R32 HYBRID

MITSUBISHI ELECTRIC

R32 Hybrid Catalogue

Next Generation 2-Pipe VRF Heat Recovery Systems

CITY MULTI

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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 Product Range puts the company at the forefront of the industry.

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

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

The Mitsubishi Electric R32 Hybrid solution is an evolution of Mitsubishi Electric's R410A Hybrid System. First introduced in 2014, this unique 2-Pipe 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, R32 Hybrid minimises the overall amount of refrigerant charge in the system.

Furthermore, with only water circuits connecting to the indoor units, R32 Hybrid minimises the need for leak detection. Offering 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 R32 Hybrid 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.

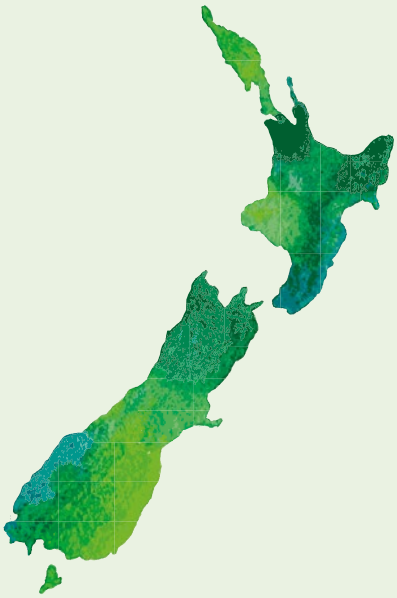
Because Hybrid now also incorporates R32 refrigerant, it delivers a VRF system with a significantly lower Global Warming Potential (GWP) than existing solutions.

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

R32 Hybrid is the New VRF Standard

Since 2015, Hybrid 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 R32 Hybrid Product Range 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.

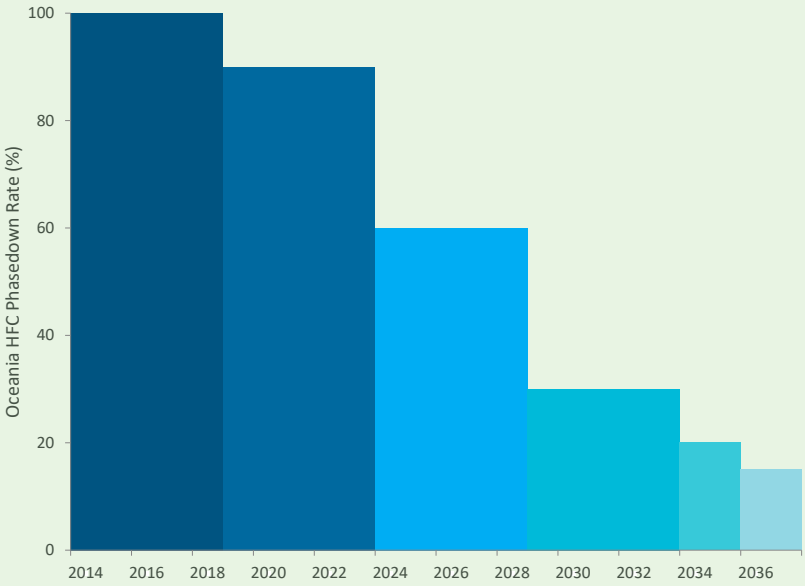
It is estimated that this directive has the potential to avoid aggregate emissions of more than 90 gigatonnes of CO_2e by 2050 – equivalent to two years of total global greenhouse gas emissions (US EPA 2016)!

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 R32 Hybrid 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 CO_2 Emissions



GWP is a measure of the warming potential as compared to CO_2 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 CO_2 would.

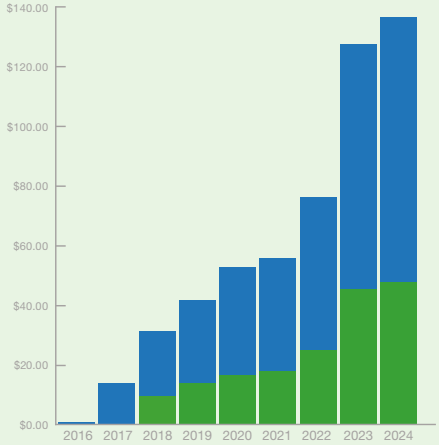
R32 refrigerant is being adopted by Mitsubishi Electric as an important step in the process towards the ultimate goal of a zero ODP, lower GWP, efficient, safe, and non-toxic refrigerant.

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

R32 Hybrid 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
2023	$129.85	Actual	$45.79	Actual
2024	$138.18	Actual	$48.72	Actual

What is R32 Hybrid?

Next Generation 2-Pipe Water Based VRF Technology

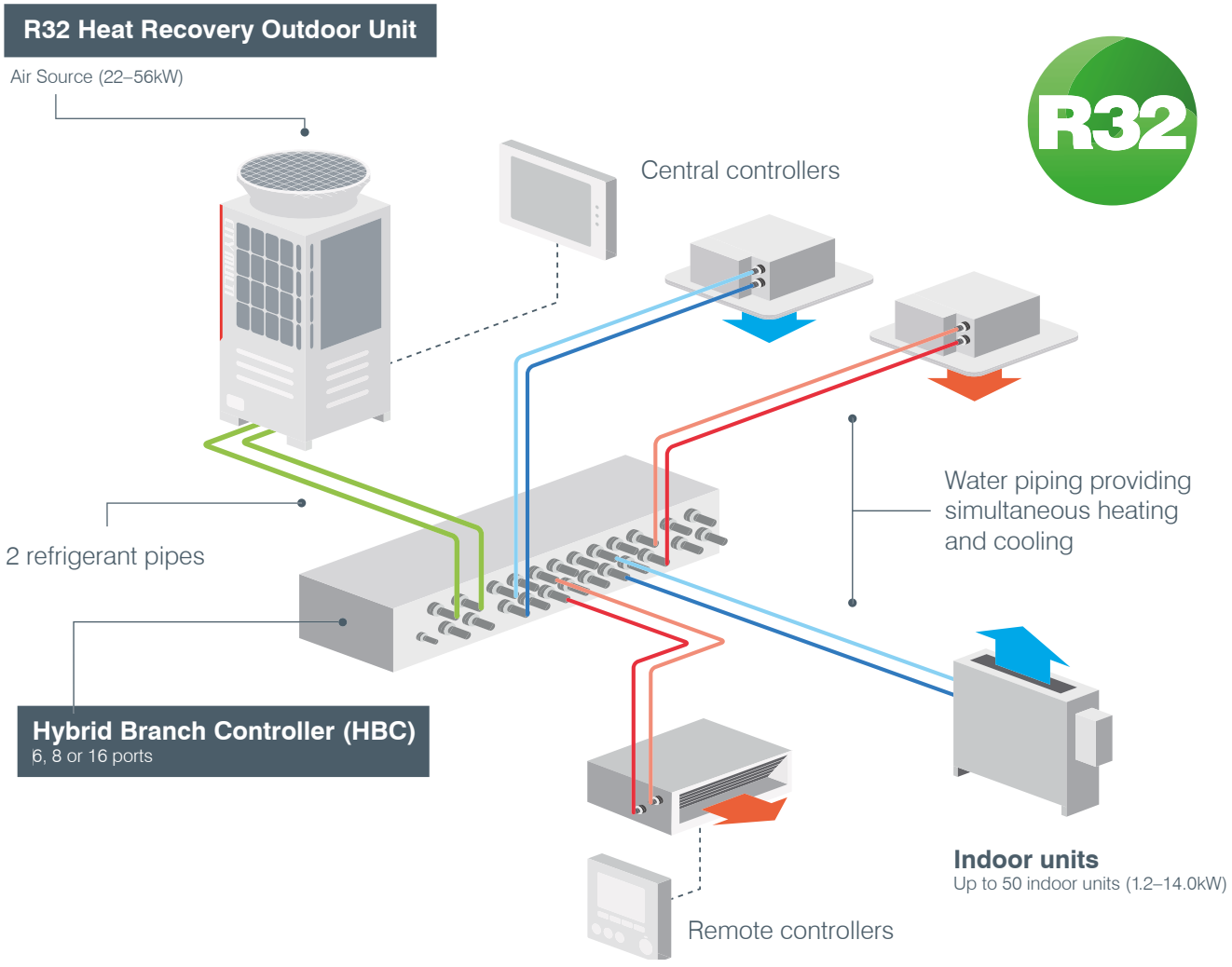
R32 Hybrid is a unique 2-Pipe Heat Recovery VRF System that replaces refrigerant with water between the Hybrid Branch Circuit Controller and the indoor units.

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.

R32 Hybrid 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, R32 Hybrid 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.

R32 Hybrid 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.



R32 HYBRID

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Where Can R32 Hybrid be Applied?

R32 Hybrid is the Complete Solution for Today's Modern Buildings

City Multi R32 Hybrid Systems allow for a flexible layout, making installation simple. With the use of centralised control, R32 Hybrid 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, R32 Hybrid 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. R32 Hybrid 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

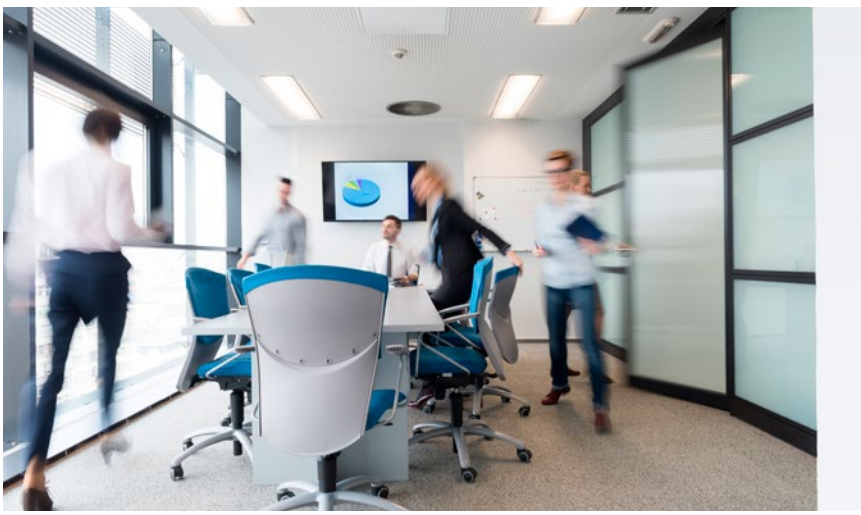
Customer comfort is paramount with legislation focusing attention on energy use and seeking to limit the use of refrigerant in occupied spaces. R32 Hybrid removes the need for leak detection in the occupied space, thereby reducing the total cost of the system and ongoing maintenance of the leak detection 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 indoor units. R32 Hybrid 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 – R32 Hybrid provides a truly integrated solution. R32 Hybrid delivers comfortable and stable air temperature control with no refrigerant in occupied spaces, minimising the need for leak detection.



The R32 Hybrid 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 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. R32 Hybrid minimises the need for leak detection, reducing the total cost of the system and on-going maintenance of the leak detection system itself.

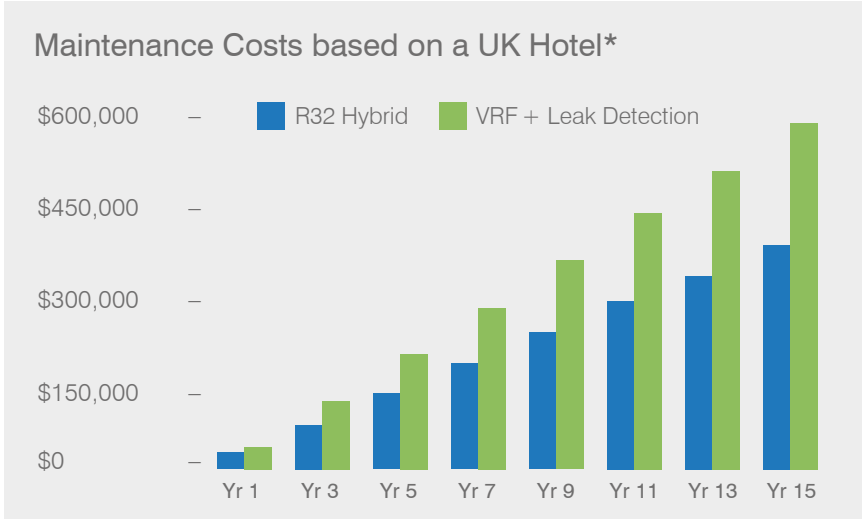
Minimise the Need for Leak Detection Systems

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.

