		WP10~WP125/2~50	
Sound pressure level (measured in anechoic room)		dB <A>	62.5		62.5	
Sound power level (measured in anechoic room)		dB <A>	86		86	
Refrigerant piping diameter	High pressure	mm (in.)	19.05 (3/4) Brazed		19.05 (3/4) Brazed	
	Low pressure	mm (in.)	22.2 (7/8) Brazed		28.58 (1-1/8) Brazed	
FAN	Type x Quantity		Propeller fan x 1		Propeller fan x 1	
	Air flow rate	m <sup>3</sup> /min	230		230	
		L/s	3,833		3,833	
		cfm	8,121		8,121	
	Control, Driving mechanism		Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor	
	*4	Motor output kW	0.92 x 1		0.92 x 1	
	External static press.	0 Pa (0 mmH <sub>2</sub> O)		0 Pa (0 mmH <sub>2</sub> O)		
Compressor	Type		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method		Inverter		Inverter	
	Motor output	kW	8.1		10.5	
	Case heater	kW	-		-	
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	
External dimension HxWxD	mm		1,710 (1,650 without legs) x 1,220 x 740		1,710 (1,650 without legs) x 1,220 x 740	
	in.		67-3/8 (65 without legs) x 48-1/16 x 29-3/16		67-3/8 (65 without legs) x 48-1/16 x 29-3/16	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP/FAN)		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		-		-	
	Fan motor		-		-	
Refrigerant	Type x original charge		R410A x 10.3 kg (23 lbs)		R410A x 10.3 kg (23 lbs)	
Net weight	kg (lbs)		248 (547)		248 (547)	
Heat exchanger			Salt-resistant cross fin & copper tube		Salt-resistant cross fin & copper tube	
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle, Hot gas)		Auto-defrost mode (Reversed refrigerant cycle, Hot gas)	
Optional parts			Main HBC controller: CMB-WP108, 1016V-GA1 Sub HBC controller: CMB-WP108, 1016V-GB1		Main HBC controller: CMB-WP108, 1016V-GA1 Sub HBC controller: CMB-WP108, 1016V-GB1	

Notes:

- Nominal cooling conditions (subject to JIS B8615-2)  
Indoor: 27°CDB./19°CWB. (81°FDB./66°FWB.), Outdoor: 35°CDB. (95°FDB.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
  - Nominal heating conditions (subject to JIS B8615-2)  
Indoor: 20°CDB. (68°FDB.), Outdoor: 7°CDB./6°CWB. (45°FDB./43°FWB.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
  - 5°CDB. (23°FDB.)/-6°CWB. (21°FWB.) to 21°CDB. (70°FDB.)/15.5°CWB. (60°FWB.)  
with cooling/heating mixed operation.
  - External static pressure option is available (30 Pa, 60 Pa/3.1 mmH<sub>2</sub>O, 6.1 mmH<sub>2</sub>O).
- \*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 specifications may be subject to change without notice.

Unit converter

BTU / h	=kW × 3,412
cfm	=m <sup>3</sup> / min × 35.31
lbs	=kg / 0.4536

\*Above specification data is subject to rounding variation.

# - OUTDOOR UNIT -



Model		PURY-P400YLM-A (-BS)	PURY-P450YLM-A (-BS)	
Power source		3-phase 4-wire 380-400-415 V 50/60 Hz		
Cooling capacity (Nominal)	*1 kW	45.0	50.0	
	*1 BTU / h	153,500	170,600	
	Power input kW	16.65	17.92	
	Current input A	28.1-26.7-25.7	30.2-28.7-27.7	
	EER	2.70	2.79	
Temp. range of cooling	*3 Indoor W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)	
	Outdoor D.B.	-5.0~46.0°C (23~115°F)	-5.0~46.0°C (23~115°F)	
Heating capacity (Nominal)	*2 kW	45.0	56.0	
	*2 BTU / h	153,500	191,100	
	Power input kW	13.39	17.39	
	Current input A	22.6-21.4-20.6	29.3-27.8-26.8	
	COP	3.36	3.22	
Temp. range of heating	*3 Indoor D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)	
	Outdoor W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)	
Indoor unit connectable	Total capacity	50~150% of outdoor unit capacity	50~150% of outdoor unit capacity	
	Model / Quantity	WP10~WP125/2~50	WP10~WP125/2~50	
Sound pressure level (measured in anechoic room)	dB <A>	62.5	62.5	
Sound power level (measured in anechoic room)	dB <A>	86	86	
Refrigerant piping diameter	High pressure mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed	
	Low pressure mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	
FAN	Type x Quantity	Propeller fan x 1	Propeller fan x 2	
	Air flow rate	m <sup>3</sup> /min	230	320
		L/s	3,833	5,333
		cfm	8,121	11,299
	Control, Driving mechanism	Inverter-control, Direct-driven by motor		
	Motor output kW	0.92 x 1	0.92 x 2	
*4 External static press.	0 Pa (0 mmH <sub>2</sub> O)			
Compressor	Type	Inverter scroll hermetic compressor		
	Starting method	Inverter		
	Motor output kW	10.9	12.4	
	Case heater kW	-		
External finish		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	
External dimension HxWxD	mm	1,710 (1,650 without legs) x 1,220 x 740	1,710 (1,650 without legs) x 1,750 x 740	
	in.	67-3/8 (65 without legs) x 48-1/16 x 29-3/16	67-3/8 (65 without legs) x 68-15/16 x 29-3/16	
Protection devices	High pressure protection	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP./FAN)	Over-heat protection, Over-current protection		
	Compressor	-		
	Fan motor	-		
Refrigerant	Type x original charge	R410A x 10.3 kg (23 lbs)	R410A x 11.8 kg (27 lbs)	
Net weight	kg (lbs)	246 (543)	321 (708)	
Heat exchanger		Salt-resistant cross fin & copper tube		
Defrosting method		Auto-defrost mode (Reversed refrigerant cycle, Hot gas)		
Optional parts		Main HBC controller: CMB-WP108,1016V-GA1 Sub HBC controller: CMB-WP108,1016V-GB1	Main HBC controller: CMB-WP108,1016V-GA1 Sub HBC controller: CMB-WP108,1016V-GB1	

## Notes:

- Nominal cooling conditions (subject to JIS B8615-2)  
Indoor: 27°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Outdoor: 35°C D.B. (95°F D.B.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
  - Nominal heating conditions (subject to JIS B8615-2)  
Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
  - 5°C D.B. (23°F D.B.)/-6°C W.B. (21°F W.B.) to 21°C D.B. (70°F D.B.)/15.5°C W.B. (60°F W.B.)  
with cooling/heating mixed operation.
  - External static pressure option is available (30 Pa, 60 Pa/3.1 mmH<sub>2</sub>O, 6.1 mmH<sub>2</sub>O).
- \*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 specifications may be subject to change without notice.

## Unit converter

BTU / h = kW × 3,412  
cfm = m<sup>3</sup> / min × 35.31  
lbs = kg / 0.4536

\*Above specification data is subject to rounding variation.





Model		PURY-P500YLM-A1 (-BS)	
Power source		3-phase 4-wire 380-400-415 V 50/60 Hz	
Cooling capacity (Nominal)	*1 kW	56.0	
	*1 BTU / h	191,100	
	Power input kW	22.67	
	Current input A	38.2-36.3-35.0	
	EER	2.47	
Temp. range of cooling	*3 Indoor	W.B.	15.0~24.0°C (59~75°F)
	Outdoor	D.B.	-5.0~46.0°C (23~115°F)
Heating capacity (Nominal)	*2 kW	58.0	
	*2 BTU / h	197,900	
	Power input kW	17.53	
	Current input A	29.5-28.1-27.0	
	COP	3.30	
Temp. range of heating	*3 Indoor	D.B.	15.0~27.0°C (59~81°F)
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~150% of outdoor unit capacity
	Model / Quantity		WP10~WP125/2~50
Sound pressure level (measured in anechoic room)		dB <A>	63.5
Sound power level (measured in anechoic room)		dB <A>	87
Refrigerant piping diameter	High pressure	mm (in.)	22.2 (7/8) Brazed
	Low pressure	mm (in.)	28.58 (1-1/8) Brazed
FAN	Type x Quantity		Propeller fan x 2
	Air flow rate	m <sup>3</sup> /min	380
		L/s	6,333
		cfm	13,418
	Control, Driving mechanism		Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 2
*4 External static press.	0 Pa (0 mmH <sub>2</sub> O)		
Compressor	Type		Inverter scroll hermetic compressor
	Starting method		Inverter
	Motor output	kW	13.4
	Case heater	kW	-
External finish		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	
External dimension HxWxD	mm		1,710 (1,650 without legs) x 1,750 x 740
	in.		67-3/8 (65 without legs) x 68-15/16 x 29-3/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection
	Compressor		-
	Fan motor		-
Refrigerant	Type x original charge		R410A x 11.8 kg (27 lbs)
Net weight	kg (lbs)		321 (708)
Heat exchanger		Salt-resistant cross fin & copper tube	
Defrosting method		Auto-defrost mode (Reversed refrigerant cycle, Hot gas)	
Optional parts		Main HBC controller: CMB-WP108,1016V-GA1 Sub HBC controller: CMB-WP108,1016V-GB1	

Notes:

- Nominal cooling conditions (subject to JIS B8615-2)  
Indoor: 27°CDB./19°CWB. (81°FDB./66°FWB.), Outdoor: 35°CDB. (95°FDB.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- Nominal heating conditions (subject to JIS B8615-2)  
Indoor: 20°CDB. (68°FDB.), Outdoor: 7°CDB./6°CWB. (45°FDB./43°FWB.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- 5°CDB. (23°FDB.)/-6°CWB. (21°FWB.) to 21°CDB. (70°FDB.)/15.5°CWB. (60°FWB.)  
with cooling/heating mixed operation.
- External static pressure option is available (30 Pa, 60 Pa/3.1 mmH<sub>2</sub>O, 6.1 mmH<sub>2</sub>O).

\*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 specifications may be subject to change without notice.

Unit converter

BTU / h =kW × 3,412  
cfm =m<sup>3</sup> / min × 35.31  
lbs =kg / 0.4536

\*Above specification data is subject to rounding variation.

