R410A HYBRID VRF

MITSUBISHI ELECTRIC

Hybrid VRF Catalogue

Next Generation 2-Pipe VRF Heat Recovery Systems

CITY MULTI

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The Hybrid VRF Advantage

Water, rather than traditional refrigerant, is at the heart of the indoor units. This means there is no risk of refrigerant leaking into small confined spaces.

What is Hybrid VRF?

Next Generation 2-Pipe Water Based VRF Technology

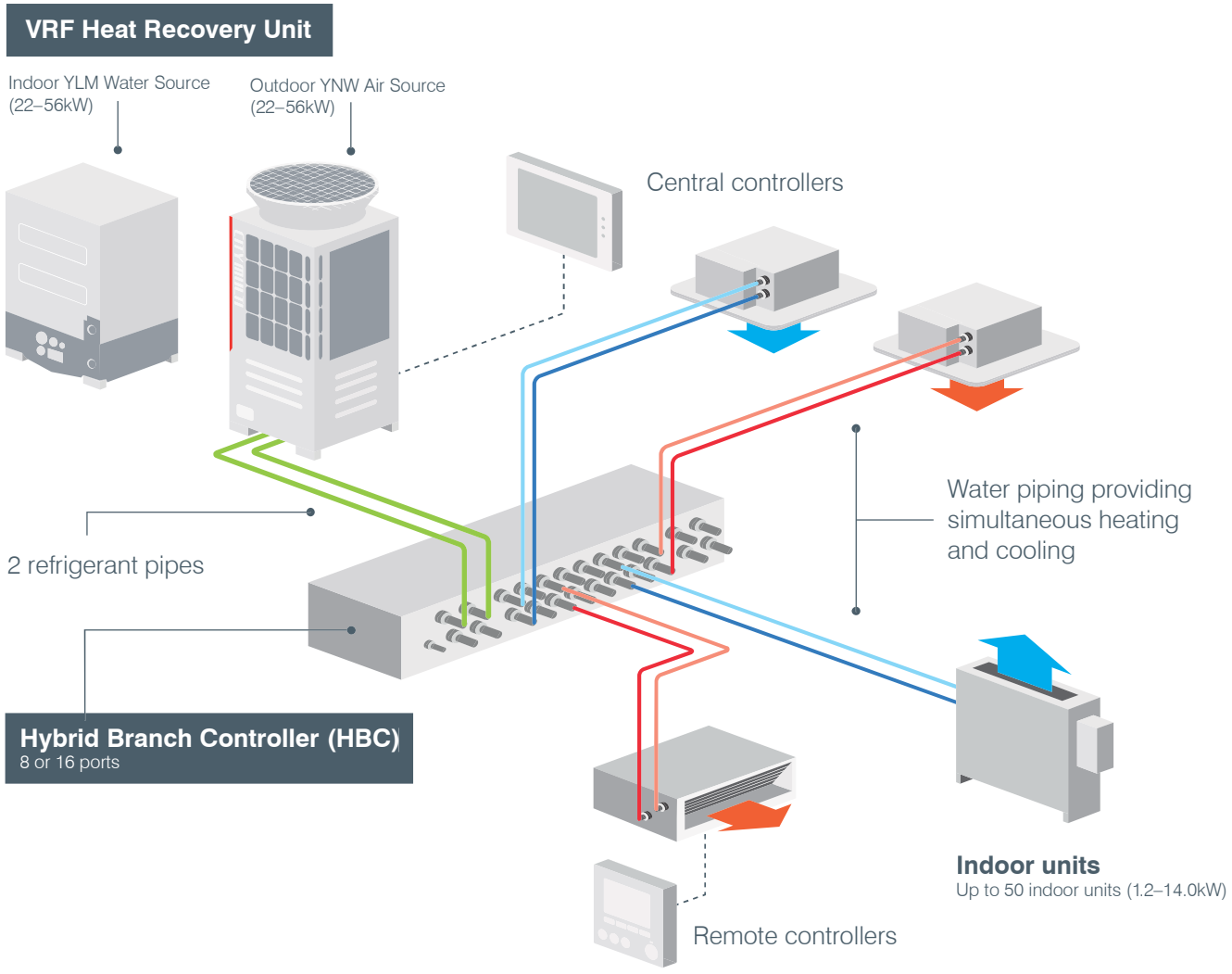
Hybrid VRF is a unique 2-Pipe Heat Recovery VRF System that replaces refrigerant with water between the Hybrid Branch Circuit Controller and the indoor units.

This revolutionary design minimises the need for expensive and on-going leak detection servicing and is specifically designed for occupied spaces where quiet, energy efficient, simultaneous heating and cooling is valued.

Hybrid VRF is quick, easy and flexible to design and install using the same control and network as traditional VRF systems. Furthermore, the decentralised system means phased installation is possible with similar high levels of seasonal efficiency expected with VRF.

With water at the indoor units, Hybrid VRF provides comfortable, stable air temperature control with no refrigerant in occupied spaces, minimising the need for leak detection to comply with AS/NZS 5149. (1-4) 2016.

Hybrid VRF is a truly integrated modern heating and cooling solution for office buildings, hotels, hospitals, medical centres, schools, high-rise buildings, shopping centres and other commercial premises, where occupant comfort is paramount.



HYBRID VRF

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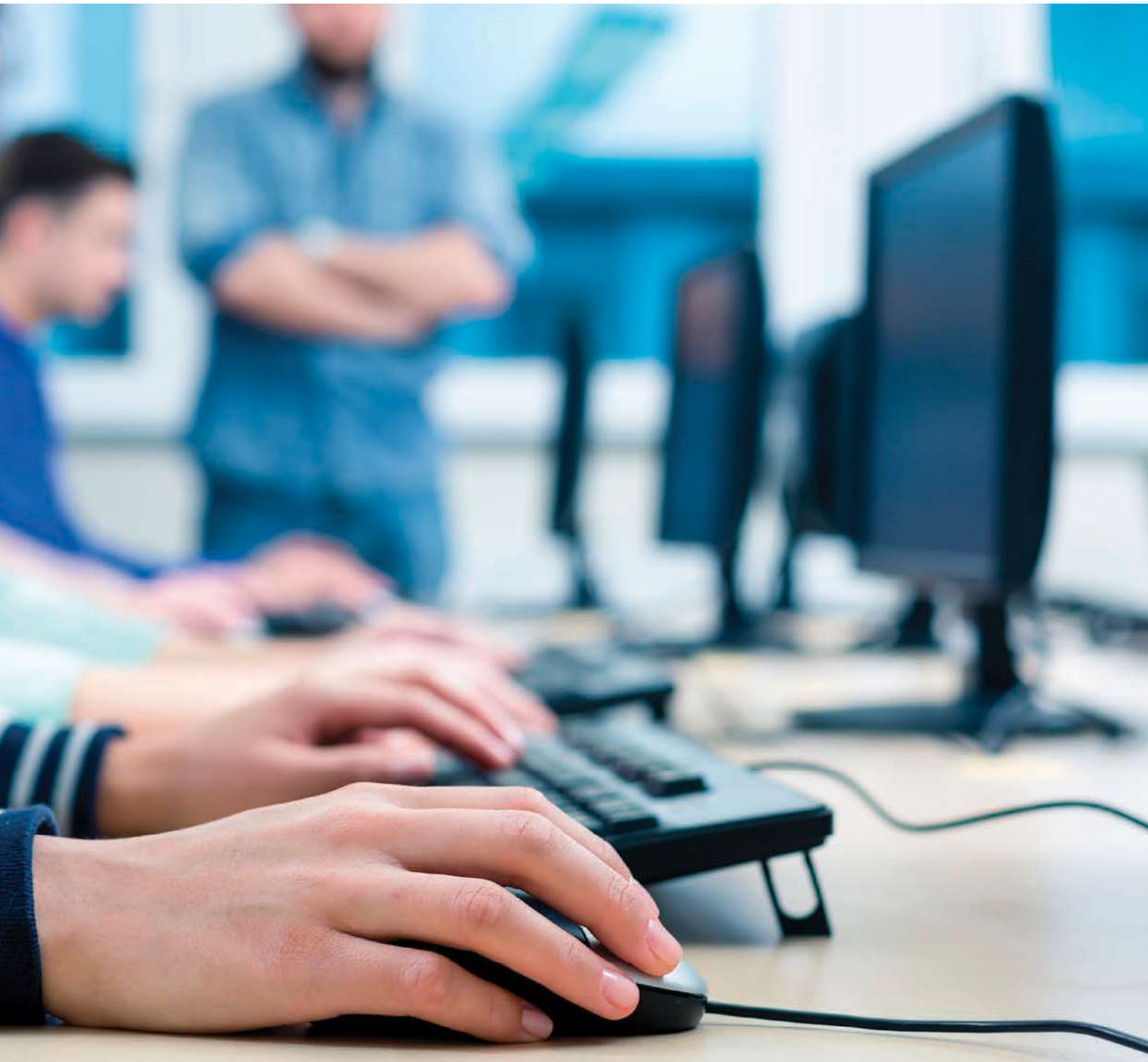
The Hybrid VRF Advantage

Hybrid VRF minimises the need for leak detection, reducing the total cost of the system and on-going maintenance of the leak detection system itself.



Where Can Hybrid VRF be Applied?

Hybrid VRF is the Complete Solution for Today's Modern Buildings

City Multi Hybrid VRF Systems allow for a flexible layout, making installation simple. With the use of Centralised Control, HVRF can be utilised in a wide variety of applications that require individual space comfort settings such as hotels, offices, hospitals, nursing homes and schools.

Furthermore, HVRF minimises the potential hazards to people, property and the environment that could result from leakages of traditional refrigerant systems in confined occupied spaces.

Mixed-Use Buildings

As we look for ways to balance population growth in crowded city centres, more mixed-use properties are being developed; often combining retail, office, leisure and living spaces in the same building. Hybrid VRF provides a fully adaptable solution benefiting from air or water source options, using an extensive range of controls to ensure optimum performance.

Offices

Modern offices and commercial buildings need air conditioning systems that provide the highest levels of comfort, freshness and energy efficiency.

Hotels

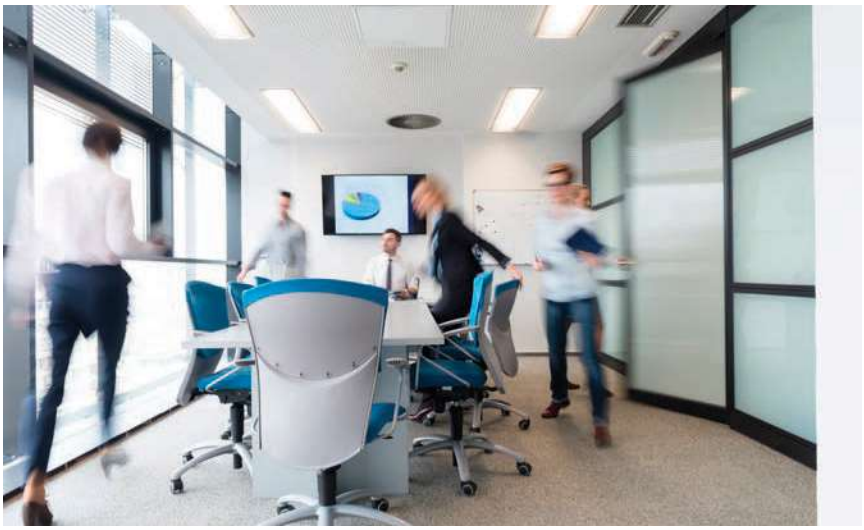
Customer comfort is paramount with legislation focusing attention on energy use and seeking to limit the use of refrigerant in occupied spaces. Hybrid VRF minimises the need for leak detection in the occupied space, thereby reducing the total cost of the system and ongoing maintenance of the leak detection system itself.

Hospitals and Medical Centres

With regards to patient health and safety, this system has no refrigerant in the indoor units and can deliver mild off-coil temperatures through the Water-Based Hybrid VRF indoor units. HVRF mitigates the need for leak detectors in consulting rooms and provides a solution to critical refrigerant limits outlined in AS/NZS 5149. (1-4) 2016.

Education

Providing comfort through temperature stability, removal of refrigerant from the occupied space and reduced noise – Hybrid VRF provides a truly integrated solution. Hybrid VRF delivers comfortable and stable air temperature control with no refrigerant in occupied spaces, minimising the need for leak detection.



The Hybrid VRF Advantage

VRF Performance with Hydronic Levels of Comfort

Building owners, facility managers and the construction industry have been looking for HVAC systems that deliver high operational efficiency whilst minimising the global warming potential of the refrigerants used within these systems.

Water is at the Heart of the Indoor Units

Water, rather than traditional refrigerant, is at the heart of the indoor units. This means there is no risk of refrigerant leaking into small confined occupied spaces. Hybrid VRF minimises the need for leak detection, reducing the total cost of the system and on-going maintenance of the leak detection system itself.

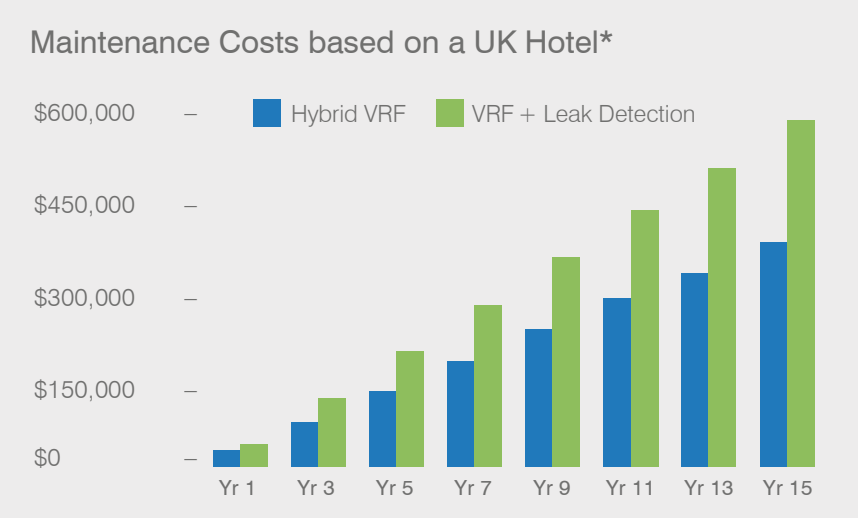
Minimise the Need for Leak Detection Systems

In commercial buildings, additional leak detection systems specific to air conditioning are often installed to safeguard occupants due to increasing safety regulations. This affects hotels in particular, where air conditioners are installed in the room space and occupant safety is critical.

A leak detection system is designed to trigger an alarm if refrigerant was to leak into the room and initiate an evacuation of the space to try and prevent harm to the occupants. These systems can be expensive and add to the cost of design, build and maintenance.

Realise Significant Maintenance Cost Reductions

Throughout a system's lifetime, annual testing and the recalibration of leak detection sensors adds significant cost to a VRF system. Using Hybrid VRF instead, removes this need and could provide as much as 30% in maintenance savings over 15 years.



* Based on a real project using costs from a Mitsubishi Electric Business Solutions Partner in the United Kingdom.

ETS – Emissions Trading Scheme

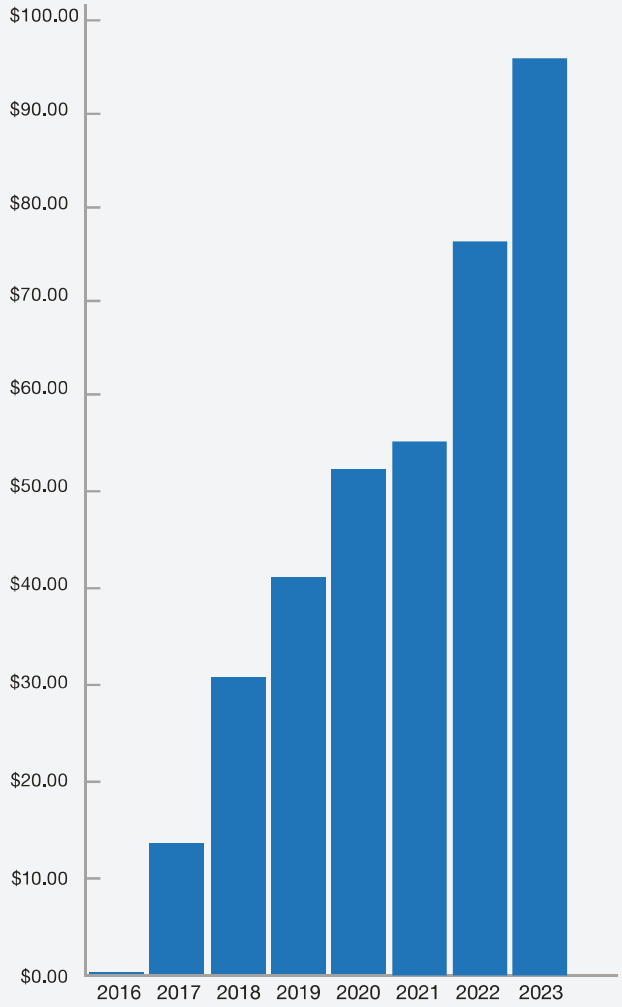
In New Zealand specifically, the ETS has put a price on greenhouse gas emissions and provides an incentive to reduce emissions and promote strategies to absorb carbon dioxide.

This is known as the SGG (Synthetic Greenhouse Gas) Levy.

Due to the increasing cost of refrigerant associated with the ETS Synthetic Greenhouse Gas Levy (NZ), building capital and maintenance costs will continue to climb using traditonal heating and cooling systems that utilise higher GWP refrigerants such as R410A.

HVRF reduces costs as it uses less refrigerant in the total system.

R410A SGG Levy Rates



Year	Levy Rate – per kg Refrigerant (R410A)	
2016	$0.31	Actual
2017	$13.72	Actual
2018	$30.78	Actual
2019	$41.55	Actual
2020	$51.29	Actual
2021	$53.50	Actual
2022	$76.26	Actual
2023	$95.36	Prediction

Hybrid VRF Key Features and Benefits

Provides Simultaneous Heating and Cooling with Full Heat Recovery

Hybrid VRF is an advanced simultaneous heating and cooling system with full heat recovery and delivers a proven alternative solution to traditional R410A VRF systems.

Energy Saving

Save more energy by Heat Recovery Operation if heating and cooling operations are required at the same time.

The more frequently heating and cooling simultaneous operation occurs, the higher the energy saving effect becomes.

Even higher efficiency operation is now possible by utilising the Centralised Control and scheduled operation.

Use Less Material and Equipment

Mitsubishi Electric's unique 2-Pipe Heat Recovery System requires less piping than a 4-Pipe Chiller System.

The system does not require an external pump, valves, sensors, actuators, or other ancilliary controls associated with conventional 4-Pipe Chiller Systems.

Flexible Design and Modularity Allow for a Manageable Phased Installation

The small footprint and modular design means building owners can now take advantage of a manageable phased installation.

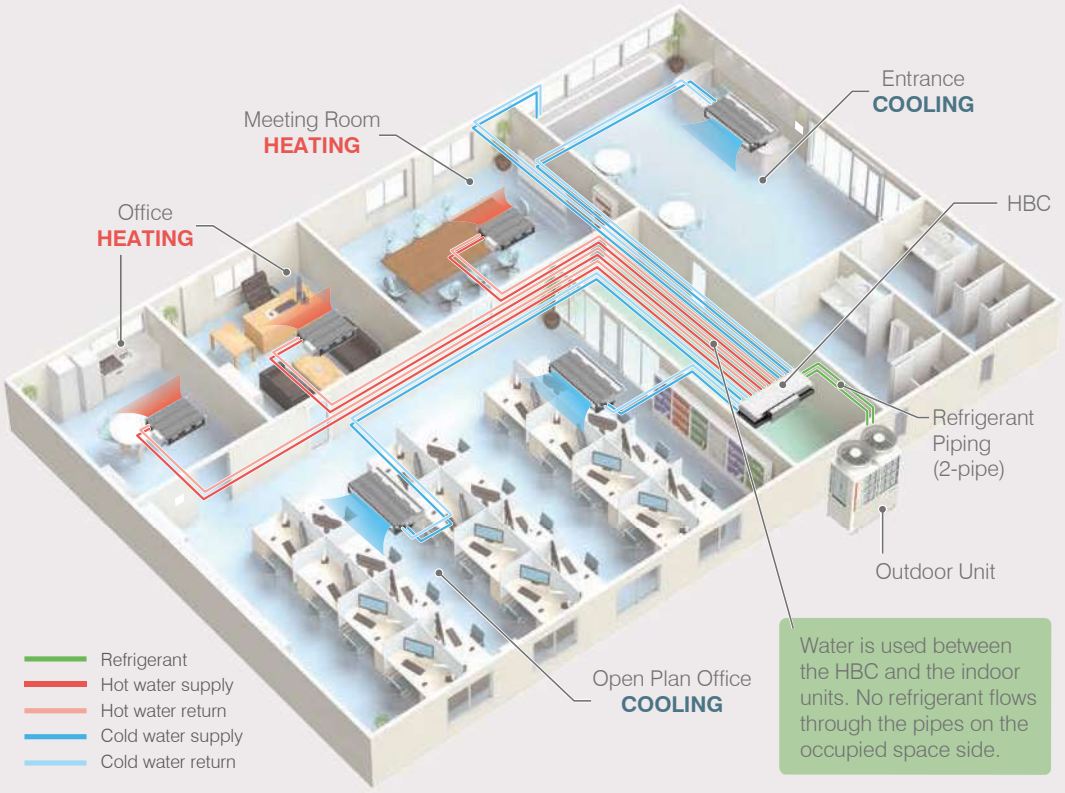


Image for representation only

The HVRF plant room may need leak detection based on AS/NZS 5149. (1-4) 2016.

