MITSUBISHI ELECTRIC

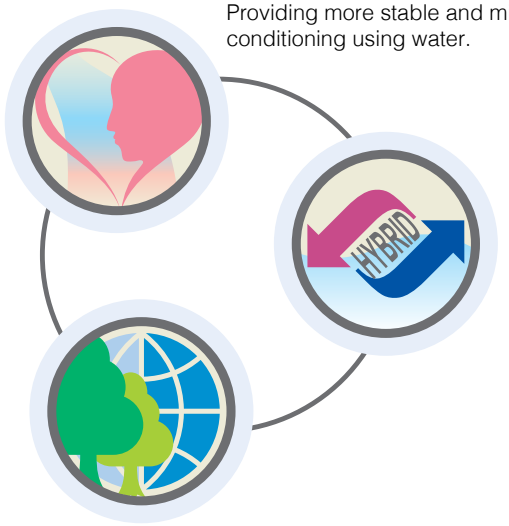
HYBRID
CITY MULTI

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 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.



1 **Ideal Comfort**
Providing more stable and mild air conditioning using water.

2 **Energy Saving**
2-pipe heat recovery system is available with refrigerant and water circuit.

3 **Less Waste and Easy Installation**
Easy installation compared with central air conditioning system with 4-pipe for heat recovery.

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

#worksfor**me**

Contents

The Reason Why HYBRID CITY MULTI is Unbeatable

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.

Less refrigerant

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

R2/WR2 only

New water heat source unit (WR2) can be used in high rises, frigid climates, coastal areas, ect.

Heat source unit
PQRY-P-YLM-A1

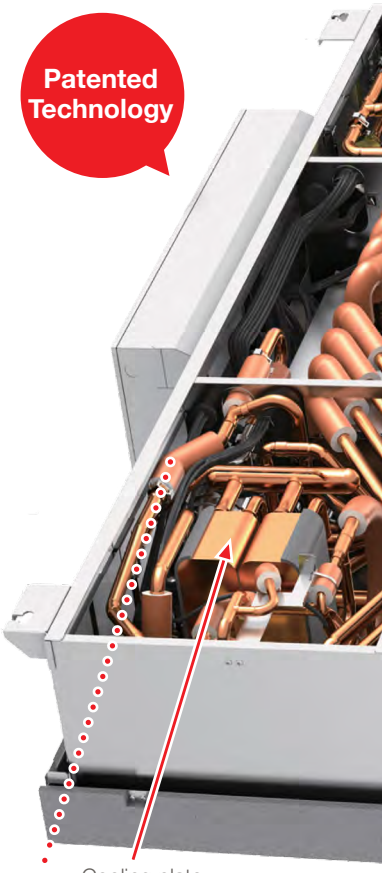
The system monitors high pressure, low pressure and the operation to set an appropriate compressor frequency.

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

Refrigerant 2 pipes

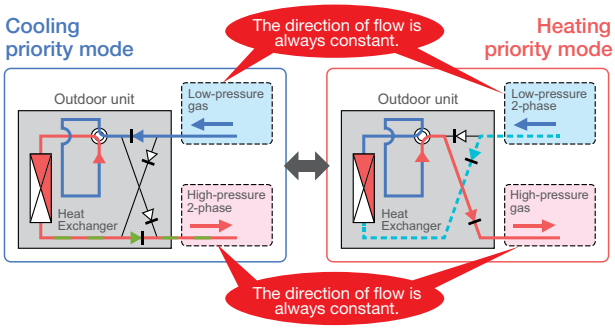
High pressure gas-liquid 2-phase refrigerant.

Patented Technology



Cooling plate heat exchanger

HBC Controller



Cooling Priority Mode

If the cooling load is larger than the heating load, the outdoor/heat source unit operates in cooling priority mode and heat exchanger works as a condenser.

Heating Priority Mode

If the heating load is larger than the cooling load, the outdoor/ heat source unit operates in heating priority mode and the heat exchanger works as an evaporator.

HBC: The first and only technology

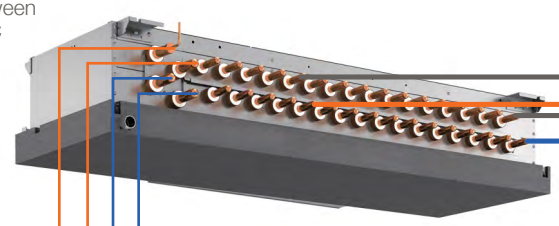
The HYBRID CITY MULTI was developed by using our own technology with HBC.

Heat Exchange

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

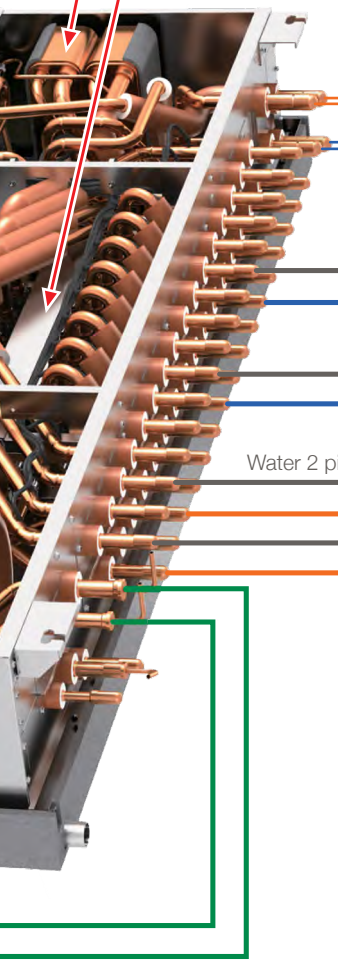
Sub-HBC

4 water pipes between main and sub HBC



Heating plate heat exchanger

Valve block



Water 2 pipes

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

Reduction in defrost time

With the heat of the hot water that circulates between the HBC and the indoor units there is no drastic change in room temperature during defrost. The defrost time is shorter and the average capacity is higher.

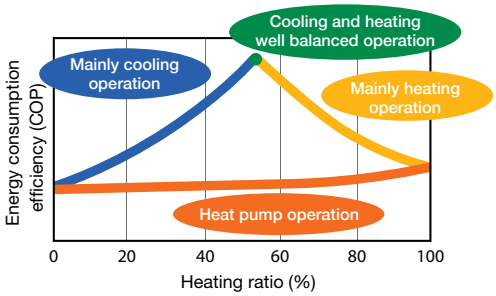
No cold draught during defrost time

No cold draught is released into the room even during defrost operation.

Heat Recovery

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

• COP in the heat recovery system



Refrigerant
Hot water
Cold water

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 round. The HYBRID CITY MULTI will supply milder off coil temperatures.

Simultaneous Cooling/Heating Operation

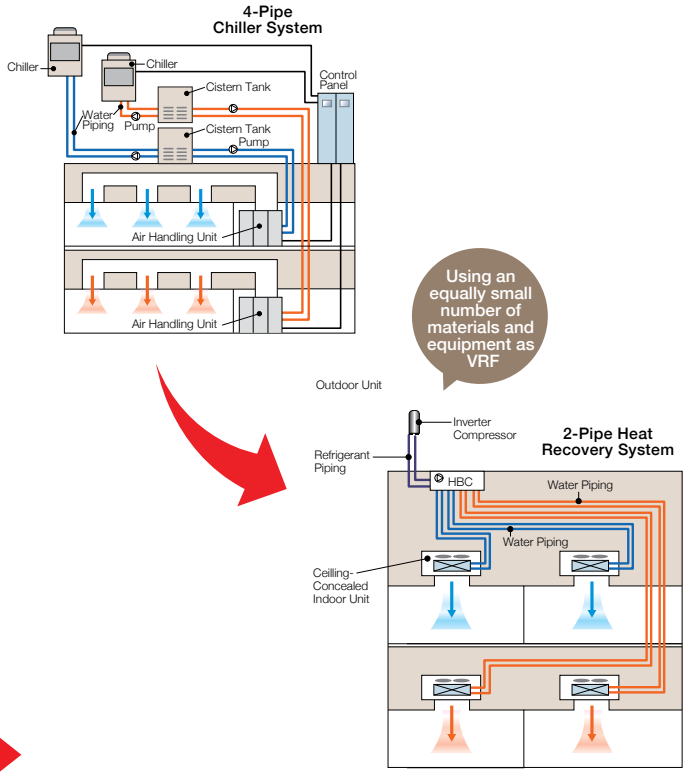
Provides air conditioning corresponding to various needs. With the 2-pipe system, direction of refrigerant flow will not reverse when the main mode changes. The compressor does not need to stop when the mode changes. This allows comfortable air conditioning during mild ambient conditions.

