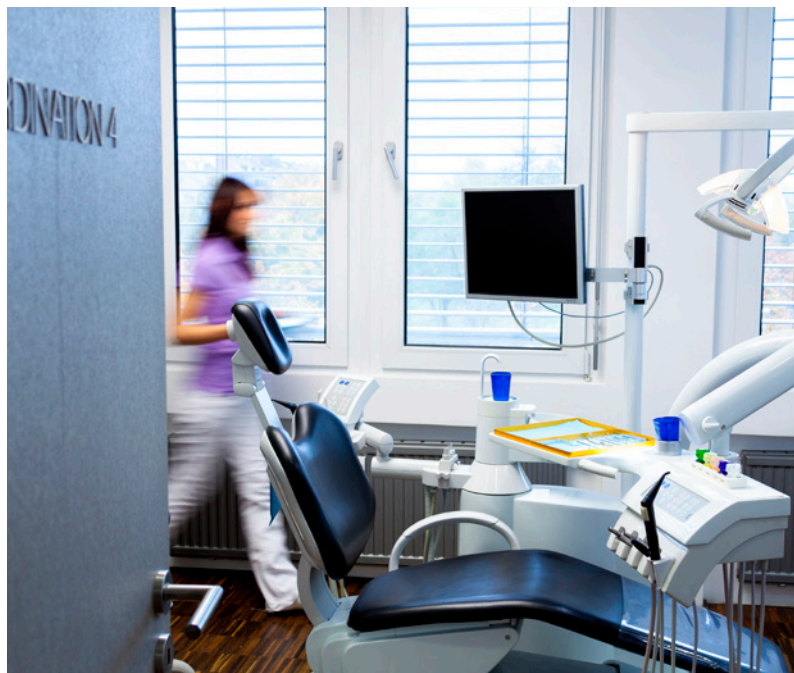
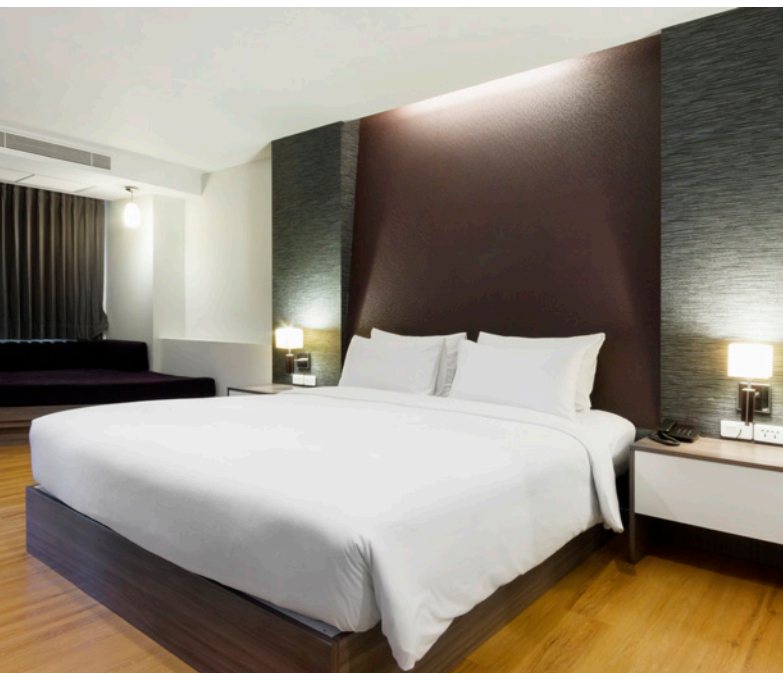


Hybrid VRF Catalogue

Next Generation 2-Pipe Heat Recovery Systems



CITY MULTI



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.

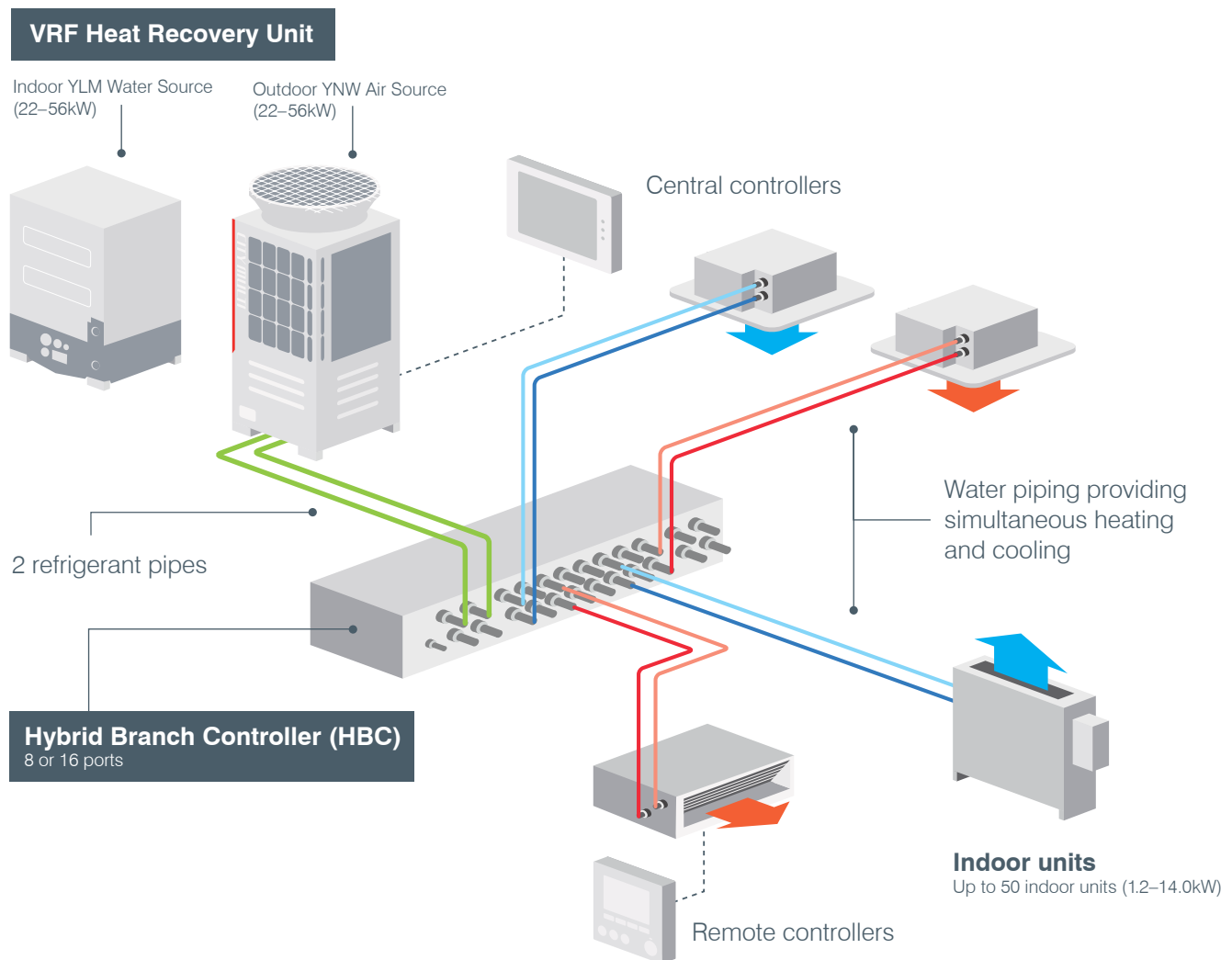
This revolutionary design minimises the need for expensive and on-going leak detection servicing and is specifically designed for occupied spaces where quiet, energy efficient, simultaneous heating and cooling is valued.

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.



CITY MULTI



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 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

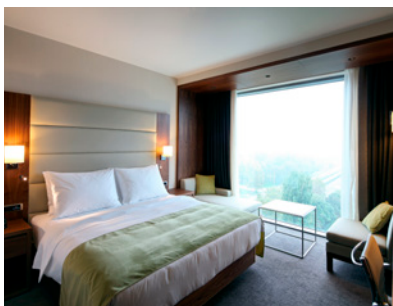
Customer comfort is paramount with legislation focusing attention on energy use and seeking to limit the use of refrigerant in occupied spaces. Hybrid VRF minimises the need for leak detection in the occupied space, thereby reducing the total cost of the system and ongoing maintenance of the leak detection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

Hospitals and Medical Centres

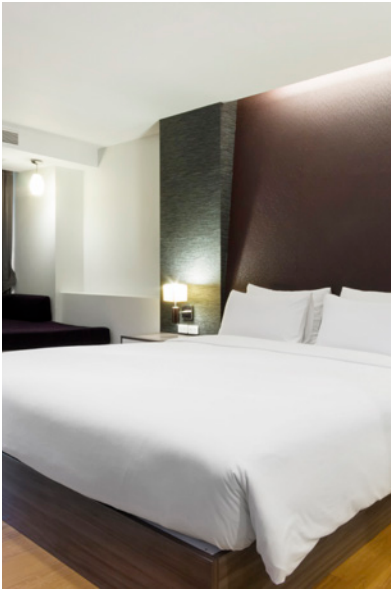
With regards to patient health and safety, this system has no refrigerant in the indoor units and can deliver mild off-coil temperatures through the Water-Based Hybrid VRF indoor units. HVRF mitigates the need for leak detectors in consulting rooms and provides a solution to critical refrigerant limits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

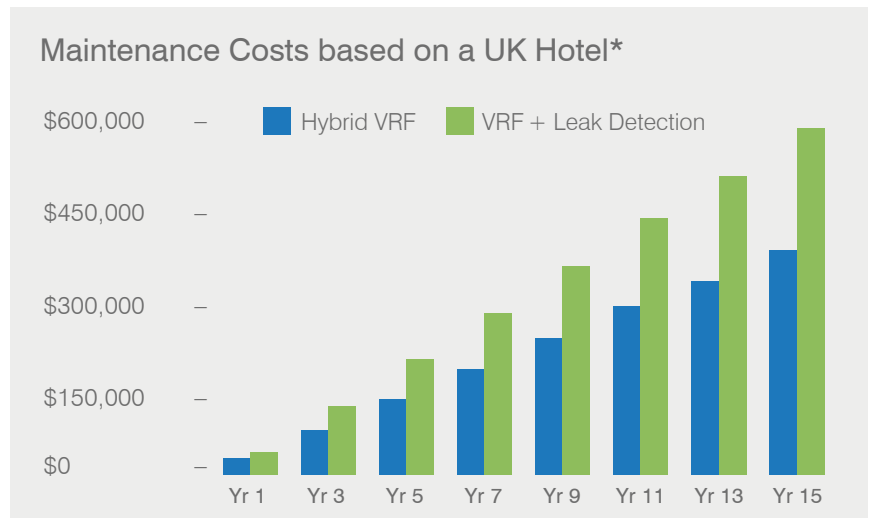
Minimise the Need for Leak Detection Systems

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 space 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.