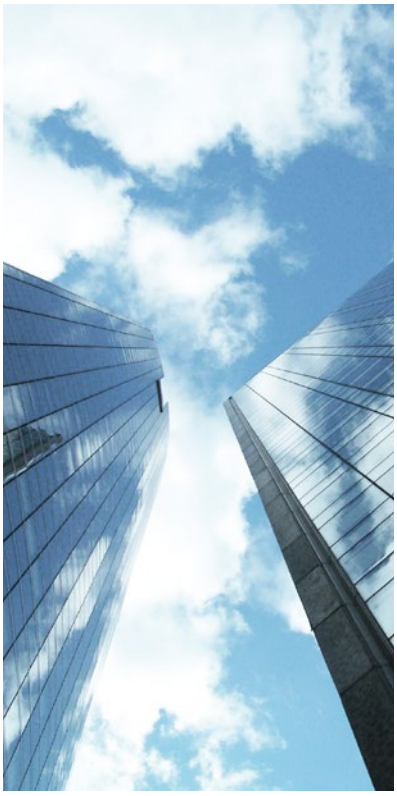
A leak detection system is designed to trigger an alarm if refrigerant was to leak into the room and initiate an evacuation of the space to try and prevent harm to the occupants. These systems can be expensive and add to the cost of design, build and maintenance.

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 R32 Hybrid 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.



R32 Hybrid Key Features and Benefits

Provides Simultaneous Heating and Cooling with Full Heat Recovery

R32 Hybrid is an advanced simultaneous heating and cooling system with heat recovery and delivers a proven alternative solution to traditional R410A VRF or VRV systems.

Energy Saving

Save more energy through 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.

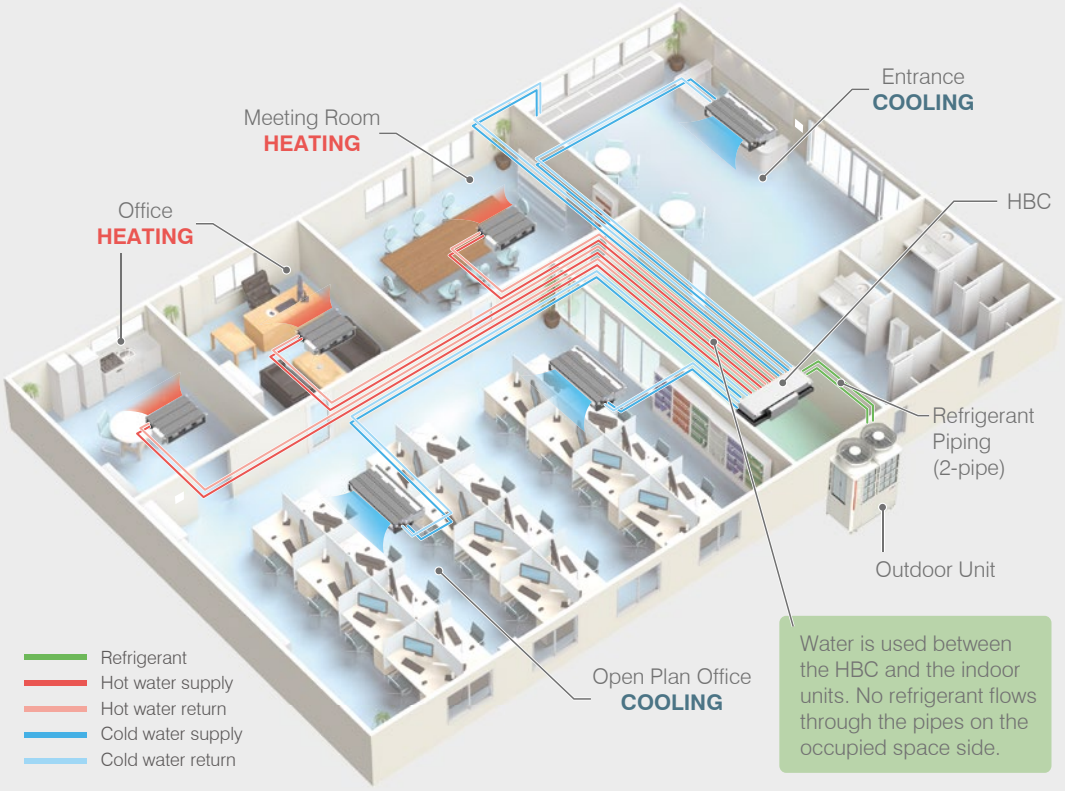
Use Less Material and Equipment

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 ancilliary controls associated with conventional 4-pipe chiller systems.

Flexible Design and Modularity Allow for a Manageable Phased Installation

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



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The HBC 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

R32 Hybrid 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 R32 Hybrid 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. R32 Hybrid 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, R32 Hybrid 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 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.

R32 Hybrid Case Study – Cuba Precinct

A large scale regeneration project in the heart of Wellington city uses an R32 Hybrid 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 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 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 Hybrid 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.

Jason Mann Photography

R32 Hybrid 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 R32 Hybrid 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 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

R32 Hybrid 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 Hybrid 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

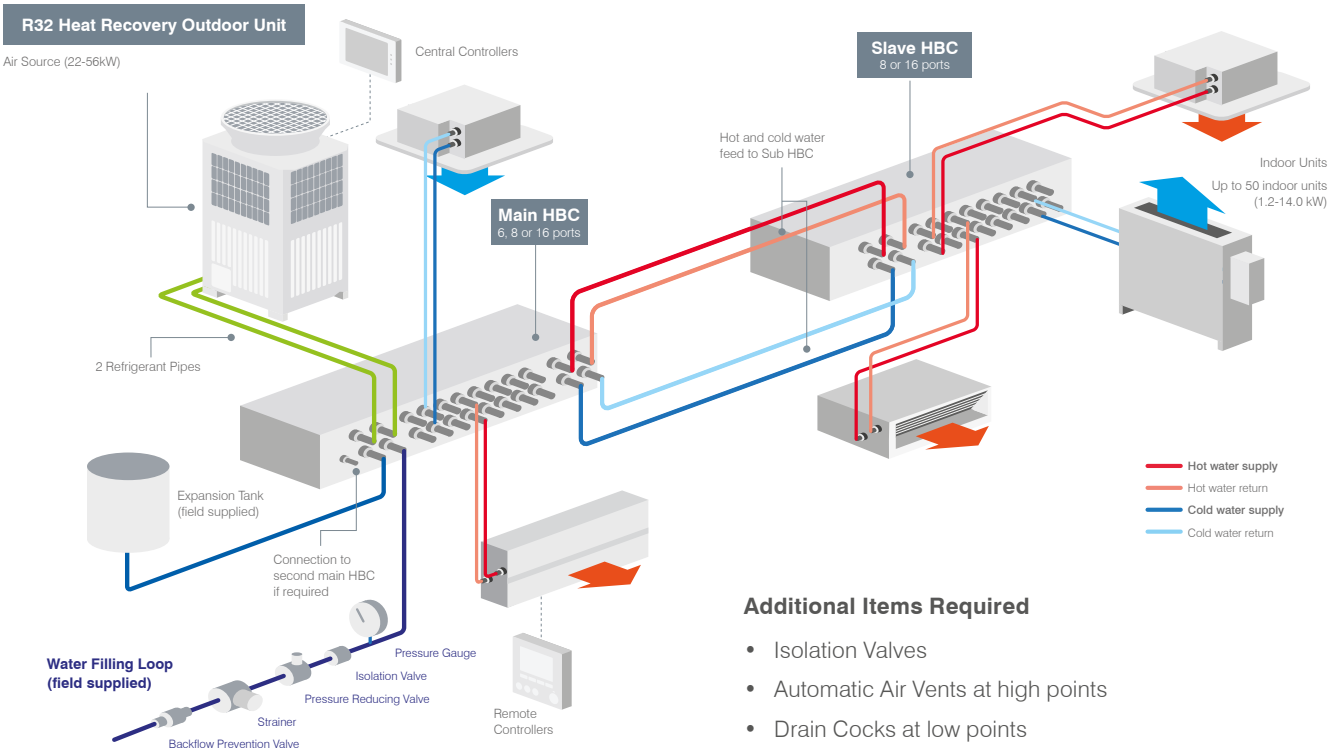
M-Net Interfaces

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

R32 Hybrid Technical System Overview

R32 Hybrid is based on a 2-Pipe Heat Recovery VRF System but uses water as a heat exchange medium between the Hybrid Branch Controller (HBC) 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

Image for representation only.

Model Lineup Vertical	Main HBC Only		Main HBC + Sub HBC					
Outdoor Unit Size	Main HBC Model	Total IDU Connection	Sub HBC Qty	Total IDU Connection	Sub HBC Qty	Total IDU Connection	Sub HBC Qty	Total IDU Connection
200	CMB-WM350F-AA	100-170*1	1	100-300	2	100-300	3	100-300
250	CMB-WM350F-AA	125-170*1	1	125-375	2	125-375	3	125-375
300	CMB-WM350F-AA	150-170*1	1	150-420*1	2	150-450	3	150-450
350	CMB-WM350F-AA	N/A*1	1	175-420*1	2	175-525	3	175-525
400	CMB-WM500F-AA	N/A*1	1	200-420*1	2	200-600	3	200-600
450	CMB-WM500F-AA	N/A*1	1	225-420*1	2	225-670*1	3	225-675
500	CMB-WM500F-AA	N/A*1	1	250-420*1	2	250-670*1	3	250-750

*1 Limited by HBC.

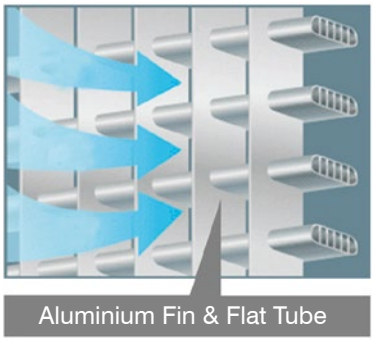
Model Lineup Horizontal	Main HBC Only		Main HBC + Sub HBC			
Outdoor Unit Size	Main HBC Qty	Total IDU Connection	Sub HBC Qty	Total IDU Connection	Sub HBC Qty	Total IDU Connection
200	1	100-300	1	100-300	2	N/A
250	1	125-375	1	125-375	2	N/A
300	1-2	150-450	1	150-450	2*2	150-450
350	1-2	175-525	1	175-525	2*2	175-525
400	2	200-600	1	200-600	2	200-600
450	2	225-675	1	225-675	2	225-675
500	2	250-750	1	250-750	2	250-750

*2 2x sub HBC only available if there are 2x Main HBC.

R32 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!

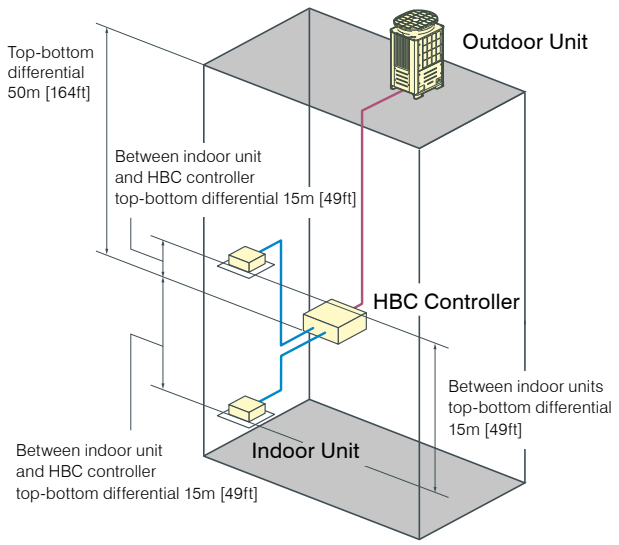
Inverter Compressor



Available on EM High COP Models Only

Size	200	250	300	350	400	450	500
Cooling (kW)	22.4	28.0	33.5	40.0	45.0	50.0	56.0
Heating (kW)	25.0	31.5	37.5	45.0	50.0	56.0	63.0

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 Controller (HBC) Horizontal

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.

