



HYBRID
CITY MULTI

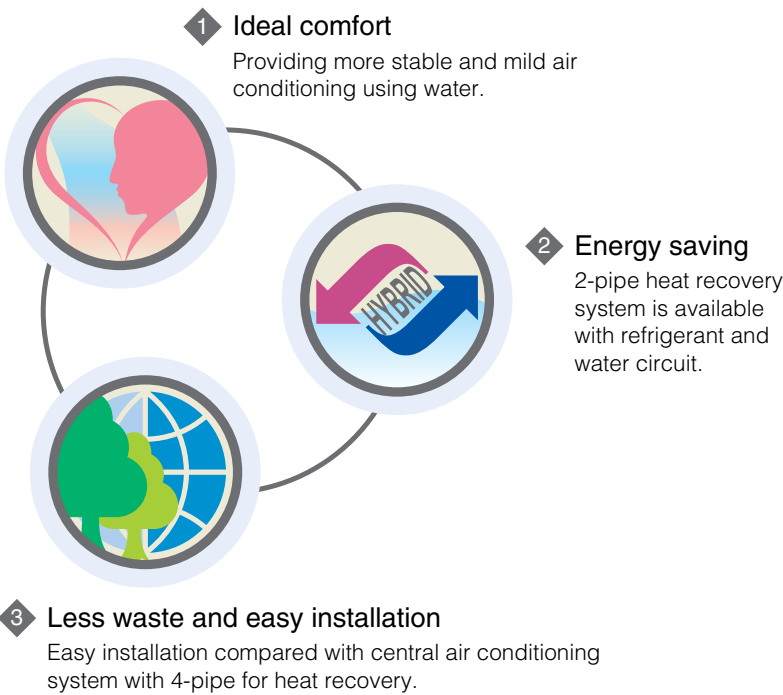


An industry first technology

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

The HYBRID CITY MULTI is the industry's first system which uses refrigerant between the outdoor unit and the HBC (Hydro BC controller), and water between the HBC and the indoor units.

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



HYBRID CITY MULTI,
the industry's first and
only technology.

Our world is your world

Contents

An industry first technology

How it works	4
Application examples	5

Why choose HYBRID CITY MULTI?

6

Case study

7

Line up

8

Controls

9

Specifications

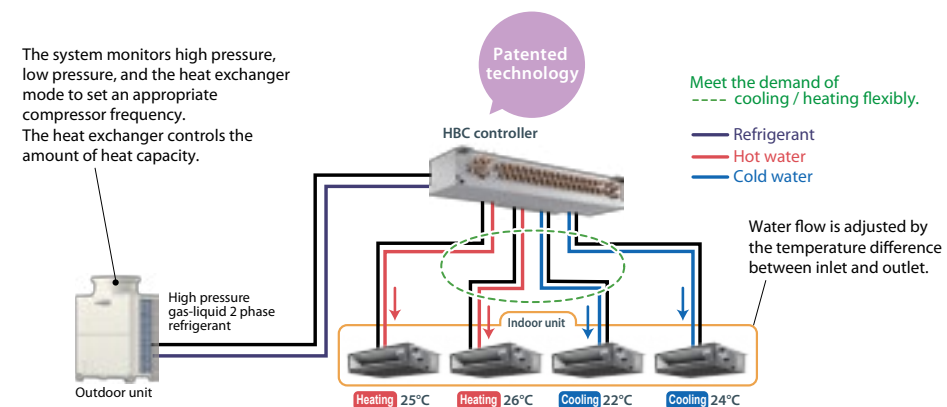
Outdoor Unit	10
Outdoor Unit Hi-Cop	14
HBC Controller	18
Indoor Unit	20

How it works

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

No Refrigerant in confined spaces

Hybrid City Multi uses water between HBC and indoor, therefore there is no requirement for a refrigerant leak detection system.



Application examples

The HYBRID CITY MULTI is suitable for various places that require individual settings and simultaneous cooling/heating operation (e.g. offices / hotels / hospitals / nursing homes).



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 your 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 supply this demand with heat recovery technology.



For Hospitals

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

Why choose HYBRID CITY MULTI?

FEATURES

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 will supply milder off coil temperatures.

Simultaneous cooling/heating operation

Provides air conditioning corresponding to various needs. With the 2-pipe system, direction of refrigerant flow will not reverse when the main mode changes. The compressor does not need to stop when the mode changes. This allows comfortable air conditioning during mild ambient conditions.

Energy efficiency

Consume less energy by heat recovery operation if cooling and heating operation are used 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 utilising the centralised control and the scheduled operation.

Less material/equipment

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

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.