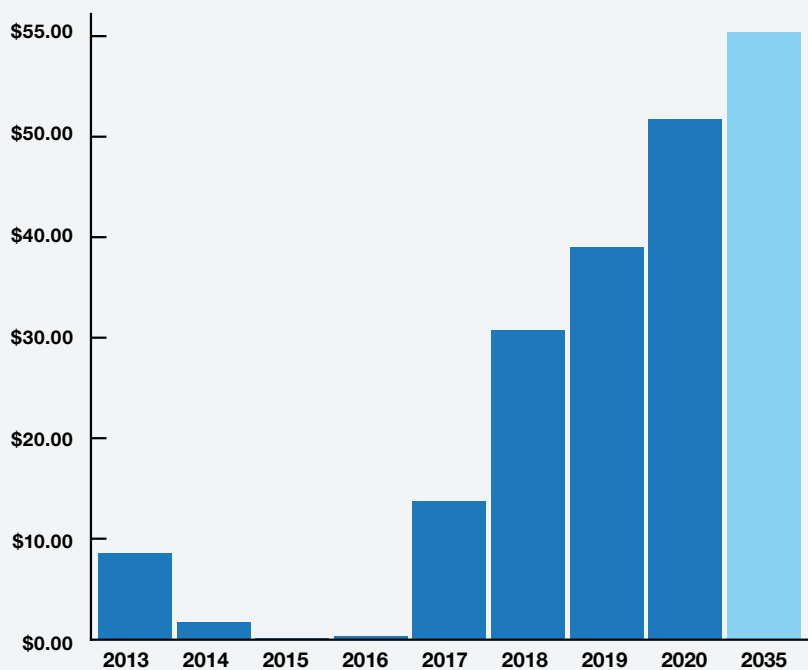
Emissions Trading Scheme

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

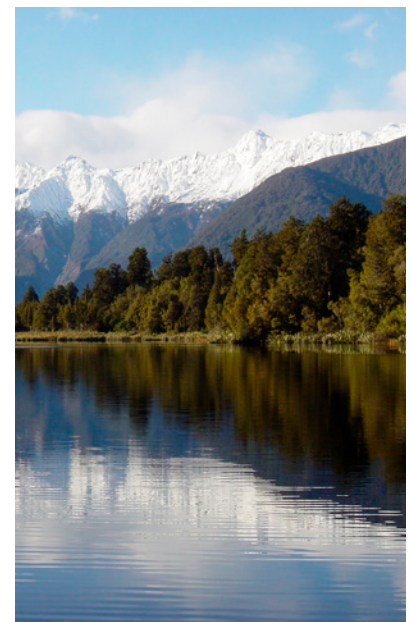
This is known as the SGG (Synthetic Greenhouse Gas) Levy.

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 traditional heating and cooling systems that utilise higher GWP refrigerants such as R410A.

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



Year	Levy Rate – per kg Refrigerant (R410A)	
2013	\$8.59	Actual
2014	\$1.72	Actual
2015	\$0.67	Actual
2016	\$0.31	Actual
2017	\$13.72	Actual
2018	\$30.78	Actual
2019	\$41.55	Actual
2020	\$51.29	Actual
2035	\$55.00	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 ancillary 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.

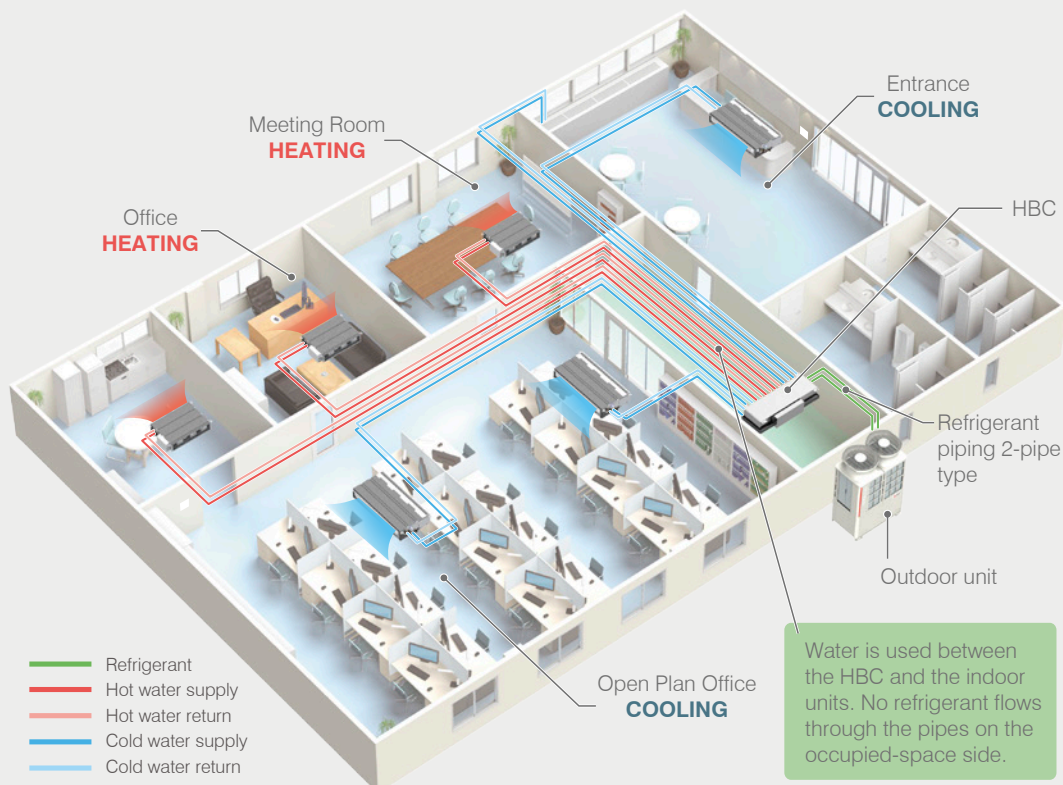


Image for representation only

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**

It 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 Case Studies

Rototuna Junior High School – Gets NZ’s First Hybrid VRF System

Recently 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 to upgrade the existing Rotorua Library building into a new state of the art, centrally located, shared community facility comprising 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

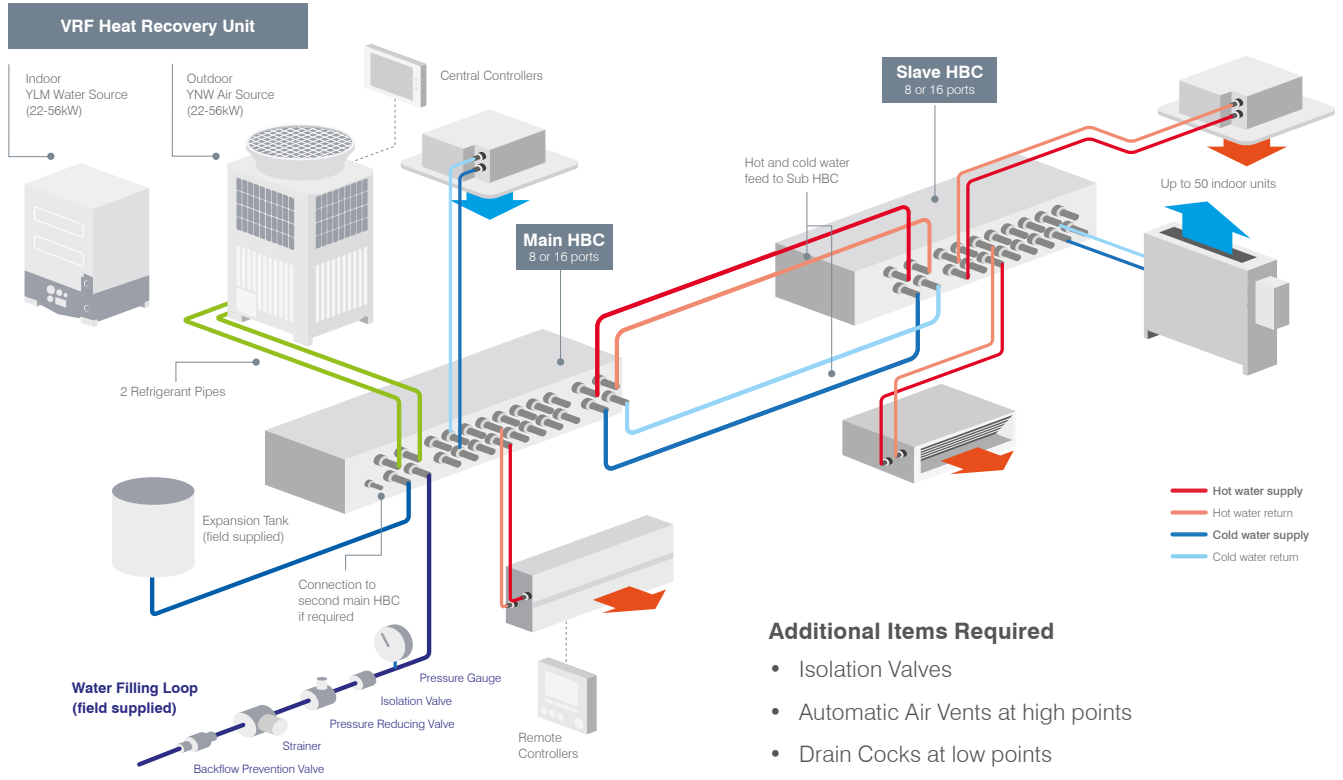
The best solution to meet the challenges was to select HVRF systems that provide heating and cooling to many of the mixed-use library and health hub areas. The HVRF Systems were selected by the consultant for the principle reason of having less extreme air-off temperatures, and slower temperature change 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.



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.

