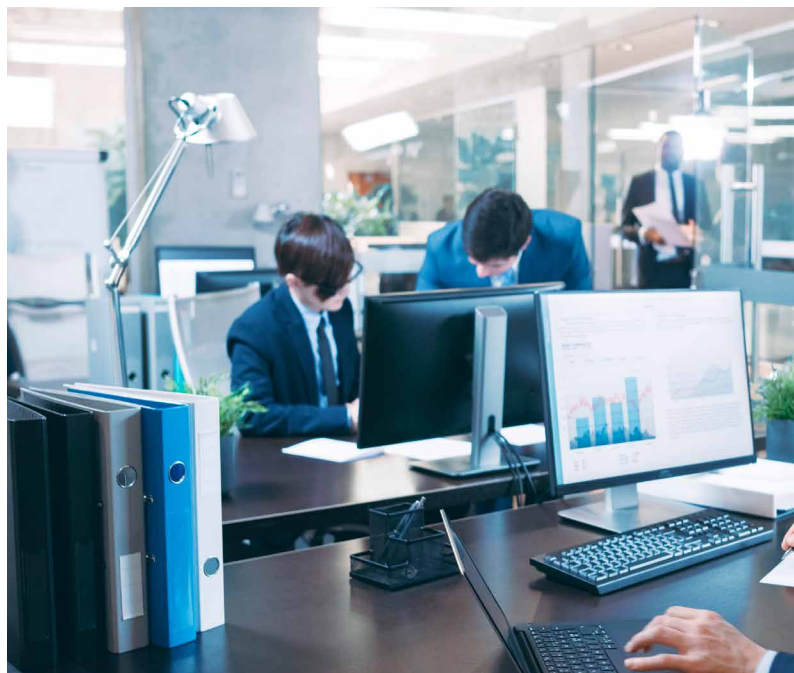
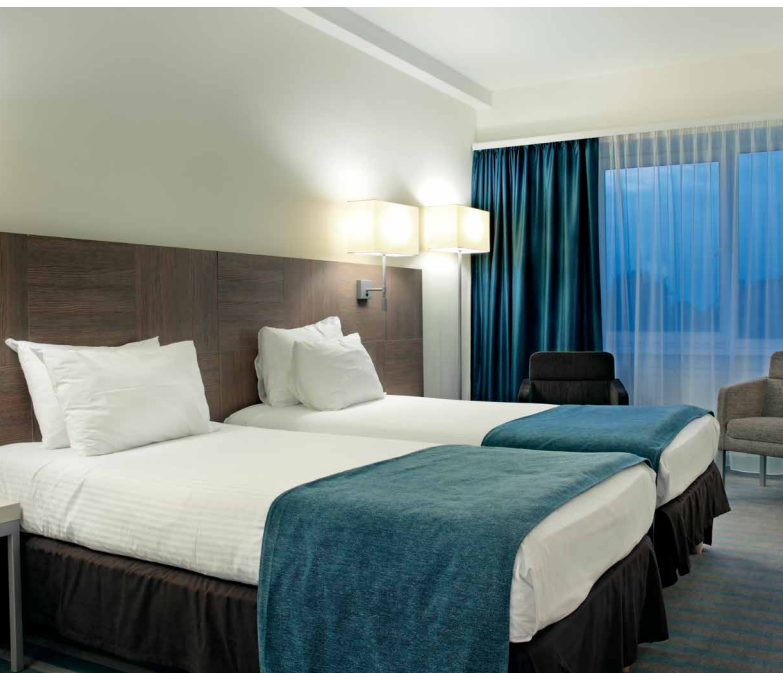




R32 Hybrid VRF Catalogue

Next Generation 2-Pipe VRF Heat Recovery Systems



CITY MULTI

VRF Now with R32 Refrigerant

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.





The Future-Proof VRF Solution Offering Simultaneous Heating and Cooling with Minimal Environmental Impact

With the environmental pressure on R410A refrigerant increasing, Mitsubishi Electric's commitment to reducing the environmental impact of air conditioning has seen the introduction of New Zealand's first VRF (Variable Refrigerant Flow) solution that has utilised R32 refrigerant.

Mitsubishi Electric has long been a pioneer in the world of air conditioning and the world's first R32 Hybrid VRF product range puts the company at the forefront of the industry.

The system utilises the low GWP refrigerant R32, providing a real solution that delivers high operational efficiency whilst minimising the Global Warming Potential of the refrigerants used within these systems.

R32 Hybrid VRF Is the World's Only Low GWP 2-Pipe Hydronic Heat Recovery System

The Mitsubishi Electric R32 VRF solution is an evolution of Mitsubishi Electric's Hybrid VRF System. First introduced in 2014, this unique 2-Pipe Hybrid VRF System combines VRF and chiller technologies using water throughout the majority of the pipework to efficiently transfer simultaneous heating and cooling to different spaces.

By using water as the heat transfer fluid for the majority of the air conditioning system, Hybrid VRF minimises the overall amount of refrigerant charge in the system.

Furthermore, with only water circuits connecting to the indoor units, Hybrid VRF minimises the need for leak detection leading to significant reductions in on-going maintenance and installation costs in the controlled space that would be needed to comply with AS/NZS 5149. (1-4) 2016.

All the Benefits of VRF with Significantly Lower GWP

The 2-Pipe Hybrid VRF System offers the same comfort levels normally associated with 4-Pipe fan coil systems. In addition, the system also features the same design flexibility, operational efficiency and advanced control that Mitsubishi Electric traditional VRF is renowned for.

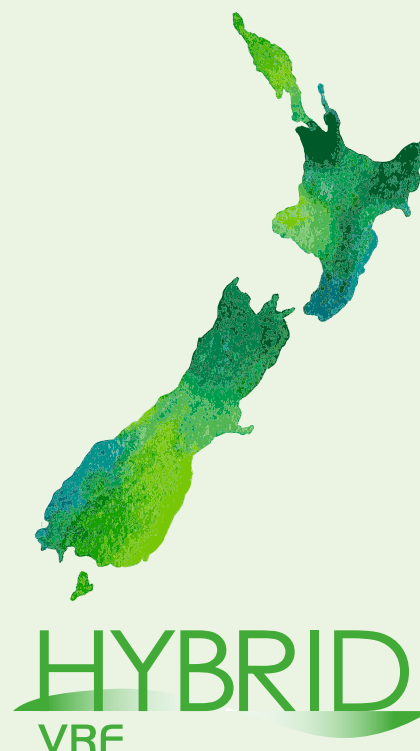
Because Hybrid VRF now also incorporates R32 refrigerant, it delivers a VRF system with a significantly lower Global Warming Potential (GWP) than existing solutions.

In fact, the shift from R410A to R32 refrigerant realises a massive 66% reduction in Global Warming Potential.

R32 Hybrid VRF is the New VRF Standard

Over the last 6 years Hybrid VRF applications have already enjoyed significant growth in New Zealand, successfully incorporated in a variety of designs ranging from offices, hotels, retirement villages, education facilities, medical centres and much more.

The introduction of the new R32 Hybrid VRF Range now provides the obvious answer for those customers looking for a future-proof heating and cooling solution that delivers advanced efficiency with improved corporate social responsibility and minimises environmental impact.



R32 – The Greener Solution

The Shift Away from R410A Refrigerant to Low GWP Alternatives like R32

The global community is in a race to lower its carbon footprint and decrease the rate of global warming before it is too late.

The Kigali Amendment to the Montreal Protocol ratified on the 3rd of October 2019, dictates the rate of phase down of HFC refrigerants for New Zealand as part of this strategy and commenced on the 1st of January 2020.

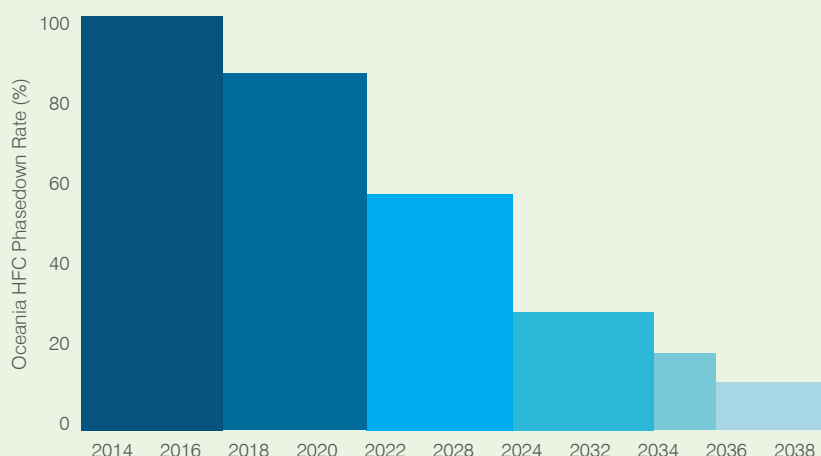
It is estimated that this directive has the potential to avoid aggregate emissions of more than 90 gigatonnes CO₂e by 2050 – equivalent to two years of total global greenhouse gas emissions (US EPA 2016)!

The key to achieving this goal is the shift away from traditional refrigerants such as R410A.

Replacing traditional refrigerants to those with a much lower GWP, will be a big step towards significantly reducing the future potential rate of rise in the earth's temperature and the catastrophic effects that would have on our planet.

The new HVRF R32 Air Source Range combines all the benefits of the current R410A range with 33% of the Global Warming Potential. That's the lowest GWP in the VRF market!

Regulated Phase Down of CO₂ Emissions



GWP is a measure of the warming potential as compared to CO₂ which has a unitary GWP of 1.

R32 refrigerant is zero ozone depleting and has a GWP 66% less than R410A. For example R410A will hold 2,088 times more heat when released in the upper atmosphere than the equivalent amount of CO₂ would.

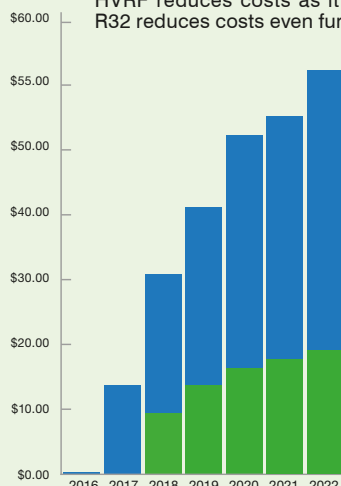
R32 refrigerant is being adopted by Mitsubishi Electric as an important step in the process towards the ultimate goal of a zero ODP, zero GWP, efficient, safe, and non-toxic refrigerant.

ETS – Emissions Trading Scheme

In New Zealand specifically, the ETS has put a price on greenhouse gas emissions and provides an incentive to reduce emissions and promote strategies to absorb carbon dioxide. This is known as the SGG (Synthetic Greenhouse Gas) Levy.

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

HVRF reduces costs as it uses less refrigerant in the total system. R32 reduces costs even further!



Year	Levy Rate – per kg Refrigerant (R410A)	Levy Rate – per kg Refrigerant (R32)
2016	\$0.31 Actual	
2017	\$13.72 Actual	
2018	\$30.78 Actual	\$9.94 Actual
2019	\$41.55 Actual	\$13.42 Actual
2020	\$51.29 Actual	\$16.56 Actual
2021	\$53.50 Actual	\$17.28 Actual
2022	\$76.29 Actual	\$24.64 Actual

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.

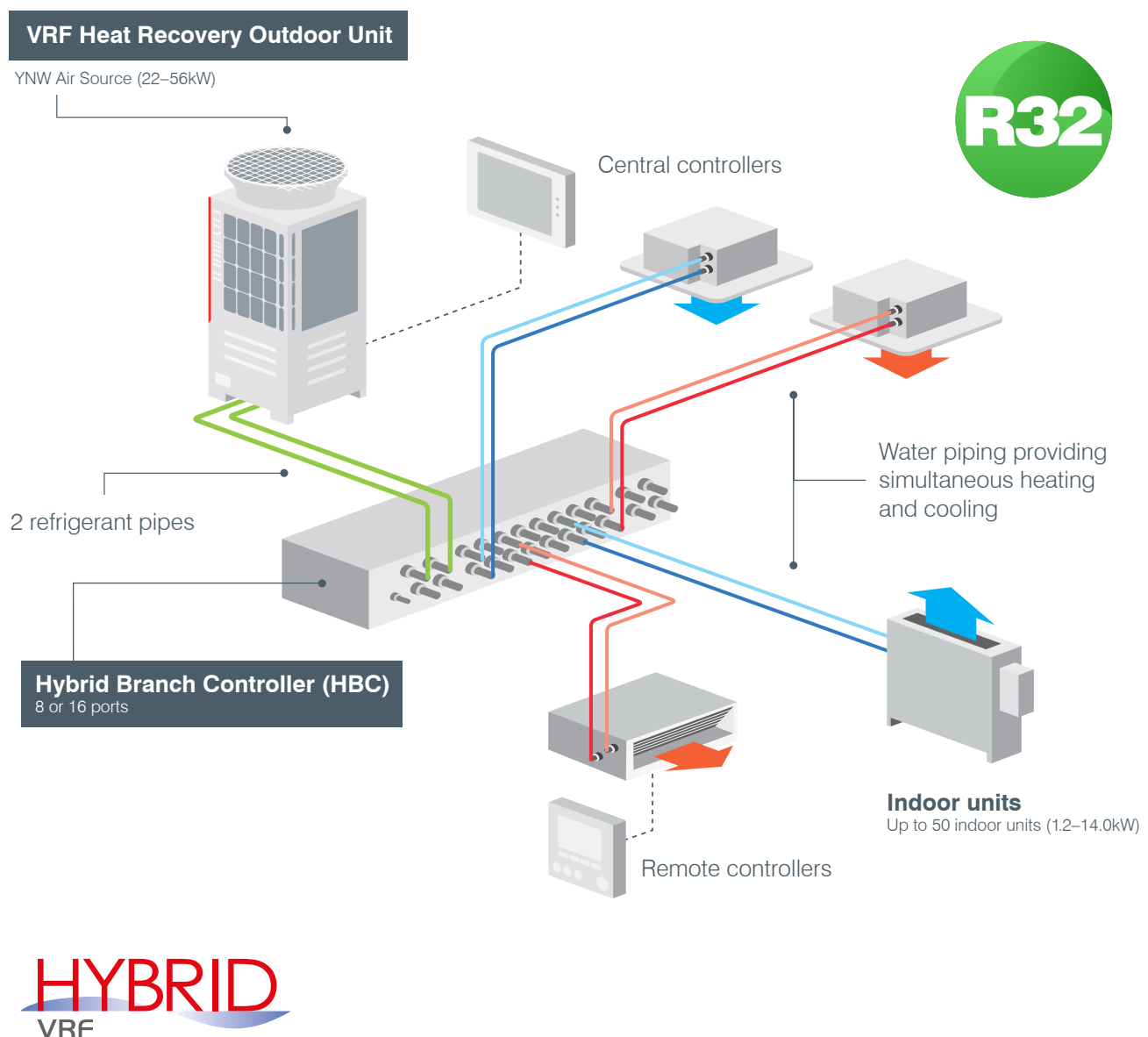
This revolutionary design minimises the need for expensive and on-going leak detection servicing and is specifically designed for occupied spaces where quiet, energy efficient, simultaneous heating and cooling is valued.