Energy Efficiency

Consumes 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 a pump, tank, and control panel that are necessary for Chillers. A saving of natural resources in the entire system has been accomplished.



R410A Refrigerant

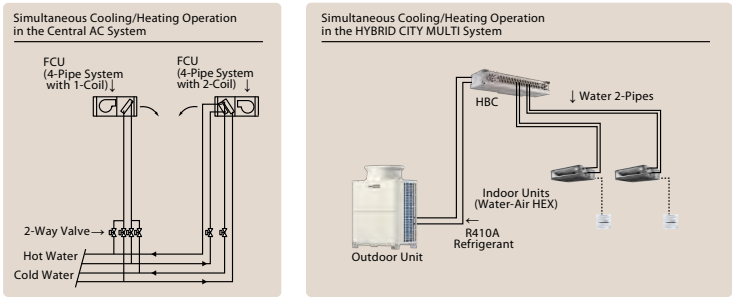
R410A refrigerant allows higher heat transfer than R22.
The use of R410A in this system has achieved significantly higher COP (Coefficient of Performance).

Comparison of COP in Cooling/Heating Average (COP for Outdoor Unit only, not for the whole system)	22.4kW	28kW
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%**

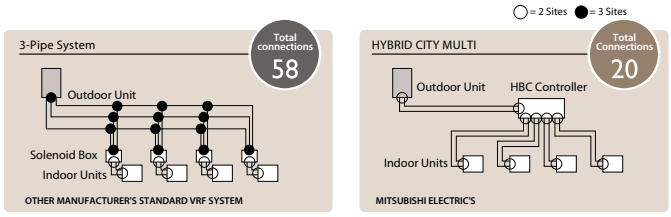
Less Installation Work

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.

Comparison Example of Central AC System and HYBRID CITY MULTI



Comparison Example of Piping Connections

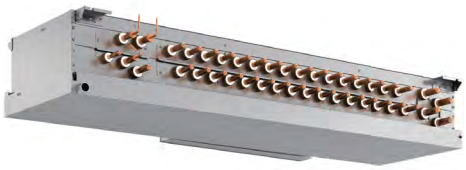


Line Up

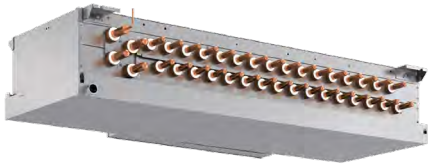
HBC Controller

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



Main-HBC



Sub-HBC

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.

PLFY-WP-VBM-E:
4 way airflow ceiling cassette. Ideal for applications with ceiling heights up to 4.2m.

PEFY-WP-VMA-E:
Mid static ceiling concealed unit with 250mm height for installation in tight spaces, such as ceiling cavities or drop ceilings.

PFFY-WP-VLRMM-E:
Floor mounted concealed unit. Compact unit for air conditioning in perimeter zone.

PEFY-WP-VMS1-E

PEFY-WP-VMA-E

PLFY-WP-VBM-E

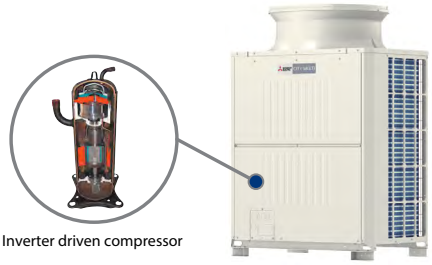
PFFY-WP-VLRMM-E

Model Size	WP10	WP15	WP20	WP25	WP32	WP40	WP50	WP63	WP71	WP80	WP100	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

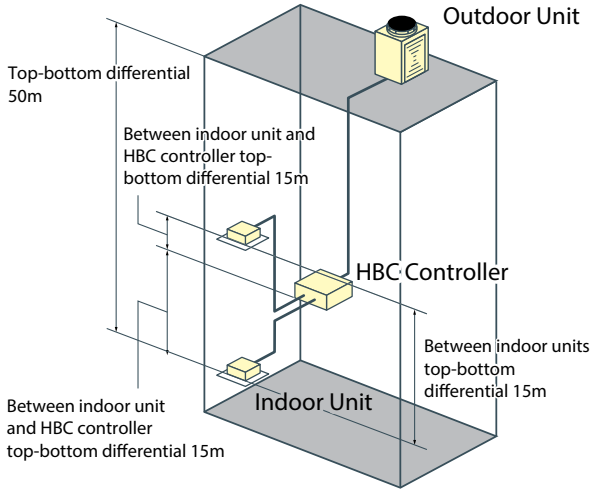
Air Cooled Outdoor Unit

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

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



Refrigerant Piping Lengths	Maximum Metres
Distance between outdoor and HBC	110
Farthest indoor from HBC controller	60

Vertical differentials between units	Maximum Metres
Outdoor/HBC controller	50
Indoor/outdoor (outdoor higher)	50
Indoor/outdoor (outdoor lower)	40
Indoor/HBC controller	15 (10)*1 *2
Indoor/indoor	15 (10)*2
HBC/HBC controller	15 (10)*2

*1. Maximum length between HBC controller and indoor is dependent upon the vertical differential between the HBC controller and the indoor unit.

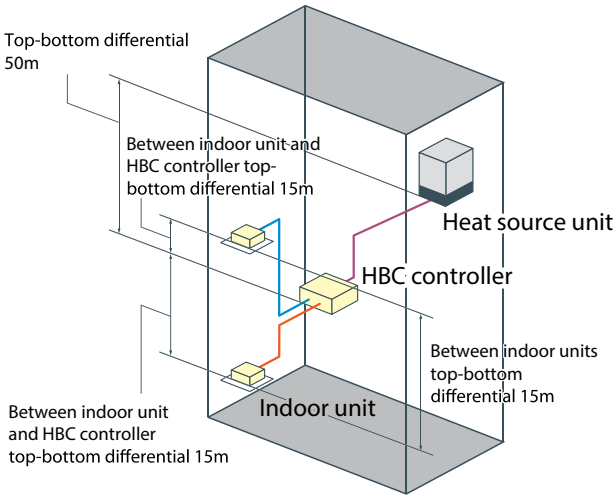
*2. Values in ( ) are applied when indoor total capacity exceeds 130% of outdoor unit capacity

Water Cooled Unit

The CITY MULTI MR2 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.

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



Refrigerant Piping Lengths	Maximum Metres
Distance between heat source and HBC	110
Farthest indoor from HBC controller	60

Vertical differentials between units	Maximum Metres
Heat source/HBC controller	50
HBC/heat source (heat source unit above HBC)	50
HBC/heat source (heat source unit below HBC)	40
Indoor/HBC controller	15 (10)*1 *2
Indoor/indoor	15 (10)*1
HBC/HBC controller	15 (10)*1

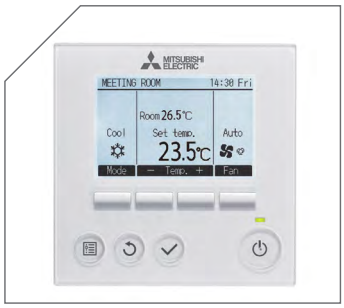
*1. Maximum length between HBC controller and indoor is dependent upon the vertical differential between the HBC controller and the indoor unit.

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

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-33MAA

The PAR-33 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-33 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 touch controller is equipped with 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.

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. 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.

Case Study

Hybrid VRF eliminates need for refrigerant leak detection and alarms and provides a comfortable experience for staff and patients.

Project Info

Application
Campsie Medical & Dental Centre

Location
Campsie, NSW

The Team

Client & HVAC Contractor
Primary Health Care Limited

HVAC Consultant
Marline Newcastle Pty Ltd

The Challenge

Campsie Medical and Dental Centre required a system that provided an optimum temperature in rooms with varied operational requirements such as doctors' suites and waiting rooms to provide patients with the best possible care. Traditional ducted systems in these applications may have temperature differences between the different rooms, where some are too cold, and some are too warm. Variable Refrigerant Flow (VRF) systems provide individual temperature control for each room but due to AS1677 requirements for refrigerant leak detection, the centre would have to install expensive refrigerant detectors and alarms which require yearly calibration to comply with Australian law.