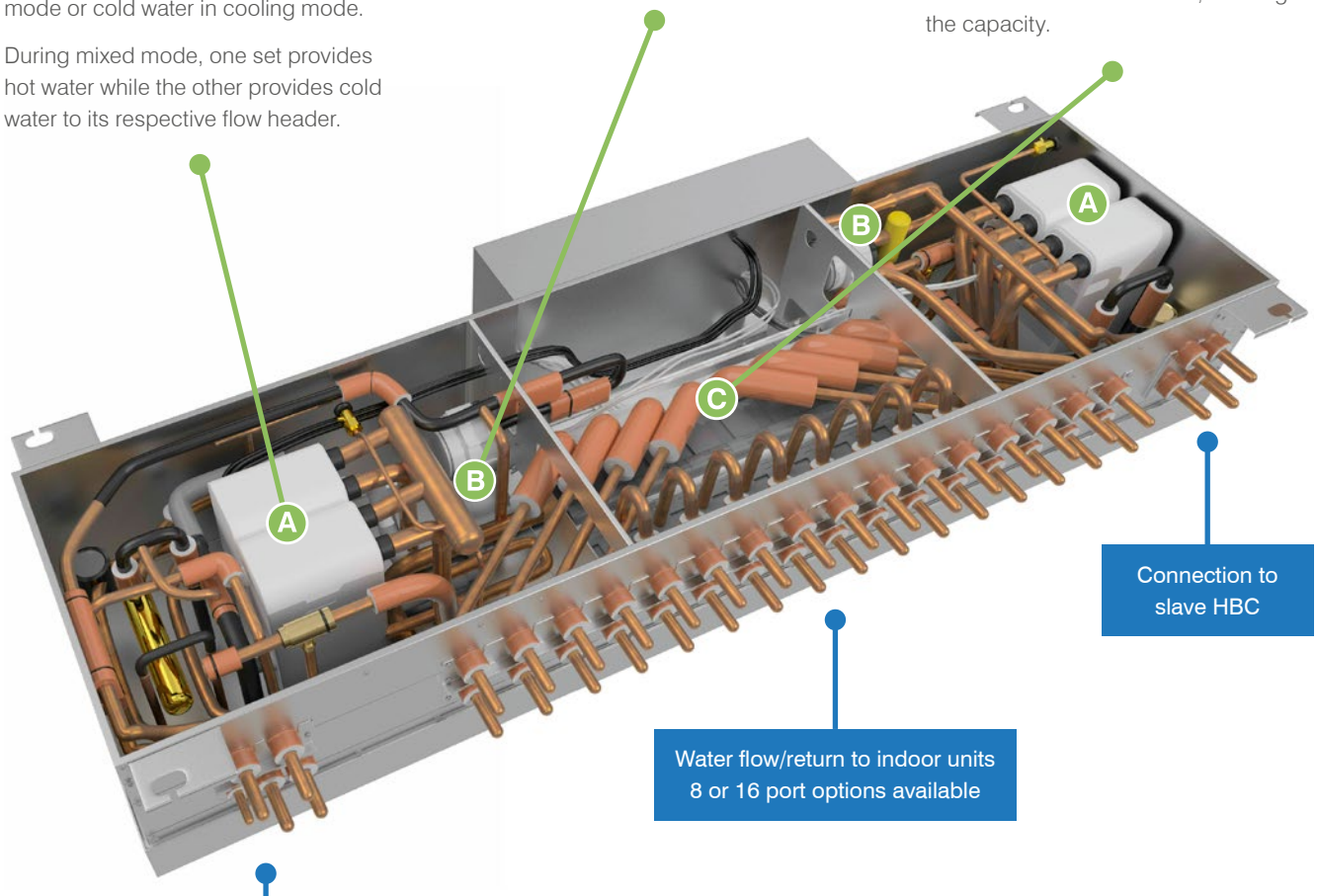
C - Valve Block

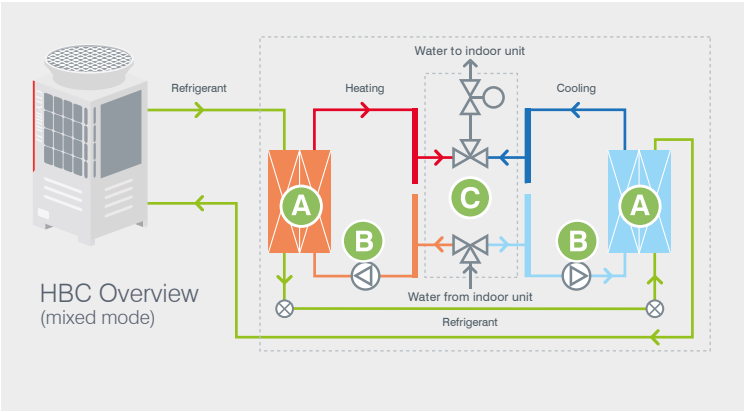
A Valve Block is connected between each flow and return port of the HBC.

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.





Images for representation only.

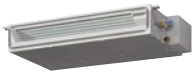
Hybrid Branch Controller (HBC)

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 R32 Hybrid Technology.

Type	Main Horizontal HBC		Main Vertical HBC		Sub Horizontal HBC	
Model	 CMB-WM108V-AA	 CMB-WM1016V-AA	 CMB-WM350F-AA	 CMB-WM500F-AA	 CMB-WM108V-BB	 CMB-WM1016V-BB
Number of Branches	8	16	6	6	8	16

Indoor Models

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

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

Controller Range

Remote Controllers

Standard Controller PAR-41MAA

- 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

MelcoBEMS Mini BMS Interface

- MODBUS
- BACnet MS/TP

AT-50B

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

BAC-HD150 BMS Interface

- BACnet
- Connects directly to M-NET

MA Touch Remote

PAR-CT01MAA-SB

PAR-CT01MAA-PB

3.5” Touch Panel

Featuring a 3.5” HVGA Full Colour LCD Touchscreen.

Bluetooth Functionality

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

Hotel Setting

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

Logo Customisation

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

Customisable Colour Options

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

CITY MULTI

MITSUBISHI ELECTRIC

Patented R32 Hybrid Technology

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

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	
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)	
		Outdoor	D.B.	-5.0~52.0°C (23~126°F)	
Heating	Capacity (Nominal) *2		kW	25	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)	
		Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	
Indoor unit connectable *4		Total capacity		50~150% of outdoor unit capacity	
		Model / Quantity		WP/WL10~125/1~30 *4	WP/WL10~125/1~37 *4
Sound pressure level (measured in anechoic room)*5			dB <A>	59.0/59.0	60.5/61.0
Sound power level (measured in anechoic room) *5			dB <A>	76.0/78.0	78.5/80.0
Refrigerant piping diameter		High pressure	mm (in.)	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	
	Air flow rate		m^3/min	170	185
			L/s	2,833	3,083
			cfm	6,003	6,532
	Control, Driving mechanism			Inverter-control, Direct-driven by motor	
	Motor output		kW	0.92 x 1	
	External static press. *6			0 Pa (0 mmH2O)	
Compressor	Type			Inverter scroll hermetic compressor	
	Starting method			Inverter	
	Motor output		kW	4.6	7.0
	Case heater		kW	- (- 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 x Original charge			R32 x 5.2 kg (12 lbs)	
Net weight			kg (lbs)	227 (501)	
Heat exchanger				Salt-resistant cross fin & copper tube	
Defrosting method				Auto-defrost mode (Reversed refrigerant cycle, Hot gas)	
Optional parts				Main HBC: CMB-WM108,1016V-AA, CMB-WM350F-AA | Sub HBC: CMB-WM108,1016V-BB	

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

Notes :

1. Nominal cooling conditions (subject to JIS B8615-2).
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./24°CW.B. (95°FD.B./75°FW.B.).
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.).
2. Nominal heating conditions (subject to JIS B8615-2).
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.).
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.).
3. -5°CD.B. (23°FD.B.)/-6°CW.B. (21°FW.B.) to 21°CD.B. (70°FD.B.)/15.5°CW.B. (60°FW.B.) with cooling/heating mixed operation.
4. There are restrictions on compatible combinations among W-model, WP-model, and WL-model indoor units. Refer to DATA BOOK for detailed information.
5. Cooling mode/Heating mode.
6. 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.
- 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 DATA BOOK 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 (Horizontal type)	Double / Single HBC (Horizontal type / Vertical type)	Single HBC (Horizontal type)	Double / Single HBC (Horizontal type / Vertical type)
Power source				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)			
		Outdoor	D.B.	-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)			
		Outdoor	W.B.	-20.0~15.5°C (-4~60°F)			
Indoor unit connectable *4		Total capacity		50~150% of outdoor unit capacity			
		Model / Quantity		WP/WL10~125/2~45 *4		WP/WL10~125/2~50*4	
Sound pressure level (measured in anechoic room)*5			dB <A>	61.0/67.0		62.5/64.0	
Sound power level (measured in anechoic room) *5			dB <A>	80.0/86.5		81.0/83.0	
Refrigerant piping diameter		High pressure	mm (in.)	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		m^3/min	240		250	
			L/s	4,000		4,167	
			cfm	8,474		8,828	
	Control, Driving mechanism			Inverter-control, Direct-driven by motor			
	Motor output		kW	0.92 x 1		0.46 x 2	
	External static press. *6			0 Pa (0 mmH2O)			
Compressor	Type			Inverter scroll hermetic compressor			
	Starting method			Inverter			
	Motor output		kW	8.0		9.6	
	Case heater		kW	- (- 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 x Original charge			R32 x 5.2 kg (12 lbs)		R32 x 8.0 kg (18 lbs)	
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: CMB-WM108,1016V-AA, CMB-WM350F-AA | Sub HBC: CMB-WM108,1016V-BB			

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

Notes :

1. Nominal cooling conditions (subject to JIS B8615-2).
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./24°CW.B. (95°FD.B./75°FW.B.).
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.).
2. Nominal heating conditions (subject to JIS B8615-2).
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.).
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.).
3. -5°CD.B. (23°FD.B.)/-6°CW.B. (21°FW.B.) to 21°CD.B. (70°FD.B.)/15.5°CW.B. (60°FW.B.) with cooling/heating mixed operation.
4. There are restrictions on compatible combinations among W-model, WP-model, and WL-model indoor units. Refer to DATA BOOK for detailed information.
5. Cooling mode/Heating mode.
6. 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.
- 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 DATA BOOK 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		
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
	Current input		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
	Temp. range *3	Indoor	W.B.	15.0~24.0°C (59~75°F)		
		Outdoor	D.B.	-5.0~52.0°C (23~126°F)		
Heating	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
	Current input		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
	Temp. range *3	Indoor	D.B.	15.0~27.0°C (59~81°F)		
		Outdoor	W.B.	-20.0~15.5°C (-4~60°F)		
Indoor unit connectable *4		Total capacity		50~150% of outdoor unit capacity		
		Model / Quantity		WP/WL10~125/2~50 *4		
Sound pressure level (measured in anechoic room)*5			dB <A>	65.0/69.0	65.5/70.0	63.5/64.5
Sound power level (measured in anechoic room) *5			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		
		Low pressure	mm (in.)	28.58 (1-1/8) Brazed		
Fan	Type x Quantity			Propeller fan x 2		
	Air flow rate		m^3/min	315		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		
	Motor output		kW	0.46 x 2		0.92 x 2
	External static press. *6			0 Pa (0 mmH2O)		
Compressor	Type			Inverter scroll hermetic compressor		
	Starting method			Inverter		
	Motor output		kW	12.2	13.1	17.4
	Case heater		kW	- (- 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 1,750 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 68-15/16 x 29-3/16
Protection devices	High pressure protection			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit (COMP./FAN)			Over-heat protection, Over-current protection		
	Compressor			-		
	Fan motor			-		
Refrigerant	Type x Original charge			R32 x 8.0 kg (18 lbs)	R32 x 10.8 kg (24 lbs)	
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: CMB-WM108,1016V-AA, CMB-WM500F-AA | Sub HBC: CMB-WM108,1016V-BB		

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

Notes :

1. Nominal cooling conditions (subject to JIS B8615-2).
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./24°CW.B. (95°FD.B./75°FW.B.).
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.).
2. Nominal heating conditions (subject to JIS B8615-2).
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.).
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.).
3. -5°CD.B. (23°FD.B.)/-6°CW.B. (21°FW.B.) to 21°CD.B. (70°FD.B.)/15.5°CW.B. (60°FW.B.) with cooling/heating mixed operation.
4. There are restrictions on compatible combinations among W-model, WP-model, and WL-model indoor units. Refer to DATA BOOK for detailed information.
5. Cooling mode/Heating mode.
6. 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.
- 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 DATA BOOK 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	
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)	
		Outdoor	D.B.	-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)	
		Outdoor	W.B.	-20.0~15.5°C (-4~60°F)	
Indoor unit connectable *4		Total capacity		50~150% of outdoor unit capacity	
		Model / Quantity		WP/WL10~125/1~30 *4	WP/WL10~125/1~37 *4
Sound pressure level (measured in anechoic room)*5			dB <A>	59.0/59.0	60.5/61.0
Sound power level (measured in anechoic room) *5			dB <A>	76.0/78.0	78.5/80.0
Refrigerant piping diameter		High pressure	mm (in.)	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	
	Air flow rate		m^3/min	170	185
			L/s	2,833	3,083
			cfm	6,003	6,532
	Control, Driving mechanism			Inverter-control, Direct-driven by motor	
	Motor output		kW	0.92 x 1	
	External static press. *6			0 Pa (0 mmH2O)	
Compressor	Type			Inverter scroll hermetic compressor	
	Starting method			Inverter	
	Motor output		kW	4.5	6.7
	Case heater		kW	- (- 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 x Original charge			R32 x 5.2 kg (12 lbs)	
Net weight			kg (lbs)	231 (510)	
Heat exchanger				Salt-resistant cross fin & aluminium tube	
Defrosting method				Auto-defrost mode (Reversed refrigerant cycle, Hot gas)	
Optional parts				Main HBC: CMB-WM108,1016V-AA, CMB-WM350F-AA | Sub HBC: CMB-WM108,1016V-BB	