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.



Where Can Hybrid VRF be Applied?



R32 Hybrid VRF Is the Complete Solution for Today's Modern Buildings

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

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

Mixed-Use Buildings

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

Offices

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

Hotels

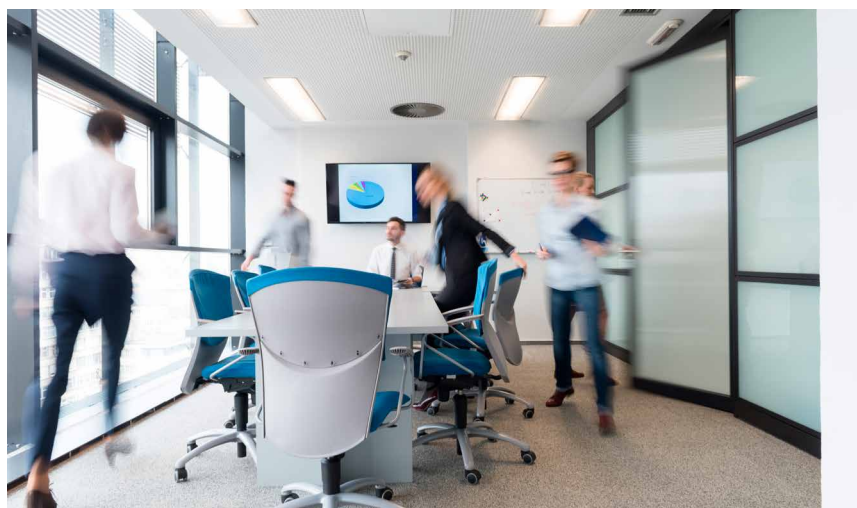
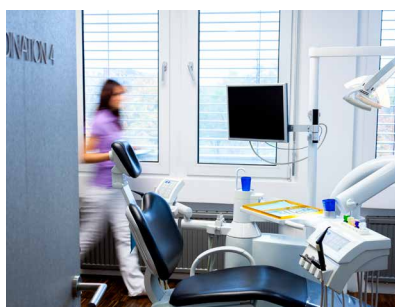
Customer comfort is paramount with legislation focusing attention on energy use and seeking to limit the use of refrigerant in occupied spaces. Hybrid VRF removes the need for leak detection in the occupied space, thereby reducing the total cost of the system and ongoing maintenance of the leak detection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

Mitsubishi Electric's R32 Hybrid VRF Systems provide a commercially viable alternative solution to traditional R410A systems and addresses one of the most pressing challenges in the New Zealand air conditioning industry on how to tackle high charge volumes and lower GWP refrigerants in large systems. It offers customers a future-proof solution that delivers advanced cost efficiencies with improved corporate social responsibility.

Water Is at the Heart of the Indoor Units

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

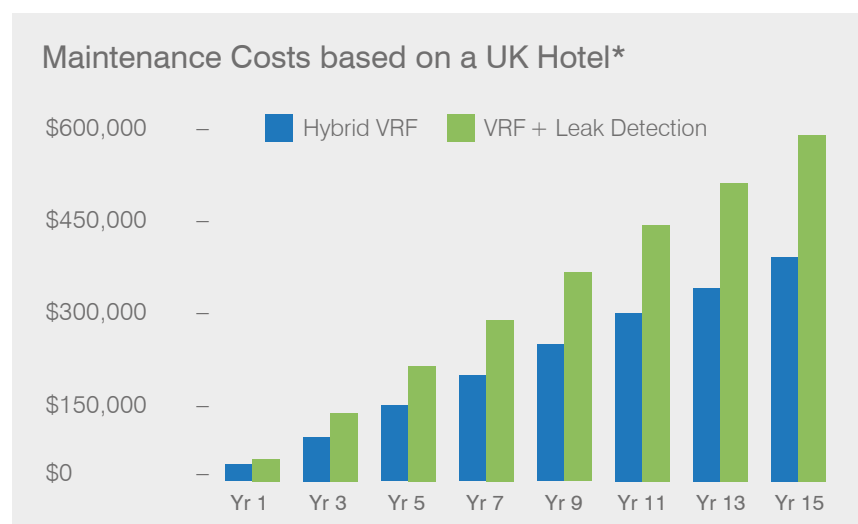
Minimise the Need for Leak Detection Systems

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

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

Realise Significant Maintenance Cost Reductions

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



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



Hybrid VRF Key Features and Benefits

► Provides Simultaneous Heating and Cooling with Full Heat Recovery

R32 Hybrid VRF is an advanced simultaneous heating and cooling system with 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 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.

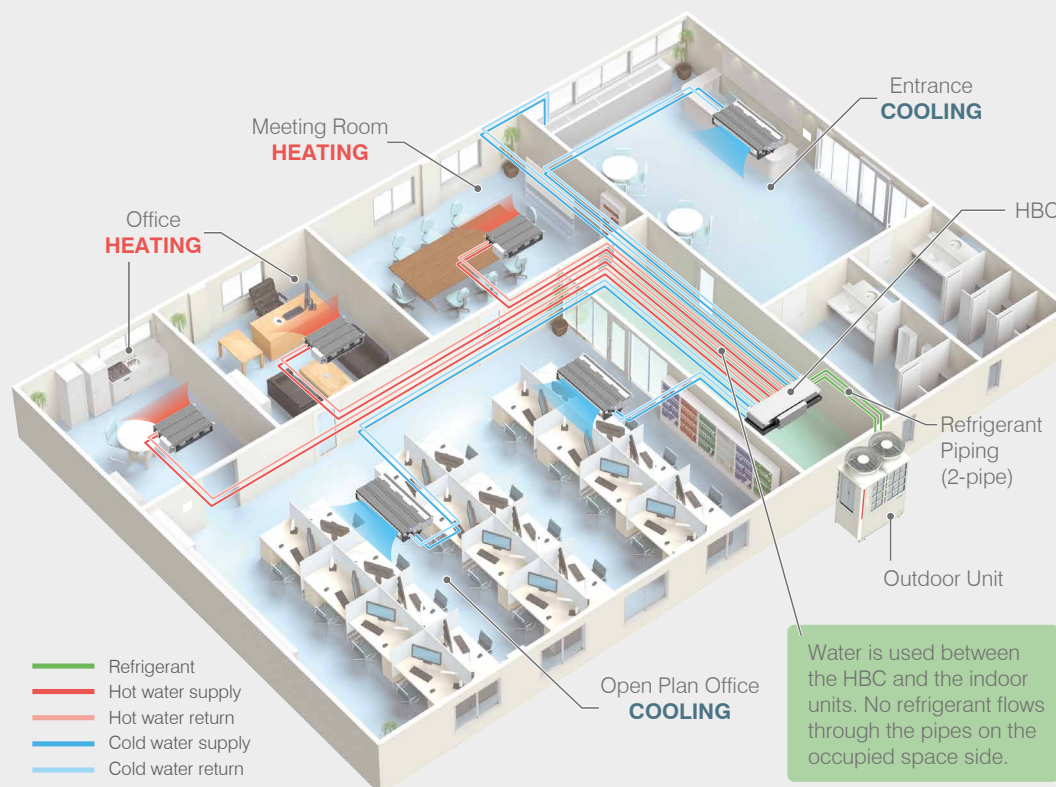


Image for representation only

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**

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

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

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

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

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

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

► **Quieter 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.

► **Combat the Rising Costs of R410A Refrigerant**

The rapid and continuing price rises of R410A refrigerant is placing a strain on the viability of traditional VRF systems.

As a result Mitsubishi Electric have developed R32 Hybrid VRF to ensure that both customers and installers not only have an alternative, but also get the added benefits of lower refrigerant costs, efficient performance and advanced controls.

► **R32 Minimal Global Warming Impact with 66% Less GWP Than R410A**

Existing VRF units use R410A which has a GWP of 2,088, the newly adopted R32 refrigerant has a reduced GWP of 675 – that's 66% less than R410A.



HYBRID
VRF

R32 Hybrid VRF Case Study – Cuba Precinct



A large scale regeneration project in the heart of Wellington city uses an R32 Hybrid VRF system operating with a significantly reduced quantity of refrigerant and only water circulating in work areas to ensure tenant comfort, safety and affordability.



► Project Overview

This major inner city regeneration project required an air conditioning system able to provide a safe, comfortable working environment with a small carbon footprint while reducing operational and maintenance costs.

Mitsubishi Electric's R32 Hybrid VRF system more than satisfies these requirements – hence its logical selection as the preferred air conditioning system.

► The Solution

Situated in what is often termed 'the true heart of Wellington', Cuba Precinct is the result of a large regeneration project designed to embody the character of Cuba Street and its environs while providing space for ground floor retail businesses with office and apartment accommodation above. It involved preserving and injecting life into several historic buildings as well as raising new structures above those buildings.

In the latter part of 2020, the Greater Wellington Regional Council moved into the second and third floors of the newly created open plan office space – one of Wellington's largest with an area of 6000 square metres.

Designed to have a low carbon footprint and exceed the current New Building Standard, the refurbishment of the historic buildings was completed with these guiding principles in mind. The Mitsubishi Electric R32 Hybrid Variable Refrigerant Flow (HVRF) air conditioning system was therefore the logical choice for the large open plan office space.

This was due to its superior safety features and occupier comfort levels as well as lower operating and maintenance costs when compared to traditional systems using R410A refrigerant.

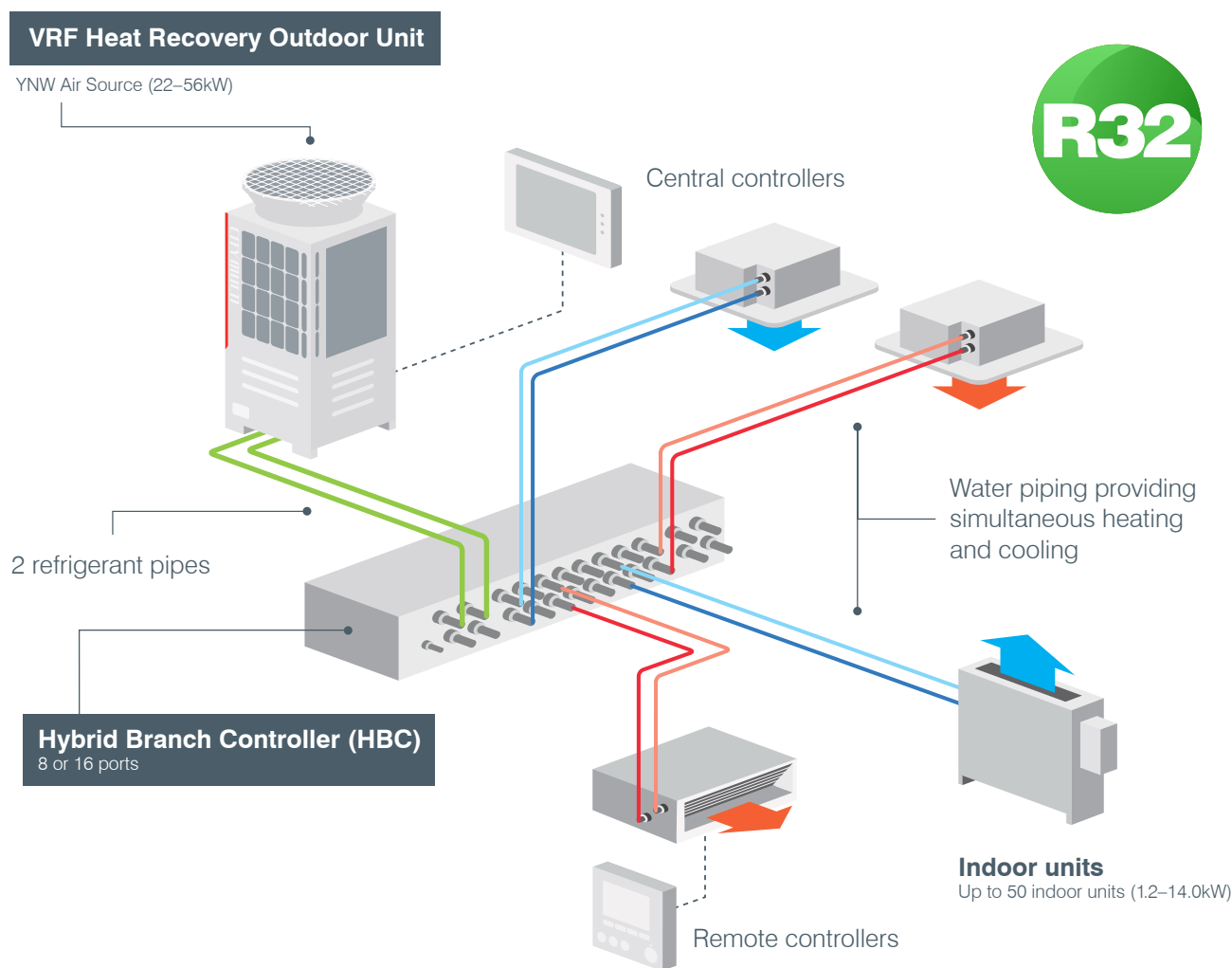
The Hybrid Branch Controller is the heart of the system, linking outdoor and indoor units and efficiently performing heat exchange between both.

The R32 HVRF system delivers a world first with simultaneous heating and cooling. Heat is recovered and redistributed, negating the need for a separate heating system. It uses a unique two-pipe configuration, ie, a reduced number of pipes which also reduces the installation cost and time.

A significant safety feature is the use of water throughout the pipework in occupied spaces. This means that refrigerant (R32) is only used in the system between the outdoor condensers and the Hybrid Branch Controllers (HBCs) – well away from any occupied spaces. This removes the need for expensive leak detection equipment in occupied spaces – resulting in reduced maintenance costs as there is no requirement for annual leak detection checks.

Hybrid Branch Controllers are the heart of the system. They link outdoor units to indoor units and are responsible for heat exchange between refrigerant-controlled outdoor units and water-based indoor circuits to indoor units. Water is circulated to indoor units by energy efficient pumps.