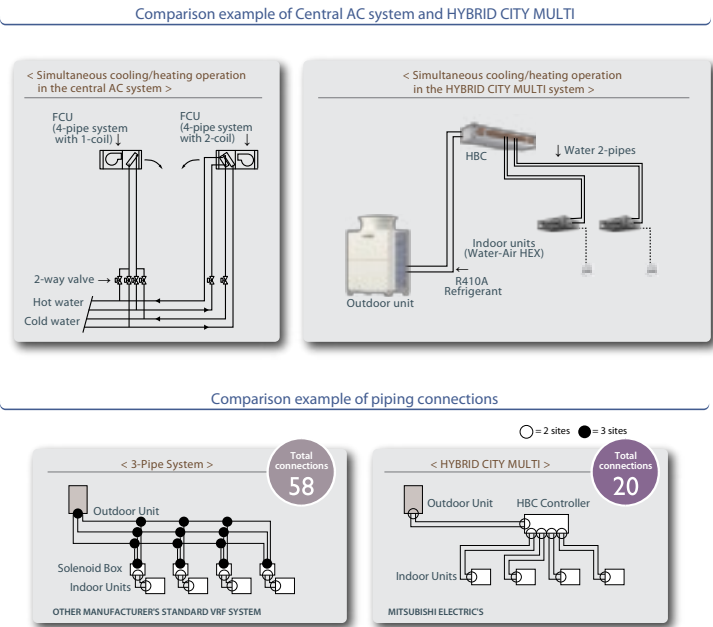
R410A refrigerant

R410A refrigerant allows higher heat transfer than R22. The use of R410A in this system has achieved significantly higher COP (Coefficient of performance).

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	128%	115%

Less installation work

Achieved by the world's first and only 2-pipe system that allows easier installation than a central AC system. A central AC system requires 2 heat sources (Chiller and Boiler) and 4 pipes to each fan coil unit. 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.



Case study

CAMPSIE MEDICAL CENTRE



The Challenge

Air conditioning Campsie medical centre which comprises large open plan waiting rooms, and small private doctors suites. Providing air conditioning to the doctors suites and complying with AS 1677 (refrigerant concentration levels) has been a challenge for Primary Health. The doctors suites have to meet privacy requirements which makes dealing with refrigerant leaks in small spaces very difficult. In the past Primary Health have installed refrigerant detectors and alarms per suite, which cost \$2000 AUD/per suite, the sensors also require yearly calibration to comply with local laws.

The Solution

Standard VRF was used for the large open plan areas. Hybrid VRF was used for the doctors suites, which negates the need for refrigerant alarms as there is no refrigerant in the conditioned space! All the systems seamlessly integrated with the standard Mitsubishi Electric centralised controller AE-200E.

INSTALLED SYSTEM

Outdoor Unit



PURY-WP200YJM-A x 2

Indoor Unit



PEFY-WP25VMA-E x 9

PEFY-WP50VMA-E x 1

Controls



PAR-U02MEDA x 10



AE-200E x 1

Line Up

HVRF Heat Recovery Units are the latest technological breakthrough from the Mitsubishi Electric City Multi range, with the ability for heating and cooling simultaneously, more efficiently than ever before. Available in 22.4kW to 56kW.

HBC Controller

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.

Branches	Model
8	CMB-WP108V-GA1 CMB-WP108V-GB1
16	CMB-WP1016V-GA1 CMB-WP1016V-GB1

Indoor Unit

Four types of units are exclusively designed for use with the Hybrid VRF systems.

PEFY-WP-VMS1-E:

Low static ceiling concealed unit with 200mm height for low ceiling applications.

PEFY-WP-VMA-E:

Mid static ceiling concealed unit with 250mm height for installation in tight spaces, such as ceiling cavities or drop ceilings.

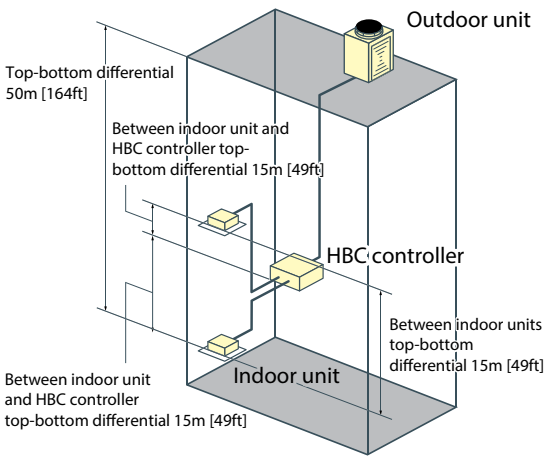
PLFY-WP-VBM-E:

4 way airflow ceiling cassette. Ideal for applications with ceiling heights up to 4.2m.

PFFY-WP-VLRMM-E:

Floor mounted concealed unit. Compact unit for air conditioning in perimeter zone.

Model Size	WP15	WP20	WP25	WP32	WP40	WP50
PEFY-WP-VMS1-E	✓	✓	✓	✓	✓	✓
PEFY-WP-VMA-E		✓	✓	✓	✓	✓
PLFY-WP-VBM-E				✓	✓	✓
PFFY-WP-VLRMM-E		✓	✓	✓	✓	✓
Capacity	1.7KW	2.2kW	2.8kW	3.6kW	4.5kW	5.6kW



Controls



PAC-YT52CRA

The PAC-YT52CRA is a simple MA controller with backlight LCD and few operation buttons. It allows ON/OFF, mode change, temperature setting, fan speed and airflow direction. When the operation mode is set to Auto(dual set point) mode, two set temperatures (one each for cooling and heating) can be set.