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

Notes :

1. Nominal cooling conditions (subject to JIS B8615-2).
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./24°CW.B. (95°FD.B./75°FW.B.).
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.).
2. Nominal heating conditions (subject to JIS B8615-2).
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.).
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.).
3. -5°CD.B. (23°FD.B.)/-6°CW.B. (21°FW.B.) to 21°CD.B. (70°FD.B.)/15.5°CW.B. (60°FW.B.) with cooling/heating mixed operation.
4. There are restrictions on compatible combinations among W-model, WP-model, and WL-model indoor units. Refer to DATA BOOK for detailed information.
5. Cooling mode/Heating mode.
6. 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.
- 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 DATA BOOK 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 (Horizontal type)	Double / Single HBC (Horizontal type / Vertical type)	Single HBC (Horizontal type)	Double / Single HBC (Horizontal type / Vertical type)
Power source				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)			
		Outdoor	D.B.	-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)			
		Outdoor	W.B.	-20.0~15.5°C (-4~60°F)			
Indoor unit connectable *4		Total capacity		50~150% of outdoor unit capacity			
		Model / Quantity		WP/WL10~125/2~45 *4		WP/WL10~125/2~50 *4	
Sound pressure level (measured in anechoic room)*5			dB <A>	61.0/67.0		62.5/64.0	
Sound power level (measured in anechoic room) *5			dB <A>	80.0/86.5		81.0/83.0	
Refrigerant piping diameter		High pressure	mm (in.)	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		m^3/min	240		250	
			L/s	4,000		4,167	
			cfm	8,474		8,828	
	Control, Driving mechanism			Inverter-control, Direct-driven by motor			
	Motor output		kW	0.92 x 1		0.46 x 2	
	External static press. *6			0 Pa (0 mmH2O)			
Compressor	Type			Inverter scroll hermetic compressor			
	Starting method			Inverter			
	Motor output		kW	7.7		9.6	
	Case heater		kW	- (- 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 x Original charge			R32 x 5.2 kg (12 lbs)		R32 x 8.0 kg (18 lbs)	
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: CMB-WM108,1016V-AA, CMB-WM350F-AA | Sub HBC: CMB-WM108,1016V-BB			

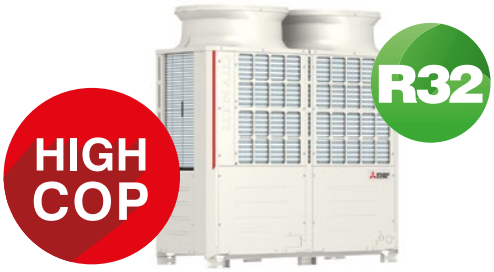
Unit Coverter: BTU/h=kW×3,412, cfm=m^3/min×35.31 and lbs=kg/0.4536 (Please note these figures are subject to rounding variation).

Notes :

1. Nominal cooling conditions (subject to JIS B8615-2).
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./24°CW.B. (95°FD.B./75°FW.B.).
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.).
2. Nominal heating conditions (subject to JIS B8615-2).
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.).
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.).
3. -5°CD.B. (23°FD.B.)/-6°CW.B. (21°FW.B.) to 21°CD.B. (70°FD.B.)/15.5°CW.B. (60°FW.B.) with cooling/heating mixed operation.
4. There are restrictions on compatible combinations among W-model, WP-model, and WL-model indoor units. Refer to DATA BOOK for detailed information.
5. Cooling mode/Heating mode.
6. 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.
- 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 DATA BOOK 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



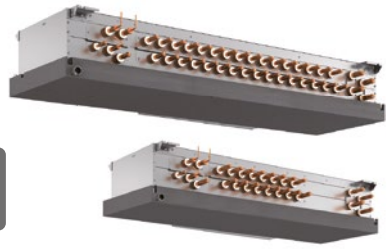
Model				PURY-EM400YNW-A1 (-BS)	PURY-EM450YNW-A1 (-BS)	PURY-EM500YNW-A1 (-BS)
Power source				3-phase 4-wire 380-400-415 V 50/60 Hz		
Cooling	Capacity (Nominal) *1		kW	45.0	50.0	56.0
			BTU / h	153,500	170,600	191,100
	Power input		kW	13.84	15.24	18.06
	Current input		A	23.3-22.1-21.3	25.7-24.4-23.5	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)		
		Outdoor	D.B.	-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)		
		Outdoor	W.B.	-20.0~15.5°C (-4~60°F)		
Indoor unit connectable *4		Total capacity		50~150% of outdoor unit capacity		
		Model / Quantity		WP/WL10~125/2~50 *4		
Sound pressure level (measured in anechoic room)*5			dB <A>	65.0/69.0	65.5/70.0	63.5/64.5
Sound power level (measured in anechoic room) *5			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		
		Low pressure	mm (in.)	28.58 (1-1/8) Brazed		
Fan	Type x Quantity			Propeller fan x 2		
	Air flow rate		m^3/min	315		295
			L/s	5,250		4,917
			cfm	11,123		10,416
	Control, Driving mechanism			Inverter-control, Direct-driven by motor		
	Motor output		kW	0.46 x 2		0.92 x 2
	External static press. *6			0 Pa (0 mmH2O)		
Compressor	Type			Inverter scroll hermetic compressor		
	Starting method			Inverter		
	Motor output		kW	11.1	12.7	13.8
	Case heater		kW	- (- 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 1,750 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 68-15/16 x 29-3/16
Protection devices	High pressure protection			High pressure sensor, High pressure switch at 4.15 MPa (601 psi)		
	Inverter circuit (COMP./FAN)			Over-heat protection, Over-current protection		
	Compressor			-	-	-
	Fan motor			-	-	-
Refrigerant	Type x Original charge			R32 x 8.0 kg (18 lbs)	R32 x 10.8 kg (24 lbs)	
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: CMB-WM108,1016V-AA, CMB-WM500F-AA | Sub HBC: CMB-WM108,1016V-BB		

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

Notes :

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

HBC Controller



Horizontal Main-HBC

Model				CMB-WM108V-AA					CMB-WM1016V-AA				
Number of branch				8					16				
Power source				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									
		Heating	kW	0.45/0.46/0.47									
Current input (220/230/240)		Cooling	A	2.89/2.83/2.79									
		Heating	A	2.89/2.83/2.79									
Sound pressure level (measured in anechoic room)			dBA	41									
Applicable temperature range of installation site			°C (D.B.)	0~32									
External finish				Galvanized steel plate (Lower part drain pan: Pre-coated galvanized sheets + powder coating)									
Connectable outdoor unit				PURY-M200~500YNW-A1(-BS)/PURY-EM200~500YNW-A1(-BS)									
Indoor unit capacity connectable to 1 branch				Model WP/WL80 or smaller (Use joint pipe combining 2 branches when the total unit capacity exceeds WP/WL80.)									
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		Connectable outdoor unit capacity					Connectable outdoor unit capacity				
				M200	M250/300	M350	M400	M450/500	M200	M250/300	M350	M400	M450/500
		High press. pipe (O.D.)	mm (in.)	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed
		Low press. pipe (O.D.)	mm (in.)	19.05 (3/4) Brazed	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	19.05 (3/4) Brazed	22.2 (7/8) Brazed	19.05 (3/4) Brazed	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	19.05 (3/4) Brazed	22.2 (7/8) Brazed
		To Main HBC	mm (in.)	15.88 (5/8) Brazed									
Water piping diameter	To Sub HBC			-									
	Connection size	Inlet/Outlet (O.D.)	mm (in.)	22									
	Field pipe size	Inlet/Outlet (I.D.)	mm (in.)	WP/WL10-100		20			WP/WL101-200		25.8		
				WP/WL201-300		30			WP/WL301-400		33.3		
				WP/WL401-500		36.2			WP/WL501-525		36.8		
	To indoor unit			-									
	Connection size	Inlet/Outlet (O.D.)	mm (in.)	22									
	Field pipe size	Inlet/Outlet (I.D.) (Min.)	mm (in.)	WP/WL10-50		20			WP/WL10-50		20		
				WP/WL51-125		30			WP/WL51-125		30		
Field drain pipe size			mm (in.)	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)									
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

Vertical Main-HBC

Model				CMB-WM350F-AA			CMB-WM500F-AA	
Number of branch				6				
Power source				1-phase 220-230-240 V				
				50 Hz	60 Hz		50 Hz	60 Hz
Power input (220/230/240)		Cooling	kW	1.50/1.50/1.50				
		Heating	kW	1.50/1.50/1.50				
Current input (220/230/240)		Cooling	A	6.82/6.52/6.25				
		Heating	A	6.82/6.52/6.25				
Sound pressure level (measured in anechoic room)			dBA	54				
Applicable temperature range of installation site			°C (D.B.)	0~40				
External finish				Galvanized steel plate				
Connectable outdoor unit				PURY-M200~350YNW-A1(-BS)/PURY-EM200~350YNW-A1(-BS)			PURY-M400~500YNW-A1(-BS)/PURY-EM400~500YNW-A1(-BS)	
Indoor unit capacity connectable to 1 branch				Model WP/WL80 or smaller (Use joint pipe combining 2 branches when the total unit capacity exceeds WP/WL80.)				
External dimension H x W x D			mm	1,500 x 800 x 500				
			in.	59-1/16 x 31-1/2 x 19-11/16				
Refrigerant piping diameter		To outdoor unit		Connectable outdoor unit capacity			Connectable outdoor unit capacity	
				M200	M250/300	M350	M400	M450/500
		High press. pipe (O.D.)	mm (in.)	15.88 (5/8) Brazed	15.88 (5/8) Brazed	15.88 (5/8) Brazed	19.05 (3/4) Brazed	19.05 (3/4) Brazed
		Low press. pipe (O.D.)	mm (in.)	19.05 (3/4) Brazed	22.2 (7/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed	28.58 (1-1/8) Brazed
		To Main HBC	mm (in.)	-				
Water piping diameter	To Sub HBC			-				
	Connection size	Inlet/Outlet (O.D.)	mm (in.)	42				
	Field pipe size	Inlet/Outlet (I.D.)	mm (in.)	As per indoor unit				
	To indoor unit			-				
	Connection size	Inlet/Outlet (O.D.)	mm (in.)	22				
	Field pipe size	Inlet/Outlet (I.D.) (Min.)	mm (in.)	Total down-stream Indoor Unit capacity	Piping length from Main-HBC to farthest indoor unit		Total down-stream indoor unit capacity	Piping length from Main-HBC to farthest indoor unit
					Max 20m	Max 40m	Max 60m		Max 20m	Max 40m	Max 60m
				WP/WL10	12	12	12	WP/WL10	12	12	12
				WP/WL11 - 15	12	12	15.5	WP/WL11 - 15	12	12	15.5
				WP/WL16 - 25	15.5	15.5	15.5	WP/WL16 - 25	15.5	15.5	15.5
				WP/WL26 - 32	15.5	19.9	19.9	WP/WL26 - 32	15.5	19.9	19.9
				WP/WL33 - 50	19.9	19.9	19.9	WP/WL33 - 50	19.9	19.9	19.9
				WP/WL51 - 63	19.9	25.2	25.2	WP/WL51 - 63	19.9	25.2	25.2
				WP/WL64 - 80	25.2	25.2	25.2	WP/WL64 - 80	25.2	25.2	25.2
				WP/WL81 - 100	25.2	25.2	32.6	WP/WL81 - 100	25.2	25.2	32.6
				WP/WL101 - 150	32.6	32.6	32.6	WP/WL101 - 150	32.6	32.6	32.6
				WP/WL151 - 250	32.6	32.6	39.6	WP/WL151 - 250	32.6	32.6	39.6
				WP/WL251 - 300	32.6	39.6	50.8	WP/WL251 - 300	32.6	39.6	50.8
				WP/WL301 - 750	50.8	50.8	50.8	WP/WL301 - 750	50.8	50.8	50.8
Field drain pipe size			mm (in.)	O.D. 26.7 (1-1/16)							
Net weight			kg (lbs)	196 (433) [216 (477) with water]			209 (461) [233 (514) with water]				
Standard attachment | Accessory				-							
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