Water Instead of Refrigerant is at the Heart of the Indoor Units

HVRF is based on a 2-Pipe Heat Recovery VRF System but uses water as a heat exchange medium between the Hybrid Branch Controller and the indoor units.

As such, the system combines the comfort of a traditional hydronic system with the efficiency and ease of modern VRF air conditioning – giving you the best of both worlds.

Reduce Maintenance Costs and Maximise Safety by Minimising the Need for Leak Detection

Legislation is now demanding that leak detection equipment is installed alongside VRF air conditioning when it is used in small occupied spaces in accordance with AS/NZS 5149. (1-4) 2016.

The Hybrid VRF architecture minimises the need for leak detection in these confined areas. This is because water instead of refrigerant is piped between the branch box and the indoor units mounted in each room. As a result there is no risk of refrigerant escaping into the room space.

In addition to maximising occupant safety, significant up front equipment and on-going maintenance cost savings are able to be realised because expensive leak detection systems are not required to be installed and maintained within occupied rooms.

Quiet Operation Through Water Based Fan Coils

Because water instead of refrigerant is circulated through the terminal fan coils, quiet operation and silent off cycle operation is assured.

High Sensible Cooling and Stable Room Temperatures

Occupant comfort is paramount. Hybrid VRF Systems deliver milder off coil temperatures and are specifically designed to provide a gradual rate of change of temperature within the air conditioned space delivering a comfortable and stable environment.

Furthermore, Hybrid VRF offers on average a 10% increase in sensible cooling at terminal compared to traditional VRF systems.

Intuitive Load Adjusting

The latest YNW VRF refrigerant control plus water side optimisation, flow control valves, inverter-driven pumps, and heat recovery provides only the capacity needed while improving efficiency and comfort.

Heat Recovery Defrost Method

Typical defrost times of 5 minutes with immediate return to heating. Improving comfort throughout the heating season, ideal for office applications. No defrost on Water Source VRF Models.

HYBRID VRF

Hybrid VRF Case Studies

Rototuna Junior High School – NZ's First Hybrid VRF System

Rototuna Junior High School was one of 23 new schools to open since January 2016. As with most schools, it had an extensive list of requirements which restricted how the building could be heated and cooled. Rototuna needed an HVAC solution suitable for the wide variety of offices, classrooms, and music rooms in the Junior High School building. Plus, the music practice rooms in particular were small and were required to be air-conditioned and had to meet strict acoustic performance requirements.

Mitsubishi Electric 22.4kW Hybrid VRF

The client required a mechanical system to resolve these unique requirements, which they did by utilising a Mitsubishi Electric Hybrid VRF System. This system was the first of its kind in New Zealand!

A Mitsubishi Electric Hybrid VRF 22.4kW System was installed to serve several music practice rooms, where noise control was the determining factor. As water is used instead of refrigerant throughout the indoor units, not only are they quiet operating, the Mitsubishi Electric Hybrid VRF indoor units enabled the music rooms to be fully sealed and soundproofed, without the client needing to install costly refrigerant leak detection systems.

A Mitsubishi Electric VRF Heat Recovery System and an AHU System were also installed to serve the heating, air conditioning, and ventilation requirements of the other areas of the building. All equipment selected was then wired to a BAC-HD150 to enable high-level control of all AC equipment via the BMS System.

Auckland University of Technology

The NorthMed Clinic is a new building situated at Auckland University of Technology's (AUT) North Shore Campus. This innovative facility which opened in July 2017, is comprised of modern medical offices and teaching spaces for Physiotherapy, Psychotherapy, Podiatry, Oral Health, and Student Health Services.

The Challenge

The use of such small quarters for medical examination rooms meant that high refrigerant concentration levels in these spaces became a primary concern. This coupled with patient/doctor privacy being of utmost importance meant that door grilles could not be used for this project. Therefore a traditional VRF System (without refrigerant monitoring) would not suit this particular application.

The Solution

Three Mitsubishi Electric HVRF Systems were selected by the mechanical consultant to serve the smaller medical consulting rooms, along with one other standard Mitsubishi Electric VRF System to serve the common meeting and office areas.

The unique architecture of Mitsubishi Electric HVRF Systems use water in the primary loop between the branch controller and indoor units, enabling the client's refrigerant concentration concerns to be completely mitigated. This allowed total privacy in consultation rooms to be maintained, without the need to install door grilles as refrigerant piping did not run anywhere near the confined spaces.

Rotorua Te Aka Mauri

The vision was to upgrade the existing Rotorua Library building into a new state of the art, centrally located, shared community facility comprised of the Rotorua Library, Children's Health Clinic and DHB offices.

The Challenge

The key challenge for this building was to cater for two tenants with very different layouts on each of the four floors.

Adding to this initial challenge was the desire to provide an efficient and comfortable HVAC solution that best fit within the scope of the pre-existing building structure.

The Solution

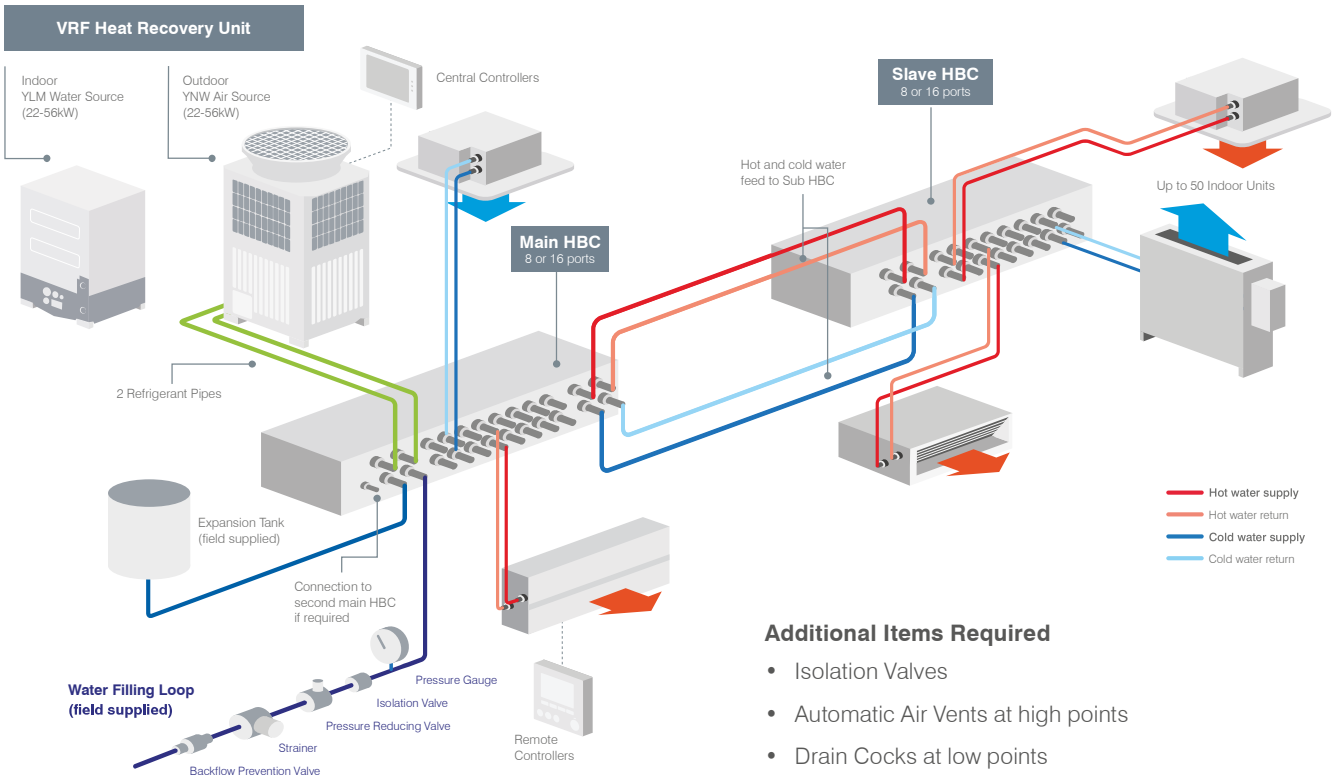
The best solution to meet the challenges was to select HVRF systems that provide heating and cooling to many of the mixed-use library and health hub areas. The HVRF Systems were selected by the consultant for the principle reason of having less extreme air-off temperatures, and slower temperature change responses across the fan coil units. This was particularly important in areas of the building with lower than usual internal ceilings.

With a wide variety of small capacity indoor model options available in the HVRF Range, specific indoor types were selected to suit each of the individual spaces. For example the external wall was extended out onto what was previously a balcony area. Several PFFY-WP50VLRMM-E floor concealed models were then selected to best suit this long, newly created open plan area, to be easily boxed out once the external wall had been constructed.

Hybrid VRF Technical System Overview

Hybrid VRF is based on a 2-Pipe Heat Recovery VRF system but uses water as a heat exchange medium between the Hybrid Branch Controller and the indoor units.

As such, the system combines the comfort of a traditional hydronic system with the efficiency and ease of modern VRF air conditioning – giving you the best of both worlds.



Additional Items Required

- Isolation Valves
- Automatic Air Vents at high points
- Drain Cocks at low points

Model Lineup

Heat Recovery Unit PURY-YNW/PQRY-YLM	1st Main HBC	1st Slave HBC	2nd Main HBC	2nd Slave HBC
P200	Required	Optional	-	-
P250	Required	Optional	-	-
P300	Required	Optional	Optional	Optional
P350	Required	Optional	Optional	Optional
*P400	Required	Optional	Required	Optional
*P450	Required	Optional	Required	Optional
*P500	Required	Optional	Required	Optional

*P400, P450 and P500 must use a 2nd Main HBC

Image for representation only

Hybrid Branch Circuit (HBC) Controller

A - Plate Heat Exchangers

This is the point where the refrigerant circuit transfers its energy to the sealed water system.

There are two sets of Plate Heat Exchangers, both placed at opposite ends in the HBC.

Both sets provide hot water in heating mode or cold water in cooling mode.

During mixed mode, one set provides hot water while the other provides cold water to its respective flow header.

B - Pumps

Each set of Plate Heat Exchangers has a DC Inverter Driven Water Pump.

This circulates the closed loop water system between the HBC and indoor units.

The discharge flow rate from the pump is controlled by the Valve Block.

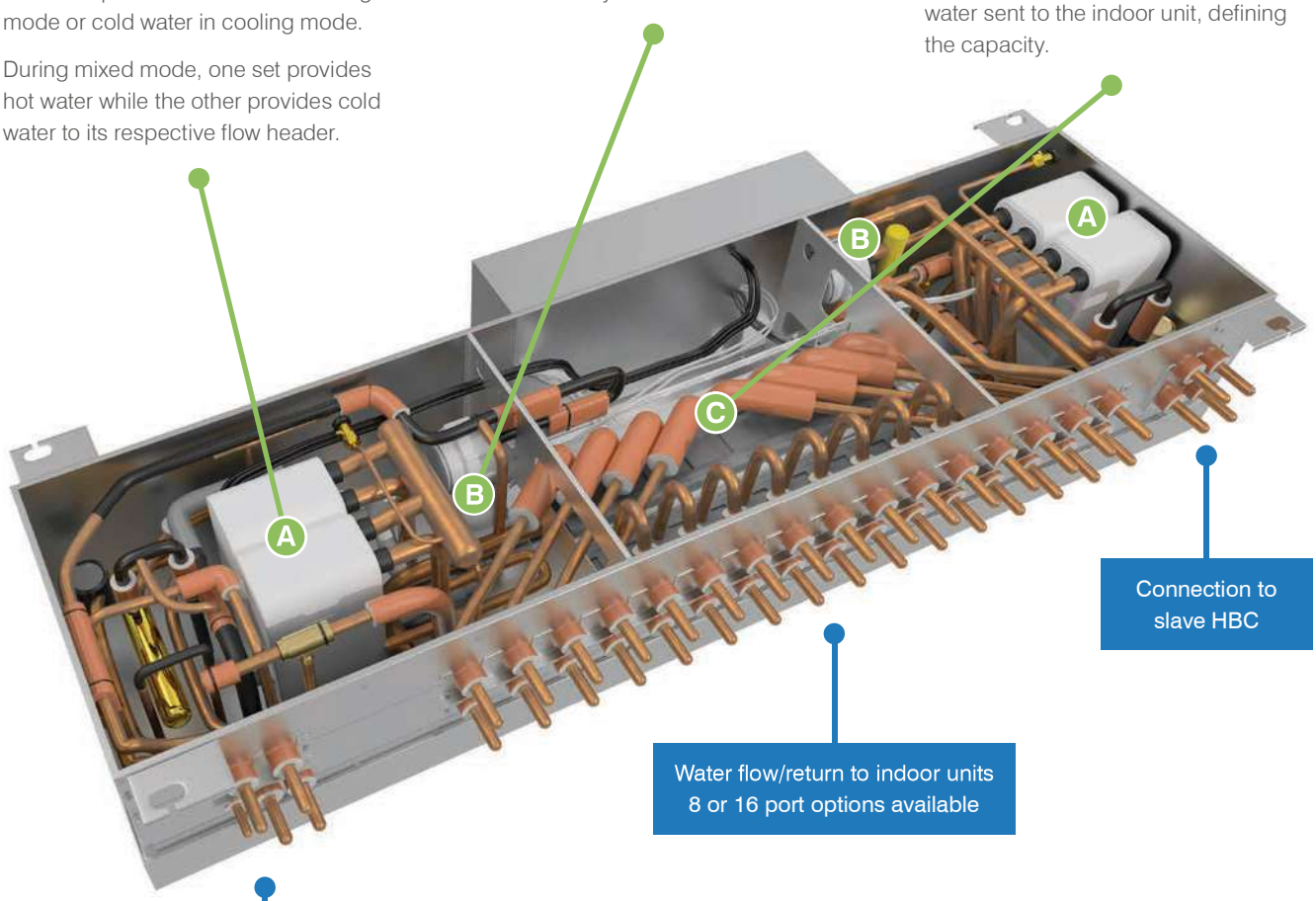
C - Valve Block

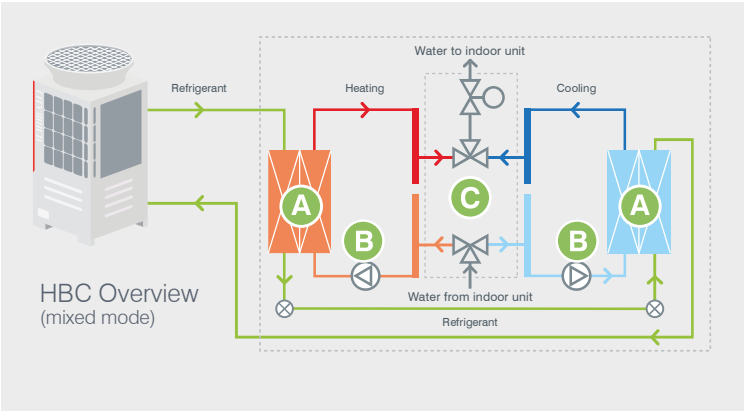
A Valve Block is connected between each flow and return port of the HBC.

This Valve Block has two features;

Firstly, it has the choice of selecting between the two flow headers.

Secondly, it controls the flow of the water sent to the indoor unit, defining the capacity.



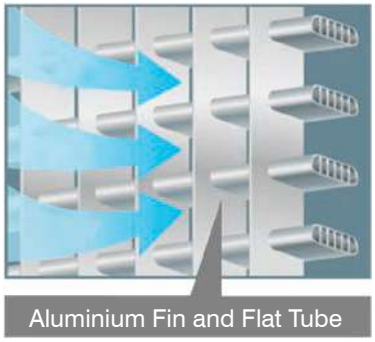


Images for representation only

HVRF Air Source Outdoor Unit

Utilising the City Multi PURY-EP-YNW High COP Outdoor Unit Range increases seasonal efficiency of the system. It benefits from heat recovery and an energy efficient inverter-driven compressor, providing simultaneous heating and cooling. The ultimate in heat exchange efficiency with aluminium flat tube heat exchanger technology!

Inverter Compressor

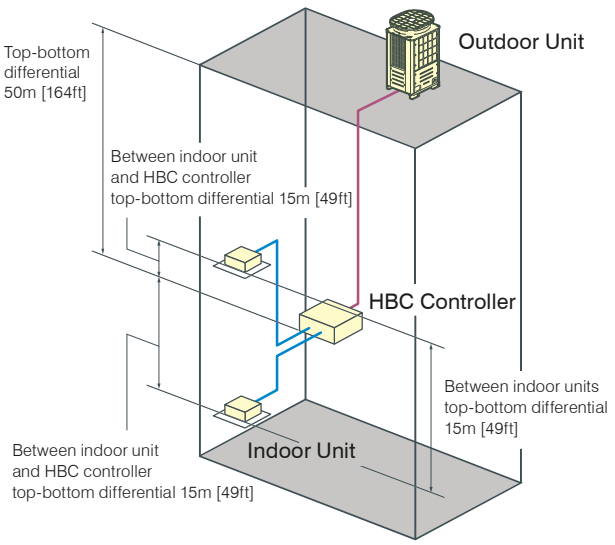


Available on EP High COP Models Only

Model Lineup

Horsepower	8HP	10HP	12HP	14HP	16HP	18HP	20HP
Cooling Capacity	22.4kW	28.0kW	33.5kW	40.0kW	45.0kW	50.0kW	56.0W

Piping Length



R Refrigerant Pipe W Water Pipe

Refrigerant Piping Lengths	Maximum meters [Feet]
R Distance between heat source and HBC	110 [360]
W Farthest indoor unit from HBC controller	60 [196]

Vertical Differentials Between Units	Maximum meters [Feet]
R Heat source/HBC controller	50 [164]
R HBC/heat source (heat source unit above HBC)	50 [164]
R HBC/heat source (heat source unit below HBC)	40 [131]
W Indoor/HBC controller	15 (10) [49 (32)]*1
W Indoor/indoor	15 (10) [49 (32)]*1
R HBC/HBC controller	15 (10) [49 (32)]*1

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

HVRF Water Source Unit

Water Source Units utilise water instead of air as the energy transfer medium, with all of the benefits of Mitsubishi Electric patented 2-Pipe Heat Recovery Technology, excellent efficiency and the flexibility of air source VRF systems. This system offers a viable solution where Air Source outdoor units are not feasible due to space or weight constraints in the outside plant area by using a condenser water loop for the means of heat injection and rejection, or where further efficiencies are able to be sought by the use of natural means such as rivers, lakes and closed loop ground bores.

A Sustainable and Flexible Solution for Tall or Unique Buildings:

- Apply and network the energy through a water loop, within the building and between buildings – optimising efficiency.
- Utilisation of geothermal sources, rivers or lakes, landlord loops, rejected heat from hydronic server cooling or other processes.
- City Multi Water Source Units offer double heat recovery through the conventional floor-wide heat recovery and floor to floor heat recovery via the water loop, this system also offers a solution where no defrost cycle is required in Heating Mode.
- Units are located indoors on each floor or a dedicated internal plant room ensuring design flexibility with pipework. These units are compact and do not require ventilation due to a refrigerant cooled inverter which leads to maximising tenant floor area.

Model Lineup

Horsepower	8HP	10HP	12HP	14HP	16HP	18HP	20HP
Cooling Capacity	22.4kW	28.0kW	33.5kW	40.0kW	45.0kW	50.0kW	56.0W

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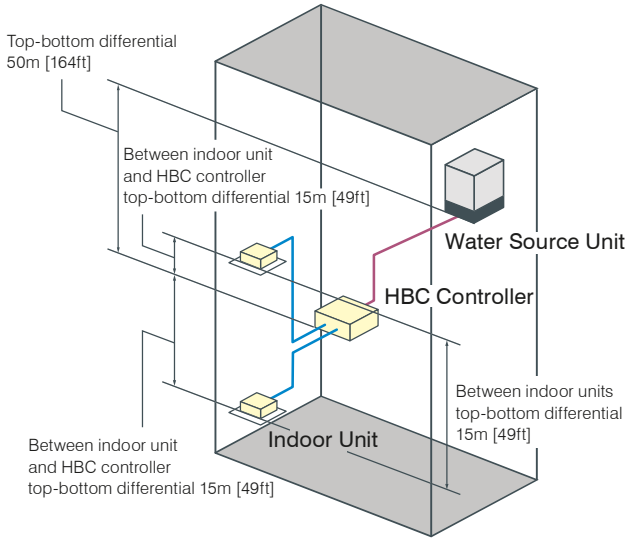

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Hybrid Branch Circuit (HBC) Controller

The HBC is used for the connection of the outdoor unit and the indoor units. The heat exchange for refrigerant and water is performed simultaneously using the industry's first and patented Hybrid VRF Technology.