PAR-31MAA

The PAR-31 Controller allows you to program up to 8 stop/start patterns per day for up to 7 days at a time. Other features include a variety of operation control functions, error information, temperature range restriction, operation lock and multi-language display. The PAR-31 also offers the following at the touch of a button: LCD backlit screen, large, easy to read display and mode view for both icon and word display.



PAR-U02MEDA

This controller is equipped the basic functions of operation, monitoring and schedule control. It also features four built-in sensors (temperature, humidity, occupancy and brightness) the occupancy sensor detecting vacancy in the specific zone will reduce energy consumption. Which enables an integrated control of the system creating a comfortable environment.



AT-50B 5.7" LCD Touch Screen

Able to control up to 50 units and featuring both weekly and daily timer functions, the AT-50 is a cost effective solution for large domestic or small commercial systems. Featuring a 5" backlit, colour touch-screen LCD display. The AT-50 is also able to be integrated for control of additional equipment such as; extract and fresh air fans, ventilation systems and outdoor security lighting.



AE-200E 10.4" LCD Touch Screen

Controls up to 200 units, monitoring operation via a web browser or personal computer via LAN or telephone line. Featuring a large, backlit high-resolution touch panel, the display is highly visible and easy to read. The AE-200 also has the ability to monitor power consumption, humidity, temperature control, fan speed and airflow and multi-language display among many other operating modes.

Specifications

OUTDOOR UNIT



Model			PURY-P200YLM-A1 (-BS)	PURY-P250YLM-A1 (-BS)	
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	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)	
		Outdoor	D.B.	-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)	
		Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	
Indoor unit connectable	Total capacity		50~150%	50~150% of outdoor unit capacity	
	Model / Quantity		WP20~WP50/1~20	WP20~WP50/1~25	
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	m³/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 mmH₂O)	0 Pa (0 mmH₂O)
Compressor	Type x Quantity		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			Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1 Main BC controller: CMB-WP108, 1016V-GA1 Sub BC controller: CMB-WP108, 1016V-GB1	Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1 Main BC controller: CMB-WP108, 1016V-GA1 Sub BC 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 mmH₂O, 6.1 mmH₂O).
*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 x 3,412
cfm = m ³ / min x 35.31
lbs = kg / 0.4536
*Above specification data is subject to rounding variation.

OUTDOOR UNIT



Model			PURY-P300YLM-A1 (-BS)		PURY-P350YLM-A1 (-BS)		
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		17.93		
		Current input A	22.5-21.3-20.6		30.2-28.7-27.7		
		EER kW / kW	2.51		2.23		
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		15.51		
		Current input A	21.4-20.3-19.6		26.1-24.8-23.9		
		COP kW / kW	2.95		2.90		
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		WP20~WP50/1~30		WP20~WP50/1~35		
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	m³/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		
	Motor output	kW	0.92 x 1		0.92 x 1		
	*4	External static press.		0 Pa (0 mmH₂O)		0 Pa (0 mmH₂O)	
Compressor	Type x Quantity		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			Joint: CMY-Y102SS-G2,CMY-Y102LS-G2,CMY-R160-J1 Main BC controller: CMB-WP108,1016V-GA1 Sub BC controller: CMB-WP108,1016V-GB1		Joint: CMY-Y102SS-G2,CMY-Y102LS-G2,CMY-R160-J1 Main BC controller: CMB-WP108,1016V-GA1 Sub BC 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 mmH₂O, 6.1 mmH₂O).
*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 x 3,412
cfm = m ³ / min x 35.31
lbs = kg / 0.4536
*Above specification data is subject to rounding variation.

Specifications

OUTDOOR UNIT



Model			PURY-P400YLM-A1 (-BS)	PURY-P450YLM-A1 (-BS)
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	
Cooling capacity (Nominal)	*1	kW	45.0	50.0
		BTU / h	153,500	170,600
	Power input	kW	16.65	17.92
		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)
		Outdoor	D.B.	-5.0~46.0°C (23~115°F)
Heating capacity (Nominal)	*2	kW	45.0	56.0
		BTU / h	153,500	191,100
	Power input	kW	13.39	17.39
		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)
		Outdoor	W.B.	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~150% of outdoor unit capacity	
	Model / Quantity		WP20~WP50/1~40	
Sound pressure level (measured in anechoic room)		dB <A>	62.5	
Sound power level (measured in anechoic room)		dB <A>	86	
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 1	
	Air flow rate	m³/min	230	
		L/s	3,833	
		cfm	8,121	
	Control, Driving mechanism		Inverter-control, Direct-driven by motor	
	Motor output	kW	0.92 x 1	
		External static press.		0 Pa (0 mmH₂O)
	Compressor	Type x Quantity		Inverter scroll hermetic compressor
Starting method		Inverter		
Motor output		kW	10.9	
		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 1,220 x 740	
		in.	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)	
	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)	
Net weight		kg (lbs)	246 (543)	
Heat exchanger			Salt-resistant cross fin & copper tube	
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle, Hot gas)	
Optional parts			Joint: CMY-Y102SS-G2, CMY-Y102LS-G2, CMY-R160-J1 Main BC controller: CMB-WP108, 1016V-GA1 Sub BC 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 mmH₂O, 6.1 mmH₂O).
*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 ³ / min × 35.31
lbs = kg / 0.4536
*Above specification data is subject to rounding variation.