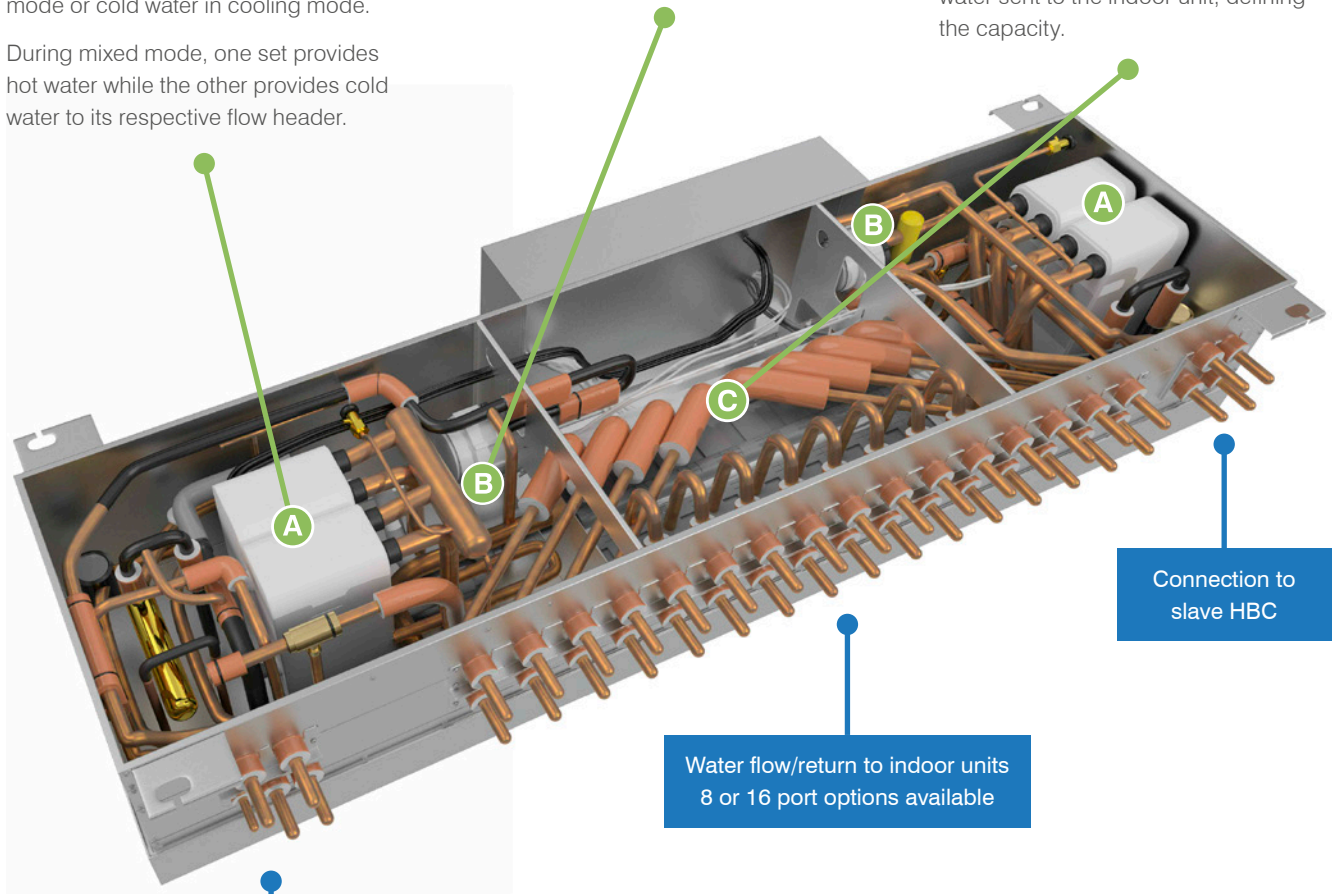
C - Valve Block

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

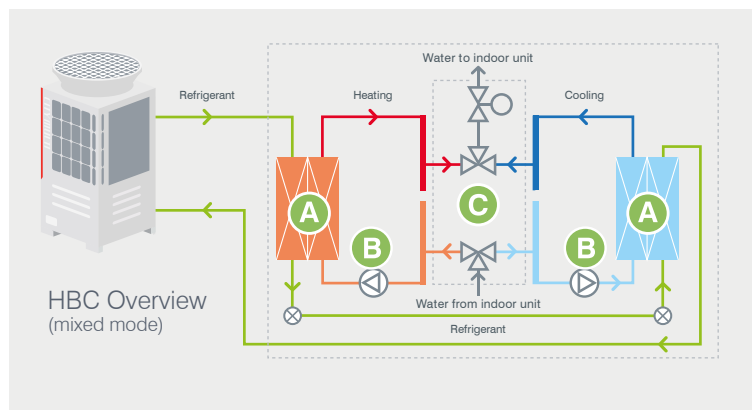
This Valve Block has two features;

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.

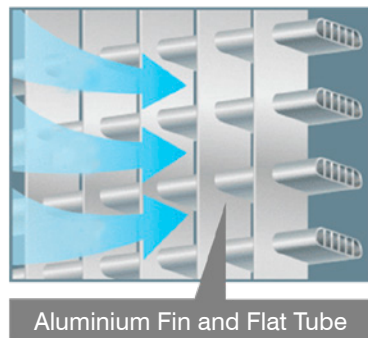


Refrigerant pipes to outdoor unit, expansion tank (field supplied) and water filling loop (field supplied), and balancing line to 2nd main HBC.



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!



Aluminium Fin and Flat Tube

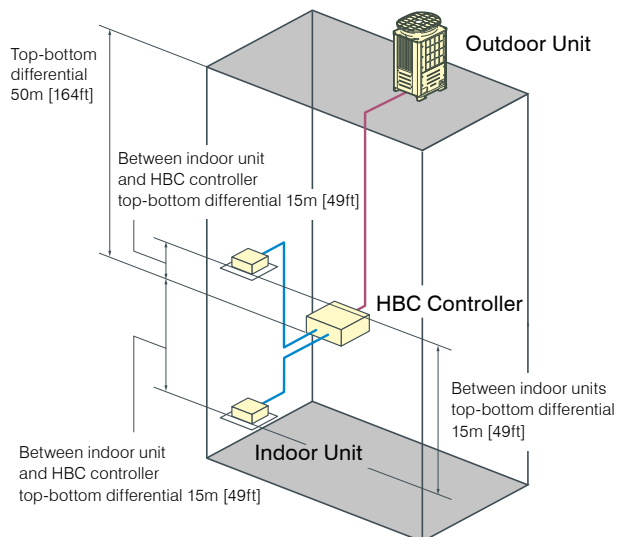
Inverter Compressor

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

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

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.



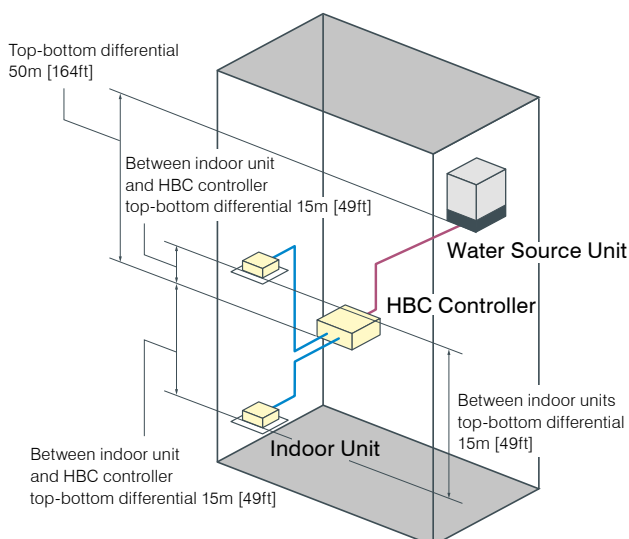
A sustainable and flexible solution for tall or unique buildings:

- 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

Piping Length



R Refrigerant Pipe **W** Water Pipe

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R HBC/HBC controller	15 (10) [49 (32)]* ¹

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

Hybrid Branch Circuit (HBC) Controller

The HBC is used for the connection of the Air/Water Source 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				●	●	●	●	●	●	●	●	●	●
4-Way Airflow Cassette	PLFY-WL VEM-E						●	●	●					
Compact Cassette	PLFY-WL VFM-E		●	●	●	●	●							
Floor Standing Concealed	PFFY-WP VLRMM-E				●	●	●	●	●					
Wall Mounted	PKFY-WL VLM-E		●	●	●	●	●	●						

Controller Range

Remote Controllers



Standard Controller PAR-33MAA

- 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



AT-50B

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



MelcoBEMS Mini BMS Interface

- MODBUS
- BACnet MS/TP



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.”

A low-angle, upward-looking photograph of a modern skyscraper with a glass facade. The building's lines converge towards the top right, creating a sense of height and scale. The sky is a pale blue with light, wispy clouds. The overall color palette is dominated by blues and greys.

HYBRID
CITY MULTI

Outdoor Unit – Air Source



Model			PURY-P200YNW-A (-BS)	PURY-P250YNW-A (-BS)
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	
Cooling	Capacity (Nominal) *1	kW	22.4	28.0
		BTU / h	76,400	95,500
	Power input	kW	7.00	9.92
	Current input	A	11.8-11.2-10.8	16.7-15.9-15.3
	EER	kW / kW	3.20	2.82
	Temp. Range *3	Indoor	W.B.	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	7.08	10.06
	Current input	A	11.9-11.3-10.9	16.9-16.1-15.5
	COP	kW / kW	3.53	3.13
	Temp. range *3	Indoor	D.B.	15.0~27.0°C (59~81°F)
Outdoor		W.B.	-20.0~15.5°C (-4~60°F)	-20.0~15.5°C (-4~60°F)
Indoor unit connectable	Total capacity		50~150% of outdoor unit capacity	50~150% of outdoor unit capacity
	Model / Quantity		WP10~WP125/1~30	WP10~WP125/1~37
Sound pressure level (measured in anechoic room)*4		dB <A>	59/59	60.5/61
Sound power level (measured in anechoic room) *4		dB <A>	76/78	78.5/80
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	5.6	7.0
	Case heater	kW	- (- V)	- (- V)
External finish			Pre-coated galvanized 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
		CO2 equivalent *6	t	10.86
	Max additional charge	Weight	kg	31.8
		CO2 equivalent *6	t	66.40
	Total charge	Weight	kg	37
CO2 equivalent *6		t	77.26	
Net weight		kg (lbs)	229 (505)	229 (505)
Heat exchanger	Salt-resistant cross fin & copper tube			
Defrosting method	Auto-defrost mode (Reversed refrigerant cycle, Hot gas)			

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 :

- Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Outdoor: 35°C D.B./24°C W.B. (95°F D.B./75°F W.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- 5°C D.B. (23°F D.B.)/-6°C W.B. (21°F W.B.) to 21°C D.B. (70°F D.B.)/15.5°C W.B. (60°F W.B.) with cooling/heating mixed operation.