# - OUTDOOR UNIT -



Model			PURY-EP200YLM-A1 (-BS)	PURY-EP250YLM-A1 (-BS)
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	
Cooling capacity (Nominal)	*1 kW		22.4	28.0
	*1 BTU / h		76,400	95,500
	Power input kW		6.27	8.77
	Current input A		10.5-10.0-9.6	14.8-14.0-13.5
	EER	kW / kW	3.57	3.19
Temp. range of cooling	*3 Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
	*3 Outdoor	D.B.	-5.0~46.0°C (23~115°F)	-5.0~46.0°C (23~115°F)
Heating capacity (Nominal)	*2 kW		25.0	31.5
	*2 BTU / h		85,300	107,500
	Power input kW		6.92	9.84
	Current input A		11.6-11.0-10.6	16.6-15.7-15.2
	COP	kW / kW	3.61	3.20
Temp. range of heating	*3 Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
	*3 Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~150% of outdoor unit capacity	50~150% of outdoor unit capacity
	Model / Quantity		WP10~WP125/1~30	WP10~WP125/1~37
Sound pressure level (measured in anechoic room)		dB <A>	59	60
Sound power level (measured in anechoic room)		dB <A>	82.5	83.5
Refrigerant piping diameter	High pressure	mm (in.)	15.88 (5/8) Brazed	19.05 (3/4) Brazed
	Low pressure	mm (in.)	19.05 (3/4) Brazed	22.2 (7/8) Brazed
FAN	Type x Quantity		Propeller fan x 1	Propeller fan x 1
	Air flow rate	m <sup>3</sup> /min	185	185
		L/s	3,083	3,083
		cfm	6,532	6,532
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
	Motor output	kW	0.92 x 1	0.92 x 1
*4 External static press.		0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	
Compressor	Type		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter
	Motor output	kW	5.6	6.9
	Case heater	kW	-	-
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension HxWxD		mm	1,710 (1,650 without legs) x 920 x 740	1,710 (1,650 without legs) x 920 x 740
		in.	67-3/8 (65 without legs) x 36-1/4 x 29-3/16	67-3/8 (65 without legs) x 36-1/4 x 29-3/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP/FAN)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		-	-
	Fan motor		-	-
Refrigerant	Type x original charge		R410A x 6.0 kg (14 lbs)	R410A x 6.0 kg (14 lbs)
Net weight	kg (lbs)		202 (446)	202 (446)
Heat exchanger			Salt-resistant cross fin & aluminium tube	Salt-resistant cross fin & aluminium tube
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle, Hot gas)	Auto-defrost mode (Reversed refrigerant cycle, Hot gas)
Optional parts			Main HBC controller: CMB-WP108,1016V-GA1 Sub HBC controller: CMB-WP108,1016V-GB1	Main HBC controller: CMB-WP108,1016V-GA1 Sub HBC controller: CMB-WP108,1016V-GB1

## Notes:

- Nominal cooling conditions (subject to JIS B8615-2)  
Indoor: 27°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Outdoor: 35°C D.B./24°C W.B. (95°F D.B./75°F W.B.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
  - Nominal heating conditions (subject to JIS B8615-2)  
Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
  - 5°C D.B. (23°F D.B.)/-6°C W.B. (21°F W.B.) to 21°C D.B. (70°F D.B.)/15.5°C W.B. (60°F W.B.)  
with cooling/heating mixed operation.
  - External static pressure option is available (30 Pa, 60 Pa/3.1 mmH<sub>2</sub>O, 6.1 mmH<sub>2</sub>O).
- \*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 specifications may be subject to change without notice.

## Unit converter

BTU / h = kW × 3,412  
cfm = m<sup>3</sup> / min × 35.31  
lbs = kg / 0.4536

\*Above specification data is subject to rounding variation.



Model			PURY-EP300YLM-A1 (-BS)		PURY-EP350YLM-A1 (-BS)	
Number of HBC controller			Single HBC	Double HBC	Single HBC	Double HBC
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz		3-phase 4-wire 380-400-415 V 50/60 Hz	
Cooling capacity (Nominal)	*1 kW		33.5		40.0	
	*1 BTU / h		114,300		136,500	
	Power input kW		12.05	10.24	17.16	13.98
	Current input A		20.3-19.3-18.6	17.2-16.4-15.8	28.9-27.5-26.5	23.6-22.4-21.6
	EER	kW / kW	2.78	3.27	2.33	2.86
Temp. range of cooling	*3 Indoor	W.B.	15.0~24.0°C (59~75°F)		15.0~24.0°C (59~75°F)	
	Outdoor	D.B.	-5.0~46.0°C (23~115°F)		-5.0~46.0°C (23~115°F)	
Heating capacity (Nominal)	*2 kW		37.5		45.0	
	*2 BTU / h		128,000		153,500	
	Power input kW		11.71	11.12	15.38	14.28
	Current input A		19.7-18.7-18.1	18.7-17.8-17.1	25.9-24.6-23.7	24.1-22.9-22.0
	COP	kW / kW	3.20	3.37	2.92	3.15
Temp. range of heating	*3 Indoor	D.B.	15.0~27.0°C (59~81°F)		15.0~27.0°C (59~81°F)	
	Outdoor	W.B.	-20.0~15.5°C (-4~60°F)		-20.0~15.5°C (-4~60°F)	
Indoor unit connectable	Total capacity		50~150% of outdoor unit capacity		50~150% of outdoor unit capacity	
	Model / Quantity		WP10~WP125/2~45		WP10~WP125/2~50	
Sound pressure level (measured in anechoic room)		dB <A>	62.5		62.5	
Sound power level (measured in anechoic room)		dB <A>	86		86	
Refrigerant piping diameter	High pressure	mm (in.)	19.05 (3/4) Brazed		19.05 (3/4) Brazed	
	Low pressure	mm (in.)	22.2 (7/8) Brazed		28.58 (1-1/8) Brazed	
FAN	Type x Quantity		Propeller fan x 1		Propeller fan x 1	
	Air flow rate	m <sup>3</sup> /min	230		230	
		L/s	3,833		3,833	
		cfm	8,121		8,121	
	Control, Driving mechanism		Inverter-control, Direct-driven by motor		Inverter-control, Direct-driven by motor	
	*4 Motor output	kW	0.92 x 1		0.92 x 1	
External static press.			0 Pa (0 mmH <sub>2</sub> O)		0 Pa (0 mmH <sub>2</sub> O)	
Compressor	Type		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method		Inverter		Inverter	
	Motor output	kW	8.1		10.5	
	Case heater	kW	-		-	
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	
External dimension HxWxD		mm	1,710 (1,650 without legs) x 1,220 x 740		1,710 (1,650 without legs) x 1,220 x 740	
		in.	67-3/8 (65 without legs) x 48-1/16 x 29-3/16		67-3/8 (65 without legs) x 48-1/16 x 29-3/16	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP/FAN)		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		-		-	
	Fan motor		-		-	
Refrigerant	Type x original charge		R410A x 8.0 kg (18 lbs)		R410A x 8.0 kg (18 lbs)	
Net weight	kg (lbs)		244 (538)		244 (538)	
Heat exchanger			Salt-resistant cross fin & aluminium tube		Salt-resistant cross fin & aluminium tube	
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle, Hot gas)		Auto-defrost mode (Reversed refrigerant cycle, Hot gas)	
Optional parts			Main HBC controller: CMB-WP108, 1016V-GA1 Sub HBC controller: CMB-WP108, 1016V-GB1		Main HBC controller: CMB-WP108, 1016V-GA1 Sub HBC controller: CMB-WP108, 1016V-GB1	

Notes:

- Nominal cooling conditions (subject to JIS B8615-2)  
Indoor: 27°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Outdoor: 35°C D.B. (95°F D.B.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- Nominal heating conditions (subject to JIS B8615-2)  
Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- 5°C D.B. (23°F D.B.)/-6°C W.B. (21°F W.B.) to 21°C D.B. (70°F D.B.)/15.5°C W.B. (60°F W.B.)  
with cooling/heating mixed operation.
- External static pressure option is available (30 Pa, 60 Pa/3.1 mmH<sub>2</sub>O, 6.1 mmH<sub>2</sub>O).

\*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 specifications may be subject to change without notice.

Unit converter

BTU / h = kW × 3,412  
cfm = m<sup>3</sup> / min × 35.31  
lbs = kg / 0.4536

\*Above specification data is subject to rounding variation.

# - OUTDOOR UNIT -



Model			PURY-EP400YLM-A1 (-BS)	PURY-EP450YLM-A1 (-BS)
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	
Cooling capacity (Nominal)	*1 kW		45.0	50.0
	*1 BTU / h		153,500	170,600
	Power input kW		13.88	16.83
	Current input A		23.4-22.2-21.4	28.4-26.9-26.0
	EER	kW / kW	3.24	2.97
Temp. range of cooling	*3 Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
	*3 Outdoor	D.B.	-5.0~46.0°C (23~115°F)	-5.0~46.0°C (23~115°F)
Heating capacity (Nominal)	*2 kW		50.0	56.0
	*2 BTU / h		170,600	191,100
	Power input kW		14.12	16.86
	Current input A		23.8-22.6-21.8	28.4-27.0-26.0
	COP	kW / kW	3.54	3.32
Temp. range of heating	*3 Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
	*3 Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~150% of outdoor unit capacity	50~150% of outdoor unit capacity
	Model / Quantity		WP10~WP125/2~50	WP10~WP125/2~50
Sound pressure level (measured in anechoic room)		dB <A>	62.5	62.5
Sound power level (measured in anechoic room)		dB <A>	86	86
Refrigerant piping diameter	High pressure	mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed
	Low pressure	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
FAN	Type x Quantity		Propeller fan x 2	Propeller fan x 2
	Air flow rate	m <sup>3</sup> /min	320	320
		L/s	5,333	5,333
		cfm	11,299	11,299
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	Inverter-control, Direct-driven by motor
Motor output kW		0.92 x 2	0.92 x 2	
*4 External static press.		0 Pa (0 mmH <sub>2</sub> O)	0 Pa (0 mmH <sub>2</sub> O)	
Compressor	Type		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter
	Motor output kW		10.9	12.4
	Case heater kW		-	-
External finish			Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>
External dimension HxWxD		mm	1,710 (1,650 without legs) x 1,750 x 740	1,710 (1,650 without legs) x 1,750 x 740
		in.	67-3/8 (65 without legs) x 68-15/16 x 29-3/16	67-3/8 (65 without legs) x 68-15/16 x 29-3/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP/FAN)		Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor		-	-
	Fan motor		-	-
Refrigerant	Type x original charge		R410A x 10.5 kg (24 lbs)	R410A x 11.8 kg (27 lbs)
Net weight	kg (lbs)		315 (695)	336 (741)
Heat exchanger			Salt-resistant cross fin & aluminium tube	
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle, Hot gas)	
Optional parts			Main HBC controller: CMB-WP108,1016V-GA1 Sub HBC controller: CMB-WP108,1016V-GB1	Main HBC controller: CMB-WP108,1016V-GA1 Sub HBC controller: CMB-WP108,1016V-GB1

## Notes:

- Nominal cooling conditions (subject to JIS B8615-2)  
Indoor: 27°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Outdoor: 35°C D.B./24°C W.B. (95°F D.B./75°F W.B.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
  - Nominal heating conditions (subject to JIS B8615-2)  
Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
  - 5°C D.B. (23°F D.B.)/-6°C W.B. (21°F W.B.) to 21°C D.B. (70°F D.B.)/15.5°C W.B. (60°F W.B.)  
with cooling/heating mixed operation.
  - External static pressure option is available (30 Pa, 60 Pa/3.1 mmH<sub>2</sub>O, 6.1 mmH<sub>2</sub>O).
- \*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 specifications may be subject to change without notice.

## Unit converter

BTU / h = kW × 3,412  
cfm = m<sup>3</sup> / min × 35.31  
lbs = kg / 0.4536

\*Above specification data is subject to rounding variation.