OUTDOOR UNIT



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		
		BTU / h	191,100		
	Power input	kW	22.67		
		Current input	A	38.2-36.3-35.0	
		EER	kW / kW	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		
		BTU / h	197,900		
	Power input	kW	17.53		
		Current input	A	29.5-28.1-27.0	
		COP	kW / kW	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		WP20~WP50/1~50		
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	m³/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 mmH₂O)	
	Compressor	Type x Quantity		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			Joint: CMY-Y102SS-G2,CMY-Y102LS-G2,CMY-R160-J1 Main BC controller: CMB-WP108,1016V-GA1 Sub BC 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 mmH₂O, 6.1 mmH₂O).
*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 ³ / min × 35.31
lbs = kg / 0.4536
*Above specification data is subject to rounding variation.

Specifications

OUTDOOR UNIT HI-COP



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	
		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)	
		Outdoor	D.B.	-5.0~46.0°C (23~115°F)	
Heating capacity (Nominal)	*2	kW	25.0	31.5	
		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)	
		Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	
Indoor unit	Total capacity		50~150%		
connectable	Model / Quantity		WP20~WP50/1~20		
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		
	Air flow rate	m³/min	185	185	
		L/s	3,083	3,083	
		cfm	6,532	6,532	
	Control, Driving mechanism		Inverter-control, Direct-driven by motor		
	Motor output	kW	0.92 x 1	0.92 x 1	
	*4	External static press.	0 Pa (0 mmH₂O)		
				0 Pa (0 mmH₂O)	
Compressor	Type x Quantity		Inverter scroll hermetic compressor		
	Starting method		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>		
External dimension HxWxD		mm	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		
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 6.0 kg (14 lbs)		
Net weight	kg (lbs)		202 (446)		
Heat exchanger			Salt-resistant cross fin & aluminium tube		
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle, Hot gas)		
Optional parts			Joint: CMY-Y102SS-G2,CMY-Y102LS-G2,CMY-R160-J1 Main BC controller: CMB-WP108,1016V-GA1 Sub BC 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./24°CWB. (95°FDB./75°FWB.)
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 mmH₂O, 6.1 mmH₂O).
*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 = m³ / min × 35.31
lbs = kg / 0.4536
*Above specification data is
subject to rounding
variation.

OUTDOOR UNIT HI-COP



Model			PURY-EP300YLM-A1 (-BS)		PURY-EP350YLM-A1 (-BS)		
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		
		BTU / h	114,300		136,500		
	Power input	kW	12.05		17.16		
		Current input	A	20.3-19.3-18.6		28.9-27.5-26.5	
		EER	kW / kW	2.78		2.33	
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		
		BTU / h	128,000		153,500		
	Power input	kW	11.71		15.38		
		Current input	A	19.7-18.7-18.1		25.9-24.6-23.7	
		COP	kW / kW	3.20		2.92	
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		WP20~WP50/1~30		WP20~WP50/1~35		
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	m³/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		
	Motor output	kW	0.92 x 1		0.92 x 1		
	*4 External static press.		0 Pa (0 mmH₂O)		0 Pa (0 mmH₂O)		
Compressor	Type x Quantity		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor		
	Starting method		Inverter		Inverter		
	Motor output	kW	8.1		10.5		
	Case heater		-		-		
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			Joint: CMY-Y102SS-G2,CMY-Y102LS-G2,CMY-R160-J1 Main BC controller: CMB-WP108, 1016V-GA1 Sub BC controller: CMB-WP108, 1016V-GB1		Joint: CMY-Y102SS-G2,CMY-Y102LS-G2,CMY-R160-J1 Main BC controller: CMB-WP108, 1016V-GA1 Sub BC 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./24°CWB. (95°FDB./75°FWB.)
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 mmH₂O, 6.1 mmH₂O).
*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 = m³ / min × 35.31
lbs = kg / 0.4536
*Above specification data is
subject to rounding
variation.

Specifications

OUTDOOR UNIT HI-COP



Model			PURY-EP400YLM-A1 (-BS)		PURY-EP450YLM-A1 (-BS)	
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	45.0		50.0	
		BTU / h	153,500		170,600	
		Power input	kW		13.88	
		Current input	A		23.4-22.2-21.4	
		EER	kW / kW		3.24	
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	50.0		56.0	
		BTU / h	170,600		191,100	
		Power input	kW		14.12	
		Current input	A		23.8-22.6-21.8	
		COP	kW / kW		3.54	
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	Total capacity		50~150% of outdoor unit capacity		50~150% of outdoor unit capacity	
connectable	Model / Quantity		WP20~WP50/1~40		WP20~WP50/1~45	
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	m³/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 mmH₂O)		0 Pa (0 mmH₂O)		
Compressor	Type x Quantity	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		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			Joint: CMY-Y102SS-G2,CMY-Y102LS-G2,CMY-R160-J1 Main BC controller: CMB-WP108,1016V-GA1 Sub BC controller: CMB-WP108,1016V-GB1		Joint: CMY-Y102SS-G2,CMY-Y102LS-G2,CMY-R160-J1 Main BC controller: CMB-WP108,1016V-GA1 Sub BC 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./24°CWB. (95°FDB./75°FWB.)
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 mmH₂O, 6.1 mmH₂O).
*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 = m³ / min × 35.31
lbs = kg / 0.4536
*Above specification data is
subject to rounding
variation.