A simplified HVRF system diagram is shown below.



R32 Hybrid VRF Case Study – Cuba Precinct

Plastic piping is used to transport water throughout occupied spaces instead of the traditional soldered copper piping used to transport refrigerant. This feature combined with the unique 2-Pipe heat recovery system – rather than a conventional 4-Pipe chiller system – means less piping is installed and none of the extra controls associated with a 4-Pipe system are required - amounting to significant installation cost savings.

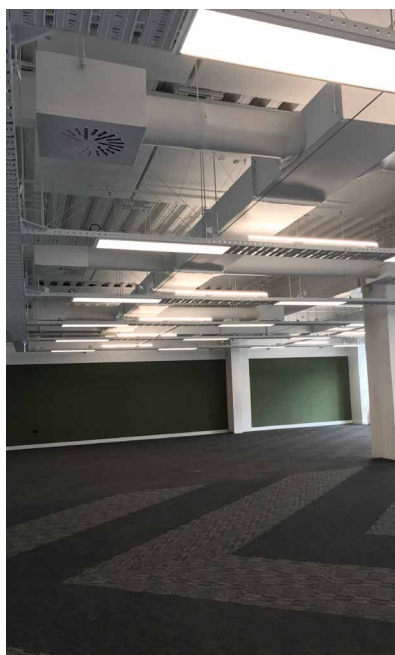
The modular design and small footprint of the HVRF system along with its flexible duct layout allows airflow patterns to be arranged to suit the application, letting building owners manage a phased installation – a plus when it comes to installation budgets and their inevitable variances.

Outdoor units all have simultaneous heating and cooling and heat recovery. Indoor units are concealed within the ceiling space making for unobtrusive air conditioning while preserving the aesthetic of the working space and overall appearance of the room. Quiet operation is another feature of these units.

Low noise levels (due to the use of water instead of refrigerant in the terminal fan coils among other noise-reducing features), more stable milder off-coil temperatures, the removal of draught potential from office spaces, faster defrosts, no critical refrigeration concerns and less risk to the environment and humans all contribute to a system that provides comfort with simplified maintenance and a significant cut in long-term energy costs.

Using the system's flexible master and individual remote controls enables efficient and economic management of airflows, heating and air conditioning levels throughout the building. As well as a master control, individual room units have remote controls of their own.

The cost of R410A refrigerant continues to rise rapidly as a deterrent to its use in air conditioning systems due to its high GWP (Global Warming Potential). Mitsubishi Electric's R32 Hybrid VRF System leverages the low GWP of R32 refrigerant (about one third that of conventional R410A refrigerant), lower refrigerant costs, a small carbon footprint and reduced running costs to provide an efficient system with built-in future proofing able to provide high comfort levels while complying with environmental legislation.



Installation Summary



HVRF SYSTEMS

R32 Outdoor Units

- 1 x PURY-M250YNW-A1-BS
- 4 x PURY-M350YNW-A1-BS
- 2 x PURY-M450YNW-A1-BS
- 4 x PURY-M500YNW-A1-BS

Hybrid Branch Controllers

- 17 x CMB-WM108V-AA

Controls

- 1 x AE-200E Touch Screen Centralised Controller with BACnet Licence
- 1 x EW-50 Expansion Module
- 33 x PAR-U02MEDA-E Local Hardwired Controllers

Hybrid Indoor Units

- 2 x PEFY-WP32VMA-E Medium Static Ducted Units
- 1 x PEFY-WP40VMA-E Medium Static Ducted Unit
- 1 x PEFY-WP50VMA-E Medium Static Ducted Unit
- 1 x PEFY-WP63VMA-E Medium Static Ducted Unit
- 6 x PEFY-WP71VMA-E Medium Static Ducted Units
- 10 x PEFY-WP80VMA-E Medium Static Ducted Units
- 3 x PEFY-WP100VMA-E Medium Static Ducted Units
- 15 x PEFY-WP125VMA-E Medium Static Ducted Units
- 4 x PLFY-WP20VFM-E Compact Cassette Units
- 7 x PLFY-WP25VFM-E Compact Cassette Units
- 8 x PLFY-WP32VFM-E Compact Cassette Units
- 1 x PLFY-WP32VBM-E Standard Cassette Unit
- 2 x PLFY-WP40VBM-E Standard Cassette Units
- 2 x PKFY-WL20VLM-E High Wall Units
- 2 x PKFY-WL25VLM-E High Wall Units

Key Features

Safety, comfort, efficiency and reduced running costs feature heavily in the Mitsubishi Electric R32 HVRF system.

Less piping and leak detection equipment significantly reduces installation costs.

Quiet operation and the reduction of operational draught from office spaces provides excellent comfort levels in occupied areas.

R32 refrigerant has a significantly lower GWP than R410A refrigerant and is also much cheaper making it the logical choice when selecting an air conditioning system.

SPLIT SYSTEMS

Condensing Units

- 2 x PUZ-ZM100VKA-A
- 1 x MUZ-GL35VGD

High Wall Units

- 2 x PKA-M100KAL
- 1 x MSZ-GL35VGD

Hardwired Controllers

- 2 x PAR-33MAA

M-Net Interfaces

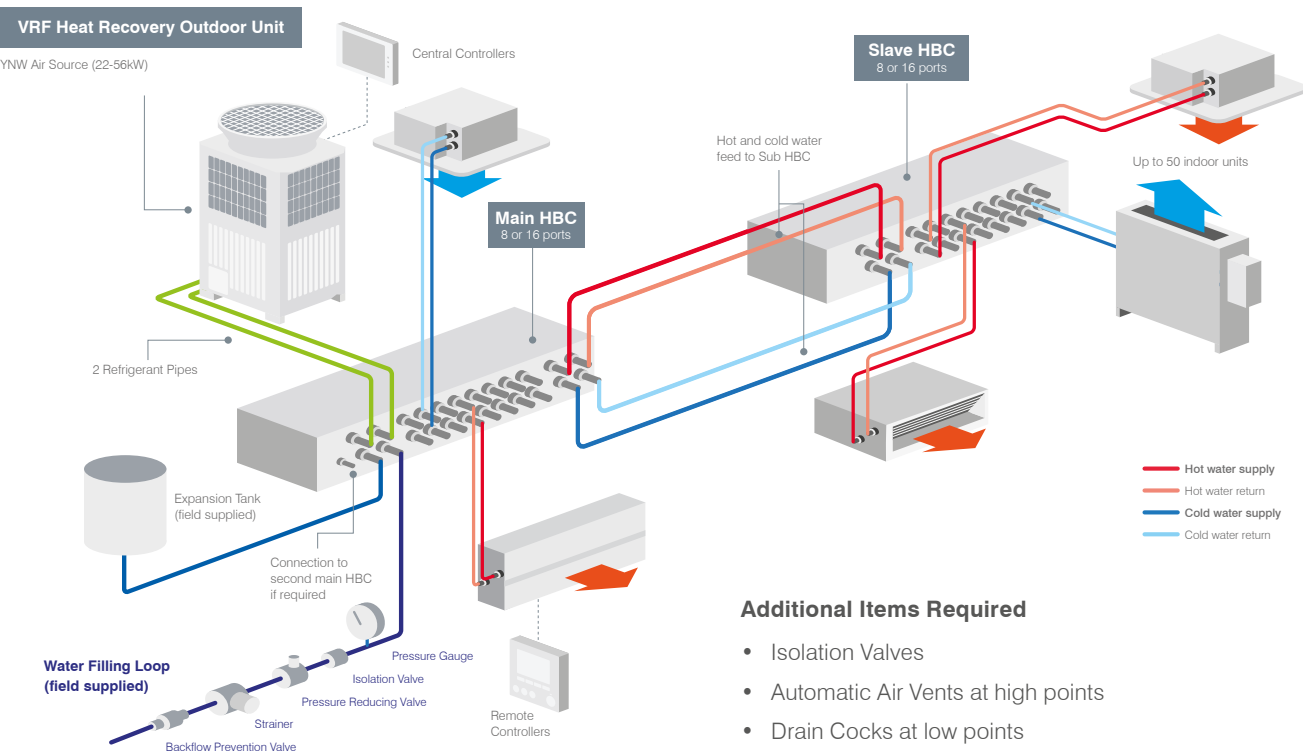
- 1 x PAC-SJ95MA-E M-Net Interface
- 1 x MAC-334IF M-Net Interface



Hybrid VRF Technical System Overview

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

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



Additional Items Required

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

Model Lineup

Outdoor Unit PURY-YNW	1st Main HBC	1st Slave HBC	2nd Main HBC	2nd Slave HBC
M200	Required	Optional	-	-
M250	Required	Optional	-	-
M300	Required	Optional	Optional	Optional
M350	Required	Optional	Optional	Optional
M400	Required	Optional	Required	Optional
M450	Required	Optional	Required	Optional
M500	Required	Optional	Required	Optional

M400, M450 and M500 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 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.

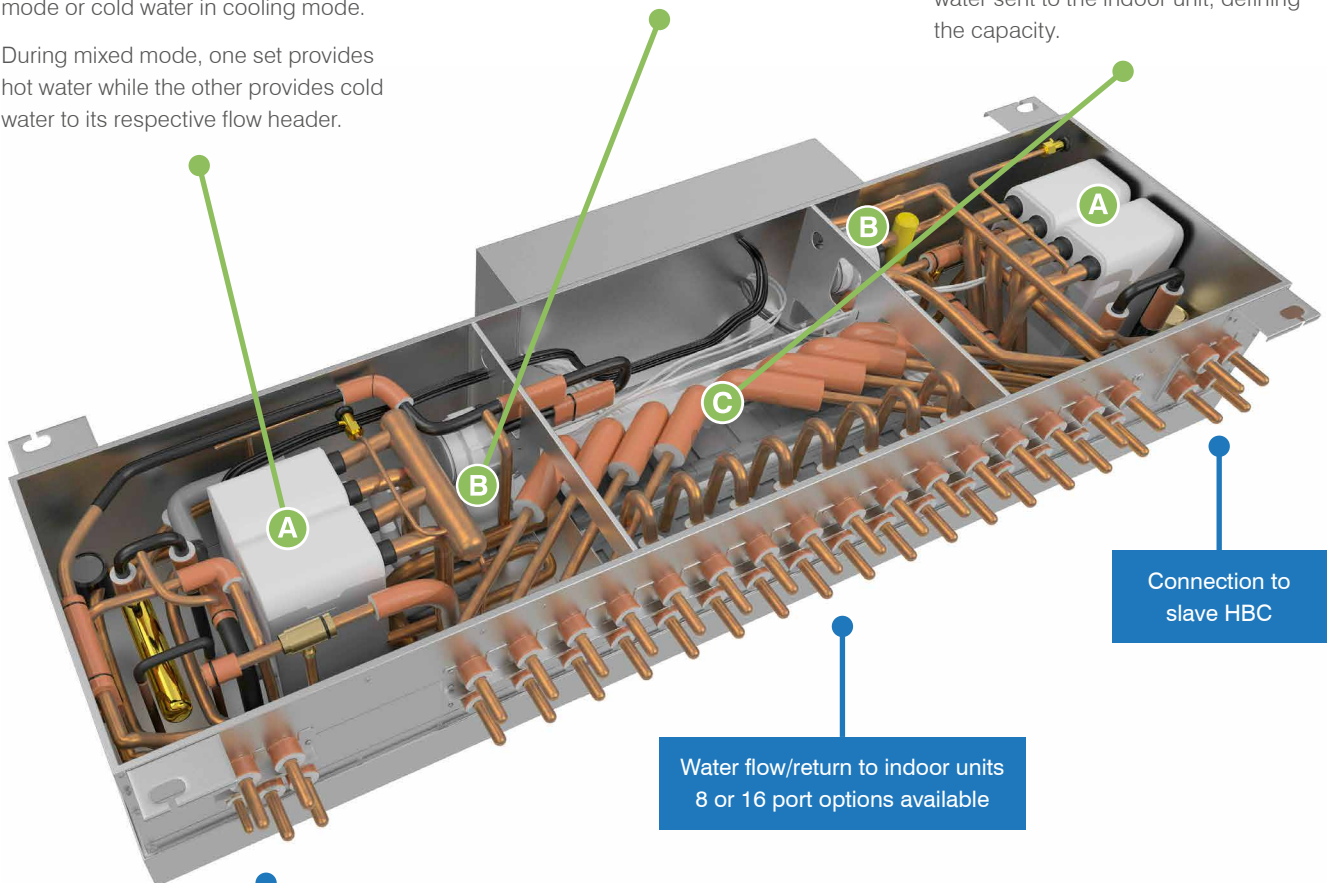
C - Valve Block

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

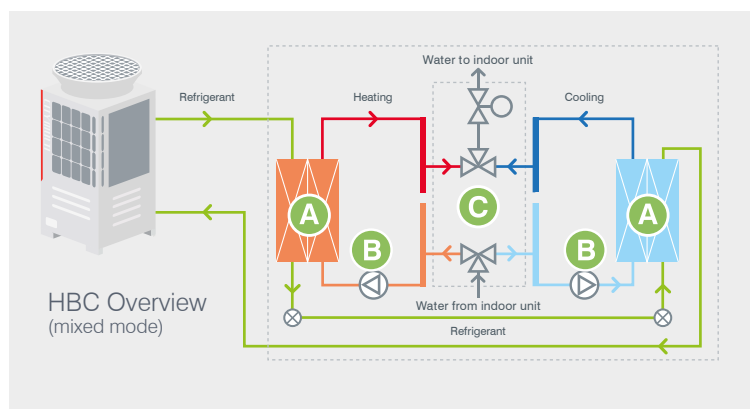
This Valve Block has two features;

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.

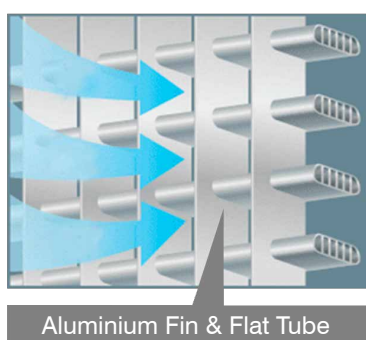


Refrigerant pipes to outdoor unit, expansion tank (field supplied) and water filling loop (field supplied), and balancing line to 2nd main HBC.