Model		PURY-EP500YLM-A1 (-BS)	
Power source		3-phase 4-wire 380-400-415 V 50/60 Hz	
Cooling capacity (Nominal)	*1 kW	56.0	
	*1 BTU / h	191,100	
	Power input kW	21.22	
	Current input A	35.8-34.0-32.8	
	EER kW / kW	2.63	
Temp. range of cooling	*3 Indoor W.B.	15.0~24.0°C (59~75°F)	
	Outdoor D.B.	-5.0~46.0°C (23~115°F)	
Heating capacity (Nominal)	*2 kW	63.0	
	*2 BTU / h	215,000	
	Power input kW	21.67	
	Current input A	36.5-34.7-33.4	
	COP kW / kW	2.90	
Temp. range of heating	*3 Indoor D.B.	15.0~27.0°C (59~81°F)	
	Outdoor W.B.	-20.0~15.5°C (-4~60°F)	
Indoor unit connectable	Total capacity	50~150% of outdoor unit capacity	
	Model / Quantity	WP10~WP125/2~50	
Sound pressure level (measured in anechoic room)		dB <A>	63.5
Sound power level (measured in anechoic room)		dB <A>	87
Refrigerant piping diameter	High pressure mm (in.)	22.2 (7/8) Brazed	
	Low pressure mm (in.)	28.58 (1-1/8) Brazed	
FAN	Type x Quantity		Propeller fan x 2
	Air flow rate	m <sup>3</sup> /min	380
		L/s	6,333
		cfm	13,418
	Control, Driving mechanism		Inverter-control, Direct-driven by motor
Motor output kW	0.92 x 2		
*4 External static press.	0 Pa (0 mmH <sub>2</sub> O)		
Compressor	Type		Inverter scroll hermetic compressor
	Starting method		Inverter
	Motor output kW	13.4	
	Case heater kW	0.045 (240 V)	
External finish		Pre-coated galvanized steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	
External dimension HxWxD		mm	1,710 (1,650 without legs) x 1,750 x 740
		in.	67-3/8 (65 without legs) x 68-15/16 x 29-3/16
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP./FAN)		Over-heat protection, Over-current protection
	Compressor		-
	Fan motor		-
Refrigerant	Type x original charge	R410A x 11.8 kg (27 lbs)	
Net weight	kg (lbs)	349 (770)	
Heat exchanger		Salt-resistant cross fin & aluminium tube	
Defrosting method		Auto-defrost mode (Reversed refrigerant cycle, Hot gas)	
Optional parts		Main HBC controller: CMB-WP108,1016V-GA1 Sub HBC controller: CMB-WP108,1016V-GB1	

Notes:

- Nominal cooling conditions (subject to JIS B8615-2)  
Indoor: 27°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Outdoor: 35°C D.B./24°C W.B. (95°F D.B./75°F W.B.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
  - Nominal heating conditions (subject to JIS B8615-2)  
Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
  - 5°C D.B. (23°F D.B.)/-6°C W.B. (21°F W.B.) to 21°C D.B. (70°F D.B.)/15.5°C W.B. (60°F W.B.)  
with cooling/heating mixed operation.
  - External static pressure option is available (30 Pa, 60 Pa/3.1 mmH<sub>2</sub>O, 6.1 mmH<sub>2</sub>O).
- \*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 specifications may be subject to change without notice.

Unit converter

BTU / h	=kW × 3,412
cfm	=m <sup>3</sup> / min × 35.31
lbs	=kg / 0.4536

\*Above specification data is subject to rounding variation.

**NEW**



# - HEAT SOURCE UNIT -

Model		PQRY-P200YLM-A1	PQRY-P250YLM-A1	
Power source		3-phase 4-wire 380-400-415 V 50/60 Hz		
Cooling capacity (Nominal)	*1 kW	22.4	28.0	
	*1 BTU / h	76,400	95,500	
	Power input kW	3.97	5.44	
	Current input A	6.7-6.3-6.1	9.1-8.7-8.4	
	EER kW / kW	5.64	5.14	
Temp. range of cooling	Indoor W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)	
	Circulating water °C	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)	
Heating capacity (Nominal)	*2 kW	25.0	31.5	
	*2 BTU / h	85,300	107,500	
	Power input kW	4.04	5.41	
	Current input A	6.8-6.4-6.2	9.1-8.6-8.3	
	COP kW / kW	6.18	5.82	
Temp. range of heating	Indoor D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)	
	Circulating water °C	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)	
Indoor unit connectable	Total capacity	50~150% of heat source unit capacity	50~150% of heat source unit capacity	
	Model / Quantity	WP10~WP125/1~30	WP10~WP125/1~37	
Sound pressure level (measured in anechoic room)	dB <A>	46	48	
Refrigerant piping diameter	High pressure mm (in.)	15.88 (5/8) Brazed	19.05 (3/4) Brazed	
	Low pressure mm (in.)	19.05 (3/4) Brazed	22.2 (7/8) Brazed	
Circulating water	Water flow rate	m <sup>3</sup> / h	5.76	5.76
		L/min	96	96
		cfm	3.4	3.4
	Pressure drop	kPa	24	24
	Operating volume range	m <sup>3</sup> / h	3.0 ~ 7.2	3.0 ~ 7.2
Compressor	Type	Inverter scroll hermetic compressor		
	Starting method	Inverter		
	Motor output kW	4.8	6.2	
	Case heater kW	-	-	
External finish		Galvanized steel sheets		
External dimension HxWxD	mm	1,100 x 880 x 550	1,100 x 880 x 550	
	in.	43-5/16 x 34-11/16 x 21-11/16	43-5/16 x 34-11/16 x 21-11/16	
Protection devices	High pressure protection	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP.)	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection	
	Compressor	Over-heat protection	Over-heat protection	
Refrigerant	Type x original charge	R410A x 5.0 kg (12 lbs)	R410A x 5.0 kg (12 lbs)	
Net weight	kg (lbs)	173 (382)	173 (382)	
Heat exchanger		plate type		
Water volume in plate	L	5.0	5.0	
	Water pressure Max. MPa	2.0	2.0	
Optional parts		Main HBC controller: CMB-WP108, 1016-GA1 Sub HBC controller: CMB-WP108, 1016-GB1	Main HBC controller: CMB-WP108, 1016V-GA1 Sub HBC controller: CMB-WP108, 1016V-GB1	

**Notes:**

- Nominal cooling conditions (subject to JIS B8615-2)  
Indoor: 27°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Water temperature: 30°C (86°F)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- Nominal heating conditions (subject to JIS B8615-2)  
Indoor: 20°C D.B. (68°F D.B.), Water temperature: 20°C (68°F D.B.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)

**Unit converter**

BTU / h = kW × 3,412  
cfm = m<sup>3</sup> / min × 35.31  
lbs = kg / 0.4536

\*Above specification data is subject to rounding variation.

**NEW**



Model			PQR-P300YLM-A1		PQR-P350YLM-A1	
Number of HBC controller			Single HBC	Double HBC	Single HBC	Double HBC
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz		3-phase 4-wire 380-400-415 V 50/60 Hz	
Cooling capacity (Nominal)	*1 kW		33.5		40.0	
	*1 BTU / h		114,300		136,500	
	Power input kW		7.55	6.71	9.98	8.72
	Current input A		12.7-12.1-11.6	11.3-10.7-10.3	16.8-16.0-15.4	14.7-13.9-13.4
EER			4.43	4.99	4.00	4.58
Temp. range of cooling	Indoor	W.B.	15.0~24.0°C (59~75°F)		15.0~24.0°C (59~75°F)	
	Circulating water	°C	10.0~45.0°C (50~113°F)		10.0~45.0°C (50~113°F)	
Heating capacity (Nominal)	*2 kW		37.5		45.0	
	*2 BTU / h		128,000		153,500	
	Power input kW		7.13	6.79	8.87	8.25
	Current input A		12.0-11.4-11.0	11.4-10.8-10.4	14.9-14.2-13.7	13.9-13.2-12.7
COP			5.25	5.52	5.07	5.45
Temp. range of heating	Indoor	D.B.	15.0~27.0°C (59~81°F)		15.0~27.0°C (59~81°F)	
	Circulating water	°C	10.0~45.0°C (50~113°F)		10.0~45.0°C (50~113°F)	
Indoor unit connectable	Total capacity		50~150% of heat source unit capacity		50~150% of heat source unit capacity	
	Model / Quantity		WP10~WP125/2~45		WP10~WP125/2~50	
Sound pressure level (measured in anechoic room)		dB <A>	54		52	
Refrigerant piping diameter	High pressure	mm (in.)	19.05 (3/4) Brazed		22.2 (7/8) Brazed	
	Low pressure	mm (in.)	22.2 (7/8) Brazed		28.58 (1-1/8) Brazed	
Circulating water	Water flow rate	m <sup>3</sup> / h	5.76		7.20	
		L/min	96		120	
		cfm	3.4		4.2	
	Pressure drop	kPa	24		44	
	Operating volume range	m <sup>3</sup> / h	3.0 ~ 7.2		4.5 ~ 11.6	
Compressor	Type		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method		Inverter		Inverter	
	Motor output	kW	7.7		9.5	
	Case heater	kW	-		-	
External finish			Galvanized steel sheets		Galvanized steel sheets	
External dimension HxWxD	mm		1,100 x 880 x 550		1,450 x 880 x 550	
	in.		43-5/16 x 34-11/16 x 21-11/16		57-1/8 x 34-11/16 x 21-11/16	
Protection devices	High pressure protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP.)		Over-heat protection, Over-current protection		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection		Over-heat protection	
Refrigerant	Type x original charge		R410A x 5.0 kg (12 lbs)		R410A x 6.0 kg (14 lbs)	
Net weight		kg (lbs)	173 (382)		217 (479)	
Heat exchanger			plate type		plate type	
Water volume in plate	Water volume in plate	L	5.0		5.0	
	Water pressure Max.	MPa	2.0		2.0	
Optional parts			Main HBC controller: CMB-WP108, 1016V-GA1 Sub HBC controller: CMB-WP108, 1016V-GB1		Main HBC controller: CMB-WP108, 1016V-GA1 Sub HBC controller: CMB-WP108, 1016V-GB1	

**Notes:**

- Nominal cooling conditions (subject to JIS B8615-2)  
Indoor: 27°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Water temperature: 30°C (86°F)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- Nominal heating conditions (subject to JIS B8615-2)  
Indoor: 20°C D.B. (68°F D.B.), Water temperature: 20°C (68°F D.B.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)

**Unit converter**

BTU / h = kW × 3,412  
cfm = m<sup>3</sup> / min × 35.31  
lbs = kg / 0.4536

\*Above specification data is subject to rounding variation.