Type	Main-HBC		Sub-HBC	
Model	 CMB-WM108V-AA	 CMB-WM1016V-AA	 CMB-WM108V-AB	 CMB-WM1016V-AB
Total Branches	8	16	8	16

Indoor Models

The following indoor units are exclusively for use with Hybrid City Multi.

Type	Name	Model	10	15	20	25	32	40	50	63	71	80	100	125
Ceiling Concealed Low Static Pressure	PEFY-WP VMS1-E		●	●	●	●	●	●	●					
Ceiling Concealed Medium Static Pressure	PEFY-WP VMA-E				●	●	●	●	●	●	●	●	●	●
Ceiling Concealed High Static Pressure	PEFY-WL VMHS-A							●	●	●	●	●	●	●
4-Way Airflow Cassette	PLFY-WL VEM-E				●	●	●	●	●	●		●	●	●
Compact Cassette	PLFY-WL VFM-E		●	●	●	●	●	●						
Wall Mounted	PKFY-WL VLM-E		●	●	●	●	●	●						
	PKFY-WL VKM-E								●	●		●		
Floor Standing Concealed	PFFY-WP VLRMM-E				●	●	●	●	●					

Controller Range

Remote Controllers

Standard Controller PAR-40MAA

- Dual set point option
- Energy saving
- Backlit LCD screen
- Error information
- Operation lock
- Weekly schedule
- Temperature range setting

Advanced M-NET Controller PAR-U02MEDA

- Dual set point option
- Occupancy sensor
- Brightness sensor
- Energy saving
- Touch panel and backlit LCD
- LED indicator
- Temperature and humidity sensor
- Weekly schedule
- Error information

Simplified Controller PAC-YT52CRA

- On-off
- Temperature control
- Fan speed
- Mode

Centralised Controllers and BMS Interface

AE-200E

- 10.4 inch LCD touchscreen display
- Web access – central control available via web browser
- 365-day time scheduler
- Energy consumption monitoring
- Programmable floor plan
- BACnet BMS Interface compatible

MelcoBEMS Mini BMS Interface

- MODBUS
- BACnet MS/TP

AT-50B

- Stand-alone centralised control
- Backlit LCD touchscreen
- Weekly and daily schedule

BAC-HD150 BMS Interface

- BACnet
- Connects directly to M-NET

MA Touch Remote

PAR-CT01MAA-SB

PAR-CT01MAA-PB

3.5" Touch Panel

Featuring a 3.5" HVGA Full Colour LCD Touchscreen.

Bluetooth Functionality

The controller can communicate with a smart phone or tablet device via Bluetooth. Operation and Setting App is available on the App Store.

Hotel Setting

A simple operation panel is available to display only ON/OFF, set temperature and fan speed – ideal for hotels.

Logo Customisation

Your company logo or image can be displayed on the screen.

Customisable Colour Options

180 different colour patterns can be selected for control parameters or background. Available in White and Premium Black.

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Patented Hybrid VRF Technology

True flexibility is achieved as the system is modular for a manageable phased installation.

Outdoor Unit – Air Source

Model				PURY-P200YNW-A1 (-BS)	PURY-P250YNW-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
			BTU / h	76,400	95,500
	Power input		kW	6.54	9.92
	Current input		A	11.0-10.4-10.1	16.7-15.9-15.3
	EER		kW / kW	3.42	2.82
	Temp. Range *3	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
		Outdoor	D.B.	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)
Heating	Capacity (Nominal) *2		kW	25.0	31.5
			BTU / h	85,300	107,500
	Power input		kW	6.49	10.06
	Current input		A	10.9-10.4-10.0	16.9-16.1-15.5
	COP		kW / kW	3.85	3.13
	Temp. range *3	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
		Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
Indoor unit connectable		Total capacity		50~150% of outdoor unit capacity	50~150% of outdoor unit capacity
		Model / Quantity		†W(P)10~125, WL10~50/1~30	W(P)10~125, WL10~50/1~37
Sound pressure level (measured in anechoic room)*4			dB <A>	59.0/59.0	60.5/61.0
Sound power level (measured in anechoic room) *4			dB <A>	76.0/78.0	78.0/80.0
Refrigerant piping diameter		High pressure	mm (in.)	15.88 (5/8) Brazed	19.05 (3/4) Brazed
		Low pressure	mm (in.)	19.05 (3/4) Brazed	22.2 (7/8) Brazed
Fan	Type x Quantity			Propeller fan x 1	Propeller fan x 1
	Air flow rate		m3/min	170	185
			L/s	2,833	3,083
			cfm	6,003	6,532
	Control, Driving mechanism			Inverter-control, direct-driven by motor	Inverter-control, direct-driven by motor
	Motor output		kW	0.92 x 1	0.92 x 1
	External static press. *5			0 Pa (0 mmH2O)	0 Pa (0 mmH2O)
Compressor	Type			Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Starting method			Inverter	Inverter
	Motor output		kW	3.7	5.5
	Case heater		kW	- (- V)	- (- V)
External finish				Pre-coated galvanised steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>	
External dimension HxWxD			mm	1,858 (1,798 without legs) x 920 x 740	
			in.	73-3/16 (70-13/16 without legs) x 36-1/4 x 29-3/16	
Protection devices	High pressure protection			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP./FAN)			Over-heat protection, Over-current protection	
	Compressor			-	-
	Fan motor			-	-
Refrigerant	Type/GWP			R410A / 2088	R410A / 2088
	Factory charged	Weight	kg	5.2	5.2
		CO2 equivalent *6	t	10.86	10.86
	Max additional charge	Weight	kg	31.8	37.8
		CO2 equivalent *6	t	66.40	78.93
	Total charge	Weight	kg	37.0	43.0
		CO2 equivalent *6	t	77.26	89.78
Net weight			kg (lbs)	219 (483)	228 (503)
Heat exchanger				Salt-resistant cross fin & copper tube	
Defrosting method				Auto-Defrost Mode (Reversed refrigerant cycle, Hot gas)	

Unit Coverter: BTU/h=kW×3,412, cfm=m^3/min×35.31 and lbs=kg/0.4536 (Please note these figures are subject to rounding variation)

Notes :

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./24°CW.B. (95°FD.B./75°FW.B.
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3. -5°CD.B. (23°FD.B.)/-6°CW.B. (21°FW.B.) to 21°CD.B. (70°FD.B.)/15.5°CW.B. (60°FW.B.) with cooling/heating mixed operation.
4. Cooling Mode/Heating Mode
5. External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH2O, 6.1 mmH2O, 8.2 mmH2O). Consult your dealer about the specification when setting External static pressure option.
6. This table is based on Regulation (EU) No517/2014.

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

Outdoor Unit – Air Source

Model				PURY-P300YNW-A1 (-BS)		PURY-P350YNW-A1 (-BS)	
Number of HBC controller				Single HBC	Double HBC	Single HBC	Double HBC
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz		3-phase 4-wire 380-400-415 V 50/60 Hz	
Cooling	Capacity (Nominal) *1		kW	33.5		40.0	
			BTU / h	114,300		136,500	
	Power input		kW	13.13	11.12	16.26	13.24
	Current input		A	22.1-21.0-20.2	18.7-17.8-17.1	27.4-26.0-25.1	22.3-21.2-20.4
	EER		kW / kW	2.55	3.01	2.46	3.02
	Temp. Range *3	Indoor	W.B.	15.0~24.0°C (59~75°F)		15.0~24.0°C (59~75°F)	
		Outdoor	D.B.	-5.0~52.0°C (23~126°F)		-5.0~52.0°C (23~126°F)	
Heating	Capacity (Nominal) *2		kW	37.5		45.0	
			BTU / h	128,000		153,500	
	Power input		kW	12.71	11.94	13.88	12.85
	Current input		A	21.4-20.3-19.6	20.1-19.1-18.4	23.4-22.2-21.4	21.6-20.6-19.8
	COP		kW / kW	2.95	3.14	3.24	3.50
	Temp. range *3	Indoor	D.B.	15.0~27.0°C (59~81°F)		15.0~27.0°C (59~81°F)	
		Outdoor	W.B.	-20.0~15.5°C (-4~60°F)		-20.0~15.5°C (-4~60°F)	
Indoor unit connectable		Total capacity		50~150% of outdoor unit capacity		50~150% of outdoor unit capacity	
		Model / Quantity		W(P)10~125, WL10~50/2~45		W(P)10~125, WL10~50/2~50	
Sound pressure level (measured in anechoic room)*4			dB <A>	61.0/67.0		62.5/64.0	
Sound power level (measured in anechoic room) *4			dB <A>	80.0/86.0		81.0/83.0	
Refrigerant piping diameter		High pressure	mm (in.)	19.05 (3/4) Brazed		19.05 (3/4) Brazed	
		Low pressure	mm (in.)	22.2 (7/8) Brazed		28.58 (1-1/8) Brazed	
Fan	Type x Quantity			Propeller fan x 1		Propeller fan x 2	
	Air flow rate		m3/min	240		250	
			L/s	4,000		4,167	
			cfm	8,474		8,828	
	Control, Driving mechanism			Inverter-control, direct-driven by motor		Inverter-control, direct-driven by motor	
	Motor output		kW	0.92 x 1		0.46 x 2	
	External static press. *5			0 Pa (0 mmH2O)		0 Pa (0 mmH2O)	
Compressor	Type			Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method			Inverter		Inverter	
	Motor output		kW	7.3		8.7	
	Case heater		kW	- (- V)		- (- V)	
External finish				Pre-coated galvanised steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>			
External dimension HxWxD			mm	1,858 (1,798 without legs) x 920 x 740		1,858 (1,798 without legs) x 1,240 x 740	
			in.	73-3/16 (70-13/16 without legs) x 36-1/4 x 29-3/16		73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	
Protection devices	High pressure protection			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			
	Inverter circuit (COMP./FAN)			Over-heat protection, Over-current protection			
	Compressor			-		-	
	Fan motor			-		-	
Refrigerant	Type/GWP			R410A / 2088		R410A / 2088	
	Factory charged	Weight	kg	5.2		8.0	
		CO2 equivalent *6	t	10.86		16.70	
	Max additional charge	Weight	kg	37.8		41.3	
		CO2 equivalent *6	t	78.93		86.23	
	Total charge	Weight	kg	43.0		49.3	
		CO2 equivalent *6	t	89.78		102.94	
Net weight			kg (lbs)	232 (512)		277 (611)	
Heat exchanger				Salt-resistant cross fin & copper tube			
Defrosting method				Auto-Defrost Mode (Reversed refrigerant cycle, Hot gas)			

Unit Coverter: BTU/h=kW×3,412, cfm=m^3/min×35.31 and lbs=kg/0.4536 (Please note these figures are subject to rounding variation)

Notes :

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./24°CW.B. (95°FD.B./75°FW.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3. -5°CD.B. (23°FD.B.)/-6°CW.B. (21°FW.B.) to 21°CD.B. (70°FD.B.)/15.5°CW.B. (60°FW.B.) with cooling/heating mixed operation.
4. Cooling Mode/Heating Mode
5. External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH2O, 6.1 mmH2O, 8.2 mmH2O). Consult your dealer about the specification when setting External static pressure option.
6. This table is based on Regulation (EU) No517/2014.

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

Outdoor Unit – Air Source

Model				PURY-P400YNW-A1 (-BS)	PURY-P450YNW-A1 (-BS)	PURY-P500YNW-A1 (-BS)
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz		
Cooling	Capacity (Nominal) *1		kW	45.0	50.0	56.0
			BTU / h	153,500	170,600	191,100
	Power input		kW	16.65	17.92	24.03
	Current input		A	28.1-26.7-25.7	30.2-28.7-27.7	40.5-38.5-37.1
	EER		kW / kW	2.70	2.79	2.33
	Temp. Range *3	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
		Outdoor	D.B.	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)
Heating	Capacity (Nominal) *2		kW	50.0	56.0	63.0
			BTU / h	170,600	191,100	215,000
	Power input		kW	14.88	17.39	19.09
	Current input		A	25.1-23.8-23.0	29.3-27.8-26.8	32.2-30.6-29.5
	COP		kW / kW	3.36	3.22	3.30
	Temp. range *3	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
		Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
Indoor unit connectable		Total capacity		50~150% of outdoor unit capacity	50~150% of outdoor unit capacity	50~150% of outdoor unit capacity
		Model / Quantity		W(P)10~125, WL10~50/1~40	W(P)10~125, WL10~50/1~45	W(P)10~125, WL10~50/1~50
Sound pressure level (measured in anechoic room)*4			dB <A>	65.0/69.0	65.5/70.0	63.5/64.5
Sound power level (measured in anechoic room) *4			dB <A>	83.0/88.0	83.0/89.0	82.0/84.0
Refrigerant piping diameter		High pressure	mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed
		Low pressure	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Fan	Type x Quantity			Propeller fan x 2	Propeller fan x 2	Propeller fan x 2
	Air flow rate		m3/min	315	315	295
			L/s	5,250	5,250	4,917
			cfm	11,123	11,123	10,416
	Control, Driving mechanism			Inverter-control, direct-driven by motor	Inverter-control, direct-driven by motor	Inverter-control, direct-driven by motor
	Motor output		kW	0.46 x 2	0.46 x 2	0.92 x 2
	External static press. *5			0 Pa (0 mmH2O)	0 Pa (0 mmH2O)	0 Pa (0 mmH2O)
Compressor	Type			Inverter scroll hermetic compressor	Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Starting method			Inverter	Inverter	Inverter
	Motor output		kW	11.7	12.4	14.2
	Case heater		kW	- (- V)	- (- V)	- (- V)
External finish				Pre-coated galvanised steel sheets (+powder coating for -BS type) <MUNSELL 3Y 7.8/1.1 or similar>		
External dimension HxWxD			mm	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,750 x 740
			in.	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 68-15/16 x 29-3/16
Protection devices	High pressure protection			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit (COMP./FAN)			Over-heat protection, Over-current protection		
	Compressor			-	-	-
	Fan motor			-	-	-
Refrigerant	Type/GWP			R410A / 2088	R410A / 2088	R410A / 2088
	Factory charged	Weight	kg	8.0	10.8	10.8
		CO2 equivalent *6	t	16.70	22.5	22.55
	Max additional charge	Weight	kg	47.3	44.5	45.2
		CO2 equivalent *6	t	98.76	92.92	94.38
	Total charge	Weight	kg	55.3	55.3	56.0
		CO2 equivalent *6	t	115.47	115.47	116.93
Net weight			kg (lbs)	277 (611)	296 (653)	340 (750)
Heat exchanger				Salt-resistant cross fin & copper tube		
Defrosting method				Auto-Defrost Mode (Reversed refrigerant cycle)		

Unit Coverter: BTU/h=kW×3,412, cfm=m^3/min×35.31 and lbs=kg/0.4536 (Please note these figures are subject to rounding variation)

Notes :

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./24°CW.B. (95°FD.B./75°FW.B.
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3. -5°CD.B. (23°FD.B.)/-6°CW.B. (21°FW.B.) to 21°CD.B. (70°FD.B.)/15.5°CW.B. (60°FW.B.) with cooling/heating mixed operation.
4. Cooling Mode/Heating Mode
5. External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH2O, 6.1 mmH2O, 8.2 mmH2O). Consult your dealer about the specification when setting External static pressure option.
6. This table is based on Regulation (EU) No517/2014.

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

Outdoor Unit – Air Source

Model				PURY-EP200YNW-A1 (-BS)	PURY-EP250YNW-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
			BTU / h	76,400	95,500
	Power input		kW	5.84	8.77
	Current input		A	9.9-9.3-9.0	14.8-14.0-13.5
	EER		kW / kW	3.83	3.19
	Temp. Range *3	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
		Outdoor	D.B.	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)
Heating	Capacity (Nominal) *2		kW	25.0	31.5
			BTU / h	85,300	107,500
	Power input		kW	6.49	9.84
	Current input		A	10.9-10.4-10.0	16.6-15.7-15.2
	COP		kW / kW	3.85	3.20
	Temp. range *3	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
		Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
Indoor unit connectable		Total capacity		50~150% of outdoor unit capacity	50~150% of outdoor unit capacity
		Model / Quantity		W(P)10~125, WL10~50/1~30	W(P)10~125, WL10~50/1~37
Sound pressure level (measured in anechoic room)*4			dB <A>	59.0/59.0	60.5/61.0
Sound power level (measured in anechoic room) *4			dB <A>	76.0/78.0	78.0/80.0
Refrigerant piping diameter		High pressure	mm (in.)	15.88 (5/8) Brazed	19.05 (3/4) Brazed
		Low pressure	mm (in.)	19.05 (3/4) Brazed	22.2 (7/8) Brazed
Fan	Type x Quantity			Propeller fan x 1	Propeller fan x 1
	Air flow rate		m3/min	170	185
			L/s	2,833	3,083
			cfm	6,003	6,532
	Control, Driving mechanism			Inverter-control, direct-driven by motor	Inverter-control, direct-driven by motor
	Motor output		kW	0.92 x 1	0.92 x 1
	External static press. *5			0 Pa (0 mmH2O)	0 Pa (0 mmH2O)
Compressor	Type			Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Starting method			Inverter	Inverter
	Motor output		kW	3.6	5.5
	Case heater		kW	- (- V)	- (- V)
External finish				Pre-coated galvanised steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>	
External dimension HxWxD			mm	1,858 (1,798 without legs) x 920 x 740	
			in.	73-3/16 (70-13/16 without legs) x 36-1/4 x 29-3/16	
Protection devices	High pressure protection			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP./FAN)			Over-heat protection, Over-current protection	
	Compressor			-	-
	Fan motor			-	-
Refrigerant	Type/GWP			R410A / 2088	R410A / 2088
	Factory charged	Weight	kg	5.2	5.2
		CO2 equivalent *6	t	10.86	10.86
	Max additional charge	Weight	kg	28.3	34.3
		CO2 equivalent *6	t	59.09	71.62
	Total charge	Weight	kg	33.5	39.5
		CO2 equivalent *6	t	69.95	82.48
Net weight			kg (lbs)	219 (483)	228 (503)
Heat exchanger				Salt-resistant cross fin & aluminium tube	
Defrosting method				Auto-Defrost Mode (Reversed refrigerant cycle, Hot gas)	

Unit Coverter: BTU/h=kW×3,412, cfm=m^3/min×35.31 and lbs=kg/0.4536 (Please note these figures are subject to rounding variation)

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3. -5°CD.B. (23°FD.B.)/-6°CW.B. (21°FW.B.) to 21°CD.B. (70°FD.B.)/15.5°CW.B. (60°FW.B.) with cooling/heating mixed operation.
4. Cooling Mode/Heating Mode
5. External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH2O, 6.1 mmH2O, 8.2mmH2O). Consult your dealer about the specification when setting External static pressure option.
6. This table is based on Regulation (EU) No517/2014.

* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.

* Due to continuing improvement, above specifications may be subject to change without notice.