HVRF Air Source Outdoor Unit

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



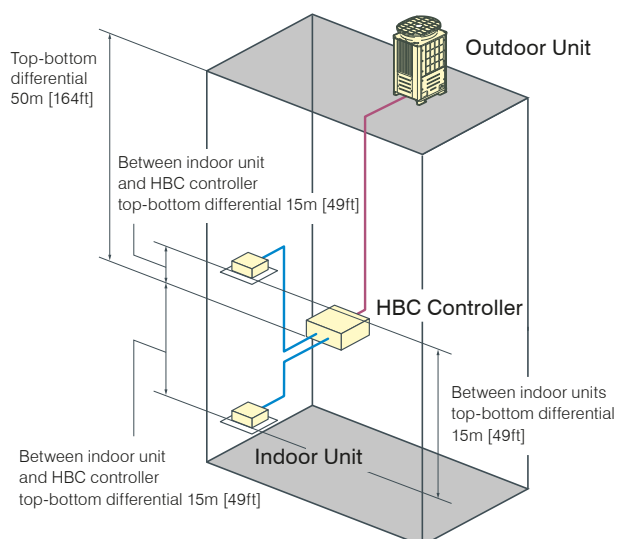
Inverter Compressor

Available on EM High COP Models Only

Model Lineup

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

Piping Length



R Refrigerant Pipe **W** Water Pipe

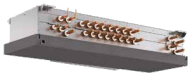
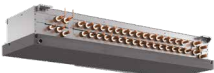
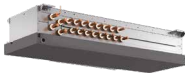

Refrigerant Piping Lengths	Maximum meters [Feet]
R Distance between heat source and HBC	110 [360]
W Farthest indoor unit from HBC controller	60 [196]

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

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









Hybrid Branch Circuit (HBC) Controller

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

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

Indoor Models

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

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

Controller Range

Remote Controllers



Standard Controller PAR-40MAA

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



Advanced M-NET Controller PAR-U02MEDA

- Dual set point option
- Occupancy sensor
- Brightness sensor
- Energy saving
- Touch panel and backlit LCD screen
- 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.

CITY MULTI



Patented Hybrid VRF Technology

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



HYBRID
VRF

Outdoor Unit – Air Source



Model				PURY-M200YNW-A1 (-BS)		PURY-M250YNW-A1 (-BS)	
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz		3-phase 4-wire 380-400-415 V 50/60 Hz	
Cooling	Capacity (Nominal) *1		kW	22.4		28.0	
			BTU / h	76,400		95,500	
	Power input		kW	5.53		8.40	
	Current input		A	9.3-8.8-8.5		14.1-13.4-12.9	
	EER		kW / kW	4.05		3.33	
	Temp. Range *3	Indoor	W.B.	15.0~24.0°C (59~75°F)		15.0~24.0°C (59~75°F)	
Outdoor		D.B.	-5.0~52.0°C (23~126°F)		-5.0~52.0°C (23~126°F)		
Heating	Capacity (Nominal) *2		kW	25.0		31.5	
			BTU / h	85,300		107,500	
	Power input		kW	6.39		9.15	
	Current input		A	10.7-10.2-9.8		15.4-14.6-14.1	
	COP		kW / kW	3.91		3.44	
	Temp. range *3	Indoor	D.B.	15.0~27.0°C (59~81°F)		15.0~27.0°C (59~81°F)	
Outdoor		W.B.	-20.0~15.5°C (-4~60°F)		-20.0~15.5°C (-4~60°F)		
Indoor unit connectable		Total capacity		50~150% of outdoor unit capacity		50~150% of outdoor unit capacity	
		Model / Quantity		W(P)10~125, WL10~50/1~30		W(P)10~125, WL10~50/1~37	
Sound pressure level (measured in anechoic room)*4			dB <A>	59.0/59.0		60.5/61.0	
Sound power level (measured in anechoic room) *4			dB <A>	76.0/78.0		78.5/80.0	
Refrigerant piping diameter		High pressure	mm (in.)	15.88 (5/8) Brazed		15.88 (5/8) 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	4.6		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 *6		R32/675		R32/675		
	Factory charged	Weight	kg	5.2		5.2	
		CO2 equivalent *6	t	3.51		3.51	
	Max additional charge	Weight	kg	13.5		13.5	
		CO2 equivalent *6	t	9.11		9.11	
	Total charge	Weight	kg	18.7		18.7	
CO2 equivalent *6		t	12.62		12.62		
Net weight			kg (lbs)	227 (501)		227 (501)	
Heat exchanger			Salt-resistant cross fin & copper tube				
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle, Hot gas)				
Optional parts			Main HBC controller: CMB-WM108.1016V-AA Sub HBC controller: CMB-WM108.1016V-AB				

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.

6. This table is based on Regulation (EU) No517/2014.

- R32 is flammable, and certain restrictions apply to the installation of units.
- When installing new units, moving the existing units, or changing the layout of the room, ensure that installation restrictions are observed.
- For detail, refer to the section in the Databook on installation restrictions.
- 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-M300YNW-A1 (-BS)				PURY-M350YNW-A1 (-BS)			
Number of HBC controller				Single HBC		Double HBC		Single HBC		Double HBC	
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz				3-phase 4-wire 380-400-415 V 50/60 Hz			
Cooling	Capacity (Nominal) *1		kW	33.5				40.0			
			BTU / h	114,300				136,500			
	Power input		kW	11.65		9.88		14.93		12.15	
	Current input		A	19.6-18.6-18.0		16.6-15.8-15.2		25.2-23.9-23.0		20.5-19.4-18.7	
	EER		kW / kW	2.87		3.39		2.67		3.29	
	Temp. Range *3		Indoor	W.B.	15.0~24.0°C (59~75°F)				15.0~24.0°C (59~75°F)		
Outdoor			D.B.	-5.0~52.0°C (23~126°F)				-5.0~52.0°C (23~126°F)			
Heating	Capacity (Nominal) *2		kW	37.5				45.0			
			BTU / h	128,000				153,500			
	Power input		kW	11.00		10.33		13.14		12.16	
	Current input		A	18.5-17.6-17.0		17.4-16.5-15.9		22.1-21.0-20.3		20.5-19.5-18.7	
	COP		kW / kW	3.40		3.63		3.42		3.70	
	Temp. range *3		Indoor	D.B.	15.0~27.0°C (59~81°F)				15.0~27.0°C (59~81°F)		
Outdoor			W.B.	-20.0~15.5°C (-4~60°F)				-20.0~15.5°C (-4~60°F)			
Indoor unit connectable			Total capacity	50~150% of outdoor unit capacity				50~150% of outdoor unit capacity			
			Model / Quantity	W(P)10~125, WL10~50/2~45				W(P)10~125, WL10~50/2~50			
Sound pressure level (measured in anechoic room)*4			dB <A>	61.0/67.0				62.5/64.0			
Sound power level (measured in anechoic room) *4			dB <A>	80.0/86.5				81.0/83.0			
Refrigerant piping diameter		High pressure	mm (in.)	15.88 (5/8) Brazed				15.88 (5/8) 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			
			m3/min	240				250			
			L/s	4,000				4,167			
			cfm	8,474				8,828			
	Control, Driving mechanism			Inverter-control, Direct-driven by motor				Inverter-control, Direct-driven by motor			
	Motor output		kW	0.92 x 1				0.46 x 2			
External static press. *5			0 Pa (0 mmH2O)				0 Pa (0 mmH2O)				
Compressor	Type			Inverter scroll hermetic compressor				Inverter scroll hermetic compressor			
	Starting method			Inverter				Inverter			
	Motor output		kW	8.0				9.6			
	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 *6			R32/675				R32/675			
	Factory charged	Weight	kg	5.2				8.0			
		CO2 equivalent *6	t	3.51				5.40			
	Max additional charge	Weight	kg	15.5				15.5			
		CO2 equivalent *6	t	10.46				10.46			
	Total charge	Weight	kg	20.7				23.5			
CO2 equivalent *6		t	13.97				15.86				
Net weight			kg (lbs)	227 (501)				270 (596)			
Heat exchanger				Salt-resistant cross fin & copper tube							
Defrosting method				Auto-defrost mode (Reversed refrigerant cycle, Hot gas)							
Optional parts				Main HBC controller: CMB-WM108,1016V-AA Sub HBC controller: CMB-WM108,1016V-AB							

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.

6. This table is based on Regulation (EU) No517/2014.

- R32 is flammable, and certain restrictions apply to the installation of units.
- When installing new units, moving the existing units, or changing the layout of the room, ensure that installation restrictions are observed.
- For detail, refer to the section in the Databook on installation restrictions.
- 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-M400YNW-A1 (-BS)	PURY-M450YNW-A1 (-BS)	PURY-M500YNW-A1 (-BS)					
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz	3-phase 4-wire 380-400-415 V 50/60 Hz	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	15.15	15.47	22.25					
			A	25.5-24.2-23.4	26.1-24.8-23.9	37.5-35.6-34.3					
	EER		kW / kW	2.97	3.23	2.51					
			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)				
Heating	Temp. Range *3		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)				
			Capacity (Nominal) *2		kW	50.0	56.0	63.0			
			BTU / h	170,600	191,100	215,000					
	Power input		kW	14.08	16.18	18.26					
			A	23.7-22.5-21.7	27.3-25.9-25.0	30.8-29.2-28.2					
	COP		kW / kW	3.55	3.46	3.45					
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)					
Indoor unit connectable				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)			
				Total capacity		50~150% of outdoor unit capacity		50~150% of outdoor unit capacity		50~150% of outdoor unit capacity	
				Model / Quantity		W(P)10~125, WL10~50/1~40		W(P)10~125, WL10~50/1~45		W(P)10~125, WL10~50/1~50	
Sound pressure level (measured in anechoic room)*4				dB <A>	65.0/69.0		65.5/70.0		63.5/64.5		
Sound power level (measured in anechoic room) *4				dB <A>	83.0/88.0		83.0/89.0		82.0/84.0		
Refrigerant piping diameter			High pressure	mm (in.)	19.05 (3/4) Brazed		19.05 (3/4) Brazed		19.05 (3/4) Brazed		
			Low pressure	mm (in.)	28.58 (1-1/8) Brazed		28.58 (1-1/8) Brazed		28.58 (1-1/8) Brazed		
Fan	Type x Quantity			Propeller fan x 2		Propeller fan x 2		Propeller fan x 2			
	Air flow rate		m3/min	315		317		295			
			L/s	5,250		5,283		4,917			
			cfm	11,123		11,193		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	12.2		13.1		17.4			
	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 *6			R32/675		R32/675		R32/675			
	Factory charged	Weight	kg	8.0		10.8		10.8			
		CO2 equivalent *6	t	5.40		7.29		7.29			
	Max additional charge	Weight	kg	19.5		19.5		19.5			
		CO2 equivalent *6	t	13.16		13.16		13.16			
	Total charge	Weight	kg	27.5		30.3		30.3			
		CO2 equivalent *6	t	18.56		20.45		20.45			
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)							
Optional parts				Main HBC controller: CMB-WM108,1016V-AA Sub HBC controller: CMB-WM108,1016V-AB							
[Unit Converter: RTU/h=kW×3.412 cfm=m3/min×35.31 and lbs=kg/0.4536 (Please note these figures are subject to rounding variation)]											

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.

6. This table is based on Regulation (EU) No517/2014.

- R32 is flammable, and certain restrictions apply to the installation of units.
- When installing new units, moving the existing units, or changing the layout of the room, ensure that installation restrictions are observed.
- For detail, refer to the section in the Databook on installation restrictions.
- 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-EM200YNW-A1 (-BS)		PURY-EM250YNW-A1 (-BS)	
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz		3-phase 4-wire 380-400-415 V 50/60 Hz	
Cooling	Capacity (Nominal) *1		kW	22.4		28.0	
			BTU / h	76,400		95,500	
	Power input		kW	5.13		7.69	
	Current input		A	8.6-8.2-7.9		12.9-12.3-11.8	
	EER		kW / kW	4.36		3.64	
	Temp. Range *3		Indoor	W.B.	15.0~24.0°C (59~75°F)		15.0~24.0°C (59~75°F)
Outdoor			D.B.	-5.0~52.0°C (23~126°F)		-5.0~52.0°C (23~126°F)	
Heating	Capacity (Nominal) *2		kW	25.0		31.5	
			BTU / h	85,300		107,500	
	Power input		kW	6.23		8.84	
	Current input		A	10.5-9.9-9.6		14.9-14.1-13.6	
	COP		kW / kW	4.01		3.56	
	Temp. range *3		Indoor	D.B.	15.0~27.0°C (59~81°F)		15.0~27.0°C (59~81°F)
Outdoor			W.B.	-20.0~15.5°C (-4~60°F)		-20.0~15.5°C (-4~60°F)	
Indoor unit connectable			Total capacity	50~150% of outdoor unit capacity		50~150% of outdoor unit capacity	
			Model / Quantity	W(P)10~125, WL10~50/1~30		W(P)10~125, WL10~50/1~37	
Sound pressure level (measured in anechoic room)*4			dB <A>	59.0/59.0		60.5/61.0	
Sound power level (measured in anechoic room) *4			dB <A>	76.0/78.0		78.5/80.0	
Refrigerant piping diameter		High pressure	mm (in.)	15.88 (5/8) Brazed		15.88 (5/8) 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	4.5		6.7		
	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 *6			R32/675		R32/675	
	Factory charged	Weight	kg	5.2		5.2	
		CO2 equivalent *6	t	3.51		3.51	
	Max additional charge	Weight	kg	13.5		13.5	
		CO2 equivalent *6	t	9.11		9.11	
	Total charge	Weight	kg	18.7		18.7	
CO2 equivalent *6		t	12.62		12.62		
Net weight			kg (lbs)	231 (510)		231 (510)	
Heat exchanger				Salt-resistant cross fin & aluminium tube			
Defrosting method				Auto-defrost mode (Reversed refrigerant cycle, Hot gas)			
Optional parts				Main HBC controller: CMB-WM108.1016V-AA Sub HBC controller: CMB-WM108.1016V-AB			

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.