**NEW**



# - HEAT SOURCE UNIT -

Model		PQRY-P400YLM-A1	PQRY-P450YLM-A1
Power source		3-phase 4-wire 380-400-415 V 50/60 Hz	
Cooling capacity (Nominal)	*1 kW	45.0	50.0
	*1 BTU / h	153,500	170,600
	Power input kW	10.05	12.05
	Current input A	16.9-16.1-15.5	20.3-19.3-18.6
	EER kW / kW	4.47	4.14
Temp. range of cooling	Indoor W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
	Circulating water °C	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)
Heating capacity (Nominal)	*2 kW	50.0	56.0
	*2 BTU / h	170,600	191,100
	Power input kW	9.45	11.11
	Current input A	15.9-15.1-14.6	18.7-17.8-17.1
	COP kW / kW	5.29	5.04
Temp. range of heating	Indoor D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
	Circulating water °C	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)
Indoor unit connectable	Total capacity	50~150% of heat source unit capacity	50~150% of heat source unit capacity
	Model / Quantity	WP10~WP125/2~50	WP10~WP125/2~50
Sound pressure level (measured in anechoic room)	dB <A>	52	54
Refrigerant piping diameter	High pressure mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed
	Low pressure mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Circulating water	Water flow rate	m <sup>3</sup> / h	7.20
		L/min	120
		cfm	4.2
	Pressure drop kPa	44	
	Operating volume range m <sup>3</sup> / h	4.5 ~ 11.6	
Compressor	Type	Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Starting method	Inverter	Inverter
	Motor output kW	10.7	11.6
	Case heater kW	-	-
External finish		Galvanized steel sheets	
External dimension HxWxD	mm	1,450 x 880 x 550	1,450 x 880 x 550
	in.	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16
Protection devices	High pressure protection	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP.)	Over-heat protection, Over-current protection	Over-heat protection, Over-current protection
	Compressor	Over-heat protection	Over-heat protection
Refrigerant	Type x original charge	R410A x 6.0 kg (14 lbs)	R410A x 6.0 kg (14 lbs)
Net weight	kg (lbs)	217 (479)	217 (479)
Heat exchanger		plate type	
Water volume in plate	L	5.0	5.0
	Water pressure Max. MPa	2.0	2.0
Optional parts		Main HBC controller: CMB-WP108, 1016V-GA1 Sub HBC controller: CMB-WP108, 1016V-GB1	Main HBC controller: CMB-WP108, 1016V-GA1 Sub HBC controller: CMB-WP108, 1016V-GB1

**Notes:**

- Nominal cooling conditions (subject to JIS B8615-2)  
Indoor: 27°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Water temperature: 30°C (86°F)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- Nominal heating conditions (subject to JIS B8615-2)  
Indoor: 20°C D.B. (68°F D.B.), Water temperature: 20°C (68°F D.B.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)

**Unit converter**

BTU / h = kW × 3,412  
cfm = m<sup>3</sup> / min × 35.31  
lbs = kg / 0.4536

\*Above specification data is subject to rounding variation.



**NEW**



Model		PQR-Y-P500YLM-A1	
Power source		3-phase 4-wire 380-400-415 V 50/60 Hz	
Cooling capacity (Nominal)	*1 kW	56.0	
	*1 BTU / h	191,100	
	Power input kW	14.58	
	Current input A	24.6-23.3-22.5	
	EER kW / kW	3.84	
Temp. range of cooling	Indoor W.B.	15.0~24.0°C (59~75°F)	
	Circulating water °C	10.0~45.0°C (50~113°F)	
Heating capacity (Nominal)	*2 kW	63.0	
	*2 BTU / h	215,000	
	Power input kW	13.07	
	Current input A	22.0-20.9-20.2	
	COP kW / kW	4.82	
Temp. range of heating	Indoor D.B.	15.0~27.0°C (59~81°F)	
	Circulating water °C	10.0~45.0°C (50~113°F)	
Indoor unit connectable	Total capacity	50~150% of heat source unit capacity	
	Model / Quantity	WP10~WP125/2~50	
Sound pressure level (measured in anechoic room)	dB <A>	54	
Refrigerant piping diameter	High pressure mm (in.)	22.2 (7/8) Brazed	
	Low pressure mm (in.)	28.58 (1-1/8) Brazed	
Circulating water	Water flow rate	m <sup>3</sup> / h	7.20
		L/min	120
		cfm	4.2
	Pressure drop kPa	44	
	Operating volume range m <sup>3</sup> / h	4.5 ~ 11.6	
Compressor	Type	Inverter scroll hermetic compressor	
	Starting method	Inverter	
	Motor output kW	13.0	
	Case heater kW	-	
External finish		Galvanized steel sheets	
External dimension HxWxD	mm	1,450 x 880 x 550	
	in.	57-1/8 x 34-11/16 x 21-11/16	
Protection devices	High pressure protection	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP)	Over-heat protection, Over-current protection	
	Compressor	Over-heat protection	
Refrigerant	Type x original charge	R410A x 6.0 kg (14 lbs)	
Net weight	kg (lbs)	217 (479)	
Heat exchanger			plate type
	Water volume in plate L	5.0	
	Water pressure Max. MPa	2.0	
Optional parts	Main HBC controller: CMB-WP108, 1016V-GA1 Sub HBC controller: CMB-WP108, 1016V-GB1		

**Notes:**

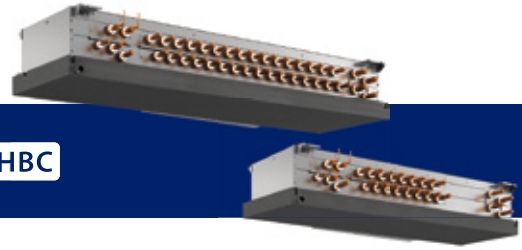
- Nominal cooling conditions (subject to JIS B8615-2)  
Indoor: 27°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Water temperature: 30°C (86°F)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- Nominal heating conditions (subject to JIS B8615-2)  
Indoor: 20°C D.B. (68°F D.B.), Water temperature: 20°C (68°F D.B.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)

**Unit converter**

BTU / h = kW × 3,412  
cfm = m<sup>3</sup> / min × 35.31  
lbs = kg / 0.4536

\*Above specification data is subject to rounding variation.

# - HBC CONTROLLER - Main-HBC



Model			CMB-WP108V-GA1					CMB-WP1016V-GA1				
Number of branch			8					16				
Power source			1-phase 220-230-240 V					1-phase 220-230-240 V				
			50 Hz		60 Hz			50 Hz		60 Hz		
Power input (220/230/240)	Cooling	kW	0.45/0.46/0.47		0.45/0.46/0.47			0.45/0.46/0.47		0.45/0.46/0.47		
	Heating	kW	0.45/0.46/0.47		0.45/0.46/0.47			0.45/0.46/0.47		0.45/0.46/0.47		
Current input (220/230/240)	Cooling	A	2.89/2.83/2.79		2.89/2.83/2.79			2.89/2.83/2.79		2.89/2.83/2.79		
	Heating	A	2.89/2.83/2.79		2.89/2.83/2.79			2.89/2.83/2.79		2.89/2.83/2.79		
Sound pressure level (measured in anechoic room)		dB <A>	41					41				
Applicable temperature range of installation site		°C (D.B.)	0~32					0~32				
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)					Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)				
Connectable Outdoor/Heat source unit			PURY-P200~500YLM-A(1)(-BS)/ PURY-EP200~500YLM-A1(-BS)/PQRY-P200~500YLM-A1					PURY-P200~500YLM-A(1)(-BS)/ PURY-EP200~500YLM-A1(-BS)/PQRY-P200~500YLM-A1				
Indoor unit capacity connectable to 1 branch			Model P80 or smaller (Use optional joint pipe combining 2 branches when the total unit capacity exceeds P81)					Model P80 or smaller (Use optional joint pipe combining 2 branches when the total unit capacity exceeds P81)				
External dimension HxWxD		mm	300 x 1,520 x 630					300 x 1,800 x 630				
		in.	11-13/16 x 59-7/8 x 24-13/16					11-13/16 x 70-7/8 x 24-13/16				
Refrigerant piping diameter	To Outdoor/Heat source unit		Connectable outdoor unit capacity					Connectable outdoor unit capacity				
			To P200	To P250/300	To P350	To P400 for each	To P450/500 for each	To P200	To P250/300	To P350	To P400 for each	To P450/500 for each
	High press. Pipe (O.D.)	mm (in.)	15.88 (5/8) Braze	19.05 (3/4) Braze	19.05 (3/4) Braze	15.88 (5/8) Braze	19.05 (3/4) Braze	15.88 (5/8) Braze	19.05 (3/4) Braze	19.05 (3/4) Braze	15.88 (5/8) Braze	19.05 (3/4) Braze
	Low press. Pipe (O.D.)	mm (in.)	19.05 (3/4) Braze	22.2 (7/8) Braze	28.58 (1-1/8) Braze	19.05 (3/4) Braze	22.2 (7/8) Braze	19.05 (3/4) Braze	22.2 (7/8) Braze	28.58 (1-1/8) Braze	19.05 (3/4) Braze	22.2 (7/8) Braze
Water piping diameter	To Indoor unit											
	Inlet Pipe (I.D.)	mm (in.)	20 (3/4)					20 (3/4)				
	Outlet Pipe (I.D.)	mm (in.)	20 (3/4)					20 (3/4)				
Field drain pipe size		mm (in.)	O.D. 32 (1-1/4)					O.D. 32 (1-1/4)				
Net weight		kg (lbs)	86 (190) [96 (212) with water]					98 (217) [111 (245) with water]				
Standard attachment		Accessory	Drain Connection pipe (with flexible hose and insulation)					Drain Connection pipe (with flexible hose and insulation)				
Optional parts			-					-				

## Notes:

### 1. Works not included:

Installation/foundation work, electrical connection work, duct work, insulation work, power source switch, and other items are not specified in this specifications.

### 2. The equipment is for R410A refrigerant.

### 3. Install this product in a location where noise (refrigerant noise) emitted by the unit will not disturb the neighbors.

(For use in quiet environments with low background noise, position the HBC CONTROLLER at least 5m away from any indoor units.)

### 4. Please install the HBC controller in a place where noise will not be an issue.

### 5. Please attach an expansion vessel (field supply).

### 6. Please use copper or plastic pipes for the water circuit. Do not use steel or stainless steel pipework.

Furthermore, when using copper pipework, use a non-oxidative brazing method.

Oxidation of the pipework will reduce the pump life.

### 7. When brazing the pipes, be sure to braze after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.

### 8. Please install an air purge valve where air will gather in the water circuit.

### 9. Please install a pressure reducing valve and a strainer on the water supply to the HBC controller.

### 10. Please refer to the databook or the installation manual for the specified water quality.

### 11. This unit is not designed for outside installations.

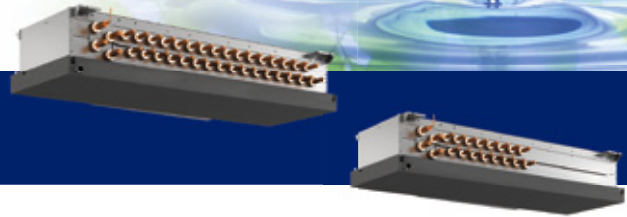
### 12. Please always make water circulate or pull out the circulation water completely when not using it.