Horizontal Sub-HBC

Model				CMB-WM108V-BB		CMB-WM1016V-BB	
Number of branch				8		16	
Power source				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			
		Heating	kW	0.01/0.01/0.01			
Current input (220/230/240)		Cooling	A	0.14/0.14/0.14			
		Heating	A	0.14/0.14/0.14			
Sound pressure level (measured in anechoic room)			dBA	-			
Applicable temperature range of installation site			°C (D.B.)	0~32			
External finish				Galvanized steel plate			
Connectable outdoor unit				-			
Indoor unit capacity connectable to 1 branch				Model WP/WL80 or smaller (Use optional joint pipe combining 2 branches when the total unit capacity exceeds WP/WL80.)			
External dimension H x W x D			mm	310 x 930 x 630		310 x 1,210 x 630	
			in.	12-1/4 x 36-5/8 x 24-13/16		12-1/4 x 47-11/16 x 24-13/16	
Water piping diameter	To HBC			To Horizontal Main HBC			
	Connection size	Inlet/Outlet (O.D.)	mm (in.)	28			
	Field pipe size	Inlet/Outlet (I.D.)	mm (in.)	WP/WL10-100	20	WP/WL101-200	25.8
				WP/WL201-300	30	WP/WL301-400	33.3
				WP/WL401-500	36.2	WP/WL501-525	36.8
	To HBC			To Vertical Main HBC			
	Connection size	Inlet/Outlet (O.D.)	mm (in.)	28			
	Field pipe size	Inlet/Outlet (I.D.)	mm (in.)	As per indoor unit			
	To indoor unit			Horizontal HBC			
	Connection size	Inlet/Outlet (O.D.)	mm (in.)	22			
	Field pipe size	Inlet/Outlet (I.D.) (Min.)	mm (in.)	W/WP/WL10-50	20	W/WP/WL10-50	20
				W/WP/WL51-125	30	W/WP/WL51-125	30
	To indoor unit			Vertical HBC			
	Connection size	Inlet/Outlet (O.D.)	mm (in.)	22			
	Field pipe size	Inlet/Outlet (I.D.) (Min.)	mm (in.)	Total down-stream indoor unit capacity	Piping length from Main-HBC to farthest indoor unit	Total down-stream indoor unit capacity	Piping length from Main-HBC to farthest indoor unit
					Max 20m / Max 40m / Max 60m		Max 20m / Max 40m / Max 60m
				WP/WL10	12 / 12 / 12	WP/WL10	12 / 12 / 12
				WP/WL11 - 15	12 / 12 / 15.5	WP/WL11 - 15	12 / 12 / 15.5
				WP/WL16 - 25	15.5 / 15.5 / 15.5	WP/WL16 - 25	15.5 / 15.5 / 15.5
				WP/WL26 - 32	15.5 / 19.9 / 19.9	WP/WL26 - 32	15.5 / 19.9 / 19.9
				WP/WL33 - 50	19.9 / 19.9 / 19.9	WP/WL33 - 50	19.9 / 19.9 / 19.9
				WP/WL51 - 63	19.9 / 25.2 / 25.2	WP/WL51 - 63	19.9 / 25.2 / 25.2
				WP/WL64 - 80	25.2 / 25.2 / 25.2	WP/WL64 - 80	25.2 / 25.2 / 25.2
				WP/WL81 - 100	25.2 / 25.2 / 32.6	WP/WL81 - 100	25.2 / 25.2 / 32.6
				WP/WL101 - 150	32.6 / 32.6 / 32.6	WP/WL101 - 150	32.6 / 32.6 / 32.6
				WP/WL151 - 250	32.6 / 32.6 / 39.6	WP/WL151 - 250	32.6 / 32.6 / 39.6
				WP/WL251 - 300	32.6 / 39.6 / 50.8	WP/WL251 - 300	32.6 / 39.6 / 50.8
				WP/WL301 - 750	50.8 / 50.8 / 50.8	WP/WL301 - 750	50.8 / 50.8 / 50.8
Field drain pipe size			mm (in.)	O.D. 32 (1-1/4)			
Net weight			kg (lbs)	40 (89) [45 (100) with water]		53 (117) [62 (137) with water]	
Standard attachment | Accessory				Drain connection pipe, Washer, Tie band			
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	
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	
	Current input *2		A	0.21	0.33
External finish				Galvanized steel plate	
External dimension HxWxD			mm	200x790x700	
			in.	7-7/8 x 31-1/8 x 27-9/16	
Net weight			kg (lbs)	19 (42)	
Heat exchanger		Type		Cross fin (Aluminium fin and copper tube)	
		Water volume	L	0.4	0.7
Fan	Type × Quantity			Sirocco fan x 2	
	External static pressure *4		Pa	<5> - 15 - <35> - <50>	
			mmH_2O	<0.5> - 1.5 - <3.6> - <5.1>	
	Motor type			DC Motor	
	Motor output		kW	0.096	
	Driving mechanism			Direct-driven by motor	
	Airflow rate	(Low Mid High)	m^3/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	
Air filter				PP Honeycomb fabric	
Protection device				Fuse	
Connectable outdoor unit/HBC Controller				Hybrid City Multi CMB-WM-AA, CMB-WM-V-BB	
Water piping diameter *5 *6		Inlet	mm ID	20	
		Outlet	mm ID	20	
Field drain pipe size			mm (in.)	O.D.32 (1-1/4)	
Standard attachment | Accessory				Insulation pipe for water pipe, Washer, Drain hose, Tie Band	
Optional part | Control Box Replace Kit				PAC-KE70HS-E	

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

Notes:

1. Nominal cooling conditions – Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./19°CW.B. (95°FD.B.) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
2. The value are measured at the factory setting of external static pressure.
3. Nominal heating conditions – Indoor: 20°CD.B.(68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
4. The facory setting for external pressure is shown without < >. Refer to "Fan characteristics curves", according to the 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	
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				Galvanized steel plate	
External dimension HxWxD			mm	200x790x700	
			in.	7-7/8 x 31-1/8 x 27-9/16	
Net weight			kg (lbs)	20 (45)	
Heat exchanger		Type		Cross fin (Aluminium fin and copper tube)	
		Water Volume	L	0.9	
Fan	Type × Quantity			Sirocco fan x 2	
	External static pressure *4		Pa	<5> - 15 - <35> - <50>	
			mmH_2O	<0.5> - 1.5 - <3.6> - <5.1>	
	Motor type			DC Motor	
	Motor output		kW	0.096	
	Driving mechanism			Direct-driven by motor	
	Airflow rate	(Low Mid High)	m^3/min	5.5 - 6.5 - 8.0	5.5 - 7.0 - 9.0
			L/s	92 - 108 - 133	92 - 117 - 150
			cf/m	194 - 230 - 282	194 - 247 - 318
Sound pressure level (measured in anechoic room)*2		(Low Mid High)	dB<A>	23-25-29	23-26-30
Insulation material				EPS, Polyethylene foam, Urethane foam	
Air filter				PP Honeycomb fabric	
Protection device				Fuse	
Connectable outdoor unit/HBC Controller				Hybrid City Multi CMB-WM-AA, CMB-WM-V-BB	
Water piping diameter *5 *6		Inlet	mm ID	20	
		Outlet	mm ID	20	
Field drain pipe size			mm (in.)	O.D.32 (1-1/4)	
Standard attachment | Accessory				Insulation pipe for water pipe, Washer, Drain hose, Tie Band	
Optional part | Control Box Replace Kit				PAC-KE70HS-E	

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

Notes:

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

Please group units that operate on 1 branch.

Slim Ceiling Concealed

Model				PEFY-WP32VMS1-E	PEFY-WP40VMS1-E	PEFY-WP50VMS1-E
Power source				1-phase 220-230-240 V 50/60 Hz		
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	
	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	
	Current input *2		A	0.50	0.62	0.66
External finish				Galvanized steel plate		
External dimension HxWxD			mm	200x990x700		200x1,190x700
			in.	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)		27 (60)
Heat exchanger		Type		Cross fin (Aluminium fin and copper tube)		
		Water volume	L	1.0		1.7
Fan	Type × Quantity			Sirocco fan x 3		Sirocco fan x 4
	External static pressure *4		Pa	<5> - 15 - <35> - <50>		
			mmH_2O	<0.5> - 1.5 - <3.6> - <5.1>		
	Motor type			DC Motor		
	Motor output		kW	0.096		
	Driving mechanism			Direct-driven by motor		
	Airflow rate	(Low Mid High)	m^3/min	8.0 - 9.0 - 11.0	9.5 - 11.0 - 13.0	12.0 - 14.0 - 16.5
			L/s	133 - 150 - 183	158 - 183 - 217	200 - 233 - 275
			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		
Air filter				PP Honeycomb fabric		
Protection device				Fuse		
Connectable outdoor unit/HBC Controller				Hybrid City Multi CMB-WM-AA, CMB-WM-V-BB		
Water piping diameter *5 *6		Inlet	mm ID	20		
		Outlet	mm ID	20		
Field drain pipe size			mm (in.)	O.D.32 (1-1/4)	O.D.32 (1-1/4)	O.D.32 (1-1/4)
Standard attachment | Accessory				Insulation pipe for water pipe, Washer, Drain hose, Tie Band		
Optional part | Control Box Replace Kit				PAC-KE70HS-E		

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

Notes:

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

Please group units that operate on 1 branch.

Ceiling Concealed

Model				PEFY-WP20VMA-E	PEFY-WP25VMA-E
Power source				1-phase 220-230-240 V 50/60 Hz	
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				Galvanized 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)	
		Water volume	L	0.7	1.0
Fan	Type × Quantity			Sirocco fan x 1	
	External static pressure *4		Pa	<35> - 50 - <70> - <100> - <150>	
			mmH_2O	<3.6> - 5.1 - <7.1> - <10.2> - <15.3>	
	Motor type			DC Motor	
	Motor output		kW	0.085	
	Driving mechanism			Direct-driven by motor	
	Airflow rate	(Low Mid High)	m^3/min	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	
Air filter				PP Honeycomb fabric	
Protection device				Fuse	
Connectable outdoor unit/HBC Controller				Hybrid City Multi CMB-WM-AA, CMB-WM-V-BB	
Water piping diameter *5 *6		Inlet	mm ID	20	
		Outlet	mm ID	20	
Field drain pipe size			mm (in.)	O.D.32 (1-1/4)	
Standard attachment | Accessory				Insulation pipe for water pipe, Washer, Drain hose, Tie Band	
Optional part | Control Box Replace Kit				PAC-KE91TB-E	PAC-KE92TB-E

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

Notes:

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

Please group units that operate on 1 branch.

Ceiling Concealed

Model				PEFY-WP32VMA-E	PEFY-WP40VMA-E	PEFY-WP50VMA-E
Power source				1-phase 220-230-240 V 50/60 Hz		
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	
	Current input*2		A	0.74	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	
	Current input *2		A	0.63	1.04	
External finish				Galvanized steel plate		
External dimension HxWxD			mm	250x900x732	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	
Net weight			kg (lbs)	26 (58)	31 (69)	
Heat exchanger		Type		Cross fin (Aluminium fin and copper tube)		
		Water Volume	L	1.0	1.8	
Fan	Type × Quantity			Sirocco fan x 1	Sirocco fan x 2	
	External static pressure *4		Pa	<35> - 50 - <70> - <100> - <150>		
			mmH_2O	<3.6> - 5.1 - <7.1> - <10.2> - <15.3>		
	Motor type			DC Motor		
	Motor output		kW	0.085	0.121	
	Driving mechanism			Direct-driven by motor		
	Airflow rate	(Low Mid High)	m^3/min	12.0 - 14.5 - 17.0	14.5 - 18.0 - 21.0	
			L/s	200 - 242 - 283	242 - 300 - 350	
			cf/m	424 - 512 - 600	512 - 636 - 742	
Sound pressure level (measured in anechoic room)*2		(Low Mid High)	dB<A>	25-29-32	26-29-34	
Insulation material				EPS, Polyethylene foam, Urethane foam		
Air filter				PP Honeycomb fabric		
Protection device				Fuse		
Connectable outdoor unit/HBC Controller				Hybrid City Multi CMB-WM-AA, CMB-WM-V-BB		
Water piping diameter *5 *6		Inlet	mm ID	20		
		Outlet	mm ID	20		
Field drain pipe size			mm (in.)	O.D.32 (1-1/4)		
Standard attachment | Accessory				Insulation pipe for water pipe, Washer, Drain hose, Tie Band		
Optional part | Control Box Replace Kit				PAC-KE92TB-E	PAC-KE93TB-E	

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

Notes:

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

Please group units that operate on 1 branch.