6. This table is based on Regulation (EU) No517/2014.

- R32 is flammable, and certain restrictions apply to the installation of units.
- When installing new units, moving the existing units, or changing the layout of the room, ensure that installation restrictions are observed.
- For detail, refer to the section in the Databook on installation restrictions.
- 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-EM300YNW-A1 (-BS)				PURY-EM350YNW-A1 (-BS)			
Number of HBC controller				Single HBC		Double HBC		Single HBC		Double HBC	
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz				3-phase 4-wire 380-400-415 V 50/60 Hz			
Cooling	Capacity (Nominal) *1		kW	33.5				40.0			
			BTU / h	114,300				136,500			
	Power input		kW	10.03		8.52		13.91		11.33	
	Current input		A	16.9-16.0-15.5		14.3-13.6-13.1		23.4-22.3-21.5		19.1-18.1-17.5	
	EER		kW / kW	3.33		3.93		2.87		3.53	
	Temp. Range *3		Indoor	W.B.	15.0~24.0°C (59~75°F)				15.0~24.0°C (59~75°F)		
Outdoor			D.B.	-5.0~52.0°C (23~126°F)				-5.0~52.0°C (23~126°F)			
Heating	Capacity (Nominal) *2		kW	37.5				45.0			
			BTU / h	128,000				153,500			
	Power input		kW	10.46		9.93		13.10		12.16	
	Current input		A	17.6-16.7-16.1		16.7-15.9-15.3		22.1-21.0-20.2		20.5-19.5-18.7	
	COP		kW / kW	3.58		3.77		3.43		3.70	
	Temp. range *3		Indoor	D.B.	15.0~27.0°C (59~81°F)				15.0~27.0°C (59~81°F)		
Outdoor			W.B.	-20.0~15.5°C (-4~60°F)				-20.0~15.5°C (-4~60°F)			
Indoor unit connectable			Total capacity	50~150% of outdoor unit capacity				50~150% of outdoor unit capacity			
			Model / Quantity	W(P)10~125, WL10~50/2~45				W(P)10~125, WL10~50/1~35			
Sound pressure level (measured in anechoic room)*4			dB <A>	61.0/67.0				62.5/64.0			
Sound power level (measured in anechoic room) *4			dB <A>	80.0/86.5				81.0/83.0			
Refrigerant piping diameter		High pressure	mm (in.)	15.88 (5/8) Brazed				15.88 (5/8) Brazed			
		Low pressure	mm (in.)	22.2 (7/8) Brazed				28.58 (1-1/8) Brazed			
Fan	Type x Quantity			Propeller fan x 1				Propeller fan x 2			
	Air flow rate		m3/min	240				250			
			L/s	4,000				4,167			
			cfm	8,474				8,828			
	Control, Driving mechanism			Inverter-control, Direct-driven by motor				Inverter-control, Direct-driven by motor			
	Motor output		kW	0.92 x 1				0.46 x 2			
External static press. *5				0 Pa (0 mmH2O)				0 Pa (0 mmH2O)			
Compressor	Type			Inverter scroll hermetic compressor				Inverter scroll hermetic compressor			
	Starting method			Inverter				Inverter			
	Motor output		kW	7.7				9.6			
	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 *6			R32/675				R32/675			
	Factory charged	Weight	kg	5.2				8.0			
		CO2 equivalent *6	t	3.51				5.40			
	Max additional charge	Weight	kg	15.5				15.5			
		CO2 equivalent *6	t	10.46				10.46			
	Total charge	Weight	kg	20.7				23.5			
CO2 equivalent *6		t	13.97				15.86				
Net weight			kg (lbs)	231 (510)				276 (609)			
Heat exchanger				Salt-resistant cross fin & aluminium tube							
Defrosting method				Auto-defrost mode (Reversed refrigerant cycle, Hot gas)							
Optional parts				Main HBC controller: CMB-WM108.1016V-AA Sub HBC controller: CMB-WM108.1016V-AB							

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.

6. This table is based on Regulation (EU) No517/2014.

- R32 is flammable, and certain restrictions apply to the installation of units.
- When installing new units, moving the existing units, or changing the layout of the room, ensure that installation restrictions are observed.
- For detail, refer to the section in the Databook on installation restrictions.
- 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-EM400YNW-A1 (-BS)	PURY-EM450YNW-A1 (-BS)	PURY-EM500YNW-A1 (-BS)
Power source			3-phase 4-wire 380-400-415 V 50/60 Hz		
Cooling	Capacity (Nominal) *1	kW	45.0	50.0	56.0
		BTU / h	153,500	170,600	191,100
	Power input	kW	13.84	15.24	18.06
	Current input	A	23.3-22.1-21.3	25.7-24.4-23.5	30.4-28.9-27.9
	EER	kW / kW	3.25	3.28	3.10
	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)
Heating	Capacity (Nominal) *2	kW	50.0	56.0	63.0
		BTU / h	170,600	191,100	215,000
	Power input	kW	13.88	15.77	17.45
	Current input	A	23.4-22.2-21.4	26.6-25.2-24.3	29.4-27.9-26.9
	COP	kW / kW	3.60	3.55	3.61
	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)
Indoor unit connectable		Total capacity	50~150% of outdoor unit capacity	50~150% of outdoor unit capacity	50~150% of outdoor unit capacity
		Model / Quantity	W(P)10~125, WL10~50/1~40	W(P)10~125, WL10~50/1~45	W(P)10~125, WL10~50/1~50
Sound pressure level (measured in anechoic room) *4		dB <A>	65.0/69.0	65.5/70.0	63.5/64.5
Sound power level (measured in anechoic room) *4		dB <A>	83.0/88.0	83.0/89.0	82.0/84.0
Refrigerant piping diameter	High pressure	mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed	19.05 (3/4) Brazed
	Low pressure	mm (in.)	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
Fan	Type x Quantity		Propeller fan x 2	Propeller fan x 2	Propeller fan x 2
	Air flow rate	m3/min	315	315	295
		L/s	5,250	5,250	4,917
	Control, Driving mechanism	cfm	11,123	11,123	10,416
			Inverter-control, Direct-driven by motor		
	Motor output	kW	0.46 x 2	0.46 x 2	0.92 x 2
External static press. *5			0 Pa (0 mmH2O)	0 Pa (0 mmH2O)	0 Pa (0 mmH2O)
Compressor	Type		Inverter scroll hermetic compressor	Inverter scroll hermetic compressor	Inverter scroll hermetic compressor
	Starting method		Inverter	Inverter	Inverter
	Motor output	kW	11.1	12.7	13.8
	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		-	-	-
Refrigerant	Fan motor		-	-	-
	Type/GWP *6		R32/675	R32/675	R32/675
	Factory charged	Weight	kg	10.8	10.8
		CO2 equivalent *6	t	7.29	7.29
	Max additional charge	Weight	kg	19.5	19.5
		CO2 equivalent *6	t	13.16	13.16
Total charge	Weight	kg	27.5	30.3	30.3
	CO2 equivalent *6	t	18.56	20.45	20.45
Net weight		kg (lbs)	280 (618)	305 (673)	348 (768)
Heat exchanger			Salt-resistant cross fin & aluminium tube		
Defrosting method			Auto-defrost mode (Reversed refrigerant cycle)		
Optional parts			Main HBC controller: CMB-WM108,1016V-AA Sub HBC controller: CMB-WM108,1016V-AB		

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 :

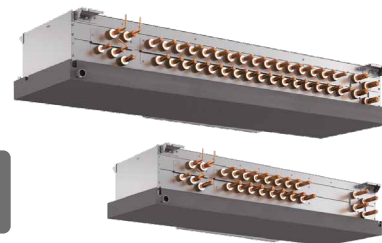
- Nominal cooling conditions (subject to JIS B8615-2)
Indoor: 27°CDB./19°CWB. (81°FDB./66°FWB.), Outdoor: 35°CDB./24°CWB. (95°FDB./75°FWB.)
Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
- Nominal heating conditions (subject to JIS B8615-2)
Indoor: 20°CDB. (68°FDB.), Outdoor: 7°CDB./6°CWB.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

6. This table is based on Regulation (EU) No517/2014.

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

Main-HBC



Model			CMB-WM108V-AA		CMB-WM1016V-AA	
Number of Branch			8		16	
Power Source			1-phase 220-230-240 V		1-phase 220-230-240 V	
			50 Hz	60 Hz	50 Hz	60 Hz
Power Input (220/230/240)	Cooling	kW	0.45/0.46/0.47	0.45/0.46/0.47	0.45/0.46/0.47	0.45/0.46/0.47
	Heating	kW	0.45/0.46/0.47	0.45/0.46/0.47	0.45/0.46/0.47	0.45/0.46/0.47
Current Input (220/230/240)	Cooling	A	2.89/2.83/2.79	2.89/2.83/2.79	2.89/2.83/2.79	2.89/2.83/2.79
	Heating	A	2.89/2.83/2.79	2.89/2.83/2.79	2.89/2.83/2.79	2.89/2.83/2.79
Sound pressure level (measured in anechoic room)		dBA	41		41	
Applicable Temperature Range of Installation Site		°C (D.B.)	0~32		0~32	
External Finish			Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)			
Connectable Outdoor/Heat Source Unit			PURY-M200~500YNW-A1(-BS)/PURY-EM200~500YNW-A1(-BS)		PURY-M200~500YNW-A1(-BS)/PURY-EM200~500YNW-A1(-BS)	
Indoor Unit Capacity Connectable to 1 Branch			Model P80 or smaller (Use optional joint pipe combining 2 branches when the total unit capacity exceeds P81)			
External Dimension H x W x D		mm	300 x 1,520 x 630		300 x 1,800 x 630	
		in.	11-13/16 x 59-7/8 x 24-13/16		11-13/16 x 70-7/8 x 24-13/16	
Refrigerant Piping Diameter	To Outdoor Unit	High Press. Pipe (O.D.)	mm (in.)	15.88 (5/8) Brazed	15.88 (5/8) Brazed	
		Low Press. Pipe (O.D.)	mm (in.)	19.05 (3/4) Brazed	19.05 (3/4) Brazed	
Water Piping Diameter	To Indoor Unit	Inlet Pipe (I.D.)	mm (in.)	20 (3/4)	20 (3/4)	
		Outlet Pipe (I.D.)	mm (in.)	20 (3/4)	20 (3/4)	
Field Drain Pipe Size		mm (in.)	O.D. 32 (1-1/4)		O.D. 32 (1-1/4)	
Net Weight		kg (lbs)	86 (190) [96 (212) with water]		98 (217) [111 (245) with water]	
Standard Attachment Accessory			Drain Connection pipe (with flexible hose and insulation)		Drain Connection pipe (with flexible hose and insulation)	
Optional Parts			-		-	

Notes:

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

HBC Controller

Sub-HBC



Model				CMB-WM108V-AB		CMB-WM1016V-AB	
Number of Branch				8		16	
Power Source				1-phase 220-230-240 V		1-phase 220-230-240 V	
				50 Hz	60 Hz	50 Hz	60 Hz
Power Input (220/230/240)	Cooling	kW	0.01/0.01/0.01		0.01/0.01/0.01		0.01/0.01/0.01
	Heating	kW	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
	Heating	A	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				℃ (D.B.)		0~32	
External Finish				Galvanised steel plate (Lower part drain pan: pre-coated galvanised 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			mm	300 x 1,520 x 630		300 x 1,520 x 630	
			in.	11-13/16 x 59-7/8 x 24-13/16		11-13/16 x 59-7/8 x 24-13/16	
Water Piping Diameter	To Main HBC	Inlet Pipe (I.D.)	mm (in.)	20 (3/4)		20 (3/4)	
		Outlet Pipe (I.D.)	mm (in.)	20 (3/4)		20 (3/4)	
	To Indoor Unit	Inlet Pipe (I.D.)	mm (in.)	20 (3/4)		20 (3/4)	
		Outlet Pipe (I.D.)	mm (in.)	20 (3/4)		20 (3/4)	
Field Drain Pipe Size			mm (in.)	O.D. 32 (1-1/4)		O.D. 32 (1-1/4)	
Net Weight			kg (lbs)	44 (98) [49 (109) with water]		53 (117) [62 (137) with water]	
Standard Attachment Accessory				Drain Connection pipe (with flexible hose and insulation)		Drain Connection pipe (with flexible hose and insulation)	
Optional Parts				-		-	

Notes:

- *Works not included: Installation/foundation work, electrical connection work, duct work, insulation work, power source switch, and other items are not specified in this specifications.
- *The equipment is for water.
- *Install this product in a location where noise emitted by the unit will not disturb the neighbours. (For use in quiet environments with low background noise, position the Sub HBC CONTROLLER at least 5m away from any indoor units.)
- *Please install the Sub HBC controller in a place where noise will not be an issue.
- *Please attach an expansion vessel (field supply).
- *Please use copper or plastic pipes for the water circuit. Do not use steel or stainless steel pipework. Furthermore, when using copper pipework, use a non-oxidative brazing method. Oxidation of the pipework will reduce the pump life.
- *When brazing the pipes, be sure to braze after covering a wet cloth to the insulation pipes of the units in order to prevent it from burning and shrinking by heat.
- *Please install an air purge valve where air will gather in the water circuit.
- *Please refer to the databook or the installation manual for the specified water quality.
- *This unit is not designed for outside installations.
- *Please always make water circulate or pull out the circulation water completely when not using it. (Please do not use it as a drinking water.)
- *Please do not use ground water and well water.
- *When installing the Sub HBC unit in an environment which may drop below 0 °C, please add antifreeze to the circulating water. (Refer to the 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			
		BTU/h	4,100		5,800			
	Power input *2	kW	0.03		0.05			
	Current input*2	A	0.21		0.44			
Heating	Capacity (Nominal) *3	kW	1.4		1.9			
		BTU/h	4,800		6,500			
	Power input *2	kW	0.03		0.03			
	Current input *2	A	0.21		0.33			
External finish			Galvanised steel plate		Galvanised steel plate			
External dimension HxWxD		mm	200x790x700		200x790x700			
		in.	7-7/8 x 31-1/8 x 27-9/16		7-7/8 x 31-1/8 x 27-9/16			
Net Weight		kg (lbs)	19 (42)		19 (42)			
Heat Exchanger	Type		Cross fin (Aluminium fin and copper tube)		Cross fin (Aluminium fin and copper tube)			
	Water Volume	L	0.4		0.7			
Fan	Type × Quantity		Sirocco fan x 2		Sirocco fan x 2			
	External Static Pressure *4	Pa	<5> - 15 - <35> - <50>		<5> - 15 - <35> - <50>			
		mmH 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		0.096		0.096			
	Driving Mechanism		Direct-driven by motor		Direct-driven by motor			
	Airflow Rate	(Low Mid High)	m3/min	4.0 - 4.5 - 5.0		5.0 - 6.0 - 7.0		
			L/s	67 - 75 - 83		83 - 100 - 117		
			cf/m	141 - 159 - 177		177 - 212 - 247		
Sound pressure level (measured in anechoic room)*2		(Low Mid High)	dB<A>		20-23-25		22-24-28	
Insulation Material			EPS, Polyethylene foam, Urethane foam		EPS, Polyethylene foam, Urethane foam			
Air Filter			PP Honeycomb fabric		PP Honeycomb fabric			
Protection Device			Fuse		Fuse			
Connectable Outdoor Unit/HBC Controller			Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB		Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB			
Water Piping Diameter *5 *6	Inlet	in.	Rc 3/4 screw		Rc 3/4 screw			
	Outlet	in.	Rc 3/4 screw		Rc 3/4 screw			
Field Drain Pipe Size		mm (in.)	O.D.32 (1-1/4)		O.D.32 (1-1/4)			
Standard Attachment Accessory			Insulation pipe for water pipe, Washer, Drain hose, Tie Band		Insulation pipe for water pipe, Washer, Drain hose, Tie Band			
Optional part Control Box Replace Kit			PAC-KE70HS-E		PAC-KE70HS-E			

Unit Converter: BTU/h=kW×3,412, cfm=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./19°CWB. (95°FDB.) 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°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).
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.