- Cooling mode/Heating mode
- 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.
- 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-A (-BS)		PURY-P350YNW-A (-BS)			
Number of HBC controller				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	13.34	11.31	17.93	14.59		
	Current input		A	22.5-21.3-20.6	19.0-18.1-17.4	30.2-28.7-27.7	24.6-23.3-22.5		
	EER		kW/kW	2.51	2.96	2.23	2.74		
	Temp. Range *3		Indoor	15.0~24.0°C (59~75°F)		15.0~24.0°C (59~75°F)			
		Outdoor	-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	15.51	14.35		
	Current input		A	21.4-20.3-19.6	20.1-19.1-18.4	26.1-24.8-23.9	24.2-23.0-22.1		
	COP		kW/kW	2.95	3.14	2.90	3.13		
	Temp. range *3		Indoor	15.0~27.0°C (59~81°F)		15.0~27.0°C (59~81°F)			
		Outdoor	-20.0~-15.5°C (-4~60°F)		-20.0~-15.5°C (-4~60°F)				
Indoor unit connectable		Total capacity	50~150% of outdoor unit capacity		50~150% of outdoor unit capacity				
		Model / Quantity	WP10~WP125/2~45		WP10~WP125/2~50				
Sound pressure level (measured in anechoic room) *4				61/67		62.5/64			
Sound power level (measured in anechoic room) *4				80/86.5		81/83			
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		m ³ /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					
		Motor output		kW	7.9		10.2		
		Case heater		kW	- (- V)		- (- V)		
External finish				Pre-coated galvanized 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	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)		231 (510)		273 (602)			
Heat exchanger				Salt-resistant cross fin & copper tube					
Defrosting method				Auto-defrost mode (Reversed refrigerant cycle, Hot gas)					

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 :

- Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CDB./19°CWB. (81°FDB./66°FWB.), Outdoor: 35°CDB./24°CWB. (95°FDB./75°FWB.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CDB. (68°FDB.), Outdoor: 7°CDB./6°CWB. (45°FDB./43°FWB.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- 5°CDB. (23°FDB.)/-6°CWB. (21°FWB.) to 21°CDB. (70°FDB.)/15.5°CWB. (60°FWB.) with cooling/heating mixed operation.

- Cooling mode/Heating mode
- 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.
- 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-A (-BS)	PURY-P450YNW-A (-BS)	PURY-P500YNW-A (-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	22.67	
	Current input	A	28.1-26.7-25.7	30.2-28.7-27.7	38.2-36.3-35.0	
	EER	kW / kW	2.70	2.79	2.47	
	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	45.0	56.0	58.0	
		BTU/h	153,500	191,100	197,900	
	Power input	kW	13.39	17.39	17.53	
	Current input	A	22.6-21.4-20.6	29.3-27.8-26.8	29.5-28.1-27.0	
	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		WP10~WP125/2~50	WP10~125, W10~125/2~50	WP10~125, W10~125/2~50	
Sound pressure level (measured in anechoic room)*4		dB <A>	65/69	65.5/70.0	63.5/64.5	
Sound power level (measured in anechoic room) *4		dB <A>	83/88	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			
	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			
	Motor output	kW	0.46 x 2	0.46 x 2	0.92 x 2	
External static press. *5		0 Pa (0 mmH2O)				
Compressor	Type		Inverter scroll hermetic compressor			
	Starting method		Inverter			
	Motor output	kW	10.9	12.4	13.0	
	Case heater	kW	- (- V)	- (- V)	- (- V)	
External finish			Pre-coated galvanized 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			
	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)	273 (602)	293 (646)	337 (743)	
Heat exchanger			Salt-resistant cross fin & copper tube			
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)			

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 :

- Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Outdoor: 35°C D.B./24°C W.B. (95°F D.B./75°F W.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- 5°C D.B. (23°F D.B.)/-6°C W.B. (21°F W.B.) to 21°C D.B. (70°F D.B.)/15.5°C W.B. (60°F W.B.) with cooling/heating mixed operation.

- Cooling mode/Heating mode
- 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.
- 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-A (-BS)	PURY-EP250YNW-A (-BS)
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz	
Cooling	Capacity (Nominal) *1	kW	22.4	28.0
		BTU / h	76,400	95,500
	Power input	kW	6.27	8.77
	Current input	A	10.5-10.0-9.6	14.8-14.0-13.5
	EER	kW / kW	3.57	3.19
	Temp. Range *3	Indoor	W.B.	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	6.92	9.84
	Current input	A	11.6-11.0-10.6	16.6-15.7-15.2
	COP	kW / kW	3.61	3.20
	Temp. range *3	Indoor	D.B.	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	
	Model / Quantity		WP10~WP125/1~30	
Sound pressure level (measured in anechoic room) *4		dB <A>	59/59	60.5/61
Sound power level (measured in anechoic room) *4		dB <A>	73/78	78.5/80
Refrigerant piping diameter	High pressure	mm (in.)	15.88 (5/8) Brazed	19.05 (3/4) Brazed
	Low pressure	mm (in.)	19.05 (3/4) Brazed	22.2 (7/8) Brazed
Fan	Type x Quantity		Propeller fan x 1	
	Air flow rate	m ³ /min	170	185
		L/s	2,833	3,083
		cfm	6,003	6,532
	Control, Driving mechanism		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)		
Compressor	Type		Inverter scroll hermetic compressor	
	Starting method		Inverter	
	Motor output	kW	5.6	7.0
	Case heater	kW	- (- V)	- (- V)
External finish			Pre-coated galvanized 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	
	Factory charged	Weight	kg	5.2
		CO2 equivalent *6	t	10.86
	Max additional charge	Weight	kg	28.3
		CO2 equivalent *6	t	59.09
	Total charge	Weight	kg	33.5
CO2 equivalent *6		t	69.95	
Net weight		kg (lbs)	234 (516)	234 (516)
Heat exchanger			Salt-resistant cross fin & aluminium tube	
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle, Hot gas)	

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:

- Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Outdoor: 35°C D.B. (95°F D.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- 5°C D.B. (23°F D.B.)/-6°C W.B. (21°F W.B.) to 21°C D.B. (70°F D.B.)/15.5°C W.B. (60°F W.B.) with cooling/heating mixed operation.

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) No 517/2014.

* 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-A (-BS)		PURY-EP350YNW-A (-BS)		
Number of HBC controller			Single HBC	Double HBC	Single HBC	Double HBC	
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz		3-phase 4-wire 380-400-415 V 50/60 Hz		
Cooling	Capacity (Nominal) *1	kW	33.5		40.0		
		BTU / h	114,300		136,500		
	Power input	kW	12.05	10.24	17.16	13.98	
	Current input	A	20.3-19.3-18.6	17.2-16.4-15.8	28.9-27.5-26.5	23.6-22.4-21.6	
	EER	kW / kW	2.78	3.27	2.33	2.86	
	Temp. Range *3	Indoor	D.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	15.38	14.28	
	Current input	A	19.7-18.7-18.1	18.7-17.8-17.1	25.9-24.6-23.7	24.1-22.9-22.0	
	COP	kW / kW	3.20	3.37	2.92	3.15	
	Temp. range *3	Indoor	D.B.	15.0~27.0°C (59~81°F)		15.0~27.0°C (59~81°F)	
Outdoor		W.B.	-20.0~15.5°C (-4~60°F)		-20.0~15.5°C (-4~60°F)		
Indoor unit connectable		Total capacity	50~150% of outdoor unit capacity		50~150% of outdoor unit capacity		
		Model / Quantity	WP10~WP125/2~45		WP10~WP125/2~50		
Sound pressure level (measured in anechoic room)*4		dB <A>	61/67		62.5/64		
Sound power level (measured in anechoic room)*4		dB <A>	80/86.5		81/83		
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	m ³ /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 mmH ₂ O)		0 Pa (0 mmH ₂ O)			
Compressor	Type		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor		
	Starting method		Inverter		Inverter		
	Motor output	kW	7.9		10.2		
	Case heater	kW	- (- V)		- (- V)		
External finish			Pre-coated galvanized 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	
		CO ₂ equivalent *6	t	10.86		16.70	
	Max additional charge	Weight	kg	34.3		39	
		CO ₂ equivalent *6	t	71.62		81.43	
	Total charge	Weight	kg	39.5		47.0	
CO ₂ equivalent *6		t	82.48		98.14		
Net weight		kg (lbs)	236 (521)		279 (616)		
Heat exchanger			Salt-resistant cross fin & aluminium tube				
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle, Hot gas)				

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:

- Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Outdoor: 35°C D.B. (95°F D.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- 5°C D.B. (23°F D.B.)/-6°C W.B. (21°F W.B.) to 21°C D.B. (70°F D.B.)/15.5°C W.B. (60°F W.B.) with cooling/heating mixed operation.

- Cooling mode/Heating mode
- 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.
- 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-A (-BS)	PURY-EP450YNW-A (-BS)	PURY-EP500YNW-A (-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	13.88	16.83	21.22	
	Current input	A	23.4-22.2-21.4	28.4-26.9-26.0	35.8-34.0-32.8	
	EER	kW / kW	3.24	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	21.67	
	Current input	A	23.8-22.6-21.8	28.4-27.0-26.0	36.5-34.7-33.4	
	COP	kW / kW	3.54	3.32	2.90	
	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		WP10~WP125/2~50	WP10~WP125/2~50	WP10~WP125/2~50	
Sound pressure level (measured in anechoic room) *4		dB <A>	65/69	65.5/70	63.5/64.5	
Sound power level (measured in anechoic room) *4		dB <A>	83/88	83/89	82/84	
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	m ³ /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	10.9	12.4	13.0	
	Case heater	kW	- (- V)	- (- V)	- (- V)	
External finish				Pre-coated galvanized 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)	282 (622)	306 (675)	345 (761)	
Heat exchanger				Salt-resistant cross fin & copper tube		
Defrosting method				Auto-defrost mode (reversed refrigerant cycle, hot gas)		

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:

- Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Outdoor: 35°C D.B. (95°F D.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- 5°C D.B. (23°F D.B.)/-6°C W.B. (21°F W.B.) to 21°C D.B. (70°F D.B.)/15.5°C W.B. (60°F W.B.) with cooling/heating mixed operation.