Ceiling Concealed

Model				PEFY-WP63VMA-E	PEFY-WP71VMA-E	PEFY-WP80VMA-E
Power source				1-phase 220-230-240 V 50/60 Hz		
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	
	Current input*2		A	1.15	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	
	Current input *2		A	1.04	1.36	
External finish				Galvanized steel plate		
External dimension HxWxD			mm	250x1,100x732	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	
Net weight			kg (lbs)	31 (69)	40 (89)	
Heat exchanger		Type		Cross fin (Aluminium fin and copper tube)		
		Water volume	L	2.0	2.6	
Fan	Type × Quantity			Sirocco fan x 2		
	External static pressure *4		Pa	<35> - 50 - <70> - <100> - <150>		
			mmH_2O	<3.6> - 5.1 - <7.1> - <10.2> - <15.3>		
	Motor type			DC Motor		
	Motor output		kW	0.121	0.244	
	Driving mechanism			Direct-driven by motor		
	Airflow rate	(Low Mid High)	m^3/min	14.5 - 18.0 - 21.0	23.0 - 28.0 - 33.0	
			L/s	242 - 300 - 350	383 - 467 - 550	
			cf/m	512 - 636 - 742	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		
Air filter				PP Honeycomb fabric		
Protection device				Fuse		
Connectable outdoor unit/HBC Controller				Hybrid City Multi CMB-WM-AA, CMB-WM-V-BB		
Water piping diameter *5 *6		Inlet	mm ID	30		
		Outlet	mm ID	30		
Field drain pipe size			mm (in.)	O.D.32 (1-1/4)		
Standard attachment | Accessory				Insulation pipe for water pipe, Washer, Drain hose, Tie Band		
Optional part | Control Box Replace Kit				PAC-KE93TB-E	PAC-KE94TB-E	

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

Notes:

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

Please group units that operate on 1 branch.

Ceiling Concealed

Model				PEFY-WP100VMA-E	PEFY-WP125VMA-E
Power source				1-phase 220-230-240 V 50/60 Hz	
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				Galvanized 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)	
		Water volume	L	2.6	3.0
Fan	Type × Quantity			Sirocco fan x 2	
	External Static Pressure *4		Pa	<35> - 50 - <70> - <100> - <150>	
			mmH_2O	<3.6> - 5.1 - <7.1> - <10.2> - <15.3>	
	Motor type			DC Motor	
	Motor output		kW	0.244	
	Driving mechanism			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
			cf/m	812 - 989 - 1,165	1,042 - 1,254 - 1,483
Sound pressure level (measured in anechoic room)*2		(Low Mid High)	dB<A>	28-33-37	32-36-40
Insulation material				EPS, Polyethylene foam, Urethane foam	
Air filter				PP Honeycomb fabric	
Protection device				Fuse	
Connectable outdoor unit/HBC Controller				Hybrid City Multi CMB-WM-AA, CMB-WM-V-BB	
Water piping diameter *5 *6		Inlet	mm ID	30	
		Outlet	mm ID	30	
Field drain pipe size			mm (in.)	O.D.32 (1-1/4)	
Standard attachment | Accessory				Insulation pipe for water pipe, Washer, Drain hose, Tie Band	
Optional part | Control Box Replace Kit				PAC-KE94TB-E	PAC-KE95TB-E

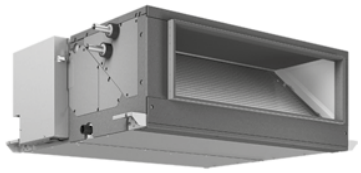
Unit Converter: BTU/h=kW×3,412, cfm=m^3/min×35.31 and lbs=kg/0.4536 (Please note these figures are subject to rounding variation).

Notes:

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

Please group units that operate on 1 branch.

Ceiling Concealed



Model				PEFY-WL40VMHS-A	PEFY-WL50VMHS-A	PEFY-WL63VMHS-A	PEFY-WL71VMHS-A
Power source				1-phase 220-230-240 V 50/60 Hz			
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				Galvanized steel plate			
External dimension HxWxD			mm	380 x 745 x 900			380 x 1,030 x 900
			in.	15 x 29-3/8 x 35-7/16			15 x 40-9/16 x 35-7/16
Net weight			kg (lbs)	35 (78)		36 (80)	45 (100)
Heat exchanger		Type		Cross fin (Aluminium fin and copper tube)			
		Water volume	L	1.4		1.8	
Fan	Type × Quantity			Sirocco fan x 1			Sirocco fan x 2
	External static pressure *4		Pa	50 - <100> - <150> - <200>			
			mmH_2O	5.1 - <10.2> - <15.3> - <20.4>			
	Motor type			DC Motor			
	Motor output		kW	0.121			
	Driving mechanism			Direct-driven by motor			
	Airflow rate	(Low Mid High)	m^3/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			
Air filter				Option: Synthetic fiber unwoven cloth filter (long life filter) and filter box are recommended.			
Protection device				Fuse			
Connectable outdoor unit/HBC Controller				Hybrid City Multi CMB-WM-AA, CMB-WM-V-BB			
Water piping diameter *5 *6		Inlet	mm ID	20		30	
		Outlet	mm ID	20		30	
Field drain pipe size			mm (in.)	O.D.32 (1-1/4)			
Standard attachment | Accessory				Washer, Drain hose, Tie band			
Optional part	Drain pump kit			PAC-DRP10DP-E2			
	Long life filter			PAC-KE86LAF			PAC-KE88LAF
	Filter box			PAC-KE63TB-F			PAC-KE99TB-F
	Valve kit*7			PAC-SK35VK-E			

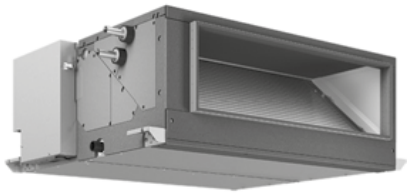
Unit Converter: BTU/h=kW×3,412, cfm=m^3/min×35.31 and lbs=kg/0.4536 (Please note these figures are subject to rounding variation).

Notes:

1. Nominal cooling conditions – Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./19°CW.B. (95°FD.B.) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
2. The value are measured at the factory setting of external static pressure.
3. Nominal heating conditions – Indoor: 20°CD.B.(68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
4. The facory setting for external pressure is shown without < >. Refer to "Fan characteristics curves", according to the externalpressure, in DATA BOOK for the usable range of air flow rate.
5. Be sure to install a valve on the water outlet.
6. Install a strainer (40 mesh or more) on the pipe next to the valve to remove the foreign matters.
7. Certain restrictions apply to indoor unit combinations.
Refer to the section on the valve kit in the chapter "OPTIONAL PARTS" in the DATA BOOK for the restrictions.
When the valve kit is installed farther away from the HBC than the distance between the HBC and the WLmodel indoor unit, the maximum allowable height difference between the HBC and the valve kit is 15 meters.
The maximum allowable piping length between the indoor unit and the valve kit is 5 meters.

Please group units that operate on 1 branch.

Ceiling Concealed



Model				PEFY-WL80VMHS-A	PEFY-WL100VMHS-A	PEFY-WL125VMHS-A
Power source				1-phase 220-230-240 V 50/60 Hz		
Cooling	Capacity (Nominal) *1		kW	9.0	11.2	14.0
			BTU/h	30,700	38,200	47,800
	Power input *2		kW	0.090	0.160	0.175
	Current input*2		A	0.63-0.61-0.58	1.05-1.01-0.96	1.17-1.13-1.09
Heating	Capacity (Nominal) *3		kW	10.0	12.5	16.0
			BTU/h	34,100	42,700	54,600
	Power input *2		kW	0.090	0.160	0.175
	Current input *2		A	0.63-0.61-0.58	1.05-1.01-0.96	1.17-1.13-1.09
External finish				Galvanized steel plate		
External dimension HxWxD			mm	380 x 1,030 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	
Net weight			kg (lbs)	45 (100)	51 (113)	53 (117)
Heat exchanger		Type		Cross fin (Aluminium fin and copper tube)		
		Water volume	L	1.8	2.3	2.9
Fan	Type × Quantity			Sirocco fan x 2		
	External static pressure *4		Pa	50 - <100> - <150> - <200>		
			mmH_2O	5.1 - <10.2> - <15.3> - <20.4>		
	Motor type			DC Motor		
	Motor output		kW	0.244	0.375	
	Driving mechanism			Direct-driven by motor		
	Airflow rate	(Low Mid High)	m^3/min	18.0 - 21.5 - 25.0	26.5 - 32.0 - 38.0	
			L/s	300 - 358 - 417	442 - 533 - 633	
			cf/m	636 - 759 - 883	936 - 1,130 - 1,342	
Sound pressure level (measured in anechoic room)*2		(Low Mid High)	dB<A>	26-29-32	28-32-36	
Insulation material				EPS, Polyethylene foam, Urethane foam		
Air filter				Option:Synthetic fiber unwoven cloth filter (long life filter) and fil-ter box are recommended.		
Protection device				Fuse		
Connectable outdoor unit/HBC Controller				Hybrid City Multi CMB-WM-AA, CMB-WM-V-BB		
Water piping diameter *5 *6		Inlet	mm ID	30		
		Outlet	mm ID	30		
Field drain pipe size			mm (in.)	O.D.32 (1-1/4)		
Standard attachment | Accessory				Washer, Drain hose, Tie band		
Optional part	Drain pump kit			PAC-DRP10DP-E2		
	Long life filter			PAC-KE88LAF	PAC-KE89LAF	
	Filter box			PAC-KE99TB-F	PAC-KE140TB-F	
	Valve kit*7			PAC-SK35VK-E		

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

Notes:

1. Nominal cooling conditions – Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./19°CW.B. (95°FD.B.) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
2. The value are measured at the factory setting of external static pressure.
3. Nominal heating conditions – Indoor: 20°CD.B.(68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
4. The facory setting for external pressure is shown without < >. Refer to "Fan characteristics curves", according to the externalpressure, in DATA BOOK for the usable range of air flow rate.
5. Be sure to install a valve on the water outlet.
6. Install a strainer (40 mesh or more) on the pipe next to the valve to remove the foreign matters.
7. Certain restrictions apply to indoor unit combinations.
Refer to the section on the valve kit in the chapter "OPTIONAL PARTS" in the DATA BOOK for the restrictions.
When the valve kit is installed farther away from the HBC than the distance between the HBC and the WLmodel indoor unit, the maximum allowable height difference between the HBC and the valve kit is 15 meters.
The maximum allowable piping length between the indoor unit and the valve kit is 5 meters.

Please group units that operate on 1 branch.

Ceiling Cassette

Model				PLFY-WL20VEM-E	PLFY-WL25VEM-E	PLFY-WL32VEM-E
Power source				1-phase 220-240 V 50Hz		
Cooling	Capacity (Nominal) *1		kW	2.2	2.8	3.6
			BTU/h	7,500	9,600	12,300
	Power input		kW	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		
	Current input		A	0.20	0.23	0.27
External finish				Galvanized steel sheet		
External dimension HxWxD			mm	258 x 840 x 840		
			in.	10-3/16 x 33-1/16 x 33-1/16		
Net weight			kg (lbs)	18 (40)		20 (44)
Decoration panel	Model			PLP-6EA		
	External finish			MUNSELL (1.0Y 9.2/0.2)		
	Dimensions		mm	40 x 950 x 950		
			in.	1-9/16 x 37-13/32 x 37-13/32		
	Net weight		kg (lbs)	5 (11)		
Heat exchanger	Type			Cross fin (Aluminium fin and copper tube)		
	Water volume		L	1.0		1.8
Fan	Type × Quantity			Turbo Fan x 1		
	External static pressure		Pa	0		
	Motor type			DC Motor		
	Motor output		kW	0.05		
	Driving mechanism			Direct-driven by motor		
	Airflow rate (Low-Mid1-Mid2-High)		m^3/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		
Air filter				PP Honeycomb		
Protection device				Fuse		
Refrigerant control device				-		
Connectable outdoor unit/HBC Controller				Hybrid City Multi CMB-WM-AA, CMB-WM-V-BB		
Water piping diameter *3 *4		Inlet	mm ID	20		
		Outlet	mm ID	20		
Field drain pipe size			mm (in.)	O.D.32 (1-1/4)		
Optional parts	Decoration panel *5			PLP-6EA/PLP-6EAE/PLP-6EAL/PLP-6EALE		
	i-See Sensor control panel			PAC-SE1ME-E		
	Wirelss signal receiver			PAR-SE9FA-E		
	Valve kit *6			PAC-SK35VK-E		

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

Notes:

1. Nominal cooling conditions
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66 °FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Nominal heating conditions
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3. Be sure to install a valve on the water outlet.
4. Install a strainer (40 mesh or more) on the pipe next to the valve to remove the foreign matters.
5. PLFY-WL-VEM-E should be used together with decoration panel.
6. When using the W-type and the WL-type indoor units in the same system, install the valve kit on all WL-type indoor units.
   When the valve kit is installed farther away from the HBC than the distance between the HBC and the WL-model indoor unit, the maximum allowable height difference between the HBC and the valve kit is 15 meters.
   The maximum allowable piping length between the indoor unit and the valve kit is 5 meters.