Please group units that operate on 1 branch.

Slim Ceiling Concealed



Model			PEFY-WP20VMS1-E		PEFY-WP25VMS1-E	
Power source			1-phase 220-230-240 V 50/60 Hz		1-phase 220-230-240 V 50/60 Hz	
Cooling	Capacity (Nominal) *1	kW	2.2		2.8	
		BTU/h	7,500		9,600	
	Power input *2	kW	0.051		0.06	
	Current input*2	A	0.49		0.51	
Heating	Capacity (Nominal) *3	kW	2.5		3.2	
		BTU/h	8,500		10,900	
	Power input *2	kW	0.031		0.04	
	Current input *2	A	0.38		0.4	
External finish			Galvanised steel plate		Galvanised steel plate	
External dimension HxWxD		mm	200x790x700		200x790x700	
		in.	7-7/8 x 31-1/8 x 27-9/16		7-7/8 x 31-1/8 x 27-9/16	
Net Weight		kg (lbs)	20 (45)		20 (45)	
Heat Exchanger		Type	Cross fin (Aluminium fin and copper tube)		Cross fin (Aluminium fin and copper tube)	
		Water Volume	L	0.9		0.9
Fan	Type × Quantity		Sirocco fan x 2		Sirocco fan x 2	
	External Static Pressure *4	Pa	<5> - 15 - <35> - <50>		<5> - 15 - <35> - <50>	
		mmH 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	m3/min	5.5 - 6.5 - 8.0		5.5 - 7.0 - 9.0	
		(Low Mid High)	L/s	92 - 108 - 133		92 - 117 - 150
Sound pressure level (measured in anechoic room)*2		cf/m	194 - 230 - 282		194 - 247 - 318	
		dB<A>	23-25-29		23-26-30	
Insulation Material			EPS, Polyethylene foam, Urethane foam		EPS, Polyethylene foam, Urethane foam	
Air Filter			PP Honeycomb fabric		PP Honeycomb fabric	
Protection Device			Fuse		Fuse	
Connectable Outdoor Unit/HBC Controller			Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB		Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB	
Water Piping Diameter *5 *6	Inlet	in.	Rc 3/4 screw		Rc 3/4 screw	
	Outlet	in.	Rc 3/4 screw		Rc 3/4 screw	
Field Drain Pipe Size		mm (in.)	O.D.32 (1-1/4)		O.D.32 (1-1/4)	
Standard Attachment Accessory			Insulation pipe for water pipe, Washer, Drain hose, Tie Band		Insulation pipe for water pipe, Washer, Drain hose, Tie Band	
Optional part Control Box Replace Kit			PAC-KE70HS-E		PAC-KE70HS-E	

Unit Converter: BTU/h=kW×3,412, cfm=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	1-phase 220-230-240 V 50/60 Hz	1-phase 220-230-240 V 50/60 Hz	
Cooling	Capacity (Nominal) *1	kW	3.6	4.5	5.6	
		BTU/h	12,300	15,400	19,100	
	Power input *2	kW	0.071	0.090	0.090	
	Current input*2	A	0.61	0.73	0.77	
Heating	Capacity (Nominal) *3	kW	4.0	5.0	6.3	
		BTU/h	13,600	17,100	21,500	
	Power input *2	kW	0.051	0.070	0.070	
	Current input *2	A	0.50	0.62	0.66	
External finish			Galvanised steel plate	Galvanised steel plate	Galvanised steel plate	
External dimension HxWxD		mm	200x990x700	200x990x700	200x1,190x700	
		in.	7-7/8 x 39 x 27-9/16	7-7/8 x 39 x 27-9/16	7-7/8 x 46-7/8 x 27-9/16	
Net Weight		kg (lbs)	25 (56)	25 (56)	27 (60)	
Heat Exchanger		Type	Cross fin (Aluminium fin and copper tube)	Cross fin (Aluminium fin and copper tube)	Cross fin (Aluminium fin and copper tube)	
		Water Volume				L
Fan	Type × Quantity		Sirocco fan x 3	Sirocco fan x 3	Sirocco fan x 4	
	External Static Pressure *4		Pa	<5> - 15 - <35> - <50>	<5> - 15 - <35> - <50>	
			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	DC Motor	
	Motor Output		0.096	0.096	0.096	
	Driving Mechanism		Direct-driven by motor	Direct-driven by motor	Direct-driven by motor	
	Airflow Rate	(Low Mid High)	m3/min	8.0 - 9.0 - 11.0	9.5 - 11.0 - 13.0	12.0 - 14.0 - 16.5
			L/s	133 - 150 - 183	158 - 183 - 217	200 - 233 - 275
cf/m			282 - 318 - 388	335 - 388 - 459	424 - 494 - 583	
Sound pressure level (measured in anechoic room)*2		(Low Mid High)	dB<A>	28-30-33	30-32-35	30-33-36
Insulation Material			EPS, Polyethylene foam, Urethane foam	EPS, Polyethylene foam, Urethane foam	EPS, Polyethylene foam, Urethane foam	
Air Filter			PP Honeycomb fabric	PP Honeycomb fabric	PP Honeycomb fabric	
Protection Device			Fuse	Fuse	Fuse	
Connectable Outdoor Unit/HBC Controller			Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB	Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB	Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB	
Water Piping Diameter *5 *6	Inlet	in.	Rc 3/4 screw	Rc 3/4 screw	Rc 3/4 screw	
	Outlet	in.	Rc 3/4 screw	Rc 3/4 screw	Rc 3/4 screw	
Field Drain Pipe Size			mm (in.)	O.D.32 (1-1/4)	O.D.32 (1-1/4)	
Standard Attachment Accessory			Insulation pipe for water pipe, Washer, Drain hose, Tie Band	Insulation pipe for water pipe, Washer, Drain hose, Tie Band	Insulation pipe for water pipe, Washer, Drain hose, Tie Band	
Optional part Control Box Replace Kit			PAC-KE7OHS-E	PAC-KE7OHS-E	PAC-KE7OHS-E	

Unit Converter: BTU/h=kW×3.412, cfm=m³/min×35.31 and lbs=kg/0.4536 (Please note these figures are subject to rounding variation)

Notes:

- 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	
		BTU/h	7,500	9,600	
	Power input *2	kW	0.07	0.09	
	Current input*2	A	0.55	0.64	
Heating	Capacity (Nominal) *3	kW	2.5	3.2	
		BTU/h	8,500	10,900	
	Power input *2	kW	0.05	0.07	
	Current input *2	A	0.44	0.53	
External finish			Galvanised steel plate	Galvanised steel plate	
External dimension HxWxD		mm	250x700x732	250x900x732	
		in.	9-7/8 x 27-9/16 x 28-7/8	9-7/8 x 35-7/16 x 28-7/8	
Net Weight		kg (lbs)	21 (47)	26 (58)	
Heat Exchanger		Type	Cross fin (Aluminium fin and copper tube)	Cross fin (Aluminium fin and copper tube)	
		Water Volume			L
			0.7	1.0	
Fan	Type × Quantity		Sirocco fan x 1	Sirocco fan x 1	
	External Static Pressure *4		Pa	<35> - 50 - <70> - <100> - <150>	
			mmH ₂ O	<3.6> - 5.1 - <7.1> - <10.2> - <15.3>	
	Motor Type		DC Motor	DC Motor	
	Motor Output		kW	0.085	
	Driving Mechanism		Direct-driven by motor	Direct-driven by motor	
	Airflow Rate	(Low Mid High)	m ³ /min	7.5 - 9.0 - 10.5	10.0 - 12.0 - 14.0
			L/s	125 - 150 - 175	167 - 200 - 233
			cf/m	265 - 318 - 371	353 - 242 - 494
Sound pressure level (measured in anechoic room)*2		(Low Mid High)	dB<A>	23-26-29	23-27-30
Insulation Material			EPS, Polyethylene foam, Urethane foam	EPS, Polyethylene foam, Urethane foam	
Air Filter			PP Honeycomb fabric	PP Honeycomb fabric	
Protection Device			Fuse	Fuse	
Connectable Outdoor Unit/HBC Controller			Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB	Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB	
Water Piping Diameter *5 *6	Inlet	in.	Rc 3/4 screw	Rc 3/4 screw	
	Outlet	in.	Rc 3/4 screw	Rc 3/4 screw	
Field Drain Pipe Size		mm (in.)	O.D.32 (1-1/4)	O.D.32 (1-1/4)	
Standard Attachment Accessory			Insulation pipe for water pipe, Washer, Drain hose, Tie Band	Insulation pipe for water pipe, Washer, Drain hose, Tie Band	
Optional part Control Box Replace Kit			PAC-KE91TB-E	PAC-KE92TB-E	

Unit Converter: BTU/h=kW×3,412, cfm=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./19°CWB. (95°FDB.) 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°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).
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.

Please group units that operate on 1 branch.

Ceiling Concealed



Model				PEFY-WP32VMA-E	PEFY-WP40VMA-E	PEFY-WP50VMA-E
Power source				1-phase 220-230-240 V 50/60 Hz	1-phase 220-230-240 V 50/60 Hz	1-phase 220-230-240 V 50/60 Hz
Cooling	Capacity (Nominal) *1		kW	3.6	4.5	5.6
			BTU/h	12,300	15,400	19,100
	Power input *2		kW	0.11	0.14	0.14
			A	0.74	1.15	1.15
Heating	Capacity (Nominal) *3		kW	4.0	5.0	6.3
			BTU/h	13,600	17,100	21,500
	Power input *2		kW	0.09	0.12	0.12
			A	0.63	1.04	1.04
External finish				Galvanised steel plate	Galvanised steel plate	Galvanised steel plate
External dimension HxWxD			mm	250x900x732	250x1,100x732	250x1,100x732
			in.	9-7/8 x 35-7/16 x 28-7/8	9-7/8 x 42-5/16 x 28-7/8	9-7/8 x 42-5/16 x 28-7/8
Net Weight			kg (lbs)	26 (58)	31 (69)	31 (69)
Heat Exchanger		Type		Cross fin (Aluminium fin and copper tube)	Cross fin (Aluminium fin and copper tube)	Cross fin (Aluminium fin and copper tube)
		Water Volume	L	1.0	1.8	1.8
Fan	Type × Quantity			Sirocco fan x 1	Sirocco fan x 2	Sirocco fan x 2
	External Static Pressure *4		Pa	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>
			mmH 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	DC Motor	DC Motor	
	Motor Output		kW	0.085	0.121	0.121
	Driving Mechanism			Direct-driven by motor	Direct-driven by motor	Direct-driven by motor
	Airflow Rate	(Low Mid High)	m3/min	12.0 - 14.5 - 17.0	14.5 - 18.0 - 21.0	14.5 - 18.0 - 21.0
L/s			200 - 242 - 283	242 - 300 - 350	242 - 300 - 350	
cf/m			424 - 512 - 600	512 - 636 - 742	512 - 636 - 742	
Sound pressure level (measured in anechoic room)*2		(Low Mid High)	dB<A>	25-29-32	26-29-34	26-29-34
Insulation Material				EPS, Polyethylene foam, Urethane foam	EPS, Polyethylene foam, Urethane foam	EPS, Polyethylene foam, Urethane foam
Air Filter				PP Honeycomb fabric	PP Honeycomb fabric	PP Honeycomb fabric
Protection Device				Fuse	Fuse	Fuse
Connectable Outdoor Unit/HBC Controller				Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB	Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB	Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB
Water Piping Diameter *5 *6		Inlet	in.	Rc 3/4 screw	Rc 3/4 screw	Rc 3/4 screw
		Outlet	in.	Rc 3/4 screw	Rc 3/4 screw	Rc 3/4 screw
Field Drain Pipe Size			mm (in.)	O.D.32 (1-1/4)	O.D.32 (1-1/4)	O.D.32 (1-1/4)
Standard Attachment Accessory				Insulation pipe for water pipe, Washer, Drain hose, Tie Band	Insulation pipe for water pipe, Washer, Drain hose, Tie Band	Insulation pipe for water pipe, Washer, Drain hose, Tie Band
Optional part Control Box Replace Kit				PAC-KE92TB-E	PAC-KE93TB-E	PAC-KE93TB-E

Unit Converter: BTU/h=kW×3,412, cfm=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		1-phase 220-230-240 V 50/60 Hz		1-phase 220-230-240 V 50/60 Hz		
Cooling	Capacity (Nominal) *1		kW	7.1	8.0	9.0			
			BTU/h	24,200	27,300	30,700			
	Power input *2		kW	0.14	0.24	0.24			
			A	1.15	1.47	1.47			
Heating	Capacity (Nominal) *3		kW	8.0	9.0	10.0			
			BTU/h	27,300	30,700	34,100			
	Power input *2		kW	0.12	0.22	0.22			
			A	1.04	1.36	1.36			
External finish			Galvanised steel plate		Galvanised steel plate		Galvanised steel plate		
External dimension HxWxD			mm	250x1,100x732		250x1,400x732		250x1,400x732	
			in.	9-7/8 x 43-5/16 x 28-7/8		9-7/8 x 55-1/8 x 28-7/8		9-7/8 x 55-1/8 x 28-7/8	
Net Weight			kg (lbs)	31 (69)	40 (89)	40 (89)			
Heat Exchanger		Type	Cross fin (Aluminium fin and copper tube)		Cross fin (Aluminium fin and copper tube)		Cross fin (Aluminium fin and copper tube)		
		Water Volume	L	2.0	2.6	2.6			
Fan	Type × Quantity		Sirocco fan x 2		Sirocco fan x 2		Sirocco fan x 2		
	External Static Pressure *4		Pa	<35> - 50 - <70> - <100> - <150>		<35> - 50 - <70> - <100> - <150>		<35> - 50 - <70> - <100> - <150>	
			mmH 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		DC Motor		DC Motor		
	Motor Output		kW	0.121	0.244	0.244			
	Driving Mechanism		Direct-driven by motor		Direct-driven by motor		Direct-driven by motor		
	Airflow Rate		m ³ /min	14.5 - 18.0 - 21.0		23.0 - 28.0 - 33.0		23.0 - 28.0 - 33.0	
			(Low Mid High)	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		
Insulation Material			EPS, Polyethylene foam, Urethane foam		EPS, Polyethylene foam, Urethane foam		EPS, Polyethylene foam, Urethane foam		
Air Filter			PP Honeycomb fabric		PP Honeycomb fabric		PP Honeycomb fabric		
Protection Device			Fuse		Fuse		Fuse		
Connectable Outdoor Unit/HBC Controller			Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB		Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB		Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB		
Water Piping Diameter *5 *6		Inlet	in.	Rc 1-1/4 screw	Rc 1-1/4 screw	Rc 1-1/4 screw			
		Outlet	in.	Rc 1-1/4 screw	Rc 1-1/4 screw	Rc 1-1/4 screw			
Field Drain Pipe Size			mm (in.)	O.D.32 (1-1/4)	O.D.32 (1-1/4)	O.D.32 (1-1/4)			
Standard Attachment Accessory			Insulation pipe for water pipe, Washer, Drain hose, Tie Band		Insulation pipe for water pipe, Washer, Drain hose, Tie Band		Insulation pipe for water pipe, Washer, Drain hose, Tie Band		
Optional part Control Box Replace Kit			PAC-KE93TB-E		PAC-KE94TB-E		PAC-KE94TB-E		

Unit Converter: BTU/h=kW×3.412, cfm=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./19°CWB. (95°FDB.) 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°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).
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.