OUTDOOR UNIT HI-COP



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		
		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		
		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		WP20~WP50/1~50		
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	m³/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		
	External static press.		0 Pa (0 mmH₂O)		
Compressor	Type x Quantity		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			Joint: CMY-Y102SS-G2,CMY-Y102LS-G2,CMY-R160-J1 Main BC controller: CMB-WP108,1016V-GA1 Sub BC controller: CMB-WP108,1016V-GB1		

Notes:

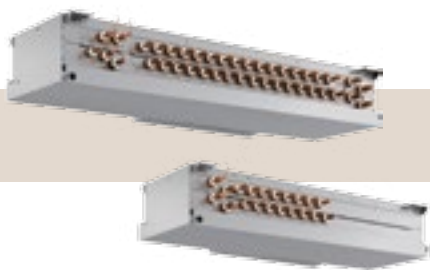
- Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CDB./19°CWB. (81°FDB./66°FWB.), Outdoor: 35°CDB./24°CWB. (95°FDB./75°FWB.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CDB. (68°FDB.), Outdoor: 7°CDB./6°CWB. (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 mmH₂O, 6.1 mmH₂O).
*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 = m³ / min × 35.31
lbs = kg / 0.4536
*Above specification data is
subject to rounding
variation.

Specifications

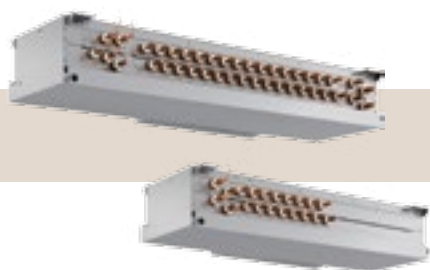
HBC CONTROLLER



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 unit			PURY-P200~350YLM-A1(-BS)/PURY-P400~500YLM-A1(-BS)/ PURY-EP200~500YLM-A1(-BS)				PURY-P200~350YLM-A1(-BS)/PURY-P400~500YLM-A1(-BS)/ PURY-EP200~500YLM-A1(-BS)					
Indoor unit capacity connectable to 1 branch			Model P80 or smaller				Model P80 or smaller					
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 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	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(O.D.)	mm	20					20				
	Outlet Pipe(O.D.)	mm	20					20				
Field drain pipe size		mm(in.)	O.D. 32 (1-1/4)				O.D. 32 (1-1/4)					
Net weight		kg (lbs)	85 (188) [95 (210) with water]				97 (214) [110 (243) 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 databook and the installation manual).

SUB HBC CONTROLLER

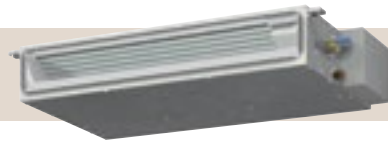


Model			CMB-WP108V-GB1		CMB-WP1016V-GB1	
Number of branch			8		16	
Power source			1-phase 220-230-240 V		1-phase 220-230-240 V	
			50 Hz	60 Hz	50 Hz	60 Hz
Power input (220/230/240)	Cooling	kW	0.01/0.01/0.01	0.01/0.01/0.01	0.01/0.01/0.01	0.01/0.01/0.01
	Heating	kW	0.01/0.01/0.01	0.01/0.01/0.01	0.01/0.01/0.01	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 unit			-		-	
Indoor unit capacity connectable to 1 branch			Model P80 or smaller		Model P80 or smaller	
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 (O.D.)	mm(in.)	25.4 (1)		25.4 (1)	
	Outlet Pipe (O.D.)	mm(in.)	25.4 (1)		25.4 (1)	
	To Indoor unit					
	Inlet Pipe(O.D.)	mm	20		20	
	Outlet Pipe(O.D.)	mm	20		20	
Field drain pipe size		mm(in.)	O.D. 32 (1-1/4)		O.D. 32 (1-1/4)	
Net weight		kg (lbs)	43 (95) [48 (106) with water]		51 (113) [60 (133) 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 water.
 - 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 Sub HBC CONTROLLER at least 5m away from any indoor units.)
 - 4.Please install the Sub 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 refer to the databook or the installation manual for the specified water quality.
 - 10.This unit is not designed for outside installations.
 - 11.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.
 - 12.Please do not use ground water and well water.
 - 13.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 databook and the installation manual).
 - 14.Sub BC must be connected to main HBC controller . (MAIN HBC CONTROLLER is necessary.)