\*Please do not use it as a drinking water.

### 13. Please do not use ground water and well water.

### 14. When installing the HBC unit in an environment which may drop below 0 °C, please add antifreeze to the circulating water. (Refer to the data book and the installation manual).

## Sub-HBC

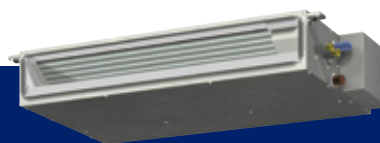


Model			CMB-WP108V-GB1		CMB-WP1016V-GB1	
Number of branch			8		16	
Power source			1-phase 220-230-240 V		1-phase 220-230-240 V	
			50 Hz	60 Hz	50 Hz	60 Hz
Power input (220/230/240)	Cooling	kW	0.01/0.01/0.01	0.01/0.01/0.01	0.01/0.01/0.01	0.01/0.01/0.01
	Heating	kW	0.01/0.01/0.01	0.01/0.01/0.01	0.01/0.01/0.01	0.01/0.01/0.01
Current input (220/230/240)	Cooling	A	0.05/0.05/0.05	0.05/0.05/0.05	0.05/0.05/0.05	0.05/0.05/0.05
	Heating	A	0.05/0.05/0.05	0.05/0.05/0.05	0.05/0.05/0.05	0.05/0.05/0.05
Sound pressure level (measured in anechoic room)		dB <A>	-		-	
Applicable temperature range of installation site		°C (D.B.)	0~32		0~32	
External finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)		Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)	
Connectable Outdoor/Heat source unit			-		-	
Indoor unit capacity connectable to 1 branch			Model P80 or smaller (Use optional joint pipe combining 2 branches when the total unit capacity exceeds P81)		Model P80 or smaller (Use optional joint pipe combining 2 branches when the total unit capacity exceeds P81)	
External dimension HxWxD		mm	300 x 1,520 x 630		300 x 1,520 x 630	
		in.	11-13/16 x 59-7/8 x 24-13/16		11-13/16 x 70-7/8 x 24-13/16	
Water piping diameter	To Main HBC controller					
	Inlet Pipe (I.D.)	mm (in.)	20 (3/4)		20 (3/4)	
	Outlet Pipe (I.D.)	mm (in.)	20 (3/4)		20 (3/4)	
	To Indoor unit					
	Inlet Pipe (I.D.)	mm (in.)	20 (3/4)		20 (3/4)	
	Outlet Pipe (I.D.)	mm (in.)	20 (3/4)		20 (3/4)	
Field drain pipe size		mm (in.)	O.D. 32 (1-1/4)		O.D. 32 (1-1/4)	
Net weight		kg (lbs)	44 (98) [49 (109) with water]		53 (117) [62 (137) with water]	
Standard attachment	Accessory	Drain Connection pipe (with flexible hose and insulation)		Drain Connection pipe (with flexible hose and insulation)		
Optional parts		-		-		

### Notes:

- Works not included:  
Installation/foundation work, electrical connection work, duct work, insulation work, power source switch, and other items are not specified in this specifications.
- The equipment is for water.
- Install this product in a location where noise (refrigerant noise) emitted by the unit will not disturb the neighbors.  
(For use in quiet environments with low background noise, position the Sub HBC CONTROLLER at least 5m away from any indoor units.)
- Please install the Sub HBC controller in a place where noise will not be an issue.
- Please attach an expansion vessel (field supply).
- Please use copper or plastic pipes for the water circuit. Do not use steel or stainless steel pipework.  
Furthermore, when using copper pipework, use a non-oxidative brazing method.  
Oxidation of the pipework will reduce the pump life.
- When brazing the pipes, be sure to braze after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
- Please install an air purge valve where air will gather in the water circuit.
- Please refer to the databook or the installation manual for the specified water quality.
- This unit is not designed for outside installations.
- Please always make water circulate or pull out the circulation water completely when not using it.  
\*Please do not use it as a drinking water.
- Please do not use ground water and well water.
- When installing the Sub HBC unit in an environment which may drop below 0 °C, please add antifreeze to the circulating water. (Refer to the data book and the installation manual).
- Can't use singleness. (MAIN HBC CONTROLLER is necessary.)

# - INDOOR UNIT -



Model		<b>NEW</b> PEFY-WP10VMS1-E	PEFY-WP15VMS1-E	
Power source		1-phase 220-230-240 V 50/60 Hz		
Cooling capacity (Nominal)	*1 kW	1.2	1.7	
	*1 kcal/h	1,000	1,500	
	*1 BTU/h	4,100	5,800	
	*2 Power input kW	0.030	0.050	
	*2 Current input A	0.21	0.44	
Heating capacity (Nominal)	*3 kW	1.4	1.9	
	*3 kcal/h	1,200	1,600	
	*3 BTU/h	4,800	6,500	
	*2 Power input kW	0.030	0.030	
	*2 Current input A	0.21	0.33	
External finish		Galvanized steel plate		
External dimension H x W x D		mm	200 x 790 x 700	
		in.	7-7/8 x 31-1/8 x 27-9/16	
Net weight		kg (lbs)	19 (42)	
Heat exchanger		Cross fin (Aluminum fin and copper tube)		
	Water Volume	L	0.4	
FAN	Type x Quantity		Sirocco fan x 2	
	*4 External static press.	Pa	<5> - 15 - <35> - <50>	
		mmHzO	<0.5> - 1.5 - <3.6> - <5.1>	
	Motor Type		DC motor	
	Motor output	kW	0.096	
	Driving mechanism		Direct-driven by motor	
	Air flow rate		(Low-Mid-High)	(Low-Mid-High)
			m <sup>3</sup> /min	4.0 - 4.5 - 5.0
L/s			67 - 75 - 83	
	cfm	141 - 159 - 177		
Sound pressure level (measured in anechoic room)		(Low-Mid-High)	(Low-Mid-High)	
	*2 dB <A>	20-23-25	22-24-28	
Insulation material		EPS, Polyethylene foam, Urethane foam		
Air filter		PP honeycomb fabric.		
Protection device		Fuse		
Connectable outdoor unit / HBC controller		HYBRID CITY MULTI/CMB-WP-V-GA1, CMB-WP-V-GB1		
Water piping diameter	Inlet	in.	Rc 3/4 screw	
	*5,6 Outlet	in.	Rc 3/4 screw	
Field drain pipe size		mm (in.)	O.D.32 (1-1/4)	
Standard attachment	Accessory		Insulation pipe for water pipe, Washer, Drain hose, Tie band	
	Control Box Replace kit		PAC-KE70HS-E	
Optional parts		PAC-KE70HS-E		

## Notes :

- Nominal cooling conditions  
Indoor: 27°CDB./19°CWB. (81°FDB./66°FWB.), Outdoor: 35°CDB. (95°FDB.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- The values are measured at the factory setting of external static pressure.
- Nominal heating conditions  
Indoor: 20°CDB. (68°FDB.), Outdoor: 7°CDB./6°CWB. (45°FDB./43°FWB.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- The factory setting of external static pressure is shown without < > .  
Refer to "Fan characteristics curves", according to the external static pressure, in DATA BOOK for the usable range of air flow rate.
- Be sure to install a valve on the water outlet.
- Install a strainer (40 mesh or more) on the pipe next to the valve to remove the foreign matters.
- Please group units that operate on 1 branch.

## Unit converter

kcal / h	=kW × 860
BTU / h	=kW × 3,412
cfm	=m <sup>3</sup> / min × 35.31
lbs	=kg / 0.4536

\*Above specification data is subject to rounding variation.



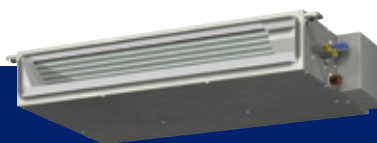
Model			PEFY-WP20VMS1-E	PEFY-WP25VMS1-E	
Power source			1-phase 220-230-240 V 50/60 Hz		
Cooling capacity (Nominal)	*1	kW	2.2	2.8	
	*1	kcal/h	1,900	2,400	
	*1	BTU/h	7,500	9,600	
	*2	Power input	kW	0.051	0.060
	*2	Current input	A	0.49	0.51
Heating capacity (Nominal)	*3	kW	2.5	3.2	
	*3	kcal/h	2,200	2,800	
	*3	BTU/h	8,500	10,900	
	*2	Power input	kW	0.031	0.040
	*2	Current input	A	0.38	0.40
External finish			Galvanized steel plate		
External dimension H x W x D			mm		
			in.		
Net weight			kg (lbs)		
Heat exchanger			Cross fin (Aluminum fin and copper tube)		
Water Volume			L		
FAN			Sirocco fan x 2		
*4	Type x Quantity		Sirocco fan x 2		
	External static press.	Pa	<5> - 15 - <35> - <50>		
mmH <sub>2</sub> O		<0.5> - 1.5 - <3.6> - <5.1>			
Motor Type			DC motor		
Motor output			kW		
Driving mechanism			Direct-driven by motor		
Air flow rate			(Low-Mid-High)		
			m <sup>3</sup> /min		
			L/s		
			cfm		
Sound pressure level (measured in anechoic room)			dB <A>		
Insulation material			EPS, Polyethylene foam, Urethane foam		
Air filter			PP honeycomb fabric.		
Protection device			Fuse		
Connectable outdoor unit / HBC controller			HYBRID CITY MULTI/CMB-WP-V-GA1, CMB-WP-V-GB1		
Water piping diameter	Inlet	in.	Rc 3/4 screw		
	Outlet	in.	Rc 3/4 screw		
Field drain pipe size			mm (in.)		
Standard attachment			Accessory		
Optional parts			Control Box Replace kit		

Notes :

- Nominal cooling conditions  
Indoor: 27°C.D.B./19°C.W.B. (81°F.D.B./66°F.W.B.), Outdoor: 35°C.D.B. (95°F.D.B.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- The values are measured at the factory setting of external static pressure.
- Nominal heating conditions  
Indoor: 20°C.D.B. (68°F.D.B.), Outdoor: 7°C.D.B./6°C.W.B. (45°F.D.B./43°F.W.B.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- The factory setting of external static pressure is shown without < >.  
Refer to "Fan characteristics curves", according to the external static pressure, in DATA BOOK for the usable range of air flow rate.
- Be sure to install a valve on the water outlet.
- Install a strainer (40 mesh or more) on the pipe next to the valve to remove the foreign matters.
- Please group units that operate on 1 branch.

Unit converter	
kcal / h	=kW × 860
BTU / h	=kW × 3,412
cfm	=m <sup>3</sup> / min × 35.31
lbs	=kg / 0.4536
*Above specification data is subject to rounding variation.	