Campsie Medical and Dental Centre realised they needed a smarter, space-saving solution that was uniquely tailored to suit the practice's individual room sizes and specificities.

The Solution

After a rigorous evaluation process, Campsie Medical and Dental Centre implemented the Mitsubishi Electric Hybrid VRF, which allows heat exchange between refrigerant and water. The large open plan areas used standard VRF while the doctors' suites used Hybrid VRF negating the need for refrigerant leak detection and alarms and allowing the centre to reallocate funds to other areas that enhance the patients' experience and working environment for the staff. All systems were seamlessly integrated with the standard Mitsubishi Electric centralised controller AG-150A.

UNIT INFORMATION

Outdoor Units
PURY-WP200YJM-A x 2
PURY-P500YSJM-A x 1

Indoor Units
PEFY-WP25VMA-E x 9
PEFY-WP50VMA-E x 1
PEFY-P140VMH-E x 1

PEFY-P80VMH-E x 1
PEFY-P200VMHS-E x 1
PEFY-P125VMH-E x 1

HBC
CMB-WP108V-G x 2
CMB-P108V-GA1 x 1

Controllers
AG-150A x 1
AG-150A Web Browser x 1
PAR-U02MEDA

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	3-Phase 4-Wire 380-400-415 V 50/60 Hz
Cooling Capacity (Nominal) *1		kW	22.4	28.0
	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	15.0~24.0°C
	Outdoor	D.B.	-5.0~46.0°C	-5.0~46.0°C
Heating Capacity (Nominal) *2		kW	25.0	31.5
	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	15.0~27.0°C
	Outdoor	W.B.	-20.0~15.5°C	-20.0~15.5°C
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	15.88 Brazed	19.05 Brazed
	Low Pressure	mm	19.05 Brazed	22.2 Brazed
FAN	Type x Quantity		Propeller Fan x 1	Propeller Fan x 1
	Air Flow Rate	L/s	3,083	3,083
	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 Pa
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 Galvanised Steel Sheets (+Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar>	Pre-Coated Galvanised Steel Sheets (+Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar>
External Dimension H x W x D		mm	1,710 (1,650 Without Legs) x 920 x 740	1,710 (1,650 Without Legs) x 920 x 740
Protection Devices	High Pressure Protection		High Pressure Sensor, High Pressure Switch at 4.15 MPa	High Pressure Sensor, High Pressure Switch at 4.15 MPa
	Inverter Circuit (COMP./FAN)		Over-Heat Protection, Over-Current Protection	Over-Heat Protection, Over-Current Protection
Refrigerant	Type x Original Charge		R410A x 9.5 kg	R410A x 9.5 kg
Net Weight		kg	205	205
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:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B., Outdoor: 35°CD.B./24°CW.B
   Pipe length: 7.5 m, Level difference: 0 m
2. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B., Outdoor: 7°CD.B./6°CW.B.
   Pipe length: 7.5 m, Level difference: 0 m
3. -5°CD.B./-6°CW.B. to 21°CD.B./15.5°CW.B with cooling/heating mixed operation.
4. External static pressure option is available (30 Pa, 60 Pa)

* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to in the Installation Manual.
Due to continuing improvement, above specifications may be subject to change without notice.

OUTDOOR UNIT

Model			PURY-P300YLM-A (-BS)		PURY-P350YLM-A (-BS)	
Number of HBC Controllers			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	
	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		15.0~24.0°C	
	Outdoor	D.B.	-5.0~46.0°C		-5.0~46.0°C	
Heating Capacity (Nominal) *2		kW	37.5		45.0	
	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		15.0~27.0°C	
	Outdoor	W.B.	-20.0~15.5°C		-20.0~15.5°C	
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	19.05 Brazed		19.05 Brazed	
	Low Pressure	mm	22.2 Brazed		28.58 Brazed	
FAN	Type x Quantity		Propeller Fan x 1		Propeller Fan x 1	
	Air Flow Rate	L/s	3,833		3,833	
	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 Pa	
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 Galvanised Steel Sheets (+Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar>		Pre-Coated Galvanised Steel Sheets (+Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar>	
External Dimension H x W x D		mm	1,710 (1,650 Without Legs) x 1,220 x 740		1,710 (1,650 Without Legs) x 1,220 x 740	
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	
Refrigerant	Type x Original Charge		R410A x 10.3 kg		R410A x 10.3 kg	
Net Weight		kg	248		248	
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:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B., Outdoor: 35°CD.B.
   Pipe length: 7.5 m, Level difference: 0 m
2. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B., Outdoor: 7°CD.B./6°CW.B.
   Pipe length: 7.5 m, Level difference: 0 m
3. -5°CD.B./-6°CW.B. to 21°CD.B./15.5°CW.B. with cooling/heating mixed operation.
4. External static pressure option is available (30 Pa, 60 Pa)

* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to in the Installation Manual.
Due to continuing improvement, above specifications may be subject to change without notice.

SPECIFICATIONS

OUTDOOR UNIT

Model			PURY-P400YLM-A (-BS)	PURY-P450YLM-A (-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
	Power Input	kW	16.65	17.92
	Current Input	A	28.1-26.7-25.7	30.2-28.7-27.7
	EER	kW / kW	2.70	2.79
Temp. Range of Cooling *3	Indoor	W.B.	15.0~24.0°C	15.0~24.0°C
	Outdoor	D.B.	-5.0~46.0°C	-5.0~46.0°C
Heating Capacity (Nominal) *2		kW	45.0	56.0
	Power Input	kW	13.39	17.39
	Current Input	A	22.6-21.4-20.6	29.3-27.8-26.8
	COP	kW / kW	3.36	3.22
Temp. Range of Heating *3	Indoor	D.B.	15.0~27.0°C	15.0~27.0°C
	Outdoor	W.B.	-20.0~15.5°C	-20.0~15.5°C
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	22.2 Brazed	22.2 Brazed
	Low Pressure	m	28.58 Brazed	28.58 Brazed
FAN	Type x Quantity		Propeller Fan x 1	Propeller Fan x 2
	Air Flow Rate	L/s	3,833	5,333
	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 2
*4	External Static Press.		0 Pa	0 Pa
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 Galvanised Steel Sheets (+Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar>	Pre-Coated Galvanised Steel Sheets (+Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar>
External Dimension H x W x D		mm	1,710 (1,650 Without Legs) x 1,220 x 740	1,710 (1,650 Without Legs) x 1,750 x 740
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
Refrigerant	Type x Original Charge		R410A x 10.3 kg	R410A x 11.8 kg
Net Weight		kg	246	321
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:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. Outdoor: 35°CD.B./24°CW.B
   Pipe length: 7.5 m, Level difference: 0 m
2. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B., Outdoor: 7°CD.B./6°CW.B.
   Pipe length: 7.5 m, Level difference: 0 m
3. -5°CD.B./-6°CW.B. to 21°CD.B./15.5°CW.B. with cooling/heating mixed operation.
4. External static pressure option is available (30 Pa, 60 Pa)

* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to in the Installation Manual.
Due to continuing improvement, above specifications may be subject to change without notice.

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
	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
	Outdoor	D.B.	-5.0~46.0°C
Heating Capacity (Nominal) *2		kW	58.0
	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
	Outdoor	W.B.	-20.0~15.5°C
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	22.2 Brazed
	Low Pressure	mm	28.58 Brazed
FAN	Type x Quantity		Propeller Fan x 2
	Air Flow Rate	L/s	6,333
	Control, Driving Mechanism		Inverter-Control, Direct-Driven by Motor
	Motor Output	kW	0.92 x 2
*4	External Static Press.		0 Pa
Compressor	Type		Inverter Scroll Hermetic Compressor
	Starting Method		Inverter
	Motor Output	kW	13.4
	Case Heater	kW	–
External Finish			Pre-Coated Galvanised Steel Sheets (+Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar>
External Dimension H x W x D		mm	1,710 (1,650 Without Legs) x 1,750 x 740
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
Refrigerant	Type x Original Charge		R410A x 11.8 kg
Net Weight		kg	321
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:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B., Outdoor: 35°CD.B./24°CW.B.
   Pipe length: 7.5 m, Level difference: 0 m
2. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B., Outdoor: 7°CD.B./6°CW.B.
   Pipe length: 7.5 m, Level difference: 0 m
3. -5°CD.B./-6°CW.B. to 21°CD.B./15.5°CW.B. with cooling/heating mixed operation.
4. External static pressure option is available (30 Pa, 60 Pa)

* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to in the Installation Manual.
Due to continuing improvement, above specifications may be subject to change without notice.