Please group units that operate on 1 branch.

Ceiling Concealed



Model			PEFY-WP100VMA-E	PEFY-WP125VMA-E	
Power source			1-phase 220-230-240 V 50/60 Hz	1-phase 220-230-240 V 50/60 Hz	
Cooling	Capacity (Nominal) *1	kW	11.2	14.0	
		BTU/h	38,200	47,800	
	Power input *2	kW	0.24	0.36	
	Current input*2	A	1.47	2.21	
Heating	Capacity (Nominal) *3	kW	12.5	16.0	
		BTU/h	42,700	54,600	
	Power input *2	kW	0.22	0.34	
	Current input *2	A	1.36	2.10	
External finish			Galvanised steel plate	Galvanised steel plate	
External dimension HxWxD		mm	250x1,400x732	250x1,600x732	
		in.	9-7/8 x 55-1/8 x 28-7/8	9-7/8 x 63 x 28-7/8	
Net Weight		kg (lbs)	40 (89)	42 (93)	
Heat Exchanger	Type		Cross fin (Aluminium fin and copper tube)	Cross fin (Aluminium fin and copper tube)	
	Water Volume	L	2.6	3.0	
Fan	Type × Quantity		Sirocco fan x 2	Sirocco fan x 2	
	External Static Pressure *4	Pa	<35> - 50 - <70> - <100> - <150>	<35> - 50 - <70> - <100> - <150>	
		mmH 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	
Sound pressure level (measured in anechoic room)*2		cf/m	812 - 989 - 1,165	1,042 - 1,254 - 1,483	
		(Low Mid High)	dB<A>	28-33-37	32-36-40
Insulation Material			EPS, Polyethylene foam, Urethane foam	EPS, Polyethylene foam, Urethane foam	
Air Filter			PP Honeycomb fabric	PP Honeycomb fabric	
Protection Device			Fuse	Fuse	
Connectable Outdoor Unit/HBC Controller			Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB	Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB	
Water Piping Diameter *5 *6	Inlet	in.	Rc 1-1/4 screw	Rc 1-1/4 screw	
	Outlet	in.	Rc 1-1/4 screw	Rc 1-1/4 screw	
Field Drain Pipe Size		mm (in.)	O.D.32 (1-1/4)	O.D.32 (1-1/4)	
Standard Attachment Accessory			Insulation pipe for water pipe, Washer, Drain hose, Tie Band	Insulation pipe for water pipe, Washer, Drain hose, Tie Band	
Optional part Control Box Replace Kit			PAC-KE94TB-E	PAC-KE95TB-E	

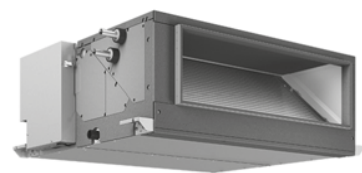
Unit Converter: BTU/h=kW×3,412, cfm=m³/min×35.31 and lbs=kg/0.4536 (Please note these figures are subject to rounding variation)

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

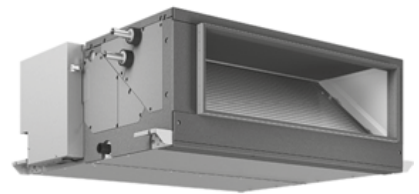
Unit Converter: BTU/h=kW×3.412, cfm=m³/min×35.31 and lbs=kg/0.4536 (Please note these figures are subject to rounding variation)

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

Please group units that operate on 1 branch.

Ceiling Concealed



Model				PEFY-WL80VMHS-A	PEFY-WL100VMHS-A	PEFY-WL125VMHS-A	
Power source				1-phase 220-230-240 V 50/60 Hz	1-phase 220-230-240 V 50/60 Hz	1-phase 220-230-240 V 50/60 Hz	
Cooling	Capacity (Nominal) *1		kW	9.0	11.2	14.0	
			BTU/h	30,700	38,200	47,800	
	Power input *2		kW	0.090	0.160	0.175	
			A	0.63-0.61-0.58	1.05-1.01-0.96	1.17-1.13-1.09	
Heating	Capacity (Nominal) *3		kW	10.0	12.5	16.0	
			BTU/h	34,100	42,700	54,600	
			kW	0.090	0.160	0.175	
	Current input *2		A	0.63-0.61-0.58	1.05-1.01-0.96	1.17-1.13-1.09	
External finish				Galvanised steel plate	Galvanised steel plate	Galvanised steel plate	
External dimension HxWxD			mm	380 x 1,030 x 900	380 x 1,195 x 900	380 x 1,195 x 900	
			in.	15 x 40-9/16 x 35-7/16	15 x 47-1/16 x 35-7/16	15 x 47-1/16 x 35-7/16	
Net Weight			kg (lbs)	45 (100)	51 (113)	53 (117)	
Heat Exchanger		Type	Cross fin (Aluminium fin and copper tube)		Cross fin (Aluminium fin and copper tube)	Cross fin (Aluminium fin and copper tube)	
		Water Volume	L	1.8	2.3	2.9	
Fan	Type × Quantity		Pa	Sirocco fan x 2		Sirocco fan x 2	Sirocco fan x 2
				mmH ₂ O	50 - <100> - <150> - <200>		50 - <100> - <150> - <200>
	External Static Pressure *4		5.1 - <10.2> - <15.3> - <20.4>		5.1 - <10.2> - <15.3> - <20.4>	5.1 - <10.2> - <15.3> - <20.4>	
	Motor Type		DC Motor		DC Motor	DC Motor	
	Motor Output		kW	0.244	0.375	0.375	
	Driving Mechanism		Direct-driven by motor		Direct-driven by motor	Direct-driven by motor	
	Airflow Rate		(Low Mid High)	m ³ /min	18.0 - 21.5 - 25.0	26.5 - 32.0 - 38.0	26.5 - 32.0 - 38.0
				L/s	300 - 358 - 417	442 - 533 - 633	442 - 533 - 633
				cf/m	636 - 759 - 883	936 - 1,130 - 1,342	936 - 1,130 - 1,342
Sound pressure level (measured in anechoic room)*2		(Low Mid High)	dB<A>	26-29-32	28-32-36	28-32-36	
Insulation Material				EPS, Polyethylene foam, Urethane foam	EPS, Polyethylene foam, Urethane foam	EPS, Polyethylene foam, Urethane foam	
Air Filter				Option:Synthetic fiber unwoven cloth filter (long life filter) and fil-ter box are recommended.	Option:Synthetic fiber unwoven cloth filter (long life filter) and fil-ter box are recommended.	Option:Synthetic fiber unwoven cloth filter (long life filter) and fil-ter box are recommended.	
Protection Device				Fuse	Fuse	Fuse	
Connectable Outdoor Unit/HBC Controller				HYBRID CITY MULTI/CMB-WM-V-AA, CMB-WM-V-AB	HYBRID CITY MULTI/CMB-WM-V-AA, CMB-WM-V-AB	HYBRID CITY MULTI/CMB-WM-V-AA, CMB-WM-V-AB	
Water Piping Diameter *5 *6			Inlet	mm ID	30	30	
			Outlet	mm ID	30	30	
Field Drain Pipe Size			mm (in.)	O.D.32 (1-1/4)	O.D.32 (1-1/4)	O.D.32 (1-1/4)	
Standard Attachment Accessory				Washer, Drain hose, Tie band	Washer, Drain hose, Tie band	Washer, Drain hose, Tie band	
Optional part	Drain pump kit		PAC-DRP10DP-E2		PAC-DRP10DP-E2	PAC-DRP10DP-E2	
	Long life filter		PAC-KE88LAF		PAC-KE89LAF	PAC-KE89LAF	
	Filter box		PAC-KE99TB-F		PAC-KE140TB-F	PAC-KE140TB-F	
	Valve kit*7		PAC-SK35VK-E		PAC-SK35VK-E	PAC-SK35VK-E	

Unit Converter: BTU/h=kW×3,412, cfm=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./19°CWB. (95°FDB.) 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°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).
 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. Certain restrictions apply to indoor unit combinations.
- Refer to the section on the valve kit in the chapter "OPTIONAL PARTS" in the DATA BOOK for the restrictions.
- When the valve kit is installed farther away from the HBC than the distance between the HBC and the WLmodel indoor unit, the maximum allowable height difference between the HBC and the valve kit is 15 meters.
- The maximum allowable piping length between the indoor unit and the valve kit is 5 meters.

Please group units that operate on 1 branch.

Ceiling Cassette



Model			PLFY-WL20VEM-E	PLFY-WL25VEM-E	PLFY-WL32VEM-E
Power source			1-phase 220-240 V 50Hz	1-phase 220-240 V 50Hz	1-phase 220-240 V 50Hz
Cooling	Capacity (Nominal) *1	kW	2.2	2.8	3.6
		BTU/h	7,500	9,600	12,300
	Power input	kW	0.03	0.03	0.03
	Current input	A	0.26	0.29	0.33
Heating	Capacity (Nominal) *2	kW	2.5	3.2	4.0
		BTU/h	8,500	10,900	13,600
	Power input	kW	0.03	0.03	0.03
	Current input	A	0.20	0.23	0.27
External finish			Galvanised steel sheet	Galvanised steel sheet	Galvanised steel sheet
External dimension HxWxD		mm	258 x 840 x 840	258 x 840 x 840	258 x 840 x 840
		in.	10-3/16 x 33-1/16 x 33-1/16	10-3/16 x 33-1/16 x 33-1/16	10-3/16 x 33-1/16 x 33-1/16
Net Weight		kg (lbs)	18 (40)	18 (40)	20 (44)
Decoration Panel	Model		PLP-6EA	PLP-6EA	PLP-6EA
	External finish		MUNSELL (1.0Y 9.2/0.2)	MUNSELL (1.0Y 9.2/0.2)	MUNSELL (1.0Y 9.2/0.2)
	Dimensions	mm	40 x 950 x 950	40 x 950 x 950	40 x 950 x 950
		in.	1-9/16 x 37-13/32 x 37-13/32	1-9/16 x 37-1/16 x 37-1/16	1-9/16 x 37-13/32 x 37-13/32
Net Weight		kg (lbs)	5 (11)	5 (11)	5 (11)
Heat Exchanger		Type	Cross fin (Aluminium fin and copper tube)	Cross fin (Aluminium fin and copper tube)	Cross fin (Aluminium fin and copper tube)
		Water Volume	L	1.0	1.0
Fan	Type × Quantity		Turbo Fan x 1	Turbo Fan x 1	Turbo Fan x 1
	External Static Pressure		Pa	0	0
	Motor Type		DC Motor	DC Motor	DC Motor
	Motor Output		kW	0.05	0.05
	Driving Mechanism		Direct-driven by motor	Direct-driven by motor	Direct-driven by motor
	Airflow Rate (Low-Mid1-Mid2-High)	m3/min	12 - 13 - 14 - 15	12 - 13 - 15 - 17	14 - 15 - 16 - 17
		L/s	200 - 217 - 233 - 250	200 - 217 - 250 - 283	233 - 250 - 267 - 283
cf/m		424 - 459 - 494 - 530	424 - 459 - 530 - 600	494 - 530 - 565 - 600	
Sound pressure level (Low-Mid1-Mid2-High)		dB <A>	24 - 26 - 27 - 28	24 - 26 - 28 - 30	26 - 27 - 29 - 30
Insulation Material			PS	PS	PS
Air Filter			PP Honeycomb	PP Honeycomb	PP Honeycomb
Protection Device			Fuse	Fuse	Fuse
Refrigerant Control Device			-	-	-
Connectable Outdoor Unit/HBC Controller			Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB		Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB
Water Piping Diameter *3 *4	Inlet	mm ID	20	20	20
	Outlet	mm ID	20	20	20
Field Drain Pipe Size			O.D.32 (1-1/4)	O.D.32 (1-1/4)	O.D.32 (1-1/4)
Optional parts	Decoration Panel *5		PLP-6EA/PLP-6EAE/PLP-6EAL/PLP-6EAL	PLP-6EA/PLP-6EAE/PLP-6EAL/PLP-6EAL	PLP-6EA/PLP-6EAE/PLP-6EAL/PLP-6EAL
	i-See Sensor Control Panel		PAC-SE1ME-E	PAC-SE1ME-E	PAC-SE1ME-E
	Wireless Signal Receiver		PAR-SE9FA-E	PAR-SE9FA-E	PAR-SE9FA-E
	Valve kit *6		PAC-SK35VK-E	PAC-SK35VK-E	PAC-SK35VK-E

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

Notes:

- 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.
The maximum allowable piping length between the indoor unit and the valve kit is 5 meters.
- * Please group units that operate on 1 branch.
* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.
* Due to continuing improvement, above specifications may be subject to change without notice.

Ceiling Cassette



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

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

Notes:

- 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.
The maximum allowable piping length between the indoor unit and the valve kit is 5 meters.
- * Please group units that operate on 1 branch.
* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.
* Due to continuing improvement, above specifications may be subject to change without notice.

Ceiling Cassette



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

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

Notes:

- 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.
The maximum allowable piping length between the indoor unit and the valve kit is 5 meters.
- * Please group units that operate on 1 branch.
* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.
* Due to continuing improvement, above specifications may be subject to change without notice.