# - INDOOR UNIT -



Model		PEFY-WP32VMS1-E	PEFY-WP40VMS1-E	PEFY-WP50VMS1-E
Power source		1-phase 220-230-240 V 50/60 Hz	1-phase 220-230-240 V 50/60 Hz	1-phase 220-230-240 V 50/60 Hz
Cooling capacity (Nominal)	*1 kW	3.6	4.5	5.6
	*1 kcal/h	3,100	3,900	4,800
	*1 BTU/h	12,300	15,400	19,100
	*2 Power input kW	0.071	0.090	0.090
	*2 Current input A	0.61	0.73	0.77
Heating capacity (Nominal)	*3 kW	4.0	5.0	6.3
	*3 kcal/h	3,400	4,300	5,400
	*3 BTU/h	13,600	17,100	21,500
	*2 Power input kW	0.051	0.070	0.070
	*2 Current input A	0.50	0.62	0.66
External finish		Galvanized steel plate	Galvanized steel plate	Galvanized steel plate
External dimension H x W x D		mm	200 x 990 x 700	200 x 990 x 700
		in.	7-7/8 x 39 x 27-9/16	7-7/8 x 39 x 27-9/16
Net weight		kg (lbs)	25 (56)	25 (56)
Heat exchanger		Cross fin (Aluminum fin and copper tube)		
		Water Volume L	1.0	1.0
FAN		Sirocco fan x 3		
*4 External static press.	Type x Quantity	Sirocco fan x 3		
	Pa	<5> - 15 - <35> - <50>	<5> - 15 - <35> - <50>	<5> - 15 - <35> - <50>
*4 Motor Type	mmHzO	<0.5> - 1.5 - <3.6> - <5.1>	<0.5> - 1.5 - <3.6> - <5.1>	<0.5> - 1.5 - <3.6> - <5.1>
	Motor Type	DC motor	DC motor	DC motor
*4 Motor output	kW	0.096	0.096	0.096
*4 Driving mechanism		Direct-driven by motor	Direct-driven by motor	Direct-driven by motor
*4 Air flow rate	Driving mechanism			
	Air flow rate			
	(Low-Mid-High)			
	m <sup>3</sup> /min	8.0 - 9.0 - 11.0	9.5 - 11.0 - 13.0	12.0 - 14.0 - 16.5
L/s	133 - 150 - 183	158 - 183 - 217	200 - 233 - 275	
cfm	282 - 318 - 388	335 - 388 - 459	424 - 494 - 583	
*2 Sound pressure level (measured in anechoic room)		(Low-Mid-High)		
*2 dB <A>		28-30-33	30-32-35	30-33-36
Insulation material		EPS, Polyethylene foam, Urethane foam	EPS, Polyethylene foam, Urethane foam	EPS, Polyethylene foam, Urethane foam
Air filter		PP honeycomb fabric.	PP honeycomb fabric.	PP honeycomb fabric.
Protection device		Fuse	Fuse	Fuse
Connectable outdoor unit / HBC controller		HYBRID CITY MULTI/ CMB-WP-V-GA1, CMB-WP-V-GB1	HYBRID CITY MULTI/ CMB-WP-V-GA1, CMB-WP-V-GB1	HYBRID CITY MULTI/ CMB-WP-V-GA1, CMB-WP-V-GB1
Water piping diameter *5,6	Inlet	in.	Rc 3/4 screw	Rc 3/4 screw
	Outlet	in.	Rc 3/4 screw	Rc 3/4 screw
Field drain pipe size		mm (in.)	O.D.32 (1-1/4)	O.D.32 (1-1/4)
Standard attachment		Accessory		
Optional parts		Control Box Replace kit		
		PAC-KE70HS-E	PAC-KE70HS-E	PAC-KE70HS-E

## Notes :

- Nominal cooling conditions  
Indoor: 27°C.D.B./19°C.W.B. (81°F.D.B./66°F.W.B.), Outdoor: 35°C.D.B. (95°F.D.B.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- The values are measured at the factory setting of external static pressure.
- Nominal heating conditions  
Indoor: 20°C.D.B. (68°F.D.B.), Outdoor: 7°C.D.B./6°C.W.B. (45°F.D.B./43°F.W.B.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- The factory setting of external static pressure is shown without < >.  
Refer to "Fan characteristics curves", according to the external static pressure, in DATA BOOK for the usable range of air flow rate.
- Be sure to install a valve on the water outlet.
- Install a strainer (40 mesh or more) on the pipe next to the valve to remove the foreign matters.
- Please group units that operate on 1 branch.

## Unit converter

kcal / h =kW × 860  
BTU / h =kW × 3,412  
cfm =m<sup>3</sup> / min × 35.31  
lbs =kg / 0.4536

\*Above specification data is subject to rounding variation.



Model			PEFY-WP20VMA-E	PEFY-WP25VMA-E	
Power source			1-phase 220-230-240 V 50/60 Hz		
Cooling capacity (Nominal)	*1	kW	2.2	2.8	
	*1	kcal / h	1,900	2,400	
	*1	BTU / h	7,500	9,600	
	*2	Power input	kW	0.07	0.09
	*2	Current input	A	0.55	0.64
Heating capacity (Nominal)	*3	kW	2.5	3.2	
	*3	kcal / h	2,200	2,800	
	*3	BTU / h	8,500	10,900	
	*2	Power input	kW	0.05	0.07
	*2	Current input	A	0.44	0.53
External finish			Galvanized steel plate		
External dimension H x W x D		mm	250 x 700 x 732		
		in.	9-7/8 x 27-9/16 x 28-7/8		
Net weight		kg (lbs)	21 (47)		
Heat exchanger			Cross fin (Aluminum fin and copper tube)		
Water Volume		L	0.7		
FAN			Sirocco fan x 1		
*4	External static press.	Pa	<35> - 50 - <70> - <100> - <150>		
		mmH <sub>2</sub> O	<3.6> - 5.1 - <7.1> - <10.2> - <15.3>		
Motor Type			DC motor		
Motor output		kW	0.085		
Driving mechanism			Direct-driven by motor		
Air flow rate		(Low-Mid-High)			
		m <sup>3</sup> /min	7.5 - 9.0 - 10.5		
		L/s	125 - 150 - 175		
		cfm	265 - 318 - 371		
Sound pressure level (measured in anechoic room)		*2	dB <A>		
			(Low-Mid-High)		
			23-26-29		
Insulation material			EPS, Polyethylene foam, Urethane foam		
Air filter			PP honeycomb fabric.		
Protection devices			Fuse		
Connectable outdoor unit / HBC controller			HYBRID CITY MULTI/CMB-WP-V-GA1, CMB-WP-V-GB1		
Water piping diameter	Inlet	in.	Rc 3/4 screw		
	Outlet	in.	Rc 3/4 screw		
Field drain pipe size		mm (in.)	O.D.32 (1-1/4)		
Standard attachment			Insulation pipe for water pipe, Washer, Drain hose, Tie band		
Optional parts			Filter box		
			PAC-KE91TB-E		
			PAC-KE92TB-E		

Notes:

- Nominal cooling conditions  
Indoor: 27 °CD.B./19 °CW.B. (81 °FD.B./66 °FW.B.), Outdoor: 35 °CD.B. (95 °FD.B.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- The values are measured at the factory setting of external static pressure.
- Nominal heating conditions  
Indoor: 20 °CD.B. (68 °FD.B.), Outdoor: 7 °CD.B./6 °CW.B. (45 °FD.B./43 °FW.B.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- The factory setting of external static pressure is shown without < >.  
Refer to "Fan characteristics curves", according to the external static pressure, in DATA BOOK for the usable range of air flow rate.
- Be sure to install a valve on the water outlet.
- Install a strainer (40 mesh or more) on the pipe next to the valve to remove the foreign matters.
- Group units that operate on 1 branch.

Unit converter	
kcal / h	=kW × 860
BTU / h	=kW × 3,412
cfm	=m <sup>3</sup> / min × 35.31
lbs	=kg / 0.4536
* Above specification data is subject to rounding variation.	

# - INDOOR UNIT -



Model		PEFY-WP32VMA-E	PEFY-WP40VMA-E	PEFY-WP50VMA-E	
Power source		1-phase 220-230-240 V 50/60 Hz	1-phase 220-230-240 V 50/60 Hz	1-phase 220-230-240 V 50/60 Hz	
Cooling capacity (Nominal)	*1 kW	3.6	4.5	5.6	
	*1 kcal / h	3,100	3,900	4,800	
	*1 BTU / h	12,300	15,400	19,100	
	*2 Power input kW	0.11	0.14	0.14	
	*2 Current input A	0.74	1.15	1.15	
Heating capacity (Nominal)	*3 kW	4.0	5.0	6.3	
	*3 kcal / h	3,400	4,300	5,400	
	*3 BTU / h	13,600	17,100	21,500	
	*2 Power input kW	0.09	0.12	0.12	
	*2 Current input A	0.63	1.04	1.04	
External finish		Galvanized steel plate	Galvanized steel plate	Galvanized steel plate	
External dimension H x W x D	mm	250 x 900 x 732	250 x 1,100 x 732	250 x 1,100 x 732	
	in.	9-7/8 x 35-7/16 x 28-7/8	9-7/8 x 43-5/16 x 28-7/8	9-7/8 x 43-5/16 x 28-7/8	
Net weight		26 (58)	31 (69)	31 (69)	
Heat exchanger		Cross fin (Aluminum fin and copper tube)	Cross fin (Aluminum fin and copper tube)	Cross fin (Aluminum fin and copper tube)	
	Water Volume L	1.0	1.8	1.8	
FAN	Type x Quantity	Sirocco fan x 1	Sirocco fan x 2	Sirocco fan x 2	
	*4 External static press.	Pa	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>
		mmH <sub>2</sub> O	<3.6> - 5.1 - <7.1> - <10.2> - <15.3>	<3.6> - 5.1 - <7.1> - <10.2> - <15.3>	<3.6> - 5.1 - <7.1> - <10.2> - <15.3>
	Motor Type		DC motor	DC motor	DC motor
	Motor output kW		0.085	0.121	0.121
	Driving mechanism		Direct-driven by motor	Direct-driven by motor	Direct-driven by motor
	Air flow rate		(Low-Mid-High)	(Low-Mid-High)	(Low-Mid-High)
		m <sup>3</sup> /min	12.0 - 14.5 - 17.0	14.5 - 18.0 - 21.0	14.5 - 18.0 - 21.0
	L/s	200 - 242 - 283	242 - 300 - 350	242 - 300 - 350	
	cfm	424 - 512 - 600	512 - 636 - 742	512 - 636 - 742	
Sound pressure level (measured in anechoic room) *2		(Low-Mid-High) 25-29-32	(Low-Mid-High) 26-29-34	(Low-Mid-High) 26-29-34	
Insulation material		EPS, Polyethylene foam, Urethane foam	EPS, Polyethylene foam, Urethane foam	EPS, Polyethylene foam, Urethane foam	
Air filter		PP honeycomb fabric.	PP honeycomb fabric.	PP honeycomb fabric.	
Protection devices		Fuse	Fuse	Fuse	
Connectable outdoor unit / HBC controller		HYBRID CITY MULTI/ CMB-WP-V-GA1, CMB-WP-V-GB1	HYBRID CITY MULTI/ CMB-WP-V-GA1, CMB-WP-V-GB1	HYBRID CITY MULTI/ CMB-WP-V-GA1, CMB-WP-V-GB1	
Water piping diameter *5,6	Inlet	in.	Rc 3/4 screw	Rc 3/4 screw	
	Outlet	in.	Rc 3/4 screw	Rc 3/4 screw	
Field drain pipe size		mm (in.)	O.D.32 (1-1/4)	O.D.32 (1-1/4)	
Standard attachment		Accessory	Insulation pipe for water pipe, Washer, Drain hose, Tie band	Insulation pipe for water pipe, Washer, Drain hose, Tie band	
Optional parts		Filter box	PAC-KE92TB-E	PAC-KE93TB-E	

## Notes:

### 1. Nominal cooling conditions

Indoor: 27 °CD.B./19 °CW.B. (81 °FD.B./66 °FW.B.), Outdoor: 35 °CD.B. (95 °FD.B.)

Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)

### 2. The values are measured at the factory setting of external static pressure.

### 3. Nominal heating conditions

Indoor: 20 °CD.B. (68 °FD.B.), Outdoor: 7 °CD.B./6 °CW.B. (45 °FD.B./43 °FW.B.)

Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)

### 4. The factory setting of external static pressure is shown without < >.

Refer to "Fan characteristics curves", according to the external static pressure, in DATA BOOK for the usable range of air flow rate.

### 5. Be sure to install a valve on the water outlet.

### 6. Install a strainer (40 mesh or more) on the pipe next to the valve to remove the foreign matters.

### 7. Group units that operate on 1 branch.

## Unit converter

kcal / h = kW × 860  
 BTU / h = kW × 3,412  
 cfm = m<sup>3</sup> / min × 35.31  
 lbs = kg / 0.4536

\* Above specification data is subject to rounding variation.





Model		<b>NEW</b> PEFY-WP63VMA-E	<b>NEW</b> PEFY-WP71VMA-E	<b>NEW</b> PEFY-WP80VMA-E
Power source		1-phase 220-230-240 V 50/60 Hz	1-phase 220-230-240 V 50/60 Hz	1-phase 220-230-240 V 50/60 Hz
Cooling capacity (Nominal)	*1 kW	7.1	8.0	9.0
	*1 kcal/h	6,100	6,900	7,700
	*1 BTU/h	24,200	27,300	30,700
	*2 Power input kW	0.14	0.24	0.24
	*2 Current input A	1.15	1.47	1.47
Heating capacity (Nominal)	*3 kW	8.0	9.0	10.0
	*3 kcal/h	6,900	7,700	8,600
	*3 BTU/h	27,300	30,700	34,100
	*2 Power input kW	0.12	0.22	0.22
	*2 Current input A	1.04	1.36	1.36
External finish		Galvanized steel plate	Galvanized steel plate	Galvanized steel plate
External dimension H x W x D		mm	250 x 1,100 x 732	250 x 1,400 x 732
		in.	9-7/8 x 43-5/16 x 28-7/8	9-7/8 x 55-1/8 x 28-7/8
Net weight		kg (lbs)	31 (69)	40 (89)
Heat exchanger			Cross fin (Aluminum fin and copper tube)	Cross fin (Aluminum fin and copper tube)
		Water Volume L	2.0	2.6
FAN		Sirocco fan x 2		
*4 External static press.	Type x Quantity	Sirocco fan x 2		
	Pa	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>
	mmHzO	<3.6> - 5.1 - <7.1> - <10.2> - <15.3>	<3.6> - 5.1 - <7.1> - <10.2> - <15.3>	<3.6> - 5.1 - <7.1> - <10.2> - <15.3>
	Motor Type	DC motor		
	Motor output kW	0.121	0.244	0.244
	Driving mechanism	Direct-driven by motor		
	Air flow rate	(Low-Mid-High)		
		m <sup>3</sup> /min	14.5 - 18.0 - 21.0	23.0 - 28.0 - 33.0
		L/s	242 - 300 - 350	383 - 467 - 550
		cfm	512 - 636 - 742	812 - 989 - 1,165
Sound pressure level (measured in anechoic room)		*2 dB <A>	(Low-Mid-High)	(Low-Mid-High)
		26-29-34	28-33-37	28-33-37
Insulation material		EPS, Polyethylene foam, Urethane foam		
Air filter		PP honeycomb fabric.		
Protection device		Fuse		
Connectable outdoor unit / HBC controller		HYBRID CITY MULTI/ CMB-WP-V-GA1, CMB-WP-V-GB1		
Water piping diameter *5,6	Inlet	Rc 1-1/4 screw		
	Outlet	Rc 1-1/4 screw		
Field drain pipe size		mm (in.)		
		O.D.32 (1-1/4)		
Standard attachment		Insulation pipe for water pipe, Washer, Drain hose, Tie band		
Optional parts		Filter box		
		PAC-KE93TB-E		
		PAC-KE94TB-E		
		PAC-KE94TB-E		

Notes :

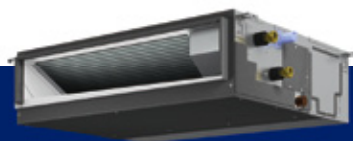
- Nominal cooling conditions  
Indoor: 27°C.D.B./19°C.W.B. (81°F.D.B./66°F.W.B.), Outdoor: 35°C.D.B. (95°F.D.B.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- The values are measured at the factory setting of external static pressure.
- Nominal heating conditions  
Indoor: 20°C.D.B. (68°F.D.B.), Outdoor: 7°C.D.B./6°C.W.B. (45°F.D.B./43°F.W.B.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- The factory setting of external static pressure is shown without < >.  
Refer to "Fan characteristics curves", according to the external static pressure, in DATA BOOK for the usable range of air flow rate.
- Be sure to install a valve on the water outlet.
- Install a strainer (40 mesh or more) on the pipe next to the valve to remove the foreign matters.
- Please group units that operate on 1 branch.

Unit converter

kcal / h	=kW × 860
BTU / h	=kW × 3,412
cfm	=m <sup>3</sup> / min × 35.31
lbs	=kg / 0.4536

\*Above specification data is subject to rounding variation.

# - INDOOR UNIT -



Model			<b>NEW</b> PEFY-WP100VMA-E	<b>NEW</b> PEFY-WP125VMA-E
Power source			1-phase 220-230-240 V 50/60 Hz	
Cooling capacity (Nominal)	*1	kW	11.2	14.0
	*1	kcal/h	9,600	12,000
	*1	BTU/h	38,200	47,800
	*2	Power input kW	0.24	0.36
	*2	Current input A	1.47	2.21
Heating capacity (Nominal)	*3	kW	12.5	16.0
	*3	kcal/h	10,800	13,800
	*3	BTU/h	42,700	54,600
	*2	Power input kW	0.22	0.34
	*2	Current input A	1.36	2.10
External finish			Galvanized steel plate	
External dimension H x W x D			mm	
			250 x 1,400 x 732	
			in.	
			9-7/8 x 55-1/8 x 28-7/8	
Net weight			kg (lbs)	40 (89)
Heat exchanger			Cross fin (Aluminum fin and copper tube)	
Water Volume			L	2.6
Type x Quantity			Sirocco fan x 2	
FAN	*4	External static press.	Pa	<35> - 50 - <70> - <100> - <150>
			mmHzO	<3.6> - 5.1 - <7.1> - <10.2> - <15.3>
Motor Type			DC motor	
Motor output			kW	0.244
Driving mechanism			Direct-driven by motor	
Air flow rate			(Low-Mid-High)	
			m <sup>3</sup> /min	
			L/s	
			cfm	
Sound pressure level (measured in anechoic room)			dB <A>	28-33-37
Insulation material			EPS, Polyethylene foam, Urethane foam	
Air filter			PP honeycomb fabric.	
Protection device			Fuse	
Connectable outdoor unit / HBC controller			HYBRID CITY MULTI/CMB-WP-V-GA1, CMB-WP-V-GB1	
Water piping diameter	*5,6	Inlet	in.	Rc 1-1/4 screw
		Outlet	in.	Rc 1-1/4 screw
Field drain pipe size			mm (in.)	O.D.32 (1-1/4)
Standard attachment			Accessory	
Optional parts			Filter box	

## Notes :

- Nominal cooling conditions  
Indoor: 27°CDB./19°CWB. (81°FDB./66°FWB.), Outdoor: 35°CDB. (95°FDB.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- The values are measured at the factory setting of external static pressure.
- Nominal heating conditions  
Indoor: 20°CDB. (68°FDB.), Outdoor: 7°CDB./6°CWB. (45°FDB./43°FWB.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- The factory setting of external static pressure is shown without < >.  
Refer to "Fan characteristics curves", according to the external static pressure, in DATA BOOK for the usable range of air flow rate.
- Be sure to install a valve on the water outlet.
- Install a strainer (40 mesh or more) on the pipe next to the valve to remove the foreign matters.
- Please group units that operate on 1 branch.

## Unit converter

kcal / h	=kW × 860
BTU / h	=kW × 3,412
cfm	=m <sup>3</sup> / min × 35.31
lbs	=kg / 0.4536

\*Above specification data is subject to rounding variation.



Model		PLFY-WP32VBM-E	PLFY-WP40VBM-E	PLFY-WP50VBM-E
Power source		1-phase 220-230-240 V 50/60Hz	1-phase 220-230-240 V 50/60Hz	1-phase 220-230-240 V 50/60Hz
Cooling capacity	*1 kW	3.6	4.5	5.6
	*1 kcal/h	3,100	3,900	4,800
	*1 BTU/h	12,300	15,400	19,100
	Power input kW	0.04	0.04	0.05
Current input A		0.35	0.35	0.45
Heating capacity	*2 kW	4.0	5.0	6.3
	*2 kcal/h	3,400	4,300	5,400
	*2 BTU/h	13,600	17,100	21,500
	Power input kW	0.03	0.03	0.04
Current input A		0.28	0.28	0.38
External finish		Galvanized steel sheet	Galvanized steel sheet	Galvanized steel sheet
External dimension H x W x D		mm	258 x 840 x 840	258 x 840 x 840
		in.	10-3/16 x 33-3/32 x 33-3/32	10-3/16 x 33-3/32 x 33-3/32
Net weight		kg (lbs)	22(49)	22(49)
Heat exchanger		Cross fin (Aluminum fin and copper tube)	Cross fin (Aluminum fin and copper tube)	Cross fin (Aluminum fin and copper tube)
Water Volume		L	1.5	1.5
FAN		Turbo Fan × 1		
Type x Quantity		Turbo Fan × 1		
External static press		Pa	0	0
Motor Type		DC motor		
Motor output		kW	0.05	0.05
Driving mechanism		Direct-driven by motor		
Air flow rate		(Low-Mid1-Mid2-High)		
		m <sup>3</sup> /min	13 - 14 - 15 - 16	13 - 14 - 15 - 16
		L/s	217 - 233 - 250 - 267	217 - 233 - 250 - 267
cfm		459 - 494 - 530 - 565	459 - 494 - 530 - 565	459 - 530 - 601 - 671
Sound pressure level		(Low-Mid1-Mid2-High)		
dB <A>		27 - 29 - 30 - 31	27 - 29 - 30 - 31	27 - 30 - 32 - 34
Insulation material		PS		
Air filter		PP honeycomb		
Protection device		Fuse		
Refrigerant control device		-		
Connectable Outdoor unit/HBC controller		HYBRID CITY MULTI/CMB-WP-V-GA1, CMB-WP-V-GB1		
Water piping diameter *3,4		Inlet in.	Rc 3/4 screw	Rc 3/4 screw
		Outlet in.	Rc 3/4 screw	Rc 3/4 screw
Field drain pipe size		mm (in.)	O.D.32 (1-1/4)	O.D.32 (1-1/4)
Optional parts		Decoration panel *5 PLP-6BA		
Automatic filter elevation panel *5		PLP-6BAJ		
Space panel		PAC-SH48AS-E		
Air outlet shutter plate		PAC-SH51SP-E		
High efficiency filter element *6		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-SF9FA-E		