- Cooling mode/Heating mode
- 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.
- 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	
Cooling	Capacity (Nominal) *1		kW	22.4
			BTU / h	76,400
	Power input		kW	3.97
	Current input		A	6.7-6.3-6.1
	EER		kW / kW	5.64
	Temp. Range *3		Indoor W.B.	15.0~24.0°C (59~75°F)
		Outdoor D.B.	10.0~45.0°C (50~113°F)	
Heating	Capacity (Nominal) *2		kW	25.0
			BTU / h	85,300
	Power input		kW	4.04
	Current input		A	6.8-6.4-6.2
	COP		kW / kW	6.18
	Temp. range *3		Indoor D.B.	15.0~27.0°C (59~81°F)
		Outdoor W.B.	10.0~45.0°C (50~113°F)	
Indoor unit connectable		Total capacity	50~150% of heat source unit capacity	
		Model / Quantity	WP10~WP125/1~30	
Sound pressure level (measured in anechoic room)		dB <A>	46	
Refrigerant piping diameter		High pressure	15.88 (5/8) Brazed	
		Low pressure	19.05 (3/4) Brazed	
Circulating Water	Water flow rate		m3/min	5.76
			L/min	96
			cfm	3.4
	Pressure Drop		kPa	24
	Operating Volume Range		m3/h	3.0 ~ 7.2
Compressor	Type		Inverter scroll hermetic compressor	
	Starting method		Inverter	
	Motor output		kW	4.8
	Case heater		kW	-
External finish			Galvanized steel sheets	
External dimension HxWxD		mm	1,100 x 880 x 550	
		in.	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)	
	Inverter circuit (COMP)		Over-heat protection, Over-current protection	
	Compressor		Over-heat protection	
Refrigerant	Type x Original Charge		R410A/2088	
	Factory charged		kg	5.0
	Maximum additional charge		kg	27.0
	Total charge		kg	32.0
Net weight		kg (lbs)	170 (375)	
Heat exchanger	Type		plate type	
	Water volume in plate		L	5.0
	Water pressure max		MPa	2.0

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 (subject to JIS B8615-2). Indoor: 27°CDB./19°CWB. (81°FDB./66°FWB.), 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°CDB. (68°FDB.), Water temperature: 20°C (68°FDB.). Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
3. -5°CDB. (23°FDB.)/-6°CWB. (21°FWB.) to 21°CDB. (70°FDB.)/15.5°CWB. (60°FWB.) 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		33.5		40.0	
			114,300		136,500	
	kW		33.5		40.0	
	BTU / h		114,300		136,500	
	Power input		7.55	6.71	9.98	8.72
	Current input		12.7-12.1-11.6	11.3-10.7-10.3	16.8-16.0-15.4	14.7-13.9-13.4
EER		4.43	4.99	4.00	4.58	
Temp. Range *3		Indoor	15.0~24.0°C (59~75°F)		15.0~24.0°C (59~75°F)	
		Outdoor	10.0~45.0°C (50~113°F)		10.0~45.0°C (50~113°F)	
Heating	Capacity (Nominal) *2		37.5		45.0	
			128,000		153,500	
	kW		37.5		45.0	
	BTU / h		128,000		153,500	
	Power input		7.13	6.79	8.87	8.25
	Current input		12.0-11.4-11.0	11.4-10.8-10.4	14.9-14.2-13.7	13.9-13.2-12.7
COP		5.25	5.52	5.07	5.45	
Temp. range *3		Indoor	15.0~27.0°C (59~81°F)		15.0~27.0°C (59~81°F)	
		Outdoor	10.0~45.0°C (50~113°F)		10.0~45.0°C (50~113°F)	
Indoor unit connectable		Total capacity	50~150% of heat source unit capacity		50~150% of heat source unit capacity	
		Model / Quantity	WP10~WP125/2~45		WP10~WP125/2~50	
Sound pressure level (measured in anechoic room)		dB <A>	54		52	
Refrigerant piping diameter		High pressure	19.05 (3/4) Brazed		22.2 (7/8) Brazed	
		Low pressure	22.2 (7/8) Brazed		28.58 (1-1/8) Brazed	
Circulating Water	Water flow rate		5.76		7.20	
			96		120	
			3.4		4.2	
	Pressure Drop		24		44	
	Operating Volume Range		3.0 ~ 7.2		4.5 ~ 11.6	
Compressor	Type		Inverter scroll hermetic compressor		Inverter scroll hermetic compressor	
	Starting method		Inverter		Inverter	
	Motor output		7.7		9.5	
	Case heater		-		-	
External finish		Galvanized steel sheets		Galvanized steel sheets		
External dimension HxWxD		mm	1,100 x 880 x 550		1,450 x 880 x 550	
		in.	43-5/16 x 34-11/16 x 21-11/16		57-1/8 x 34-11/16 x 21-11/16-11/16	
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		5.0		6.0	
	Maximum additional charge		33.0		52.0	
	Total charge		38.0		58.0	
Net weight		170 (375)		214 (472)		
Heat exchanger	Type		plate type		plate type	
	Water volume in plate		5.0		5.0	
	Water pressure max		2.0		2.0	

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 :

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

* 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	WP10~WP125/2~50	WP10~WP125/1~37	WP10~WP125/2~50
Sound pressure level (measured in anechoic room)		dB <A>	52	54	54
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			Galvanized steel sheets	Galvanized steel sheets	Galvanized 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 52.0	53.0	55.0	
	Total charge	kg 58.0	59.0	61.0	
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 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 :

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

* 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)			41		41	
Applicable Temperature Range of Installation Site			0~32		0~32	
External Finish			Galvanized steel plate (Lower part drain pan: pre-coated galvanized sheets + powder coating)		Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)	
Connectable Outdoor/Heat Source Unit			PURY-P200~500YNW-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)		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	High Press. Pipe (O.D.)	15.88 (5/8) Brazed		15.88 (5/8) Brazed	
		Low Press. Pipe (O.D.)	19.05 (3/4) Brazed		19.05 (3/4) Brazed	
Water Piping Diameter	To Indoor Unit	Inlet Pipe (I.D.)	20 (3/4)		20 (3/4)	
		Outlet Pipe (I.D.)	20 (3/4)		20 (3/4)	
Field Drain Pipe Size			O.D. 32 (1-1/4)		O.D. 32 (1-1/4)	
Net Weight			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)	

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 data book and the installation manual).
- * 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)			-		-	
Applicable Temperature Range of Installation Site			0~32		0~32	
External Finish			Galvanized steel plate (Lower part drain pan: pre-coated galvanized sheets + powder coating)		Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)	
Connectable Outdoor Unit			-		-	
Indoor Unit Capacity Connectable to 1 Branch			Model P80 or smaller (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			300 x 1,520 x 630 mm 11-13/16 x 59-7/8 x 24-13/16 in.		300 x 1,520 x 630 mm 11-13/16 x 70-7/8 x 24-13/16 in.	
Water Piping Diameter	To Main HBC	Inlet Pipe (I.D.)	mm (in.)	20 (3/4)	mm (in.)	20 (3/4)
		Outlet Pipe (I.D.)	mm (in.)	20 (3/4)	mm (in.)	20 (3/4)
	To Indoor Unit	Inlet Pipe (I.D.)	mm (in.)	20 (3/4)	mm (in.)	20 (3/4)
		Outlet Pipe (I.D.)	mm (in.)	20 (3/4)	mm (in.)	20 (3/4)
Field Drain Pipe Size			O.D. 32 (1-1/4)		O.D. 32 (1-1/4)	
Net Weight			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)	

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 data book 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
		kcal/h	1,000	1,500
		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
		kcal/h	1,200	1,600
		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
			in.	7-7/8 x 31-1/8 x 27-9/16
Net Weight			kg (lbs)	19 (42)
Heat Exchanger		Type	Cross fin (Aluminium fin and copper tube)	
		Water Volume	L	0.4
Fan	Type × Quantity		Sirocco fan x 2	
	External Static Pressure *4		Pa	<5> - 15 - <35> - <50>
			mmH ₂ O	<0.5> - 1.5 - <3.6> - <5.1>
	Motor Type		DC Motor	
	Motor Output		kW	0.096
	Driving Mechanism		Direct-driven by motor	
	Airflow Rate		(Low Mid High)	4.0 - 4.5 - 5.0
L/s			67 - 75 - 83	
		cf/m	141 - 159 - 177	
Sound pressure level (measured in anechoic room)*2		(Low Mid High)	20-23-25	
Insulation Material			EPS, Polythene foam, Urethane foam	
Air Filter			PP Honeycomb fabric	
Protection Device			Fuse	
Connectable Outdoor Unit/HBC Controller			Hybrid City Multi CMB-WP-V-GA1, CMB-WP-V-GB1, CMB-WM-V-AA, CMB-WM-V-AB	
Water Piping Diameter *5 *6		Inlet	Rc 3/4 screw	
		Outlet	Rc 3/4 screw	
Field Drain Pipe Size			mm (in.)	
Standard Attachment Accessory			Insulation pipe for water pipe, Washer, Drain hose, Tie Band	
Optional part Control Box Replace Kit			PAC-KE70HS-E	

Unit Converter: kcal/h=kW×860, 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:

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

Slim Ceiling Concealed



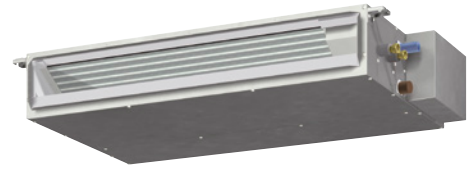
Model			PEFY-WP20VMS1-E	PEFY-WP25VMS1-E	
Power source			1-phase 220-230-240 V 50/60 Hz	1-phase 220-230-240 V 50/60 Hz	
Cooling	Capacity (Nominal) *1	kW	2.2	2.8	
		kcal/h	1,900	2,400	
		BTU/h	7,500	9,600	
	Power input *2	kW	0.051	0.06	
Current input*2		A	0.49	0.51	
Heating	Capacity (Nominal) *3	kW	2.5	3.2	
		kcal/h	2,200	2,800	
		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			200x790x700	200x790x700	
			mm	mm	
			in.	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			20 (45)	20 (45)	
			kg (lbs)	kg (lbs)	
Heat Exchanger		Type	Cross fin (Aluminium fin and copper tube)	Cross fin (Aluminium fin and copper tube)	
		Water Volume	L	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 ₂ O	<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)	m ³ /min	m ³ /min
			L/s	L/s	
			cf/m	cf/m	
			5.5 - 6.5 - 8.0	5.5 - 7.0 - 9.0	
			92 - 108 - 133	92 - 117 - 150	
			194 - 230 - 282	194 - 247 - 318	
Sound pressure level (measured in anechoic room)*2			(Low Mid High)	(Low Mid High)	
			23-25-29	23-26-30	
Insulation Material			EPS, Polythene foam, Urethane foam	EPS, Polythene foam, Urethane foam	
Air Filter			PP Honeycomb fabric	PP Honeycomb fabric	
Protection Device			Fuse	Fuse	
Connectable Outdoor Unit/HBC Controller			Hybrid City Multi CMB-WP-V-GA1, CMB-WP-V-GB1, CMB-WM-V-AA, CMB-WM-V-AB		
Water Piping Diameter *5 *6			Inlet	Inlet	
			in.	in.	
			Rc 3/4 screw	Rc 3/4 screw	
			Outlet	Outlet	
			in.	in.	
			Rc 3/4 screw	Rc 3/4 screw	
Field Drain Pipe Size			mm (in.)	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-KE7OHS-E	PAC-KE7OHS-E	