Outdoor Unit – Air Source

Model				PURY-EP300YNW-A1 (-BS)		PURY-EP350YNW-A1 (-BS)	
Number of HBC controller				Single HBC	Double HBC	Single HBC	Double HBC
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz		3-phase 4-wire 380-400-415 V 50/60 Hz	
Cooling	Capacity (Nominal) *1		kW	33.5		40.0	
			BTU / h	114,300		136,500	
	Power input		kW	12.05	10.24	14.76	12.01
	Current input		A	20.3-19.3-18.6	17.2-16.4-15.8	24.9-23.6-22.8	20.2-19.2-18.5
	EER		kW / kW	2.78	3.27	2.71	3.33
	Temp. Range *3	Indoor	W.B.	15.0~24.0°C (59~75°F)		15.0~24.0°C (59~75°F)	
		Outdoor	D.B.	-5.0~52.0°C (23~126°F)		-5.0~52.0°C (23~126°F)	
Heating	Capacity (Nominal) *2		kW	37.5		45.0	
			BTU / h	128,000		153,500	
	Power input		kW	11.71	11.12	13.88	12.85
	Current input		A	19.7-18.7-18.1	18.7-17.8-17.1	23.4-22.2-21.4	21.6-20.6-19.8
	COP		kW / kW	3.20	3.37	3.24	3.50
	Temp. range *3	Indoor	D.B.	15.0~27.0°C (59~81°F)		15.0~27.0°C (59~81°F)	
		Outdoor	W.B.	-20.0~15.5°C (-4~60°F)		-20.0~15.5°C (-4~60°F)	
Indoor unit connectable		Total capacity		50~150% of outdoor unit capacity		50~150% of outdoor unit capacity	
		Model / Quantity		W(P)10~125, WL10~50/2~45		W(P)10~125, WL10~50/1~35	
Sound pressure level (measured in anechoic room)*4			dB <A>	61.0/67.0		62.5/64.0	
Sound power level (measured in anechoic room) *4			dB <A>	80.0/86.0		81.0/83.0	
Refrigerant piping diameter		High pressure	mm (in.)	19.05 (3/4) Brazed		19.05 (3/4) Brazed	
		Low pressure	mm (in.)	22.2 (7/8) Brazed		28.58 (1-1/8) Brazed	
Fan	Type x Quantity			Propeller fan x 1		Propeller fan x 2	
	Air flow rate		m3/min	240		250	
			L/s	4,000		4,167	
			cfm	8,474		8,828	
	Control, Driving mechanism			Inverter-control, direct-driven by motor		Inverter-control, direct-driven by motor	
	Motor output		kW	0.92 x 1		0.46 x 2	
	External static press. *5			0 Pa (0 mmH2O)		0 Pa (0 mmH2O)	
Compressor	Type			Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method			Inverter		Inverter	
	Motor output		kW	7.3		8.7	
	Case heater		kW	- (- V)		- (- V)	
External finish				Pre-coated galvanised steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>			
External dimension HxWxD			mm	1,858 (1,798 without legs) x 920 x 740		1,858 (1,798 without legs) x 1,240 x 740	
			in.	73-3/16 (70-13/16 without legs) x 36-1/4 x 29-3/16		73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	
Protection devices	High pressure protection			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)			
	Inverter circuit (COMP./FAN)			Over-heat protection, Over-current protection			
	Compressor			-		-	
	Fan motor			-		-	
Refrigerant	Type/GWP			R410A / 2088		R410A / 2088	
	Factory charged	Weight	kg	5.2		8.0	
		CO2 equivalent *6	t	10.86		16.70	
	Max additional charge	Weight	kg	34.3		39.0	
		CO2 equivalent *6	t	71.62		81.43	
	Total charge	Weight	kg	39.5		47.0	
		CO2 equivalent *6	t	82.48		98.14	
Net weight			kg (lbs)	230 (508)		275 (607)	
Heat exchanger				Salt-resistant cross fin & aluminium tube			
Defrosting method				Auto-Defrost Mode (Reversed refrigerant cycle, Hot gas)			

Unit Coverter: BTU/h=kW×3,412, cfm=m^3/min×35.31 and lbs=kg/0.4536 (Please note these figures are subject to rounding variation)

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3. -5°CD.B. (23°FD.B.)/-6°CW.B. (21°FW.B.) to 21°CD.B. (70°FD.B.)/15.5°CW.B. (60°FW.B.) with cooling/heating mixed operation.
4. Cooling Mode/Heating Mode
5. External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH2O, 6.1 mmH2O, 8.2mmH2O). Consult your dealer about the specification when setting External static pressure option.
6. This table is based on Regulation (EU) No517/2014.

* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.

* Due to continuing improvement, above specifications may be subject to change without notice.

Outdoor Unit – Air Source

Model				PURY-EP400YNW-A1 (-BS)	PURY-EP450YNW-A1 (-BS)	PURY-EP500YNW-A1 (-BS)
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz		
Cooling	Capacity (Nominal) *1		kW	45.0	50.0	56.0
			BTU / h	153,500	170,600	191,100
	Power input		kW	14.28	16.83	21.22
	Current input		A	24.1-22.9-22.0	28.4-26.9-26.0	35.8-34.0-32.8
	EER		kW / kW	3.15	2.97	2.63
	Temp. Range *3	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
		Outdoor	D.B.	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)	-5.0~52.0°C (23~126°F)
Heating	Capacity (Nominal) *2		kW	50.0	56.0	63.0
			BTU / h	170,600	191,100	215,000
	Power input		kW	14.12	16.86	19.74
	Current input		A	23.8-22.6-21.8	28.4-27.0-26.0	33.3-31.6-30.5
	COP		kW / kW	3.54	3.32	3.19
	Temp. range *3	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
		Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
Indoor unit connectable		Total capacity		50~150% of outdoor unit capacity	50~150% of outdoor unit capacity	50~150% of outdoor unit capacity
		Model / Quantity		W(P)10~125, WL10~50/1~40	W(P)10~125, WL10~50/1~45	W(P)10~125, WL10~50/1~50
Sound pressure level (measured in anechoic room)*4			dB <A>	65.0/69.0	65.5/70.0	63.5/64.5
Sound power level (measured in anechoic room) *4			dB <A>	83.0/88.0	83.0/89.0	82.0/84.0
Refrigerant piping diameter		High pressure	mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed
		Low pressure	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Fan	Type x Quantity			Propeller fan x 2	Propeller fan x 2	Propeller fan x 2
	Air flow rate		m3/min	315	315	295
			L/s	5,250	5,250	4,917
			cfm	11,123	11,123	10,416
	Control, Driving mechanism			Inverter-control, direct-driven by motor	Inverter-control, direct-driven by motor	Inverter-control, direct-driven by motor
	Motor output		kW	0.46 x 2	0.46 x 2	0.92 x 2
	External static press. *5			0 Pa (0 mmH2O)	0 Pa (0 mmH2O)	0 Pa (0 mmH2O)
Compressor	Type			Inverter scroll hermetic compressor	Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Starting method			Inverter	Inverter	Inverter
	Motor output		kW	10.8	11.7	13.8
	Case heater		kW	- (- V)	- (- V)	- (- V)
External finish				Pre-coated galvanised steel sheets (+powder coating for -BS type) <MUNSELL 5Y 8/1 or similar>		
External dimension HxWxD			mm	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,240 x 740	1,858 (1,798 without legs) x 1,750 x 740
			in.	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 48-7/8 x 29-3/16	73-3/16 (70-13/16 without legs) x 68-15/16 x 29-3/16
Protection devices	High pressure protection			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit (COMP./FAN)			Over-heat protection, Over-current protection		
	Compressor			-	-	-
	Fan motor			-	-	-
Refrigerant	Type/GWP			R410A / 2088	R410A / 2088	R410A / 2088
	Factory charged	Weight	kg	8.0	10.8	10.8
		CO2 equivalent *6	t	16.70	22.55	22.55
	Max additional charge	Weight	kg	39.0	44.7	45.2
		CO2 equivalent *6	t	81.43	93.33	94.38
	Total charge	Weight	kg	47.0	55.5	56.0
		CO2 equivalent *6	t	98.14	115.88	116.93
Net weight			kg (lbs)	276 (609)	301 (664)	346 (763)
Heat exchanger				Salt-resistant cross fin & copper tube		
Defrosting method				Auto-Defrost Mode (reversed refrigerant cycle, hot gas)		

Unit Coverter: BTU/h=kW×3,412, cfm=m^3/min×35.31 and lbs=kg/0.4536 (Please note these figures are subject to rounding variation)

Notes:

1. Nominal cooling conditions (subject to JIS B8615-2)
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Nominal heating conditions (subject to JIS B8615-2)
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3. -5°CD.B. (23°FD.B.)/-6°CW.B. (21°FW.B.) to 21°CD.B. (70°FD.B.)/15.5°CW.B. (60°FW.B.) with cooling/heating mixed operation.
4. Cooling Mode/Heating Mode
5. External static pressure option is available (30 Pa, 60 Pa, 80 Pa/3.1 mmH2O, 6.1 mmH2O, 8.2mmH2O). Consult your dealer about the specification when setting External static pressure option.
6. This table is based on Regulation (EU) No517/2014.

* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.

* Due to continuing improvement, above specifications may be subject to change without notice.

Water Source 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
			BTU / h	76,400	95,500
	Power input		kW	3.97	5.44
	Current input		A	6.7-6.3-6.1	9.1-8.7-8.4
	EER		kW / kW	5.64	5.14
	Temp. Range *3	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
		Outdoor	D.B.	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)
Heating	Capacity (Nominal) *2		kW	25.0	31.5
			BTU / h	85,300	107,500
	Power input		kW	4.04	5.41
	Current input		A	6.8-6.4-6.2	9.1-8.6-8.3
	COP		kW / kW	6.18	5.82
	Temp. range *3	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
		Outdoor	W.B.	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)
Indoor unit connectable		Total capacity		50~150% of heat source unit capacity	50~150% of heat source unit capacity
		Model / Quantity		W(P)10~125, WL10~50/1~30	W(P)10~125, WL10~50/1~37
Sound pressure level (measured in anechoic room)			dB <A>	46.0	48.0
Refrigerant piping diameter		High pressure	mm (in.)	15.88 (5/8) Brazed	19.05 (3/4) Brazed
		Low pressure	mm (in.)	19.05 (3/4) Brazed	22.2 (7/8) Brazed
Circulating Water	Water flow rate		m3/min	5.76	5.76
			L/min	96	96
			cfm	3.4	3.4
	Pressure Drop		kPa	24	24
	Operating Volume Range		m3/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 HxWxD			mm	1,100 x 880 x 550	1,100 x 880 x 550
			in.	43-5/16 x 34-11/16 x 21-11/16	43-5/16 x 34-11/16 x 21-11/16
Protection devices	High pressure protection			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, high pressure switch at 4.15 MPa (601 psi)
	Inverter circuit (COMP.)			Over-heat protection, Over-current protection	Over-heat protection, over-current protection
	Compressor			Over-heat protection	Over-heat protection
Refrigerant	Type x Original Charge			R410A/2088	R410A/2088
	Factory charged		kg	5.0	5.0
	Maximum additional charge		kg	28.0	30.0
	Total charge		kg	33.0	35.0
Net weight			kg (lbs)	170 (375)	170 (375)
Heat exchanger	Type			plate type	plate type
	Water volume in plate		L	5.0	5.0
	Water pressure max		MPa	2.0	2.0

Unit Coverter: BTU/h=kW×3,412, cfm=m^3/min×35.31 and lbs=kg/0.4536 (Please note these figures are subject to rounding variation)

Notes :

1. Nominal cooling conditions (subject to JIS B8615-2). Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F). Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
2. Nominal heating conditions (subject to JIS B8615-2). Indoor: 20°CD.B. (68°FD.B.), Water temperature: 20°C (68°FD.B.). Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
3. -5°CD.B. (23°FD.B.)/-6°CW.B. (21°FW.B.) to 21°CD.B. (70°FD.B.)/15.5°CW.B. (60°FW.B.) with cooling/heating mixed operation.

* Due to continuing improvement, above specifications may be subject to change without notice.

Water Source Unit

Model				PQRY-P300YLM-A1		PQRY-P350YLM-A1	
Number of HBC Controller				Single HBC	Double HBC	Single HBC	Double HBC
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz		3-phase 4-wire 380-400-415 V 50/60 Hz	
Cooling	Capacity (Nominal) *1		kW	33.5		40.0	
			BTU / h	114,300		136,500	
	Power input		kW	7.55	6.71	9.98	8.72
	Current input		A	12.7-12.1-11.6	11.3-10.7-10.3	16.8-16.0-15.4	14.7-13.9-13.4
	EER		kW / kW	4.43	4.99	4.00	4.58
	Temp. Range *3	Indoor	W.B.	15.0~24.0°C (59~75°F)		15.0~24.0°C (59~75°F)	
		Outdoor	D.B.	10.0~45.0°C (50~113°F)		10.0~45.0°C (50~113°F)	
Heating	Capacity (Nominal) *2		kW	37.5		45.0	
			BTU / h	128,000		153,500	
	Power input		kW	7.13	6.79	8.87	8.25
	Current input		A	12.0-11.4-11.0	11.4-10.8-10.4	14.9-14.2-13.7	13.9-13.2-12.7
	COP		kW / kW	5.25	5.52	5.07	5.45
	Temp. range *3	Indoor	D.B.	15.0~27.0°C (59~81°F)		15.0~27.0°C (59~81°F)	
		Outdoor	W.B.	10.0~45.0°C (50~113°F)		10.0~45.0°C (50~113°F)	
Indoor unit connectable		Total capacity		50~150% of heat source unit capacity		50~150% of heat source unit capacity	
		Model / Quantity		W(P)10~125, WL10~50/2~45		W(P)10~125, WL10~50/2~50	
Sound pressure level (measured in anechoic room)			dB <A>	54.0		52.0	
Refrigerant piping diameter		High pressure	mm (in.)	19.05 (3/4) Brazed		22.2 (7/8) Brazed	
		Low pressure	mm (in.)	22.2 (7/8) Brazed		28.58 (1-1/8) Brazed	
Circulating Water	Water flow rate		m3/min	5.76		7.20	
			L/min	96		120	
			cfm	3.4		4.2	
	Pressure Drop		kPa	24		44	
	Operating Volume Range		m3/h	3.0 ~ 7.2		4.5 ~ 11.6	
Compressor	Type			Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method			Inverter		Inverter	
	Motor output		kW	7.7		9.5	
	Case heater		kW	–		–	
External finish				Galvanised steel sheets		Galvanised steel sheets	
External dimension HxWxD			mm	1,100 x 880 x 550		1,450 x 880 x 550	
			in.	43-5/16 x 34-11/16 x 21-11/16		57-1/8 x 34-11/16 x 21-11/16-11/16	
Protection devices	High pressure protection			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		High pressure sensor, high pressure switch at 4.15 MPa (601 psi)	
	Inverter circuit (COMP.)			Over-heat protection, Over-current protection		Over-heat protection, over-current protection	
	Compressor			Over-heat protection		Over-heat protection	
Refrigerant	Type x Original Charge			R410A/2088		R410A/2088	
	Factory charged		kg	5.0		6.0	
	Maximum additional charge		kg	31.0		46.0	
	Total charge		kg	36.0		52.0	
Net weight			kg (lbs)	170 (375)		214 (472)	
Heat exchanger	Type			plate type		plate type	
	Water volume in plate		L	5.0		5.0	
	Water pressure max		MPa	2.0		2.0	

Unit Coverter: BTU/h=kW×3,412, cfm=m^3/min×35.31 and lbs=kg/0.4536 (Please note these figures are subject to rounding variation)

Notes :

1. Nominal cooling conditions (subject to JIS B8615-2). Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F). Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
2. Nominal heating conditions (subject to JIS B8615-2). Indoor: 20°CD.B. (68°FD.B.), Water temperature: 20°C (68°FD.B.). Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
3. -5°CD.B. (23°FD.B.)/-6°CW.B. (21°FW.B.) to 21°CD.B. (70°FD.B.)/15.5°CW.B. (60°FW.B.) with cooling/heating mixed operation.

* Due to continuing improvement, above specifications may be subject to change without notice.

Water Source Unit

Model				PQRY-P400YLM-A1	PQRY-P450YLM-A1	PQRY-P500YLM-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	3-phase 4-wire 380-400-415 V 50/60 Hz
Cooling	Capacity (Nominal) *1		kW	45.0	50.0	56.0
			BTU / h	153,500	170,600	191,100
	Power input		kW	10.05	12.05	14.58
	Current input		A	16.9-16.1-15.5	20.3-19.3-18.6	24.6-23.3-22.5
	EER		kW / kW	4.47	4.14	3.84
	Temp. Range *3	Indoor	W.B.	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)	15.0~24.0°C (59~75°F)
		Outdoor	D.B.	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)
Heating	Capacity (Nominal) *2		kW	50.0	56.0	63.0
			BTU / h	170,600	191,100	215,000
	Power input		kW	9.45	11.11	13.07
	Current input		A	15.9-15.1-14.6	18.7-17.8-17.1	22.0-20.9-20.2
	COP		kW / kW	5.29	5.04	4.82
	Temp. range *3	Indoor	D.B.	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)	15.0~27.0°C (59~81°F)
		Outdoor	W.B.	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)	10.0~45.0°C (50~113°F)
Indoor unit connectable		Total capacity		50~150% of heat source unit capacity	50~150% of heat source unit capacity	50~150% of heat source unit capacity
		Model / Quantity		W(P)10~125, WL10~50/1~40	W(P)10~125, WL10~50/1~45	W(P)10~125, WL10~50/1~50
Sound pressure level (measured in anechoic room)			dB <A>	52.0	54.0	54.0
Refrigerant piping diameter		High pressure	mm (in.)	22.2 (7/8) Brazed	22.2 (7/8) Brazed	22.2 (7/8) Brazed
		Low pressure	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Circulating Water	Water flow rate		m3/min	7.20	7.20	7.20
			L/min	120	120	120
			cfm	4.2	4.2	4.2
	Pressure Drop		kPa	44	44	44
	Operating Volume Range		m3/h	4.5 ~ 11.6	4.5 ~ 11.6	4.5 ~ 11.6
Compressor	Type			Inverter scroll hermetic compressor	Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Starting method			Inverter	Inverter	Inverter
	Motor output		kW	10.7	11.6	13.0
	Case heater		kW	–	–	–
External finish				Galvanised steel sheets	Galvanised steel sheets	Galvanised steel sheets
External dimension HxWxD			mm	1,450 x 880 x 550	1,450 x 880 x 550	1,450 x 880 x 550
			in.	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16	57-1/8 x 34-11/16 x 21-11/16
Protection devices	High pressure protection			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	High pressure sensor, high pressure switch at 4.15 MPa (601 psi)	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	Over-heat protection, Over-current protection
	Compressor			Over-heat protection	Over-heat protection	Over-heat protection
Refrigerant	Type x Original Charge			R410A/2088	R410A/2088	R410A/2088
	Factory charged		kg	6.0	6.0	6.0
	Maximum additional charge		kg	47.0	47.0	48.0
	Total charge		kg	53.0	53.0	54.0
Net weight			kg (lbs)	214 (472)	214 (472)	214 (472)
Heat exchanger	Type			plate type	plate type	plate type
	Water volume in plate		L	5.0	5.0	5.0
	Water pressure max		MPa	2.0	2.0	2.0

Unit Coverter: BTU/h=kW×3,412, cfm=m^3/min×35.31 and lbs=kg/0.4536 (Please note these figures are subject to rounding variation)

Notes :

1. Nominal cooling conditions (subject to JIS B8615-2). Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Water temperature: 30°C (86°F). Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
2. Nominal heating conditions (subject to JIS B8615-2). Indoor: 20°CD.B. (68°FD.B.), Water temperature: 20°C (68°FD.B.). Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
3. -5°CD.B. (23°FD.B.)/-6°CW.B. (21°FW.B.) to 21°CD.B. (70°FD.B.)/15.5°CW.B. (60°FW.B.) with cooling/heating mixed operation.

* Due to continuing improvement, above specifications may be subject to change without notice.

HBC Controller

Main-HBC

Model				CMB-WM108V-AA					CMB-WM1016V-AA				
Number of Branch				8					16				
Power Source				1-phase 220-230-240 V					1-phase 220-230-240 V				
				50 Hz			60 Hz		50 Hz			60 Hz	
Power Input (220/230/240)		Cooling	kW	0.45/0.46/0.47			0.45/0.46/0.47		0.45/0.46/0.47			0.45/0.46/0.47	
		Heating	kW	0.45/0.46/0.47			0.45/0.46/0.47		0.45/0.46/0.47			0.45/0.46/0.47	
Current Input (220/230/240)		Cooling	A	2.89/2.83/2.79			2.89/2.83/2.79		2.89/2.83/2.79			2.89/2.83/2.79	
		Heating	A	2.89/2.83/2.79			2.89/2.83/2.79		2.89/2.83/2.79			2.89/2.83/2.79	
Sound pressure level (measured in anechoic room)			dBA	41.0					41.0				
Applicable Temperature Range of Installation Site			°C (D.B.)	0~32					0~32				
External Finish				Galvanised steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)									
Connectable Outdoor/Heat Source Unit				PURY-P200~500YNW-A1(-BS)/PURY-EP200~500YNW-A1(-BS)-PQRY-P200~500-YLM-A1									
Indoor Unit Capacity Connectable to 1 Branch				Model P80 or smaller (Use optional joint pipe combining 2 branches when the total unit capacity exceeds P81)									
External Dimension H x W x D			mm	300 x 1,520 x 630					300 x 1,800 x 630				
			in.	11-13/16 x 59-7/8 x 24-13/16					11-13/16 x 70-7/8 x 24-13/16				
Refrigerant Piping Diameter	To Outdoor Unit / heat source unit			Connectable outdoor/heat source unit capacity									
				To P200	To P250/300	To P350	To P400	To P450/500	To P200	To P250/300	To P350	To P400	To P450/500
		High Press. Pipe (O.D.)	mm (in.)	15.88 (5/8) Brazed	19.05 (3/4) Brazed	19.05 (3/4) Brazed	15.88 (5/8) Brazed	19.05 (3/4) Brazed	15.88 (5/8) Brazed	19.05 (3/4) Brazed	19.05 (3/4) Brazed	15.88 (5/8) Brazed	19.05 (3/4) Brazed
		Low Press. Pipe (O.D.)	mm (in.)	19.05 (3/4) Brazed	22.2 (7/8) Brazed	28.5 (1-1/8) Brazed	19.05 (3/4) Brazed	22.2 (7/8) Brazed	19.05 (3/4) Brazed	22.2 (7/8) Brazed	28.5 (1-1/8) Brazed	19.05 (3/4) Brazed	22.2 (7/8) Brazed
		To Main HBC	mm (in.)	15.88 (5/8) Brazed					15.88 (5/8) Brazed				
Water Piping Diameter (To Indoor Unit)				W/WP/WL10-50			W/WP/WL63-125		W/WP/WL10-50			W/WP/WL63-125	
	Connection Size	Inlet Pipe (I.D.)	mm (in.)	22			22		22			22	
		Outlet Pipe (I.D.)	mm (in.)	22			22		22			22	
	Field pipe size	Inlet Pipe (I.D.)	mm (in.)	20			30		20			30	
		Outlet Pipe (I.D.)	mm (in.)	20			30		20			30	
Field Drain Pipe Size			mm (in.)	O.D. 32 (1-1/4)					O.D. 32 (1-1/4)				
Net Weight			kg (lbs)	86 (190) [96 (212) with water]					98 (217) [111 (245) with water]				
Standard Attachment | Accessory				Drain Connection pipe (with flexible hose and insulation)					Drain Connection pipe (with flexible hose and insulation)				
Optional Parts				-					-				

Notes:

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

*The equipment is for R410A refrigerant.