* 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		
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	
	Current input		A	0.35	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	
	Current input		A	0.29	0.34	
External finish				Galvanized steel sheet		
External dimension HxWxD			mm	258 x 840 x 840		298 x 840 x 840
			in.	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)		23 (51)
Decoration panel		Model		PLP-6EA		
		External finish		MUNSELL (1.0Y 9.2/0.2)		
		Dimensions	mm	40 x 950 x 950		
			in.	1-9/16 x 37-13/32 x 37-13/32		
		Net weight	kg (lbs)	5 (11)		
Heat exchanger		Type		Cross fin (Aluminium fin and copper tube)		
		Water volume	L	1.8		2.1
Fan	Type × Quantity			Turbo Fan x 1		
	External static pressure		Pa	0		
	Motor type			DC Motor		
	Motor output		kW	0.05		0.12
	Driving mechanism			Direct-driven by motor		
	Airflow rate (Low-Mid1-Mid2-High)		m^3/min	14 - 15 - 16 - 17	14 - 16 - 18 - 20	15 - 17 - 19 - 21
			L/s	233 - 250 - 267 - 283	233 - 267 - 300 - 333	250 - 283 - 317 - 350
			cf/m	494 - 530 - 565 - 600	494 - 565 - 636 - 706	530 - 600 - 671 - 742
Sound pressure level (Low-Mid1-Mid2-High)			dB<A>	26 - 28 - 29 - 31	27 - 29 - 31 - 33	
Insulation material				PS		
Air filter				PP Honeycomb		
Protection device				Fuse		
Refrigerant control device				-		
Connectable outdoor unit/HBC Controller				Hybrid City Multi CMB-WM-AA, CMB-WM-V-BB		
Water piping diameter *3 *4		Inlet	mm ID	20		30
		Outlet	mm ID	20		30
Field drain pipe size			mm (in.)	O.D.32 (1-1/4)		
Optional parts	Decoration panel *5			PLP-6EA/PLP-6EAE/PLP-6EAL/PLP-6EALE		
	i-See Sensor control panel			PAC-SE1ME-E		
	Wirelss signal receiver			PAR-SE9FA-E		
	Valve kit *6			PAC-SK35VK-E		

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

Notes:

1. Nominal cooling conditions
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66 °FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Nominal heating conditions
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3. Be sure to install a valve on the water outlet.
4. Install a strainer (40 mesh or more) on the pipe next to the valve to remove the foreign matters.
5. PLFY-WL-VEM-E should be used together with decoration panel.
6. When using the W-type and the WL-type indoor units in the same system, install the valve kit on all WL-type indoor units.
   When the valve kit is installed farther away from the HBC than the distance between the HBC and the WL-model indoor unit, the maximum allowable height difference between the HBC and the valve kit is 15 meters.
   The maximum allowable piping length between the indoor unit and the valve kit is 5 meters.

* 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		
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				Galvanized steel sheet		
External dimension HxWxD			mm	298 x 840 x 840		
			in.	11-3/4 x 33-1/16 x 33-1/16		
Net weight			kg (lbs)	23 (51)		25 (55)
Decoration panel		Model		PLP-6EA		
		External finish		MUNSELL (1.0Y 9.2/0.2)		
		Dimensions	mm	40 x 950 x 950		
			in.	1-9/16 x 37-13/32 x 37-13/32		
		Net weight	kg (lbs)	5 (11)		
Heat exchanger		Type		Cross fin (Aluminium fin and copper tube)		
		Water volume	L	2.1	2.2	3.1
Fan	Type × Quantity			Turbo Fan x 1		
	External static pressure		Pa	0		
	Motor type			DC Motor		
	Motor output		kW	0.12		
	Driving mechanism			Direct-driven by motor		
	Airflow rate (Low-Mid1-Mid2-High)		m^3/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		
Air filter				PP Honeycomb		
Protection device				Fuse		
Refrigerant control device				-		
Connectable outdoor unit/HBC Controller				Hybrid City Multi CMB-WM-AA, CMB-WM-V-BB		
Water piping diameter *3 *4		Inlet	mm ID	30		
		Outlet	mm ID	30		
Field drain pipe size			mm (in.)	O.D.32 (1-1/4)		
Optional parts	Decoration panel *5			PLP-6EA/PLP-6EAE/PLP-6EAL/PLP-6EALE		
	i-See Sensor control panel			PAC-SE1ME-E		
	Wirelss signal receiver			PAR-SE9FA-E		
	Valve kit *6			PAC-SK35VK-E		

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

Notes:

1. Nominal cooling conditions
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66 °FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Nominal heating conditions
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3. Be sure to install a valve on the water outlet.
4. Install a strainer (40 mesh or more) on the pipe next to the valve to remove the foreign matters.
5. PLFY-WL-VEM-E should be used together with decoration panel.
6. When using the W-type and the WL-type indoor units in the same system, install the valve kit on all WL-type indoor units.
   When the valve kit is installed farther away from the HBC than the distance between the HBC and the WL-model indoor unit, the maximum allowable height difference between the HBC and the valve kit is 15 meters.
   The maximum allowable piping length between the indoor unit and the valve kit is 5 meters.

* 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	
Cooling	Capacity (Nominal) *1		kW	1.2	1.7
			BTU/h	4,100	5,800
	Power input		kW	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	
	Current input		A	0.17	0.18
External finish				Galvanized steel sheet	
External dimension HxWxD			mm	208 x 570 x 570	
			in.	8-1/4x22-1/2x22-1/2	
Net weight			kg (lbs)	13 (29)	
Decoration panel		Model		SLP-2FA(L)(E)	
		External finish		MUNSELL (1.0Y 9.2/0.2)	
		Dimensions	mm	10 x 625 x 625	
			in.	3/8 x 24-5/8 x 24-5/8	
		Net weight	kg (lbs)	3 (7)	
Heat exchanger		Type		Cross fin (Aluminium fin and copper tube)	
		Water volume	L	0.5	
Fan	Type × Quantity			Turbo Fan x 1	
	External static pressure		Pa	0	
	Motor type			DC Motor	
	Motor output		kW	0.05	
	Driving mechanism			Direct-driven by motor	
	Airflow rate (Low-Mid-High)		m^3/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	
Air filter				PP Honeycomb	
Protection device				Fuse	
Connectable outdoor unit/HBC Controller				Hybrid City Multi CMB-WM-AA, CMB-WM-V-BB	
Water piping diameter *3 *4		Inlet	mm ID	20	
		Outlet	mm ID	20	
Field drain pipe size			mm (in.)	O.D.32 (1-1/4)	
Optional parts	Decoration panel *5			SLP-2FA/SLP-2FAE/SLP-2FAL/SLP-2FALE	
	i-See Sensor corner panel			PAC-SF1ME-E	
	Wireless signal receiver			PAR-SF9FA-E	
	Valve kit *6			PAC-SK35VK-E	

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

Notes:

1. Nominal cooling conditions
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66 °FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Nominal heating conditions
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3. Be sure to install a valve on the water outlet.
4. Install a strainer (40 mesh or more) on the pipe next to the valve to remove the foreign matters.
5. PLFY-WL-VFM-E should be used together with decoration panel.
6. When using the W-type and the WL-type indoor units in the same system, install the valve kit on all WL-type indoor units.
   When the valve kit is installed farther away from the HBC than the distance between the HBC and the WL-model indoor unit, the maximum allowable height difference between the HBC and the valve kit is 15 meters.
   The maximum allowable piping length between the indoor unit and the valve kit is 5 meters.

* Please group units that operate on 1 branch.
* Details on foundation work, duct work, insulation work, electrical wiring, power source switch, and other items shall be referred to the Installation Manual.
* Due to continuing improvement, above specifications may be subject to change without notice.

Compact Ceiling Cassette

Model				PLFY-WL20VFM-E	PLFY-WL25VFM-E
Power source				1-phase 220-240 V 50Hz	
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				Galvanized steel sheet	
External dimension HxWxD			mm	208 x 570 x 570	
			in.	8-1/4x22-1/2x22-1/2	
Net weight			kg (lbs)	14 (31)	
Decoration panel	Model			SLP-2FA(L)(E)	
	External finish			MUNSELL (1.0Y 9.2/0.2)	
	Dimensions		mm	10 x 625 x 625	
			in.	3/8 x 24-5/8 x 24-5/8	
	Net weight		kg (lbs)	3 (7)	
Heat exchanger	Type			Cross fin (Aluminium fin and copper tube)	
	Water volume		L	0.9	
Fan	Type × Quantity			Turbo Fan x 1	
	External static pressure		Pa	0	
	Motor type			DC Motor	
	Motor output		kW	0.05	
	Driving mechanism			Direct-driven by motor	
	Airflow rate (Low-Mid-High)		m^3/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	
Air filter				PP Honeycomb	
Protection device				Fuse	
Connectable outdoor unit/HBC Controller				Hybrid City Multi CMB-WM-AA, CMB-WM-V-BB	
Water piping diameter *3 *4		Inlet	mm ID	20	
		Outlet	mm ID	20	
Field drain pipe size			mm (in.)	O.D.32 (1-1/4)	
Optional parts	Decoration Panel *5			SLP-2FA/SLP-2FAE/SLP-2FAL/SLP-2FALE	
	i-See Sensor corner panel			PAC-SF1ME-E	
	Wireless Signal Receiver			PAR-SF9FA-E	
	Valve kit *6			PAC-SK35VK-E	

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

Notes:

1. Nominal cooling conditions
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66 °FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Nominal heating conditions
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3. Be sure to install a valve on the water outlet.
4. Install a strainer (40 mesh or more) on the pipe next to the valve to remove the foreign matters.
5. PLFY-WL-VFM-E should be used together with decoration panel.
6. When using the W-type and the WL-type indoor units in the same system, install the valve kit on all WL-type indoor units.
   When the valve kit is installed farther away from the HBC than the distance between the HBC and the WL-model indoor unit, the maximum allowable height difference between the HBC and the valve kit is 15 meters.
   The maximum allowable piping length between the indoor unit and the valve kit is 5 meters.

* Please group units that operate on 1 branch.

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

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

Compact Ceiling Cassette

Model				PLFY-WL32VFM-E	PLFY-WL40VFM-E
Power source				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				Galvanized steel sheet	
External dimension HxWxD			mm	208 x 570 x 570	
			in.	8-1/4x22-1/2x22-1/2	
Net weight			kg (lbs)	14 (31)	
Decoration panel		Model		SLP-2FA(L)(E)	
		External finish		MUNSELL (1.0Y 9.2/0.2)	
		Dimensions	mm	10 x 625 x 625	
			in.	3/8 x 24-5/8 x 24-5/8	
		Net weight	kg (lbs)	3 (7)	
Heat exchanger		Type		Cross fin (Aluminium fin and copper tube)	
		Water volume	L	0.9	
Fan	Type × Quantity			Turbo Fan x 1	
	External static pressure		Pa	0	
	Motor type			DC Motor	
	Motor output		kW	0.05	
	Driving mechanism			Direct-driven by motor	
	Airflow rate (Low-Mid-High)		m^3/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 - 459
Sound pressure level (Low-Mid-High)			dB<A>	27 - 33 - 41	27 - 40 - 43
Insulation material				PS	
Air filter				PP Honeycomb	
Protection device				Fuse	
Connectable outdoor unit/HBC Controller				Hybrid City Multi CMB-WM-AA, CMB-WM-V-BB	
Water piping diameter *3 *4		Inlet	mm ID	20	
		Outlet	mm ID	20	
Field drain pipe size			mm (in.)	O.D.32 (1-1/4)	
Optional parts	Decoration Panel *5			SLP-2FA/SLP-2FAE/SLP-2FAL/SLP-2FALE	
	i-See Sensor corner panel			PAC-SF1ME-E	
	Wireless Signal Receiver			PAR-SF9FA-E	
				PAC-SK35VK-E	

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

Notes:

1. Nominal cooling conditions
   Indoor: 27°CD.B./19°CW.B. (81°FD.B./66 °FW.B.), Outdoor: 35°CD.B. (95°FD.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
2. Nominal heating conditions
   Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.)
   Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.)
3. Be sure to install a valve on the water outlet.
4. Install a strainer (40 mesh or more) on the pipe next to the valve to remove the foreign matters.
5. PLFY-WL-VFM-E should be used together with decoration panel.
6. When using the W-type and the WL-type indoor units in the same system, install the valve kit on all WL-type indoor units.
   When the valve kit is installed farther away from the HBC than the distance between the HBC and the WL-model indoor unit, the maximum allowable height difference between the HBC and the valve kit is 15 meters.
   The maximum allowable piping length between the indoor unit and the valve kit is 5 meters.

* Please group units that operate on 1 branch.