Unit Converter: kcal/h=kW×860, 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:

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

Slim Ceiling Concealed



Model			PEFY-WP32VMS1-E	PEFY-WP40VMS1-E	PEFY-WP50VMS1-E
Power source			1-phase 220-230-240 V 50/60 Hz		
Cooling	Capacity (Nominal) *1	kW	3.6	4.5	5.6
		kcal/h	3,100	3,900	4,800
	Power input *2	BTU/h	12,300	15,400	19,100
		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
		kcal/h	3,400	4,300	5,400
	Power input *2	BTU/h	13,600	17,100	21,500
		kW	0.051	0.070	0.070
Current input *2	A	0.50	0.62	0.66	
External finish			Galvanised steel plate		
External dimension HxWxD			200x990x700		
			mm		
			in.		
Net Weight			7-7/8 x 39 x 27-9/16		
			kg (lbs)		
			25 (56)		
Heat Exchanger			Cross fin (Aluminium fin and copper tube)		
Type			Cross fin (Aluminium fin and copper tube)		
Water Volume			Cross fin (Aluminium fin and copper tube)		
			L		
			1.0		
			1.0		
			1.7		
Fan	Type × Quantity		Sirocco fan x 3		
	External Static Pressure *4		Sirocco fan x 3		
			Sirocco fan x 4		
			<5> - 15 - <35> - <50>		
			<0.5> - 1.5 - <3.6> - <5.1>		
			<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			
Motor Output		DC Motor			
Driving Mechanism		DC Motor			
		kW			
		0.096			
		0.096			
		0.096			
Airflow Rate		Direct-driven by motor			
(Low Mid High)		Direct-driven by motor			
		Direct-driven by motor			
		m ³ /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			
		c/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, Polythene foam, Urethane foam		
Air Filter			PP Honeycomb fabric		
Protection Device			Fuse		
Connectable Outdoor Unit/HBC Controller			Hybrid City Multi CMB-WP-V-GA1, CMB-WP-V-GB1, CMB-WM-V-AA, CMB-WM-V-AB		
Water Piping Diameter *5 *6	Inlet	in.	Rc 3/4 screw		
	Outlet	in.	Rc 3/4 screw		
Field Drain Pipe Size			Rc 3/4 screw		
			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		
Optional part Control Box Replace Kit			Insulation pipe for water pipe, Washer, Drain hose, Tie Band		
			PAC-KE70HS-E		
			PAC-KE70HS-E		
			PAC-KE70HS-E		

Unit Converter: kcal/h=kW×860, 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:

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

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
		kcal/h	1,900	2,400
		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
		kcal/h	2,200	2,800
		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
			in.	9-7/8 x 27-9/16 x 28-7/8
Net Weight			kg (lbs)	21 (47)
Heat Exchanger			Type	Cross fin (Aluminium fin and copper tube)
			Water Volume	L
Fan	Type × Quantity		Sirocco fan x 1	Sirocco fan x 1
	External Static Pressure *4		Pa	<35> - 50 - <70> - <100> - <150>
			mmH ₂ O	<3.6> - 5.1 - <7.1> - <10.2> - <15.3>
	Motor Type		DC Motor	
	Motor Output		kW	0.085
	Driving Mechanism		Direct-driven by motor	
	Airflow Rate		(Low Mid High)	m ³ /min
			L/s	125 - 150 - 175
			cfm	265 - 318 - 371
Sound pressure level (measured in anechoic room)*2			(Low Mid High)	dB<A>
Insulation Material			EPS, Polythene foam, Urethane foam	EPS, Polythene foam, Urethane foam
Air Filter			PP Honeycomb fabric	PP Honeycomb fabric
Protection Device			Fuse	Fuse
Connectable Outdoor Unit/HBC Controller			Hybrid City Multi CMB-WP-V-GA1, CMB-WP-V-GB1, CMB-WM-V-AA, CMB-WM-V-AB	
Water Piping Diameter *5 *6			Inlet	in.
			Outlet	in.
Field Drain Pipe Size			mm (in.)	O.D.32 (1-1/4)
Standard Attachment Accessory			Insulation pipe for water pipe, Washer, Drain hose, Tie Band	
Optional part Control Box Replace Kit			PAC-KE91TB-E	

Unit Converter: kcal/h=kW×860, 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°C.D.B./19°C.W.B. (81°F.D.B./66°F.W.B.), Outdoor: 35°C.D.B./19°C.W.B. (95°F.D.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°C.D.B.(68°F.D.B.), Outdoor: 7°C.D.B./6°C.W.B. (45°F.D.B./43°F.W.B) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
4. The factory setting for external pressure is shown without < >. Refer to "Fan characteristics curves", according to the external pressure, in DATA BOOK for the usable range of air flow rate.
5. Be sure to install a valve on the water outlet.
6. Install a strainer (40 mesh or more) on the pipe next to the valve to remove the foreign matters.
7. Please group units that operate on 1 branch.

Ceiling Concealed



Model			PEFY-WP32VMA-E	PEFY-WP40VMA-E	PEFY-WP50VMA-E
Power source			1-phase 220-230-240 V 50/60 Hz		
Cooling	Capacity (Nominal) *1	kW	3.6	4.5	5.6
		kcal/h	3,100	3,900	4,800
	BTU/h	12,300	15,400	19,100	
	Power input *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
		kcal/h	3,400	4,300	5,400
	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		
External dimension HxWxD			250x900x732		
			mm		
			in.		
Net Weight			26 (58)		
			kg (lbs)		
Heat Exchanger			Cross fin (Aluminium fin and copper tube)		
Type			Cross fin (Aluminium fin and copper tube)		
Water Volume			1.0		
			L		
Fan			Sirocco fan x 1		
Type x Quantity			Sirocco fan x 2		
External Static Pressure *4			<35> - 50 - <70> - <100> - <150>		
			Pa		
			mmH ₂ O		
			<3.6> - 5.1 - <7.1> - <10.2> - <15.3>		
Motor Type			DC Motor		
Motor Output			0.085		
Driving Mechanism			Direct-driven by motor		
Airflow Rate			12.0 - 14.5 - 17.0		
(Low Mid High)			14.5 - 18.0 - 21.0		
			14.5 - 18.0 - 21.0		
			242 - 300 - 350		
			242 - 300 - 350		
			512 - 636 - 742		
			512 - 636 - 742		
Sound pressure level (measured in anechoic room)*2			25-29-32		
(Low Mid High)			dB<A>		
			26-29-34		
			26-29-34		
Insulation Material			EPS, Polythene foam, Urethane foam		
Air Filter			PP Honeycomb fabric		
Protection Device			Fuse		
Connectable Outdoor Unit/HBC Controller			Hybrid City Multi CMB-WP-V-GA1, CMB-WP-V-GB1, CMB-WM-V-AA, CMB-WM-V-AB		
Water Piping Diameter *5 *6			Rc 3/4 screw		
Inlet			Rc 3/4 screw		
Outlet			Rc 3/4 screw		
Field Drain Pipe Size			O.D.32 (1-1/4)		
Standard Attachment Accessory			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: kcal/h=kW×860, 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:

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

Ceiling Concealed



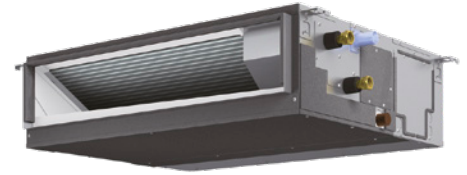
Model			PEFY-WP63VMA-E	PEFY-WP71VMA-E	PEFY-WP80VMA-E
Power source			1-phase 220-230-240 V 50/60 Hz		
Cooling	Capacity (Nominal) *1	kW	7.1	8.0	9.0
		kcal/h	6,100	6,900	7,700
		BTU/h	24,200	27,300	30,700
	Power input *2	kW	0.14	0.24	0.24
Current input*2	A	1.15	1.47	1.47	
Heating	Capacity (Nominal) *3	kW	8.0	9.0	10.0
		kcal/h	6,900	7,700	8,600
		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		
External dimension HxWxD			250x1,100x732		
			mm		
			in.		
Net Weight			31 (69)		
			kg (lbs)		
Heat Exchanger		Type	Cross fin (Aluminium fin and copper tube)		
		Water Volume	L		
			2.0		
			2.6		
			2.6		
Fan	Type × Quantity		Sirocco fan x 2		
	External Static Pressure *4		Pa		
			<35> - 50 - <70> - <100> - <150>		
			mmH ₂ O		
			<3.6> - 5.1 - <7.1> - <10.2> - <15.3>		
			<3.6> - 5.1 - <7.1> - <10.2> - <15.3>		
			<3.6> - 5.1 - <7.1> - <10.2> - <15.3>		
Motor Type		DC Motor			
Motor Output		kW			
		0.121			
		0.244			
		0.244			
Driving Mechanism		Direct-driven by motor			
Airflow Rate		m ³ /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, Polythene foam, Urethane foam		
Air Filter			PP Honeycomb fabric		
Protection Device			Fuse		
Connectable Outdoor Unit/HBC Controller			Hybrid City Multi CMB-WP-V-GA1, CMB-WP-V-GB1, CMB-WM-V-AA, CMB-WM-V-AB		
Water Piping Diameter *5 *6		Inlet	in.		
		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)			
Standard Attachment Accessory		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: kcal/h=kW×860, 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°C.D.B./19°C.W.B. (81°F.D.B./66°F.W.B.), Outdoor: 35°C.D.B./19°C.W.B. (95°F.D.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°C.D.B.(68°F.D.B.), Outdoor: 7°C.D.B./6°C.W.B. (45°F.D.B./43°F.W.B) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
4. The factory setting for external pressure is shown without < >. Refer to "Fan characteristics curves", according to the external pressure, in DATA BOOK for the usable range of air flow rate.
5. Be sure to install a valve on the water outlet.
6. Install a strainer (40 mesh or more) on the pipe next to the valve to remove the foreign matters.
7. Please group units that operate on 1 branch.