Specifications

INDOOR UNIT



Model			PEFY-WP15VMS1-E	PEFY-WP20VMS1-E	PEFY-WP25VMS1-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	1.7	2.2	2.8	
	*1	kcal/h	1,500	1,900	2,400	
	*1	BTU/h	5,800	7,500	9,600	
	*2	Power input	kW	0.050	0.060	
	*2	Current input	A	0.44	0.51	
Heating capacity (Nominal)	*3	kW	1.9	2.5	3.2	
	*3	kcal/h	1,600	2,200	2,800	
	*3	BTU/h	6,500	8,500	10,900	
	*2	Power input	kW	0.030	0.040	
	*2	Current input	A	0.33	0.40	
External finish			Galvanized steel plate	Galvanized steel plate	Galvanized steel plate	
External dimension H x W x D		mm	200 x 790 x 700	200 x 790 x 700	200 x 790 x 700	
		in.	7-7/8 x 31-1/8 x 27-9/16	7-7/8 x 31-1/8 x 27-9/16	7-7/8 x 31-1/8 x 27-9/16	
Net weight		kg(lbs)	19 (42)	20 (45)	20 (45)	
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	0.7	0.9	
FAN	Type x Quantity		Sirocco fan x 2	Sirocco fan x 2	Sirocco fan x 2	
	*4 External static press.	Pa	<5> - 15 - <35> - <50>	<5> - 15 - <35> - <50>	<5> - 15 - <35> - <50>	
		mmH2O	<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	
	Motor output		kW	0.096	0.096	
	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)	
			m3/min	5.0 - 6.0 - 7.0	5.5 - 6.5 - 8.0	5.5 - 7.0 - 9.0
			L/s	83 - 100 - 117	92 - 108 - 133	92 - 117 - 150
		cfm	177 - 212 - 247	194 - 230 - 282	194 - 247 - 318	
Sound pressure level (measured in anechoic room)			*2 dB <A>	(Low-Mid-High)	(Low-Mid-High)	
			22-24-28	23-25-29	23-26-30	
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			CITY MULTI YLM series/ CMB-WP-V-GA1/CMB-WP-V-GB1	CITY MULTI YLM series/ CMB-WP-V-GA1/CMB-WP-V-GB1	CITY MULTI YLM series/ CMB-WP-V-GA1/CMB-WP-V-GB1	
Water piping diameter	Inlet	in.	Rc 3/4 screw	Rc 3/4 screw	Rc 3/4 screw	
	*5,6 Outlet	in.	Rc 3/4 screw	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)	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	Insulation pipe for water pipe, Washer, Drain hose, Tie band	
Optional parts	Control Box Replace kit		PAC-KE70HS-E	PAC-KE70HS-E	PAC-KE70HS-E	

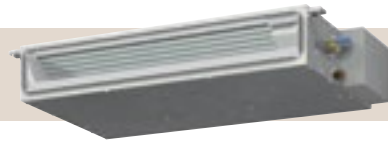
Notes :

- 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 =m3 / 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	
	*2	Current input	A	0.61	0.73	
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	
	*2	Current input	A	0.50	0.62	
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	200 x 1,190 x 700	
		in.	7-7/8 x 39 x 27-9/16	7-7/8 x 39 x 27-9/16	7-7/8 x 46-7/8 x 27-9/16	
Net weight		kg(lbs)	25 (56)	25 (56)	27 (60)	
Heat exchanger			Cross fin (Aluminum fin and copper tube)	Cross fin (Aluminum fin and copper tube)	Cross fin (Aluminum fin and copper tube)	
FAN	Water Volume		L	1.0	1.7	
	Type x Quantity			Sirocco fan x 3	Sirocco fan x 4	
	*4 External static press.	Pa	<5> - 15 - <35> - <50>	<5> - 15 - <35> - <50>	<5> - 15 - <35> - <50>	
		mmH2O	<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	
	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)	
			m3/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
Sound pressure level (measured in anechoic room)			*2 dB <A>	28-30-33	30-32-35	
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			CITY MULTI YLM series/ CMB-WP-V-GA1/CMB-WP-V-GB1	CITY MULTI YLM series/ CMB-WP-V-GA1/CMB-WP-V-GB1	CITY MULTI YLM series/ CMB-WP-V-GA1/CMB-WP-V-GB1	
Water piping diameter	Inlet	in.	Rc 3/4 screw	Rc 3/4 screw	Rc 3/4 screw	
	*5.6 Outlet	in.	Rc 3/4 screw	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)	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	Insulation pipe for water pipe, Washer, Drain hose, Tie band	
Optional parts	Control Box Replace kit		PAC-KE70HS-E	PAC-KE70HS-E	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 =m3 / min × 35.31
lbs =kg / 0.4536
*Above specification data is subject to rounding variation.