*Install this product in a location where noise (refrigerant noise) emitted by the unit will not disturb the neighbours. (For use in quiet environments with low background noise, position the HBC CONTROLLER at least 5m away from any indoor units).

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

*Please attach an expansion vessel (field supply).

*Please use copper or plastic pipes for the water circuit. Do not use steel or stainless steel pipework. Furthermore, when using copper pipework, use a non-oxidative brazing method. Oxidation of the pipework will reduce the pump life.

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

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

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

*Please refer to the Databook or the Installation Manual for the specified water quality.

*This unit is not designed for outside installations.

*Please always make water circulate or pull out the circulation water completely when not using it. (Please do not use it as a drinking water).

*Please do not use ground water and well water.

*When installing the 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).

*R32 is flammable, and certain restrictions apply to the installation of units. When installing new units, moving the existing units, or changing the layout of the room, ensure that installation restrictions are observed. For detail, refer to the section in the Databook on installation restrictions.

HBC Controller

Sub-HBC

Model				CMB-WM108V-AB		CMB-WM1016V-AB	
Number of Branch				8		16	
Power Source				1-phase 220-230-240 V		1-phase 220-230-240 V	
				50 Hz	60 Hz	50 Hz	60 Hz
Power Input (220/230/240)		Cooling	kW	0.01/0.01/0.01	0.01/0.01/0.01	0.01/0.01/0.01	0.01/0.01/0.01
		Heating	kW	0.01/0.01/0.01	0.01/0.01/0.01	0.01/0.01/0.01	0.01/0.01/0.01
Current Input (220/230/240)		Cooling	A	0.05/0.05/0.05	0.05/0.05/0.05	0.05/0.05/0.05	0.05/0.05/0.05
		Heating	A	0.05/0.05/0.05	0.05/0.05/0.05	0.05/0.05/0.05	0.05/0.05/0.05
Sound pressure level (measured in anechoic room)			dBA	-		-	
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)			
Connectable Outdoor Unit				-		-	
Indoor Unit Capacity Connectable to 1 Branch				Model P80 or smaller (Use optional joint pipe combining 2 branches when the total unit capacity exceeds P81)		Model P80 or smaller (Use optional joint pipe combining 2 branches when the total unit capacity exceeds P81)	
External Dimension H x W x D			mm	300 x 1,520 x 630		300 x 1,520 x 630	
			in.	11-13/16 x 59-7/8 x 24-13/16		11-13/16 x 59-7/8 x 24-13/16	
Water Piping Diameter	To Main HBC	Inlet Pipe (I.D.)	mm (in.)	20 (3/4)		20 (3/4)	
		Outlet Pipe (I.D.)	mm (in.)	20 (3/4)		20 (3/4)	
	To Indoor Unit	Inlet Pipe (I.D.)	mm (in.)	20 (3/4)		20 (3/4)	
		Outlet Pipe (I.D.)	mm (in.)	20 (3/4)		20 (3/4)	
Field Drain Pipe Size			mm (in.)	O.D. 32 (1-1/4)		O.D. 32 (1-1/4)	
Net Weight			kg (lbs)	44 (98) [49 (109) with water]		53 (117) [62 (137) with water]	
Standard Attachment | Accessory				Drain Connection pipe (with flexible hose and insulation)		Drain Connection pipe (with flexible hose and insulation)	
Optional Parts				-		-	

Notes:

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

*The equipment is for water.

*Install this product in a location where noise emitted by the unit will not disturb the neighbours. (For use in quiet environments with low background noise, position the Sub HBC CONTROLLER at least 5m away from any indoor units).

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

*Please attach an expansion vessel (field supply).

*Please use copper or plastic pipes for the water circuit. Do not use steel or stainless steel pipework. Furthermore, when using copper pipework, use a non-oxidative brazing method. Oxidation of the pipework will reduce the pump life.

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

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

*Please refer to the Databook or the Installation Manual for the specified water quality.

*This unit is not designed for outside installations.

*Please always make water circulate or pull out the circulation water completely when not using it. (Please do not use it as a drinking water).

*Please do not use ground water and well water.

*When installing the Sub HBC unit in an environment which may drop below 0 °C, please add antifreeze to the circulating water. (Refer to the Databook and the Installation Manual).

*Main HBC Controller is necessary with sub HBC.

Slim Ceiling Concealed

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
			BTU/h	4,100	5,800
	Power input *2		kW	0.03	0.05
	Current input*2		A	0.21	0.44
Heating	Capacity (Nominal) *3		kW	1.4	1.9
			BTU/h	4,800	6,500
	Power input *2		kW	0.03	0.03
	Current input *2		A	0.21	0.33
External finish				Galvanised steel plate	Galvanised steel plate
External dimension HxWxD			mm	200x790x700	200x790x700
			in.	7-7/8 x 31-1/8 x 27-9/16	7-7/8 x 31-1/8 x 27-9/16
Net Weight			kg (lbs)	19 (42)	19 (42)
Heat Exchanger		Type		Cross fin (Aluminium fin and copper tube)	Cross fin (Aluminium fin and copper tube)
		Water Volume	L	0.4	0.7
Fan	Type × Quantity			Sirocco fan x 2	Sirocco fan x 2
	External Static Pressure *4		Pa	<5> - 15 - <35> - <50>	<5> - 15 - <35> - <50>
			mmH_2O	<0.5> - 1.5 - <3.6> - <5.1>	<0.5> - 1.5 - <3.6> - <5.1>
	Motor Type			DC Motor	DC Motor
	Motor Output		kW	0.096	0.096
	Driving Mechanism			Direct-driven by motor	Direct-driven by motor
	Airflow Rate	(Low Mid High)	m3/min	4.0 - 4.5 - 5.0	5.0 - 6.0 - 7.0
			L/s	67 - 75 - 83	83 - 100 - 117
			cf/m	141 - 159 - 177	177 - 212 - 247
Sound pressure level (measured in anechoic room)*2		(Low Mid High)	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-WM-V-AA, CMB-WM-V-AB	Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB
Water Piping Diameter *5 *6		Inlet	in.	Rc 3/4 screw	Rc 3/4 screw
		Outlet	in.	Rc 3/4 screw	Rc 3/4 screw
Field Drain Pipe Size			mm (in.)	O.D.32 (1-1/4)	O.D.32 (1-1/4)
Standard Attachment | Accessory				Insulation pipe for water pipe, Washer, Drain hose, Tie Band	Insulation pipe for water pipe, Washer, Drain hose, Tie Band
Optional part | Control Box Replace Kit				PAC-KE70HS-E	PAC-KE70HS-E

Unit Converter: BTU/h=kW×3,412, cfm=m^3/min×35.31 and lbs=kg/0.4536 (Please note these figures are subject to rounding variation)

Notes:

1. Nominal cooling conditions – Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./19°CW.B. (95°FD.B.) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
2. The value are measured at the factory setting of external static pressure.
3. Nominal heating conditions – Indoor: 20°CD.B.(68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
4. The facory setting for external pressure is shown without < >. Refer to "Fan characteristics curves", according to the externalpressure, 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.

Please group units that operate on 1 branch.

Slim Ceiling Concealed

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
			BTU/h	7,500	9,600
	Power input *2		kW	0.051	0.06
	Current input*2		A	0.49	0.51
Heating	Capacity (Nominal) *3		kW	2.5	3.2
			BTU/h	8,500	10,900
	Power input *2		kW	0.031	0.04
	Current input *2		A	0.38	0.4
External finish				Galvanised steel plate	Galvanised steel plate
External dimension HxWxD			mm	200x790x700	200x790x700
			in.	7-7/8 x 31-1/8 x 27-9/16	7-7/8 x 31-1/8 x 27-9/16
Net Weight			kg (lbs)	20 (45)	20 (45)
Heat Exchanger		Type		Cross fin (Aluminium fin and copper tube)	Cross fin (Aluminium fin and copper tube)
		Water Volume	L	0.9	0.9
Fan	Type × Quantity			Sirocco fan x 2	Sirocco fan x 2
	External Static Pressure *4		Pa	<5> - 15 - <35> - <50>	<5> - 15 - <35> - <50>
			mmH_2O	<0.5> - 1.5 - <3.6> - <5.1>	<0.5> - 1.5 - <3.6> - <5.1>
	Motor Type			DC Motor	DC Motor
	Motor Output		kW	0.096	0.096
	Driving Mechanism			Direct-driven by motor	Direct-driven by motor
	Airflow Rate	(Low Mid High)	m3/min	5.5 - 6.5 - 8.0	5.5 - 7.0 - 9.0
			L/s	92 - 108 - 133	92 - 117 - 150
			cf/m	194 - 230 - 282	194 - 247 - 318
Sound pressure level (measured in anechoic room)*2		(Low Mid High)	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-WM-V-AA, CMB-WM-V-AB	Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB
Water Piping Diameter *5 *6		Inlet	in.	Rc 3/4 screw	Rc 3/4 screw
		Outlet	in.	Rc 3/4 screw	Rc 3/4 screw
Field Drain Pipe Size			mm (in.)	O.D.32 (1-1/4)	O.D.32 (1-1/4)
Standard Attachment | Accessory				Insulation pipe for water pipe, Washer, Drain hose, Tie Band	Insulation pipe for water pipe, Washer, Drain hose, Tie Band
Optional part | Control Box Replace Kit				PAC-KE70HS-E	PAC-KE70HS-E

Unit Converter: BTU/h=kW×3,412, cfm=m^3/min×35.31 and lbs=kg/0.4536 (Please note these figures are subject to rounding variation)

Notes:

1. Nominal cooling conditions – Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./19°CW.B. (95°FD.B.) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
2. The value are measured at the factory setting of external static pressure.
3. Nominal heating conditions – Indoor: 20°CD.B.(68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
4. The facory setting for external pressure is shown without < >. Refer to "Fan characteristics curves", according to the externalpressure, 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.

Please group units that operate on 1 branch.

Slim Ceiling Concealed

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
			BTU/h	12,300	15,400	19,100
	Power input *2		kW	0.071	0.090	0.090
	Current input*2		A	0.61	0.73	0.77
Heating	Capacity (Nominal) *3		kW	4.0	5.0	6.3
			BTU/h	13,600	17,100	21,500
	Power input *2		kW	0.051	0.070	0.070
	Current input *2		A	0.50	0.62	0.66
External finish				Galvanised steel plate	Galvanised steel plate	Galvanised steel plate
External dimension HxWxD			mm	200x990x700	200x990x700	200x1,190x700
			in.	7-7/8 x 39 x 27-9/16	7-7/8 x 39 x 27-9/16	7-7/8 x 46-7/8 x 27-9/16
Net Weight			kg (lbs)	25 (56)	25 (56)	27 (60)
Heat Exchanger		Type		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 × Quantity			Sirocco fan x 3	Sirocco fan x 3	Sirocco fan x 4
	External Static Pressure *4		Pa	<5> - 15 - <35> - <50>	<5> - 15 - <35> - <50>	<5> - 15 - <35> - <50>
			mmH_2O	<0.5> - 1.5 - <3.6> - <5.1>	<0.5> - 1.5 - <3.6> - <5.1>	<0.5> - 1.5 - <3.6> - <5.1>
	Motor Type			DC Motor	DC Motor	DC Motor
	Motor Output		kW	0.096	0.096	0.096
	Driving Mechanism			Direct-driven by motor	Direct-driven by motor	Direct-driven by motor
	Airflow Rate	(Low Mid High)	m3/min	8.0 - 9.0 - 11.0	9.5 - 11.0 - 13.0	12.0 - 14.0 - 16.5
			L/s	133 - 150 - 183	158 - 183 - 217	200 - 233 - 275
			cf/m	282 - 318 - 388	335 - 388 - 459	424 - 494 - 583
Sound pressure level (measured in anechoic room)*2		(Low Mid High)	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-WM-V-AA, CMB-WM-V-AB	Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB	Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB
Water Piping Diameter *5 *6		Inlet	in.	Rc 3/4 screw	Rc 3/4 screw	Rc 3/4 screw
		Outlet	in.	Rc 3/4 screw	Rc 3/4 screw	Rc 3/4 screw
Field Drain Pipe Size			mm (in.)	O.D.32 (1-1/4)	O.D.32 (1-1/4)	O.D.32 (1-1/4)
Standard Attachment | Accessory				Insulation pipe for water pipe, Washer, Drain hose, Tie Band	Insulation pipe for water pipe, Washer, Drain hose, Tie Band	Insulation pipe for water pipe, Washer, Drain hose, Tie Band
Optional part | Control Box Replace Kit				PAC-KE70HS-E	PAC-KE70HS-E	PAC-KE70HS-E

Unit Converter: BTU/h=kW×3,412, cfm=m^3/min×35.31 and lbs=kg/0.4536 (Please note these figures are subject to rounding variation)

Notes:

1. Nominal cooling conditions – Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./19°CW.B. (95°FD.B.) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
2. The value are measured at the factory setting of external static pressure.
3. Nominal heating conditions – Indoor: 20°CD.B.(68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
4. The facory setting for external pressure is shown without < >. Refer to "Fan characteristics curves", according to the externalpressure, 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.

Please group units that operate on 1 branch.

Ceiling Concealed

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
			BTU/h	7,500	9,600
	Power input *2		kW	0.07	0.09
	Current input*2		A	0.55	0.64
Heating	Capacity (Nominal) *3		kW	2.5	3.2
			BTU/h	8,500	10,900
	Power input *2		kW	0.05	0.07
	Current input *2		A	0.44	0.53
External finish				Galvanised steel plate	Galvanised steel plate
External dimension HxWxD			mm	250x700x732	250x900x732
			in.	9-7/8 x 27-9/16 x 28-7/8	9-7/8 x 35-7/16 x 28-7/8
Net Weight			kg (lbs)	21 (47)	26 (58)
Heat Exchanger		Type		Cross fin (Aluminium fin and copper tube)	Cross fin (Aluminium fin and copper tube)
		Water Volume	L	0.7	1.0
Fan	Type × Quantity			Sirocco fan x 1	Sirocco fan x 1
	External Static Pressure *4		Pa	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>
			mmH_2O	<3.6> - 5.1 - <7.1> - <10.2> - <15.3>	<3.6> - 5.1 - <7.1> - <10.2> - <15.3>
	Motor Type			DC Motor	DC Motor
	Motor Output		kW	0.085	0.085
	Driving Mechanism			Direct-driven by motor	Direct-driven by motor
	Airflow Rate	(Low Mid High)	m3/min	7.5 - 9.0 - 10.5	10.0 - 12.0 - 14.0
			L/s	125 - 150 - 175	167 - 200 - 233
			cf/m	265 - 318 - 371	353 - 242 - 494
Sound pressure level (measured in anechoic room)*2		(Low Mid High)	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-WM-V-AA, CMB-WM-V-AB	Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB
Water Piping Diameter *5 *6		Inlet	in.	Rc 3/4 screw	Rc 3/4 screw
		Outlet	in.	Rc 3/4 screw	Rc 3/4 screw
Field Drain Pipe Size			mm (in.)	O.D.32 (1-1/4)	O.D.32 (1-1/4)
Standard Attachment | Accessory				Insulation pipe for water pipe, Washer, Drain hose, Tie Band	Insulation pipe for water pipe, Washer, Drain hose, Tie Band
Optional part | Control Box Replace Kit				PAC-KE91TB-E	PAC-KE92TB-E

Unit Converter: BTU/h=kW×3,412, cfm=m^3/min×35.31 and lbs=kg/0.4536 (Please note these figures are subject to rounding variation)

Notes:

1. Nominal cooling conditions – Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./19°CW.B. (95°FD.B.) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
2. The value are measured at the factory setting of external static pressure.
3. Nominal heating conditions – Indoor: 20°CD.B.(68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
4. The facory setting for external pressure is shown without < >. Refer to "Fan characteristics curves", according to the externalpressure, 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.

Please group units that operate on 1 branch.

Ceiling Concealed

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
			BTU/h	12,300	15,400	19,100
	Power input *2		kW	0.11	0.14	0.14
	Current input*2		A	0.74	1.15	1.15
Heating	Capacity (Nominal) *3		kW	4.0	5.0	6.3
			BTU/h	13,600	17,100	21,500
	Power input *2		kW	0.09	0.12	0.12
	Current input *2		A	0.63	1.04	1.04
External finish				Galvanised steel plate	Galvanised steel plate	Galvanised steel plate
External dimension HxWxD			mm	250x900x732	250x1,100x732	250x1,100x732
			in.	9-7/8 x 35-7/16 x 28-7/8	9-7/8 x 42-5/16 x 28-7/8	9-7/8 x 42-5/16 x 28-7/8
Net Weight			kg (lbs)	26 (58)	31 (69)	31 (69)
Heat Exchanger		Type		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 × Quantity			Sirocco fan x 1	Sirocco fan x 2	Sirocco fan x 2
	External Static Pressure *4		Pa	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>
			mmH_2O	<3.6> - 5.1 - <7.1> - <10.2> - <15.3>	<3.6> - 5.1 - <7.1> - <10.2> - <15.3>	<3.6> - 5.1 - <7.1> - <10.2> - <15.3>
	Motor Type			DC Motor	DC Motor	DC Motor
	Motor Output		kW	0.085	0.121	0.121
	Driving Mechanism			Direct-driven by motor	Direct-driven by motor	Direct-driven by motor
	Airflow Rate	(Low Mid High)	m3/min	12.0 - 14.5 - 17.0	14.5 - 18.0 - 21.0	14.5 - 18.0 - 21.0
			L/s	200 - 242 - 283	242 - 300 - 350	242 - 300 - 350
			cf/m	424 - 512 - 600	512 - 636 - 742	512 - 636 - 742
Sound pressure level (measured in anechoic room)*2		(Low Mid High)	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-WM-V-AA, CMB-WM-V-AB	Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB	Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB
Water Piping Diameter *5 *6		Inlet	in.	Rc 3/4 screw	Rc 3/4 screw	Rc 3/4 screw
		Outlet	in.	Rc 3/4 screw	Rc 3/4 screw	Rc 3/4 screw
Field Drain Pipe Size			mm (in.)	O.D.32 (1-1/4)	O.D.32 (1-1/4)	O.D.32 (1-1/4)
Standard Attachment | Accessory				Insulation pipe for water pipe, Washer, Drain hose, Tie Band	Insulation pipe for water pipe, Washer, Drain hose, Tie Band	Insulation pipe for water pipe, Washer, Drain hose, Tie Band
Optional part | Control Box Replace Kit				PAC-KE92TB-E	PAC-KE93TB-E	PAC-KE93TB-E

Unit Converter: BTU/h=kW×3,412, cfm=m^3/min×35.31 and lbs=kg/0.4536 (Please note these figures are subject to rounding variation)

Notes:

1. Nominal cooling conditions – Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./19°CW.B. (95°FD.B.) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
2. The value are measured at the factory setting of external static pressure.
3. Nominal heating conditions – Indoor: 20°CD.B.(68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
4. The facory setting for external pressure is shown without < >. Refer to "Fan characteristics curves", according to the externalpressure, 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.

Please group units that operate on 1 branch.