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	
		kcal/h	9,600	12,000	
		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	
		kcal/h	10,800	13,800	
		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			250x1,400x732	250x1,600x732	
			mm		
			in.		
Net Weight			40 (89)	42 (93)	
			kg (lbs)		
Heat Exchanger		Type	Cross fin (Aluminium fin and copper tube)	Cross fin (Aluminium fin and copper tube)	
		Water Volume	2.6	3.0	
		L			
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 ₂ O	<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)		
		m ³ /min	23.0 - 28.0 - 33.0	29.5 - 35.5 - 42.0	
		L/s	383 - 467 - 550	492 - 592 - 700	
		c/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, Polythene foam, Urethane foam	EPS, Polythene foam, Urethane foam	
Air Filter			PP Honeycomb fabric	PP Honeycomb fabric	
Protection Device			Fuse	Fuse	
Connectable Outdoor Unit/HBC Controller			Hybrid City Multi CMB-WP-V-GA1, CMB-WP-V-GB1, CMB-WM-V-AA, CMB-WM-V-AB		
Water Piping Diameter *5 *6		Inlet	in.	Rc 1-1/4 screw	
		Outlet	in.	Rc 1-1/4 screw	
Field Drain Pipe Size			mm (in.)	O.D.32 (1-1/4)	
Standard Attachment Accessory			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: kcal/h=kW×860, 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:

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

Ceiling Cassette



Model			PLFY-WL32VEM-E	PLFY-WL40VEM-E	PLFY-WL50VEM-E
Power source			1-phase 220-230-240 V 50/60 Hz		
Cooling	Capacity (Nominal) *1	kW	3.6	4.5	5.6
		kcal/h	3,100	3,900	4,800
	BTU/h	12,300	15,400	19,100	
	Power input	kW	0.03	0.03	0.04
Current input		A	0.33	0.35	0.40
Heating	Capacity (Nominal) *2	kW	4.0	5.0	6.3
		kcal/h	3,400	4,300	5,400
	BTU/h	13,600	17,100	21,500	
	Power input	kW	0.03	0.03	0.04
Current input		A	0.27	0.29	0.34
External finish			Galvanised steel sheet		
External dimension HxWxD		mm	258 x 840 x 840		258 x 840 x 840
		in.	10-3/16 x 33-3/32 x 33-3/32		10-3/16 x 33-3/32 x 33-3/32
Net Weight			kg (lbs)		
			20 (44)		
Decoration Panel	Model		PLP-6EA		
	External finish		MUNSELL (1.0Y 9.2/0.2)		
	Dimensions	mm	40 x 950 x 950		
		in.	1-9/16 x 37-13/32 x 37-13/32		
Net Weight		kg (lbs)			
		5 (11)			
Heat Exchanger	Type		Cross fin (Aluminium fin and copper tube)		
	Water Volume		L		
		1.8			
Fan	Type × Quantity		Turbo Fan x 1		
	External Static Pressure		Pa		
			0		
	Motor Type		DC Motor		
	Motor Output		kW		
			0.05		
Driving Mechanism			Direct-drive		
Airflow Rate (Low-Mid1-Mid2-High)	m3/min		14 - 15 - 16 - 17		
	L/s		233 - 250 - 267 - 283		
	cf/m		459 - 530 - 565 - 600		
Sound pressure level (Low-Mid1-Mid2-High)		dB<A>		26 - 27 - 29 - 30	
				26 - 28 - 29 - 31	
				27 - 29 - 31 - 33	
Insulation Material			PS		
Air Filter			PP Honeycomb		
Protection Device			Fuse		
Refrigerant Control Device			-		
Connectable Outdoor Unit/HBC Controller			Hybrid City Multi CMB-WP-V-GA1, CMB-WP-V-GB1, 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.)		
			O.D.32 (1-1/4)		
Optional parts	Decoration Panel *5		PLP-6EA/PLP-6EAE/PLP-6EAL/PLP-6EAL-E		
	i-See Sensor Control Panel		PAC-SE1ME-E		
	Wireless Signal Receiver		PAR-SE9FA-E		
	Valve kit *6		PAC-SK04VK-E		

Unit Converter: kcal/h=kW×860, 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:

- Nominal cooling conditions Indoor: 27°CDB./19°CWB. (81°FDB./66°FWB.), Outdoor: 35°CDB. (95°FDB.) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
 - Nominal heating conditions Indoor: 20°CDB. (68°FDB.), Outdoor: 7°CDB./6°CWB. (45°FDB./43°FWB.) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
 - Be sure to install a valve on the water outlet.
 - Install a strainer (40 mesh or more) on the pipe next to the valve to remove the foreign matters.
 - PLFY-WL-VEM-E should be used together with Decoration panel.
 - 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.
- * Please group units that operate on 1 branch.

Compact Ceiling Cassette



Model			PLFY-WL10VFM-E	PLFY-WL15VFM-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
		kcal/h	1,000	1,500
		BTU/h	4,100	5,800
		Power input	kW	0.02
Current input		A	0.18	0.19
Heating	Capacity (Nominal) *2	kW	1.4	1.9
		kcal/h	1,200	1,600
		BTU/h	4,800	6,500
		Power input	kW	0.02
Current input		A	0.13	0.14
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
Fan	Type × Quantity		Turbo Fan x 1	Turbo Fan x 1
	External Static Pressure		Pa	0
	Motor Type		DC Motor	DC Motor
	Motor Output		kW	0.05
	Driving Mechanism		Direct-drive	Direct-drive
	Airflow Rate (Low-Mid-High)		m ³ /min	6.0 - 6.5 - 7.0
		L/s	100 - 108 - 117	100 - 117 - 133
		cfm	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-WP-V-GA1, CMB-WP-V-GB1, CMB-WM-V-AA, CMB-WM-V-AB	
Water Piping Diameter *3 *4		Inlet	in.	Rc 3/4 screw
		Outlet	in.	Rc 3/4 screw
Field Drain Pipe Size		mm (in.)	O.D.32 (1-1/4)	O.D.32 (1-1/4)
Optional parts	Decoration Panel *5		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

Unit Converter: kcal/h=kw×860, 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:

- Nominal cooling conditions Indoor: 27°CDB./19°CWB. (81°FDB./66°FWB.), Outdoor: 35°CDB. (95°FDB.) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- Nominal heating conditions Indoor: 20°CDB. (68°FDB.), Outdoor: 7°CDB./6°CWB. (45°FDB./43°FWB.) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- Be sure to install a valve on the water outlet.
- Install a strainer (40 mesh or more) on the pipe next to the valve to remove the foreign matters.
- PLFY-WP-VFM-E should be used together with Decoration panel.
- Please group units that operate on 1 branch.

Compact Ceiling Cassette



Model			PLFY-WL20VFM-E	PLFY-WL25VFM-E	PLFY-WL32VFM-E	
Power source			1-phase 220-230-240 V 50/60 Hz			
Cooling	Capacity (Nominal) *1	kW	2.2	2.8	3.6	
		kcal/h	1,900	2,400	3,100	
	BTU/h	7,500	9,600	12,300		
	Power input	kW	0.02	0.03	0.04	
	Current input	A	0.22	0.24	0.38	
Heating	Capacity (Nominal) *2	kW	2.5	3.2	4.0	
		kcal/h	2,200	2,800	3,400	
	BTU/h	8,500	10,900	13,600		
	Power input	kW	0.02	0.02	0.04	
	Current input	A	0.17	0.19	0.32	
External finish			Galvanised steel sheet			
External dimension HxWxD		mm	208 x 570 x 570			
		in.	8-1/4x22-1/2x22-1/2			
Net Weight		kg (lbs)	14 (31)			
Decoration Panel	Model		SLP-2FA(L)(E)			
	External finish		MUNSELL (1.0Y 9.2/0.2)			
	Dimensions	mm	10 x 625 x 625			
		in.	3/8 x 24-5/8 x 24-5/8			
	Net Weight		kg (lbs)	3 (7)		
Heat Exchanger		Type	Cross fin (Aluminium fin and copper tube)			
		Water Volume	L	0.9		
Fan	Type × Quantity		Turbo Fan x 1			
	External Static Pressure		Pa	0		
	Motor Type		DC Motor			
	Motor Output		kW	0.05		
	Driving Mechanism		Direct-drive			
	Airflow Rate (Low-Mid-High)		m ³ /min	6.5 - 7.0 - 8.0		
			L/s	108 - 117 - 133		
		cf/m	230 - 247 - 282			
Sound pressure level (Low-Mid-High)		dB<A>	27 - 29 - 31			
Insulation Material			PS			
Air Filter			PP Honeycomb			
Protection Device			Fuse			
Connectable Outdoor Unit/HBC Controller			Hybrid City Multi CMB-WP-V-GA1, CMB-WP-V-GB1, CMB-WM-V-AA, CMB-WM-V-AB			
Water Piping Diameter *3 *4		Inlet	Rc 3/4 screw			
		Outlet	Rc 3/4 screw			
Field Drain Pipe Size		mm (in.)	O.D.32 (1-1/4)			
Optional parts	Decoration Panel *5		SLP-2FA/SLP-2FAE/SLP-2FAL/SLP-2FALE			
	i-See Sensor corner panel		PAC-SF1ME-E			
	Wireless Signal Receiver		PAR-SF9FA-E			

Unit Converter: kcal/h= kW×860, 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°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Outdoor: 35°C D.B. (95°F D.B.) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Nominal heating conditions Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
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-WP-VFM-E should be used together with Decoration panel.
7. Please group units that operate on 1 branch.