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	3-Phase 4-Wire 380-400-415 V 50/60 Hz
Cooling Capacity (Nominal) *1		kW	22.4	28.0
	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	15.0~24.0°C
	Outdoor	D.B.	-5.0~46.0°C	-5.0~46.0°C
Heating Capacity (Nominal) *2		kW	25.0	31.5
	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	15.0~27.0°C
	Outdoor	W.B.	-20.0~15.5°C	-20.0~15.5°C
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	15.88 Brazed	19.05 Brazed
	Low Pressure	mm	19.05 Brazed	22.2 Brazed
FAN	Type x Quantity		Propeller Fan x 1	Propeller Fan x 1
	Air Flow Rate	L/s	3,083	3,083
	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 Pa
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 Galvanised Steel Sheets (+Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar>	Pre-Coated Galvanised Steel Sheets (+Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar>
External Dimension H x W x D		mm	1,710 (1,650 Without Legs) x 920 x 740	1,710 (1,650 Without Legs) x 920 x 740
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
Refrigerant	Type x Original Charge		R410A x 6.0 kg	R410A x 6.0 kg
Weight		kg	202	202
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:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B., Outdoor: 35°CD.B./24°CW.B.
   Pipe length: 7.5 m, Level difference: 0 m
2. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B., Outdoor: 7°CD.B./6°CW.B.
   Pipe length: 7.5 m, Level difference: 0 m
3. -5°CD.B./-6°CW.B. to 21°CD.B./15.5°CW.B. with cooling/heating mixed operation.
4. External static pressure option is available (30 Pa, 60 Pa)

* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to in the Installation Manual.
Due to continuing improvement, above specifications may be subject to change without notice.

OUTDOOR UNIT HI-COP

Model			PURY-EP300YLM-A1 (-BS)		PURY-EP350YLM-A1 (-BS)	
Number of HBC Controllers			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	
	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		15.0~24.0°C	
	Outdoor	D.B.	-5.0~46.0°C		-5.0~46.0°C	
Heating Capacity (Nominal) *2		kW	37.5		45.0	
	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	24.21-22.9-22.0
	COP	kW / kW	3.20	3.37	2.92	3.15
Temp. Range of Heating *3	Indoor	D.B.	15.0~27.0°C		15.0~27.0°C	
	Outdoor	W.B.	-20.0~15.5°C		-20.0~15.5°C	
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	19.05 Brazed		19.05 Brazed	
	Low Pressure	mm	22.2 Brazed		28.58 Brazed	
FAN	Type x Quantity		Propeller Fan x 1		Propeller Fan x 1	
	Air Flow Rate	L/s	3,833		3,833	
	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 Pa	
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 Galvanised Steel Sheets (+Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar>		Pre-Coated Galvanised Steel Sheets (+Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar>	
External Dimension H x W x D		mm	1,710 (1,650 Without Legs) x 1,220 x 740		1,710 (1,650 Without Legs) x 1,220 x 740	
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	
Refrigerant	Type x Original Charge		R410A x 8.0 kg		R410A x 8.0 kg	
Net Weight		kg	244		244	
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)	
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:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B., Outdoor: 35°CD.B./24°CW.B.
   Pipe length: 7.5 m, Level difference: 0 m
2. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B., Outdoor: 7°CD.B./6°CW.B.
   Pipe length: 7.5 m, Level difference: 0 m
3. -5°CD.B./-6°CW.B. to 21°CD.B./15.5°CW.B. with cooling/heating mixed operation.
4. External static pressure option is available (30 Pa, 60 Pa)

* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to in the Installation Manual.
Due to continuing improvement, above specifications may be subject to change without notice.

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
	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	15.0~24.0°C
	Outdoor	D.B.	-5.0~46.0°C	-5.0~46.0°C
Heating Capacity (Nominal) *2		kW	50.0	56.0
	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	15.0~27.0°C
	Outdoor	W.B.	-20.0~15.5°C	-20.0~15.5°C
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	22.2 Brazed	22.2 Brazed
	Low Pressure	mm	28.58 Brazed	28.58 Brazed
FAN	Type x Quantity		Propeller Fan x 2	Propeller Fan x 2
	Air Flow Rate	L/s	5,333	5,333
	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 Pa
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 Galvanised Steel Sheets (+Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar>	Pre-Coated Galvanised Steel Sheets (+Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar>
External Dimension H x W x D		mm	1,710 (1,650 Without Legs) x 1,750 x 740	1,710 (1,650 Without Legs) x 1,750 x 740
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
Refrigerant	Type x Original Charge		R410A x 10.5 kg	R410A x 11.8 kg
Net Weight		kg	315	336
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:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B., Outdoor: 35°CD.B./24°CW.B.
   Pipe length: 7.5 m, Level difference: 0 m
2. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B., Outdoor: 7°CD.B./6°CW.B.
   Pipe length: 7.5 m, Level difference: 0 m
3. -5°CD.B./-6°CW.B. to 21°CD.B./15.5°CW.B. with cooling/heating mixed operation.
4. External static pressure option is available (30 Pa, 60 Pa)

* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to in the Installation Manual.
Due to continuing improvement, above specifications may be subject to change without notice.

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
	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
	Outdoor	D.B.	-5.0~46.0°C
Heating Capacity (Nominal) *2		kW	63.0
	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
	Outdoor	W.B.	-20.0~15.5°C
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	22.2 Brazed
	Low Pressure	mm	28.58 Brazed
FAN	Type x Quantity		Propeller Fan x 2
	Air Flow Rate	L/s	6,333
	Control, Driving Mechanism		Inverter-Control, Direct-Driven by Motor
	Motor Output	kW	0.92 x 2
*4	External static press.		0 Pa
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 Galvanised Steel Sheets (+Powder Coating for -BS Type) <MUNSELL 5Y 8/1 or Similar>
External Dimension H x W x D		mm	1,710 (1,650 Without Legs) x 1,750 x 740
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
Refrigerant	Type x Original Charge		R410A x 11.8 kg
Net Weight		kg	349
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:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B., Outdoor: 35°CD.B./24°CW.B.
   Pipe length: 7.5 m, Level difference: 0 m
2. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B., Outdoor: 7°CD.B./6°CW.B.
   Pipe length: 7.5 m, Level difference: 0 m
3. -5°CD.B./-6°CW.B. to 21°CD.B./15.5°CW.B. with cooling/heating mixed operation.
4. External static pressure option is available (30 Pa, 60 Pa)

* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to in the Installation Manual.
Due to continuing improvement, above specifications may be subject to change without notice.

SPECIFICATIONS

OUTDOOR UNIT

Model			PQRY-P200YLM-A1	PQRY-P250YLM-A1
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
	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	15.0~24.0°C
	Circulating Water	°C	10.0~45.0°C	10.0~45.0°C
Heating Capacity (Nominal)	*2	kW	25.0	31.5
	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	15.0~27.0°C
	Circulating Water	°C	10.0~45.0°C	10.0~45.0°C
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
Sound Power Level (Measured in Anechoic Room)		dB <A>	60	62
Refrigerant Piping Diameter	High Pressure	mm	15.88 Brazed	19.05 Brazed
	Low Pressure	mm	19.05 Brazed	22.2 Brazed
Circulating Water	Water Flow Rate	m^3/h	5.76	5.76
		L/min	96	96
	Pressure Drop	kPa	24	24
	Operating Volume Range	m^3/h	3.0-7.2	3.0-7.2
Compressor	Type		Inverter Scroll Hermetic Compressor	Inverter Scroll Hermetic Compressor
	Starting Method		Inverter	Inverter
	Motor Output	kW	4.8	6.2
	Case Heater	kW	–	–
External Finish			Galvanised Steel Sheets	Galvanised Steel Sheets
External Dimension H x W x D		mm	1,100 x 880 x 550	1,100 x 880 x 550
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	R410A x 5.0 kg
Net Weight		kg	173	173
Heat Exchanger			Plate Type	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:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B., Water Temperature: 30°C
   Pipe length: 7.5 m, Level Difference: 0 m
2. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B., Water Temperature: 20°C
   Pipe length: 7.5 m, Level Difference: 0 m

* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to in the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°CD.B. The ambient relative humidity of the heat source unit needs to be kept below 80%.The heat source unit should not be installed outdoors. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual.