Specifications

INDOOR UNIT



Model			PEFY-WP20VMA-E		PEFY-WP25VMA-E	
Power source			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			
	*1	kcal/h	1,900		2,400	
	*1	BTU/h	7,500		9,600	
	*2	Power input	kW		0.07	
	*2	Current input	A		0.64	
Heating capacity (Nominal)	*3	kW	2.5		3.2	
	*3	kcal/h	2,200			
	*3	BTU/h	8,500			
	*2	Power input	kW		0.05	
	*2	Current input	A		0.44	
External finish			Galvanized steel plate		Galvanized steel plate	
External dimension H x W x D		mm	250 x 700 x 732		250 x 900 x 732	
		in.	9-7/8 x 27-9/16 x 28-7/8		9-7/8 x 35-7/16 x 28-7/8	
Net weight		kg(lbs)	21 (47)		26 (58)	
Heat exchanger			Cross fin (Aluminum fin and copper tube)		Cross fin (Aluminum fin and copper tube)	
FAN	Water Volume		L	0.7		
	*4	Type x Quantity				
		External static press.	Pa			
			mmH2O	<3.6> - 5.1 - <7.1> - <10.2> - <15.3>		
	Motor Type					
	Motor output		kW	0.085		
	Driving mechanism		Direct-driven by motor			
	Air flow rate		(Low-Mid-High)			
			m3/min	7.5 - 9.0 - 10.5		
L/s			125 - 150 - 175			
		cfm	265 - 318 - 371			
Sound pressure level			(Low-Mid-High)			
(measured in anechoic room)		*2	dB<A>		23-26-29	
Insulation material			EPS, Polyethylene foam, Urethane foam			
Air filter			PP honeycomb fabric.			
Protection device			Fuse			
Connectable outdoor unit / HBC controller			CITY MULTI YLM series/			
Water piping diameter	Inlet	in.	CMB-WP-V-GA1/CMB-WP-V-GB1			
	*5.6 Outlet	in.	Rc 3/4 screw			
Field drain pipe size		mm(in.)	Rc 3/4 screw			
Standard attachment		Accessory	O.D.32 (1-1/4)			
			Insulation pipe for water pipe, Washer, Drain hose, Tie band			
Optional parts		Filter Box	PAC-KE91TB-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 ³ / 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		
	*2	Current input	A	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		
	*2	Current input	A	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		kg(lbs)	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)		
FAN	Water Volume		L	1.0	1.8		
	*4	Type x Quantity		Sirocco fan x 1	Sirocco fan x 2	Sirocco fan x 2	
		External	Pa	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>	
		static press.	mmH2O	<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)		
			m3/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		
Sound pressure level (measured in anechoic room)			(Low-Mid-High)	(Low-Mid-High)	(Low-Mid-High)		
			*2	dB <A>	25-29-32	26-29-34	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 device			Fuse	Fuse	Fuse		
Connectable outdoor unit / HBC controller			CITY MULTI YLM series/	CITY MULTI YLM series/	CITY MULTI YLM series/		
Water piping diameter	Inlet	in.	CMB-WP-V-GA1/CMB-WP-V-GB1	CMB-WP-V-GA1/CMB-WP-V-GB1	CMB-WP-V-GA1/CMB-WP-V-GB1		
	*5.6	Outlet	in.	Rc 3/4 screw	Rc 3/4 screw	Rc 3/4 screw	
Field drain pipe size		mm(in.)	Rc 3/4 screw	Rc 3/4 screw	Rc 3/4 screw		
Standard attachment	Accessory		O.D.32 (1-1/4)	O.D.32 (1-1/4)	O.D.32 (1-1/4)		
			Washer, Drain hose, Tie band	Washer, Drain hose, Tie band	Washer, Drain hose, Tie band		
Optional parts	Filter Box		PAC-KE92TB-E	PAC-KE93TB-E	PAC-KE93TB-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 ³ / min × 35.31 lbs =kg / 0.4536
*Above specification data is subject to rounding variation.