Wall Mounted



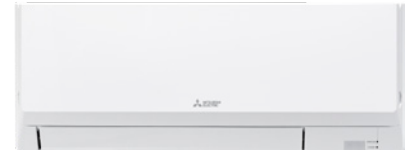
Model			PKFY-WL10VLM-E	PKFY-WL15VLM-E	PKFY-WL20VLM-E
Power source			1-phase 220-230-240 V 50/60 Hz		
Cooling	Capacity (Nominal) *1	kW	1.2	1.7	2.2
		kcal/h	1,000	1,500	1,900
		BTU/h	4,100	5,800	7,500
	Power input	kW	0.02	0.02	0.03
	Current input	A	0.20	0.20	0.25
Heating	Capacity (Nominal) *2	kW	1.4	1.9	2.5
		kcal/h	1,200	1,600	2,200
		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)		
External dimension HxWxD			299 x 773 x 237		
			mm		
			in.		
Net Weight			11 (25)		
			kg (lbs)		
Heat Exchanger		Type	Cross fin (Aluminium fin and copper tube)		
		Water Volume	L		
			0.6		
			0.6		
			0.7		
		Type × Quantity	Line Flow Fan x 1		
		External Static Pressure	Pa		
			0		
		Motor Type	DC Motor		
		Motor Output	kW		
			0.03		
		Driving Mechanism	Direct-Drive		
			Direct-Drive		
			Direct-Drive		
		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		
			c/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			Polythene Sheet		
Air Filter			PP Honeycomb		
Protection Device			Fuse		
Connectable Outdoor Unit/HBC Controller			Hybrid City Multi CMB-WP-V-GA1, CMB-WP-V-GB1, CMB-WM-V-AA, CMB-WM-V-AB		
Water Piping Diameter *3 *4		Inlet	in.		
			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.16 (5/8)		
			O.D.16 (5/8)		
			O.D.16 (5/8)		
Optional Parts		Drain Pump Kit	PAC-SK01DM-E		
		Valve Kit *5	PAC-SK04VK-E		
			PAC-SK01DM-E		
			PAC-SK04VK-E		

Unit Converter: kcal/h=kW×860, 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:

- Nominal cooling conditions Indoor: 27°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Outdoor: 35°C D.B. (95°F D.B.) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
 - Nominal heating conditions Indoor: 20°C D.B. (68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B.) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
 - Be sure to install a valve on the water outlet.
 - Install a strainer (40 mesh or more) on the pipe next to the valve to remove the foreign matters.
 - 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.
- * Please group units that operate on 1 branch.

Wall Mounted



Model			PKFY-WL25VLM-E	PKFY-WL32VLM-E	PKFY-WL40VLM-E	
Power source			1-phase 220-230-240 V 50/60 Hz			
Cooling	Capacity (Nominal) *1	kW	2.8	3.6	4.5	
		kcal/h	2,400	3,100	3,900	
		BTU/h	9,600	12,300	15,400	
		Power input	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	
		kcal/h	2,800	3,400	4,300	
		BTU/h	10,900	13,600	17,100	
		Power input	0.03	0.03	0.04	
	Current input	A	0.30	0.30	0.40	
External finish			Plastic (0.7PB 9.2/0.4)			
External dimension HxWxD			mm		299 x 773 x 237	
			in.		11-25/32 x 30-7/16 x 9-11/32	
Net Weight			kg (lbs)		11 (25)	
Heat Exchanger			Type			Cross fin (Aluminium fin and copper tube)
			Water Volume		L	0.7
Fan	Type x Quantity		Line Flow Fan x 1			
	External Static Pressure		Pa			0
	Motor Type		DC Motor			
	Motor Output		kW			0.03
	Driving Mechanism		Direct-Drive			
	Airflow Rate (Low-Mid-High)		m ³ /min			4.0 - 5.4 - 7.0 - 8.4
			L/s			67 - 90 - 117 - 140
			cf/m			141 - 191 - 247 - 297
Sound pressure level (Low-Mid-High)			dB<A>		22 - 30 - 36 - 41	
Insulation Material			Polythene Sheet			
Air Filter			PP Honeycomb			
Protection Device			Fuse			
Connectable Outdoor Unit/HBC Controller			Hybrid City Multi CMB-WP-V-GA1, CMB-WP-V-GB1, CMB-WM-V-AA, CMB-WM-V-AB			
Water Piping Diameter *3 *4			Inlet		in.	Rc 3/4 screw
			Outlet		in.	Rc 3/4 screw
Field Drain Pipe Size			mm (in.)		O.D.16 (5/8)	
Optional Parts	Drain Pump Kit		PAC-SK01DM-E			
	Valve Kit *5		PAC-SK04VK-E			

Unit Converter: kcal/h=kW×860, 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°CDB./19°CWB. (81°FDB./66°FWB.), Outdoor: 35°CDB. (95°FDB.) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
 2. Nominal heating conditions Indoor: 20°CDB. (68°FDB.), Outdoor: 7°CDB./6°CWB. (45°FDB./43°FWB.) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
 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 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..
- * Please group units that operate on 1 branch.

Floor Standing Concealed



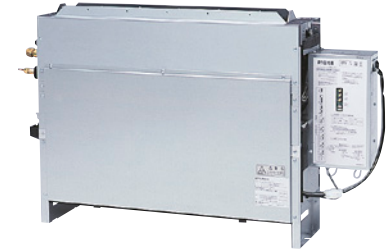
Model			PFFY-WP20VLRMM-E	PFFY-WP25VLRMM-E	PFFY-WP32VLRMM-E
Power source			1-phase 220-230-240 V 50/60 Hz		
Cooling	Capacity (Nominal) *1	kW	2.2	2.8	3.6
		kcal/h	1,900	2,400	3,100
		BTU/h	7,500	9,600	12,300
	Power input *2	kW	0.040	0.040	0.050
Current input *2	A	0.35	0.35	0.47	
Heating	Capacity (Nominal) *3	kW	2.5	3.2	4.0
		kcal/h	2,200	2,800	3,400
		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		
External dimension HxWxD		mm	639 x 886 x 220		
		in.	25-3/16 x 34-15/16 x 8-11/16		
Net Weight		kg (lbs)	22 (49)		
Heat Exchanger	Type		Cross fin (Aluminium fin and copper tube)		
	Water Volume	L	0.9		
Fan	Type × Quantity		Sirocco Fan x 1		
	External Static Pressure *4	Pa	20 - <40> - <60>		
		mmH ₂ O	2.0 - <4.1> - <6.1>		
	Motor Type		DC Motor		
	Motor Output	kW	0.096		
	Driving Mechanism		Direct-driven by motor		
	Airflow Rate (Low-Mid-High)	m ³ /min	4.5 - 5.0 - 6.0		
L/s		75 - 83 - 100			
	cfm	159 - 177 - 212			
Sound pressure level (measured in anechoic room)*2		(Low-Mid-High) dB<A>	31 - 33 - 38		
Insulation Material			Polyethelene foam, Urethane foam		
Air Filter			PP Honeycomb fabric		
Protection Device			Fuse		
Connectable Outdoor Unit/HBC Controller			Hybrid City Multi CMB-WP-V-GA1, CMB-WP-V-GB1, CMB-WM-V-AA, CMB-WM-V-AB		
Water Piping Diameter *3 *4	Inlet	in.	Rc 3/4 screw		
	Outlet	in.	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))>		
Standard Attachment Accessory			Insulation pipe for water pipe, Drain hose (flexible joint), Screw plate, Level adjusting screw, Hose band		

Unit Converter: kcal/h=kW×860, 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:

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

Floor Standing Concealed



Model			PFFY-WP40VLRMM-E	PFFY-WP50VLRMM-E
Power source			1-phase 220-230-240 V 50/60 Hz	
Cooling	Capacity (Nominal) *1	kW	4.5	5.6
		kcal/h	3,900	4,800
		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
		kcal/h	4,300	5,400
		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	
External dimension HxWxD			639 x 1,246 x 220	
			mm	
			in.	
			25-3/16 x 49-1/16 x 8-11/16	
			25-3/16 x 49-1/16 x 8-11/16	
Net Weight			29 (64)	
			kg (lbs)	
Heat Exchanger		Type	Cross fin (Aluminium fin and copper tube)	
		Water Volume	L	
			1.5	
			1.5	
Fan	Type × Quantity		Sirocco Fan x 2	
	External Static Pressure *4	Pa	20 - <40> - <60>	
		mmH ₂ O	2.0 - <4.1> - <6.1>	
	Motor Type		DC Motor	
	Motor Output	kW	0.096	
	Driving Mechanism		Direct-driven by motor	
	Airflow Rate (Low-Mid-High)	m ³ /min	8.0 - 10.0 - 11.5	
L/s		133 - 167 - 192		
cf/m		282 - 353 - 406		
Sound pressure level (measured in anechoic room)*2	(Low-Mid-High)	dB<A>		
		31 - 37 - 40		
		37 - 42 - 45		
Insulation Material			Polyethylene foam, Urethane foam	
Air Filter			PP Honeycomb fabric	
Protection Device			Fuse	
Connectable Outdoor Unit/HBC Controller			Hybrid City Multi CMB-WP-V-GA1, CMB-WP-V-GB1, CMB-WM-V-AA, CMB-WM-V-AB	
Water Piping Diameter *3 *4	Inlet	in.	Rc 3/4 screw	
	Outlet	in.	Rc 3/4 screw	
Field Drain Pipe Size			I.D.26 (1) <Accessory hose O.D.27 (1-3/32) (top end: O.D.20 (13/16))>	
Standard Attachment Accessory			Insulation pipe for water pipe, Drain hose (flexible joint), Screw plate, Level adjusting screw, Hose band	
			Insulation pipe for water pipe, Drain hose (flexible joint), Screw plate, Level adjusting screw, Hose band	

Unit Converter: kcal/h=kW×860, 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°C D.B./19°C W.B. (81°F D.B./66°F W.B.), Outdoor: 35°C D.B./19°C W.B. (95°F D.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°C D.B.(68°F D.B.), Outdoor: 7°C D.B./6°C W.B. (45°F D.B./43°F W.B) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
4. The factory setting for external pressure is shown without < >. Refer to "Fan characteristics curves", according to the external pressure, in DATA BOOK for the usable range of air flow rate.
5. Be sure to install a valve on the water outlet.
6. Install a strainer (40 mesh or more) on the pipe next to the valve to remove the foreign matters.
7. Please group units that operate on 1 branch.



for a greener tomorrow

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

Mitsubishi
Electric
Quality

Quality you can rely on:

- All units line tested
- Performance tested
- 800 hour heat stress test
- 2000 hour endurance test

World Leaders in Heat Pump Technology

Since releasing their first wall mounted split system heat pump in 1968, Mitsubishi Electric has been a world leader in heat pump technology. Staying at the forefront of technology is of utmost importance to Mitsubishi Electric. Their commitment to rigorous factory testing and continuous investment in R&D ensures products are of the highest quality and feature superior technology.

Evaluation testing starts with replicating transportation conditions, with drop and vibration tests performed to ensure units remain protected during shipment. To ensure heat pumps perform under the harshest of environmental conditions when they are needed most, they are operated and tested in a room that simulates both freezing climates and tropical storms. Safety components are also tested by replicating abnormal conditions such as combustion; ensuring units do not react in an unexpected or unsafe manner.

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