OUTDOOR UNIT

Model			PQRY-P300YLM-A1	
Number of HBC Controller			Single HBC	Double HBC
Power Source			3-Phase 4-Wire 380-400-415 V 50/60 Hz	
Cooling Capacity (Nominal) *1		kW	33.5	
	Power Input	kW	7.55	6.71
	Current Input	A	12.7-12.1-11.6	11.3-10.7-10.3
	EER	kW / kW	4.43	4.99
Temp. Range of Cooling	Indoor	W.B.	15.0~24.0°C	
	Circulating Water	°C	10.0~45.0°C	
Heating Capacity (Nominal) *2		kW	37.5	
	Power Input	kW	7.13	6.79
	Current Input	A	12.0-11.4-11.0	11.4-10.8-10.4
	COP	kW / kW	5.25	5.52
Temp. Range of Heating	Indoor	D.B.	15.0~27.0°C	
	Circulating Water	°C	10.0~45.0°C	
Indoor Unit Connectable	Total Capacity		50~150% of Heat Source Unit Capacity	
	Model / Quantity		WP10~WP125/2~45	
Sound Pressure Level (Measured in Anechoic Room)		dB <A>	54	
Sound Power Level (Measured in Anechoic Room)		dB <A>	68	
Refrigerant Piping Diameter	High Pressure	mm	19.05 Brazed	
	Low Pressure	mm	22.2 Brazed	
Circulating Water	Water Flow Rate	m^3/h	5.76	
		L/min	96	
	Pressure Drop	kPa	24	
	Operating Volume Range	m^3/h	3.0-7.2	
Compressor	Type		Inverter Scroll Hermetic Compressor	
	Starting Method		Inverter	
	Motor Output	kW	7.7	
	Case Heater	kW	–	
External Finish			Galvanised Steel Sheets	
External Dimension H x W x D		mm	1,100 x 880 x 550	
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 5.0 kg	
Net Weight		kg	173	
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:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B., Water Temperature: 30°C
   Pipe length: 7.5 m, Level Difference: 0 m
2. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B., Water Temperature: 20°C
   Pipe length: 7.5 m, Level Difference: 0 m

* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to in the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°CD.B. The ambient relative humidity of the heat source unit needs to be kept below 80%.The heat source unit should not be installed outdoors. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual.

SPECIFICATIONS

OUTDOOR UNIT

Model			PQRY-P350YLM-A1	
Number of HBC Controller			Single HBC	Double HBC
Power Source			3-Phase 4-Wire 380-400-415 V 50/60 Hz	
Cooling Capacity (Nominal) *1		kW	40.0	
	Power Input	kW	9.98	8.72
	Current Input	A	16.8-16.0-15.4	14.7-13.9-13.4
	EER	kW / kW	4.00	4.58
Temp. Range of Cooling	Indoor	W.B.	15.0~24.0°C	
	Circulating Water	°C	10.0~45.0°C	
Heating Capacity (Nominal) *2		kW	45.0	
	Power Input	kW	8.87	8.25
	Current Input	A	14.9-14.2-13.7	13.9-13.2-12.7
	COP	kW / kW	5.07	5.45
Temp. Range of Heating	Indoor	D.B.	15.0~27.0°C	
	Circulating Water	°C	10.0~45.0°C	
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>	52	
Sound Power Level (Measured in Anechoic Room)		dB <A>	66	
Refrigerant Piping Diameter	High Pressure	mm	22.2 Brazed	
	Low Pressure	mm	28.58 Brazed	
Circulating Water	Water Flow Rate	m^3/h	7.20	
		L/min	120	
	Pressure Drop	kPa	44	
	Operating Volume Range	m^3/h	4.5-11.6	
Compressor	Type		Inverter Scroll Hermetic Compressor	
	Starting Method		Inverter	
	Motor Output	kW	9.5	
	Case Heater	kW	–	
External Finish			Galvanised Steel Sheets	
External Dimension H x W x D		mm	1,450 x 880 x 550	
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	
Net Weight		kg	217	
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:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B., Water Temperature: 30°C
   Pipe length: 7.5 m, Level Difference: 0 m
2. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B., Water Temperature: 20°C
   Pipe length: 7.5 m, Level Difference: 0 m

* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to in the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°CD.B. The ambient relative humidity of the heat source unit needs to be kept below 80%.The heat source unit should not be installed outdoors. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual.

OUTDOOR UNIT

Model			PQRY-P400YLM-A1	PQRY-P450YLM-A1
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
	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	15.0~24.0°C
	Circulating Water	°C	10.0~45.0°C	10.0~45.0°C
Heating Capacity (Nominal) *2		kW	50.0	56.0
	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	15.0~27.0°C
	Circulating Water	°C	10.0~45.0°C	10.0~45.0°C
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
Sound Power Level (Measured in Anechoic Room)		dB <A>	66	70
Refrigerant Piping Diameter	High Pressure	mm	22.2 Brazed	22.2 Brazed
	Low Pressure	mm	28.58 Brazed	28.58 Brazed
Circulating Water	Water Flow Rate	m^3/h	7.20	7.20
		L/min	120	120
	Pressure Drop	kPa	44	44
	Operating Volume Range	m^3/h	4.5-11.6	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			Galvanised Steel Sheets	Galvanised Steel Sheets
External Dimension H x W x D		mm	1,450 x 880 x 550	1,450 x 880 x 550
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	R410A x 6.0 kg
Net Weight		kg	217	217
Heat Exchanger			Plate Type	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:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B., Water Temperature: 30°C
   Pipe length: 7.5 m, Level Difference: 0 m
2. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B., Water Temperature: 20°C
   Pipe length: 7.5 m, Level Difference: 0 m

* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to in the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°CD.B. The ambient relative humidity of the heat source unit needs to be kept below 80%.The heat source unit should not be installed outdoors. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual.

SPECIFICATIONS

OUTDOOR UNIT

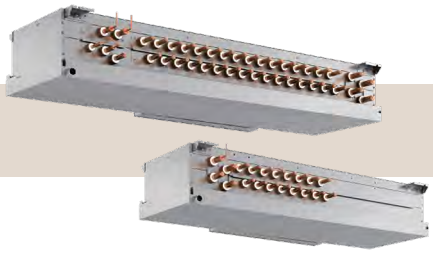
Model			PQRY-P500YLM-A1
Power Source			3-Phase 4-Wire 380-400-415 V 50/60 Hz
Cooling Capacity (Nominal) *1		kW	56.0
	Power Input	kW	14.58
	Current Input	A	24.6-23.3-22.5
	EER	kW / kW	3.84
Temp. Range of Cooling	Indoor	W.B.	15.0~24.0°C
	Circulating Water	°C	10.0~45.0°C
Heating Capacity (Nominal) *2		kW	63.0
	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
	Circulating Water	°C	10.0~45.0°C
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
Sound Power Level (Measured in Anechoic Room)		dB <A>	70.5
Refrigerant Piping Diameter	High Pressure	mm	22.2 Brazed
	Low Pressure	mm	28.58 Brazed
Circulating Water	Water Flow Rate	m^3/h	7.20
		L/min	120
	Pressure Drop	kPa	44
	Operating Volume Range	m^3/h	4.5-11.6
Compressor	Type		Inverter Scroll Hermetic Compressor
	Starting Method		Inverter
	Motor Output	kW	13.0
	Case Heater	kW	–
External Finish			Galvanised Steel Sheets
External Dimension H x W x D		mm	1,450 x 880 x 550
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
Net Weight		kg	217
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:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B., Water Temperature: 30°C
   Pipe length: 7.5 m, Level Difference: 0 m
2. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B., Water Temperature: 20°C
   Pipe length: 7.5 m, Level Difference: 0 m

* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to in the Installation Manual. Due to continuing improvement, above specifications may be subject to change without notice. The ambient temperature of the heat source unit needs to be kept below 40°CD.B. The ambient relative humidity of the heat source unit needs to be kept below 80%.The heat source unit should not be installed outdoors. Be sure to mount a strainer (more than 50 meshes) at the water inlet piping of the unit. Be sure to provide interlocking for the unit operation and water circuit. Install the supplied insulation material to the unused drain-socket. When installing insulation material around both water and refrigerant piping, follow the installation manual.