Ceiling Concealed

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
			BTU/h	24,200	27,300	30,700
	Power input *2		kW	0.14	0.24	0.24
	Current input*2		A	1.15	1.47	1.47
Heating	Capacity (Nominal) *3		kW	8.0	9.0	10.0
			BTU/h	27,300	30,700	34,100
	Power input *2		kW	0.12	0.22	0.22
	Current input *2		A	1.04	1.36	1.36
External finish				Galvanised steel plate	Galvanised steel plate	Galvanised steel plate
External dimension HxWxD			mm	250x1,100x732	250x1,400x732	250x1,400x732
			in.	9-7/8 x 43-5/16 x 28-7/8	9-7/8 x 55-1/8 x 28-7/8	9-7/8 x 55-1/8 x 28-7/8
Net Weight			kg (lbs)	31 (69)	40 (89)	40 (89)
Heat Exchanger		Type		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 × Quantity			Sirocco fan x 2	Sirocco fan x 2	Sirocco fan x 2
	External Static Pressure *4		Pa	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>
			mmH_2O	<3.6> - 5.1 - <7.1> - <10.2> - <15.3>	<3.6> - 5.1 - <7.1> - <10.2> - <15.3>	<3.6> - 5.1 - <7.1> - <10.2> - <15.3>
	Motor Type			DC Motor	DC Motor	DC Motor
	Motor Output		kW	0.121	0.244	0.244
	Driving Mechanism			Direct-driven by motor	Direct-driven by motor	Direct-driven by motor
	Airflow Rate	(Low Mid High)	m3/min	14.5 - 18.0 - 21.0	23.0 - 28.0 - 33.0	23.0 - 28.0 - 33.0
			L/s	242 - 300 - 350	383 - 467 - 550	383 - 467 - 550
			cf/m	512 - 636 - 742	812 - 989 - 1,165	812 - 989 - 1,165
Sound pressure level (measured in anechoic room)*2		(Low Mid High)	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-WM-V-AA, CMB-WM-V-AB	Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB	Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB
Water Piping Diameter *5 *6		Inlet	in.	Rc 1-1/4 screw	Rc 1-1/4 screw	Rc 1-1/4 screw
		Outlet	in.	Rc 1-1/4 screw	Rc 1-1/4 screw	Rc 1-1/4 screw
Field Drain Pipe Size			mm (in.)	O.D.32 (1-1/4)	O.D.32 (1-1/4)	O.D.32 (1-1/4)
Standard Attachment | Accessory				Insulation pipe for water pipe, Washer, Drain hose, Tie Band	Insulation pipe for water pipe, Washer, Drain hose, Tie Band	Insulation pipe for water pipe, Washer, Drain hose, Tie Band
Optional part | Control Box Replace Kit				PAC-KE93TB-E	PAC-KE94TB-E	PAC-KE94TB-E

Unit Converter: BTU/h=kW×3,412, cfm=m^3/min×35.31 and lbs=kg/0.4536 (Please note these figures are subject to rounding variation)

Notes:

1. Nominal cooling conditions – Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./19°CW.B. (95°FD.B.) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
2. The value are measured at the factory setting of external static pressure.
3. Nominal heating conditions – Indoor: 20°CD.B.(68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
4. The facory setting for external pressure is shown without < >. Refer to "Fan characteristics curves", according to the externalpressure, 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.

Please group units that operate on 1 branch.

Ceiling Concealed

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
			BTU/h	38,200	47,800
	Power input *2		kW	0.24	0.36
	Current input*2		A	1.47	2.21
Heating	Capacity (Nominal) *3		kW	12.5	16.0
			BTU/h	42,700	54,600
	Power input *2		kW	0.22	0.34
	Current input *2		A	1.36	2.10
External finish				Galvanised steel plate	Galvanised steel plate
External dimension HxWxD			mm	250x1,400x732	250x1,600x732
			in.	9-7/8 x 55-1/8 x 28-7/8	9-7/8 x 63 x 28-7/8
Net Weight			kg (lbs)	40 (89)	42 (93)
Heat Exchanger		Type		Cross fin (Aluminium fin and copper tube)	Cross fin (Aluminium fin and copper tube)
		Water Volume	L	2.6	3.0
Fan	Type × Quantity			Sirocco fan x 2	Sirocco fan x 2
	External Static Pressure *4		Pa	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>
			mmH_2O	<3.6> - 5.1 - <7.1> - <10.2> - <15.3>	<3.6> - 5.1 - <7.1> - <10.2> - <15.3>
	Motor Type			DC Motor	DC Motor
	Motor Output		kW	0.244	0.244
	Driving Mechanism			Direct-driven by motor	Direct-driven by motor
	Airflow Rate	(Low Mid High)	m3/min	23.0 - 28.0 - 33.0	29.5 - 35.5 - 42.0
			L/s	383 - 467 - 550	492 - 592 - 700
			cf/m	812 - 989 - 1,165	1,042 - 1,254 - 1,483
Sound pressure level (measured in anechoic room)*2		(Low Mid High)	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-WM-V-AA, CMB-WM-V-AB	Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB
Water Piping Diameter *5 *6		Inlet	in.	Rc 1-1/4 screw	Rc 1-1/4 screw
		Outlet	in.	Rc 1-1/4 screw	Rc 1-1/4 screw
Field Drain Pipe Size			mm (in.)	O.D.32 (1-1/4)	O.D.32 (1-1/4)
Standard Attachment | Accessory				Insulation pipe for water pipe, Washer, Drain hose, Tie Band	Insulation pipe for water pipe, Washer, Drain hose, Tie Band
Optional part | Control Box Replace Kit				PAC-KE94TB-E	PAC-KE95TB-E

Unit Converter: BTU/h=kW×3,412, cfm=m^3/min×35.31 and lbs=kg/0.4536 (Please note these figures are subject to rounding variation)

Notes:

1. Nominal cooling conditions – Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./19°CW.B. (95°FD.B.) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
2. The value are measured at the factory setting of external static pressure.
3. Nominal heating conditions – Indoor: 20°CD.B.(68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
4. The facory setting for external pressure is shown without < >. Refer to "Fan characteristics curves", according to the externalpressure, 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.

Please group units that operate on 1 branch.

Ceiling Concealed

Model				PEFY-WL40VMHS-A	PEFY-WL50VMHS-A	PEFY-WL63VMHS-A	PEFY-WL71VMHS-A
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	1-phase 220-230-240 V 50/60 Hz
Cooling	Capacity (Nominal) *1		kW	4.5	5.6	7.1	8.0
			BTU/h	15,400	19,100	24,200	27,300
	Power input *2		kW	0.055	0.077	0.095	0.075
	Current input*2		A	0.41-0.39-0.38	0.58-0.55-0.52	0.70-0.67-0.64	0.54-0.52-0.50
Heating	Capacity (Nominal) *3		kW	5.0	6.3	8.0	9.0
			BTU/h	17,100	21,500	27,300	30,700
	Power input *2		kW	0.055	0.077	0.095	0.075
	Current input *2		A	0.41-0.39-0.38	0.58-0.55-0.52	0.70-0.67-0.64	0.54-0.52-0.50
External finish				Galvanised steel plate	Galvanised steel plate	Galvanised steel plate	Galvanised steel plate
External dimension HxWxD			mm	380 x 745 x 900	380 x 745 x 900	380 x 745 x 900	380 x 1,030 x 900
			in.	15 x 29-3/8 x 35-7/16	15 x 29-3/8 x 35-7/16	15 x 29-3/8 x 35-7/16	15 x 40-9/16 x 35-7/16
Net Weight			kg (lbs)	35 (78)	35 (78)	36 (80)	45 (100)
Heat Exchanger		Type		Cross fin (Aluminium fin and copper tube)	Cross fin (Aluminium fin and copper tube)	Cross fin (Aluminium fin and copper tube)	Cross fin (Aluminium fin and copper tube)
		Water Volume	L	1.4	1.4	1.8	1.8
Fan	Type × Quantity			Sirocco fan x 1	Sirocco fan x 1	Sirocco fan x 1	Sirocco fan x 2
	External Static Pressure *4		Pa	50 - <100> - <150> - <200>	50 - <100> - <150> - <200>	50 - <100> - <150> - <200>	50 - <100> - <150> - <200>
			mmH_2O	5.1 - <10.2> - <15.3> - <20.4>	5.1 - <10.2> - <15.3> - <20.4>	5.1 - <10.2> - <15.3> - <20.4>	5.1 - <10.2> - <15.3> - <20.4>
	Motor Type			DC Motor	DC Motor	DC Motor	DC Motor
	Motor Output		kW	0.121	0.121	0.121	0.244
	Driving Mechanism			Direct-driven by motor	Direct-driven by motor	Direct-driven by motor	Direct-driven by motor
	Airflow Rate	(Low Mid High)	m3/min	10.0 - 12.0 - 14.0	13.0 - 15.0 - 18.0	13.5 - 16.0 - 19.0	15.5 - 18.0 - 22.0
			L/s	167 - 200 - 233	217 - 250 - 300	225 - 267 - 317	258 - 300 - 367
			cf/m	353 - 424 - 494	459 - 530 - 636	477 - 565 - 671	547 - 636 - 777
Sound pressure level (measured in anechoic room)*2		(Low Mid High)	dB<A>	22.0-25.0-29.0	24.0-27.0-32.0	25.5-28.5-32.5	24.0-27.0-31.0
Insulation Material				Polystyrene foam, Polyethylene foam, Urethane foam	Polystyrene foam, Polyethylene foam, Urethane foam	Polystyrene foam, Polyethylene foam, Urethane foam	Polystyrene foam, Polyethylene foam, Urethane foam
Air Filter				Option: Synthetic fiber unwoven cloth filter (long life filter) and filter box are recommended.	Option: Synthetic fiber unwoven cloth filter (long life filter) and filter box are recommended.	Option: Synthetic fiber unwoven cloth filter (long life filter) and filter box are recommended.	Option: Synthetic fiber unwoven cloth filter (long life filter) and filter box are recommended.
Protection Device				Fuse	Fuse	Fuse	Fuse
Connectable Outdoor Unit/HBC Controller				HYBRID CITY MULTI/CMB-WM-V-AA, CMB-WM-V-AB	HYBRID CITY MULTI/CMB-WM-V-AA, CMB-WM-V-AB	HYBRID CITY MULTI/CMB-WM-V-AA, CMB-WM-V-AB	HYBRID CITY MULTI/CMB-WM-V-AA, CMB-WM-V-AB
Water Piping Diameter *5 *6		Inlet	mm ID	20	20	30	30
		Outlet	mm ID	20	20	30	30
Field Drain Pipe Size			mm (in.)	O.D.32 (1-1/4)	O.D.32 (1-1/4)	O.D.32 (1-1/4)	O.D.32 (1-1/4)
Standard Attachment | Accessory				Washer, Drain hose, Tie band	Washer, Drain hose, Tie band	Washer, Drain hose, Tie band	Washer, Drain hose, Tie band
Optional part	Drain pump kit			PAC-DRP10DP-E2	PAC-DRP10DP-E2	PAC-DRP10DP-E2	PAC-DRP10DP-E2
	Long life filter			PAC-KE86LAF	PAC-KE86LAF	PAC-KE86LAF	PAC-KE88LAF
	Filter box			PAC-KE63TB-F	PAC-KE63TB-F	PAC-KE63TB-F	PAC-KE99TB-F
	Valve kit*7			PAC-SK35VK-E	PAC-SK35VK-E	PAC-SK35VK-E	PAC-SK35VK-E

Unit Converter: BTU/h=kW×3,412, cfm=m^3/min×35.31 and lbs=kg/0.4536 (Please note these figures are subject to rounding variation)

Notes:

1. Nominal cooling conditions – Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./19°CW.B. (95°FD.B.) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
2. The value are measured at the factory setting of external static pressure.
3. Nominal heating conditions – Indoor: 20°CD.B.(68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
4. The facory setting for external pressure is shown without < >. Refer to "Fan characteristics curves", according to the externalpressure, 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. Certain restrictions apply to indoor unit combinations.

Refer to the section on the valve kit in the chapter "OPTIONAL PARTS" in the DATA BOOK for the restrictions.
When the valve kit is installed farther away from the HBC than the distance between the HBC and the WLmodel indoor unit, the maximum allowable height difference between the HBC and the valve kit is 15 meters.
The maximum allowable piping length between the indoor unit and the valve kit is 5 meters.

Please group units that operate on 1 branch.

Ceiling Concealed

Model				PEFY-WL80VMHS-A	PEFY-WL100VMHS-A	PEFY-WL125VMHS-A
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	9.0	11.2	14.0
			BTU/h	30,700	38,200	47,800
	Power input *2		kW	0.090	0.160	0.175
	Current input*2		A	0.63-0.61-0.58	1.05-1.01-0.96	1.17-1.13-1.09
Heating	Capacity (Nominal) *3		kW	10.0	12.5	16.0
			BTU/h	34,100	42,700	54,600
	Power input *2		kW	0.090	0.160	0.175
	Current input *2		A	0.63-0.61-0.58	1.05-1.01-0.96	1.17-1.13-1.09
External finish				Galvanised steel plate	Galvanised steel plate	Galvanised steel plate
External dimension HxWxD			mm	380 x 1,030 x 900	380 x 1,195 x 900	380 x 1,195 x 900
			in.	15 x 40-9/16 x 35-7/16	15 x 47-1/16 x 35-7/16	15 x 47-1/16 x 35-7/16
Net Weight			kg (lbs)	45 (100)	51 (113)	53 (117)
Heat Exchanger	Type			Cross fin (Aluminium fin and copper tube)	Cross fin (Aluminium fin and copper tube)	Cross fin (Aluminium fin and copper tube)
	Water Volume		L	1.8	2.3	2.9
Fan	Type × Quantity			Sirocco fan x 2	Sirocco fan x 2	Sirocco fan x 2
	External Static Pressure *4		Pa	50 - <100> - <150> - <200>	50 - <100> - <150> - <200>	50 - <100> - <150> - <200>
			mmH_2O	5.1 - <10.2> - <15.3> - <20.4>	5.1 - <10.2> - <15.3> - <20.4>	5.1 - <10.2> - <15.3> - <20.4>
	Motor Type			DC Motor	DC Motor	DC Motor
	Motor Output		kW	0.244	0.375	0.375
	Driving Mechanism			Direct-driven by motor	Direct-driven by motor	Direct-driven by motor
	Airflow Rate	(Low Mid High)	m3/min	18.0 - 21.5 - 25.0	26.5 - 32.0 - 38.0	26.5 - 32.0 - 38.0
			L/s	300 - 358 - 417	442 - 533 - 633	442 - 533 - 633
			cf/m	636 - 759 - 883	936 - 1,130 - 1,342	936 - 1,130 - 1,342
Sound pressure level (measured in anechoic room)*2		(Low Mid High)	dB<A>	26-29-32	28-32-36	28-32-36
Insulation Material				EPS, Polyethylene foam, Urethane foam	EPS, Polyethylene foam, Urethane foam	EPS, Polyethylene foam, Urethane foam
Air Filter				Option:Synthetic fiber unwoven cloth filter (long life filter) and fil-ter box are recommended.	Option:Synthetic fiber unwoven cloth filter (long life filter) and fil-ter box are recommended.	Option:Synthetic fiber unwoven cloth filter (long life filter) and fil-ter box are recommended.
Protection Device				Fuse	Fuse	Fuse
Connectable Outdoor Unit/HBC Controller				HYBRID CITY MULTI/CMB-WM-V-AA, CMB-WM-V-AB	HYBRID CITY MULTI/CMB-WM-V-AA, CMB-WM-V-AB	HYBRID CITY MULTI/CMB-WM-V-AA, CMB-WM-V-AB
Water Piping Diameter *5 *6		Inlet	mm ID	30	30	30
		Outlet	mm ID	30	30	30
Field Drain Pipe Size			mm (in.)	O.D.32 (1-1/4)	O.D.32 (1-1/4)	O.D.32 (1-1/4)
Standard Attachment | Accessory				Washer, Drain hose, Tie band	Washer, Drain hose, Tie band	Washer, Drain hose, Tie band
Optional part	Drain pump kit			PAC-DRP10DP-E2	PAC-DRP10DP-E2	PAC-DRP10DP-E2
	Long life filter			PAC-KE88LAF	PAC-KE89LAF	PAC-KE89LAF
	Filter box			PAC-KE99TB-F	PAC-KE140TB-F	PAC-KE140TB-F
	Valve kit*7			PAC-SK35VK-E	PAC-SK35VK-E	PAC-SK35VK-E

Unit Converter: BTU/h=kW×3,412, cfm=m^3/min×35.31 and lbs=kg/0.4536 (Please note these figures are subject to rounding variation)

Notes:

1. Nominal cooling conditions – Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./19°CW.B. (95°FD.B.) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
2. The value are measured at the factory setting of external static pressure.
3. Nominal heating conditions – Indoor: 20°CD.B.(68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
4. The facory setting for external pressure is shown without < >. Refer to "Fan characteristics curves", according to the externalpressure, 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. Certain restrictions apply to indoor unit combinations.
Refer to the section on the valve kit in the chapter "OPTIONAL PARTS" in the DATA BOOK for the restrictions.
When the valve kit is installed farther away from the HBC than the distance between the HBC and the WLmodel indoor unit, the maximum allowable height difference between the HBC and the valve kit is 15 meters.
The maximum allowable piping length between the indoor unit and the valve kit is 5 meters.

Please group units that operate on 1 branch.

Ceiling Cassette

Model				PLFY-WL20VEM-E	PLFY-WL25VEM-E	PLFY-WL32VEM-E
Power source				1-phase 220-240 V 50Hz	1-phase 220-240 V 50Hz	1-phase 220-240 V 50Hz
Cooling	Capacity (Nominal) *1		kW	2.2	2.8	3.6
			BTU/h	7,500	9,600	12,300
	Power input		kW	0.03	0.03	0.03
	Current input		A	0.26	0.29	0.33
Heating	Capacity (Nominal) *2		kW	2.5	3.2	4.0
			BTU/h	8,500	10,900	13,600
	Power input		kW	0.03	0.03	0.03
	Current input		A	0.20	0.23	0.27
External finish				Galvanised steel sheet	Galvanised steel sheet	Galvanised steel sheet
External dimension HxWxD			mm	258 x 840 x 840	258 x 840 x 840	258 x 840 x 840
			in.	10-3/16 x 33-1/16 x 33-1/16	10-3/16 x 33-1/16 x 33-1/16	10-3/16 x 33-1/16 x 33-1/16
Net Weight			kg (lbs)	18 (40)	18 (40)	20 (44)
Decoration Panel		Model		PLP-6EA	PLP-6EA	PLP-6EA
		External finish		MUNSELL (1.0Y 9.2/0.2)	MUNSELL (1.0Y 9.2/0.2)	MUNSELL (1.0Y 9.2/0.2)
		Dimensions	mm	40 x 950 x 950	40 x 950 x 950	40 x 950 x 950
			in.	1-9/16 x 37-13/32 x 37-13/32	1-9/16 x 37-1/16 x 37-1/16	1-9/16 x 37-13/32 x 37-13/32
		Net Weight	kg (lbs)	5 (11)	5 (11)	5 (11)
Heat Exchanger		Type		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	1.8
Fan	Type × Quantity			Turbo Fan x 1	Turbo Fan x 1	Turbo Fan x 1
	External Static Pressure		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
	Airflow Rate (Low-Mid1-Mid2-High)		m3/min	12 - 13 - 14 - 15	12 - 13 - 15 - 17	14 - 15 - 16 - 17
			L/s	200 - 217 - 233 - 250	200 - 217 - 250 - 283	233 - 250 - 267 - 283
			cf/m	424 - 459 - 494 - 530	424 - 459 - 530 - 600	494 - 530 - 565 - 600
Sound pressure level (Low-Mid1-Mid2-High)			dB<A>	24 - 26 - 27 - 28	24 - 26 - 28 - 30	26 - 27 - 29 - 30
Insulation Material				PS	PS	PS
Air Filter				PP Honeycomb	PP Honeycomb	PP Honeycomb
Protection Device				Fuse	Fuse	Fuse
Refrigerant Control Device				-	-	-
Connectable Outdoor Unit/HBC Controller				Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB		Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB
Water Piping Diameter *3 *4		Inlet	mm ID	20	20	20
		Outlet	mm ID	20	20	20
Field Drain Pipe Size			mm (in.)	O.D.32 (1-1/4)	O.D.32 (1-1/4)	O.D.32 (1-1/4)
Optional parts	Decoration Panel *5			PLP-6EA/PLP-6EAE/PLP-6EAL/PLP-6EALE	PLP-6EA/PLP-6EAE/PLP-6EAL/PLP-6EALE	PLP-6EA/PLP-6EAE/PLP-6EAL/PLP-6EALE
	i-See Sensor Control Panel			PAC-SE1ME-E	PAC-SE1ME-E	PAC-SE1ME-E
	Wirelss Signal Receiver			PAR-SE9FA-E	PAR-SE9FA-E	PAR-SE9FA-E
	Valve kit *6			PAC-SK35VK-E	PAC-SK35VK-E	PAC-SK35VK-E

Unit Converter: BTU/h=kW×3,412, cfm=m³/min×35.31 and lbs=kg/0.4536 (Please note these figures are subject to rounding variation)

Notes:

1. Nominal cooling conditions
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66 °FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Nominal heating conditions
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
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. PLFY-WL-VEM-E should be used together with Decoration panel.
6. When using the W-type and the WL-type indoor units in the same system, install the Valve kit on all WL-type indoor units.
   When the valve kit is installed farther away from the HBC than the distance between the HBC and the WL-model indoor unit, the maximum allowable height difference between the HBC and the valve kit is 15 meters.
   The maximum allowable piping length between the indoor unit and the valve kit is 5 meters.

* 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 the Installation Manual.
* Due to continuing improvement, above specifications may be subject to change without notice.