Notes :

- Nominal cooling conditions  
Indoor: 27°C.D.B./19°C.W.B. (81°F.D.B./66°F.W.B.), Outdoor: 35°C.D.B. (95°F.D.B.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- Nominal heating conditions  
Indoor: 20°C.D.B. (68°F.D.B.), Outdoor: 7°C.D.B./6°C.W.B. (45°F.D.B./43°F.W.B.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- Be sure to install a valve on the water outlet.
- Install a strainer (40 mesh or more) on the pipe next to the valve to remove the foreign matters.
- PLFY-WP-VBM-E should use together with PLP-6BA(J).
- PAC-SH53TM-E is necessary to use with filter PAC-SH59KF-E.
- Please group units that operate on 1 branch.

Unit converter

kcal / h =kW × 860  
BTU / h =kW × 3,412  
cfm =m<sup>3</sup> / min × 35.31  
lbs =kg / 0.4536

\*Above specification data is subject to rounding variation.

# - INDOOR UNIT -



Model		PFFY-WP20VLRMM-E	PFFY-WP25VLRMM-E	PFFY-WP32VLRMM-E
Power source		1-phase 220-230-240 V 50/60 Hz	1-phase 220-230-240 V 50/60 Hz	1-phase 220-230-240 V 50/60 Hz
Cooling capacity (Nominal)	*1 kW	2.2	2.8	3.6
	*1 kcal/h	1,900	2,400	3,100
	*1 BTU/h	7,500	9,600	12,300
	*2 Power input kW	0.040	0.040	0.050
	*2 Current input A	0.35	0.35	0.47
Heating capacity (Nominal)	*3 kW	2.5	3.2	4.0
	*3 kcal/h	2,200	2,800	3,400
	*3 BTU/h	8,500	10,900	13,600
	*2 Power input kW	0.040	0.040	0.050
	*2 Current input A	0.35	0.35	0.47
External finish		Galvanized steel plate	Galvanized steel plate	Galvanized steel plate
External dimension H x W x D	mm	639 x 886 x 220	639 x 1,006 x 220	639 x 1,006 x 220
	in.	25-3/16 x 34-15/16 x 8-11/16	25-3/16 x 39-5/8 x 8-11/16	25-3/16 x 39-5/8 x 8-11/16
Net weight		kg (lbs)	22 (49)	25 (56)
Heat exchanger		Cross fin (Aluminum fin and copper tube)	Cross fin (Aluminum fin and copper tube)	Cross fin (Aluminum fin and copper tube)
Water Volume		L	0.9	1.3
FAN	Type x Quantity		Sirocco fan x 1	Sirocco fan x 2
	*4 External static press.	Pa	20 - <40> - <60>	20 - <40> - <60>
		mmH <sub>2</sub> O	2.0 - <4.1> - <6.1>	2.0 - <4.1> - <6.1>
	Motor Type		DC motor	DC motor
	Motor output kW		0.096	0.096
	Driving mechanism		Direct-driven by motor	Direct-driven by motor
	Air flow rate		(Low-Mid-High)	(Low-Mid-High)
			m <sup>3</sup> /min	4.5 - 5.0 - 6.0
L/s			75 - 83 - 100	
		cfm	159 - 177 - 212	
Sound pressure level (measured in anechoic room)		*2 dB <A>	(Low-Mid-High)	(Low-Mid-High)
			31-33-38	31-33-38
Insulation material		Polyethylene foam, Urethane foam	Polyethylene foam, Urethane foam	Polyethylene foam, Urethane foam
Air filter		PP honeycomb fabric.	PP honeycomb fabric.	PP honeycomb fabric.
Protection device		Fuse	Fuse	Fuse
Connectable outdoor unit/HBC controller		HYBRID CITY MULTI/ CMB-WP-V-GA1, CMB-WP-V-GB1	HYBRID CITY MULTI/ CMB-WP-V-GA1, CMB-WP-V-GB1	HYBRID CITY MULTI/ CMB-WP-V-GA1, CMB-WP-V-GB1
Water piping diameter	*5,6 Inlet	in.	Rc 3/4 screw	Rc 3/4 screw
	Outlet	in.	Rc 3/4 screw	Rc 3/4 screw
Field drain pipe size		mm (in.)	I.D.26 (1) <Accessory hose O.D.27 (1-3/32) (top end: O.D.20 (13/16))>	I.D.26 (1) <Accessory hose O.D.27 (1-3/32) (top end: O.D.20 (13/16))>
Standard attachment	Accessory		Insulation pipe for water pipe, Drain hose (flexible joint), Screw plate, Level adjusting screw, Hose band	Insulation pipe for water pipe, Drain hose (flexible joint), Screw plate, Level adjusting screw, Hose band

## Notes :

### 1.Nominal cooling conditions

Indoor: 27°CDB./19°CWB. (81°FDB./66°FWB.), Outdoor: 35°CDB. (95°FDB.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)

### 2.The values are measured at the factory setting of external static pressure.

### 3.Nominal heating conditions

Indoor: 20°CDB. (68°FDB.), Outdoor: 7°CDB./6°CWB. (45°FDB./43°FWB.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)

### 4.The factory setting of external static pressure is shown without < > .

Refer to "Fan characteristics curves", according to the external static pressure, in DATA BOOK for the usable range of air flow rate.

### 5.Be sure to install a valve on the water outlet.

### 6.Install a strainer (40 mesh or more) on the pipe next to the valve to remove the foreign matters.

### 7.Please group units that operate on 1 branch.

## Unit converter

kcal / h =kW × 860  
BTU / h =kW × 3,412  
cfm =m<sup>3</sup> / min × 35.31  
lbs =kg / 0.4536

\*Above specification data is subject to rounding variation.



Model		PFFY-WP40VLRMM-E	PFFY-WP50VLRMM-E
Power source		1-phase 220-230-240 V 50/60 Hz	
Cooling capacity (Nominal)	*1 kW	4.5	5.6
	*1 kcal/h	3,900	4,800
	*1 BTU/h	15,400	19,100
	*2 Power input kW	0.050	0.070
	*2 Current input A	0.47	0.65
Heating capacity (Nominal)	*3 kW	5.0	6.3
	*3 kcal/h	4,300	5,400
	*3 BTU/h	17,100	21,500
	*2 Power input kW	0.050	0.070
	*2 Current input A	0.47	0.65
External finish		Galvanized steel plate	
External dimension H x W x D	mm	639 x 1,246 x 220	639 x 1,246 x 220
	in.	25-3/16 x 49-1/16 x 8-11/16	25-3/16 x 49-1/16 x 8-11/16
Net weight		29 (64)	
Heat exchanger		Cross fin (Aluminum fin and copper tube)	
	Water Volume L	1.5	1.5
FAN	Type x Quantity		Sirocco fan x 2
	*4 External static press.	Pa	20 - <40> - <60>
		mmH <sub>2</sub> O	2.0 - <4.1> - <6.1>
	Motor Type		DC motor
	Motor output kW	0.096	0.096
	Driving mechanism		Direct-driven by motor
	Air flow rate	(Low-Mid-High)	
		m <sup>3</sup> /min	8.0 - 10.0 - 11.5
		L/s	133 - 167 - 192
	cfm	282 - 353 - 406	
Sound pressure level (measured in anechoic room) *2		(Low-Mid-High)	(Low-Mid-High)
	dB <A>	34-37-40	37-42-45
Insulation material		Polyethylene foam, Urethane foam	
Air filter		PP honeycomb fabric.	
Protection device		Fuse	
Connectable outdoor unit/HBC controller		HYBRID CITY MULTI/CMB-WP-V-GA1, CMB-WP-V-GB1	
Water piping diameter *5,6	Inlet in.	Rc 3/4 screw	Rc 3/4 screw
	Outlet in.	Rc 3/4 screw	Rc 3/4 screw
Field drain pipe size		I.D.26 (1) <Accessory hose O.D.27 (1-3/32) (top end: O.D.20 (13/16))>	
Standard attachment	Accessory	Insulation pipe for water pipe, Drain hose (flexible joint), Screw plate, Level adjusting screw, Hose band	

#### Notes :

- Nominal cooling conditions  
Indoor: 27°C.D.B./19°C.W.B. (81°F.D.B./66°F.W.B.), Outdoor: 35°C.D.B. (95°F.D.B.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- The values are measured at the factory setting of external static pressure.
- Nominal heating conditions  
Indoor: 20°C.D.B. (68°F.D.B.), Outdoor: 7°C.D.B./6°C.W.B. (45°F.D.B./43°F.W.B.)  
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- The factory setting of external static pressure is shown without < >.  
Refer to "Fan characteristics curves", according to the external static pressure, in DATA BOOK for the usable range of air flow rate.
- Be sure to install a valve on the water outlet.
- Install a strainer (40 mesh or more) on the pipe next to the valve to remove the foreign matters.
- Please group units that operate on 1 branch.

#### Unit converter

kcal / h	=kW × 860
BTU / h	=kW × 3,412
cfm	=m <sup>3</sup> / min × 35.31
lbs	=kg / 0.4536

\*Above specification data is subject to rounding variation.



**for a greener tomorrow**

Eco Changes is the Mitsubishi Electric Group's environmental statement, and expresses the Group's stance on environmental management. Through a wide range of businesses, we are helping contribute to the realization of a sustainable society.



**FM33568 / ISO 9001;2008**

The Air Conditioning & Refrigeration Systems Works acquired ISO 9001 certification under Series 9000 of the International Standard Organization (ISO) based on a review of Quality management for the production of refrigeration and air conditioning equipment.

**ISO Authorization System**

The ISO 9000 series is a plant authorization system relating to quality management as stipulated by the ISO. ISO 9001 certifies quality management based on the "design, development, production, installation and auxiliary services" for products built at an authorized plant.



The Air Conditioning & Refrigeration Systems Works acquired environmental management system standard ISO 14001 certification.

The ISO 14000 series is a set of standards applying to environmental protection set by the International Standard Organization (ISO). Registered on March 10, 1998.

**⚠ 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, during 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 equipments and heat pumps contain a fluorinated greenhouse gas, R410A.

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