HBC CONTROLLER



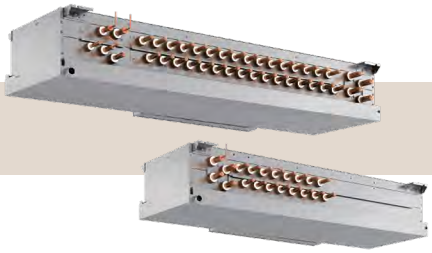
Model			CMB-WP108V-GA1					CMB-WP1016V-GA1				
Number of Branch			8					16				
Power Source			1-Phase 220-230-240 V					1-Phase 220-230-240 V				
			50 Hz					50 Hz				
Power Input (220/230/240)	Cooling	kW	0.45/0.46/0.47					0.45/0.46/0.47				
	Heating	kW	0.45/0.46/0.47					0.45/0.46/0.47				
Current Input (220/230/240)	Cooling	A	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				
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			Galvanised Steel Plate (Lower Part Drain Pan: Pre-Coated Galvanised Sheets + Powder Coating)					Galvanised Steel Plate (Lower Part Drain Pan: Pre-Coated Galvanised 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-A1(-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 Combing 2 Branches When the Total Unit Capacity Exceeds P81)					Model P80 or Smaller (Use Optional Joint Pipe Combing 2 Branches When the Total Unit Capacity Exceeds P81)				
External Dimension H x W x D		mm	300 x 1,520 x 630					300 x 1,800 x 630				
Refrigerant Piping Diameter	To Outdoor Unit/ Heat Source Unit		Connectable Outdoor/Heat Source Unit Capacity					Connectable Outdoor/Heat Source 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	15.88 Brazed	19.05 Brazed	19.05 Brazed	15.88 Brazed	19.05 Brazed	15.88 Brazed	19.05 Brazed	19.05 Brazed	15.88 Brazed	19.05 Brazed
	Low Press. Pipe (O.D.)	mm	19.05 Brazed	22.2 Brazed	28.58 Brazed	19.05 Brazed	22.2 Brazed	19.05 Brazed	22.2 Brazed	28.58 Brazed	19.05 Brazed	22.2 Brazed
Water Piping Diameter	To Indoor Unit											
	Inlet Pipe (I.D.)	mm	20					20				
	Outlet Pipe (I.D.)	mm	20					20				
Field Drain Pipe Size		mm	O.D. 32					O.D. 32				
Net Weight		kg	86 [96 with Water]					98 [111 with Water]				
Standard Attachment	Accessory		Drain Connection Pipe (with Flexible Hose and Insulation)					Drain Connection Pipe (with Flexible Hose and Insulation)				

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 the 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).

SPECIFICATIONS

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	50 Hz
Power Input (220/230/240)	Cooling	kW	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
Current Input (220/230/240)	Cooling	A	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
Sound Pressure Level (Measured in Anechoic Room)		dB <A>	–	–
Applicable Temperature Range of Installation Site		°C (D.B.)	0~32	0~32
External Finish			Galvanised Steel Plate (Lower Part Drain Pan: Pre-Coated Galvanised Sheets + Powder Coating)	Galvanised Steel Plate (Lower Part Drain Pan: Pre-Coated Galvanised Sheets + Powder Coating)
Connectable Outdoor/ Heat Source Unit			–	–
Indoor Unit Capacity Connectable to 1 Branch			Model P80 or Smaller (Use Optional Joint Pipe Combing 2 Branches When the Total Unit Capacity Exceeds P81)	Model P80 or Smaller (Use Optional Joint Pipe Combing 2 Branches When the Total Unit Capacity Exceeds P81)
External Dimension H x W x D		mm	300 x 1,520 x 630	300 x 1,520 x 630
Water Piping Diameter	To Indoor Unit			
	Inlet Pipe (I.D.)	mm	20	20
	Outlet Pipe (I.D.)	mm	20	20
Field Drain Pipe Size		mm	O.D. 32	O.D. 32
Net Weight		kg	44 [49 with Water]	53 [62 with Water]
Standard Attachment	Accessory		Drain Connection Pipe (with Flexible Hose and Insulation)	Drain Connection Pipe (with Flexible Hose and Insulation)

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 outdoor installations.
11. Please always make the 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.)

INDOOR UNIT

Model				PEFY-WP10VMS1-E	PEFY-WP15VMS1-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	1.2	1.7
	*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
	*2	Power Input	kW	0.030	0.030
	*2	Current Input	A	0.21	0.33
External Finish				Galvanised Steel Plate	Galvanised Steel Plate
External Dimension H x W x D			mm	200 x 790 x 700	200 x 790 x 700
Net Weight			kg	19	19
Heat Exchanger				Cross Fin (Aluminium Fin and Copper Tube)	Cross fin (Aluminium Fin and Copper Tube)
	Water Volume		L	0.4	0.7
FAN	Type x Quantity			Sirocco Fan x 2	Sirocco Fan x 2
*4	External Static Press.		Pa	<5> - 15 - <35> - <50>	<5> - 15 - <35> - <50>
	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)
			L/s	67 - 75 - 83	83 - 100 - 117
Pressure Level				(Low-Mid-High)	(Low-Mid-High)
(Measured in Anechoic room)		*2	dB <A>	20-23-25	22-24-28
Insulation Material				EPS, Polyethylene Foam, Urethane Foam	EPS, Polyethylene foam, Urethane Foam
Air Filter				PP Honeycomb Fabric	PP Honeycomb Fabric
Protection Device				Fuse	Fuse
Connectable Outdoor Unit / HBC Controller				HYBRID CITY MULTI/ CMB-WP-V-GA1/CMB-WP-V-GB1	HYBRID CITY MULTI YLM/ CMB-WP-V-GA1/CMB-WP-V-GB1
Water Piping Diameter	Inlet	*5, *6	in.	Rc 3/4 Screw	Rc 3/4 Screw
	Outlet		in.	Rc 3/4 Screw	Rc 3/4 Screw
Field Drain Pipe Size			mm	O.D.32	O.D.32
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	Control Box Replace Kit			PAC-KE70HS-E	PAC-KE70HS-E

Notes :

1. Nominal cooling conditions
   Indoor: 27°CD.B./19°CW.B., Outdoor: 35°CD.B.
   Pipe length: 7.5 m, Level difference: 0 m
2. The values are measured at the factory setting of external static pressure.
3. Nominal heating conditions
   Indoor: 20°CD.B., Outdoor: 7°CD.B./6°CW.B.
   Pipe length: 7.5 m, Level difference: 0 m
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.

* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to in the Installation Manual.
Due to continuing improvement, above specifications may be subject to change without notice.

SPECIFICATIONS

INDOOR UNIT

Model				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
Cooling Capacity (Nominal)		*1	kW	2.2	2.8
	*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
	*2	Power Input	kW	0.031	0.040
	*2	Current Input	A	0.38	0.40
External Finish				Galvanised Steel Plate	Galvanised Steel Plate
External Dimension H x W x D			mm	200 x 790 x 700	200 x 790 x 700
Net Weight			kg	20	20
Heat Exchanger				Cross Fin (Aluminium Fin and Copper Tube)	Cross fin (Aluminium Fin and Copper Tube)
	Water Volume		L	0.9	0.9
FAN	Type x Quantity			Sirocco Fan x 2	Sirocco Fan x 2
*4	External Static Press.		Pa	<5> - 15 - <35> - <50>	<5> - 15 - <35> - <50>
	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)
			L/s	92 - 108 - 133	92 - 117 - 150
Sound Pressure Level				(Low-Mid-High)	(Low-Mid-High)
(Measured in Anechoic room)		*2	dB <A>	23-25-29	23-26-30
Insulation Material				EPS, Polyethylene Foam, Urethane Foam	EPS, Polyethylene foam, Urethane Foam
Air Filter				PP Honeycomb Fabric	PP Honeycomb Fabric
Protection Device				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
Water Piping Diameter	Inlet	*5, *6	in.	Rc 3/4 Screw	Rc 3/4 Screw
	Outlet		in.	Rc 3/4 Screw	Rc 3/4 Screw
Field Drain Pipe Size			mm	O.D.32	O.D.32
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	Control Box Replace Kit			PAC-KE70HS-E	PAC-KE70HS-E

Notes :

1. Nominal cooling conditions
   Indoor: 27°CD.B./19°CW.B., Outdoor: 35°CD.B.
   Pipe length: 7.5 m, Level difference: 0 m
2. The values are measured at the factory setting of external static pressure.
3. Nominal heating conditions
   Indoor: 20°CD.B., Outdoor: 7°CD.B./6°CW.B.
   Pipe length: 7.5 m, Level difference: 0 m
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.

* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to in the Installation Manual.
Due to continuing improvement, above specifications may be subject to change without notice.

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
	*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
	*2	Power Input	kW	0.051	0.070	0.070
	*2	Current Input	A	0.50	0.62	0.66
External Finish				Galvanised Steel Plate	Galvanised Steel Plate	Galvanised 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
Net Weight			kg	25	25	27
Heat Exchanger				Cross Fin (Aluminium Fin and Copper Tube)	Cross Fin (Aluminium Fin and Copper Tube)	Cross Fin (Aluminium Fin and Copper Tube)
	Water Volume		L	1.0	1.0	1.7
FAN	Type x Quantity			Sirocco Fan x 3	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>
	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)
			L/s	133 - 150 - 183	158 - 183 - 217	200 - 233 - 275
Sound Pressure Level				(Low-Mid-High)	(Low-Mid-High)	(Low-Mid-High)
(Measured in Anechoic Room)		*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	Inlet		in.	Rc 3/4 Screw	Rc 3/4 Screw	Rc 3/4 Screw
Diameter *5, *6	Outlet		in.	Rc 3/4 Screw	Rc 3/4 Screw	Rc 3/4 Screw
Field Drain Pipe Size			mm	O.D.32	O.D.32	O.D.32
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 :

1. Nominal cooling conditions
   Indoor: 27°CD.B./19°CW.B., Outdoor: 35°CD.B.
   Pipe length: 7.5 m, Level difference: 0 m
2. The values are measured at the factory setting of external static pressure.
3. Nominal heating conditions
   Indoor: 20°CD.B., Outdoor: 7°CD.B./6°CW.B.
   Pipe length: 7.5 m, Level difference: 0 m
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.

* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to in the Installation Manual.
Due to continuing improvement, above specifications may be subject to change without notice.

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	2.8
	*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
	*2	Power Input	kW	0.05	0.07
	*2	Current Input	A	0.44	0.53
External Finish				Galvanised Steel Plate	Galvanised Steel Plate
External Dimension H x W x D			mm	250 x 700 x 732	250 x 900 x 732
Net Weight			kg	21	26
Heat Exchanger				Cross Fin (Aluminium Fin and Copper Tube)	Cross Fin (Aluminium Fin and Copper Tube)
	Water Volume		L	0.7	1.0
FAN	Type x Quantity			Sirocco Fan x 1	Sirocco Fan x 1
*4	External Static Press.		Pa	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>
	Motor Type			DC Motor	DC Motor
	Motor Output		kW	0.085	0.085
	Driving Mechanism			Direct-Driven by Motor	Direct-Driven by Motor
	Air Flow Rate			(Low-Mid-High)	(Low-Mid-High)
			L/s	125 - 150 - 175	167 - 200 - 233
Sound Pressure Level				(Low-Mid-High)	(Low-Mid-High)
(Measured in Anechoic room)		*2	dB<A>	23-26-29	23-27-30
Insulation Material				EPS, Polyethylene Foam, Urethane Foam	EPS, Polyethylene Foam, Urethane Foam
Air Filter				PP Honeycomb Fabric	PP Honeycomb Fabric
Protection Device				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
Water Piping	Inlet		in.	Rc 3/4 Screw	Rc 3/4 Screw
Diameter *5, *6	Outlet		in.	Rc 3/4 Screw	Rc 3/4 Screw
Field Drain Pipe Size			mm	O.D.32	O.D.32
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-KE91TB-E	PAC-KE92TB-E

Notes:

1. Nominal cooling conditions
   Indoor: 27°CD.B./19°CW.B., Outdoor: 35°CD.B.
   Pipe length: 7.5 m, Level difference: 0 m
2. The values are measured at the factory setting of external static pressure.
3. Nominal heating conditions
   Indoor: 20°CD.B., Outdoor: 7°CD.B./6°CW.B.
   Pipe length: 7.5 m, Level difference: 0 m
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.

* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to in the Installation Manual.
Due to continuing improvement, above specifications may be subject to change without notice.

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
	*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
	*2	Power Input	kW	0.09	0.12	0.12
	*2	Current Input	A	0.63	1.04	1.04
External Finish				Galvanised Steel Plate	Galvanised Steel Plate	Galvanised 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
Net Weight			kg	26	31	31
Heat Exchanger				Cross Fin (Aluminium Fin and Copper Tube)	Cross Fin (Aluminium Fin and Copper Tube)	Cross Fin (Aluminium 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>
	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)
			L/s	200 - 242 - 283	242 - 300 - 350	242 - 300 - 350
Sound Pressure Level				(Low-Mid-High)	(Low-Mid-High)	(Low-Mid-High)
(Measured in Anechoic Room)		*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				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	Inlet		in.	Rc 3/4 Screw	Rc 3/4 Screw	Rc 3/4 Screw
Diameter *5, *6	Outlet		in.	Rc 3/4 Screw	Rc 3/4 Screw	Rc 3/4 Screw
Field drain Pipe Size			mm	O.D.32	O.D.32	O.D.32
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	Filter Box			PAC-KE92TB-E	PAC-KE93TB-E	PAC-KE93TB-E

Notes:

1. Nominal cooling conditions
   Indoor: 27°CD.B./19°CW.B., Outdoor: 35°CD.B.
   Pipe length: 7.5 m, Level difference: 0 m
2. The values are measured at the factory setting of external static pressure.
3. Nominal heating conditions
   Indoor: 20°CD.B., Outdoor: 7°CD.B./6°CW.B.
   Pipe length: 7.5 m, Level difference: 0 m
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.

* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to in the Installation Manual.
Due to continuing improvement, above specifications may be subject to change without notice.

SPECIFICATIONS

INDOOR UNIT

Model				PEFY-WP63VMA-E	PEFY-WP71VMA-E	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
	*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
	*2	Power Input	kW	0.12	0.22	0.22
	*2	Current Input	A	1.04	1.36	1.36
External Finish				Galvanised Steel Plate	Galvanised Steel Plate	Galvanised Steel Plate
External Dimension H x W x D			mm	250 x 1,100 x 732	250 x 1,400 x 732	250 x 1,400 x 732
Net Weight			kg	31	40	40
Heat Exchanger				Cross Fin (Aluminium Fin and Copper Tube)	Cross Fin (Aluminium Fin and Copper Tube)	Cross Fin (Aluminium Fin and Copper Tube)
		Water Volume	L	2.0	2.6	2.6
FAN		Type x Quantity		Sirocco Fan x 2	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>
		Motor Type		DC Motor	DC Motor	DC Motor
		Motor Output	kW	0.121	0.244	0.244
		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)
			L/s	242 - 300 - 350	383 - 467 - 550	383 - 467 - 550
Sound Pressure Level				(Low-Mid-High)	(Low-Mid-High)	(Low-Mid-High)
(Measured in Anechoic Room)	*2		dB <A>	26-29-34	28-33-37	28-33-37
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		Inlet	in.	Rc 1-1/4 Screw	Rc 1-1/4 Screw	Rc 1-1/4 Screw
Diameter	*5, *6	Outlet	in.	Rc 1-1/4 Screw	Rc 1-1/4 Screw	Rc 1-1/4 Screw
Field drain Pipe Size			mm	O.D.32	O.D.32	O.D.32
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		Filter Box		PAC-KE93TB-E	PAC-KE94TB-E	PAC-KE93TB-E

Notes:

1. Nominal cooling conditions
   Indoor: 27°CD.B./19°CW.B., Outdoor: 35°CD.B.
   Pipe length: 7.5 m, Level difference: 0 m
2. The values are measured at the factory setting of external static pressure.
3. Nominal heating conditions
   Indoor: 20°CD.B., Outdoor: 7°CD.B./6°CW.B.
   Pipe length: 7.5 m, Level difference: 0 m
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.

* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to in the Installation Manual.
Due to continuing improvement, above specifications may be subject to change without notice.

INDOOR UNIT

Model				PEFY-WP100VMA-E	PEFY-WP125VMA-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	11.2	14.0
	*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
	*2	Power Input	kW	0.22	0.34
	*2	Current Input	A	1.36	2.10
External Finish				Galvanised Steel Plate	Galvanised Steel Plate
External Dimension H x W x D			mm	250 x 1,400 x 732	250 x 1,600 x 732
Net Weight			kg	40	42
Heat Exchanger				Cross Fin (Aluminium Fin and Copper Tube)	Cross Fin (Aluminium Fin and Copper Tube)
		Water Volume	L	2.6	3.0
FAN		Type x Quantity		Sirocco Fan x 2	Sirocco Fan x 2
	*4	External Static Press.	Pa	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>
		Motor Type		DC Motor	DC Motor
		Motor Output	kW	0.244	0.244
		Driving Mechanism		Direct-Driven by Motor	Direct-Driven by Motor
		Air Flow Rate		(Low-Mid-High)	(Low-Mid-High)
			L/s	383 - 467 - 550	492 - 592 - 700
Sound Pressure Level				(Low-Mid-High)	(Low-Mid-High)
(Measured in Anechoic room)	*2		dB<A>	28-33-37	32-36-40
Insulation Material				EPS, Polyethylene Foam, Urethane Foam	EPS, Polyethylene Foam, Urethane Foam
Air Filter				PP Honeycomb Fabric	PP Honeycomb Fabric
Protection Device				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
Water Piping		Inlet	in.	Rc 1-1/4 Screw	Rc 1-1/4 Screw
Diameter	*5, *6	Outlet	in.	Rc 1-1/4 Screw	Rc 1-1/4 Screw
Field Drain Pipe Size			mm	O.D.32	O.D.32
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-KE94TB-E	PAC-KE95TB-E

Notes:

1. Nominal cooling conditions
   Indoor: 27°CD.B./19°CW.B., Outdoor: 35°CD.B.
   Pipe length: 7.5 m, Level difference: 0 m
2. The values are measured at the factory setting of external static pressure.
3. Nominal heating conditions
   Indoor: 20°CD.B., Outdoor: 7°CD.B./6°CW.B.
   Pipe length: 7.5 m, Level difference: 0 m
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.

* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to in the Installation Manual.
Due to continuing improvement, above specifications may be subject to change without notice.

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
	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
	Power Input		kW	0.03	0.03	0.04
	Current Input		A	0.28	0.28	0.38
External Finish				Galvanised Steel Sheet	Galvanised 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
Net Weight			kg	22	22	22
Heat Exchanger				Cross Fin (Aluminium Fin and Copper Tube)	Cross Fin (Aluminium Fin and Copper Tube)	Cross Fin (Aluminium Fin and Copper Tube)
	Water Volume		L	1.5	1.5	1.5
FAN	Type x Quantity			Turbo Fan × 1	Turbo Fan × 1	Turbo Fan × 1
*4	External Static Press		Pa	0	0	0
	Motor Type			DC Motor	DC Motor	DC Motor
	Motor Output		kW	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)
			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
Connectable Outdoor Unit/HBC Controller				HYBRID CITY MULTI/CMB-WP-V-GA1/CMB-WP-V-GB1		
Water Piping	Inlet		in.	Rc 3/4 Screw	Rc 3/4 Screw	Rc 3/4 Screw
Diameter *3, *4	Outlet		in.	Rc 3/4 Screw	Rc 3/4 Screw	Rc 3/4 Screw
Field Drain Pipe Size			mm	O.D.32	O.D.32	O.D.32
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 :

1. Nominal cooling conditions
   Indoor: 27°CD.B./19°CW.B., Outdoor: 35°CD.B.
   Pipe length: 7.5 m, Level difference: 0 m
2. Nominal heating conditions
   Indoor: 20°CD.B., Outdoor: 7°CD.B./6°CW.B.
   Pipe length: 7.5 m, Level difference: 0 m
3. Be sure to install a valve on the water outlet.
4. Install a strainer (40 mesh or more) on the pipe next to the valve to remove the foreign matters.
5. Please group units that operate on 1 branch.

* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to in the Installation Manual.
Due to continuing improvement, above specifications may be subject to change without notice.

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
	*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
	*2	Power Input	kW	0.040	0.040	0.050
	*2	Current Input	A	0.35	0.35	0.47
External Finish				Galvanised Steel Plate	Galvanised Steel Plate	Galvanised 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
Net Weight			kg	22	25	25
Heat Exchanger				Cross Fin (Aluminium Fin and Copper Tube)	Cross Fin (Aluminium Fin and Copper Tube)	Cross Fin (Aluminium Fin and Copper Tube)
		Water Volume	L	0.9	1.3	1.3
FAN		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>
		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)
			L/s	75 - 83 - 100	100 - 117 - 133	125 - 150 - 175
Sound Pressure Level				(Low-Mid-High)	(Low-Mid-High)	(Low-Mid-High)
(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				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		Inlet	in.	Rc 3/4 Screw	Rc 3/4 Screw	Rc 3/4 Screw
Diameter	*5, *6	Outlet	in.	Rc 3/4 Screw	Rc 3/4 Screw	Rc 3/4 Screw
Field Drain Pipe Size			mm	I.D.26 <Accessory Hose O.D.27 (Top End: O.D.20)>	I.D.26 <Accessory Hose O.D.27 (Top End: O.D.20)>	I.D.26 <Accessory Hose O.D.27 (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

Notes :

1. Nominal cooling conditions
   Indoor: 27°CD.B./19°CW.B., Outdoor: 35°CD.B.
   Pipe length: 7.5 m, Level difference: 0 m
2. The values are measured at the factory setting of external static pressure.
3. Nominal heating conditions
   Indoor: 20°CD.B., Outdoor: 7°CD.B./6°CW.B.
   Pipe length: 7.5 m, Level difference: 0 m
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.

* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to in the Installation Manual.
Due to continuing improvement, above specifications may be subject to change without notice.

SPECIFICATIONS

INDOOR UNIT

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
	*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
	*2	Power Input	kW	0.050	0.070
	*2	Current Input	A	0.47	0.65
External Finish				Galvanised Steel Plate	Galvanised Steel Plate
External Dimension H x W x D			mm	639 x 1,246 x 220	639 x 1,246 x 220
Net Weight			kg	29	29
Heat Exchanger				Cross Fin (Aluminium Fin and Copper Tube)	Cross Fin (Aluminium Fin and Copper Tube)
	Water Volume		L	1.5	1.5
FAN	Type x Quantity			Sirocco Fan x 2	Sirocco Fan x 2
*4	External Static Press.		Pa	20 - <40> - <60>	20 - <40> - <60>
	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)
			L/s	133 - 167 - 192	175 - 217 - 250
Sound Pressure Level				(Low-Mid-High)	(Low-Mid-High)
(Measured in Anechoic Room)		*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				HYBRID CITY MULTI/CMB-WP-V-GA1/CMB-WP-V-GB1	HYBRID CITY MULTI/CMB-WP-V-GA1/CMB-WP-V-GB1
Water Piping	Inlet		in.	Rc 3/4 Screw	Rc 3/4 Screw
Diameter *5, *6	Outlet		in.	Rc 3/4 Screw	Rc 3/4 Screw
Field Drain Pipe Size			mm	I.D.26 <Accessory Hose O.D.27 (Top End: O.D.20)>	I.D.26 <Accessory Hose O.D.27 (Top End: O.D.20)>
Standard Attachment	Accessory			Insulation Pipe for Water Pipe, Drain Gose (Flexible Joint), Screw Plate, Level Adjusting Screw, Hose Band	Insulation Pipe for Water Pipe, Drain Gose (Flexible Joint), Screw Plate, Level Adjusting Screw, Hose Band

Notes :

1. Nominal cooling conditions
   Indoor: 27°CD.B./19°CW.B., Outdoor: 35°CD.B.
   Pipe length: 7.5 m, Level difference: 0 m
2. The values are measured at the factory setting of external static pressure.
3. Nominal heating conditions
   Indoor: 20°CD.B., Outdoor: 7°CD.B./6°CW.B.
   Pipe length: 7.5 m, Level difference: 0 m
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.

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GRID NOTES

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