Compact Ceiling Cassette



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

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

Notes:

- 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-VFM-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.
The maximum allowable piping length between the indoor unit and the valve kit is 5 meters.
- * Please group units that operate on 1 branch.
* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.
* Due to continuing improvement, above specifications may be subject to change without notice.

Compact Ceiling Cassette



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

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

Notes:

- 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-VFM-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.
The maximum allowable piping length between the indoor unit and the valve kit is 5 meters.
- * Please group units that operate on 1 branch.
* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.
* Due to continuing improvement, above specifications may be subject to change without notice.

Compact Ceiling Cassette



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

Unit Converter: BTU/h=kW×3,412, cfm=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-VFM-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.
The maximum allowable piping length between the indoor unit and the valve kit is 5 meters.
- * Please group units that operate on 1 branch.
* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.
* Due to continuing improvement, above specifications may be subject to change without notice.

Wall Mounted



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

Unit Converter: BTU/h=kW×3.412, cfm=m³/min×35.31 and lbs=kg/0.4536 (Please note these figures are subject to rounding variation)

Notes:

- 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).
 - 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).
 - 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. The maximum allowable piping length between the indoor unit and the valve kit is 5 meters.
- * Please group units that operate on 1 branch.
- * Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.
- * Due to continuing improvement, above specifications may be subject to change without notice.

Wall Mounted



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

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

Notes:

- 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).
 - 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).
 - 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. The maximum allowable piping length between the indoor unit and the valve kit is 5 meters.
- * Please group units that operate on 1 branch.
 * Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.
 * Due to continuing improvement, above specifications may be subject to change without notice.

Wall Mounted



Model			PKFY-WL50VKM-E	PKFY-WL63VKM-E	PKFY-WL80VKM-E
Power source			1-phase 220-240 V 50Hz	1-phase 220-240 V 50Hz	1-phase 220-240 V 50Hz
Cooling	Capacity (Nominal) *1	kW	5.6	7.1	9.0
		BTU/h	19,100	24,200	30,700
	Power input	kW	0.04	0.05	0.07
	Current input	A	0.46	0.56	0.76
Heating	Capacity (Nominal) *2	kW	6.3	8.0	10.0
		BTU/h	21,500	27,300	34,100
	Power input	kW	0.04	0.05	0.07
	Current input	A	0.340	0.50	0.70
External finish			Plastic (1.0Y 9.2/0.2)	Plastic (1.0Y 9.2/0.2)	Plastic (1.0Y 9.2/0.2)
External dimension HxWxD		mm	365 x 1170 x 295	365 x 1170 x 295	365 x 1170 x 295
		in.	14-3/8 x 46-1/16 x 11-5/8	14-3/8 x 46-1/16 x 11-5/8	14-3/8 x 46-1/16 x 11-5/8
Net Weight		kg (lbs)	20 (44)	20 (44)	20 (44)
Heat Exchanger		Type	Cross fin (Aluminium fin and copper tube)	Cross fin (Aluminium fin and copper tube)	Cross fin (Aluminium fin and copper tube)
		Water Volume	L	2.0	2.0
Fan	Type × Quantity		Line Flow Fan x 1	Line Flow Fan x 1	Line Flow Fan x 1
	External Static Pressure	Pa	0	0	0
	Motor Type		DC Motor	DC Motor	DC Motor
	Motor Output	kW	0.069	0.069	0.069
	Driving Mechanism		Direct-Drive	Direct-Drive	Direct-Drive
	Airflow Rate (Low-Mid-High)	m3/min	18 - 20	18 - 22	18 - 26
		L/s	300 - 333	300 - 367	300 - 433
		cf/m	636 - 706	636 - 777	636 - 918
Sound pressure level (Low-Mid-High)		dB <A>	39 - 42	39 - 45	39 - 49
Insulation Material			Polyethylene Sheet	Polyethylene Sheet	Polyethylene Sheet
Air Filter			PP Honeycomb	PP Honeycomb	PP Honeycomb
Protection Device			Fuse	Fuse	Fuse
Connectable Outdoor Unit/HBC Controller			Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB/CMH-WM-V-A		
Water Piping Diameter *3 *4	Inlet	in.	Rc 3/4 screw	Rc 3/4 screw	Rc 3/4 screw
	Outlet	in.	Rc 3/4 screw	Rc 3/4 screw	Rc 3/4 screw
Field Drain Pipe Size		mm (in.)	I.D.16 (5/8)	I.D.16 (5/8)	I.D.16 (5/8)
Optional Parts	Drain Pump Kit		PAC-SK01DM-E	PAC-SK01DM-E	PAC-SK01DM-E
	Valve Kit *5		PAC-SK35VK-E	PAC-SK35VK-E	PAC-SK35VK-E
Unit Converter: BTU/h=kW×3.412. cfm=m³/min×35.31 and lbs=kg/0.4536 (Please note these figures are subject to rounding variation)					

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 – 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).
 - 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).
 - 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. The maximum allowable piping length between the indoor unit and the valve kit is 5 meters.
- * Please group units that operate on 1 branch.
- * Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.
- * Due to continuing improvement, above specifications may be subject to change without notice.

Floor Standing Concealed



Model			PFFY-WP20VLRMM-E	PFFY-WP25VLRMM-E	PFFY-WP32VLRMM-E
Power source			1-phase 220-230-240 V 50/60 Hz	1-phase 220-230-240 V 50/60 Hz	1-phase 220-230-240 V 50/60 Hz
Cooling	Capacity (Nominal) *1	kW	2.2	2.8	3.6
		BTU/h	7,500	9,600	12,300
	Power input *2	kW	0.040	0.040	0.050
	Current input *2	A	0.35	0.35	0.47
Heating	Capacity (Nominal) *3	kW	2.5	3.2	4.0
		BTU/h	8,500	10,900	13,600
	Power input *2	kW	0.040	0.040	0.050
	Current input *2	A	0.35	0.35	0.47
External finish			Galvanised steel plate	Galvanised steel plate	Galvanised steel plate
External dimension HxWxD		mm	639 x 886 x 220	639 x 1,006 x 220	639 x 1,006 x 220
		in.	25-3/16 x 34-15/16 x 8-11/16	25-3/16 x 39-5/8 x 8-11/16	25-3/16 x 39-5/8 x 8-11/16
Net Weight		kg (lbs)	22 (49)	25 (56)	25 (56)
Heat Exchanger		Type	Cross fin (Aluminium fin and copper tube)	Cross fin (Aluminium fin and copper tube)	Cross fin (Aluminium fin and copper tube)
		Water Volume L	0.9	1.3	1.3
Fan	Type × Quantity		Sirocco Fan x 1	Sirocco Fan x 2	Sirocco Fan x 2
	External Static Pressure *4	Pa	20 - <40> - <60>	20 - <40> - <60>	20 - <40> - <60>
		mmH ₂ O	2.0 - <4.1> - <6.1>	2.0 - <4.1> - <6.1>	2.0 - <4.1> - <6.1>
	Motor Type		DC Motor	DC Motor	DC Motor
	Motor Output	kW	0.096	0.096	0.096
	Driving Mechanism		Direct-driven by motor	Direct-driven by motor	Direct-driven by motor
	Airflow Rate (Low-Mid-High)	m3/min	4.5 - 5.0 - 6.0	6.0 - 7.0 - 8.0	7.5 - 9.0 - 10.5
		L/s	75 - 83 - 100	100 - 117 - 133	125 - 150 - 175
cf/m		159 - 177 - 212	212 - 247 - 282	265 - 318 - 371	
Sound pressure level (measured in anechoic room)*2	(Low-Mid-High)	dB<A>	31 - 33 - 38	31 - 33 - 38	31 - 35 - 38
Insulation Material			Polyethylene foam, Urethane foam	Polyethylene foam, Urethane foam	Polyethylene foam, Urethane foam
Air Filter			PP Honeycomb fabric	PP Honeycomb fabric	PP Honeycomb fabric
Protection Device			Fuse	Fuse	Fuse
Connectable Outdoor Unit/HBC Controller			Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB	Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB	Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB
Water Piping Diameter *3 *4	Inlet	in.	Rc 3/4 screw	Rc 3/4 screw	Rc 3/4 screw
	Outlet	in.	Rc 3/4 screw	Rc 3/4 screw	Rc 3/4 screw
Field Drain Pipe Size		mm (in.)	I.D.26 (1) <Accessory hose O.D.27 (1-3/32) (top end: O.D.20 (13/16))>	I.D.26 (1) <Accessory hose O.D.27 (1-3/32) (top end: O.D.20 (13/16))>	I.D.26 (1) <Accessory hose O.D.27 (1-3/32) (top end: O.D.20 (13/16))>
Standard Attachment Accessory			Insulation pipe for water pipe, Drain hose (flexible joint) Screw plate Level adjusting screw Hose band	Insulation pipe for water pipe, Drain hose (flexible joint) Screw plate Level adjusting screw Hose band	Insulation pipe for water pipe, Drain hose (flexible joint) Screw plate Level adjusting screw Hose band

Unit Converter: BTU/h=kW×3.412, cfm=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	1-phase 220-230-240 V 50/60 Hz
Cooling	Capacity (Nominal) *1	kW	4.5	5.6
		BTU/h	15,400	19,100
	Power input *2	kW	0.050	0.070
	Current input *2	A	0.47	0.65
Heating	Capacity (Nominal) *3	kW	5.0	6.3
		BTU/h	17,100	21,500
	Power input *2	kW	0.050	0.070
	Current input *2	A	0.47	0.65
External finish			Galvanised steel plate	Galvanised steel plate
External dimension HxWxD		mm	639 x 1,246 x 220	639 x 1,246 x 220
		in.	25-3/16 x 49-1/16 x 8-11/16	25-3/16 x 49-1/16 x 8-11/16
Net Weight		kg (lbs)	29 (64)	29 (64)
Heat Exchanger		Type	Cross fin (Aluminium fin and copper tube)	Cross fin (Aluminium fin and copper tube)
		Water Volume	L	1.5
Fan	Type × Quantity		Sirocco Fan x 2	Sirocco Fan x 2
	External Static Pressure *4	Pa	20 - <40> - <60>	20 - <40> - <60>
		mmH ₂ O	2.0 - <4.1> - <6.1>	2.0 - <4.1> - <6.1>
	Motor Type		DC Motor	DC Motor
	Motor Output	kW	0.096	0.096
	Driving Mechanism		Direct-driven by motor	Direct-driven by motor
	Airflow Rate (Low-Mid-High)	m3/min	8.0 - 10.0 - 11.5	10.5 - 13.0 - 15.0
		L/s	133 - 167 - 192	175 - 217 - 250
cf/m		282 - 353 - 406	371 - 459 - 530	
Sound pressure level (measured in anechoic room)*2	(Low-Mid-High)	dB<A>	31 - 37 - 40	37 - 42 - 45
Insulation Material			Polyethylene foam, Urethane foam	Polyethylene foam, Urethane foam
Air Filter			PP Honeycomb fabric	PP Honeycomb fabric
Protection Device			Fuse	Fuse
Connectable Outdoor Unit/HBC Controller			Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB	Hybrid City Multi CMB-WM-V-AA, CMB-WM-V-AB
Water Piping Diameter *3 *4	Inlet	in.	Rc 3/4 screw	Rc 3/4 screw
	Outlet	in.	Rc 3/4 screw	Rc 3/4 screw
Field Drain Pipe Size		mm (in.)	I.D.26 (1) <Accessory hose O.D.27 (1-3/32) (top end: O.D.20 (13/16))>	I.D.26 (1) <Accessory hose O.D.27 (1-3/32) (top end: O.D.20 (13/16))>
Standard Attachment Accessory			Insulation pipe for water pipe, Drain hose (flexible joint), Screw plate, Level adjusting screw, Hose band	Insulation pipe for water pipe, Drain hose (flexible joint), Screw plate, Level adjusting screw, Hose band

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

Notes:

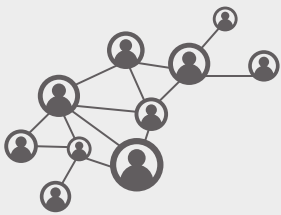
1. Nominal cooling conditions – Indoor: 27°CDB./19°CWB. (81°FDB./66°FWB.), Outdoor: 35°CDB./19°CWB. (95°FDB.) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
2. The value are measured at the factory setting of external static pressure.
3. Nominal heating conditions – Indoor: 20°CDB.(68°FDB.), Outdoor: 7°CDB./6°CWB. (45°FDB./43°FWB.) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
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.



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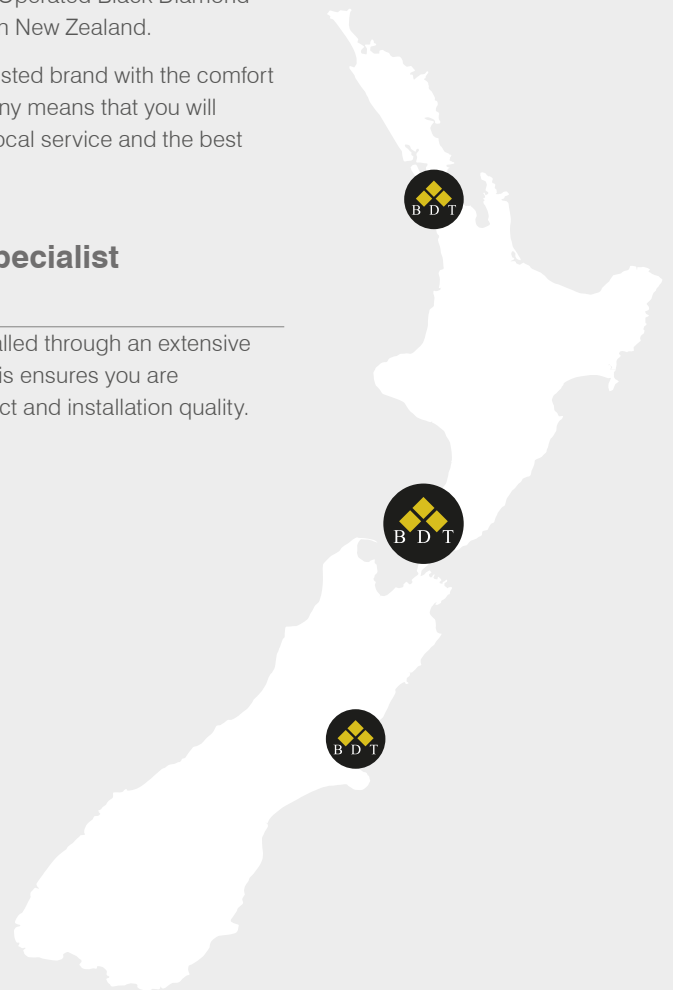
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