Ceiling Cassette

Model				PLFY-WL40VEM-E	PLFY-WL50VEM-E	PLFY-WL63VEM-E
Power source				1-phase 220-240 V 50Hz	1-phase 220-240 V 50Hz	1-phase 220-240 V 50Hz
Cooling	Capacity (Nominal) *1		kW	4.5	5.6	7.1
			BTU/h	15,400	19,100	24,200
	Power input		kW	0.03	0.04	0.04
	Current input		A	0.35	0.40	0.40
Heating	Capacity (Nominal) *2		kW	5.0	6.3	8.0
			BTU/h	17,100	21,500	27,300
	Power input		kW	0.03	0.04	0.04
	Current input		A	0.29	0.34	0.34
External finish				Galvanised steel sheet	Galvanised steel sheet	Galvanised steel sheet
External dimension HxWxD			mm	258 x 840 x 840	258 x 840 x 840	298 x 840 x 840
			in.	10-3/16 x 33-1/16 x 33-1/16	10-3/16 x 33-1/16 x 33-1/16	11-3/4 x 33-1/16 x 33-1/16
Net Weight			kg (lbs)	20 (44)	20 (44)	23 (51)
Decoration Panel		Model		PLP-6EA	PLP-6EA	PLP-6EA
		External finish		MUNSELL (1.0Y 9.2/0.2)	MUNSELL (1.0Y 9.2/0.2)	MUNSELL (1.0Y 9.2/0.2)
		Dimensions	mm	40 x 950 x 950	40 x 950 x 950	40 x 950 x 950
			in.	1-9/16 x 37-1/16 x 37-1/16	1-9/16 x 37-1/16 x 37-1/16	1-9/16 x 37-13/32 x 37-13/32
		Net Weight	kg (lbs)	5 (11)	5 (11)	5 (11)
Heat Exchanger		Type		Cross fin (Aluminium fin and copper tube)	Cross fin (Aluminium fin and copper tube)	Cross fin (Aluminium fin and copper tube)
		Water Volume	L	1.8	1.8	2.1
Fan	Type × Quantity			Turbo Fan x 1	Turbo Fan x 1	Turbo Fan x 1
	External Static Pressure		Pa	0	0	0
	Motor Type			DC Motor	DC Motor	DC Motor
	Motor Output		kW	0.05	0.05	0.12
	Driving Mechanism			Direct-driven by motor	Direct-driven by motor	Direct-driven by motor
	Airflow Rate (Low-Mid1-Mid2-High)		m3/min	14 - 15 - 16 - 17	14 - 16 - 18 - 20	15 - 17 - 19 - 21
			L/s	233 - 250 - 267 - 283	233 - 267 - 300 - 333	250 - 283 - 317 - 350
			cf/m	494 - 530 - 565 - 600	494 - 565 - 636 - 706	530 - 600 - 671 - 742
Sound pressure level (Low-Mid1-Mid2-High)			dB<A>	26 - 28 - 29 - 31	27 - 29 - 31 - 33	27 - 29 - 31 - 33
Insulation Material				PS	PS	PS
Air Filter				PP Honeycomb	PP Honeycomb	PP Honeycomb
Protection Device				Fuse	Fuse	Fuse
Refrigerant Control Device				-	-	-
Connectable Outdoor Unit/HBC Controller					Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB	
Water Piping Diameter *3 *4		Inlet	mm ID	20	20	30
		Outlet	mm ID	20	20	30
Field Drain Pipe Size			mm (in.)	O.D.32 (1-1/4)	O.D.32 (1-1/4)	O.D.32 (1-1/4)
Optional parts	Decoration Panel *5			PLP-6EA/PLP-6EAE/PLP-6EAL/PLP-6EALE	PLP-6EA/PLP-6EAE/PLP-6EAL/PLP-6EALE	PLP-6EA/PLP-6EAE/PLP-6EAL/PLP-6EALE
	i-See Sensor Control Panel			PAC-SE1ME-E	PAC-SE1ME-E	PAC-SE1ME-E
	Wirelss Signal Receiver			PAR-SE9FA-E	PAR-SE9FA-E	PAR-SE9FA-E
	Valve kit *6			PAC-SK35VK-E	PAC-SK35VK-E	PAC-SK35VK-E

Unit Converter: BTU/h=kW×3,412, cfm=m^3/min×35.31 and lbs=kg/0.4536 (Please note these figures are subject to rounding variation)

Notes:

1. Nominal cooling conditions
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66 °FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Nominal heating conditions
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
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. PLFY-WL-VEM-E should be used together with Decoration panel.
6. When using the W-type and the WL-type indoor units in the same system, install the Valve kit on all WL-type indoor units.
   When the valve kit is installed farther away from the HBC than the distance between the HBC and the WL-model indoor unit, the maximum allowable height difference between the HBC and the valve kit is 15 meters.
   The maximum allowable piping length between the indoor unit and the valve kit is 5 meters.

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Ceiling Cassette

Model				PLFY-WL80VEM-E	PLFY-WL100VEM-E	PLFY-WL125VEM-E
Power source				1-phase 220-240 V 50Hz	1-phase 220-240 V 50Hz	1-phase 220-240 V 50Hz
Cooling	Capacity (Nominal) *1		kW	9.0	11.2	14.0
			BTU/h	30,700	38,200	47,800
	Power input		kW	0.05	0.08	0.11
	Current input		A	0.46	0.66	1.05
Heating	Capacity (Nominal) *2		kW	10.0	12.5	16.0
			BTU/h	34,100	42,700	54,600
	Power input		kW	0.05	0.08	0.11
	Current input		A	0.40	0.60	0.99
External finish				Galvanised steel sheet	Galvanised steel sheet	Galvanised steel sheet
External dimension HxWxD			mm	298 x 840 x 840	298 x 840 x 840	298 x 840 x 840
			in.	11-3/4 x 33-1/16 x 33-1/16	11-3/4 x 33-1/16 x 33-1/16	11-3/4 x 33-1/16 x 33-1/16
Net Weight			kg (lbs)	23 (51)	23 (51)	25 (55)
Decoration Panel	Model			PLP-6EA	PLP-6EA	PLP-6EA
	External finish			MUNSELL (1.0Y 9.2/0.2)	MUNSELL (1.0Y 9.2/0.2)	MUNSELL (1.0Y 9.2/0.2)
	Dimensions		mm	40 x 950 x 950	40 x 950 x 950	40 x 950 x 950
			in.	1-9/16 x 37-13/32 x 37-13/32	1-9/16 x 37-13/32 x 37-13/32	1-9/16 x 37-13/32 x 37-13/32
	Net Weight		kg (lbs)	5 (11)	5 (11)	5 (11)
Heat Exchanger	Type			Cross fin (Aluminium fin and copper tube)	Cross fin (Aluminium fin and copper tube)	Cross fin (Aluminium fin and copper tube)
	Water Volume		L	2.1	2.2	3.1
Fan	Type × Quantity			Turbo Fan x 1	Turbo Fan x 1	Turbo Fan x 1
	External Static Pressure		Pa	0	0	0
	Motor Type			DC Motor	DC Motor	DC Motor
	Motor Output		kW	0.12	0.12	0.12
	Driving Mechanism			Direct-driven by motor	Direct-driven by motor	Direct-driven by motor
	Airflow Rate (Low-Mid1-Mid2-High)		m3/min	15 - 18 - 21 - 23	19 - 23 - 26 - 30	20 - 25 - 30 - 35
			L/s	250 - 300 - 350 - 383	317 - 383 - 433 - 500	333 - 417 - 500 - 583
			cf/m	530 - 636 - 742 - 812	671 - 812 - 918 - 1059	706 - 883 - 1059 - 1236
Sound pressure level (Low-Mid1-Mid2-High)			dB<A>	27 - 30 - 33 - 35	31 - 35 - 37 - 40	33 - 37 - 40 - 46
Insulation Material				PS	PS	PS
Air Filter				PP Honeycomb	PP Honeycomb	PP Honeycomb
Protection Device				Fuse	Fuse	Fuse
Refrigerant Control Device				-	-	-
Connectable Outdoor Unit/HBC Controller				Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB		
Water Piping Diameter *3 *4		Inlet	mm ID	30	30	30
		Outlet	mm ID	30	30	30
Field Drain Pipe Size			mm (in.)	O.D.32 (1-1/4)	O.D.32 (1-1/4)	O.D.32 (1-1/4)
Optional parts	Decoration Panel *5			PLP-6EA/PLP-6EAE/PLP-6EAL/PLP-6EALE	PLP-6EA/PLP-6EAE/PLP-6EAL/PLP-6EALE	PLP-6EA/PLP-6EAE/PLP-6EAL/PLP-6EALE
	i-See Sensor Control Panel			PAC-SE1ME-E	PAC-SE1ME-E	PAC-SE1ME-E
	Wirelss Signal Receiver			PAR-SE9FA-E	PAR-SE9FA-E	PAR-SE9FA-E
	Valve kit *6			PAC-SK35VK-E	PAC-SK35VK-E	PAC-SK35VK-E

Unit Converter: BTU/h=kW×3,412, cfm=m³/min×35.31 and lbs=kg/0.4536 (Please note these figures are subject to rounding variation)

Notes:

1. Nominal cooling conditions
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66 °FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Nominal heating conditions
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
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. PLFY-WL-VEM-E should be used together with Decoration panel.
6. When using the W-type and the WL-type indoor units in the same system, install the Valve kit on all WL-type indoor units.
   When the valve kit is installed farther away from the HBC than the distance between the HBC and the WL-model indoor unit, the maximum allowable height difference between the HBC and the valve kit is 15 meters.
   The maximum allowable piping length between the indoor unit and the valve kit is 5 meters.

* Please group units that operate on 1 branch.
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Compact Ceiling Cassette

Model				PLFY-WL10VFM-E	PLFY-WL15VFM-E
Power source				1-phase 220-240 V 50Hz	1-phase 220-240 V 50Hz
Cooling	Capacity (Nominal) *1		kW	1.2	1.7
			BTU/h	4,100	5,800
	Power input		kW	0.02	0.02
	Current input		A	0.23	0.24
Heating	Capacity (Nominal) *2		kW	1.4	1.9
			BTU/h	4,800	6,500
	Power input		kW	0.02	0.02
	Current input		A	0.17	0.18
External finish				Galvanised steel sheet	Galvanised steel sheet
External dimension HxWxD			mm	208 x 570 x 570	208 x 570 x 570
			in.	8-1/4x22-1/2x22-1/2	8-1/4x22-1/2x22-1/2
Net Weight			kg (lbs)	13 (29)	13 (29)
Decoration Panel	Model			SLP-2FA(L)(E)	SLP-2FA(L)(E)
	External finish			MUNSELL (1.0Y 9.2/0.2)	MUNSELL (1.0Y 9.2/0.2)
	Dimensions		mm	10 x 625 x 625	10 x 625 x 625
			in.	3/8 x 24-5/8 x 24-5/8	3/8 x 24-5/8 x 24-5/8
	Net Weight		kg (lbs)	3 (7)	3 (7)
Heat Exchanger	Type			Cross fin (Aluminium fin and copper tube)	Cross fin (Aluminium fin and copper tube)
	Water Volume		L	0.5	0.5
Fan	Type × Quantity			Turbo Fan x 1	Turbo Fan x 1
	External Static Pressure		Pa	0	0
	Motor Type			DC Motor	DC Motor
	Motor Output		kW	0.05	0.05
	Driving Mechanism			Direct-driven by motor	Direct-driven by motor
	Airflow Rate (Low-Mid-High)		m3/min	6.0 - 6.5 - 7.0	6.0 - 7.0 - 8.0
			L/s	100 - 108 - 117	100 - 117 - 133
			cf/m	212 - 230 - 247	212 - 247 - 282
Sound pressure level (Low-Mid-High)			dB<A>	25 - 26 - 27	25 - 26 - 29
Insulation Material				PS	PS
Air Filter				PP Honeycomb	PP Honeycomb
Protection Device				Fuse	Fuse
Connectable Outdoor Unit/HBC Controller				Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB	
Water Piping Diameter *3 *4	Inlet		mm ID	20	20
	Outlet		mm ID	20	20
Field Drain Pipe Size			mm (in.)	O.D.32 (1-1/4)	O.D.32 (1-1/4)
Optional parts	Decoration Panel *5			SLP-2FA/SLP-2FAE/SLP-2FAL/SLP-2FALE	SLP-2FA/SLP-2FAE/SLP-2FAL/SLP-2FALE
	i-See Sensor corner panel			PAC-SF1ME-E	PAC-SF1ME-E
	Wireless Signal Receiver			PAR-SF9FA-E	PAR-SF9FA-E
	Valve kit *6			PAC-SK35VK-E	PAC-SK35VK-E

Unit Converter: BTU/h=kW×3,412, cfm=m^3/min×35.31 and lbs=kg/0.4536 (Please note these figures are subject to rounding variation)

Notes:

1. Nominal cooling conditions
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66 °FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Nominal heating conditions
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
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. PLFY-WL-VFM-E should be used together with Decoration panel.
6. When using the W-type and the WL-type indoor units in the same system, install the Valve kit on all WL-type indoor units.
   When the valve kit is installed farther away from the HBC than the distance between the HBC and the WL-model indoor unit, the maximum allowable height difference between the HBC and the valve kit is 15 meters.
   The maximum allowable piping length between the indoor unit and the valve kit is 5 meters.

* 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 the Installation Manual.

* Due to continuing improvement, above specifications may be subject to change without notice.

Compact Ceiling Cassette

Model				PLFY-WL20VFM-E	PLFY-WL25VFM-E
Power source				1-phase 220-240 V 50Hz	1-phase 220-240 V 50Hz
Cooling	Capacity (Nominal) *1		kW	2.2	2.8
			BTU/h	7,500	9,600
	Power input		kW	0.02	0.03
	Current input		A	0.26	0.29
Heating	Capacity (Nominal) *2		kW	2.5	3.2
			BTU/h	8,500	10,900
	Power input		kW	0.02	0.03
	Current input		A	0.20	0.23
External finish				Galvanised steel sheet	Galvanised steel sheet
External dimension HxWxD			mm	208 x 570 x 570	208 x 570 x 570
			in.	8-1/4x22-1/2x22-1/2	8-1/4x22-1/2x22-1/2
Net Weight			kg (lbs)	14 (31)	14 (31)
Decoration Panel		Model		SLP-2FA(L)(E)	SLP-2FA(L)(E)
		External finish		MUNSELL (1.0Y 9.2/0.2)	MUNSELL (1.0Y 9.2/0.2)
		Dimensions	mm	10 x 625 x 625	10 x 625 x 625
			in.	3/8 x 24-5/8 x 24-5/8	3/8 x 24-5/8 x 24-5/8
		Net Weight	kg (lbs)	3 (7)	3 (7)
Heat Exchanger		Type		Cross fin (Aluminium fin and copper tube)	Cross fin (Aluminium fin and copper tube)
		Water Volume	L	0.9	0.9
Fan	Type × Quantity			Turbo Fan x 1	Turbo Fan x 1
	External Static Pressure		Pa	0	0
	Motor Type			DC Motor	DC Motor
	Motor Output		kW	0.05	0.05
	Driving Mechanism			Direct-driven by motor	Direct-driven by motor
	Airflow Rate (Low-Mid-High)		m3/min	6.5 - 7.0 - 8.0	6.5 - 7.5 - 9.0
			L/s	108 - 117 - 133	108 - 125 - 150
			cf/m	230 - 247 - 282	230 - 265 - 318
Sound pressure level (Low-Mid-High)			dB<A>	27 - 29 - 31	27 - 30 - 34
Insulation Material				PS	PS
Air Filter				PP Honeycomb	PP Honeycomb
Protection Device				Fuse	Fuse
Connectable Outdoor Unit/HBC Controller				Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB	
Water Piping Diameter *3 *4		Inlet	mm ID	20	20
		Outlet	mm ID	20	20
Field Drain Pipe Size			mm (in.)	O.D.32 (1-1/4)	O.D.32 (1-1/4)
Optional parts	Decoration Panel *5			SLP-2FA/SLP-2FAE/SLP-2FAL/SLP-2FALE	SLP-2FA/SLP-2FAE/SLP-2FAL/SLP-2FALE
	i-See Sensor corner panel			PAC-SF1ME-E	PAC-SF1ME-E
	Wireless Signal Receiver			PAR-SF9FA-E	PAR-SF9FA-E
	Valve kit *6			PAC-SK35VK-E	PAC-SK35VK-E

Unit Converter: BTU/h=kW×3,412, cfm=m³/min×35.31 and lbs=kg/0.4536 (Please note these figures are subject to rounding variation)

Notes:

1. Nominal cooling conditions
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66 °FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Nominal heating conditions
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
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. PLFY-WL-VFM-E should be used together with Decoration panel.
6. When using the W-type and the WL-type indoor units in the same system, install the Valve kit on all WL-type indoor units.
   When the valve kit is installed farther away from the HBC than the distance between the HBC and the WL-model indoor unit, the maximum allowable height difference between the HBC and the valve kit is 15 meters.
   The maximum allowable piping length between the indoor unit and the valve kit is 5 meters.

* 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 the Installation Manual.

* Due to continuing improvement, above specifications may be subject to change without notice.

Compact Ceiling Cassette

Model				PLFY-WL32VFM-E	PLFY-WL40VFM-E
Power source				1-phase 220-240 V 50Hz	1-phase 220-240 V 50Hz
Cooling	Capacity (Nominal) *1		kW	3.6	4.5
			BTU/h	12,300	15,400
	Power input		kW	0.04	0.05
	Current input		A	0.38	0.46
Heating	Capacity (Nominal) *2		kW	4.0	5.0
			BTU/h	13,600	17,100
	Power input		kW	0.04	0.05
	Current input		A	0.32	0.40
External finish				Galvanised steel sheet	Galvanised steel sheet
External dimension HxWxD			mm	208 x 570 x 570	208 x 570 x 570
			in.	8-1/4x22-1/2x22-1/2	8-1/4x22-1/2x22-1/2
Net Weight			kg (lbs)	14 (31)	14 (31)
Decoration Panel		Model		SLP-2FA(L)(E)	SLP-2FA(L)(E)
		External finish		MUNSELL (1.0Y 9.2/0.2)	MUNSELL (1.0Y 9.2/0.2)
		Dimensions	mm	10 x 625 x 625	10 x 625 x 625
			in.	3/8 x 24-5/8 x 24-5/8	3/8 x 24-5/8 x 24-5/8
		Net Weight	kg (lbs)	3 (7)	3 (7)
Heat Exchanger		Type		Cross fin (Aluminium fin and copper tube)	Cross fin (Aluminium fin and copper tube)
		Water Volume	L	0.9	0.9
Fan	Type × Quantity			Turbo Fan x 1	Turbo Fan x 1
	External Static Pressure		Pa	0	0
	Motor Type			DC Motor	DC Motor
	Motor Output		kW	0.05	0.05
	Driving Mechanism			Direct-driven by motor	Direct-driven by motor
	Airflow Rate (Low-Mid-High)		m3/min	6.5 - 9.0 - 12.0	6.5 - 11.5 - 13.0
			L/s	108 - 150 - 200	108 - 192 - 217
			cf/m	230 - 318 - 424	230 - 406 - 4259
Sound pressure level (Low-Mid-High)			dB<A>	27 - 33 - 41	27 - 40 - 43
Insulation Material				PS	PS
Air Filter				PP Honeycomb	PP Honeycomb
Protection Device				Fuse	Fuse
Connectable Outdoor Unit/HBC Controller				Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB	
Water Piping Diameter *3 *4		Inlet	mm ID	20	20
		Outlet	mm ID	20	20
Field Drain Pipe Size			mm (in.)	O.D.32 (1-1/4)	O.D.32 (1-1/4)
Optional parts	Decoration Panel *5			SLP-2FA/SLP-2FAE/SLP-2FAL/SLP-2FALE	SLP-2FA/SLP-2FAE/SLP-2FAL/SLP-2FALE
	i-See Sensor corner panel			PAC-SF1ME-E	PAC-SF1ME-E
	Wireless Signal Receiver			PAR-SF9FA-E	PAR-SF9FA-E
				PAC-SK35VK-E	PAC-SK35VK-E

Unit Converter: BTU/h=kW×3,412, cfm=m^3/min×35.31 and lbs=kg/0.4536 (Please note these figures are subject to rounding variation)

Notes:

1. Nominal cooling conditions
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66 °FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Nominal heating conditions
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
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. PLFY-WL-VFM-E should be used together with Decoration panel.
6. When using the W-type and the WL-type indoor units in the same system, install the Valve kit on all WL-type indoor units.
   When the valve kit is installed farther away from the HBC than the distance between the HBC and the WL-model indoor unit, the maximum allowable height difference between the HBC and the valve kit is 15 meters.
   The maximum allowable piping length between the indoor unit and the valve kit is 5 meters.

* 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 the Installation Manual.

* Due to continuing improvement, above specifications may be subject to change without notice.