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

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Wall Mounted

Model				PKFY-WL10VLM-E	PKFY-WL15VLM-E	PKFY-WL20VLM-E
Power source				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		0.03
	Current input		A	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		0.02
	Current input		A	0.15		0.20
External finish				Plastic (0.7PB 9.2/0.4)		
External dimension HxWxD			mm	299 x 773 x 237		
			in.	11-25/32 x 30-7/16 x 9-11/32		
Net weight			kg (lbs)	11 (25)		
Heat exchanger		Type		Cross fin (Aluminium fin and copper tube)		
		Water volume	L	0.6		0.7
Fan	Type × Quantity			Line Flow Fan x 1		
	External static pressure		Pa	0		
	Motor type			DC Motor		
	Motor output		kW	0.03		
	Driving mechanism			Direct-driven by motor		
	Airflow rate (Low-Mid2-Mid1-High)		m^3/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		
Air filter				PP Honeycomb		
Protection device				Fuse		
Connectable outdoor unit/HBC Controller				Hybrid City Multi CMB-WM-AA, CMB-WM-V-BB		
Water piping diameter *3 *4		Inlet	mm ID	20		
		Outlet	mm ID	20		
Field drain pipe size			mm (in.)	I.D.16 (5/8)		
Optional Parts	Drain Pump Kit			PAC-SK01DM-E		
	Valve Kit *5			PAC-SK35VK-E		

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

Notes:

1. Nominal cooling conditions – Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./19°CW.B. (95°FD.B.) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
2. Nominal heating conditions – Indoor: 20°CD.B.(68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
3. Be sure to install a valve on the water outlet.
4. Install a strainer (40 mesh or more) on the pipe next to the valve to remove the foreign matters.
5. When using the W-type and the WL-type indoor units in the same system, install the valve kit on all WL-type indoor units. When the valve kit is installed farther away from the HBC than the distance between the HBC and the WL-model indoor unit, the maximum allowable height difference between the HBC and the valve kit is 15 meters. The maximum allowable piping length between the indoor unit and the valve kit is 5 meters.

* Please group units that operate on 1 branch.

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

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Wall Mounted

Model				PKFY-WL25VLM-E	PKFY-WL32VLM-E	PKFY-WL40VLM-E
Power source				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		0.05
	Current input		A	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		0.04
	Current input		A	0.30		0.40
External finish				Plastic (0.7PB 9.2/0.4)		
External dimension HxWxD			mm	299 x 773 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	
Net weight			kg (lbs)	11 (25)	13 (29)	
Heat exchanger		Type		Cross fin (Aluminium fin and copper tube)		
		Water volume	L	0.7	1.0	1.1
Fan	Type × Quantity			Line Flow Fan x 1		
	External static pressure		Pa	0		
	Motor type			DC Motor		
	Motor output		kW	0.03		
	Driving mechanism			Direct-Drive		
	Airflow rate (Low-Mid-High)		m^3/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		
Air filter				PP Honeycomb		
Protection device				Fuse		
Connectable outdoor unit/HBC Controller				Hybrid City Multi CMB-WM-AA, CMB-WM-V-BB		
Water piping diameter *3 *4		Inlet	mm ID	20		
		Outlet	mm ID	20		
Field drain pipe size			mm (in.)	I.D.16 (5/8)		
Optional Parts	Drain Pump Kit			PAC-SK01DM-E		
	Valve Kit *5			PAC-SK35VK-E		

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

Notes:

1. Nominal cooling conditions – Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./19°CW.B. (95°FD.B.) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
2. Nominal heating conditions – Indoor: 20°CD.B.(68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
3. Be sure to install a valve on the water outlet.
4. Install a strainer (40 mesh or more) on the pipe next to the valve to remove the foreign matters.
5. When using the W-type and the WL-type indoor units in the same system, install the valve kit on all WL-type indoor units. When the valve kit is installed farther away from the HBC than the distance between the HBC and the WL-model indoor unit, the maximum allowable height difference between the HBC and the valve kit is 15 meters. The maximum allowable piping length between the indoor unit and the valve kit is 5 meters.

* Please group units that operate on 1 branch.

* 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		
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	0.40	0.50	0.70
External finish				Plastic (1.0Y 9.2/0.2)		
External dimension HxWxD			mm	365 x 1170 x 295		
			in.	14-3/8 x 46-1/16 x 11-5/8		
Net weight			kg (lbs)	20 (44)		
Heat exchanger		Type		Cross fin (Aluminium fin and copper tube)		
		Water volume	L	2.0		
Fan	Type × Quantity			Line Flow Fan x 1		
	External static pressure		Pa	0		
	Motor type			DC Motor		
	Motor output		kW	0.069		
	Driving mechanism			Direct-Drive		
	Airflow rate (Low-Mid-High)		m^3/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		
Air filter				PP Honeycomb		
Protection device				Fuse		
Connectable outdoor unit/HBC Controller				Hybrid City Multi CMB-WM-AA, CMB-WM-V-BB		
Water piping diameter *3 *4		Inlet	mm ID	20	30	
		Outlet	mm ID	20	30	
Field drain pipe size			mm (in.)	I.D.16 (5/8)		
Optional Parts	Drain Pump Kit			PAC-SK19DM-E		
	Valve Kit *5			PAC-SK35VK-E		

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

Notes:

1. Nominal cooling conditions – Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B./19°CW.B. (95°FD.B.) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
2. Nominal heating conditions – Indoor: 20°CD.B.(68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0m (0ft).
3. Be sure to install a valve on the water outlet.
4. Install a strainer (40 mesh or more) on the pipe next to the valve to remove the foreign matters.
5. When using the W-type and the WL-type indoor units in the same system, install the valve kit on all WL-type indoor units. When the valve kit is installed farther away from the HBC than the distance between the HBC and the WL-model indoor unit, the maximum allowable height difference between the HBC and the valve kit is 15 meters. The maximum allowable piping length between the indoor unit and the valve kit is 5 meters.

* Please group units that operate on 1 branch.

* 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		
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		0.050
	Current input *2		A	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		0.050
	Current input *2		A	0.35		0.47
External finish				Galvanized steel plate		
External dimension HxWxD			mm	639 x 886 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	
Net weight			kg (lbs)	22 (49)	25 (56)	
Heat exchanger		Type		Cross fin (Aluminium fin and copper tube)		
		Water volume	L	0.9	1.3	
Fan	Type × Quantity			Sirocco Fan x 1	Sirocco Fan x 2	
	External static pressure *4		Pa	20 - <40> - <60>		
			mmH_2O	2.0 - <4.1> - <6.1>		
	Motor type			DC Motor		
	Motor output		kW	0.096		
	Driving mechanism			Direct-driven by motor		
	Airflow rate (Low-Mid-High)		m^3/min	4.5 - 5.0 - 6.0	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 - 35 - 38
Insulation material				Polyethylene foam, Urethane foam		
Air filter				PP Honeycomb fabric		
Protection device				Fuse		
Connectable outdoor unit/HBC Controller				Hybrid City Multi CMB-WM-AA, CMB-WM-V-BB		
Water piping diameter *3 *4		Inlet	mm ID	20		
		Outlet	mm ID	20		
Field drain pipe size			mm (in.)	I.D.26 (1) <Accessory hose O.D.27 (1-3/32) (top end: O.D.20 (13/16))>		
Standard attachment | Accessory				Insulation pipe for water pipe, Drain hose (flexible joint), Screw plate, Level adjusting screw, Hose band		

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

Notes:

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

Floor Standing Concealed

Model				PFFY-WP40VLRMM-E	PFFY-WP50VLRMM-E
Power source				1-phase 220-230-240 V 50/60 Hz	
Cooling	Capacity (Nominal) *1		kW	4.5	5.6
			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				Galvanized steel plate	
External dimension HxWxD			mm	639 x 1,246 x 220	
			in.	25-3/16 x 49-1/16 x 8-11/16	
Net weight			kg (lbs)	29 (64)	
Heat exchanger		Type		Cross fin (Aluminium fin and copper tube)	
		Water volume	L	1.5	
Fan	Type × Quantity			Sirocco Fan x 2	
	External static pressure *4		Pa	20 - <40> - <60>	
			mmH_2O	2.0 - <4.1> - <6.1>	
	Motor type			DC Motor	
	Motor output		kW	0.096	
	Driving mechanism			Direct-driven by motor	
	Airflow rate (Low-Mid-High)		m^3/min	8.0 - 10.0 - 11.5	10.5 - 13.0 - 15.0
			L/s	133 - 167 - 192	175 - 217 - 250
			cf/m	282 - 353 - 406	371 - 459 - 530
Sound pressure level (measured in anechoic room)*2		(Low-Mid-High)	dB<A>	34 - 37 - 40	37 - 42 - 45
Insulation material				Polyethylene foam, Urethane foam	
Air filter				PP Honeycomb fabric	
Protection device				Fuse	
Connectable outdoor unit/HBC Controller				Hybrid City Multi CMB-WM-AA, CMB-WM-V-BB	
Water piping diameter *3 *4		Inlet	mm ID	20	
		Outlet	mm ID	20	
Field drain pipe size			mm (in.)	I.D.26 (1) <Accessory hose O.D.27 (1-3/32) (top end: O.D.20 (13/16))>	
Standard attachment | Accessory				Insulation pipe for water pipe, Drain hose (flexible joint), Screw plate, Level adjusting screw, Hose band	

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

Notes:

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

Floor Standing Exposed

Model				PFFY-WL20VEM-A	PFFY-WL25VEM-A	PFFY-WL32VEM-A	PFFY-WL40VEM-A	PFFY-WL50VEM-A
Power source				1-phase 220-230-240 V 50/60 Hz				
Cooling	Capacity (Nominal) *1		kW	2.2	2.8	3.6	4.5	5.6
			BTU/h	7,500	9,600	12,300	15,400	19,100
	Power input		kW	0.021	0.029	0.036	0.037	0.064
	Current input		A	0.26-0.25-0.24	0.34-0.33-0.31	0.40-0.39-0.37	0.39-0.38-0.36	0.68-0.65-0.63
Heating	Capacity (Nominal) *2		kW	2.5	3.2	4.0	5.0	6.3
			BTU/h	8,500	10,900	13,600	17,100	21,500
	Power input		kW	0.021	0.029	0.036	0.037	0.064
	Current input		A	0.26-0.25-0.24	0.34-0.33-0.31	0.40-0.39-0.37	0.39-0.38-0.36	0.68-0.65-0.63
External finish				Galvanized steel plate, MUNSELL (1.0Y 9.2/0.2)/ABS, MUNSELL (5.32GY 8.75/0.37)				
External dimension HxWxD *3			mm	669 (726) x 1,142 x 217			669 (726) x 1,342 x 217	
			in.	26-3/8 (28-5/8) x 45 x 8-9/16			26-3/8 (28-5/8) x 52-7/8 x 8-9/16	
Net weight			kg (lbs)	29.5 (67)		30 (67)	35 (78)	
Heat exchanger		Type		Cross fin (Aluminium fin and copper tube)				
		Water volume	L	0.8		1.0	1.3	
Fan	Type × Quantity			Sirocco Fan x 2			Sirocco fan x 3	
	External static pressure		Pa	0				
			mmH_2O	0.0				
	Motor type			DC Motor				
	Motor output		kW	0.096				
	Driving mechanism			Direct-driven by motor				
	Airflow rate (Low-Mid-High)		m^3/min	5.0 - 6.0 - 7.0	5.5 - 7.0 - 8.5	6.5 - 7.5 - 9.0	8.0 - 9.5 - 11.0	10.5 - 12.5 - 14.5
			L/s	83 - 100 - 117	92 - 117 - 142	108 - 125 - 150	133 - 158 - 183	175 - 208 - 242
			cf/m	177 - 212 - 247	194 - 247 - 300	230 - 265 - 318	282 - 335 - 388	371 - 441 - 512
Sound pressure level (measured in anechoic room)		(Low-Mid-High)	dB<A>	23.0-27.0-31.0	25.0-31.0-36.0	29.0-33.0-37.0	29.0-33.0-36.0	35.0-40.0-43.0
Insulation material				Polyethylene foam, Urethane foam				
Air filter				PP Honeycomb fabric				
Protection device				Fuse				
Connectable outdoor unit/HBC Controller				CMB-WM-V-AA, CMB-WM-FAA, CMB-WM-V-BB				
Water piping diameter *4 *5		Inlet	mm ID	20				
		Outlet	mm ID	20				
Field drain pipe size			mm (in.)	O.D.32 (1-1/4)				
Standard attachment | Accessory				Washer, Drain hose, Tie band, Leg, Leg cover, M4 screw, M5 screw				

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

Notes:

1. Nominal cooling conditions – Indoor: 27°CD.B./19°CW.B. (81°FD.B./66°FW.B.), Outdoor: 35°CD.B. (95°FD.B.) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.).
2. Nominal heating conditions – Indoor: 20°CD.B. (68°FD.B.), Outdoor: 7°CD.B./6°CW.B. (45°FD.B./43°FW.B.) Pipe length: 7.5 m (24-9/16 ft.), Level difference: 0 m (0 ft.).
3. The values in () show the height of unit with leg.
4. Be sure to install a valve on the water inlet/outlet.
5. Install a strainer (40 mesh or more) on the pipe next to the valve to remove the foreign matters.

Notes

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