Specifications

INDOOR UNIT



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	
		kcal/h	3,100		3,900		4,800	
		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	
		kcal/h	3,400		4,300		5,400	
		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		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		10-3/16 x 33-3/32 x 33-3/32	
Net weight		kg(lbs)	22(49)		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)	
FAN	Water Volume	L	1.5		1.5		1.5	
	Type x Quantity		Turbo Fan x 1		Turbo Fan x 1		Turbo Fan x 1	
	External static press	Pa	0		0		0	
	Motor Type		DC motor		DC motor		DC motor	
	Motor output		0.05		0.05		0.05	
	Driving mechanism		Direct-driven by motor		Direct-driven by motor		Direct-driven by motor	
	Air flow rate		(Low-Mid1-Mid2-High)		(Low-Mid1-Mid2-High)		(Low-Mid1-Mid2-High)	
			m3/min	13 - 14 - 15 - 16		13 - 14 - 15 - 16		13 - 15 - 17 - 19
L/s			217 - 233 - 250 - 267		217 - 233 - 250 - 267		217 - 250 - 283 - 317	
Sound pressure level			(Low-Mid1-Mid2-High)		(Low-Mid1-Mid2-High)		(Low-Mid1-Mid2-High)	
			dB <A>	27 - 29 - 30 - 31		27 - 29 - 30 - 31		27 - 30 - 32 - 34
Insulation material			PS		PS		PS	
Air filter			PP honeycomb		PP honeycomb		PP honeycomb	
Protection device			Fuse		Fuse		Fuse	
Refrigerant control device			-		-		-	
Connectable Outdoor unit/HBC controller			CITY MULTI YLM series/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		PLP-6BA		PLP-6BA	
	Automatic filter elevation panel *5		PLP-6BAJ		PLP-6BAJ		PLP-6BAJ	
	Space panel		PAC-SH48AS-E		PAC-SH48AS-E		PAC-SH48AS-E	
	Air outlet shutter plate		PAC-SH51SP-E		PAC-SH51SP-E		PAC-SH51SP-E	
	High efficiency filter element *6	PAC-SH59KF-E		PAC-SH59KF-E		PAC-SH59KF-E		
	Multi-function casement		PAC-SH53TM-E		PAC-SH53TM-E		PAC-SH53TM-E	
	i-see sensor corner panel		PAC-SA1ME-E		PAC-SA1ME-E		PAC-SA1ME-E	
	Flange for fresh air intake		PAC-SH65OF-E		PAC-SH65OF-E		PAC-SH65OF-E	
Wireless signal receiver		PAR-SF9FA-E		PAR-SF9FA-E		PAR-SF9FA-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.)
- 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.)
- 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 x 860
BTU / h =kW x 3,412
cfm =m3 / min x 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		
		kcal/h	1,900		2,400		3,100		
		BTU/h	7,500		9,600		12,300		
	*2	Power input	kW	0.040		0.040		0.050	
		Current input	A	0.35		0.35		0.47	
Heating capacity (Nominal)	*3	kW	2.5		3.2		4.0		
		kcal/h	2,200		2,800		3,400		
		BTU/h	8,500		10,900		13,600		
	*2	Power input	kW	0.040		0.040		0.050	
		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)		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)		
FAN	Water Volume	L	0.9		1.3		1.3		
	Type x Quantity		Sirocco fan x 1		Sirocco fan x 2		Sirocco fan x 2		
	*4 External static press.	Pa	20 - <40> - <60>		20 - <40> - <60>		20 - <40> - <60>		
		mmH2O	2.0 - <4.1> - <6.1>		2.0 - <4.1> - <6.1>		2.0 - <4.1> - <6.1>		
	Motor Type		DC motor		DC motor		DC motor		
	Motor output		kW	0.096		0.096		0.096	
	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)		(Low-Mid-High)	
		m3/min		4.5 - 5.0 - 6.0		6.0 - 7.0 - 8.0		7.5 - 9.0 - 10.5	
		L/s		75 - 83 - 100		100 - 117 - 133		125 - 150 - 175	
cfm		159 - 177 - 212		212 - 247 - 282		265 - 318 - 371			
Sound pressure level (measured in anechoic room)		*2 dB <A>	31-33-38		31-33-38		31-35-38		
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			CITY MULTI YLM series/ CMB-WP-V-GA1/CMB-WP-V-GB1		CITY MULTI YLM series/ CMB-WP-V-GA1/CMB-WP-V-GB1		CITY MULTI YLM series/ CMB-WP-V-GA1/CMB-WP-V-GB1		
Water piping diameter	Inlet	in.	Rc 3/4 screw		Rc 3/4 screw		Rc 3/4 screw		
	Outlet	in.	Rc 3/4 screw		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))>		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		Insulation pipe for water pipe, Drain hose (flexible joint), Screw plate, Level adjusting screw, Hose band		

Specifications

INDOOR UNIT



NOTES

Model			PFFY-WP40VLRMM-E	PFFY-WP50VLRMM-E	
Power source			1-phase 220-230-240 V 50/60 Hz	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	0.070	
	*2	Current input	A	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	0.070	
	*2	Current input	A	0.65	
External finish			Galvanized steel plate	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		kg(lbs)	29 (64)	29 (64)	
Heat exchanger			Cross fin (Aluminum fin and copper tube)	Cross fin (Aluminum fin and copper tube)	
FAN	Water Volume		L	1.5	
	*4	Type x Quantity		Sirocco fan x 2	
		External static press.	Pa	20 - <40> - <60>	20 - <40> - <60>
			mmH2O	2.0 - <4.1> - <6.1>	2.0 - <4.1> - <6.1>
		Motor Type		DC motor	DC motor
	Motor output		0.096	0.096	
	Driving mechanism		Direct-driven by motor	Direct-driven by motor	
	Air flow rate		(Low-Mid-High)	(Low-Mid-High)	
			m3/min	8.0 - 10.0 - 11.5	10.5 - 13.0 - 15.0
			L/s	133 - 167 - 192	175 - 217 - 250
			cfm	282 - 353 - 406	371 - 459 - 530
Sound pressure level (measured in anechoic room)			(Low-Mid-High)	(Low-Mid-High)	
		*2 dB <A>	34-37-40	37-42-45	
Insulation material			Polyethylene foam, Urethane foam	Polyethylene foam, Urethane foam	
Air filter			PP honeycomb fabric.	PP honeycomb fabric.	
Protection device			Fuse	Fuse	
Connectable outdoor unit/HBC controller			CITY MULTI YLM series/CMB-WP-V-GA1/CMB-WP-V-GB1	CITY MULTI YLM series/CMB-WP-V-GA1/CMB-WP-V-GB1	
Water piping diameter	Inlet	in.	Rc 3/4 screw	Rc 3/4 screw	
	*5,6 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 :
- 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 =m3 / min × 35.31
lbs =kg / 0.4536
*Above specification data is subject to rounding variation.



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