Wall Mounted

Model				PKFY-WL10VLM-E	PKFY-WL15VLM-E	PKFY-WL20VLM-E
Power source				1-phase 220-240 V 50Hz	1-phase 220-240 V 50Hz	1-phase 220-240 V 50Hz
Cooling	Capacity (Nominal) *1		kW	1.2	1.7	2.2
			BTU/h	4,100	5,800	7,500
	Power input		kW	0.02	0.02	0.03
	Current input		A	0.20	0.20	0.25
Heating	Capacity (Nominal) *2		kW	1.4	1.9	2.5
			BTU/h	4,800	6,500	8,500
	Power input		kW	0.01	0.01	0.02
	Current input		A	0.15	0.15	0.20
External finish				Plastic (0.7PB 9.2/0.4)	Plastic (0.7PB 9.2/0.4)	Plastic (0.7PB 9.2/0.4)
External dimension HxWxD			mm	299 x 773 x 237	299 x 773 x 237	299 x 773 x 237
			in.	11-25/32 x 30-7/16 x 9-11/32	11-25/32 x 30-7/16 x 9-11/32	11-25/32 x 30-7/16 x 9-11/32
Net Weight			kg (lbs)	11 (25)	11 (25)	11 (25)
Heat Exchanger		Type		Cross fin (Aluminium fin and copper tube)	Cross fin (Aluminium fin and copper tube)	Cross fin (Aluminium fin and copper tube)
		Water Volume	L	0.6	0.6	0.7
Fan	Type × Quantity			Line Flow Fan x 1	Line Flow Fan x 1	Line Flow Fan x 1
	External Static Pressure		Pa	0	0	0
	Motor Type			DC Motor	DC Motor	DC Motor
	Motor Output		kW	0.03	0.03	0.03
	Driving Mechanism			Direct-driven by motor	Direct-driven by motor	Direct-driven by motor
	Airflow Rate (Low-Mid2-Mid1-High)		m3/min	3.3 - 3.8 - 4.1 - 4.5	3.3 - 3.8 - 4.3 - 4.9	4.0 - 5.0 - 6.0 - 7.0
			L/s	55 - 63 - 68 - 75	55 - 63 - 72 - 82	67 - 83 - 100 - 117
			cf/m	117 - 134 - 145 - 159	117 - 134 - 152 - 173	141 - 177 - 212 - 247
Sound pressure level (Low-Mid2-Mid1-High)			dB<A>	22 - 26 - 28 - 30	22 - 26 - 29 - 32	22 - 28 - 33 - 36
Insulation Material				Polyethylene Sheet	Polyethylene Sheet	Polyethylene Sheet
Air Filter				PP Honeycomb	PP Honeycomb	PP Honeycomb
Protection Device				Fuse	Fuse	Fuse
Connectable Outdoor Unit/HBC Controller				Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB		
Water Piping Diameter *3 *4		Inlet	in.	Rc 3/4 screw	Rc 3/4 screw	Rc 3/4 screw
		Outlet	in.	Rc 3/4 screw	Rc 3/4 screw	Rc 3/4 screw
Field Drain Pipe Size			mm (in.)	I.D.16 (5/8)	I.D.16 (5/8)	I.D.16 (5/8)
Optional Parts	Drain Pump Kit			PAC-SK01DM-E	PAC-SK01DM-E	PAC-SK01DM-E
	Valve Kit *5			PAC-SK35VK-E	PAC-SK35VK-E	PAC-SK35VK-E

Unit Converter: BTU/h=kW×3,412, cfm=m³/min×35.31 and lbs=kg/0.4536 (Please note these figures are subject to rounding variation)

Notes:

1. Nominal cooling conditions – Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./19°CW.B. (95°FD.B.) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
2. Nominal heating conditions – Indoor: 20°CD.B.(68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
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. When using the W-type and the WL-type indoor units in the same system, install the Valve kit on all WL-type indoor units. When the valve kit is installed farther away from the HBC than the distance between the HBC and the WL-model indoor unit, the maximum allowable height difference between the HBC and the valve kit is 15 meters. The maximum allowable piping length between the indoor unit and the valve kit is 5 meters.

* Please group units that operate on 1 branch.

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Wall Mounted

Model				PKFY-WL25VLM-E	PKFY-WL32VLM-E	PKFY-WL40VLM-E
Power source				1-phase 220-240 V 50Hz	1-phase 220-240 V 50Hz	1-phase 220-240 V 50Hz
Cooling	Capacity (Nominal) *1		kW	2.8	3.6	4.5
			BTU/h	9,600	12,300	15,400
	Power input		kW	0.04	0.04	0.05
	Current input		A	0.35	0.35	0.45
Heating	Capacity (Nominal) *2		kW	3.2	4.0	5.0
			BTU/h	10,900	13,600	17,100
	Power input		kW	0.03	0.03	0.04
	Current input		A	0.30	0.30	0.40
External finish				Plastic (0.7PB 9.2/0.4)	Plastic (0.7PB 9.2/0.4)	Plastic (0.7PB 9.2/0.4)
External dimension HxWxD			mm	299 x 773 x 237	299 x 898 x 237	299 x 898 x 237
			in.	11-25/32 x 30-7/16 x 9-11/32	11-25/32 x 35-3/8 x 9-11/32	11-25/32 x 35-3/8 x 9-11/32
Net Weight			kg (lbs)	11 (25)	13 (29)	13 (29)
Heat Exchanger		Type		Cross fin (Aluminium fin and copper tube)	Cross fin (Aluminium fin and copper tube)	Cross fin (Aluminium fin and copper tube)
		Water Volume	L	0.7	1.0	1.1
Fan	Type × Quantity			Line Flow Fan x 1	Line Flow Fan x 1	Line Flow Fan x 1
	External Static Pressure		Pa	0	0	0
	Motor Type			DC Motor	DC Motor	DC Motor
	Motor Output		kW	0.03	0.03	0.03
	Driving Mechanism			Direct-Drive by motor	Direct-Drive by motor	Direct-Drive by motor
	Airflow Rate (Low-Mid-High)		m3/min	4.0 - 5.4 - 7.0 - 8.4	6.3 - 7.6 - 9.0 - 10.4	6.4 - 8.2 - 10.0 - 11.9
			L/s	67 - 90 - 117 - 140	105 - 127 - 150 - 173	107 - 137 - 167 - 198
			cf/m	141 - 191 - 247 - 297	222 - 268 - 318 - 367	226 - 290 - 353 - 420
Sound pressure level (Low-Mid-High)			dB<A>	22 - 30 - 36 - 41	29 - 34 - 38 - 41	30 - 36 - 41 - 45
Insulation Material				Polyethylene Sheet	Polyethylene Sheet	Polyethylene Sheet
Air Filter				PP Honeycomb	PP Honeycomb	PP Honeycomb
Protection Device				Fuse	Fuse	Fuse
Connectable Outdoor Unit/HBC Controller					Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB	
Water Piping Diameter *3 *4		Inlet	in.	Rc 3/4 screw	Rc 3/4 screw	Rc 3/4 screw
		Outlet	in.	Rc 3/4 screw	Rc 3/4 screw	Rc 3/4 screw
Field Drain Pipe Size			mm (in.)	I.D.16 (5/8)	I.D.16 (5/8)	I.D.16 (5/8)
Optional Parts	Drain Pump Kit			PAC-SK01DM-E	PAC-SK01DM-E	PAC-SK01DM-E
	Valve Kit *5			PAC-SK35VK-E	PAC-SK35VK-E	PAC-SK35VK-E

Unit Converter: BTU/h=kW×3,412, cfm=m³/min×35.31 and lbs=kg/0.4536 (Please note these figures are subject to rounding variation)

Notes:

1. Nominal cooling conditions – Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./19°CW.B. (95°FD.B.) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
2. Nominal heating conditions – Indoor: 20°CD.B.(68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
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. When using the W-type and the WL-type indoor units in the same system, install the Valve kit on all WL-type indoor units. When the valve kit is installed farther away from the HBC than the distance between the HBC and the WL-model indoor unit, the maximum allowable height difference between the HBC and the valve kit is 15 meters. The maximum allowable piping length between the indoor unit and the valve kit is 5 meters.

* Please group units that operate on 1 branch.

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Wall Mounted

Model				PKFY-WL50VKM-E	PKFY-WL63VKM-E	PKFY-WL80VKM-E
Power source				1-phase 220-240 V 50Hz	1-phase 220-240 V 50Hz	1-phase 220-240 V 50Hz
Cooling	Capacity (Nominal) *1		kW	5.6	7.1	9.0
			BTU/h	19,100	24,200	30,700
	Power input		kW	0.04	0.05	0.07
	Current input		A	0.46	0.56	0.76
Heating	Capacity (Nominal) *2		kW	6.3	8.0	10.0
			BTU/h	21,500	27,300	34,100
	Power input		kW	0.04	0.05	0.07
	Current input		A	0.340	0.50	0.70
External finish				Plastic (1.0Y 9.2/0.2)	Plastic (1.0Y 9.2/0.2)	Plastic (1.0Y 9.2/0.2)
External dimension HxWxD			mm	365 x 1170 x 295	365 x 1170 x 295	365 x 1170 x 295
			in.	14-3/8 x 46-1/16 x 11-5/8	14-3/8 x 46-1/16 x 11-5/8	14-3/8 x 46-1/16 x 11-5/8
Net Weight			kg (lbs)	20 (44)	20 (44)	20 (44)
Heat Exchanger		Type		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	2.0	2.0
Fan	Type × Quantity			Line Flow Fan x 1	Line Flow Fan x 1	Line Flow Fan x 1
	External Static Pressure		Pa	0	0	0
	Motor Type			DC Motor	DC Motor	DC Motor
	Motor Output		kW	0.069	0.069	0.069
	Driving Mechanism			Direct-Drive by motor	Direct-Drive by motor	Direct-Drive by motor
	Airflow Rate (Low-Mid-High)		m3/min	18 - 20	18 - 22	18 - 26
			L/s	300 - 333	300 - 367	300 - 433
			cf/m	636 - 706	636 - 777	636 - 918
Sound pressure level (Low-Mid-High)			dB<A>	39 - 42	39 - 45	39 - 49
Insulation Material				Polyethylene Sheet	Polyethylene Sheet	Polyethylene Sheet
Air Filter				PP Honeycomb	PP Honeycomb	PP Honeycomb
Protection Device				Fuse	Fuse	Fuse
Connectable Outdoor Unit/HBC Controller				Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB		
Water Piping Diameter *3 *4		Inlet	in.	Rc 3/4 screw	Rc 3/4 screw	Rc 3/4 screw
		Outlet	in.	Rc 3/4 screw	Rc 3/4 screw	Rc 3/4 screw
Field Drain Pipe Size			mm (in.)	I.D.16 (5/8)	I.D.16 (5/8)	I.D.16 (5/8)
Optional Parts	Drain Pump Kit			PAC-SK01DM-E	PAC-SK01DM-E	PAC-SK01DM-E
	Valve Kit *5			PAC-SK35VK-E	PAC-SK35VK-E	PAC-SK35VK-E

Unit Converter: BTU/h=kW×3,412, cfm=m^3/min×35.31 and lbs=kg/0.4536 (Please note these figures are subject to rounding variation)

Notes:

1. Nominal cooling conditions – Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./19°CW.B. (95°FD.B.) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
2. Nominal heating conditions – Indoor: 20°CD.B.(68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
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. When using the W-type and the WL-type indoor units in the same system, install the Valve kit on all WL-type indoor units. When the valve kit is installed farther away from the HBC than the distance between the HBC and the WL-model indoor unit, the maximum allowable height difference between the HBC and the valve kit is 15 meters. The maximum allowable piping length between the indoor unit and the valve kit is 5 meters.

* Please group units that operate on 1 branch.

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Floor Standing Concealed

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
			BTU/h	7,500	9,600	12,300
	Power input *2		kW	0.040	0.040	0.050
	Current input *2		A	0.35	0.35	0.47
Heating	Capacity (Nominal) *3		kW	2.5	3.2	4.0
			BTU/h	8,500	10,900	13,600
	Power input *2		kW	0.040	0.040	0.050
	Current input *2		A	0.35	0.35	0.47
External finish				Galvanised steel plate	Galvanised steel plate	Galvanised steel plate
External dimension HxWxD			mm	639 x 886 x 220	639 x 1,006 x 220	639 x 1,006 x 220
			in.	25-3/16 x 34-15/16 x 8-11/16	25-3/16 x 39-5/8 x 8-11/16	25-3/16 x 39-5/8 x 8-11/16
Net Weight			kg (lbs)	22 (49)	25 (56)	25 (56)
Heat Exchanger		Type		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 × Quantity			Sirocco Fan x 1	Sirocco Fan x 2	Sirocco Fan x 2
	External Static Pressure *4		Pa	20 - <40> - <60>	20 - <40> - <60>	20 - <40> - <60>
			mmH_2O	2.0 - <4.1> - <6.1>	2.0 - <4.1> - <6.1>	2.0 - <4.1> - <6.1>
	Motor Type			DC Motor	DC Motor	DC Motor
	Motor Output		kW	0.096	0.096	0.096
	Driving Mechanism			Direct-driven by motor	Direct-driven by motor	Direct-driven by motor
	Airflow Rate (Low-Mid-High)		m3/min	4.5 - 5.0 - 6.0	6.0 - 7.0 - 8.0	7.5 - 9.0 - 10.5
			L/s	75 - 83 - 100	100 - 117 - 133	125 - 150 - 175
			cf/m	159 - 177 - 212	212 - 247 - 282	265 - 318 - 371
Sound pressure level (measured in anechoic room)*2		(Low-Mid-High)	dB<A>	31 - 33 - 38	31 - 33 - 38	31 - 35 - 38
Insulation Material				Polyethylene foam, Urethane foam	Polyethylene foam, Urethane foam	Polyethylene foam, Urethane foam
Air Filter				PP Honeycomb fabric	PP Honeycomb fabric	PP Honeycomb fabric
Protection Device				Fuse	Fuse	Fuse
Connectable Outdoor Unit/HBC Controller				Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB	Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB	Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB
Water Piping Diameter *3 *4		Inlet	in.	Rc 3/4 screw	Rc 3/4 screw	Rc 3/4 screw
		Outlet	in.	Rc 3/4 screw	Rc 3/4 screw	Rc 3/4 screw
Field Drain Pipe Size			mm (in.)	I.D.26 (1) <Accessory hose O.D.27 (1-3/32) (top end: O.D.20 (13/16))>	I.D.26 (1) <Accessory hose O.D.27 (1-3/32) (top end: O.D.20 (13/16))>	I.D.26 (1) <Accessory hose O.D.27 (1-3/32) (top end: O.D.20 (13/16))>
Standard Attachment | Accessory				Insulation pipe for water pipe, Drain hose (flexible joint), Screw plate, Level adjusting screw, Hose band	Insulation pipe for water pipe, Drain hose (flexible joint), Screw plate, Level adjusting screw, Hose band	Insulation pipe for water pipe, Drain hose (flexible joint), Screw plate, Level adjusting screw, Hose band

Unit Converter: BTU/h=kW×3,412, cfm=m^3/min×35.31 and lbs=kg/0.4536 (Please note these figures are subject to rounding variation)

Notes:

1. Nominal cooling conditions – Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./19°CW.B. (95°FD.B.) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
2. The value are measured at the factory setting of external static pressure.
3. Nominal heating conditions – Indoor: 20°CD.B.(68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
4. The facory setting for external pressure is shown without < >. Refer to "Fan characteristics curves", according to the externalpressure, 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.

Please group units that operate on 1 branch.

Floor Standing Concealed

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
			BTU/h	15,400	19,100
	Power input *2		kW	0.050	0.070
	Current input *2		A	0.47	0.65
Heating	Capacity (Nominal) *3		kW	5.0	6.3
			BTU/h	17,100	21,500
	Power input *2		kW	0.050	0.070
	Current input *2		A	0.47	0.65
External finish				Galvanised steel plate	Galvanised steel plate
External dimension HxWxD			mm	639 x 1,246 x 220	639 x 1,246 x 220
			in.	25-3/16 x 49-1/16 x 8-11/16	25-3/16 x 49-1/16 x 8-11/16
Net Weight			kg (lbs)	29 (64)	29 (64)
Heat Exchanger		Type		Cross fin (Aluminium fin and copper tube)	Cross fin (Aluminium fin and copper tube)
		Water Volume	L	1.5	1.5
Fan	Type × Quantity			Sirocco Fan x 2	Sirocco Fan x 2
	External Static Pressure *4		Pa	20 - <40> - <60>	20 - <40> - <60>
			mmH_2O	2.0 - <4.1> - <6.1>	2.0 - <4.1> - <6.1>
	Motor Type			DC Motor	DC Motor
	Motor Output		kW	0.096	0.096
	Driving Mechanism			Direct-driven by motor	Direct-driven by motor
	Airflow Rate (Low-Mid-High)		m3/min	8.0 - 10.0 - 11.5	10.5 - 13.0 - 15.0
			L/s	133 - 167 - 192	175 - 217 - 250
			cf/m	282 - 353 - 406	371 - 459 - 530
Sound pressure level (measured in anechoic room)*2		(Low-Mid-High)	dB<A>	34 - 37 - 40	37 - 42 - 45
Insulation Material				Polyethylene foam, Urethane foam	Polyethylene foam, Urethane foam
Air Filter				PP Honeycomb fabric	PP Honeycomb fabric
Protection Device				Fuse	Fuse
Connectable Outdoor Unit/HBC Controller				Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB	Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB
Water Piping Diameter *3 *4		Inlet	in.	Rc 3/4 screw	Rc 3/4 screw
		Outlet	in.	Rc 3/4 screw	Rc 3/4 screw
Field Drain Pipe Size			mm (in.)	I.D.26 (1) <Accessory hose O.D.27 (1-3/32) (top end: O.D.20 (13/16))>	I.D.26 (1) <Accessory hose O.D.27 (1-3/32) (top end: O.D.20 (13/16))>
Standard Attachment | Accessory				Insulation pipe for water pipe, Drain hose (flexible joint), Screw plate, Level adjusting screw, Hose band	Insulation pipe for water pipe, Drain hose (flexible joint), Screw plate, Level adjusting screw, Hose band

Unit Converter: BTU/h=kW×3,412, cfm=m^3/min×35.31 and lbs=kg/0.4536 (Please note these figures are subject to rounding variation)

Notes:

1. Nominal cooling conditions – Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./19°CW.B. (95°FD.B.) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
2. The value are measured at the factory setting of external static pressure.
3. Nominal heating conditions – Indoor: 20°CD.B.(68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
4. The facory setting for external pressure is shown without < >. Refer to "Fan characteristics curves", according to the externalpressure, 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.

Please group units that operate on 1 branch.

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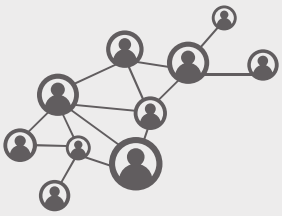

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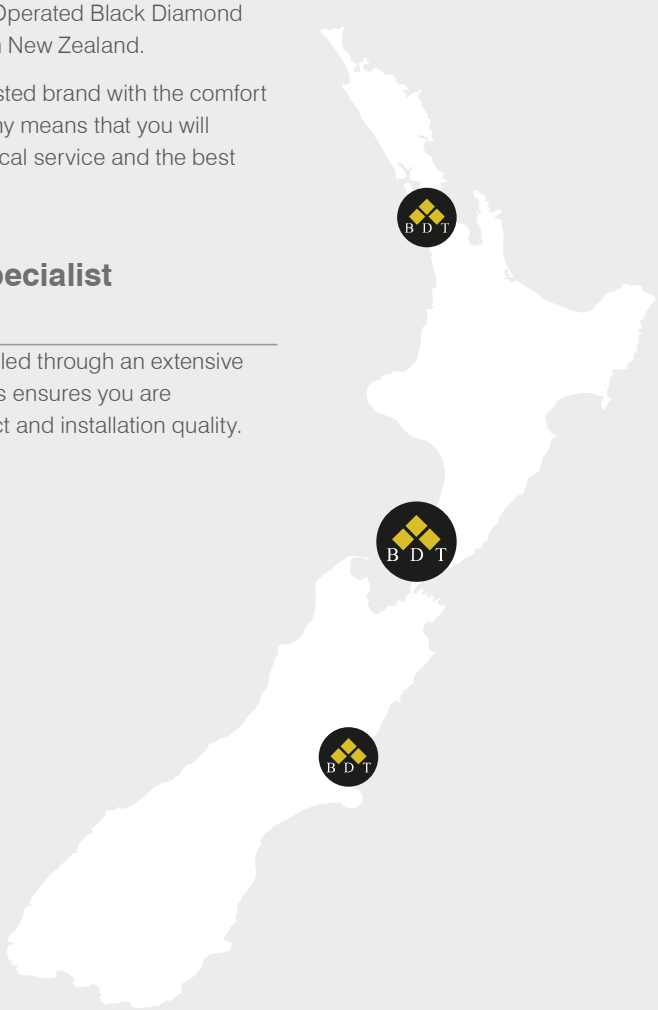
Mitsubishi Electric Heat Pumps are installed through an extensive network of trained specialist dealers. This ensures you are supported with a superior level of product and installation quality.



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Exclusive New Zealand Partner Since 1981

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